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论文汇编

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口头交流

精准医学研究协作组

Disrupted Functional Connectivity of Emotion Regulation Network in Major Depressive Disorder and Its Association with Symptom Improvement: A Multi-site Resting-state Functional MRI Study

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Objective The emotion regulation network (ERN) in brain systems provides a framework for understanding the neuropathology of affective disorders. Although previous neuroimaging studies have demonstrated that functional aberrations within the ERN are associated with the clinical symptoms of major depressive disorder (MDD), whether the ERN in patients with MDD shows abnormal functional connectivity (FC) remains unclear owing to the lack of large samples.

Methods To address this issue, we obtained a large functional magnetic resonance imaging dataset from 709 patients with MDD and 725 healthy controls (HC) recruited across five sites. Using a seed-based FC approach, we first compared the group difference in resting-state FC of the 14 ERN seeds between participants with and without MDD. Further, an 8-week antidepressant monotherapy (45 MDD patients) data was used to evaluate the relationship between the aforementioned abnormal functional interactions within the ERN and the efficacy prediction of antidepressants.

Results Compared with the controls, the MDD patients showed significantly increased FC between the bilateral angular gyrus and bilateral middle temporal gyrus as well as the bilateral occipital areas, the bilateral subgenual anterior cingulate cortex and right thalamus as well as the calcarine cortex, and the left ventrolateral prefrontal cortex and right thalamus. We also observed significantly decreased FC between the bilateral amygdala and middle frontal gyrus as well as the bilateral superior temporal gyrus in the MDD group compared to the HC group. Correlation results showed that these aberrant FC in the ERN were negatively correlated with the reduction rate of the Hamilton Rating Scale for depression (HAMD) among MDD patients.

Conclusion The present study illustrated widespread aberrant FC of the ERN in MDD with large-sample, multi-site datasets. These results might extend our understanding of the neurobiological underpinnings underlying emotional regulation deficits in MDD.

关键字：Emotion regulation network, Functional connectivity, Major depressive disorder, Symptom improvement, RS-fMRI

单、双相抑郁发作患者肠道微生物组-血清代谢组的整合分析

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目的 对单相抑郁及双相抑郁患者的肠道微生物组和血清代谢组进行整合分析，探索单、双相抑郁发作的差异客观生物标记物。

方法 收集 2021 年 5 月—2022 年 10 月就诊于河北医科大学第一医院处于抑郁发作的重性抑郁障碍(MDD 组，n=38）及双相障碍(BD 组，n=44）患者，共 82 例。收集一般人口学资料，完成汉密尔顿抑郁量表-24 项、汉密尔顿焦虑量表、数字符号转换测验、数字广度测验、连线测验 A 评估。收集患者的粪便及血液样本，基于 16S rRNA 和超高效液相色谱与质谱联用技

术进行肠道微生物组和非靶向血清代谢组学检测。

结果 1.关于 α 多样性，两组间 Chao1、ACE 和 Observed species 指数差异存在统计学意义（均 P＜0.05）；关于 β 多样性，两组差异存在统计学差异（P＜0.05）。BD 组和 MDD 组之间存在 17 个显著差异菌群（P＜0.05；LDA＞3.8）。在属水平上，BD 组双歧杆菌属、g__Prevotella_7、g__un_f_Muribaculaceae 丰度较高，副萨特氏菌属丰度较低，发现 4 个差异菌属联合诊断 AUC 为 0.925。2.筛选出 50 种内源性差异代谢物(VIP＞1)，前 10 个差异代谢物中，有 8 个代谢物的 AUC 大于 0.7，分别是腺苷、甘油磷脂胆碱、苯丙氨酸、1-羟基-2-萘甲酸、次黄嘌呤、乳酸、牛磺酸、异柠檬酸（AUC=0.818、0.737、0.889、0.770、0.720、0．760、0.730、0.715）。3.双歧杆菌属与乳酸、牛磺酸等代谢物呈正相关（r=0.458，P＜0.01、r=0.355，P＜0.05）。

结论 本研究发现肠道微生物及血清代谢物能够有效的区分单、双相抑郁患者，找出了显著不同的 17 种肠道菌群及 50 种内源性血清代谢物；此外 4 个菌属联合及 8 个血清代谢物具有鉴别诊断单、双相抑郁的潜在价值，部分差异菌属及代谢物可能与疾病的临床症状有相关性，且肠道微生物与血清代谢物之间可能存在互相影响。

结论 本研究发现肠道微生物及血清代谢物能够有效的区分单、双相抑郁患者，找出了显著不同的 17 种肠道菌群及 50 种内源性血清代谢物；此外 4 个菌属联合及 8 个血清代谢物具有鉴别诊断单、双相抑郁的潜在价值，且肠道微生物与血清代谢物之间可能存在互相影响。

关键字：重性抑郁障碍，双相障碍，肠道菌群，代谢组学

Novel Loci Associated with Electroconvulsive Therapy Response in Patients with Schizophrenia: A Genomewide Association Study

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Objective : Electroconvulsive therapy (ECT) reduces schizophrenic symptoms and prevents relapse, but treatment response is variable. Little is known about the genetic basis of ECT's treatment efficacy for schizophrenia. To identify genomic loci and pathways associated with the ECT treatment efficacy and to predict the ECT treatment response using the polygenic risk score (PRS) derived from our genomewide association study (GWAS) on the ECT treatment efficacy.

Methods We designed a GWAS approach and recruited 515 schizophrenia patients who underwent ECT in psychiatric hospitals (348 for the discovery of GWAS, 137 for replication and prediction of treatment efficacy, and 90 (30 new plused and 60 previous samples) for plasma protein analysis. Symptoms before and after ECT were accessed using the positive and negative syndrome scale (PANSS), and four reduction ratings of the symptom changes were defined. Plasma protein analysis for the identified candidate genes was conducted. Genetic loci, tissues/cell types, and the biological pathways associated with ECT and prediction of treatment efficacy using polygenic risk scores (PRS).

Result We identified three genomewide significant (GWS) single nucleotide polymorphisms, rs199850886 (p=1.98×10-8), rs5851619 (p=1.32×10-8), and rs67506437 (p=3.17×10-8) for two PANSS reduction rates, which map to the upstream of RFPL2 (ret finger protein-like 2), on TRAT1 (T cell receptor associated transmembrane adaptor 1) and on SSNA1 (SS nuclear autoantigen 1), respectively. We also obtained two GWS gene-based genes KIAA1107 (aka. BTBD8 (BTB domain containing 8), p= 1.75×10-7) and SLC5A1 (solute carrier family 5 member 1, p= 8.37×10-7) for the positive symptom reduction rate (PANSS-PRR). The Purkinje cell and microglia were associated with PANSS-PRR (p＜5×10-3), inhibitory neuron to PANSS total score reduction rate (PANSS-TRR) (p＜5×10-3), Purkinje cell and macrophage to general symptoms reduction rate (PANSS-GRR) (p＜5×10-3). We found four pathways to PANSS-TRR, including transferrin endocytosis and recycling, iron uptake and transport, activation of matrix metalloproteinases, and Vpu-mediated degradation of CD4. The expression of △RFPL2 (before-after ECT) in the plasma and PANSS-PRR are significantly correlated (r=0.24, p=0.028). PRS significantly predicted the ECT response for above 80% PANSS-TRR (area under curve 0.691, p =0.036) and less than 50% PANSS-PRR (area under the curve 0.612, p=0.049) in another137 independent schizophrenics.

Conclusions We identified promising candidate genes, cell types, tissues, and biological pathways related to the ECT treatment efficacy. The identified SNPs are effective in predicting ECT's therapeutic effects. These findings enhance our comprehension of the mechanisms behind ECT responses and may guide ECT selection for patients with schizophrenia.

关键字： Schizophrenia; ECT; RFPL2; GWAS; PANSS

Multi-omics Reveal Microbial Determinants Impacting The Treatment Outcome of Antidepressants in Major Depressive Disorder

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Objective To explore the effect of escitalopram, an antidepressant, on the gut microbe's composition and function in patients with MDD and to preliminarily elucidate the possible mechanisms of antidepressant drugs mediated by gut microbes.

Methods A multi-omics study was undertaken involving 110 MDD patients treated with escitalopram (ESC) for a period of 12 weeks. This study was conducted within a cohort and compared to a reference group of 166 healthy individuals. All the stool samples were subjected to shotgun metagenomic sequencing and non-targeted metabolomics. Meanwhile, the plasma samples were also subjected to non-targeted metabolomics.

Results It was found that ESC ameliorated abnormal blood metabolism by upregulating MDD-depleted amino acids and downregulating MDD-enriched fatty acids. On the other hand, the use of ESC showed a relatively weak inhibitory effect on the gut microbiota, leading to a reduction in microbial richness and functions. Machine learning-based multi-omics integrative analysis revealed that gut microbiota contributed to the changes in plasma metabolites and was associated with several amino acids such as tryptophan and its gut microbiota-derived metabolite, indole-3-propionic acid (I3PA). Notably, a significant correlation was observed between the baseline microbial richness and clinical remission at week 12. Compared to non-remitters, individuals who achieved remission had a higher baseline microbial richness, a lower dysbiosis score, and a more complex and well-organized community structure and bacterial networks within their microbiota. These findings indicate a more resilient microbiota community in remitters. Furthermore, we also demonstrated that it was not the composition of the gut microbiota itself, but rather the presence of sporulation genes at baseline that could predict the likelihood of clinical remission following ESC treatment. The predictive model based on these genes revealed an area under the curve (AUC) performance metric of 0.71.

Conclusion This study provides valuable insights into the role of the gut microbiota in the mechanism of ESC treatment efficacy for patients with MDD. The findings represent a significant advancement in understanding the intricate relationship among antidepressants, gut microbiota, and the blood metabolome. Additionally, this study offers a microbiota-centered perspective that can potentially improve antidepressant efficacy in clinical practice. By shedding light on the interplay between these factors, this research contributes to our broader understanding of the complex mechanisms underlying the treatment of MDD and opens new avenues for optimizing therapeutic approaches.

关键字：Major depressive disorder; Gut microbiota; Antidepressants; Sporulation gene

利用深度学习方法对双相障碍患者的转相模式进行识别与预测

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目的 双相障碍是一类容易被误诊为抑郁障碍，复发率高，预后不佳，患者依从性差的精神疾患。其症状通常包括抑郁发作和（轻）躁狂发作。患者多因为抑郁障碍首发就诊，因此误诊率较高，对精准用药有一定影响。本研究通过 MDCC 等评估工具结合深度学习方法对患者的临床症状进行分析，从而在时间序列上实现对患者转相模式的识别与预测，为早期识别和精准医疗打下基础。

方法 本研究纳入在北大六院双相障碍管理平台心镜 APP 上进行线上随访并在线下诊断确诊为双相障碍的患者 792 名。患者自愿加入科学研究随访后，通过 M.I.N.I.评估确定为双相障碍患者，同时患者自愿在心镜 APP 进行线上随访评估 YMRS、HAMD、MDCC 等量表。根据 YMRS、HAMD 是否达到诊断标准，将患者某个时间点上状态分为平稳、抑郁、躁狂、混合四个相位。通过数次的随访和评估，获得患者相位转变的模式，接着利用 transformer 等深度学习算法对患者进行学习和建模，最后结合 MDCC 对患者数个时间以后的分数进行预测，并根据分数给出预测标签的结果。

结果 不考虑时间序列的情况下，对患者的下一个相位进行识别，预测准确率可以达到 97%。对于患者连续四个相位的识别，即对患者的转相模式进行十六分类任务的预测，准确率达到 91%。对患者的时间序列进行精准预测，对于 90 天后患者相位的预测因其状态而有所区别。从别的状态转到平稳相的准确率高达 85%，对于患者转至混合相的准确率为 67%，对转至抑郁相的准确率为 33%，转至躁狂相则因缺乏验证集数据而无法确定是否准确。

结论 利用 transformer 等深度学习模型和 MDCC、YMRS、HAMD 等评估工具，可以对双相障碍的发病模式进行一定程度的识别，并在未来一段时间上进行预测。随着随访队列的扩大，该模型准确率可以进一步提高，提前预警患者的发作状态，为探索双相障碍的转相机制、并进行精准医疗早期干预打下基础。

关键字：双相障碍，精准医学，深度学习

Second-Generation Antipsychotics and Sexual Dysfunction: A Pharmacovigilance-Pharmacodynamic Study

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Objective There is a growing recognition of the as-

sociation between sexual dysfunction(SD) and antipsychotic treatment; however, the risk for SD secondary to specific antipsychotics has not been extensively studied. We aimed to employ a pharmacovigilance-pharmacodynamic approach to examine the safety signals of second-generation antipsychotics (SGAs) concerning reported SD, as well as to investigate the potential receptor mechanisms involved.

Methods The FAERS database monitors post-marketing drug safety, collecting information on adverse events (AEs) associated with various drugs. This study focused on nine SGAs: amisulpride, aripiprazole, clozapine, lurasidone, olanzapine, paliperidone, quetiapine, risperidone, and ziprasidone. SD and relevant AEs were screened using MedDRA terminology from Q1 of 2004 to the Q3 of 2022. Moreover, data were analyzed separately for hypersexuality, hyposexuality, erectile dysfunction, and ejaculatory dysfunction to clarify the risk of sexual side effects associated with each drug. Disproportionality analysis was performed to identify associations between examined drugs and SD events. Results were presented as reporting odds ratios (RORs) and information component (IC). Significance was determined by lower limits of 95% CI for ROR and IC exceeding 1, with a minimum of three reported AEs per drug. Linear regressions explored associations between significant RORs and receptor occupancy, which were calculated from in vitro binding profiles.

Results In this study, a total of 41,886,918 reports were identified from the FAERS database, with 5854 cases exposed to targeted SGAs. The mean patient age was 34.8 years. Males had a higher prevalence of sexual dysfunction (69.8% vs. 21.6% in females, with 8.7% unspecified). About 60% of adverse event reports originated from the United States, with 2.3% remaining unspecified. Safety signal analysis indicated that all examined drugs, except amisulpride, were significantly associated with sexual dysfunction. The largest effect size in this estimation was observed for compulsive sexual behavior with aripiprazole (ROR 849.65, ROR025 713.70; IC 7.57, IC025 6.36), followed by psychosexual disorder with aripiprazole (ROR 141.14, ROR025 107.72; IC025 6.49, IC025 4.95), and psychosexual disorder with paliperidone (ROR 101.96, ROR025 70.48; IC 6.45, IC025 4.46). Additionally, aripiprazole exhibited the most significant correlation with hypersexuality (ROR 87.12), while paliperidone showed the most vital signals for hyposexuality (ROR 6.88), erectile dysfunction(ROR 8.23), and ejaculatory dysfunction (ROR11.99). Regression analysis revealed significant effects for receptor occupation of D2 and D3 receptors on ROR.

Conclusion Our results suggest a safety signal of SGAs for reporting SD-related AEs, and the dopamine receptor occupation may contribute to potential mechanisms. Further research is warranted to explore the causality of these associations and the clear mechanisms.

关键字：second-generation antipsychotics; sexual dysfunction; disproportionality; FAERS; safety signal

继续教育协作组

肠道真菌菌群失调对精神分裂症发病的影响

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目的 探讨多基因风险评分（PRS）和肠道真菌的交互作用对 SCH 发病的影响。

方法 本研究为横断面研究，选取就诊于郑州大学第一附属医院精神科的首发未用药 SCH 患者作为病例组，选取经过广告招募及来医院体检的健康人群作为对照组，研究对象选取时间为 2017 年 10 月至 2019 年 10 月之间。采用 18S 核糖体 RNA（rRNA）测序平台检测肠道真菌水平。通过 logistic 回归模型探讨肠道真菌菌群失调（MD）指数、α 多样性指数和 PRS 与 SCH 发病风险的关系。

结果 本研究共纳入了 137 例首发未用药 SCH 患者（男 62 例，女 75 例）和 76 名健康对照者（男 31 例，女 45 例）。患者组年龄为（22.5?7.5）岁，对照组年龄为（22.8?2.3）岁。PRS 是 SCH 发病的危险因素（OR=1.111, 95%CI=1.036~1.178, P=0.002）。肠道真菌 MD 指数升高是 SCH 的危险因素 （OR=1.200, 95% CI=1.124~1.281, P＜0.001） 。真菌 α 多样性 Shannon 指数（OR=0.813, 95% CI=0.755-~0.874, P＜0.001）和 Simpson 指数（OR=0.218, 95% CI=0.091~0.523, P＜0.001）升高是 SCH 的保护因素。关键菌曲霉菌属丰度增加是 SCH 的保护因素（OR=0.928, 95% CI=0.864~0.996, P=0.040）。曲霉菌属丰度和认知功能领域中的工作记忆（r=0.280, P= 0.001），词语学习（r=0.253, P=0.003）、推理和问题解决（r=0.191, P=0.028）呈正相关。

结论 肠道真菌 α 多样性和曲霉菌属是 SCH 的保护性因素。

关键字：精神分裂症；肠道真菌；多样性；曲霉菌属；认知功能；横断面研究

抑郁症工作记忆损害相关异常神经振荡调节

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目的 探究抑郁症工作记忆认知表现特征及其相关神经振荡调节过程。

方法 招募 52 名抑郁症患者（抑郁组）和 42 名健康受试者（对照组），完成 N-back 工作记忆任务状态脑电图扫描，同日使用汉密尔顿抑郁量表（HAMD-17）、汉密尔顿焦虑量表（HAMA）对受试者进行评估。根据样本特征，使用双样本 t 检验、卡方检验比较两组间一般人口学资料及 HAMD-17、HAMA 得分；将年龄、受教育年限作为协变量，使用协方差分析比较两组间 0-back、2-back 任务反应时、正确率差异；使用协方

差分析比较两组间工作记忆编码期及维持操作期额叶、顶叶 theta 振荡，枕叶 alpha、gamma 振荡相对能量值，并将所得差异脑区异常振荡相对能量与任务正确率、反应时进行 pearson 偏相关分析。

结果 两组间性别，年龄、受教育年限均不存在显著差异。抑郁症患者组 HAMD-17（t=23.773，P=0.000）、HAMA 得分（t=16.134，P=0.000）均显著高于健康对照组。工作记忆任务表现方面，两组间 0-back 正确率、反应时不存在显著差异，抑郁症组在难度较高的 2-back 正确率（F= 1.189，P= 0.008）、反应时（F=4.304，P=0.021）均显著低于对照组。较对照组相比，抑郁症组 2-back 工作记忆编码期额叶 theta（均数±标准差：患者组：1.186±0.732，对照组：2.000±1.027，F=5.212，P=0.025）、顶叶 theta 振荡（均数±标准差：患者组：0.746±0.714，对照组：1.667±0.811，F=12.325，P=0.001）相对能量显著降低（FDR 校正），且与 2-back 反应时（额叶：r=-0.347，P=0.016、顶叶：r=-0.388，P=0.006）呈显著负相关关系。

结论 抑郁症患者工作记忆更新功能受损，工作记忆编码期异常降低的额叶 theta 振荡活动可能是其损害相关的潜在神经电生理改变，这为客观的临床认知评估提供初步线索。临床治疗手段对其异常神经振荡活动的调节，为进一步寻找潜在的治疗疗效生物标记物提供可能。

关键字：抑郁症；工作记忆；神经振荡

伴与不伴强迫症状双相抑郁障碍患者的脑功能网络拓扑属性比较研究

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目的 研究基于图论的网络拓扑属性分析方法比较伴与不伴强迫症状（Obsessive Compulsive Symptoms, OCS）双相抑郁障碍患者的脑网络全局属性和节点属性的异同，从脑网络层面探究伴强迫症状双相抑郁障碍的神经生物学机制。

方法 研究纳入 53 例未用药伴强迫症状双相抑郁患者（OCS 组），37 例未用药不伴强迫症状双相抑郁患者（NOCS 组）以及 50 例健康对照（HC 组）。采用 MRI 扫描获取静息态功能像（resting-state functional MRI, rs-fMRI），应用基于 Matlab 平台的 SPM12、CAT12 以及 DPABI 工具包对影像数据进行预处理，利用 GRETNA 软件构建功能网络并应用图论分析方法分别计算小世界属性等网络拓扑属性指标。最后，用存在组间差异的网络指标作为分类特征值，利用支持向量机（Support Vector Machine, SVM）机器学习分类模型对 OCS 组、NOCS 组和 HC 组分别进行两两之间的分类。

结果 在节点属性上，OCS 组的节点中心度在右侧颞横回高于 HC 组，OCS 组的节点效率在右侧颞横回高于 HC 组，NOCS 组的节点效率在小脑蚓部低于 OCS 组和 HC 组；OCS 组的介数中心度在左侧额下回低于 HC 组，OCS 组的介数中心度在小脑蚓部低于 NOCS 组和 HC 组。SVM 分类显示：当使用各节点属性组合作为分类特征时，在 OCS、NOCS 和 HC 三组分类中均能获得较好的分类效果。其中，在 OCS 组与 NOCS 组分类时，组合特征分类性能 AUC = 0.7986，准确度 76.74%，敏感度 70.59%，特异度 83.17%；OCS 与 HC，组合特征分类性能 AUC = 0.6308，准确度 75.49%，敏感度 64.00%，特异度 61.54%；NOCS 与 HC，组合特征分类效能 AUC＝0.7718，准确度 73.81%，敏感度 90.00%，特异度 58.82%。

结论 在节点属性上，左侧额下回、左侧枕上回、右侧罗兰迪克岛盖、右侧颞横回，以及小脑等脑区表现出异常，且这些异常改变在伴强迫症状组中更显著，其中左侧额下回的介数中心度、右侧颞横回的节点中心度、节点效率与强迫症状的严重程度相关。此外，SVM 机器分类学习模型显示各节点属性（节点中心度、节点效率、介数中心度）多特征融合作为分类具有一定的疾病诊断能力。

关键字：强迫症状；双相情感障碍；结构协共变网络；静息态功能网络；图论分析；支持向量机

抑郁症海马亚区体积的全基因组关联分析研究

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目的 大量研究报道了抑郁症（MDD）中的海马体积异常并发现不同海马亚区功能存在差异。既往在健康人群中针对海马总体积的遗传学研究取得了诸多发现，但 MDD 患者的海马不同亚区的详细遗传机制及调控基因尚不清楚。因此，本研究希望比较首发未服药 MDD 患者与健康对照的海马亚区体积，结合全基因组关联分析（GWAS）探索 MDD 患者海马亚区体积的遗传基础；利用多基因风险评分（PRS）研究 MDD 的遗传风险是否影响抑郁症患者特定海马亚区体积的变化。

方法 依据纳入、排除标准，收集在昆明医科大学第一附属医院门诊或住院部就诊的 18 至 60 岁 MDD 患者人口学信息、量表测评及磁共振扫描，获取 3D-T1 结构磁共振数据，利用 Freesurfer 6.0 软件获得所有被试海马亚区体积数据，进行一般线性模型评估抑郁症患者与健康人相比海马各亚区体积的变化。提取被试者外周血获取基因组 DNA 和单核苷酸多态性（SNP）基因型信息，以海马亚区体积为表型，性别、年龄和前 5 个主成分作为协变量，使用 PLINK 进行线性回归的 GWAS 分析。使用 PRSice 软件进行多基因风险评分分析。使用 ANNOVAR 软件对 GWAS 结果进行位点功能注释，寻找 SNP 位点对应的基因。

结果 1.MDD 首发未服药患者与健康对照的海马亚区体积的组间比较未见明显差异。2.在 MDD 患者海马亚区体积的 GWAS 分析中，我们观察到 145 个表型

显著位点，其中有 33 个位点在多个亚区中显著，独立显著位点 89 个，相关海马亚区包括左侧齿状回、左侧海马伞、右侧分子层、右侧下托。3.MDD 患者的 SNPs 位点注释得到的 44 个基因富集到 8 个 KEGG 通路中，包括辅因子的生物合成通路、半乳糖代谢通路、淀粉和蔗糖代谢通路、戊糖和葡萄糖醛酸盐相互转化通路、癌症的转录失调通路、糖核苷酸的生物合成、铁死亡、ABC 转运蛋白通路。4.根据 PRS 结果，我们观察到目标数据集可以显著预测 MDD 以下海马亚区体积的改变：双侧下托、CA1、旁下托、分子层、齿状回、CA4、右侧海马尾、左侧海马裂、HATA。

结论 1. MDD 患者多个海马亚区体积（尤其齿状回、海马伞、分子层、下托）均受遗传因素影响，相关的 SNPs 与多种生物学通路相关，包括糖代谢、转录失调、铁死亡、蛋白转运相关通路。2.抑郁症基于多基因的风险评分对患者海马亚区体积的变化有影响，提示了海马亚区遗传-环境交互作用在抑郁症发病机制中的潜在作用

关键字：抑郁症 海马 全基因组关联分析 多基因风险评分

抑郁障碍研究协作组

抑郁症患者主观和客观认知差异及对社会功能影响分析

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目的 比较抑郁症患者主观认知症状与客观认知功能之间的差异，并分析差异的方向及程度对患者社会功能的影响。

方法 在中国 15 家医院门诊连续入组抑郁发作患者 447 名，采集患者的一般人口学、病史等资料，使用汉密尔顿抑郁量表 17 项（HAMD-17）、席汉残疾量表分别评估患者的抑郁症状及社会功能，使用认知功能缺陷自评问卷（PDQ-D）和数字符号转换测验（DSST）分别评估患者的主观认知症状和客观认知功能。使用主观和客观认知结果之间的差异评分将患者分为自我评价好组和自我评价差组，比较两组之间的一般人口学、临床特征的组间差异。使用 Logistic 回归分析影响患者自评认知功能较差的特征，并使用广义线性方程分析自评认知功能较差对于社会功能的影响。

结果 根据差异性评分将患者分为自我评价好组（195 例）与自我评价差组（252 例），两组患者在年龄，性别，受教育程度，疾病总体严重程度，社会功能等指标之间存在显著差异（P<0.05），并且对差异分组有显著影响。构建广义线性模型，SDS 总分作为因变量，纳入包括主客观差异，一般人口学指标，现病史及疾病严重程度等指标作为自变量，结果显示，认知差异评分与社会功能有显著关联(P=0.033),自我评估好组的社会功能 SDS 评分显著高于自我评估差组的抑郁症患者。

结论 抑郁症患者存在显著的主客观认知症状和功能的差异，这种差异性与一般人口学，疾病特征有显著关联，并对患者的社会功能损伤有显著影响，即高估认知功能的患者的社会功能较好，而低估认知功能的患者的社会功能损伤更严重。本研究结果的机制可能来自于抑郁症患者的注意负性偏向，基于此，能够为基于认知评估差异开展针对性干预，进而促进患者疾病改善和社会功能恢复提供线索。

关键字：抑郁症；认知功能；社会功能

单相抑郁障碍的抑制控制网络 low-gamma 频段效能连接研究

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目的 low-gamma 频段与工作记忆等认知任务密切相关，本研究探讨在 G/NG 任务态下抑郁症患者的抑制控制网络 low-gamma 频段效能连接差异，以及异常功能连接值与患者临床特征的相关性，以其寻找识别患者抑制行为障碍发生可能的生物学标记。

方法 招募 2015 年 1 月至 2023 年 04 月在南京医科大学附属脑科医院住院的 50 例单相抑郁症患者，以及周围地区的性别、年龄、受教育程度相匹配的 48 例健康对照者。两组受试者执行 go/nogo 任务进行脑磁图信号采集。提取所有受试执行 nogo 任务—抑制行为的信号，采用进行预处理与源重建。根据研究假设，选取右额下回-前运动辅助区（pre-supplementary motor area，preSMA）-左初级运动皮层（primary motor cortex area，M1）三个脑区作为感兴趣区，以 low-gamma（30-50Hz）波为感兴趣频段，提取 0-900ms 的时间序列，利用格兰杰因果模型（Granger causal model，GCM）计算各感兴趣脑区之间的效能连接值。把有统计学差异的功能连接分别与患者组的 HAMD17 总分、阻滞因子分、发作次数、总病程进行皮尔森相关分析。本实验脑磁影像数据结果用 matlab2012b 软件进行处理，全部数据结果用 SPSS24.0 软件进行统计分析。

结果 1）双样本 t 检验示，与正常对照组相比，抑郁症患者在 NG 任务下执行抑制行为时，preSMA-左 M1（P=0.021，FDR 校正）、右 IFG-preSMA（P=0.014，过 FDR 校正）存在效能连接异常，显著下降。 2）相关分析示，抑郁症患者在 low-gamma 频段的 preSMA-左 M1，右 IFG-preSMA 效能连接与 HAMD17 总分（r=-0.412，P=0.017）、发病次数（r=-0.614，P=0.021）和认知因子分（r=-0.698，P=0.017）均呈正相关。

结论 在 Nogo 任务下，抑郁症患者的抑制控制网络活动异常，尤其是右 IFG-preSMA-左 M1 通路效能连接较正常对照组减弱。这些提示抑郁症患者抑制控制功能损害的特异性变化，本研究进一步发现抑郁症患者的功能连接与 HAMD17 总分、发病次数和阻滞分子分呈负相关，提示这条功能连接与患者临床疾病严重程度等临床特征相关，提示该通路效能连接异常或可作为区分抑郁症与正常组的影像学指标。

关键字：抑郁障碍，抑制控制，效能连接

伴自杀风险单双相抑郁患者认知加工特征的眼动研究

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目的 1.通过眼动技术探索伴有自杀风险的单、双相抑郁患者的认知加工特征；2.整合动态眼动指标与临床自评指标，验证经典的自杀认知加工理论。

方法 1.建立具有自杀主题的自由视图(free-viewing)眼动任务范式(同时呈现自杀、消极、积极、中性的情绪刺激)，记录并观测被试在多重情绪效价矩阵下的视觉偏好及眼动反应。研究入组 76 名有自杀未遂史的抑郁患者（SA），66 名无自杀风险的对照组抑郁患者（ND）和 105 名健康被试(HC)，通过方差分析、时程分析等方法比较认知加工早期和后期的眼动反应和动态认知等变化；2.利用结构方程建模(Structural Equation Modeling)，结合自杀意念、绝望感、自杀行为等临床指标和眼动指标，对自杀认知理论进行模型验证性分析。

结果 1.与无自杀抑郁患者和健康对照组相比，有自杀未遂史的抑郁患者(SA)在认知早期和后期都表现出对自杀刺激的注意偏倚，表现为更多的早期（473ms vs 405ms）和整体注视时长(6061ms vs 3959ms)。两组抑郁被试(SA, ND)在对自杀图片的首注视点分布占比、首注视点潜伏期和解离潜伏期上并无明显差别，敏感性分析结果提示研究被试的人口学、临床等因素对自杀注意偏倚无明显混淆效应；2.基于自杀认知理论建立的结构方程模型(SEM)拟合程度整体良好，模型中所有路径系数均显著($p<0.05$)。

结论 1.伴有自杀风险的单、双相抑郁患者对自杀信息的认知偏倚发生在其信息加工的中-后阶段，这可能与精细认知加工过程有关；2.眼动指标和临床数据为自杀认知理论提供了客观的“生物-心理”依据，验证了该理论在实际临床样本及综合评价指标中的有效性，并揭示了绝望感、自杀认知偏倚、自杀认知固着等认知易感因素在自杀发生发展中的关键作用。

关键字：抑郁症 双相障碍 自杀 认知偏倚 眼动信息加工 结构方程模型

Histological Disruption of Microstructural Covariance Network in Atypical Depression

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Objective The symptom heterogeneity of major depression, in conjunction with etiological heterogeneity, is hindering progress toward patient-specific treatment strategies and course trajectories. Compared to non-atypical depression, atypical depression (AD) showed more severe, recurrent, and lengthy depression episodes, as well as high rate of psychiatric comorbidities and obesity-related metabolic syndrome. It has thus become crucial to disentangling MDD heterogeneity and gain a better understanding of endophenotypes for AD.

Methods The diffusion MRI (dMRI) images were acquired from 50 AD patients, 97 non-AD patients, and 50 healthy controls (HCs). Then, we used a diffusion MRI-based soma and neurite density imaging, namley intra-soma volume fraction index and intra-neurite volume fraction index, that unveil histological features of brain cyto- and myelo-architecture, and performed microstructural co-

variance network to reflect the triggering effect of neuropathological epicenters (i.e., core hubs).

Results Microstructural covariance network reveal abnormal cortico-limbic interactions, especially mPFC-striatum pathway, in both intra-soma volume fraction and intra-neurite volume fraction among AD patients, non-AD patients, and HCs. For post-hoc analysis, compared with non-AD patients, AD patients showed attenuated intra-soma volume fraction in R.caudal anterior cingulate. Furthermore, these microstrutural morphological features in epicenters were significantly correlated with atypical features scores.

Conclusion Incorporating a biophysical diffusion modeling in dMRI methods to map the histological properties of histological features of brain cyto- and myelo-architecture in vivo, and specifically the triggering effect of mPFC-striatum pathway in whole brain disconnections, would have important effects for our understanding of atypical and non-atypical depression.

关键字：atypical depression; diffusion magnetic resonance imaging; non-invasive soma and neurite density imaging; microstructural covariance network.

环状 RNA 结合多模态脑影像在抑郁症诊断和早期疗效预测中的价值及作用机制初探

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目的 通过发现队列筛选出抑郁症（MDD）和健康对照（HC）之间差异表达的 circRNA；分析 circRNA 对 MDD 患者多模态脑影像的影响以及二者结合在 MDD 诊断和早期疗效预测中的价值。

方法 6 例 MDD 和 6 例 HC 用于 RNA 高通量测序，15 例 MDD 和 15 例 HC 用于测序结果的验证；差异表达的 circRNAs 在另一个包括 86 例 MDD 和 53 例 HC 的独立验证队列再次进行验证。对患者的脑影像指标进行了主成分分析（PCA），共获得 8 个主成分因子。通过典型相关分析（CCA）分析 circRNA 组与主成分因子组之间的相关关系；采用交互作用和中介分析探讨 circRNA 在脑影像特征和 MDD 临床变量关系中的作用。

结果 发现队列共筛选出 3 个差异表达的 circRNA；在独立验证队列中进行验证发现：MDD 患者血浆的 circATF7IP（Z=6.18，P<0.001）、circPARN（Z=4.48，P<0.001）、circZBTB25（Z=6.35，P<0.001）显著升高。脑结构的主成分因子与 circATF7IP 以及 circZBTB25 显著正相关；脑网络因子与 circATF7IP 显著正相关而脑功能因子与 circPARN 显著负相关。原始的多模态脑影像特征联合 circRNA 联合后对 MDD 诊断的 AUC 达到了 0.988，敏感性 89.5%，特异性 100%；对早期疗效均预测的 AUC 为 0.867，敏感性为 84.2%，特异性为 81.2%。进一步采用 PCA 提取的脑影像因子联合 circRNA 的预测结果仍表现稳定，对 MDD 诊断的 AUC 为 0.98，敏感性为 93.0%，特异性为 96.2%，对早期疗效均预测的 AUC 为 0.812，敏感性为 72.5%，特异性为 82.4%。circZBTB25、circPARN 与疾病的交互作用共同调节 MDD 患者的皮质结构。circRARN 对网络间功能连接（FC）与抑郁严重程度、网络间 FC 与 2 周后快感缺水平的关系中都起到中介调节作用；其次，circRARN 还对脑功能改变与抑郁严重程度、脑功能改变与 2 周后快感缺水平之间的关系起到中介调节作用。

结论 多模态脑影像特征和 circRNA 联合后对 MDD 的诊断和早期疗效均具有较好的预测效能；circRNA 可以通过调节大脑的结构和功能影响 MDD 的发生和发展。

关键字：抑郁症；circRNA；多模态脑影像；生物标志物；典型相关分析；中介分析

线粒体基因在抑郁症患者外周血中表达上调并与抗抑郁疗效有关

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目的 线粒体功能障碍与单胺、炎症、神经可塑性等相互作用，被认为是 MDD 的基础。“线粒体稳态失衡假说”在抑郁发生机制中引起了越来越多的关注，该假说认为抑郁症是一种线粒体能量代谢疾病，可能与抑郁症患者大脑能量代谢异常有关，而在早期阶段逆转线粒体功能障碍可能为治疗干预提供新目标。虽然有越来越多的证据表明线粒体生物能学和 MDD 有关，但目前还未有明确的线粒体表型或生物标记物作为指导，需进一步研究明确治疗靶点。

方法 选择 GSE98793（128 例 MDD vs. 64 例对照）、GSE146446（96 例度洛西汀 8 周治疗前后）芯片数据集作为主要研究对象。从 MitoProteome 及 A Human MitoCarta3.0 在线数据库中下载线粒体相关基因（MRG），共 1902 个基因。利用 R 语言中的 limma 包、samr 包对 MDD 及健康对照、8 周治疗前后分别进行差异基因表达分析。使用在线工具 DAVID 对基因进行 GO term 及 KEGG 通路分析。将 2 个数据库差异基因与线粒体基因取交集，并采用 Lasso 回归筛选与 MDD 及抗抑郁疗效最相关的差异 MRG，并计算线粒体基因评分来构建疾病的判别模型。

结果 抑郁病例-对照组间共有 3078 个基因，与线粒体基因取交集后共发现 253 个 MRG。GO term 分析发现差异 MRG 主要富集在 ATP 结合、核糖体结构成分等。KEGG 通路分析发现 MRG 主要富集在代谢途径、活性氧等通路。度洛西汀有效组共 2469 个 8 周治疗前后差异基因，与 253 个线粒体相关基因取交集后共发现 21 个 MRG，LASSO 回归筛选出 7 个与抑郁症及抗抑郁疗效最相关的候选 MRG，并通过构建线粒体评分模型来判别 MDD-对照及度洛西汀治疗有效-无效的预测模型。结果发现线粒体评分在 MDD 患者全

血中显著升高,8 周治疗后线粒体评分降低,判别 MDD 和对照组的曲线下面积（AUC）为 0.730（95%CI 0.658-0.802）。将样本按 3:7 比例进行内部验证，发现线粒体评分仍能判别两组，并在其他数据库中 GSE19738（全血: 33 MDDvs. 34 对照）进行验证，发现线粒体评分判别 MDD 和对照组的 AUC 为 0.734。

结论 线粒体基因评分在抑郁症患者外周血中明显升高，8 周抗抑郁治疗后降低，可能作为抑郁症及抗抑郁疗效的外周诊疗标志物。

关键字：抑郁症；抗抑郁；线粒体基因；外周血；度洛西汀

生物皮肤电势特征用于区分抑郁症、双相抑郁及健康对照的判别研究

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目的 研究抑郁症、双相情感障碍（抑郁发作）等患者在不同类型情绪刺激任务下皮肤电势的差异，明确依据任务态下皮肤电势特征区分患者与健康对照的准确率，并探索皮肤电势特征与个体氧化应激指标、激素水平、免疫因子等生物学指标的相关性。

方法 本研究入组双相情感障碍抑郁相患者（BPD）77 例，抑郁症患者（MDD）53 例和健康志愿者（HC）79 例。所有受试者需完成一般人口学、临床资料、量表评估以及认知功能测试。此外，病例组根据意愿完成氧化应激指标等生物学指标采集。同时，设计自由观看范式(a)、正负情绪范式(b)、语义刺激范式(c)、情景干预范式(d)、情绪诱发范式(e)、语境刺激范式（f）等 6 种不同类型的情绪刺激任务范式，采集所有被试任务状态下的左手部皮肤电势数据。采用 SPSS 软件进行一般资料组间分析，采用 R 语言进行相关性分析，采用 Python3.1 软件基于支持向量机作为最佳判别模型，在 BPD 患者、MDD 患者以及健康对照进行探索性疾病分类判别。

结果 1.BPD 患者、MDD 患者在任务范式 a、b、c、d、e 中均被检测出皮肤电势差异。其中，在范式 a、b、c、d 中皮肤电势特征值表现为 HC＜BPD＜MDD，且抑郁症与健康对照之间存在显著差异（p＜0.05）；而在范式 e 中，皮肤电势特征值表现为 MDD＜BPD＜HC，且抑郁症与健康对照之间存在显著差异（p＜0.05）。2.基于 SVM 的判别模型，依据所有范式下的皮肤电势特征，区分 MDD 与 HC 的准确率为 78%，敏感度为 74%，特异度为 82%；基于 SVM 的三分类判别模型，区分 BPD 患者、MDD 患者、健康对照的准确率为 59%，敏感度为 59%，特异度 79%。3. 在多个任务范式（b、c、e、f）中，BPD 患者的皮肤电势时频域特征值均与氧化应激指标前白蛋白呈正相关（P ＜0.05）；在多个任务（a、b、e、f）中，MDD 患者的皮肤电势时频域特征值均与氧化应激指标尿酸、间接胆红素、直接胆红素、白蛋白、前白蛋白等呈正相关（P ＜0.05）。

结论 1.在 6 个情绪刺激任务中，与健康对照比较，MDD 患者、BPD 患者均存在左手部皮肤电势差异，且与机体氧化应激水平如尿酸、前白蛋白等水平相关。 2.基于皮肤电势的预测模型可以依据任务态皮肤电势特征区分 BPD 患者、MDD 患者、健康对照，提示皮肤电势可能是情感障碍潜在的生物学标记物。

关键字：关键词：心境障碍，皮肤电势，抑郁症，双相障碍，机器学习

基于全息希尔伯特谱探究无抽搐电休克治疗(MECT)后抑郁症患者脑电图变化

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目的 本研究基于全息希尔伯特谱分析方法（HHSA）量化脑电，评估抑郁症患者经无抽搐电休克治疗（MECT）后静息态脑电图（RS-EEG）的变化，探讨 MECT 的脑电机制。

方法 在本研究中，共纳入 63 名接受 5-8 次 MECT 治疗的抑郁症患者（男 19 例、女 43 例，平均年龄(37.50±6.36)）。采用汉密尔顿抑郁量表（HAMD-24）、汉密尔顿焦虑量表（HAMA）评估 MECT 治疗前、每次 MECT 治疗后、随访期抑郁焦虑严重程度变化。采用 EGI（128 导盐水电极）记录患者 MECT 治疗前、每次 MECT 治疗后、随访期的静息态脑电图。按国际 10-20 电极分布系统，取匹配的 27 个脑电电极数据进行预处理，取 150s 闭眼数据，计算全息希尔伯特谱（Holo-Hilbert?spectral，高维频率谱，包括载波频率 FM 和调幅频率 AM）。将 MECT 治疗前脑电的全息希尔伯特谱分别与每次 MECT 治疗后、每次随访时的脑电全息希尔伯特谱，做配对 T 检验；将全部实验期间脑电的全息希尔伯特谱感兴趣区域（Region of Interest，包括通道、AM 频率范围、FM 频率范围）与汉密尔顿焦虑量表、抑郁量表做皮尔逊相关性分析。

结果 （1）与 MECT 治疗前基线相比，随着 MECT 治疗次数的增加，抑郁患者脑电的全息希尔伯特谱低频（AM 1/128~4Hz,FM 1/2~8Hz）能量显著升高，高频（AM 1/16~32Hz,FM 8~64Hz）能量显著下降，其中第一次 MECT 治疗后低频显著升高脑区为左右中央区，高频显著降低脑区为前额叶区，随 ECT 次数增加，显著改变的脑区向全脑区域发展；（2）与 MECT 治疗前基线相比，MECT 治疗结束后，随着随访时间的推移，脑电低频能量升高、高频能量下降的效应在不断减小（即低频能量回落，高频能量回升），随访至 3 个月后基本消失；（3）汉密尔顿抑郁量表（HAMD-24）、汉密尔顿焦虑量表（ HAMA）与脑电的全息希尔伯特谱低

频能量显著负相关，与高频能量显著正相关。

结论 MECT 治疗升高脑电全息希尔伯特谱低频能量，降低高频能量，且患者症状与低频能量负相关，与高频能量正相关；全息希尔伯特谱量化脑电图有助于评估 MECT 治疗效果，辅助临床疗效评估。

关键字：抑郁症，无抽搐电休克治疗（MECT），静息态脑电图（RS-EEG），全息希尔伯特谱分析方法（HHSA）

Intermediary Roles of Prospective Memory and Retrospective Memory in The Comorbidity of Depression and Pain

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Objective The treatment of patients who suffer from depression and physical pain remains a major challenge because of the complex interplay between maladaptive cognition with the affective and physical aspects of pain. However, the exact cognitive mechanisms involved in the maintenance and reinforcement of depression and pain-related disability are unclear. Prospective memory (PM) and retrospective memory (RM) are negatively affected by many psychotic diseases and their complications in patients with major depressive disorder (MDD) and chronic pain (CP) are still unknown.

Methods A total of 124 participants were included in this study and divided into three groups: comorbidity group (patients with depression and chronic pain, n = 40), depression group (patients with depression but without chronic pain, n = 42), and healthy controls (n = 42). The grouping method is described in the fifth edition of Diagnostic and Statistical Manual of Mental Disorders and the International Association for the Study of Pain. The Hamilton Depression Rating Scale-24 (HAMD-24) and Beck Depression Inventory-II (BDI-II) were used in evaluating the severity of depression, and the Pain intensity numerical rating scale and Montreal Cognitive Assessment-Basic Section were used in assessing pain intensity and global cognitive function, respectively. Short-Form McGill Pain Questionnaire-2-Chinese was used in estimating pain-related features. Lastly, the Prospective and Retrospective memory questionnaire was used in evaluating memory failure in everyday life.

Results The impairments of PM and RM remarkably differed among the three groups ($F = 7.221$, $P \leq 0.001$; $F = 7.221$, $P \leq 0.001$) and were severe in the comorbidity group. Spearman correlation analysis revealed positive correlation between the PM with continuous pain and neuropathic pain ($R = 0.431$, $P \leq 0.01$; $R = 0.253$, $P = 0.022$), and RM was positively correlated with continuous pain and neuropathic pain ($R = 0.415$, $P \leq 0.01$; $R = 0.247$, $P = 0.025$). Regression analysis indicated that a significant positive relationship between total neuropathic pain and BDI total score ($\beta = 0.300$, $t = 2.889$, $P = 0.005$), and negative effects were associated with marital status ($\beta = ?0.312$, $t = ?2.977$, $P = 0.004$). In addition, a significant positive relationship was found between affective descriptors and total BDI score ($\beta = 0.594$, $t = 6.600$, $P \leq 0.001$). An examination of the mediator pathways revealed the indirect role of PM（Indirect effect: 0.144, 95%CI：0.009 to 0.358） and RM （Indirect effect: 0.186, 95%CI：0.022 to 0.434）in patients with comorbid MDD and CP. Overall, we clearly demonstrated that PM and RM can serve as predictive factors for these patients.

Conclusion Patients with comorbid MDD and CP are presented with more PM and RM impairments than patients with MDD but without CP. PM and RM are possibly mediating factors that affect the etiology of comorbid MDD and CP.

关键字：depression, chronic pain, comorbidity, prospective memory, retrospective memory

思维反刍的纵向研究：跨诊断的情感障碍内表征

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目的 通过纵向研究设计，在多种情感障碍间验证思维反刍的跨诊断意义，并通过比较多种情感障碍达到临床缓解后思维反刍的变化，来进一步探究其跨诊断意义和状态独立性特征。

方法 本研究为纵向队列研究，样本来源于中南大学湘雅二医院精神障碍门诊，数据收集时间为 2020.9.13 至 2022.08.01，共计纳入重性抑郁障碍、双相情感障碍、强迫障碍、广泛性焦虑障碍及健康被试 433 人。采用反刍反应量表(RRS)、汉密尔顿抑郁评定量表(HAMD)、汉密尔顿焦虑评定量表(HAMA)、耶鲁布朗（Y-BOCS）和杨氏躁狂量表（YMRS）对重性抑郁障碍、双相情感障碍、强迫障碍、广泛性焦虑患者进行各疾病主要症状和结局指标发作期和缓解期的测量和比较，从而探究思维反刍在不同情感障碍间的得分差异及其与各疾病主要症状间关系。

结果 通过进行情感障碍与健康被试、情感障碍组间比较发现，思维反刍总分（RRS-total）、强迫思考（RRS-brooding）及反省深思(RRS-reflection)在各疾病组基线分布无差异（$P>0.05$），仅双相情感障碍躁狂发作状态下 RRS-total 和 RRS-brooding 均值稍低于其他疾病组，但仍高于健康被试（$P<0.001$）。治疗 8 周后，除躁狂发作组，思维反刍各因子得分均值在不同疾病组间分布无显著差异，且均高于健康被试，提示思维反刍在多种情感障碍中存在跨诊断意义（<0.001）。进一步将各疾病组分为缓解组和未缓解组进行亚组分析发现，思维反刍在各疾病主要临床症状达到缓解后仍存在 8 周 RRS-total、RRS-brooding 和 RRS-reflection 得分显著高于健康被试，提示思维反刍具有与诊断类别无关的状态独立性。

结论 综上，无论是发作期还是缓解期，思维反刍在多种情感障碍间的严重程度无显著差异，是具有跨诊断意义的临床表征；随着原有疾病治疗的变化，思维反刍的严重程度表现出与情感障碍主要症状缓解不一致的特点，是多种情感障碍共同的内表征，具有状态独立性。

关键字：思维反刍，情感障碍疾病，跨诊断，状态独立性

运动辅助疗法对抑郁障碍患者自主神经功能的影响

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目的 在标准抗抑郁药物治疗基础上，探索规定剂量的轻中度有氧运动辅助疗法对抑郁障碍患者自主神经功能的影响。

方法 本研究为一项随机对照干预试验。于 2020 年 12 月至 2022 年 10 月在同济医院焦虑抑郁专科门诊，纳入符合 DSM-V 抑郁障碍诊断标准的轻中度抑郁障碍患者。纳入的 96 例受试者以随机化方式按照 1:1 比例分为运动组（48 例）和对照组（48 例）。所有受试者均予以 150mg 剂量的文拉法辛进行药物治疗，同时运动组再加以规定剂量的有氧运动（150 min/周、3~5 次/周、心率达到最大心率（220 次/min-年龄）的 64%~76%）辅助治疗。采用 24 小时长程动态心电图（Holter）、动态血压（BPM）及瞳孔对光反射检测运动组和对照组受试者在基线和治疗 3 个月后的自主神经功能状况。数据分析使用 SPSS 25.0 进行，采用协方差分析对干预后两组间差异进行统计分析，以 $P<0.05$ 认为差异具有统计学意义。

结果 运动组和对照组分别有 36 例、32 例受试者完成了 3 个月的干预治疗。（1）在符合研究方案分析（PP）中，运动组与对照组在心率变异性（HRV）频域指标的总功率（F=6.986，P=0.011）、高频功率（F=7.205，P=0.010）、低高频比值（F=7.845，P=0.007）、规一化低频功率（F=7.524，P=0.009）、规一化高频功率（F=6.889，P=0.012）上的差异均显示出了显著统计学意义，运动组 HRV 水平相比对照组显著更高。但在意向性分析（ITT）中，HRV 及 BPM 指标在运动组与对照组之间的差异均未显示出统计学意义。（2）在 PP 分析和 ITT 分析中，瞳孔对光反射指标在运动组与对照组之间的差异未显示出统计学意义。但在 PP 分析中，运动组相比对照组的 PD1（5.09±0.18 vs. 5.05±0.22）、PD10（3.91±0.15 vs. 3.64±0.19）、PD100（3.05±0.11 vs. 2.71±0.14）和瞳孔收缩速度（0.48±0.02 vs. 0.44±0.02）均值更高，瞳孔舒张速度（0.37±0.02 vs. 0.40±0.03）均值更低，两组间的均值显示出了一定的差异倾向。

结论 本研究规定剂量的有氧运动干预下，能够调节抑郁障碍患者的自主神经功能，提高 HRV 水平，使副交感神经活动更高、交感神经活动降低。

关键字：抑郁障碍；运动辅助疗法；心率变异性；瞳孔光反射

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Fluoxetine-loaded Tetrahedral DNA Nanostructures Facilitate Early-onset Anti-depressive Effects Via Modulating Hippocampal Neurogenesis and Neuroplasticity

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Objective The delayed-onset effects of antidepressants may increase the risk of suicide in patients before they take effect. Accumulating evidence shows that the restriction of the blood-brain barrier(BBB), the inhibition of hippocampal neurogenesis, and the reduction in neuroplasticity play vital roles in the delayed. This study uses tetrahedral DNA nanostructures (TDNs) as a drug delivery system that can effectively promote the proliferation of neural stem cells and penetrate the BBB. By combining with classical antidepressant fluoxetine (FLX) to construct a nanoscale complex (TDNs&FLX), which can exert anti-depressive effects at the early stage of treatment on mice chronic depression model.

Methods Firstly, we used multiple methods to characterize the successful fabrication of TDNs&FLX complex. Secondly, we constructed chronic unpredictable stress (CUS) induced mice depression model and divided them into five different group. Then we applied two stage treatment and compared their anti-depressive effects in several behavioral tests such as weight change, sucrose preference(SPT), open field test(OFT), tail suspension test (TST), and forced swim test (FST). Furthermore, we prepared bromodeoxyuridine(BrdU)-labeled and Golgi-stained hippocampal brain slices to evaluate neurogenesis and neuroplasticity. Finally, we collected hippocampal tissue and perform RNA sequencing to elaborate potential molecular biological changes.

Results We verify that TDNs&FLX is successfully loaded by several characterization techniques. We also find that TDNs&FLX was well-distributed in brain tissue through in vivo imaging system. Besides, we observe no abnormal pathological changes in the H&E-stained major organs, confirming its relative biological safety. The subsequent behavioral tests demonstrate TDNs&FLX exert therapeutic effects in SPT,OFT,TST and FST compared with Case-Vehicle and all p value <0.05). Moreover, BrdU-labeled brain slices immunofluorescence and Golgi-staining suggest statistical significance (p<0.05) between Case-TDNs&FLX and Case-Vehicle indicate promotion of neural precursor cells and enhancement of dendritic complexity and dendritic spine density. Additionally, RNA-seq and downstream enrichment analysis show the core genes and related pathway mainly involve in neurogenesis, neuroplasticity, and neuropeptide signal.

Conclusion In this study, we synthesized a nanoscale complex TDNs&FLX which can increase newborn neural precursor cells and repair neuroplasticity while exerting early therapeutic effects. Pure TDNs lack long-lasting therapeutic benefits, and free FLX resulted in delay therapeutic outcomes. These findings propose a new way to modify classic antidepressants with new-style nucleic acid nanonanomaterials and advance DNA-based nanomedicine development for depression.

关键字：Depression, Early-onset Effects, Tetrahedral DNA Nanostructures, Fluoxetine, Neurogenesis, Neuroplasticity

精神分裂症 NMDAR 抗体水平及其与临床特征和治疗应答的关联

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目的 精神分裂症（SCZ）是一种高度复杂性和异质性、病理生理机制未明、约 30%患者治疗应答欠佳的重性精神障碍。N-甲基-D-天冬氨酸受体（NMDAR）抗体因其独特的自身免疫特性以及对 NMDAR 的可逆性影响可能介导了 SCZ 的发病以及治疗应答。由于 NMDAR 对白质轴突髓鞘化和信号转导至关重要，我们推测质白质完整性受损可能在 NMDAR 抗体与 SCZ 治疗抵抗的关系中发挥作用。

方法 本研究分为两部分，第一部分纳入首发 SCZ（FES）患者 110 例，健康对照（HC）50 例。测定血清 NMDAR 抗体水平以及患者组的精神病理症状（PANSS）和认知功能（MCCB），比较 NMDAR 抗体水平的组间差异以及 NMDAR 抗体与精神病理症状、认知功能的相关性。第二部分纳入 TRS 患者 50 例、NTRS 患者 45 例、健康对照 90 例，检测血清 NMDAR 抗体水平和白质弥散张量成像各向异性分数（FA）以及区域脆弱性指数（RVI）。比较三组间的 NMDAR 抗体水平及白质 FA 值、RVI 值，并进一步做相关性分析。

结果 1.FES 组的血清 NMDAR 抗体水平显著高于 HC 组（P=0.002）。在 FES 组，血清 NMDAR 抗体水平与 PANSS 阳性症状分量表分（r=0.25，P=0.016）、阴性症状分量表分（r=0.29，P=0.007）和 PANSS 总分（r=0.29，P=0.006）显著正相关；与 MCCB 的信息处理速度（r=-0.39，P<0.001）、工作记忆（r=-0.36，P<0.001）、言语学习和记忆维度得分（r=-0.37，P<0.001）以及 MCCB 总分（r=-0.38，P<0.001）显著负相关。2. 血清 NMDAR 抗体水平在 TRS 组最高，显著高于 NTRS 组（P=0.02）以及 HC 组（P<0.001）。全脑白质平均 FA 值在 TRS 组最低，白质 RVI 值在 TRS 组最高。在 TRS 组，血清 NMDAR 抗体水平与全脑白质平均 FA 显著负相关（r=-0.37，P=0.03），与区域白质束的相关性在胼胝体膝部最强（r=-0.50，P=0.0021），与白质 RVI 显著正相关（r=0.36，P=0.04）。相反，上述相关性在 NTRS

组均不显著。

结论 本研究提示NMDAR抗体可能在SCZ的发病以及治疗机制中发挥至关重要的作用，强调了SCZ患者白质微结构损伤的潜在NMDAR机制，这可能导致他们对抗精神病药物的治疗抵抗性。

关键字：精神分裂症，N-甲基-D-天冬氨酸受体抗体，精神病理症状，认知功能，治疗抵抗，白质各向异性分数，胼胝体膝部

精神病临床高危和首发患者错误监控缺陷的脑电低频振荡机制研究

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目的 错误监控功能受损是精神分裂症的一项重要认知缺陷。研究表明，处于精神病发病前驱期的临床高危人群和精神病首发患者已表现出错误监控功能缺陷，然而其内在神经机制仍不明确。基于健康人群的研究提示，脑电低频delta（2-4 Hz）和theta（4-8 Hz）节律振荡可能与错误监控的神经机制有关。本研究通过分析精神病临床高危被试和首发患者在错误监控过程中的脑电低频振荡能量，探讨从精神病前驱期至首次发作期错误监控缺陷的脑电低频振荡机制。

方法 本研究纳入49名健康对照、32名精神病首发患者和68名临床高危被试，采用阳性与阴性症状量表评定高危和首发患者的症状严重程度。记录被试在一项修改版Flanker任务中的64通道头皮脑电信号，采用时频分析方法计算正确和错误反应试次诱发的脑电delta和theta振荡能量。将受试者的年龄和教育年限作为协变量，利用混合设计方差分析考察正确和错误反应试次以及三组被试间的脑电低频振荡能量差异。

结果 （1）脑电delta频段：与正确反应试次相比，错误反应试次诱发的delta能量显著上升（p=0.032），且与受试者分组具有显著交互作用（p=0.003）；后续分析表明，与健康对照相比，错误和正确试次之间的能量差值在高危（p=0.005）和首发患者中显著下降（p=0.001），但高危和首发患者间无显著差异（p>0.4）。（2）脑电theta频段：与正确反应试次相比，错误反应试次诱发的theta能量显著上升（p=0.004），且无显著组间差异（p>0.8）或交互作用（p>0.5）。（3）相关性分析：在整个样本中（包括高危与首发患者），脑电delta频段能量与阴性症状（r=-0.21，p=0.034）和冲动症状（r=-0.21，p=0.034）评分之间具有显著负相关，说明阴性和冲动症状越明显的患者，其脑电delta频段能量越低。

结论 本研究首次揭示了错误监控过程中脑电低频振荡能量从精神病前驱期至首次发作期的变化特征。与健康对照相比，高危和首发患者在错误监控过程中的脑电delta振荡能量显著下降，而theta振荡能量并无显著衰退。高危和首发患者脑电delta振荡能量下降可能与其错误监控缺陷以及冲动攻击性的神经机制有关。

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关键字：精神分裂症、临床高危、脑电、低频振荡、冲动攻击性

Association between Ambient Particulate Matters and Anhedonia Among Patients with Depression

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Objective Recent studies have linked ambient air pollution to depression. Anhedonia is a core symptom of depression which severely impacts on prognosis. The present study aims to investigate the association of PM2.5 and PM10 exposure with anhedonia in depressed patients.

Methods A total of 538 patients with depression who were hospitalized at the Fourth People's Hospital of Hefei between June 2017 and December 2021 were included. We estimated ambient particulate matters exposure, including PM2.5 and PM10, using a satellite-based spatiotemporal model at a resolution of 1 km2. The revised Physical Anhedonia Scale (RPAS) and the revised Social Anhedonia Scale (RSAS) were evaluated. The association of ambient particulate matters and anhedonia was examined using multiple linear regression models, adjusted for potential confounders.

Results We observed that exposure to PM2.5 were significantly associated with increased RSAS score and RPAS score, with the major effect in the 12-month exposure window (β = 1.238, 95%CI: 0.353, 2.123) and 18-month exposure window (β = 1.888, 95%CI: 0.699, 3.078) respectively. Meanwhile, PM10 levels was also significantly associated with increased RSAS score and RPAS score, with the major effect in the 18-month exposure window (β = 1.220, 95%CI: 0.439, 2) and 3-month exposure window (β = 1.602, 95%CI: 0.062, 3.143) respectively. Subgroup analysis showed that both PM2.5 and PM10 were significantly associated with anhedonia in females, patients < 40 years old, low family income group, and those who had a higher educational level.

Conclusion Our study suggests that long-term PM2.5 and PM10 exposure are associated with more severe anhedonia in patients with depression. These associations were different in subgroup by age, gender, family income and educational level.

关键字：Air pollution exposure, PM2.5, PM10, Depression, Anhedonia

Association between Serum Lipids and Rapid Weight Gain in First-episode Schizophrenia

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Objective Individuals with schizophrenia have a lower than average life expectancy, largely due to the high prevalence of cardiometabolic comorbidities. There is an unmet public health need to identify schizophrenia patients who have a high risk of rapid antipsychotic-induced weight gain (AIWG) and determine the lipid profile and potential lipid biomarkers of AIWG.

Methods This study was a randomized controlled trial in China based on the sequential multiple-assignment randomized trials to compare antipsychotic treatments (SMART-CAT). All patients were randomly assigned to olanzapine, risperidone, perphenazine, amisulpride or aripiprazole for 8 weeks. Here, we applied untargeted lipidomics absolute-quantitative analysis at baseline and after 8 weeks of antipsychotic treatment in 80 patients. To evaluate the effects of AIWG on lipid profile, 25 patients with ≥7% weight changes (weight gain, WG) and 28 patients with <3% weight changes (weight stable, WS) were investigated, separately.

Results We found that baseline CerP(d40:3) and PC(20:1/22:6) were positively associated with weight change at follow-up (r>0.4, pFDR<0.05). In addition, the independent signatures CerP(d40:3) and PC(20:1/22:6) were predictive of rapid weight gain in individuals with schizophrenia, with an area under the receiver operating characteristic curve (AUROC) of 0.76 (95% CI: 0.63-0.90), and 0.75 (95% CI: 0.62-0.88), respectively. Compared with baseline, levels of 48 differential lipid metabolites (fold change > 1.2, VIP> 1 and pFDR < 0.05) were significantly higher in the WG group. Interestingly, no differential lipid metabolites were identified in the WS group. The LASSO regression model identified 18 AIWG lipid signatures, including 2 ChEs, 1DG, 12PCs, 1PG, 1PI, and 1SM, with the ChE(16:1) contributing the most. Furthermore, the level changes of ChE(16:1) were positively associated with weight change（r=0.67，pFDR<0.05）.

Conclusion Collectively, these data suggest that lipid profile may serve as predictors of rapid weight gain in schizophrenia and provide useful markers for AIWG intervention.

关键字：schizophrenia, antipsychotic, weight gain, lipid

Adverse Childhood Experiences Are Associated with Psychiatric Problems and Intelligence in Adolescents From The ABCD Study

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Objective This study aimed to investigate the relationship between adverse childhood experiences(ACEs) and psychiatric problems and intelligence in adolescents and explore if brain volume in region of interest mediates the association of ACEs with intelligence.[Methods]We analyzed reports of 10,572 children of 10–11 years old from the Adolescent Brain Cognitive Development (ABCD) datasets in order to study the relationship between ACEs and psychiatric problems and intelligence in adolescents. Multiple linear regression analyses were used to examine associations between ACEs, intelligence, sleep disorders and brain volume in region of interest. The associations between ACEs and putamen volume and IQ were examined using spearman correlation analysis. Logistic Regression analyses were conducted to examine the associations between different levels of ACEs and Child behavior checklist(CBCL), reports of internalizing problems, externalizing problems, total problems, depressive problems, anxiety disorder, somatic problems, ADHD, oppositional de?ant problems, conduct problems, sluggish cognitive tempo, obsessive-compulsive problems and stress problems. Five levels of ACEs were created: none, exposure to one ACE, exposure to two ACEs, exposure to three ACEs, exposure to four or more ACEs. The mediation analysis was conducted using the chain mediation model to explore the potential mediatory role of total putamen volume on full scale of IQ(FSIQ).

Results The results showed that ACEs were negatively and significantly related to sleep quality and neurocognition, especially for FSIQ (β=-0.025, R?=7.26, p < 0.001). Left and right putamen volume explained 29.55 and 33.60% of the total variance in ACEs by multiple linear regression analysis. Logistic regression analysis showed that the CBCL score was strongly associated with ACEs in each scale, and the association was stronger as ACEs number increased. Moreover, the association between ACEs and FSIQ was partly mediated by total putamen volume (proportion explained 7.49%).

Conclusion ACEs are associated with the development of mental health problems and lower scores on intelligence in adolescents. And the more ACEs, the stronger this correlation manifests. The effect of ACEs on intelligence may be mediated by the volume of the putamen. Implementing empirically supported policies and interventions that target ACEs may promote the mental health and intellectual development of children and adolescents.

关键字：Adolescent Brain Cognitive Development Study; adverse childhood experiences; Child and adolescent mental health; intelligence; putamen.

Cognitive Heterogeneity and Structure Enriched Functional Networks Topological Deviations in Major Depressive Disorder

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Objective Major depressive disorder (MDD) with cognitive impairments is common, but the heterogeneity in cognitive functions impedes the exploration of underlying biological deviations. The current research aims to identify possible cognitive dimensions of MDD and provide insight into topographic properties of dimension-specific brain networks.

Methods This was a case-control, cross-sectional study. Data were collected from Dec 17, 2013 to Oct 30, 2019 and analyzed from Jun 14, 2022 to Mar 28, 2023. Patients with MDD were recruited from the West China Hospital and healthy controls (HCs) were recruited from community. Participants were Han Chinese individuals aged between 18 to 65 years. Patients were suffering through current major depressive episode with 17-item Hamilton Depression Rating Scale more than 17 scores and unmedicated for at least two weeks. An automatic cognitive battery was employed and multimodal magnetic resonance images were acquired. A semi-supervised machine learning approach was applied to cluster dimensions of MDD with cognitive homogeneity. Individual difference structure co-variance network and probabilistic tractography white fiber network of brain cortex which was parcellated into 360 regions according to Human Connectome Project-Multimodal Parcellation atlas were constructed, and were aligned with corresponding sparse simplex functional network. Consequently, structure enriched functional networks (i.e., SFNGM and SFNWM) were generated. Global (i.e., global efficiency, assortativity, hierarchy, and synchronization) and nodal (i.e., local efficiency, shortest path length, clustering coefficient, degree centrality, and betweenness centrality) topographic metrics were calculated to investigate topological deviations between dimensions.

Results In MDD group, 103 (52.02%; mean [standard deviation, SD] age, 29.0 [9.65] years; female, 80 [77.7%]) patients were clustered into dimension 1 which presented widespread cognitive impairments while 95 (47.98%; mean [SD] age, 29.4 [9.70] years; female, 52 [54.7%]) were assigned into dimension 2 which presented cognitive preservations compared with 279 healthy controls (mean [SD] age, 27.2 [10.30] years; female, 177 [63.4%]). Regard mass-univariates comparisons, only synchronization of SFNGM among global metrics presented significant difference between dimensions (F = 7.230, P = 0.008), while all nodal metrics showed statistically similarity after false discovery rate correction. However, for multi-variates pattern analysis, all nodal topological metrics except betweenness of SFNWM (AUC = 0.629) exhibited better performances (AUCs range 0.736 to 0.967) in elastic net regression models, while all global metrics did not (AUCs < 0.615).

Conclusion Two distinct cognitive dimensions of MDD were detected. Nodal topographic properties of individual multimodal brain network integrating the whole brain regions facilitates the differentiation of dimensions.

关键字：cognitive dimension, major depressive disorder, multimodal brain network, structure-function coupling, structural enriched functional network, topographic metrics

CBS 蛋白调控 H2S 影响 GPX4 和 SLC7A11 表达缓解胶质细胞铁死亡发挥抗抑郁症的分子机制研究

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目的 抑郁症是一种常见的心理疾病，是以持久的心境低落为主要特征，同时伴有认知功能障碍、躯体症状，甚至有自杀企图或行为，严重者还可出现幻觉、妄想症等精神病症状[1]。随着社会经济的发展和生活节奏的加快，抑郁症发病率越来越高。世界卫生组织预测，截至目前，抑郁症已成为危害人类身心健康的第二大类疾病，仅次于冠心病。此外，抑郁症是造成全球非致命性健康损失的首要因素，其危害受到社会各界的广泛关注[3]。目前，该病发病机制仍不明确，多种因素均参与了抑郁症的发生、发展。临床尚缺乏有效的治疗手段。有研究证实内源性硫化氢（H2S）参与了多种神经系统疾病的发生、发展，而胱硫醚合成酶（Cystathionine beta-synthase，CBS）是细胞在同型半胱氨酸转化为半胱氨酸的过程中产生内源性 H2S 的主要限速酶之一。CBS 在精神疾病中的报道较少，因此再探究。本项目通过建立抑郁症小鼠及相关细胞，旨在从整体动物水平和细胞水平阐明 CBS 在抑郁症发展过程中的作用及其分子机制，为临床防治抑郁症提供新的思路及可借鉴的经验。

方法 募集抑郁症患者和年龄相当的健康者，各≥25 名，采取外周血，分离血清；临床水平研究 CBS 蛋白及 H2S 水平与抑郁症的相关性。以大鼠小胶质细胞为研究对象，细胞水平探究 CBS 蛋白调控 H2S 影响 GPX4 和 SLC7A11 表达缓解胶质细胞铁死亡的分子机制以及动物水平探究 CBS 蛋白调控 H2S 影响 GPX4 和 SLC7A11 表达调控铁死亡的发挥治疗抑郁症的潜在作用。

结果 发现 NaHS 确实能够减轻小鼠的抑郁样和焦虑样行为，主要通过减少铁沉积和氧化应激，增加 GPX4 和 SLC7A11 的表达，从而缓解小鼠的铁死亡水平。提出假说：CBS 蛋白调控 H2S 影响 GPX4 和 SLC7A11 表达，从而缓解胶质细胞铁死亡发挥抗抑郁症的作用。

结论 1、从临床水平，确证 CBS 蛋白及 H2S 水平与抑郁症的相关性；2、从细胞水平，阐明 CBS 蛋白调控 H2S 影响 GPX4 和 SLC7A11 表达缓解胶质细胞

铁死亡的分子机制；3、从动物水平探究 CBS 蛋白调控 H2S 影响 GPX4 和 SLC7A11 表达调控铁死亡治疗抑郁症的潜在作用。

关键字：谷胱甘肽过氧化物酶 4；胱氨酸转运蛋白系统 Xc-的催化亚基；胶质细胞铁死亡；胱硫醚合成酶；硫化氢

NOD2 受体在 LPS 介导的抑郁行为中的作用研究

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目的 神经炎症与抑郁症的发生发展密切相关。NOD2 是一种胞浆内模式识别受体，被细菌肽聚糖中的胞壁酰二肽（MDP）激活后可介导炎症反应。在小鼠脑中，肠菌来源的 MDP 可激活下丘脑抑制性神经元 NOD2 受体，调节小鼠的摄食和体温。脂多糖（LPS）是革兰氏阴性细菌细胞壁的主要成分，作为一种促炎细胞因子诱导剂，可用于动物神经炎症和抑郁样行为模型的建立，但是在 LPS 介导的抑郁样行为中，NOD2 的作用尚未得到证实。

方法 本研究采用基因背景为 C57BL/6J 的 8 周龄雄性 NOD2-/-小鼠和野生型小鼠，采用糖水偏好、悬尾实验、新奇抑制摄食、旷场实验和高架十字迷宫实验评估焦虑、抑郁样行为。在此基础上，随机将两组小鼠分为对照组和建模组，分别为 WT+ Saline 组、WT+ LPS 组、NOD2-/- + Saline 组和 NOD2-/- + LPS 组，小鼠腹腔注射生理盐水(10 ml/kg)或 LPS (0.5 mg/kg)，持续 21 天，采用糖水偏好实验、悬尾实验、新奇抑制摄食实验、旷场实验和高架十字迷宫实验评估焦虑、抑郁样行为。

结果 与野生型小鼠比，NOD2-/-小鼠自主活动能力无异常，未出现焦虑、抑郁样行为改变。LPS 干预后，与 WT + Saline 组相比，WT + LPS 组在旷场实验和高架十字迷宫实验中自主活动能力无显著改变，进入中心区域时间显著降低，在糖水实验中糖水偏好指数显著下降，在悬尾实验中不动时间显著增加，在新奇抑制摄食实验中摄食前驱期轻微升高，表明慢性低剂量 LPS 干预野生型小鼠可以诱导出现抑郁样行为。与 WT + LPS 组相比，NOD2-/- + LPS 组糖水偏好指数显著升高，在悬尾实验中不动时间显著减少，在新奇抑制摄食实验中摄食前驱期显著下降，表明 NOD2 敲除鼠对慢性低剂量 LPS 造成的抑郁样行为具有显著的保护作用。同时 NOD2-/- + LPS 组比 WT + LPS 组在旷场实验中进入中心区域时间显著升高，在高架十字迷宫实验中进入中心区域时间也有轻微升高，表明 NOD2 敲除鼠对慢性低剂量 LPS 造成的焦虑样行为具有显著的保护作用。

结论 NOD2 可能参与慢性炎症状态诱导的焦虑、抑郁样行为的发生发展，然而 NOD2 是否通过“脑-肠轴”机制调控了前额叶皮层及海马神经元可塑性改变仍须进一步研究。

关键字：抑郁症；NOD2；肠脑轴；脂多糖

双相障碍研究协作组

Construction and Validation of A Clinical Predictive Model for Prenatal Depression and Its Influencing Factors Using Nomograms

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Objective Antenatal depression is the most significant emotional issue for pregnant women during pregnancy, with a higher incidence compared to postpartum depression. LASSO regression analysis can identify the most important predictive factors more accurately and effectively through variable selection techniques. The aim of this study is to explore the factors that contribute to antenatal depression in pregnant women, construct a calibrated line plot model, and validate it to assess its accuracy and reliability as a predictive tool.

Methods Among the 3694 pregnant women, 473 (12.8%) had antenatal depression. LASSO regression selected important factors affecting antenatal depression, including T scores on the Eysenck Personality Questionnaire (EPQ) N scale, negative coping scores on the Trait Coping Style Questionnaire (TCSQ), and total score on the Generalized Anxiety Disorder-7 (GAD-7) screening questionnaire. The calibrated line plot model constructed from these three factors had an area under the ROC curve of 0.885 (95% CI: 0.869-0.902) and 0.868 (95% CI: 0.827-0.909) in the training set and validation set, respectively, indicating good performance. After calibration using calibration plots and Hosmer-Lemeshow tests, we found that the model had good discriminative ability and precision, and DCA validated its clinical utility.

Results Among the 3694 pregnant women, 473 (12.8%) had antenatal depression. LASSO regression selected important factors affecting antenatal depression, including T scores on the Eysenck Personality Questionnaire (EPQ) N scale, negative coping scores on the Trait Coping Style Questionnaire (TCSQ), and total score on the Generalized Anxiety Disorder-7 (GAD-7) screening questionnaire. The calibrated line plot model constructed from these three factors had an area under the ROC curve of 0.885 (95% CI: 0.869-0.902) and 0.868 (95% CI: 0.827-0.909) in the training set and validation set, respectively, indicating good performance. After calibration using calibration plots and Hosmer-Lemeshow tests, we found that the model had good discriminative ability and precision, and DCA validated its clinical utility.

Conclusion The incidence of antenatal depression in pregnant women is relatively high, and the main influencing factors include T scores on the EPQ N scale, negative coping scores on the TCSQ, and GAD-7 scores. The diagnostic prediction model we have established is helpful for early identification of prenatal depression and provides a basis for early prevention.

关键字：prenatal depression; predictive model

Analysis of Telomere Length and The Relationship with Neurocognitive Functions in Euthymic Bipolar Disorder: A Cross-sectional Pilot Study

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Objective Telomere shortening has been considered a potential biological marker related to disease susceptibility and aging in psychiatric disorders. However, the relationship between telomere length and bipolar disorder (BD-I and BD-II) is uncertain. Moreover, whether telomere shortening is an independent factor of cognitive impairment in BD patients is still inconclusive.

Methods We explore telomere length and cognitive function in patients with bipolar disorder and the relationship between them. We enrolled three groups (35 patients with euthymic BD-I, 18 with euthymic BD-II, and 37 healthy controls). Telomere length was measured by fluorescent quantitative polymerase chain reaction (q-PCR), and cognitive function was evaluated by the MATRICS Consensus Cognitive Battery (MCCB). SPSS 24.0 was used for statistical analysis.

Results The telomere length of euthymic patients with BD-I and BD-II was shorter than that of healthy controls. Telomere length was not significantly different between BD-I and BD-II. Patients with BD-I and BD-II showed poor cognitive function compared to healthy controls. In the three groups, no correlation was detected with telomere length or cognitive function. The duration of illness (DI) was negatively correlated with reasoning and problem solving in BD-I. Nevertheless, the duration of untreated illness (DUI) showed a negative correlation with visual learning performance.

Conclusion This study provides preliminary evidence that shortened telomere length is a potential biomarker for BD-I and BD-II. However, the cognitive deficit in BD has no correlation with shortened telomere length.

关键字：Telomere length; bipolar disorder; Cognitive function

Efficacy and Tolerability of FDA-approved Atypical Antipsychotics for Acute Bipolar Depression: A Systematic Review and Network Meta-analysis

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Objective To compare the efficacy and tolerability of the US Food and Drug Administration (FDA) approved atypical antipsychotics (AAPs) for patients with acute bipolar depression, using a Bayesian network meta-analysis.

Methods Randomized controlled trials of five AAPs, cariprazine, lumateperone, lurasidone, olanzapine, and quetiapine, for bipolar depression, were included. Efficacy assessments included rates of response (≥ 50% improvement in Montgomery-Asberg Depression Rating

Scale, MADRS) and remission (MADRS ≤12 or ≤10 at endpoint). Tolerability outcomes included all-cause discontinuation and discontinuation due to adverse events, adverse events (rates of somnolence, headache, and nausea), and metabolic outcomes (rates of ≥ 7% weight gain, change in total cholesterol, triglycerides, and glucose). Changes from baseline or odds ratios (OR) with 95% credible intervals (95% CrI) were evaluated.

Results Sixteen random controlled trials with 7234 patients met the inclusion criteria of the systematic literature review. For response rate, all five AAPs were more efficacious than the placebo (range of OR 1.45–2.08). For remission rate, cariprazine, lurasidone, olanzapine, and quetiapine had significantly higher remission rates compared with placebo (range of OR 1.43–2.00). In terms of tolerability, olanzapine was associated with significantly lower odds of all-cause discontinuation compared with placebo (OR: 0.68, 95% CrI: 0.50-0.96), while lumateperone, lurasidone, olanzapine, and quetiapine were similar to placebo. Quetiapine was associated with higher odds of discontinuation due to adverse events than placebo (OR: 2.38, 95% CrI: 1.41-5.00). Compared with placebo, lumateperone (OR: 4.17, 95% CrI: 1.92-12.50), olanzapine (OR: 2.78, 95% CrI: 1.61-5.26), quetiapine (OR: 4.76, 95%CrI: 3.33-7.14) had higher odds of somnolence, and lumateperone was associated with higher odds than lurasidone (OR: 2.86, 95% CrI: 1.06-12.50). The rate of headache was similar across all agents. Cariprazine had higher odds of nausea than placebo (OR: 2.86, 95% CrI: 1.52-6.67), olanzapine (OR: 3.45, 95% CrI: 1.20-14.29), and quetiapine (OR: 3.85, 95% CrI: 1.75-11.11). Lumateperone had a lower rate of ≥ 7% weight gain than placebo and other treatments (all OR: 0.00), while cariprazine (OR: 2.56, 95% CrI: 1.14-10.00), olanzapine (OR: 33.33, 95% CrI: 12.50-100.00), and quetiapine (OR: 2.94, 95% CrI: 1.72-5.88) were associated with higher odds compared with placebo and there was no significant difference between lurasidone and placebo. Olanzapine was associated with a significantly higher change from the baseline of total cholesterol and triglycerides than the placebo.

Conclusion All FDA-approved AAPs were more efficacious than placebo for adults with acute bipolar depression, while their tolerability, adverse events, and metabolism outcomes are variable. These findings inform individualized prescriptions of AAPs for acute bipolar depression in clinical practice.

关键字：atypical antipsychotics, bipolar depression, efficacy, tolerability, network meta-analysis

Regional Gene Transcriptional Signatures within Dysfunctional Brain Networks in Major Depressive Disorder with High Suicidality

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Background Suicide, a prevalent global cause of mortality and morbidity, manifests a pronounced heritability, with Major depressive disorder (MDD) contributing significantly. Yet, the present landscape of suicide risk assessment heavily hinges on subjective self-reporting and intention, posing inherent limitations. Accordingly, an imperious demand arises within the clinical realm for an objective and efficacious tool to evaluate and prognosticate the vulnerability to suicide in MDD patients.

Method Gene expression profiles available in the Allen Human Brain Atlas were leveraged to partition brain networks dependent on regional gene transcriptional signatures. Concurrently, a cohort comprising 182 individuals diagnosed with MDD (86 with suicide attempt (SA) and 96 without SA) and 102 healthy controls (HC) was recruited. An ensemble learning model was constructed on the repartitioned brain networks utilizing resting-state functional connectivity to distinguish SA from MDD. Subsequently, virtual lesion analysis was applied to pinpoint most dysfunctional brain network in MDD patients with high suicide risk.

Results We unveiled functional aberrations in Clusters 2 and 3 (mainly involving in paralimbic and cognitive control areas) in MDD as compared to HC. A marked dysfunction of Cluster 1 (primarily in occipital cortex), whose resting-state functional abnormality (RSFA) scores correlated with suicide risk, was revealed in SA group. Subsequently, exploratory experiments uncovered correlations between the expression levels of two suicide risk genes, GABRG2 and GRIN2A, and the average RSFA scores of Cluster 1 within SA group, respectively. Moreover, both GABRG2 and GRIN2A were found within the gene sets associated with Cluster 1.

Conclusion In this study, we presented a detailed neurobiological elucidation for the possible causes of the aberrant imaging phenotypes manifested in SA, revealing new insights from both micro and macro perspectives. Furthermore, our model serves as a valuable tool for clinicians, enabling them to effectively evaluate and diagnose patients with high suicide risk.

关键字：Resting-state functional magnetic resonance imaging; Gene transcriptional signatures; Ensemble learning;Suicide attempt;Major depressive disorder;

双相情感障碍及其未患病一级亲属反应抑制的冲动性和神经相关性：一项脑磁图研究

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目的 反应抑制是双相情感障碍的核心认知障碍，导致双相情感障碍患者冲动性的增加。然而，双相情感障碍反应抑制受损和冲动的神经机制之间的关系目前

尚不清楚。遗传上易患的双相情感障碍个体提供了一种识别内表型的方法。

方法 患者来自于 2010 年到 2020 南京医科大学附属脑科医院心境障碍科住院诊断为重性抑郁障碍正处于抑郁发作的患者。亲属是确诊双相情感障碍患者的一级亲属。健康人招募于社区。最终，39 名双相情感障碍患者、22 名双相情感障碍患者的未患病一级亲属和 36 名健康对照在脑磁图扫描中进行了 GO/NO-GO 任务。所有受试者还完成了 Barratt 冲动量表的评估。

结果 与健康对照组相比，双相情感障碍组 beta 能量降低，右额下回潜伏期延长，峰值频率增加，前辅助运动区 beta 能量降低，右额下回到前辅助运动区的连接性降低。在双相情感障碍患者的未患病一级亲属组，前辅助运动区 beta 能量降低，右额下回潜伏期延长。双相情感障碍患者运动冲动增强与右额下回 beta 振荡活动异常改变及右额下回到前辅助运动区的功能连接减弱有关。

结论 右额下回活动下降和在前额叶控制网络中的主导作用受损可能是双相情感障碍反应抑制功能障碍的神经病理基础，从而导致双相情感障碍运动冲动增加。此外，我们的发现指出，测量右额下回功能障碍可以作为一种潜在的手段来识别具有向双相情感障碍疾病表达转化的遗传高危个体。

关键字：脑磁图；双相情感障碍；反应抑制；冲动；遗传高危

建立并验证一项住院抑郁障碍患者的转相预测模型： 基于真实世界电子病历数据的回顾性队列研究

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目的 由于缺乏客观生物学标记物，早期识别双相障碍（bipolar disorder，BD）一直是精神医学领域亟待解决的难题。现行诊断系统仍依赖于描述性临床观察，约一半的 BD 患者首次发作为抑郁发作，故其早期容易被误诊为抑郁症（major depressive disorder，MDD）。超过 20%的 MDD 患者未来将出现躁狂/轻躁狂发作，从而变更诊断为 BD，其中住院 MDD 患者未来发生转相的风险高达 40%。BD 的误诊将导致患者病情迁延恶化，影响其长期预后。本研究旨在建立并验证一项住院 MDD 患者的转相预测模型。

方法 纳入 2008 年 1 月 1 日至 2021 年 10 月 1 日在上海市精神卫生中心住院的 MDD 患者（ICD-10 诊断代码：F32.x、F33.x），年龄为 10-90 岁，既往未有双相障碍（F30.x，F31.x）或精神分裂症（F20.x）诊断。使用 LASSO-Cox 方法及向后选择建立住院 MDD 患者转相预测模型。使用 bootstrap 重抽样进行模型内部验证，并使用 2014 年 1 月 1 日至 2019 年 5 月 31 日在青岛市精神卫生中心住院的 MDD 患者进行模型外部验证。

结果 研究共纳入 2788 例住院 MDD 患者建立预测模型，模型在训练集中具有较好区分度（C 指数=0.721，95%CI：0.677-0.764）和校准度（校准斜率=0.990，95%CI：0.809-1.171）。经过重校准后，预测模型在外部验证集（n=2574）中取得较好区分度（C 指数=0.703，95%CI：0.676-0.730）和校准度（模型总体校准斜率=0.992，95%CI：0.872-1.112）。模型共纳入 12 个变量：男性、处方心境稳定剂、存在精神病性症状、较高水平的 FT4、较高水平的 PCT、较高水平的 BASO%、每日饮酒与转相风险升高显著相关。高龄、存在脑器质性疾病史、较高水平的 ALB、较高水平的 TSH 与较低的转相风险显著相关。

结论 本研究建立了一项住院 MDD 患者的转相预测模型，该模型可作为临床辅助决策工具，计算 MDD 个体未来的转相风险并指导制定个性化干预方案，从而提升医疗质量并改善患者预后。

关键字：抑郁障碍、转相、双相障碍、预测模型、真实世界研究

双相障碍灰质体积及大脑功能活动一致性与电压门控钙离子通道 CACNA1G 基因的关联研究

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目的 探索双相障碍（Bipolar Disorder，BD）与健康对照（Health Control，HC）间大脑结构和功能的差异，以及 T 型-VGCC 基因 CACNA1G rs757415 多态性与 BD 大脑结构及功能交互作用的神经环路，明确该基因位点多态性影响 BD 患者的神经环路结构与功能改变特征。

方法 纳入 173 名 BD 受试者和 207 名 HC 受试者，采集受试者的一般资料、临床量表评分、全血标本，使用 3.0T 磁共振扫描仪采集受试者大脑结构及功能数据。应用 Matlab、SPM、DPARSF 等软件分析得到所有受试者大脑灰质体积（GMV）、大脑功能活动局部一致性（ReHo）图谱。应用 imLDRTM 法，检测受试者 CACNA1G rs757415 位点的等位基因多态性。控制年龄、性别、受教育年限及大脑体积等协变量，分析两组受试者 GMV、ReHo 的差异，以 voxel 水平 P<0.005，cluster 水平（FDR 校正）P<0.05 定为有统计学差异的脑区。在 SPM12 上采用 full factor 方法分析诊断与基因型对 GMV、ReHo 的交互作用，以 volex 水平 P<0.01，cluster 水平（FDR 校正）P<0.05 为有统计学差异的脑区。

结果 与 HC 组相比，BD 组灰质体积降低的脑区位于双侧梭状回、双侧前扣带回和扣带旁回、双侧内侧额上回、双侧小脑前叶及后叶、双侧海马旁回、左侧颞上回、左侧楔前叶、右侧岛叶；未发现灰质体积增大脑区。BD 组大脑功能活动 ReHo 降低的脑区位于双侧额

上回、双侧颞上回、双侧壳核、右侧枕上回、左侧前扣带回及旁扣带回、左侧角回、左侧岛叶等脑区；ReHo增强的脑区位于双侧丘脑、双侧海马、双侧楔前叶、左侧枕上回、左侧海马旁回。诊断与 CACNA1G rs757415 对灰质体积存在交互作用的脑区位于—右侧海马旁回-梭状回-小脑山顶。正常对照组，风险等位基因携带者该脑区大脑灰质体积较非风险等位基因携带者减小，但 BD 患者组，该风险等位基因携带者的大脑灰质体积较非风险等位基因携带者增大。

结论 与 HC 组相比，BD 患者大脑结构与功能既有降低的脑区又有增高的脑区，且主要在额颞叶-扣带回-梭状回-岛叶-小脑-基底节-边缘系统等认知情绪环路上。CACNA1G rs757415 基因可能主要通过影响 BD 患者右侧小脑、右侧海马旁回、右侧梭状回的灰质体积参与了双相情感障碍的发病。

关键字：双相障碍，单核苷酸多态性，磁共振成像，交互作用

Prevalence and Risk Factors for Non-suicidal Self-injury Among Patients with Bipolar Disorder：a Multicenter Study Across China

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Objective Non-suicidal self-injury (NSSI) is a serious problem among patients with bipolar disorder. Previous studies have shown that about 52% of patients with bipolar disorder had engaged in NSSI at least once, and NSSI was also an important predictor of future suicide attempts in adolescents. However, few studies focused on the risk factors and prevalence of NSSI among patients with bipolar disorder in China. The purpose of this study was to investigate the prevalence of NSSI and its risk factors in bipolar disorder patients in China, so as to provide some reference for the prevention of NSSI in clinic.

Methods The NSSI behaviors were identified using the Ottawa Self-injury Inventory (Chinese version). Mini International Neuropsychiatric Interview (Hypo?) Manic Episode with Mixed Features?DSM?5 Module (MINI?M, Chinese version) was used to evaluate suicidal ideation. Chinese version of the Clinically Useful Depression Outcome Scale supplemented with questions for the DSM-5 mixed features specifier (Chinese CUDOS-M) was used to distinguish the mixed features of bipolar disorder. Social-demographic characteristics and clinical characteristics between NSSI group and Non-NSSI group were compared by using Chi-squared tests. In addition, we included in the binary logistic regression models those factors that showed a statistically significant difference(P?

关键字：Non-suicidal self-injury, bipolar disorder, mixed features, Ottawa self-injury inventory

Functional Genomic Analysis Delineates Regulatory Mechanisms of GWAS-identified Bipolar Disorder Risk Variants

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Objective Genome-wide association studies (GWASs) have identified multiple risk loci for bipolar disorder (BD). However, pinpointing functional (or causal) variants in the reported risk loci and elucidating their regulatory mechanisms remain challenging.

Methods We first integrated chromatin immunoprecipitation–sequencing (ChIP-Seq) data from human brain tissues (or neuronal cell lines) and position weight matrix (PWM) data to identify functional single nucleotide polymorphisms (SNPs). Then, we verified the regulatory effects of these transcription factor (TF) binding-disrupting SNPs (hereafter referred to as “functional SNPs”) through a series of experiments, including reporter gene assays, allele-specific expression (ASE) analysis, TF knockdown, CRISPR/Cas9-mediated genome editing, expression quantitative trait loci (eQTL) analysis. Finally, we overexpressed PACS1 (whose expression was most significantly associated with the identified functional SNPs rs10896081 and rs3862386) in mouse primary cortical neurons to investigate if PACS1 affects dendritic spine density.

Results We identified 16 functional SNPs (in 9 risk loci); these functional SNPs disrupted the binding of 7 TFs, for example, CTCF and REST binding was frequently disrupted. We then identified the potential target genes whose

expression in the human brain was regulated by these functional SNPs through eQTL analysis. Of note, we showed dysregulation of some target genes of the identified TF binding-disrupting SNPs in BD patients compared with controls, and overexpression of PACS1 reduced the density of dendritic spines, revealing the possible biological mechanisms of these functional SNPs in BD.

Conclusion Our study identifies functional SNPs in some reported risk loci and sheds light on the regulatory mechanisms of BD risk variants. Further functional characterization and mechanistic studies of these functional SNPs and candidate genes will help to elucidate BD pathogenesis and develop new therapeutic approaches and drugs.

关键字：Bipolar disorder, Genome-wide association study (GWAS), Functional genomics, Transcription factor-disrupting SNPs, Expression quantitative trait loci (eQTL), Regulatory mechanisms

（组内口头交流）

基于静息态全脑 beta 频段初步寻找可早期识别抑郁转双相的风险脑区

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目的 临床上多数双相情感障碍（Bipolar Disorder, BP）以抑郁首发，导致 BD 患者临床治疗效果欠佳，病程迁延，给患者和家庭带来沉重负担。因此，从早期抑郁发作中尽早预测双相障碍是有效避免误诊的重要手段。本研究通过回顾性对抑郁症患者进行随访，对转相和未转相患者进行分析，试图从神经电生理角度寻找可以早期识别 BD 的生物学指标。

方法 本实验共入组 58 例健康对照者（Healthy Control, HC），入组南京脑科医院 2012-2020 年期间 143 例住院患者，MDD 88 例，BD64 例，BD 组分为抑郁转相(ctBD,26 例) 和双相组（rBD,38 例）。所有入组受试者均通过脑磁图技术来记录 5 分钟的睁眼静息态活动。脑磁图数据基于 fieldtrip 平台进行处理，进行滤波、去除伪迹、溯源等处理，提取静息态 beta 能量（13-30Hz）进行频谱分析，运用 Cluster-based permutations 的非参数统计方法进行统计分析。

结果 在 sensor 水平上，三组 beta 频段（13-20 Hz）在顶枕叶 sensor 上差异具有统计学意义，在随后的两两比较中发现顶枕叶 beta 能量在 HC 组、MDD 组、rBD 组、ctBD 组中呈现逐渐增强趋势（P<0.05，corrected）。在溯源分析中发现三组间差异除了来源于顶枕叶、小脑等脑区，也来自于背外侧前额叶、杏仁核、海马、纹状体（尾状核、壳核）、扣带回等脑区。与 HC 组相比，ctBD 组和 rBD 组主要表现为前额叶-边缘-纹状体-小脑等脑区的 beta 能量增强，而 MDD 组在这些脑区差异无明显统计学意义。rBD 组与 MDD 组相比，beta 能量差异表现为更为广泛的前额叶-边缘（杏仁核）-皮层下（苍白球、壳核）-小脑等脑区的差异。ctBD 分别 和 rBD、MDD 组相比，beta 能量差异主要集中在枕叶、楔前叶、矩状沟、舌回等皮层。

结论 本研究未发现 MDD 在前额叶-边缘-纹状体-小脑环路存在 beta 频段损害，但在 ctBD 和 rBD 中均发现损害，且在 rBD 患者中 beta 能量损害更重，提示该环路在 beta 频段可较好区分单双相抑郁障碍。此外，顶枕叶相关脑区在 beta 频段可有助于早期识别双相情感障碍，但目前本研究结果仍需进一步结合临床特征和分类模型进行验证。

关键字：双相情感障碍 抑郁症 脑磁图 beta 振荡

（组内口头交流）

Exploration of Individualized Treatment Strategies for Depression with Atypical Features in IDoT-AFD: Implications for Clinical Practice

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Objective Major depressive disorder (MDD) with atypical features, namely depression with atypical features (AFD), is one of the most common clinical specifiers of MDD, closely associated with bipolar disorder (BD). AFD is regarded as a bridge between MDD and BD or even a variant of BD-II. The Study of Individualized Diagnosis and Treatment for Depression with Atypical Features (iDoT-AFD) is a multicenter, prospective study consisting of a 12-week randomized controlled trial (RCT) and a continued follow-up until 4 years or reaching the study endpoint. The primary objective of the iDoT-AFD study is to find out the individualized treatment strategies for patients with AFD during acute phase.

Methods Patients with AFD were randomly allocated (1:1:1:1) to one of the four treatment groups including 'single application of selective serotonin reuptake inhibitor (SSRI) or serotonin-noradrenaline reuptake inhibitor (SNRI)', 'SSRI/SNRI combined with mood stabilizer', 'SSRI/SNRI combined with quetiapine (≥ 150mg/d)', or 'treatment as usual (TAU)', and then followed up at the end of 2nd week, 4th week, 8th week, 12th week to evaluate the effectiveness of different treatments. Clinical remission was defined as total scores less than or equal to 7 on the Hamilton's Depression Scale with 24 items (HAMD-24) or total scores less than or equal to 5 on the Quick Inventory of Depressive Symptomatology (self-report) with 16 items (QIDS-SR16). Treatment response was defined as a ≥50% decrease from the baseline HAMD-24. Comparisons of the effectiveness were performed between TAU group and each of the other three groups.

Results A total of 102 patients with AFD were recruited. No difference of treatment effectiveness was found at the end of 12th week, while remission rates (self-reporting) and response rates revealed significant group differences at the end of 4th week, 14.3% / 41.7% (SSRI/SNRI), 25%/ 34.6% (SSRI/SNRI and mood stabilizer), 40%/ 57.9% (SSRI/SNRI and quetiapine), and 47.6%/ 71.4% (TAU) at the end of 4th week. Subthreshold

hypomanic symptoms were not different among 4 groups, while they are significantly different after 12-week treatment with SSRI/SNRI > SSRI/SNRI and mood stabilizer > TAU > SSRI/SNRI and quetiapine pattern. The treatment compliance was significantly different among the four groups with 92% (SSRI/SNRI), 66% (SSRI/SNRI and mood stabilizer), 63% (SSRI/SNRI and quetiapine), and 100% (TAU). Also, significant difference was revealed on the drop-out rate with 17% (SSRI/SNRI), 42% (SSRI/SNRI and mood stabilizer), 0% (SSRI/SNRI and quetiapine), and 16.7% (TAU).

Conclusion The RCT part of the iDoT-AFD study indicate that SSRI/SNRI combined with quetiapine has advantages in the self-reporting clinical remission and treatment response at the end of 4th week. This kind of treatment also has superiority of reduce subthreshold hypomanic symptoms, and has excellent drop-out rate.

关键字：Depression with Atypical Features; Individualized Treatment Strategies; Randomized Controlled Trial

（组内口头交流）

Local and Large-scale Resting-state Oscillatory Dysfunctions for Early Antidepressant Response Prediction in Major Depressive Disorder

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Objective Magnetoencephalography (MEG) could explore and resolve brain signals with realistic temporal resolution to investigate the underlying electrophysiology of major depressive disorder (MDD) and the treatment efficacy. Here, we explore whether neuro-electrophysiological features of MDD at baseline can be used as a neural marker to predict their early antidepressant response.

Methods Sixty-six medication-free patients with MDD and 48 controls were enrolled and underwent resting-state MEG scans. Hamilton Rating Score for Depression (HRSD-17) was assessed at baseline and after pharmacotherapy for 2 weeks. We measured local and large-scale resting-state oscillatory dysfunctions with a data-driven model using the Fitting Oscillations & One-Over F algorithm. Then, we quantified band-limited regional power and functional connectivity between brain regions.

Results After 2 weeks follow-up, 31 patients showed early response (ER) to pharmacotherapy, which were defined as at least 50% reduction of severity of in HAMD-17. Twenty-one patients did not. We observed decreased regional periodic power in patients with MDD comparing to controls. However, patients with ER demonstrated that functional couplings across brain regions were increased in both alpha and beta band, which were significantly correlated with severity of depressive symptoms after treatment. Receiver operating characteristic curves (ROC) confirmed predictive ability of baseline large-scale functional connectivity for early antidepressant efficacy (AUC=0.9969).

Conclusion The current study revealed the electrophysiological dysfunctions of local neural oscillatory involved in depression and highlighted the identification ability of large-scale couplings biomarkers in early antidepressant response prediction.

关键字：Major depressive disorder (MDD); Magnetoencephalography (MEG); Early response; Neural activity; Large-scale functional connectivity

（组内口头交流）

经颅磁刺激下脑网络动态变化

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目的 本文基于静息态 EEG 信号，研究重复经颅磁刺激(rTMS)后脑网络的动态变化情况以及寻找相关的脑网络指标。

方法 首先在 EEG 信道层面使用微状态研究方法寻找健康受试者表征经颅磁刺激后的脑网络动态变化指标。提取得到微状态的时间动态参数平均持续时间长度(DurationMean)。而后使用重复方差测量探究真假刺激作用下脑网络动态变化情况差异。通过潜变量增长模型确定 rTMS 后脑网络波动情况和行为学指标变化量二者的初始水平和增长率之间的相关性。而后使用 Louvain 社区发现算法对受试者基于微状态拓扑图进行社区分类。并使用统计分析研究不同社区人群的脑电指标 DurationMean 和 0-back 反应时(RT0)指标之间的相关性。

结果 通过微状态方法获得受试者的组间微状态模板以及每位受试者的微状态模板，本实验的微状态模板的平均全局解释方差达到了 74%。经过统计分析，DurationMean 在 rTMS 作用后表现出了显著的增长。并且真刺激组存在一个刺激后参数指标显著上升然后逐渐回落的趋势，这一趋势与假刺激组的趋势之间的差异具有统计学意义。通过 Louvain 社区发现算法，将受试者分为对微状态效应较为敏感的人群和较为不敏感的人群。不敏感人群的 DurationMean 的增长值在刺激后的五个时间点的参数分布围绕在零值附近，而敏感社区的受试者相对不敏感组的受试者的 DurationMean 增长较为明显。并且经过重复方差分析，分组因子与时间因子对 DurationMean 存在交互作用。将两组受试者的脑电指标和行为指标进行相关性分析，两组人群的指标均表现出了关联性，其中敏感人群的 DurationMean 增长值与 RT0 变化值为负相关。

结论 以上结论表现了 DurationMean 能体现受试者的脑电神经网络稳定性，并且根据结果说明了 rTMS 提升了脑网络的稳定性，并且这个效应持续在刺激结束后数个小时。而后结合行为学指标和脑电进行分，可以得出脑电指标 DurationMean 的增长和行为学指标 RT0 的变化之间存在一定的关联性。并且不同的人群

对于 rTMS 作用的敏感性存在一定的差异，并且这种差异会持续到后续的数个小时。基于此，可以得到受试者的脑电微状态指标可以有效的鉴别对经颅磁刺激的敏感性，为经颅磁刺激的应用提供了一定的参考价值。

关键字：经颅磁刺激；脑电图；脑网络；微状态；个体化差异

（组内口头交流）

Personality Traits Play A Vital Role in The Pathway From Social Isolation and Loneliness To Depression: A Mendelian Randomization Study

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Objective Social isolation, loneliness, and Personality traits have all been linked to depression, while it is unclear which one plays the most important role in the pathophysiology of depression and whether modifiable risk variables influence the causative consequences.

Methods We extracted genetic variants associated with social isolation, loneliness, personality traits, and depression from the Psychiatric Genomics Consortium (69,500 individuals) as well as from the UK Biobank (1,292,620 individuals). Then, we assessed the relationship between loneliness, social isolation, personality traits(agreeableness, conscientiousness, openness, extraversion and neuroticism), and depression separately using a 2-sample Mendelian randomization(MR) method. Moreover, the causal association between five personality traits and social isolation, loneliness was explored using bidirectional MR analysis. Subsequently, a multivariate Mendelian randomization method was used to separately examine the effect of personality traits or loneliness, social isolation on depression after moderating for another factor. Alternatively, mediating role analysis was used to explore the mediating role of social isolation, loneliness, and personality traits on depression.

Results In a 2-sample MR analysis, genetically predicted the elevated levels of social isolation, loneliness (β = 0.188, 95% confidence interval [CI] 0.109-0.268, P = 3.594e-06), and neuroticism (β = 0.017, 95% CI 0.015-0.019, P = 5.006e-53) were significantly associated with higher levels of depression. The 2-sample MR evidence suggests a significant causal association between social isolation, loneliness, and neuroticism(β = 7.319, 95% CI 6.137-8.501, P = 6.700e-34). Interestingly, a significant causal association between neuroticism and social isolation, loneliness was also found in the inverse 2-sample MR analysis(β = 0.051, 95% CI 0.048-0.055, P = 3.259e-153). Multivariate MR analysis showed that a convincing causal association between neuroticism and depression levels remained under the regulation of social isolation, loneliness(β = 0.014, 95% CI 0.009-0.019, P = 9.583e-09), while no causal association was found between social isolation, loneliness and depression levels after neuroticism was regulated(P = 1.430e-01). Mediation analysis showed that the proportion of mediation for the indirect effect of social isolation and loneliness on depression mediated by neuroticism was 10.2%. In contrast, only 0.3% of the indirect effects for the mediation of the indirect effect of neuroticism on depression mediated by social isolation, loneliness.

Conclusion Our findings provide evidence that higher levels of social isolation, loneliness have an impact on increased levels of depression and that neuroticism in turn play an important mediating role between the two.

关键字：social isolation, depression, neuroticism, Mendelian randomisation, causality, mediation analyses

（组内口头交流）

电休克疗法降低难治性抑郁症患者的星形胶质细胞活化和炎症水平-基于血浆星形胶质细胞外囊泡的证据

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目的 抑郁症的发病机制至今仍未研究透彻，许多因素都会导致抑郁症，近几年抑郁症的炎症假说受到了越来越多的关注。许多临床研究发现抑郁症患者外周血炎症因子升高，而使用抗炎药物也会在某种程度上缓解抑郁症状。由于抑郁症也是脑部疾病，外周的病变可能无法直接反应中枢的病变，星形胶质细胞可以分泌炎症因子，与抑郁症的发病关系密切，但因为伦理、技术等各方面的限制，我们很难从活体内直接获悉中枢神经炎症的情况。近 10 年细胞外囊泡（EVs）和中枢神经系统来源的 EVs 提取技术领域的进展为我们提供了对人体进行脑活检的可能性，由于 EVs 可以穿过血脑屏障并在外周被检测到，它们也成为神经精神疾病最具潜力的生物标志物。本研究利用从血浆中分离的星形胶质细胞外囊泡（ADEVs）探讨抑郁症的神经炎症假说，以及探索电休克疗法（ECT）在对抑郁症患者的潜在抗炎作用。

方法 招募 40 名治疗难治性抑郁症（TRD）患者和 35 名匹配的健康对照组（HC）进行基线调查，其中 34 名 TRD 患者完成了 ECT 后的访视，在基线和末次 ECT 后对被试进行临床量表评估及血样收集。采集血样后获得血浆，并从血浆分离和验证 ADEVs，之后测量 ADEVs 中的一个 EV 标记物 CD81、两个星形胶质细胞标记物（GFAP 和 S100β）以及 9 个炎症标志物的蛋白浓度作为研究的主要分析结果。此外，还对被试的临床特征和 ADEV 蛋白水平之间的相关性进行了探索性分析。

结果 基线时 TRD 组的 CD81、GFAP 和 S100β 水平显著高于 HC 组。TRD 组的炎症标志物 IFN-γ、IL-1β、IL-4、IL-6、TNF-α、IL-10 和 IL-17A 也显著高于 HC 组。经过多次 ECT 治疗后，CD81、GFAP 和 S100β 水平显著降低，IFN-γ 和 IL-4 水平也显著降低。此外，CD81、GFAP、S100β 和炎症细胞因子水平较高与更严重的抑郁症状和较差的认知功能相关。

结论 本研究通过 ADEVs 的研究支持了抑郁症的星形胶质细胞活化和神经炎症假说，此外 ECT 可能通过抑制这种星形胶质细胞的活化发挥抗炎作用。

关键字：难治性抑郁症；神经炎症假说；电休克疗法；星形胶质细胞；星形胶质细胞外囊泡

（组内口头交流）

Circadian Rhythm Disorder Symptoms in MDD Correlate with Circadian Gene Polymorphisms

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Objective Major depressive disorder（MDD） is related to circadian deregulations. Meanwhile, the rhythmic cell-autonomous expression of clock genes generates circadian rhythms. We hypothesized that circadian clock genes NPAS2 and NR1D1 would be associated with circadian rhythm disorder symptoms of Major depressive disorder(MDD).

Methods 257 Subjects with MDD and 273 control subjects participated in this case-control study, the Hamilton rating scale for depression(HAMD), Morningness-eveningness Questionnaire(MEQ), and Pittsburgh sleep quality index(PSQI) were obtained in all subjects. Genotypes of single nucleotide polymorphisms (SNPs) of NPAS2 and NR1D1 were determined by the PCR and MassArray SNP sequencing analysis.

Results In our study, no SNPs yielded a positive association with MDD.In haplotype analysis, the A-T haplotype of rs3811561-rs1053096 and the A-A haplotype of rs3811561-rs1374324 of NPAS2 appeared to have a protective effect against MDD(p=0.0459, p=0.0341). But the result did not remain significant after permutation test corrections. In the association analysis of genotype and symptoms of circadian rhythm disorder. When the genotype of rs1562313 of the NPAS2 gene is CT, the sleep quality of patients tends to be better(p=0.039). The patients with rs3811561 CC genotype of NPAS2 are less likely to be evening type(p=0.030, OR=0.427), and patients with rs1811399 AA genotype of NPAS2 appear to have a higher possibility to be evening type(p=0.015, OR=1.942).

Conclusion The polymorphisms of NPAS2 might be associated with circadian rhythm disorder symptoms of MDD.

关键字：Major depressive disorder Circadian rhythm Clock genes NR1D1 NPAS2

（组内口头交流）

A Dynamic Process Model of Bipolar Disorder States Switching Based on The Salience Network

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Objective Bipolar disorder (BD) is a highly burdensome and refractory mental disorder, affecting individuals, families, and society. The treatment challenge in BD lies in the ease with which patients transition from depressive to manic or from manic to depressive state, with the frequency of these alternating cycles often indicating the severity of the illness. However, treatment targeting the depressive state often carries the risk of inducing manic state, and vice versa. Therefore, reducing the frequency of states switching in BD patients and gradually achieving a stable state are crucial for effective treatment. Previous clinical researches have identified numerous potential factors influencing BD states switching. However, the process of BD states switching remains unclear. The purpose of this study is to propose a dynamic process model of BD states switching in order to further understand the treatment, patterns of occurrence and development, and pathophysiological mechanisms of BD.

Methods The factors influencing BD states switching have been categorized into four groups: genetics, external events, neurotransmitters, and functions interactions among brain networks. The pathways of BD states switching were analyzed and discussed within the framework of "psychological-physiological-neural" interactions.

Results The results of the model demonstrate the crucial role of the salience network (SN) in the process of BD states switching. The anterior insula (AI) detects information from internal sensations and external stimuli, which is then transmitted to the anterior cingulate cortex (ACC) and ultimately reaches the sensorimotor network (SMN). Simultaneously, the amygdala detects external stimuli and, along with the ventral tegmental area (VTA), transmits 5-HT signals to the SMN through the ACC. The thalamus receives external events and dopamine signals from the substantia nigra (SuN) and VTA, influencing the function of the motor system. The signals from the SuN and VTA also reach the frontal lobe, affecting the cognitive system. Additionally, the AI's detection of salience influences the regulation of the SN in switching between the default mode network (DMN) and the central executive network (CEN). Genetic factors modulate an individual's sensitivity to internal and external signals and the production of neurotransmitters during this process. Positive internal and external stimuli can trigger manic state in BD via these pathways, while the reverse leads to depressive state. As external events dominate multiple pathways, they are considered triggers for BD states switching.

Conclusion In conclusion, we have proposed a dynamic process model of BD states switching based on the SN within the framework of "psychological-physiological-neural". This model describes the pathways involved in BD states switching and contributes to a better understanding of the treatment, occurrence, development patterns, and pathophysiological mechanisms of BD.

关键字：Bipolar Disorder, States Switching, Salience Network, Dynamic Process Model

（组内口头交流）

Study on The Construction of A Peripheral Blood Expression Profile Diagnostic Model for Bipolar Disorder Depressive Episode Based on Deep Learning Methods

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Objective The aim of this study is to analyze gene expression profile data of patients with bipolar disorder depressive episode in the GEO database using bioinformatics methods, identify differentially expressed genes, and construct a machine learning-based diagnosis model. Through this study, we hope to find the biological characteristics of bipolar disorder depressive episode and provide new insights for the diagnosis and treatment of bipolar disorder depressive episode.

Methods Data source and preprocessing: The gene expression profile dataset GSE23848 was selected from the GEO database for human bipolar disorder depressive episode patients and healthy controls. Original data underwent quality control, background correction, normalization, and Z-score standardization to address experimental bias, batch effects, and data dimensionality. Differential gene expression analysis: DESeq2 package analyzed gene expression differences between patients and controls. Significance level was set as adjusted $p < 0.05$, $|logFC| > 1.3$, with multiple test correction. Differentially expressed genes were identified. Construction of diagnosis model: To simplify the model and enhance prediction, feature selection was used to screen differentially expressed genes. Random forest screened feature genes, and a three-layer feedforward neural network was constructed using Keras framework under TensorFlow. Binary cross-entropy and Adam were used as loss function and optimizer, respectively. The dataset was divided into 20% validation and 80% training sets. Evaluation indicators included accuracy, sensitivity, specificity, and AUC. The optimal diagnosis model was selected based on these indicators.

Results A total of 1180 genes with significant differential expression were found between patients with bipolar disorder depressive episode and the control group. These differentially expressed genes may be closely related to the pathogenesis of bipolar disorder depressive episode. Through feature selection, 61 differentially expressed genes with high classification ability were screened, and 1-61 genes were subjected to cyclic random forest classification to determine the ideal mtry value, and finally mtry value of 23 was selected. Then, the 23 genes were included in the deep learning model for training. The parameters of the final model in the validation set were: accuracy: 0.82 ± 0.11, sensitivity: 0.79 ± 0.14, specificity: 0.86 ± 0.10, AUC: 0.91 ± 0.07.

Conclusion This study identified some genes related to the differential expression of gene expression profiles in patients with bipolar disorder depressive episode and constructed a machine learning-based diagnosis model for bipolar disorder depressive episode, which has high accuracy and discrimination ability. This research provides new insights for the diagnosis and treatment of bipolar disorder depressive episode and serves as a reference for the application of bioinformatics methods in disease diagnosis.

关键字：Bipolar Disorder Depressive Episode 、Deep Learning、Feature extraction

（组内口头交流）

CACNA1C 基因多态性与重度抑郁障碍转躁的关联研究

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目的 重度抑郁障碍（MDD）和双相情感障碍（BD）是两种与严重社会功能损伤有关的常见情感障碍。BD 由于早期被误诊为 MDD 而导致接受不适当的药物治疗，增加社会负担，因此研究影响 MDD 向 BD 的转化的潜在生物标志物十分重要。钙离子通道相关的 CACNA1C 的多个基因多态性位点与 BD 密切相关，，本研究旨在探究 CACNA1C 的基因多态性与重度抑郁障碍转躁的关联性。

方法 本研究共纳入 500 名诊断为 MDD 的患者，随访 5 年，并用自制问卷进行半结构式访谈并根据随访结果将受试者分为 MDD 组和 BD 组，在入组时使用 HAMD-17 评估抑郁症状严重程度以及收集外周血，使用 SPSS 对两组患者的临床特征进行分析，对基因 CACNA1C 的单核苷酸多态性进行检测，采用 Unphased 3.1.7 软件包分析单个 SNP 位点的基因型频率、等位基因频率及单倍型与转躁的关联性，采用 Mplus8.0 软件包分析基因 CACNA1C 的多态性在 HAMD 量表中睡眠分项三项总得分与转躁之间是否存在中介效应。

结果 共随访成功 299 名 MDD 患者，其中有 38 人修改诊断为 BD，转躁率为 12.7%。研究发现性别、年龄、首次发病年龄、家族史、精神病性症状在 MDD 组和 BD 组之间存在显著差异。同时研究还发现基因 CACNA1C 的位点 rs2239128 的 TT 基因型频率 (X2=5.667，P=0.048)在两组间存在明显差异；通过单倍型的关联分析发现，基因 CACNA1C 的 rs215976-rs215992 位点构成的 C-C 单倍型 (X2=6.726，P=0.032)在两组之间存在显著差异，中介分析未发现基因 CACNA1C 的多态性在 HAMD 量表中睡眠分项三项总得分与转躁之间存在中介效应。

结论 本研究表明，基因 CACNA1C 单个位点的多态性以及单倍型可能与 MDD 转躁相关，同时发现了首次发病年龄、家族史、精神病性症状等影响转躁的临床危险因素，对临床诊断抑郁症转躁具有一定的指导意义。

关键字：双相情感障碍；转躁；CACNA1C；基因多态性

（组内口头交流）

中国双相情感障碍伴混合特征的诊断及相关因素分析：一项多中心调查研究

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目的 在中国，很少有全面的研究来调查双相情感障碍伴混合特征的患者，所以对该疾病的认识也不完整。本研究旨在探讨双相情感障碍伴混合特征患者的临床表现及影响因素，从而增加临床医生对该疾病的认识和诊治。

方法 这是一项横断面多中心研究，我们招募了1060 名符合双相 I 型障碍(BD-I)或双相II障碍(BD-II)DSM-5 诊断标准的参与者。所有参与者均来自中国16 个城市的 20 家三级甲等医院，研究时间为 2021 年11 月至 2022 年 5 月，包括住院和门诊患者。所有参与者的临床表现以百分比计算，表示占本研究中 BD 患者总数的比例。双相情感障碍患者是否伴有混合特征是根据其在躁狂或轻躁狂发作期间 MINI 评分≥2 分，或者在重度抑郁症发作期间 CUSDO-M 评分≥7 分。数据分析基于一般线性混合模型。

结果 双相情感障碍伴混合特征的患者躁狂/轻躁狂发作时最常见的临床表现是显著的烦躁不安或抑郁情绪(52.7%)，而重度抑郁发作时最常见的表现为精力增加(16.7%)或话多(17.5%)。在相关因素方面，BD-I 和 BD-II 均有 1 个变量有统计学意义:是否曾住过院(P=0.013[BD-I], P=0.005[BD-II])。

结论 双相情感障碍伴混合特征的躁狂/轻躁狂发作最常见的临床表现是核心症状——显著的烦躁不安或抑郁情绪，而双相情感障碍伴混合特征的重度抑郁发作患者中，情感高涨并不是最常见的临床表现。有无住院史是双相情感障碍伴或不伴混合特征的相关因素。

关键字：双相情感障碍；混合特征；诊断

（组内口头交流）

Association of Peripheral Inflammation with Disrupted Brain Functional Network Topology in Bipolar Disorder

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Objective Increasing evidences show that inflammation might be involved in bipolar disorder (BD), but the association between abnormal brain function and inflammation in BD patients is still unclear. In this study, we tried to explore the disrupted brain functional network topology, peripheral cytokines and their correlations to demonstrate the role of inflammation in brain functional network topology in BD.

Methods In this study, 53 BD patients and 47 healthy controls (HCs) underwent resting-state magnetic resonance imaging scans. Graph theory analysis was performed to investigate the topological properties of whole-brain functional connectome at both global and nodal levels. Serum levels of interleukin-4 (IL-4), interleukin-6 (IL-6) interleukin-8 (IL-8), interleukin-10 (IL-10), and tumor necrosis factor-α (TNF-α) were measured in all participants. Correlations between topological properties, clinical variables and cytokines levels in BD were calculated. Furthermore, mediation analysis was employed to determine whether inflammatory cytokines affect depressive symptoms by affecting brain network properties.

Results Patients with BD showed significantly greater normalized characteristic path length (λ), and marginally greater characteristic path length (Lp) and lower global efficiency (Eglo). Furthermore, the BD group showed lower nodal degree centrality (Degi) in the bilateral lingual gyrus, and lower nodal efficiency (Enodal) in the bilateral lingual gyrus, right postcentral gyrus, right superior frontal gyrus (SFG), and the left middle temporal pole (MTP). Besides, IL-4, IL-6, IL-8, IL-10 levels were higher in BD than HCs. Correlation analyses revealed that elevated levels of IL-10 were correlated with the greater Lp and lower Eglo, and elevated levels of IL-8 was correlated with the greater λ. Furthermore, the Enodal in the left MTP was negatively correlated with IL-4 and IL-8 levels in BD. Moreover, the Enodal of the left MTP mediated the effect of IL-4 levels on the 24-item HDRS scores.

Conclusion Our study provided preliminary evidence of the association between disrupted brain functional network topology and neuroinflammation in BD. The current study demonstrated disrupted topological organization in the whole brain and regional connectivity was associated with inflammatory cytokines of the IL-4, IL-8 and IL-10 levels in BD. Moreover, our results indicated that higher IL-4 levels and impaired regional connectivity in the temporal pole may be associated with the severer depressive symptoms in BD.

关键字：bipolar disorder; resting state functional MRI; graph theory; inflammation; temporal pole; HAMD scores

儿童精神病学组

Effect of Repeated Intravenous Esketamine on Adolescents with Major Depressive Disorder and Suicidal Ideation: A Randomized Active-Placebo-Controlled Trial

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Objective Suicide is a major cause of death in adolescents with limited treatment options. Ketamine and its enantiomers have shown rapid antisuicidal effects in adults with major depressive disorder (MDD), but their efficacy in adolescents is unknown. We conducted an active, placebo-controlled trial of intravenous esketamine's safety and efficacy in this population.

Methods A total of 54 adolescents (aged 13-18) with MDD and suicidal ideation were included from an inpatient setting and randomly assigned (1:1) to receive three infusions of esketamine (0.25 mg/kg) or midazolam (0.045 mg/kg) over 5 days, with routine inpatient care and treatment. Changes from baseline to 24 hours after the final infusion (Day 6) in the scores of the Columbia Suicide Severity Rating Scale (C-SSRS) Ideation and Intensity (primary outcome) and Montgomery–?sberg Depression Rating Scale (MADRS, key secondary outcome) were analyzed using linear mixed models. Additionally, the 4-week clinical treatment response was a key secondary outcome.

Results The mean changes in C-SSRS Ideation and Intensity scores from baseline to Day 6 were significantly greater in the esketamine group than in the midazolam group (Ideation, -2.6 [SD=2.0] vs. -1.7 [SD=2.2], P=0.007; Intensity, -10.6 [SD=8.4] vs. -5.0 [SD=7.4], P=0.002), and the changes in MADRS scores from baseline to Day 6 were significantly greater in the esketamine group than in the midazolam group (-15.3 [SD=11.2] vs. -8.8 [SD=9.4], P=0.004). The rates of antisuicidal and antidepressant responses at 4 weeks posttreatment were 69.2% and 61.5% after esketamine, and 52.5% and 52.5% after midazolam, respectively. The most common adverse events in the esketamine group were nausea, dissociation, dry mouth, sedation, headache and dizziness.

Conclusion These preliminary findings indicate that three-dose intravenous esketamine, added to routine inpatient care and treatment, was an effective and well-tolerated therapy for treating adolescents with MDD and suicidal ideation.

关键字：Major depressive disorder, Suicidal ideation, Esketamine, Adolescent

基于同卵双生子样本研究肠道菌群对孤独症谱系障碍严重程度的影响机制

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目的 分析肠道微生物群作为非共享环境因素对孤独症谱系障碍（Autism Spectrum Disorder,ASD）临床表现严重程度的影响，进一步探索脑肠轴功能失调与孤独症谱系障碍的病理生理基础。

方法 招募 2015 年 08 月至 2022 年 07 月期间在南京脑科医院儿童心理卫生研究中心门诊就诊的 2-6 岁，符合 DSM-5 中有关 ASD 的诊断标准，并经过卵型鉴定的 ASD 同卵双生子 19 对，利用孤独症评定量表（Childhood Autism Rating Scale, CARS）对其症状严重程度进行评估，根据 ASD 临床严重程度不同进行分组，其中，每对 ASD 同卵双生子中 CARS 评分较高的为双生子 H，评分较低的为双生子 L；双生子 H 组成 MZCo-ASD-H 组，双生子 L 组成 MZCo-ASD-L 组。同时，采集 MZCo-ASD-H 组、MZCo-ASD-L 组共 38 例 ASD 儿童的粪便样本，提取粪便细菌微生物 DNA，使用 16SrDNA 测序技术分析两组肠道菌群的构成和分布特征；采用 LEfSe 分析，进一步比较两组间的肠道菌群差异，发现 MZCo-ASD -H 组具有显著性差异的细菌生物标志物；使用 PICRSt2 MetaCyc 数据库预测其代谢通路。

结果 分析 MZCo-ASD-H 组和 MZCo-ASD -L 组的肠道菌群结构特征,其组间 α 多样性比较差异均无统计学意义（P>0.05），β 多样性 PLS-DA 分析显示 MZCo-ASD -H 组和 MZCo-ASD-L 组的肠道菌群构成具有显著性差异；根据可操作分类单元的分类,不同症状严重程度的孤独症同卵双生子的肠道菌群菌落结构在门、科水平存在明显差异，MZCo-ASD-H 组较 MZCo-ASD-L 组变形杆菌门相对丰度显著降低（P<0.05），而瘤胃球菌科相对丰度显著增加（P<0.05）；LEfSe 分析研究显示，MZCo-ASD-H 组肠道菌群主要的细菌生物标志物为魏斯氏菌属、明串球菌科、假单胞菌目、卟啉单胞菌属； METACYC 代谢通路分析显示，MZCo-ASD-H 组肌醇代谢功能丰度低于 MZCo-ASD-L 组（P<0.05）。

结论 肠道微生物作为非共享环境因素可能参与了 ASD 症状严重程度改变的发生发展。

关键字：同卵双生子；孤独症谱系障碍；肠道菌群；16SrDNA；非共享环境因素

儿童期虐待经历对于青少年人群非自杀性自伤行为的影响

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目的 探讨儿童期虐待经历对于青少年人群非自杀性自伤行为（non-suicidal self-injury, NSSI）的影响。

方法 我们的分别在湖南省内两所中学的中学生人群中展开了儿童期虐待经历和 NSSI 的调查。此外，我们在中南大学湘雅二医院门诊及住院部展开了青少年抑郁症患者的儿童期虐待经历和 NSSI 的调查，并在学校收集健康青少年作为对照。通过 logistic 回归分析

以及相关分析分别探索儿童期虐待经历对非临床患者、临床患者的 NSSI 的影响。

结果 在非临床样本中，我们一共收集了 3518 名中学生的调查数据。儿童期的情感虐待经历（相对于没有情感虐待经历）（OR=6.587）、躯体虐待（相对于没有躯体虐待经历）（OR=4.204）、情感忽视（OR=2.103）（相对于没有情感忽视经历）是青少年 NSSI 的危险因素。儿童期的情感虐待相对于没有情感虐待经历）（OR=6.189）、躯体虐待（相对于没有躯体虐待经历）（OR=5.265）、情感忽视情感忽视（OR=2.103）（OR=3.030）是青少年重复 NSSI 危险因素。基于临床样本的对比研究，伴 NSSI 的抑郁症青少年患者在儿童期虐待问卷上不同的情感虐待、情感忽视、躯体虐待、躯体忽视等亚量表的得分均高于不伴 NSSI 的青少年抑郁症患者、以及健康对照组，并且三组间的两两比较的差异均显著(p 均＜0.001)。在伴 NSSI 的抑郁症患者组内，相关分析显示过去 6 个月的 NSSI 严重程度与情感虐待（r=0.383，p＜0.001）、躯体虐待（r=0.307，p＜0.001）、情感忽视（r=0.430，p＜0.001）、躯体忽视（r=0.307，p＜0.001）呈正相关。过去 12 个月的 NSSI 严重程度与情感虐待（r=0.429，p＜0.001）、躯体虐待（r=0.364，p＜0.001）、情感忽视（r=0.400，p＜0.001）、躯体忽视（r=0.332，p＜0.001）呈正相关，与过去 6 个月的 NSSI 的严重程度呈正相关（r=0.898，p＜0.001）。

结论 儿童期的虐待经历对于普通健康青少年人群、青少年抑郁症患者的 NSSI 均有不同程度的影响。这提示我们，对于儿童期早期虐待经历的干预可能可以预防青少年患者产生 NSSI。

关键字：儿童期虐待经历，青少年，非自杀性自伤行为

人格特征预测未治疗青少年抑郁症患者的抗抑郁药治疗反应：一项为期 8 周、开放标签、灵活剂量的研究

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目的 既往研究发现人格特征是成人抑郁症患者抗抑郁药治疗反应的有效预测因素之一。然而，人格特质与青少年抑郁症抗抑郁药治疗反应的关系尚不清楚。本研究的目的是探索人格特质与 SSRIs 治疗反应的关系，以青少年抑郁症为研究样本，重点关注短期疗效反应。并且，进一步探索人格特质和临床特征在抗抑郁药治疗反应中的预测价值。

方法 本研究共招募了 197 例未治疗的青少年抑郁症患者，最终 82 名患者完成了为期 8 周的 SSRIs（氟西汀或舍曲林）单药治疗。采用修订版大五人格量表评估患者基线的人格特征。17 项汉密尔顿抑郁评定量表和儿童抑郁评定量表-修订版评估基线和第 8 周的抑郁症状严重程度，根据 2 个量表的平均减分率为主要疗效评估指标。Logistic 回归探索人格维度和抗抑郁药治疗反应之间的关系。ROC 曲线评估人格子维度和临床特征在预测治疗反应方面的准确度。

结果 （1）青少年抑郁症组的基线神经质得分高于青少年健康对照组(p< 0.001)，外向性得分(p< 0.001)、开放性得分(p< 0.01)、宜人性得分(p< 0.001)和责任感得分(p< 0.001)低于青少年对照。（2）在治疗 8 周时，治疗有效组的基线外向性评分低于治疗无效组（p= 0.021）；logistic 回归分析显示，基线外向性评分与抗抑郁药治疗反应相关(OR= 1.022, p= 0.018)，在校正了具有差异趋势的变量(OR= 1.104, p= 0.038) 或所有潜在混杂变量(OR= 1.139, p= 0.019)，外向性评分仍与治疗反应相关；基线低外向性评分组的 8 周治疗有效率（55%）显著高于高外向性评分组（30.6%），差异有统计学意义（$\chi2$= 4.608, p= 0.032）。（3）病程、外向性-合群和宜人性-信任的组合模型在预测青少年抑郁症抗抑郁药治疗反应中具有一定的准确度（AUC = 0.763，敏感性为 79.4%，特异性为 68.7%）；在这个模型中，低得分组的 8 周治疗有效率（64.3%）显著高于高得分组（17.5%）（$\chi2$= 18.477, p< 0.001）。

结论 青少年抑郁症患者具有显著不同的人格特征。外向性人格特征可能与青少年抑郁症抗抑郁药的短期治疗反应有关，在使用抗抑郁药治疗前有必要对患者进行人格特征的筛查。本研究结论仍需大样本和长期治疗随访的验证。

关键字：人格特征;青少年抑郁症;预测治疗反应；SSRI

Natural Language-inspired Analysis of Motion Sequences for Early Diagnosis of Autism Spectrum Disorder

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Objective Natural language and motor skills serve as crucial avenues for human communication and self-expression, necessitating adherence to well-defined rules and constraints. Linguistic systems demand compliance with grammatical, semantic, and pragmatic principles, whereas motor functions mandate observance of muscular, skeletal, and anatomical limitations. Moreover, both language and movement unfold sequentially over time, warranting precise execution. Nevertheless, Autism Spectrum Disorder (ASD) is characterized by developmental delays or atypical developmental trajectories in both linguistic and motor domains, indicating that individuals with ASD may diverge from these established norms. Consequently, this investigation endeavors to scrutinize the action sequences in ASD by drawing from the attributes of natural language, with the objective of uncovering potential ASD markers and facilitating early diagnostic efforts.

Methods This study recruited 160 ASD individuals

aged 18-36 months, 45 individuals with atypical development, and 30 typically developing children at the outpatient clinic of Nanjing Medical University Affiliated Brain Hospital. The standardized behavior observation room was used to track and detect the participants' action behaviors, and computer vision technology was used to digitize the action behaviors. In the data analysis section, the K-nearest neighbor algorithm was used to extract key frames from videos, deep learning algorithm was used to recognize human keypoints, and natural language algorithms were used to extract features and classify ASD children's action behaviors.

Results The overall three-class accuracy rate was 77.5%. Among them, the classifier performed well in the typical development category, with sensitivity and specificity of 0.85 and 0.98, respectively. It also performed well in the ASD category, with sensitivity and specificity of 0.98 and 0.88, respectively. However, the classification performance in the atypical development category needs further improvement, with sensitivity and specificity of only 0.07 and 0.8, respectively. In the interpretable analysis, the Euclidean distance between the head and the toy, the Euclidean distance between the shoulder and the hand, and the Euclidean distance between the head and the upper limb were considered important distinguishing features.

Conclusion This study found that the classifier performed well in the typical development and ASD categories, with high sensitivity and specificity. However, the classification performance in the atypical development category needs further improvement. These results provide new methods and ideas for the early diagnosis of ASD. In the future, further research and improvement of the classifier's design and algorithm can increase its classification accuracy and reliability, providing more scientific and accurate support for the early diagnosis and treatment of ASD.

关键字：Autism Spectrum Disorder; Behaviors; Machine Learning Algorithm; Motion

儿童和成人 ADHD 视觉空间注意相关脑功能异常的差异

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目的 既往研究发现 ADHD 患者认知功能异常在儿童期和成人期可能有不同神经基础，如认知抑制相关神经活动在发育中表现出脑区间差异。成人 ADHD 患者能有效利用额叶进行认知加工，而儿童 ADHD 患者认知加工相关脑区并不具有特异性且常常激活不足。本研究针对 ADHD 患者视觉空间注意能力异常有关脑活动在儿童期和成人期的差异性进行探讨。

方法 研究纳入 44 名儿童 ADHD（平均年龄 11 岁），36 名儿童健康对照（平均年龄 11 岁），29 名成人 ADHD（平均年龄 26 岁）和 37 名成人健康对照（平均年龄 25 岁），所有被试均在磁共振扫描中完成注意选择（任务 A）和注意抑制（任务 B）的视觉空间注意任务。对任务诱发的全脑激活，通过两因素方差分析（[患病情况：ADHD vs. HC]×[年龄段：儿童 vs. 成人]），在两个任务中分别分析患病情况和年龄段的交互效应。使用偏相关分析，在控制性别、年龄和智商后，分析具有交互效应的局部脑区神经活动强度与任务行为表现和临床量表评分的相关性。全脑分析多重比较通过 GFR 校正，$Z>3.1$, 团块水平 $p<0.05$。相关分析采用双尾检验，当 $p<0.05$ 时认为相关有统计学意义。

结果 （1）任务行为表现方面，儿童 ADHD 比儿童健康对照正确率更低，而成人 ADHD 比成人健康对照正确反应时更慢。神经活动方面，（2）在注意选择任务中：儿童 ADHD 患者左侧罗兰迪克岛盖区及左侧楔前叶功能异常减弱；儿童 ADHD 患者左侧舌回功能异常增强，且左侧舌回神经活动越强、多动冲动症状越严重；成人 ADHD 患者左侧舌回功能异常减弱，在成人健康对照中左侧舌回神经活动越强、任务正确率越高。（3）在注意抑制任务中：儿童 ADHD 患者左侧梭状回、左侧楔前叶、左侧辅助运动区、右侧枕下回和右侧颞上回功能异常减弱，且左侧辅助运动区活动越弱、任务反应时越长；成人 ADHD 患者右侧枕下回和右侧颞上回功能异常增强。

结论 ADHD 患者在儿童期和成人期均表现出视觉空间注意受损。在进行视觉空间注意加工时，ADHD 患者在儿童期可能既有额叶、也有枕叶脑区功能活动的异常，而成人期可能仅表现为枕叶脑区神经活动异常、而额叶活动功能正常。研究提示 ADHD 患者认知功能异常的神经基础随着生长发育发生动态变化，可为选择疾病转归与预后的评估指标提供依据。

关键字：注意缺陷多动障碍，视觉空间注意，神经发育，功能磁共振成像

Maresin-1 Improves LPS-induced Depressive-like Behavior by Inhibiting Hippocampal Microglial Activation

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Objective Maresin-1 is an antiphlogistic agonist synthesized by macrophages from docosahexaenoic acid (DHA). It has both anti-inflammatory and pro-inflammatory properties and has been found to enhance neuroprotection and cognitive function. However, there is limited knowledge of its effects on depression and the potential mechanism remains unclear. In this study, the effects of Maresin-1 on lipopolysaccharide (LPS)-induced depressive symptoms and neuroinflammation were investigated

in mice and the possible cellular and molecular mechanisms were further clarified.

Methods 90 mice were randomly divided into groups, namely, the control group（n=30）, the LPS (1 mg/kg) + NS group (LPS+NS)(n=30), and the LPS (1 mg/kg) + MaR1 (5 μg/kg) (LPS+MaR1) (n=30)group. Mice in the control group were injected intraperitoneally with 10 mL/kg normal saline (NS) while mice in the other groups received intraperitoneal injections of the above materials. Twenty-four hours after injection, the three groups of mice underwent behavioral tests, including the tail-suspension test (TST), the open-field test (OFT), and the sugar-preference test (SPT). Additionally, the mice in each group were euthanized to collect brain tissue samples.

Results Maresin-1 reduced the standardized uptake value (SUV) of [18 F] DPA-714 in brain regions associated with depression (e.g., hippocampus and pre-frontal cortex), while immunofluorescence of hippocampal and indicated that Maresin-1 inhibited microglial activation reducing the expression of the pro-inflammatory cytokine IL-1β and NLRP3. The RNA sequencing of mouse hippocampi showed that genes expressed differentially between Maresin-1-treated and LPS-treated tissue were associated with tight connections between cells and the stress-activated MAPK cascade negative regulatory pathways.

Conclusion MaR1 was found to have anti-inflammatory effects and is effective for investigating the potential cellular and molecular mechanisms of LPS-induced depressive-like behaviors in a multi-modal and multi-dimensional manner. This study provides a reference and methods for the anti-inflammatory treatment of depressive-like behaviors.

关键字：Depression, anti-inflammation, microglia, PET-CT, Maresin-1

炎症细胞因子辅助诊断精神分裂症、抑郁障碍及双相情感障碍的效能研究

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目的 研究表明精神分裂症、抑郁障碍、双相情感障碍与炎症过程相关，但炎症细胞因子对这三种疾病的诊断效能和预测能力尚无研究。本研究旨在探讨血清当中多种炎症细胞因子因子水平是否可作为此三种疾病的诊断生物学指标及鉴别诊断生物学指标。

方法 选取在院治疗的 8-17 岁的 367 例儿童青少年患者，其中精神分裂症患者 83 例、抑郁症患者 152 例、双相情感障碍患者 131 例，年龄性别匹配的健康对照者 101 例。采用阳性和阴性症状量表、汉密尔顿抑郁量表、杨氏躁狂量表分别对其症状进行评估。检测各组血清当中 IFN-y、IL-1beta、IL-2、IL-4、IL-6、IL-10、IL-12P40、IL-12P70、IL-21、TGF-beta1 水平。每种疾病与对照组之间控制年龄及性别之后进行逻辑回归分析，同时每 2 种疾病之间也做了回归分析。

结果 10 种炎症细胞因子联合用于预测精神分裂症的阳性预测率为 74%，用于预测抑郁症的阳性预测率为 74%，用于预测双相情感障碍的阳性预测率为 67%。在三种疾病两两配对进行鉴别诊断时抑郁障碍及双相情感障碍的平均判别准确率为 55%及 58%，精神分裂症与抑郁障碍的平均判别准确率分别是 66%及 73%，精神分裂症与双相情感障碍的平均判别准确率分别是 66%及 72%。

结论 与健康对照组相比，多种炎症细胞因子联合可用于识别不同疾病，但在不同精神疾病之间的鉴别效应欠佳，特别是抑郁障碍与双相情感障碍，提示这两种疾病炎症反应可能相似。炎症细胞因子有望成为青少年精神分裂症、抑郁障碍、双相情感障碍的潜在筛查或诊断生物标志物。

关键字：精神分裂症；双相情感障碍；抑郁障碍；炎症细胞因子

Childhood Maltreatment and Adolescent Eating Disorders: A Moderated Mediation Model of Social Anxiety and Physical Activity

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Objective Childhood maltreatment (CM) is considered a high-risk adolescent eating disorder (ED) factor. However, less is known regarding the underlying processes between CM and ED. This study aims to investigate (a) the mediating role of social anxiety(SA)in the association between CM and ED, and (b) the moderating role the physical activity in the relationship between CM and adolescent ED.

Methods This model was examined with 848 students from a middle school in grade7-8 in Changsha with a longitudinal design; the participants completed measurements regarding childhood maltreatment (Childhood Trauma Questionnaire) at baseline and completed measurements regarding social anxiety (The Social Anxiety Scale-Adolescents), physical activity, and eating disorder(The Eating Attitudes Test) at 6-month follow-up.

Results The correlation analyses indicated that emotional abuse (EA) and Social Avoidance and Distress that is more general or pervasive (SAD-G) were significantly positively associated with adolescent ED. Mediation analyses revealed that the paths from EA to SAD-G, from SAD-G to ED, and from EA to ED were significant. Moderated mediation further indicated that physical activities(PA) moderated the indirect effects of EA on ED through SAD-G and moderated the effects of EA on SAD-G.

Conclusions This study provides valuable evidence by revealing the mediating role of SAD-G and the moderating role of PA between CM and ED, which indicate that SA may be a vital factor for people who suffered from CM

and ED. Furthermore, the role of PA should be addressed in preventing and treating ED.

关键字：Childhood maltreatment, Social anxiety, Eating disorder, Adolescence, Moderated mediation model.

结合全基因组及深度学习技术解析 ADHD 药物治疗反应遗传机制

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目的 药物是注意缺陷/多动障碍（ADHD）的主要治疗方式。尽管哌甲酯（MPH）和托莫西汀（ATX）在 ADHD 的疗效已经得到广泛证实，但目前仍无有效手段预测药物反应。本研究旨在结合全基因组关联研究和深度学习方法，来阐明与治疗反应相关的遗传机制，为个体化治疗提供依据。

方法 共有 241 名 ADHD 患者接受了为期 8-12 周的药物治疗（MPH 组 161 人；ATX 组 80 人）。基因分型通过 Affymetrix 6.0 芯片完成。本研究使用注意缺陷多动障碍评定量表（ADHD-RS）得分变化的百分比（%）作为结局变量进行了全基因组关联分析。本研究建立了深度学习模型来预测治疗反应，包括深度卷积模型、长短时记忆网络、全连接网络。并比较了深度学习模型与支持向量回归和随机森林的预测效果。此外，为确保结果的可重复性和模型的可靠性，我们额外采用了 64 个通过 InfiniumPsychArray-24 芯片进行分型的样本作为独立的重复及测试数据集。我们计算了每个单核苷酸位点对于预测模型的贡献，以此来确定相关位点。

结果 基因组关联研究（GWAS）发现了 2 个显著的单核苷酸多态性（SNP）（rs2000900，P=3.31E-09；rs10880574，P=2.39E-09），涉及两个在脑中表达的基因：MYO5B 和 TMEM117，主要在神经系统及消化系统中表达。卷积神经网络表现出了较好的预测效能，在训练集中均方误差小于 0.043，验证误差为 0.012，独立测试集中误差为 0.081。对模型贡献最大的 SNP 位于 ADHD 相关基因 NKAIN2 内，该基因还与肠道菌群、体重指数相关。富集分析显示，前 300 个 SNP 与物质依赖等表型相关。

结论 本研究结合基因组关联研究和深度学习技术，揭示了与 ADHD 人群对于药物的反应的新基因，包括与 ADHD、精神疾病及消化系统疾病相关的基因。

关键字：注意缺陷多动障碍，深度学习，全基因组关联分析，药物疗效

Cross-Cultural Generalizability of The First Year Inventory for Early ASD Screening in China

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Objective Early identification of Autism spectrum disorder (ASD) is challenging due to limitations in existing screening measures. The First Year Inventory 2.0 (FYI 2.0) is a Level 1 screening tool designed to assess ASD risk in 12-month-old infants, and has been adapted and modified by researchers in various countries, considering sample characteristics. This study aims to investigate the feasibility and clinical implications of the FYI-Chinese version in both community and high-risk samples within the context of China.

Methods The study participants consisted of two groups: a Low-risk group (LR group) comprising 519 individuals recruited from four community health care centers in Nanjing, and a High-risk group (HR group) consisting of 53 siblings of individuals diagnosed with ASD from the Nanjing Medical University ASD Siblings Cohort. Participants in the HR group underwent assessments using the Chinese version of the Gesell Developmental Schedules, the Autism Diagnostic Observation Schedule - Toddler Module (ADOS-T), and the Communication and Symbolic Behavior Scales Developmental Profile Infant-Toddler Checklist (CSDS-ITC). Our objectives include analyzing response distributions, establishing specific scoring norms for Chinese infants, examining construct validity, exploring the association between parental reports and clinician evaluations of ASD risk, and developing more effective cutoff scores for the HR siblings.

Results The Cronbach's alpha across the 61 questions were 0.81. The CFA results yielded a less-than-ideal fit of the model to the data. Employing the UK risk score assignment, the 95th percentile total risk score equaled 31.00 and were higher than those of the American (17.75). The US risk score assignment was rendered inapplicable, prompting us to transpose the probabilistic data in our sample into risk points adhering to the same scoring system as the standard FYI 2.0. According to the reversed risk points, this total score ranged from 0-23, and the 95th percentile score equaled 13. The HR group did not exhibit significantly lower total scores compared to the LR group. The Pearson correlation coefficient revealed significant associations between the FYI 2.0 and both the CSBS DP-ITC and ADOS-T.

Conclusion These findings provide compelling evidence regarding the applicability and validity of the Chinese version of the FYI. The observed discrepancy in cross-cultural response distribution suggests that Chinese parents may possess different understandings of certain questions and exhibit preferences for particular answers compared to their American counterparts. It is imperative to establish modified scoring criteria tailored to the Chinese sample. There was no discernible difference in the 95% cutoff point between the High-risk and Low-risk groups. This discrepancy indicates that parents of ASD siblings may exhibit a heightened assessment of infants' social development.

关键字：Autism spectrum disorder, cross-cultural generalizability, early infant screening, first year inventory, high-risk infants

神经发育障碍儿童共同的异常生物运动感知

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目的 感知生物运动（BM）对人类的生存和社会互动至关重要。BM 感知被认为是社会认知的标志之一。已有研究发现孤独症谱系障碍（ASD）和注意缺陷多动障碍（ADHD）儿童有着相似的异常 BM 感知。但没有研究比较二者的 BM 感知损伤的差异。本研究通过行为学范式，比较典型发育（TD）和不同神经发育障碍儿童的 BM 感知能力的异同。

方法 本研究招募了 TD（n＝33）、ASD（n＝14）、ADHD（n＝40）以及 ASD 共患 ADHD（n＝32）四组儿童。我们测试了四组儿童在 BM 探测和方向判别两种任务表现。在此基础上，采用社会反应量表(SRS)评估儿童的社交能力并探究 SRS 得分与 BM 感知的关系。

结果 在 BM 探测任务中，我们发现四组儿童的表现有显著差异（$p < 0.001$），事后比较发现与 TD 儿童相比，三组神经发育障碍儿童表现较差 (所有 $p < 0.05$)，三组神经发育儿童的表现之间没有差异（所有 $p > 0.05$）。BM 探测任务的正确率与 SRR 分数呈显著负相关（$r = -0.253$，$p = 0.005$）。同样在 BM 方向判别任务中，四组儿童的表现有显著差异（$p < 0.001$），事后比较发现与 TD 儿童相比，三组神经发育障碍儿童表现较差 (所有 $p < 0.05$)，三组神经发育儿童的表现之间没有差异（所有 $p > 0.05$），BM 方向判别任务表现与 SRR 分数呈显著负相关（$r = -0.276$，$p = 0.002$）。

结论 我们发现不同神经发育障碍儿童有共同的 BM 感知损伤。此外，个体感知 BM 信息的能力能预测其社交能力。本研究揭示 BM 感知受损可能成为神经发育障碍潜在的生物学标志物，神经发育障碍儿童可能存在共同的社会信息加工损伤机制。

关键字：生物运动，孤独症谱系障碍，注意缺陷多动障碍，社会认知，神经发育障碍

High Dynamic Functional Connectivity of Sensorimotor Cortices Associated with Restricted, Repetitive Behavior in Children with Autism Spectrum Disorder

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Objective Restricted, repetitive behavior (RRB) is a pattern of purposeless behavior that displays little variation in form and interferes with appropriate behavior, which is a core feature of autism spectrum disorder (ASD), and these behaviors can be classified into different subtypes based on their characteristics. Understanding the neural mechanisms underlying RRBs and its subtypes can provide insights into the neurobiology of ASD and inform the development of targeted interventions. In this study, we aimed to investigate the association between time-varying brain functional connectivity with RRBs and subtypes.

Methods A total of 93 children with ASD and 110 children with typical development (TD) were enrolled in the study, available from the Autism Brain Imaging Data Exchange database (ABIDE). Sliding-window approach was used to estimate dynamic functional connectivity variation (dFCV) defined as the standard deviation of functional connectivity for the participants. RRB behavior was assessed by the Autism Diagnostic Interview-Revised (ADI-R). Support vector machine (SVM) classifier was used to find RRB related brain regions. Linear regession was used to found the machnism of RRB subtypes. In addition, neural activity was separated into different states by the K-means algorithm, and the potential neuropsychological associations were found in each state by meta-analytic decoding. The relationship between different neural activity states and RRB was assessed by a linear SVM regression model.

Results Compared with TDs, individuals with ASD had increased dFCV in the whole brain and networks. DFCV in sensorymotor areas can be used to predict RRB with 87.1% accuracy by SVM classifier, mainly including primary somatosensory cortex (S1), primary motor cortex (M1), somatosensory association cortex (SA), premotor cortices, putamen, insula, cerebellum. DFCV in M1 and cerebellum was related to restricted or circumscribed interests (CI) scores (Beta=0.526, p=0.008); the dFCV in SA and insula was related to insistence on sameness (IS) scores (Beta=0.526, p=0.015); the dFCV in pars orbitalis and cerebellum was related to repetitive sensory and motor behaviors (RSMB) (Beta=0.438, p=0.024). Brain activity can be clustered into different states, the states can be used to predict the severity of RRB (R2=0.360, RMSE =2.570), with state 4 occurring most frequently in ASD group, which were related to the sensory terms.

Conclusion Instable neurol activity across the brain, particularly in the sensorimotor cortices may be an underlying mechanism of RRB in ASD. Brain dynamic activity states especially that related to sensory processing could be used to predict the severity of RRB.

关键字：children; autism spectrum disorder; restricted, repetitive behavior; Functional magnetic resonance imaging; dynamic functional connectivity

自然场景中眼动注视模式在孤独症谱系障碍早

期辅助诊断中的应用

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目的 孤独谱系障碍（Autism Spectrum Disorder, ASD）是一种神经发育障碍，从生命早期起病，延续终生。全球范围内 ASD 的发病率逐年上升，已经成为亟待重视的公共卫生问题。感知觉异常被认为是 ASD 的核心特征。视觉注意是感知觉的一个重要方面，ASD 人群往往对各种视觉刺激表现出非典型的视觉注意。已有多项眼动追踪研究发现 ASD 人群与健康人群之间存在显著的视觉注意差异。因此，本研究旨在使用眼动追踪技术，通过呈现包含自然场景、建筑物、人物的图像刺激，探索 ASD 的视觉注意特征，从眼动追踪数据中提取可区分 ASD 儿童和健康对照的指标，建立 ASD 的早期诊断辅助模型。

方法 本研究纳入 ASD 儿童 12 例（年龄 2-6 周岁；男：女=9：3）、健康对照 14 例（年龄 2-6 周岁；男：女=7：7）。基于眼球追踪技术收集的眼动数据，即被试者观看图像时的注视点序列，使用深度神经网络计算被试者是否患有 ASD 的概率。具体而言，首先将图像使用卷积神经网络 ResNet 提取图像特征，根据注视点序列依次取出每个注视点对应位置的图像特征组成图像特征序列，再将其输入至循环神经网络 LSTM 中提取其中的时序特征，最后使用一层全连接层以及 Sigmoid 函数计算该样本患有 ASD 的概率，得到某个被试者观看的所有图像的概率后将其进行平均作为该被试者患有 ASD 的概率。

结果 使用留一法进行 26 折交叉验证，该模型总体的准确率为 0.846，识别 ASD 患者的准确率（即灵敏度）为 0.667，识别健康儿童的准确率（即特异性）为 1.000，ROC 曲线下的面积 AUC 为 0.952，结果表明该模型可以根据眼动数据有效地诊断 ASD。

结论 本研究使用眼动追踪技术，验证了 ASD 儿童的视觉注意特点与正常对照有显著差异，通过分析眼动追踪数据，可以有效区分 ASD 与健康对照，这标志着在临床实践中使用眼动追踪技术早期筛查和诊断 ASD 迈出了更大一步。

关键字：儿童；孤独谱系障碍；眼动追踪；视觉注意

PCBI 干预对孤独症谱系障碍儿童父母回应性的影响

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目的 孤独症谱系障碍（autism spectrum disorder, ASD）是一种神经发育障碍，以社交沟通障碍、兴趣狭隘、行为重复刻板为主要特征，严重影响儿童社会功能和生活质量。以游戏为基础促进交流与行为的干预（play-based communication and behavior intervention, PCBI）作为一种超早期干预方法，具有早期介入、父母参与、游戏为基础以及强调自然环境等优势。然而，目前对于这种干预方法的有效性及其对父母回应性的影响的研究还相对有限。因此，本研究旨在比较 PCBI 超早期干预和 ABA 干预对 ASD 儿童疗效的差异，并探究 PCBI 超早期干预对父母回应性的作用。

方法 本研究采用非随机对照比较设计，招募了 60 名被诊断为 ASD 的儿童，其中 30 名接受 PCBI 超早期干预，另外 30 名接受 ABA 干预。使用孤独症评估量表（CARS）评估了儿童在入组前和干预结束后的症状严重程度。此外，通过编码干预前后亲子游戏视频评估 PCBI 超早期干预对父母回应性的作用。使用混合设计重复测量方差分析比较两组干预方法对症状改善的整体效果以及两者之间是否存在显著差异。

结果 研究发现，PCBI 超早期干预组和 ABA 干预组在整体上对 ASD 儿童的症状改善效果没有显著差异（$F=2.921$，$P=0.093$）。然而，时间的主效应表明整个干预过程对改善儿童的症状具有显著的效果（$F=14.318$，$P<0.01$）。此外，组别和时间之间的交互作用的非显著性表明两种干预方法在不同时间点上的效果没有显著差异（$F=0.875$，$P=0.354$）。经过 PCBI 超早期干预，父母在与儿童的亲子游戏中更频繁地参与到与儿童的游戏中，并展现更多积极回应（$P<0.05$）。此外，研究发现在入组前的基线时，父母的积极回应比率与干预结束后儿童的 CARS 分数呈负相关（$\beta=-0.38$，$P<0.05$），而父母的未回应比率与干预结束后儿童的 CARS 分数呈正相关（$\beta=0.411$，$P<0.05$）。校正年龄和性别后，研究结果显示这些相关性仍然具有显著性。

结论 本研究结果表明，PCBI 超早期干预和 ABA 干预对 ASD 儿童的改善效果相似，且 PCBI 超早期干预对父母回应性产生了积极的影响。这些发现强调了 PCBI 超早期干预在 ASD 儿童疗效和父母回应性中的重要作用，同时也为临床实践和干预策略的选择提供了有益的参考。

关键字：孤独症谱系障碍; 以游戏为基础促进交流与行为的干预; 超早期干预; 回应性

基于两阶段渐进式特征优化的孤独症谱系障碍脑影像结构特征分析

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目的 孤独症谱系障碍（Autism spectrum disorder，

ASD）病因复杂。既往研究发现 ASD 患者与典型发育对照（typically developing，TD）相比存在广泛脑解剖学差异，但差异区域报道不一致。目前机器学习已成为探索 ASD 生物标志物的重要手段，但面临将特征数量最小化的关键问题。本研究使用基于 LASSO 和线性核 SVM 的两阶段渐进式特征优化方法，探索对 ASD 与 TD 分类最具贡献度的脑结构特征。

方法 本研究纳入符合 DSM-5 诊断标准的 201 名 ASD 患者及年龄、性别匹配的 218 名典型发育对照（TD）。所有被试采集 3D T1 序列，通过 FreeSurfer 软件进行颅骨剥离，偏场校正、配准和分割等，使用 Aparc 模板提取灰质体积、厚度、表面积和表面曲率、Aseg 模板测量深部核体积、海马亚分区模板计算海马亚结构体积，共 392 个脑结构特征。使用基于 LASSO 和线性核 SVM 的两阶段渐进式特征优化进行特征筛选：第一阶段，使用 5 折交叉验证及最小绝对收缩和选择算子（LASSO）进行粗筛选，保留被选中 4 次以上的特征以确保筛选结果的稳定性。第二阶段，使用线性核的支持向量机（SVM）进行特征进一步筛选，在 5 折交叉验证基础上，计算每个特征在每一折中的贡献度排序并将其平均，按照平均排序从高到低的顺序逐个将特征纳入 SVM 模型，直到加入新的特征不再提高 SVM 的性能，得到筛选特征集合。

结果 将特征按平均贡献排序逐个添加到 SVM 中后平均 AUC 自 0.75 逐渐增加，随着新增特征的贡献逐渐减小，平均 AUC 趋于收敛，最终收敛至 0.87。在 392 个特征中，共 9 个保留在收敛时的模型中，对 ASD 与 TD 分类贡献度最高：右苍白球体积，左岛叶皮层体积，左岛叶皮层厚度，左伏隔核体积，左丘脑体积，右海马下托体积，右前扣带回皮层厚度，右前扣带回皮层表面积，左眶额皮质皮层表面积。

结论 基于 LASSO 和线性核 SVM 的两阶段渐进方法能够有效进行 ASD 与 TD 分类特征优化。皮层下脑结构特征对 ASD 与 TD 分类具有突出贡献，对 ASD 与 TD 分类贡献最高的特征脑区与奖赏系统相关脑区高度重叠，提示皮层下结构可能在 ASD 病因及发病机制中具有重要作用。

关键字：孤独症谱系障碍，结构像核磁共振，机器学习，特征筛选

儿童注意缺陷多动障碍静息态脑功能网络拓扑属性及药物疗效:一项 fNIRS 研究

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目的 注意缺陷多动障碍（ADHD）是儿童期一种常见的慢性神经发育障碍，本研究拟结合功能性近红外光谱技术（fNIRS）和基于图论的复杂脑网络分析方法探讨 ADHD 儿童静息态脑功能网络拓扑属性，及药物治疗后脑功能网络的改善情况。

方法 2022 年 6 月-2023 年 1 月于中南大学湘雅二医院纳入 32 名 ADHD 儿童为实验组，长沙市某小学招募健康儿童 15 名为对照组（HC），经过 12 周药物治疗（哌甲酯或者托莫西汀）的 ADHD 儿童 15 名为药物治疗组（PT），使用量表 SNAP-IV（父母版）和 PSQ（父母版）评估核心症状,利用功能性近红外光谱仪采集被试全脑静息态血氧数据。应用软件 SPSS 23.0，Matlab2013b ，GRETNA、Homer2 工具包统计比较 ADHD 组和 HC 组，ADHD 组和 PT 组脑功能网络结果。

结果 （1）ADHD 组与 HC 组静息态脑功能网络比较示，小世界网络属性、全局效率差异有统计学意义（$p<0.05$），表明 ADHD 组小世界属性和全局效率下降；（2）经过 12 周药物治疗后，ADHD 组与 PT 组比较结果示，全局效率差异有统计学意义（$p<0.05$），表明 PT 组全局效率趋于正常。

结论 基于 fNIRS 和图论方法构建的静息态脑功能网络中，ADHD 患儿具有异常的小世界网络属性，药物治疗后，脑网络拓扑属性趋于正常稳定。静息态脑功能网络拓扑属性可能作为 ADHD 儿童诊断及治疗的潜在神经标志物。考虑到本研究样本量较少，属于探索性发现，对于往后研究者关于 ADHD 神经影像研究有一定的借鉴意义。

关键字：注意缺陷多动障碍；fNIRS；静息态脑功能网络；药物治疗；

（组内口头交流）

Predicting Pragmatics in Preschool Children with Autism Spectrum Disorder Based on Structural Covariance Networks by Performing Machine Learning Prediction-based Methods

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Objective Pragmatics refers to the use of spoken language to effectively convey messages across diverse social communication contexts, which is frequently demonstrated to be a key component of the difficulties with far-reaching influences exhibited by children diagnosed with autism spectrum disorder (ASD). Growing evidence indicates that autism spectrum disorder (ASD) is a neuropsychological disconnection condition, structural magnetic resonance imaging studies have helped advance our understanding of its brain networks underlying specific symptoms. However, there has been little previous work using prediction frameworks to elucidate pragmatics underpinnings based on structural connectivity (SC) in ASD.

Methods In this study, totally 92 children with ASD and 52 age- and gender- matched healthy controls (HCs) completed the parent-reported measure of pragmatics-the Chinese version of Language Use Inventory (LUI). Meanwhile, cortical thickness, surface area and volume of each brain region calculated by Freesurfer were used to construct the structural covariance networks (SCNs), and structural connectivity (SC) matrices were derived from

the SCNs. Then, network-based statistic-Predict (NBS-Predict) was used to demonstrate dysconnected subnetwork associated with ASD. Nest, we combined connectome-based predictive modeling (CPM) approach and NBS-Predict to predict pragmatic skills by SC from the SCNs in the ASD group.

Results NBS-Predict identified the subnetwork associated with ASD comprised 55 lowered connections among 32 brain regions ($p = 0.01$) with the highest classification accuracy of 73.7% (95% CI: 0.733~0.741), and the right superior temporal gyrus were found to be a dysconnected region with the greatest extent, while subnetwork associated with ASD comprised 69 enhanced connections among 37 brain regions ($p = 0.01$) with the highest classification accuracy of 74.5 % (95% CI: 0.740~0.750), and the right insula gyrus was found to be a dysconnected region with the greatest extent. CPM showed that the optimal correlation coefficient between the predicted pragmatic scores and the actual scores of the ASD group was 0.306 ($p < 0.001$), totally 23 edges were negatively correlated with the total scores of the LUI-Mandarin ($p = 0.03$). NBS-Predict showed that the optimal correlation coefficient between the predicted pragmatic scores and the actual scores was 0.265 (95% CI：0.239~0.252). Moreover, CPM and NBS-Predict consistently revealed the pragmatic skills of the ASD group were associated with the morphological covariation among the left posterior cingulate gyrus, left posterior superior temporal gyrus, and bilateral transverse temporal gyrus.

Conclusion Morphological covariation among the left posterior cingulate gyrus, left posterior superior temporal gyrus, and bilateral transverse temporal gyrus was closely involved in the pragmatics function in preschool children with ASD.

关键字：preschool children with autism spectrum disorder; Language Use Inventory; structural covariance networks; predictive modeling

（组内口头交流）

Frequency of Depression and Correlates Among Chinese Children and Adolescents Living in Poor Areas under The Background of Targeted Poverty Alleviation: Results of A Survey in Weining County

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Objective There is a lack of epidemiological data on depressive morbidity in children and adolescents in rural China. This study determines the frequency and correlates of depression among children and adolescents to offer useful insights for family education and government policy-making in rural China.

Methods A cross-sectional online survey was conducted between April 20 to May 10, 2022. Depression was assessed using the Center for Epidemiologic Studies Depression Scale (CES-D), and the correlative factors of depression were analyzed.

Results In this study, 23180 children and adolescents were enrolled (median (range) age: 12 (9–18) years); of them, 8,261 (35.6%) suffered from depression with a CES-D score of > 15. The onset of depression was significantly related to age, grade, gender, parental absence, attending key schools or classes, presence of moderate or severe internet addiction (IA), school record, social relationships, parental occupation, and education status. Furthermore, female gender (OR = 1.175; 95% CI: 1.108–1.247; $p < 0.001$), junior middle school (OR = 1.487; 95% CI: 1.380–1.601; $p < 0.001$), parental absence (OR = 1.272; 95% CI: 1.183–1.367; $p < 0.001$), attending key schools (OR = 1.221; 95% CI: 1.120–1.332; $p < 0.001$), attending key classes (OR = 1.099; 95% CI: 1.001–1.207; $p = 0.048$), and presence of moderate or above IA (OR = 13.593; 95% CI: 12.028–15.361; $p < 0.001$) were the most prominent independent factors for depression.

Conclusion Depression is very common among Chinese children and adolescents living in poor areas of Weining County. Older age, higher school grade, female gender, parental absence, attending key schools or classes, and the presence of moderate to severe IA are some important factors that may dictate the occurrence of depression in these children and adolescents.

关键字：adolescent, depression, factors, poverty, internet addiction

（组内口头交流）

突发公共卫生事件视域下青少年健康素养评价量表编制及在初中生中应用的信效度分析

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目的 编制突发公共卫生事件视域下青少年健康素养评价量表（Adolescent Health Literacy Evaluation Scale under Public Health Emergencies，AHLES-PHE）及其在初中生中应用的信效度检测。

方法 结合突发公共卫生事件及青少年健康素养特点形成 AHLES-PHE 初始版，经两轮 Delphi 专家征询形成 AHLES-PHE 专家版，对 1729 名初中生中进行测试，通过项目分析和因子分析(结构效度)形成 AHLES-PHE 正式版。AHLES-PHE 正式版内容效度用专家法和敏感性分析评估，检测其与日常健康信息素养自评问卷（Everyday health information literacy，EHIL）关联效度，计算内部一致性信度、奇偶分半信度及重测信度。

结果 （1）项目分析：AHLES-PHE 专家版各条目得分与总分的相关系数在 0.420~0.722 之间（$P<0.01$），

决断值 CR 在 10.140~66.980 之间（P<0.01）。（2）效度分析：探索性因子分析得出 45 条目和 8 因子的 AHLES-PHE 正式版，8 因子可解释总变异的 61.30%，验证性因子分析模型拟合指标为 X2/df=3.325、RMSEA=0.052、GFI=0.853、CFI=0.912、TLI=0.904、NFI=0.880；敏感性分析 Cronbach's α 系数范围为 0.957~0.958 之间，AHLES-PHE 正式版总分与 EHIL 总分相关系数 r 值为 0.340（P<0.01）。（3）信度分析：AHLES-PHE 正式版总量表的内部一致性 Cronbach's α 系数、分半信度 Spearman-Brown 系数分别为 0.958 和 0.975，总量表的重测信度 ICC 值为 0.753（P<0.01）。

结论 该研究编制的 AHLES-PHE 正式版具有较好的信度、结构效度及内容效度，与 EHIL 关联效度一般，该量表在突发公共卫生事件视域下对初中生健康素养评测有一定的适用性。

关键字：突发公共卫生事件；青少年；健康素养；量表编制；信度；效度

（组内口头交流）

Dynamic Network Characteristics of Adolescents with Major Depressive Disorder: Attention Network Mediates The Association between Anhedonia and Attentional Deficit

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Objective Adolescents with major depressive disorder (MDD) is highly heterogeneous, and attention-deficit is a critical symptom, which impaired the social functioning of patients. However, the neural network relevant psychopathologic mechanism was not elucidated. Therefore, we aimed to explore the dynamic neural network activity of attention-deficit and the relationship with the clinical outcome.

Methods We studied 188 adolescents (12-23 years) with major depressive disorder(MDD) who were treated with SSRIs for 8 weeks and 94 healthy controls who had high-quality resting-state EEG and fMRI data as a part of the adolescent with MDD Cohort. Combining psychophysics, electroencephalography (EEG), and functional magnetic resonance imaging (fMRI) techniques, we aimed to inform the dynamic network features by investigated EEG microstate characteristics and related network temporal features in adolescents with MDD.

Results At baseline, microstate analysis demonstrated that the frequency of microstate C in the adolescents with MDD were decreased compared to the health controls, while the duration and coverage of microstate D was increased in the MDD. Mediation analysis revealed that the transition probability from microstate C to microstate D mediated the anhedonia and attention deficit in the patient group. The resting fMRI results showed that the temporal variability of dorsal attention network (DAN) was significantly weaker in MDD than that in healthy controls, whereas the temporal frequencies were comparable between the two groups. Importantly, temporal variability of DAN mediates the relationship between anhedonia and attention deficit in the patient group. After acute-stage treatment, the remitters ameliorated in microstates C and D compared with treatment failures. For resting-state fMRI data, temporal variability of DAN was significantly higher in remitters than in treatment failures.

Conclusion Our findings elucidated the dynamic neural network characteristics revelant acute-stage treatment efficacy in the adolescents with MDD, which were significantly associated with the anhedonia and the cognitive impairments. The study enriched the understandings of the neural mechanism underlying the attention deficit in adolecents MDD, and provided the novel clinical biomarkers.

关键字：Major depressive disorder, adolescent, dorsal attention network, microstate, resting-state fMRI

（组内口头交流）

Relationships Among Premonitory Urge, Tics, and Quality of Life in Drug-naive Children with Tic Disorders: A Mediation Analysis of A Chinese Sample

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Objective Premonitory urge (PU) is a common sensory phenomenon in patients with tic disorder (TD). The quality of life is an important issue for the recovery of patients with tic disorders. However, the relationship among PU, severity of tic and quality of life was unclear. The aim of this study is to explore the association among these three variables.

Methods Clinical data, including the Yale Global Tic Severity Scale (YGTSS), Premonitory Urge to Tic Scale (PUTS), and Tourette-Quality of Life Scale (GTS-QOL), were collected from drug-naive TD patients aged 6-16. Based on the PUTS values, the subjects were divided into two groups: the PU group (PUTS > 12) and the NPU group (PUTS ≤ 12). Logistic regression was employed to explore the contribution of age and gender to the presence or absence of PU in TD patients. Correlation analysis was performed using Spearman's correlation and partial correlation. Lastly, mediation analysis was conducted to explore the relationship among the severity of PU, the severity of tics and their components, quality of life, and various influencing factors.

Results A total of 1204 drug-naive TD patients were enrolled in our study, with 911 subjects in the PU group and 293 in the NPU group. By Kolmogorov-Smirnov test, except for cognitive factor score of GTS-QOL (p = 0.422) and Physical factor score of GTS-QOL (p = 0.099), age, YGTSS, GTS-QOL total score and each factor score were statistically different (p<0.05) between PU and NPU groups. The Chi-square test of sex and comorbidity (pure tic or not) between 2 groups did not show a significant difference (p = 0.228 for sex, and p =

0.267 for comorbidity). Logistic regression analysis found that age (OR = 1.127, p = 0.001) were significant predictors for the presence of PU. All of pairwise Spearman correlation analysis for selected clinical variables were significant (p<0.05). Impairment of tic could not act as a mediator (p>0.05) of the effect of PU on quality of life and its various factors. Vocal tic did not act as a mediator (p>0.05) of the effect of PU on the cognitive factor of quality of life, but could act as a mediator of the effect of PU on quality of life and its other factors (p<0.05). Motor tic can act as a mediator (p<0.05) of the effect of PU on quality of life and its factors.

Conclusion The incidence of PU in tic disorder increased with age, which was a risk factor predicting higher tic severity and worse life quality. Motor tic and vocal tic but not impairment of tic can act as a mediator of the effect of PU on quality of life. Future development of therapies targeting PU, motor tics, or vocal tics may be effective in improving quality of life in TD

关键字：Tourette Syndrome; Premonitory urge; Quality of Life; Analysis of mediation

（组内口头交流）

Development, Reliability and Validity of Sensory Phenomenon Assessment Scale (SPAS): A New Tool for Assessment of Tic-associated Sensations

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Objective Premonitory urge (PU) is a common sensory symptom in patients with tic disorder (TD). However, the current assessment tools cannot comprehensively and accurately evaluate PU in the whole age group. We will attempt to develop a new scale to evaluate PU more accurately and comprehensively, and to test its reliability and validity.

Methods The final version of Sensory Phenomenon Assessment Scale (SPAS) would be developed after reviewing of literatures, semi-structured interviews for patients and expert consultation. Then, hundreds of TD children and adolescents would be interviewed by psychiatrist to fill in the SPAS, Yale Global Tic Severity Scale (YGTSS), Premonitory Urge for Tics Scale (PUTS) and Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS). The Cronbach's alpha coefficient and Spearman-Brown coefficient of the SPAS would be calculated to evaluate the reliability and split-half reliability, respectively. A random sample of 40% would be selected to retest the SPAS one month later to calculate the test-retest reliability. The correlation coefficients between the SPAS and the three scales YGTSS, PUTS and CY-BOCS would be calculated to verify the criterion validity, and an exploratory factor analysis was performed. Finally, according to PUTS, we would explore the cut-off values of normal and abnormal SPAS.

Results We developed the sensory phenomena scale, including two parts: symptom list and severity. The second part of severity included one dimension of five items, including number, frequency, tension, transformation and functional impairment. A total of 279 TS children and adolescents with (n = 223) and without (n = 56) PU were finished these 4 scales. Cronbach's alpha coefficient, Spearman-Brown coefficient and test-retest reliability was 0.863, 0.879 and 0.987 separately. For validity, Correlation analysis between PUTS and SPAS, YGTSS and SPAS, CY-BOCS and SPAS were 0.688 (p<0.01), 0.265 (p<0.01) 0.052 (p>0.05). A total of 5 items of SPAS belonged to one dimension, each item had a factor loading greater than 0.6. The receiver operating characteristic curve (ROC) of SPAS was made according to PUTS score to classify patients with or without PU. The area under the curve (AUC) was 0.808, and the maximum Youden index corresponding to the SPAS value was 3.5.

Conclusion After testing, the reliability and validity of SPAS were accepted, which met the requirements of scale development. After clinical practice, the sensory phenomena scale constructed in this study can comprehensively evaluate the severity of PU in children and adolescents aged 6-17 years with TD.

关键字：tic disorder, Premonitory urge, Sensory Phenomenon Assessment Scale, Reliability and Validity

（组内口头交流）

Identification of Suicidality in Adolescent Major Depressive Disorder Patients Using SMRI: A Machine Learning Approach.

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Objective Suicidal behavior is a major concern for patients who suffer from major depressive disorder (MDD), especially among adolescents and young adults. Machine learning models with the capability of suicide risk identification at an individual level could improve suicide prevention among high-risk patient population.

Methods A cross-sectional assessment was conducted on a sample of 66 adolescents/young adults diagnosed with MDD. The structural T1-weighted MRI scan of each subject was processed using the FreeSurfer software. The classification model was conducted using the Support Vector Machine - Recursive Feature Elimination (SVM-RFE) algorithm to distinguish suicide attempters and patients with suicidal ideation but without attempts.

Results The SVM model was able to correctly identify suicide attempters and patients with suicidal ideation but without attempts with a cross-validated prediction balanced accuracy of 78.59%, the sensitivity was 73.17% and the specificity was 84.0%. The positive predictive value of suicide attempt was 88.24%, and the negative predictive value was 65.63%. Right lateral orbitofrontal thickness, left caudal anterior cingulate thickness, left fusiform thickness, left temporal pole volume, right rostral anterior cingulate volume, left lateral orbitofrontal thickness, left posterior cingulate thickness, right pars orbitalis thickness,

right posterior cingulate thickness, and left medial orbitofrontal thickness were the 10 top-ranked classifiers for suicide attempt.

Conclusion The findings indicated that structural MRI data can be useful for the classification of suicide risk. The algorithm developed in current study may lead to identify suicide attempt risk among MDD patients.

关键字：suicide ; major depressive disorder; machine learning; structural MRI; support vector machine

（组内口头交流）

Sex- and Age-dependent Alterations in White Matter Diffusivity Among Children and Adolescents with Social Anxiety Disorder

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Objective Social anxiety disorder (SAD) is associated with significantly impaired social functioning, but the underlying neurobiological mechanisms remain unclear. Abnormal brain anatomy in patients with SAD was previously reported. There are considerable sex differences in the incidence and severity of SAD, coupled with the early onset of SAD when the brain is undergoing critical neurodevelopmental changes, but possible sex- and age-dependent alterations in brain anatomy have rarely been explored. As a pioneer, our lab previously reported various sex- and age-dependent alterations in gray and white matter volume among pediatric patients with SAD. In this study, we aimed to address the sex- and age-dependent alterations in the white matter morphology among this diagnostic group.

Methods This study included 144 participants, who and whose parents gave written consent to the protocol approved by the Ethics Committee at Shanghai Mental Health Center. Among the participants, 76 (44 female; age: 9.1 to 17.8) were confirmed as clinically normal and 68 (45 female; age: 9.3 to 17.7) were diagnosed to have social anxiety disorder as their primary diagnosis by professional pediatric psychiatrists, with sex and age matched. For all the participants, high-resolution T1- and diffusion-weighted images were acquired on a Siemens 3.0-Tesla magnetic resonance scanner. White matter morphology was quantified by conventional diffusion tensor imaging measures, including fractional anisotropy (FA), mean diffusivity (MD), axial diffusivity (AD), and radial diffusivity (RD). We applied a voxel-based analysis for each type of parameter maps via statistical parametric mapping with cluster-level corrections for multi-comparisons.

Results We observed significant sex- and age-dependent alterations in the white matter diffusivity, including AD, RD, and MD, at the exterior of bilateral cerebella, but no significant alterations in the FA across the brain. For male children and adolescents, white matter diffusivity was not correlated with age among clinically normal individuals; however, higher age corresponded with more declined white matter diffusivity among patients with SAD. For female children and adolescents, higher age corresponded with more declined white matter diffusivity among clinically normal individuals, but with more increased white matter diffusivity among patients with SAD.

Conclusion We discovered white matter diffusivity alterations focally at the exterior of the cerebellum among pediatric patients with SAD. Importantly, these alterations were modulated by sex and age. These findings suggest that for male and female pediatric patients with SAD, the critical neurodevelopmental period of the transition from childhood to adolescence was differentially characterized by age-dependent brain alterations.

关键字：social anxiety disorder; pediatric psychiatry; white matter; mean diffusivity; axial diffusivity; radial diffusivity

（组内口头交流）

基于情绪调节能力构建的成人 ADHD 分类模型及其临床特征探索

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目的 情绪调节能力缺陷在精神障碍群体中广泛存在，且与多种精神病理症状密切相关。注意缺陷多动障碍（ADHD）成人存在显著的情绪失调（Emotional Dysregulation，ED），然而目前尚缺乏研究对成人 ADHD 情绪调节能力的特征进行细致刻画。本研究基于情绪调节能力对混合人群（成人 ADHD 及成人对照）构建分类模型，并进一步比较不同分类在 ADHD 核心症状、情绪失调症状等临床特征的差异。

方法 纳入符合 DSM-5 诊断标准的 ADHD 成人 303 例，以及成人健康对照（HC）164 名。采用情绪调节困难量表（DERS）、情绪调节问卷（ERQ）评估情绪调节能力；ADHD 症状量表评估核心症状、执行功能行为评定量表成人版“情绪控制”因子分评估 ED。使用潜在剖面分析（Latent Profile Analysis, LPA），以 ERQ 和 DERS 评估的八个情绪调节能力因子（认知重评、表达抑制、情绪接受、策略使用、冲动控制、情绪知觉、目标行为、情绪理解）作为预测项，对混合样本进行分类。进一步对新分类模型进行内部验证，选择支持向量机算法对分类模型进行十次五折交叉验证。最后，在最佳模型的基础上，采用协方差分析对不同分类的临床核心症状及情绪失调症状进行比较，探索其外部效度。

结果 LPA 显示四分类为最佳模型（AIC=9032.422，BIC=9210.715，LMR=0.0052，BLRT<0.001），分别为：适应性策略高调节能力（LP1，31.9%）、适应性策略中等调节能力（LP2，26.8%）、非适应性策略中等调节能力（LP3，29.0%）和非适应性策略低调节能力（LP4，12.3%）。比较四分类间的诊断

分布，发现 HC 主要集中在 LP1（70.7%），ADHD 主要集中在 LP3（42.9%），LP4 仅包含 ADHD 个体。内部验证结果发现线性支持向量机的准确率最高为 97.4%。五折交叉验证的结果提示，各个分类的真阳性率均在 90%以上；在假阴性率方面，LP4 最高为 8.6%，LP3 最低为 1.5%；各个分类的阳性预测值均在 90%以上；十次五折交叉验证结果仍提示模型仍具有较好的稳定性。协方差分析显示，ADHD 核心症状与情绪失调在各分类间差异有显著意义。

结论 基于情绪调节能力构建的四分类模型具有很好的内部及外部效度，该结果有助于阐释 ADHD 情绪失调的异质性，并有望为未来开展针对性干预提供依据。

关键字：注意缺陷多动障碍；情绪调节；情绪失调；潜在剖面分析

（组内口头交流）

忧郁型和非忧郁型抑郁症患者大脑半球间/半球内的功能连通性的不对称性损害

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目的 重度抑郁症（MDD）患者中普遍存在忧郁特征。忧郁 MDD 往往被认为是更严重的疾病形式和更高的自杀风险。大脑不对称性的改变被认为与各种神经病理学有关。抑郁症患者可能存在不对称性的损害。大脑不对称性可以通过半球间/半球内的功能连接来测量。然而在忧郁组和非忧郁 MDD 患者中，半球间/半球内 FC 在多大程度上导致了大脑不对称的破坏，这仍然是未知的。其次，目前尚不清楚这种不对称性的改变能否作为区分忧郁组和非忧郁 MDD 患者的内在表型。

方法 通过湘雅第二医院精神科门诊招募了 31 例忧郁 MDD 患者和 33 例年龄在 18-45 岁的非忧郁 MDD 患者，从社区中招募了 32 名年龄和性别匹配的健康对照组。采集以上被试的静息态功能磁共振（functional magnetic resonance, fMRI）数据。进一步分析患者和健康对照的不对称性指数(parameter of asymmetry, PAS)以及 PAS 值与临床症状的相关性。

结果 与非忧郁的 MDD 相比，忧郁 MDD 组右侧额中回和左侧小脑 IX 的 PAS 减少。忧郁 MDD 组左侧脑岛 PAS 值与汉密尔顿抑郁量表(HAMD)总分呈显著负相关($r = -0.402, p = 0.025$)。左侧小脑 IX 区的 PAS 值与 HAMD 总分($r = -0.395, p = 0.028$)和短暂快乐体验量表(TEPS)的情境完善($r = -0.401, p = 0.028$)呈负相关。支持向量机结果显示，左侧小脑 IX 的 PAS 值能够区分忧郁症组和非忧郁症组，灵敏度为 80.65%，特异度为 57.14%，准确率为 71.19%。同时，右侧额叶中回 PAS 值区分这两组的敏感性为 67.74%，特异度为 75.00%，准确率为 69.49%。而这两个脑区 PAS 值联合用于区分患者组的灵敏度、特异度和准确率分别为 74.19%、82.14%和 77.97%。

结论 忧郁组和非忧郁 MDD 患者的大脑都发生了功能不对称的改变，这种功能不对称性可能参与 MDD 的病理生理学改变。

关键字：忧郁，抑郁症，功能连接，不对称性

（组内口头交流）

首发青少年抑郁症患者伴非自杀性自伤的神经电生理特点对不良预后的预测作用

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目的 反复进行 NSSI 行为的抑郁症患者是向自杀行为发展的高风险亚群，而 NSSI 在青少年人群中呈现爆发性的高患病率。因此，针对青少年抑郁症人群中反复进行 NSSI 行为的亚群研究，在识别和预测抑郁症人群中的自杀高风险具有重要的意义。NSSI 和自杀行为的前期研究提示两者的发生存在共同的认知环节——反应抑制功能缺陷，从神经发育角度看来对后期危险行为的成因对后期的危险行为有较强的预测性。电生理指标中的 P300 成分的特征指标可以对反应抑制功能缺陷进行量化评估，是反映 NSSI 发生发展过程中重要的生理指标。

方法 研究共分为横断面研究和纵向研究两个方面。横断面研究纳入 MDD 受试者共 124 例，根据其伴随行为分为三个亚组：MDD 组、MDD+NSSI 组、MDD+SA 组，并设置匹配的健康对照（HC 组），将横断面四组的 P300 指标数据进行分析比较。以 MDD+NSSI 患者为观察对象进行纵向队列研究，共纳入 57 例。以持续口服舍曲林为治疗方式，在治疗前、治疗后第 4 周、治疗后第 8 周、治疗后第 12 周、治疗后第 24 周为随访时间点。比较不同预后的 MDD+NSSI 青少年患者在基线状态和治疗过程中的脑电指标变化，并找到基线状态下，不同的脑电变化特征对治疗预后的预测作用。

结果 在伴有 NSSI 行为的青少年抑郁症人群中，基线状态的 P300 成分进行时频分析，其 theta 频段能量特点，有对不良预后的预测作用。预后良好组的基线 P3d 振幅与 theta 能量值均与横断面 MDD+NSSI 组保持在相同水平（$p>0.05$）；预后不良组的基线 P3d 振幅与横断面 MDD+NSSI 组保持在相同水平，而 theta 能量值与 MDD+SA 组保持在相同水平（$p>0.05$）。其基线状态的 theta 能量值对不良预后的预测 ROC 曲线下面积为 0.72。

结论 基线状态下，在伴有 NSSI 行为的青少年抑郁症患者中若出现类似于横断面中 MDD+SA 人群的时频指标特征性改变，对其预后有一定的预测作用：基线状态下，对自伤线索存在负性情绪应激的青少年抑郁症人群在后续治疗过程中预后较好，随着治疗，该类人群的 NSSI 行为频率也会逐渐下降；基线状态下，对自伤线索不存在负性情绪应激的青少年抑郁症人群在后续治疗过程中预后较差，该类人群的 NSSI 行为不会随着治疗而逐渐减少。

关键字：青少年抑郁，非自杀性自伤，不良预后，

反应抑制受损，P300

（组内口头交流）

多模态磁共振结合深度学习算法预测哌甲酯治疗 ADHD 疗效

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目的 哌甲酯是临床治疗注意缺陷多动障碍（Attention deficit/hyperactivity disorder, ADHD）的一线药物，总体能有效改善患者的临床症状，但仍对 30%左右的 ADHD 患者无效。寻找哌甲酯治疗 ADHD 疗效的可靠生物学标记物预测方法有助于使患者得到精准有效治疗，减少不必要的副反应，提高治疗依从性，改善患者结局。神经影像学技术已广泛应用于神经精神疾病的发病机制及临床研究中，以深度学习为代表的基于数据驱动的分类方法能够捕捉复杂抽象的高阶特征，具有较好的分类性能，本研究将使用 ADHD 患者治疗前的神经影像学数据结合深度学习算法，预测哌甲酯治疗 ADHD 儿童青少年 12 周后的疗效。

方法 本研究共纳入了 61 例 ADHD 儿童青少年患者，在治疗前使用 ADHD 症状评定量表（ADHD-RS）评估其症状严重程度，以及进行磁共振扫描，成像序列包括结构磁共振（T1），静息态功能磁共振（rs-fMRI）和弥散张量成像（DTI）。对所有入组患者进行标准的哌甲酯剂量滴定，滴定至最佳剂量后维持治疗，12 周后使用 ADHD-RS 评估其症状，以症状减分率≥40%为有显著疗效的标准将患者对哌甲酯的反应分为有效和无效。将患者治疗前的 T1，rs-fMRI 以及 DTI 数据预处理后，进行初步的特征提取，包括不同脑区的结构特征，脑区之间的静态与动态功能连接及其图论特征，对上述特征使用主成分分析进行降维，将降维后的特征通过多层感知机对药物疗效进行分类。

结果 哌甲酯治疗 12 周之后，ADHD 患者的 ADHD-RS 症状评分显著降低，其中 44%的患者有显著疗效。结合深度学习算法，使用治疗前多模态神经影像学数据特征对哌甲酯治疗 ADHD 疗效进行预测，将样本以 4：1 的比例分为训练集和测试集，结果发现，在训练集中的准确率为 0.92，测试集中准确率达到 0.85，其中，结构特征和功能连接矩阵在预测中起到了较为重要的作用。

结论 本研究使用多模态磁共振数据结合深度学习算法对哌甲酯治疗 ADHD 疗效进行预测，结果显示在训练集和测试集中都有较高的准确率。

关键字：ADHD，哌甲酯，疗效预测，多模态磁共振，深度学习

（组内口头交流）

基于体积的形态学测量对青少年抑郁症患者的大脑皮层异常的研究

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目的 探究青少年重度抑郁症患者皮层体积特征，探究重度抑郁症患者与认知过程和面部情绪识别有关的大脑区域的形态测量是否发生改变。

方法 于重庆医科大学附属第一医院门诊收集青少年重度抑郁症患者 66 例和与患者组年龄、性别、受教育程度相匹配的右利手健康对照组 39 例。在 MRI 扫描当天使用 17 项汉密尔顿抑郁量表(HAMD-17)测量被试抑郁症的严重程度。所有磁共振图像均采用 GE 3T GE Signa HDxt 扫描仪。我们在 DPABISurf 中进行图像处理和统计分析，评估 MDD 患者和对照组之间的大脑皮层体积差异。我们采用双样本 t 检验来研究抑郁症患者的皮层体积变化。将年龄和性别作为线性回归模型的协变量。初始体素阈值设置为 $p < 0.001$。使用无阈值的团块增强处理(TFCE)方法进行多重比较矫正，每个半球的显著性阈值为 $q < 0.025$。在得到具有显著性差异的核团后，我们进一步提取了青少年 MDD 患者和健康对照的核团内的平均皮层厚度，并进行与临床评分（即量表评分和病程）的皮尔逊相关分析，以检验测量值与临床信息之间的关系。最后，我们将得到的两组的平均皮层厚度进行受试者工作特征曲线（ROC）分析，以验证我们得到的皮层体积差异能够区分重度 MDD 患者及健康对照。

结果 与正常健康对照相比，青少年重度抑郁症患者在背侧视觉通路（V3B）及早期视觉皮层（V2）的皮层体积显著降低；而在初级运动皮层的皮层体积显著增高（M1）。

结论 在人脑中，从混乱的背景中整合轮廓需要一种循环机制，V1、V2、V3B 参与了这个过程，抑郁症患者可能存在轮廓整合障碍，从而导致注意力下降；所以，视觉皮层也和认知过程比如信息整合、轮廓整合、面部情绪识别障碍等相关。初级运动皮层（M1, primary motor cortex） 通过独特的、特定的皮层途径来协调与神经性疼痛有关的感觉和厌恶情绪成分，以此达到缓解疼痛的目的。本实验 M1 皮层的体积降低可能提示 MDD 患者对疼痛抑制增强，进而导致自伤等行为的发生。

关键字：青少年抑郁症，大脑皮层，磁共振成像

（组内口头交流）

Association between School Bullying and Premenstrual Disorders in Girls : A Cross-sectional Study From The Adolescence Mental Health Promotion Cohort

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Objective School bullying is a pervasive problem that occurs in an educational setting among adolescents. Bullying victims have a higher odds of experiencing a range of adverse psychological outcomes. Previous studies have illustrated that school bullying was associated with premenstrual disorders (PMDs) in adulthood. Thus, leveraging cross-sectional data from a large cohort of students aged 10-19 years in China, we aimed to examine the association between school bullying and PMDs in adolescents.

Methods We conducted a cross-sectional analysis among 10,042 menstruating girls from the Adolescence Mental Health Promotion Cohort, assessed for PMDs with the Calendar of Premenstrual Experiences (COPE) and school bullying with Delaware Bullying Victimization Scale-Student (DBVS-S). Multivariable logistic regression was used to examine the associations between school bullying and PMDs, including premenstrual syndrome (PMS) and premenstrual dysphoric disorder (PMDD).

Results At a mean age of 15.0 years (standard deviation (SD) 1.77), 2145 (21%) girls met the criteria of a probable PMD, including 1557 (16%) for PMS and 588 (6%) for PMDD. Compared to girls without any bullying experience, bullied girls had a higher odd of PMDs (OR 3.15, 95% CI 2.75 - 3.60). The association was most pronounced for verbal bullying (OR 3.18, 95% CI 2.76 - 3.68), followed by relational bullying (OR 3.24, 95% CI 2.72 - 3.84), cyberbullying (OR 3.00, 95% CI 2.26 - 3.99), and physical bullying (OR 2.45, 95% CI 1.93 - 3.09). A stronger association of any bullying was observed for PMDD than for PMS and among girls without psychiatric comorbidities than those with.

Conclusion Our findings suggested that school bullying, particularly verbal and relational bullying, is positively associated with PMDs in adolescent girls. Efforts to prevent school bullying are needed to reduce the risk of multiple adverse health outcomes, including PMDs.

关键字：School bullying, Premenstrual disorders, premenstrual syndrome, premenstrual dysphoric disorder

（组内口头交流）

Behavioral Intervention Alone Versus Behavioral Intervention Plus Oxytocin Nasal Spray for Treating Social Communication Deficits in Autism Spectrum Disorder: A Randomized Placebo-controlled Clinical Trial

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Objective To examine the short-term efficacy and safety of oxytocin nasal spray in treating social communication deficits in ASD.

Methods In this randomized, double-blind, placebo-controlled clinical trial, a total of 80 children with ASD (aged 6–12 years) were enrolled and received placebo treatment for 1 week. The participants (n = 68) who showed a reduction of less than 10% in the results of the social responsiveness scale (SRS) were randomized to receive behavioral intervention plus placebo (n = 34) or oxytocin nasal spray (n = 33, 24 IU per day) for 6 weeks. Social communication deficits and safety profiles were evaluated at baseline and 6 weeks.

Results The full analysis set, per protocol set, and safety set included 67, 60, and 67 children, respectively. At 6 weeks, the oxytocin group exhibited significantly greater changes in the SRS scores than the placebo group (25.2 ± 0.5 vs. 7.1 ± 0.5, $p < 0.001$). Both the placebo and oxytocin groups showed good treatment adherence for medication (100% for both groups) and behavioral intervention (89.5% vs. 90.3%, $p > 0.05$). No severe adverse events were recorded.

Conclusion Behavioral intervention in combination with oxytocin nasal spray demonstrated preliminary efficacy in improving social communication deficits in children with ASD, with good treatment adherence and safety.

关键字：Autism; Oxytocin; Social communication deficits; Children

（组内口头交流）

Impulsivity Mediates The Association between Childhood Maltreatment and Suicidal Behaviors Among Left-behind Children and Adolescents in China

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Objective The purpose of the study was to investigate the detection rate and distribution of suicidal behaviors and childhood maltreatment among left-behind children and adolescents in a county of Yunnan Province and analyze the social-psychological factors assosicated with suicidal behaviors among left-behind children and adolescents;Reseach on the assosication between childhood maltreatment and suicidal behaviors and whether impulsivity exist mediating role here; and provide valuable evidences and insights for relevant departments to formulate suicide prevention and intervention measures for left-behind children and adolescents.

Methods In a county in Yunnan Province, a two-stage random cluster sampling method was used to investigate the left-behind children and adolescents aged 10 to 18 (excluding 18) in school. Single / multivariate logistic regression was used to assess the relationship between childhood maltreatment, impulsivity and suicide-related behaviors in left-behind children. And further explore the mediating role of impulsivity in the interaction between childhood abuse and suicide-related behaviors.

Results A total of 5188 participants (response rate:

96.09%) completed the survey and were included in the final analysis. The mean age of all the included participants was 13.58±1.96 years.The detection rate of suicidal ideation was 33.62%. The detection rate of the suicide plan was 20.62%. The attempt suicide detection rate was 9.56%.4057 students had any of the five dimensions(emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect)with a detection rate of 78.20%.Left-behind children and adolescents who had experienced any childhood abuse and had the impulse to act were more likely to experience suicidal ideation, suicide plans, and suicide attempts.Students who experienced any childhood maltreatment (OR=2.56, 95%CI: 1.82,3.59), students with motor impulsiveness (OR=1.73, 95%CI: 1.46,2.06) and non-planning impulsiveness (OR=1.38, 95%CI: 1.03,1.86) were more likely to have suicide plans. Impulsivity played a partial mediator between physical neglect and suicidal ideation, including 9.78%.Some mediated between physical neglect and suicide planning, including 20.21%.Some mediated between physical neglect and suicide attempts, including 14.77%.It partially mediated between childhood abuse and suicidal ideation, suicide planning, and impulsivity did mediated between childhood abuse and suicide attempts.

Conclusion The survey shows that among left-behind children and adolescents, impulsivity plays a partial intermediary role between any childhood abuse and suicidal ideation and suicide plan. Schools and relevant education departments should formulate different intervention strategies for impulsive students in formulating suicide prevention and intervention measures.

关键字：Left-behind children and adolescents,Child maltreatment,Suicide-related behaviors, Impulsivity

（组内口头交流）

儿童青少年抑郁障碍住院患者成年早期结局的随访研究

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目的 探索住院儿童青少年抑郁障碍患者成年早期的预后及影响预后的相关因素。

方法 本研究为回顾性队列研究，筛选 2009 年 1 月至 2015 年 10 月期间在北京大学第六医院儿童病房住院治疗的全部儿童青少年抑郁障碍患者，采用自编信息采集量表对儿童青少年抑郁障碍患者的住院病历进行回顾，并进行 5-11 年的随访调查。使用简明国际神经精神访谈量表（M.I.N.I.）和大体功能评定量表（GAF）对随访时患者的精神症状、临床诊断及社会功能进行评估。采用描述性统计分析患者的基线情况、临床结局等，采用相关分析探讨影响预后的相关因素。全部数据使用 SPSS 21 进行统计分析，显著性水平取双侧检验，检验水准 α=0.05。

结果 共入组 124 例患者,随访成功 83 例（66.9%），其中 2 例（2.4%）随访时已经死亡，1 例为自杀，1 例因躯体疾病死亡。平均随访年限（7.4±1.8）年，随访时年龄中位数为 22 岁。在随访时间点 86.4%的患者诊断未变，诊断改变的 11 例患者中有 10 例诊断为双相情感障碍，1 例诊断为心境（情感）障碍及人格障碍。在随访时间点有 33.3%患者仍在用药，停药年限中位数为 5.7 年。有 19.5%（15/81）患者完全不能参与有用的社会活动，包括全职、兼职及上学，24.7%的患者经济独立，57.1%的患者最高学历为大学本科。按照 GAF 评分标准：基本正常、轻度异常、中度异常、重度异常、极重度异常的患者分别占 64.2%、21%、13.6%及 1.2%。随访时 BMI 与性别相关（$p<0.05$）。患者的社会功能、受教育水平在性别、是否有发病诱因、家族史、既往史、是否为独生子女、居住地类型、城乡情况、性格、出院疗效上的差异均无统计学意义（均 $p>0.05$）。12 岁前起病及 12 岁后起病患者在最高学历、能够参加社会有用的活动、BMI 及远期社会功能上的差异均无统计学意义（均 $p>0.05$）。

结论 儿童青少年住院抑郁障碍患者，在成年早期有较好的诊断稳定性（86.4%），大部分（80%以上）患者能够外出参与有用的社会活动、社会功能保持良好；64.9%以上的患者获得大专及以上学历，一半以上的患者与家庭及朋友关系良好，按照中国标准，超重及肥胖的患者比例为 14%，低于全国一般人群水平（37.7%），本研究说明儿童青少年抑郁障碍住院患者的预后较好。随访时 BMI 与性别相关（$p<0.05$），未发现与社会功能、受教育水平等预

关键字：儿童青少年、抑郁障碍、随访、成年早期预后

（组内口头交流）

ABC Family Gene Polymorphisms and Processing Speed Interact To Influence Depression Severity

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Objective The ABC family encodes ATP-binding cassette proteins, which are mainly expressed in the blood-brain barrier and mitochondrial inner membrane and are involved in the transport of various substances. Therefore, 7 SNPs in ABCB1 (rs28401781, rs4148739, rs3747802) and ABCB6 (rs1109866, rs1109867, rs3731885, rs3755047) were included in this study to explore the association of ABC family gene polymorphisms with depression. In addition this study further included cognitive data to explore its association with depression.

Methods The study included 1493 healthy controls (12-65 years, 917 females (61.4%)) and 805 depressed patients (12-65 years, 476 females (59.1%)) who were not

receiving antidepressant treatment or who received treatment for a total duration of no more than 2 weeks. Of these depressed patients, 477 completed cognitive tests. Allele frequencies and genotypic differences between healthy controls and depressed patients were compared for each SNP. Differences in cognitive function across genotypes were compared, and an interaction analysis of cognitive function with genotype was performed to explore the relationship with depression severity.

Results The rs1109866 (X2 = 8.224, p = 0.004; X2 = 9.819, p = 0.007), rs1109867 (X2 = 7.346, p = 0.007; X2 = 9.153, p = 0.010), rs3731885 (X2 = 4.821, p = 0.028; X2 = 8.689, p = 0.013) and rs3755047 (X2 = 5.347, p = 0.021; X2 = 7.403, p = 0.025) loci showed significant differences in gene frequency and genotype frequency between depressed patients and healthy controls, but only the results for the rs1109866 and rs1109867 loci remained significant after adjustment. In addition, rs28401781 (t=2.781, p=0.006, p.adj=0.042) and rs4148739 (t=3.067, p=0.003, p.adj=0.021) were associated with the number of TOH test errors. In addition we found that both rs1109866 and rs1109867 interacted with Trail Making Test results to influence depression severity at baseline in depressed patients.

Conclusion ABC family gene polymorphisms are associated with depression and cognitive function, and ABC family gene polymorphisms interact with cognitive processing speed to influence depression severity.

关键字：Major depressive disorder (MDD); Severity; Genetic; Cognitive; Processing speed

（组内口头交流）

高精度经颅直流电刺激对伴或不伴感觉处理异常的孤独症谱系儿童社交障碍的改善作用差异研究

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目的 半数以上的孤独症谱系障碍(Autism Spectrum Disorder, ASD)儿童在感知觉或感统方面存在异常或失调，其严重影响患儿的沟通及社交，本研究旨在探索高精度经颅直流电刺激对伴或不伴感觉处理异常的孤独症谱系儿童社交障碍的改善作用差异。

方法 本研究是一项随机双盲假对照试验，最终共纳入 72 名 4-12 岁 ASD 儿童参加试验，基于《儿童感觉统合能力发展评定量表》（Children Sensory Integration Rating Scale, CSIRS）评估情况分为感统正常组、感统失调组及对照组，均以左侧背外侧前额叶皮层（F3）为中心阳极进行真或伪高精度 5 通道经颅直流电刺激(High-definition transcranial Direct Current Stimulation, HD-tDCS)，设置电流为 2 mA，连续直流电，每次刺激 20 min，每周 5 次，连续 3 周，共计 14 次。在 HD-tDCS 治疗前 1 周内和最后一次治疗后 1 周内通过社交反应量表(SRS)评估被试社交功能。对于经 HD-tDCS 真刺激组干预后的 4-8 岁 ASD 儿童资料进行事后分析，共纳入 51 名 ASD 儿童，基于《感觉讯息处理及自我调节功能检核表》（Sensory Processing and Self-Regulation Checklist, SPSRC）分为触觉反应不足、触觉反应过于强烈及触觉正常组，对比组间疗效差异。

结果 与伪刺激组相比，F3 中心阳极真刺激组 SRS 量表得分显著减少；与感统失调组相比，干预前后感统正常组在社交知觉（t=5.032, p＜0.000）和社交行为方式（t=3.085, p=0.004）维度的显著变化有统计学意义。触觉反应不足及触觉正常组在社交知觉、社交认知、社交沟通、社交行为方式及 SRS 量表总分上在 HD-tDCS 干预前后得分对比中均展现出显著变化。触觉反应过于强烈组仅社交沟通（t=2.385, p=0.022）治疗后减分存在统计学意义。

结论 HD-tDCS 在改善社交障碍症状方面，感统正常、触觉反应正常或者不足的 ASD 儿童表现出更大的潜力，社交障碍与感统失调、感知觉异常可能存在起协同作用的共同通路，尤其是神经递质及脑网络层面。感觉统合训练联合 tDCS 较单一康复训练或者物理干预疗效可能更好。

关键字：孤独症谱系障碍(Autism Spectrum Disorder, ASD)；高精度 5 通道经颅直流电刺激(High-definition transcranial Direct Current Stimulation, HD-tDCS)；感知觉异常；感统失调；社交障碍。

（组内口头交流）

Therapeutic Efficacy of Sulforaphane in Autism Spectrum Disorders and Its Association with Gut Microbiota: Animal Model and Human Longitudinal Studies

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Objective Sulforaphane (SFN) is an isothiocyanate derived from its glucosinolate precursor, glucoraphanin, as found in broccoli, mostly in the sprouts, partially inactivated by cooking. Recently, many clinical studies reported the improvements on clinical symptoms in treatment of ASD patients treated by SFN. Besides, SFN has been found to improve several diseases by regulating gut microbiota (GM), while the effect of GM on SFN for autism spectrum disorders (ASD) has not been studied. Therefore, this study aims to reveal the role of SFN in the treatment of ASD in children and its potential relationship with intestinal flora through both clinical and animal studies, and to provide new insights into the treatment and pathogenesis of ASD.

Methods To investigate the therapeutic effect of SFN treatment on childhood ASD and its potential relationship with intestinal flora, we constructed a younger age ASD animal model using lipopolysaccharide injection in pregnant rats and evaluated the therapeutic effect of SFN and investigate the potential role of intestinal flora by three-chamber social test and 16S rRNA sequencing, respectively. Meanwhile, we also conducted a longitudinal study to investigate the therapeutic effects of SFN on childhood ASD by recruiting patients aged 4-7 years with ASD

and to explore the potential relationship between the therapeutic effects of SFN and intestinal flora.

Results SFN significantly improved social behavior in ASD-like rats as well as autism symptoms in ASD patients. Although GM changes were similar for both ASD-like rats and ASD patients, such as consistent changes in order Bacillales, family Staphylococcaceae and genus Staphylococcus, the responses and effects of GM on SFN were highly variable in the two studies. The gut microbiota composition was significantly altered in SFN-treated ASD-like rats, whereas this alteration was not evident in ASD patients after 12 weeks of SFN treatment. Correlation analysis showed that order Pasteurellales, Corvnebacteriales, family Pasteurellaceae, Neisseriaceae and genus Prevotella Haemophilus and Neisseria were associated with enhanced social behavior in rats, while Bacteroidetes (from the phylum to the order Bacteroidales), family Prevotellaceae, family Hyphomicrobiaceae and genus Chelativorans, unidentified Peptococcaceae and Devosia were associated with improved ASD symptoms in ASD patients.

Conclusion These data demonstrate that SFN treatment alleviates social deficits in gestational-LPS induced ASD-like rat model and pediatric autism patients, and the improvements associated with gut microbiota. These data indicated that SFN, as a potential intervention targeting the gut microbiota, could provide a novel avenue for preventing and treating ASD.

关键字：sulforaphane; autism spectrum disorders; gut microbiota; animal model; clinical study

（组内口头交流）

12 周哌甲酯/托莫西汀治疗对注意缺陷多动障碍儿童反应抑制能力的效果研究：来自 fNIRS 的证据

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目的 基于功能性近红外光谱技术（fNIRS），在 Go/No go 范式条件下探讨注意缺陷多动障碍（ADHD）儿童的反应抑制能力及相应脑区血流动力学反应，经过12周哌甲酯或者托莫西汀治疗后脑区激活改善情况。

方法 2022 年 6 月-2023 年 1 月于中南大学湘雅二医院纳入 25 名 ADHD 儿童，长沙市某小学招募健康儿童（HC）20 名，经过 12 周药物治疗的 ADHD 儿童（PT）15 名，使用量表 SNAP-IV（父母版）、PSQ（父母版）、BRIEF-P（父母版）评估核心症状和执行功能水平，利用 fNIRS 采集全脑 Go/No go 任务态血氧数据。软件 SPSS 23.0、NisSpark、Matlab2013b 用于统计分析。

结果 （1）ADHD 组和 HC 组两组结果比较显示，BRIEF-P 抑制因子分差异有高度统计学意义（$p<0.001$），即 ADHD 组反应抑制能力受损程度更高；Go/No go 模块正确率、反应时间差异有统计意义（$p=0.023$、$p=0.040$），即 ADHD 组对图片刺激的正确反应次数低于健康儿童，反应时间长于健康儿童；通道 19（$t=-3.448$，$p^*=0.022$），20（$t=-3.501$，$p^*=0.022$），32（$t=-3.506$，$p^*=0.022$）氧合血红蛋白浓度差值的差异有统计学意义，表明 ADHD 组通道 19，20 和 32 激活程度更弱。（2）相关性分析结果示，BRIEF-P 量表的抑制因子分与 Go/No go 模块反应时间呈现正相关（$r=1.000$，$p<0.001$）；BRIEF-P 量表的抑制因子分与通道 20 的 β 值为负相关（$r=-0.440$，$p=0.028$）；Go/No go 模块反应时间与通道 20 的 β 值为负相关（$r=-0.440$，$p=0.028$）。（3）ADHD 组和 PT 组比较结果示，通道 13（$t=-3.728$，$p^*=0.034$）差异有统计学意义，表明 PT 组通道 13 激活更强。

结论 ADHD 儿童存在着明显的反应抑制能力缺陷，表现为大脑双侧额极区皮层，右侧背外侧前额叶皮层激活程度减弱；经药物治疗后，右侧额极区皮层，背外侧前额叶皮层激活程度较前增强。

关键字：注意缺陷多动障碍；fNIRS；反应抑制；药物治疗；

（组内口头交流）

基于半结构化互动视频中观察到的非典型面部表情特征标记作为孤独症谱系障碍（ASD）评估标志物的分析

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目的 探索并验证采用基于视频行为特征的孤独症谱系筛查系统标记的面部表情(Facial expression)特征是否能够有效区分孤独症谱系障碍(Autism spetrum disorder, ASD)儿童和典型发育(ypical developing,TD)儿童，并探讨儿童面部表情特征与社交能力之间的关系。

方法 入组 158 名 1-6 岁的 ASD 儿童和年龄性别相匹配的 158 名 TD 儿童，采用基于视频行为特征的孤独症谱系筛查系统，基于五个不同的半结构化互动活动的短视频对所有被试的面部表情特征进行标记，包括:面部表情的总次数、恰当的面部表情的总次数、恰当的面部表情的次数占面部表情总次数的比例、基础面部表情的次数、非基础面部表情的次数、非基础面部表情的次数占面部表情总次数的比例和面部表情的丰富度（记为 FE1-FE7)。使用非参数检验比较两组的评定结果，以二元逻辑回归方法确定与组别差异相关的指标，以逐步逻回归方法筛选与 ASD 相关的重要面部表情特征并建立预测模型，使用 Bootstrap 内部重采样、校准曲线和 Hosmer-Lemeshow、ROC 和 AUC 曲线评价模型。使用对数趋势线探索分布趋势。使用孤独症儿童行为评定量表（ABC）和丹佛发育筛查测试（DDST）评估儿童的社会和交流能力，通过 Pearson 相关系数检验各指标与社交能力间的的关联性及显著程度。

结果 FE1、FE2、FE3、FE4、FE7 在五项活动中均显示出 ASD 组和 TD 组之间具有统计学意义的差异（经过矫正的 Ps<0.001，Z=4.344-7.307），并与两组间的诊断差异显著相关（OR=0.17-0.632，95%CI：0.104-0.545，0.278-0.732，Ps<0.05），AUCs=0.345-0.738，与社会和交流能力显著相关（rs=|0.217-0.359|，Ps<0.01）。FE5 和 FE6 未通过信度检验，但对数趋势线显示了它们存在区分 ASD 和 TD 的潜力。基于上述 5 个面部表情特征的分类模型将 AUC 提高到 0.78（95%CI：0.726-0.828），并通过了校准验证（$\chi2$=5.473，P=0.706）。

结论 使用孤独症筛查系统、基于半结构化互动活动行为视频标记的五个面部表情特征与儿童的社交能力显著相关，其组合具有较有效的区分 ASD 儿童和 TD 儿童的能力。

关键字：面部表情，孤独症谱系障碍，行为观察，分类模型

（组内口头交流）

SSRIs 药物治疗前后的 SII 和 NLR 对青少年抑郁症患者自伤行为的预测价值

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目的 探讨青少年抑郁症患者在接受 SSRIs 药物治疗前后，其系统免疫炎症指数(systemic immune-inflammation index，SII）和中性粒细胞-淋巴细胞比值（neutrophil-to-lymphocyte ratio，NLR）在预测自伤行为方面的价值。

方法 招募 104 名符合 DSM-5 抑郁发作诊断标准的青少年。于治疗前和治疗 2 周后采集血液样本，并计算 SII 和 NLR。并采用童年创伤问卷、情绪调节量表进行问卷调查，以评估患者童年创伤经历和认知重评水平。采用 wilcoxon 符号秩检验比较患者治疗前后血液学参数的差异。采用 Mann-Whitney 检验评估接受 SSRIs 药物治疗前后，有无自伤行为青少年间的 SII 和 NLR 差异性。并绘制受试者工作特征(ROC)曲线，分析基线时 SII、NLR 及与童年创伤的交互项在预测青少年抑郁症患者是否有自伤行为的价值。

结果 （1）与基线时的 SII 和 NLR 相比，药物治疗 2 周后 SII 和 NLR 值均显著降低（z=-2.71，z=-2.61，p<0.01）。（2）有自伤史的基线 SII 和 NLR 明显高于无自伤史者（z=2.93，z=2.08，p<0.01）。而 SSRIs 药物治疗两周后，SII 和 NLR 在两者间的差异性不显著（p>0.05）。（3）青少年抑郁症患者的童年创伤与是否存在自伤行为存在显著正相关（r=0.34，p<0.01）；情绪调节策略认知重评与是否存在自伤行为存在显著负相关（r=-0.24，p<0.01）。（4） 基线 SII 预测青少年自伤行为的最佳截断值为 346.21（AUC=0.69，95%CI=0.58-0.79，p<0.01）。基线 NLR 预测青少年自伤行为的最佳截断值为 1.44（AUC=0.63，95%CI=0.52-0.75，p<0.05）。基线 SII 与童年创伤的交互项预测青少年自伤行为的最佳截断值为 16700.56（AUC=0.77，95%CI=0.68-0.85，p<0.01）。

结论 高 SII 和 NLR 值可能与抑郁症青少年的自伤行为有关。此外，基线 SII 与童年创伤之间的交互作用似乎比单独的 SII 或 NLR 更能预测自伤行为。

关键字：自伤行为、青少年、系统免疫炎症指数、NLR、SSRIs、童年创伤

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Psychological Status and Multimodal Magnetic Resonance Imaging Study of Patients with Functional Anorectal Pain

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Objective Functional anorectal pain (FAP) is a specific type of rectal pain characterized by persistent pain sensations in the anal and rectal regions, despite the absence of apparent structural or organic abnormalities. This study aims to investigate the differences in anxiety and depression between FAP patients and healthy controls (HC), and analyze changes in whole-brain gray matter volume, diffusion structures, and spontaneous brain activity in patients with FAP using multimodal magnetic resonance imaging (MRI) techniques.

Methods A cross-sectional study design was employed, involving 27 FAP patients from the Affiliated Hospital of Jining Medical University and 25 HC. Anxiety and depression symptoms were assessed using the Hamilton Depression and Anxiety Rating Scales. Voxel-based morphometry (VBM) was used to analyze whole-brain gray matter volume differences between the two groups. Tract-based spatial statistics (TBSS) were applied to analyze various DTI parameters (fractional anisotropy [FA], mean diffusivity [MD], axial diffusivity [AD], radial diffusivity [RD]). Additionally, regional homogeneity (ReHo) and amplitude of low-frequency fluctuations (ALFF) values were calculated using the DPABI toolbox and SPM12 software to investigate spontaneous neural activity alterations between the two groups. Group differences in imaging metrics were assessed using a two-sample t-test with age and gender as covariates.

Results (1) Anxiety and depression scores were significantly higher in the FAP group than in the HC group. (2) VBM analysis revealed increased gray matter volume in bilateral fusiform, right parahippocampal, bilateral inferior temporal gyrus, and decreased gray matter volume in left orbital middle frontal gyrus, left calcarine, left middle occipital gyrus, right insular inferior frontal gyrus, left middle temporal gyrus, left triangular inferior frontal gyrus, right middle occipital gyrus and right dorsal lateral frontal gyrus in the FAP group compared to the HC group. (3)TBSS analysis showed significantly decreased FA values in one cluster in the right superior longitudinal fasciculus, one cluster in the forceps minor, five clusters in the left superior longitudinal fasciculus, one cluster in the anterior thalamic radiation in FAP group compared to the HC group. (4) Compared to the HC group, the FAP group exhibited increased ALFF values in the right cerebellum area and increased ReHo values in the right middle frontal gyrus.

Conclusion This study revealed significantly higher levels of anxiety and depression symptoms in FAP patients compared to healthy controls. Alterations in gray matter volume, white matter integrity, and spontaneous neural activity in specific brain regions of FAP patients were identified. These findings provide insights into the neurophysiological mechanisms underlying FAP and offer potential neuroimaging biomarkers for its diagnosis and treatment.

关键字：functional anorectal pain; anxiety; depression; brain imaging; functional magnetic resonance imaging

Association of Sleep Timing with All-cause and Cardiovascular Mortality: The Sleep Heart Health Study and Osteoporotic Fractures in Men Study

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Objective : The importance of sleep in maintaining body health and preventing diseases cannot be ignored. The purpose of this study was to investigate the association of sleep timing (including bedtime, wake-up time, and sleep midpoint) with all-cause and cardiovascular disease-related (CVD) mortality.

Methods All participants were screened from two cohort studies: the Sleeping Heart Health Study (SHHS, 2250 males, 2574 females, age 63.9±11.1 years) following for 10.7 years and the Osteoporotic Fractures in Men Study (MrOS, 2658 males, age 76.3±5.5) following for 10.4 years. The sleep information of the participants was obtained based on the sleep questionnaires they filled out during the baseline period. The bedtime was divided into 10:00 PM and before, 10:01-12:00 AM, 12:00 AM and later, and wake up time was divided into 8:00 AM and later, 6:01-8:00 AM, 6:00 AM and earlier in this study. The association between sleep timing and mortality was examined using cox proportional hazards regression analysis adjusting for potential confounders.

Results At the end of follow-up, 23.2% of people in the SHHS cohort died, including 7% from cardiovascular disease, compared with 55% in the MroS cohort, of which CVD accounted for 19%. Multivariate cox regression analysis showed that sleeping at > 12:00 AM was independent associated with increased all-cause mortality [SHHS: hazard ratio (HR) 1.54(1.28-1.85), P<0.001; MrOS: HR 1.27(1.021.59), P=0.033] and CVD mortality [SHHS: 1.71(1.25-2.36), P=0.001; MrOS: 1.26(0.86-1.87), P=0.238]. In SHHS study, waking up later than 8 AM and sleep midpoint after 4 AM were also associated with increased all-cause and CVD mortality. However, these associations were less clear in MrOS study.

Conclusions Going to bed late (>12:00 AM) and waking up late on weekdays (>8:00 AM) independently increased all-cause and CVD mortality. This finding underscores the importance of proper bedtime and wake-up time for maintaining health and reducing mortality.

关键字：bedtime, wake-up time, all-cause mortality,

Sleep Heart Health Study, Osteoporotic Fractures in Men Study

Differential Responses From The Left Postcentral Gyrus, Right Middle Frontal Gyrus, and Precuneus To Meal Ingestion in Patients with Functional Dyspepsia

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Objective Functional dyspepsia (FD) is most often a meal-induced syndrome. Studies using resting-state functional magnetic resonance imaging (rs-fMRI) reported abnormal connectivity in areas related to pain processing in FD. However, only a few studies have attempted to determine how meal ingestion affects the brain's working patterns. Through rs-fMRI, this study observed how meal ingestion affected brain regions related to visceral hypersensitivity and emotional response networks in FD patients.

Methods A total of 30 FD patients and 32 healthy controls (HC) were enrolled and underwent clinical investigations. Rs-fMRI was performed twice after a 4-h fast and 50 min after a meal. The mean functional connectivity strength (FCS) values were extracted from brain regions with significant differences to show the trend of changes related to meal ingestion after FCS analyses.

Results Depression, anxiety, sleep disturbances, and weight loss were more common in FD patients ($P \leq 0.001$). Compared with HCs (corrected cluster P- value < 0.05), FD patients had significantly higher FCS in the right middle frontal gyrus before meals and higher meal-induced FCS in the left postcentral gyrus. HCs had greater meal-induced activation in the right precuneus and anterior cingulate cortex. FD patients had a decreasing trend in the right inferior frontal gyrus compared to the increasing trend in HCs. We only found anxiety to be negatively correlated with FCS in the right inferior frontal gyrus in FD ($r = ?0.459$, $p = 0.048$, uncorrected).

Conclusion In this study, we discovered that FD patients have different perceptual and emotional responses to food intake in defined brain areas, providing promising impetus for understanding pathogenic brain mechanisms in FD.

关键字：functional dyspepsia, functional connectivity, meal ingestion, left postcentral gyrus, right precuneus, right middle frontal gyrus, anterior cingulate cortex, right inferior frontal gyrus

Internet Addiction Exposure Increases Risk of Suicide Attempts in Chinese Adolescents: A Prospective Cohort Study

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Objective Background: Suicide is one of the most important global public health issues in adolescents, while internet addiction is reported to be associated with a higher rate of suicide attempts in this population. However, few longitudinal study was performed to explore the relationship between internet addiction and suicide attempts in adolescent. Thus, this study aims to explore the relationship between internet addiction exposure and suicide attempts.

Methods A total of 848 students were enrolled in this study, all participants were asked to complete a questionnaire from November to December in 2020, and a 6-month follow-up. The demographic variables were collected by a self-designed questionnaire, depression - anxiety - stress scale(DASS-21) was used to evaluate the status of depression, anxiety, stress. Revise Chinese internet addiction scale(CIAS-R) was used to estimate the symptoms of Internet addiction. $\chi 2$ test and ANOVA was employed to compare group difference and cox regression analysis was used to examine the association between internet addiction and suicide attempts.

Results We found that adolescents with internet addiction are more likely to be an ethnic minority and experience stress, anxiety, and depression. Besides, internet addiction exposure was associated with a significantly increased risk of suicide attempts.

Conclusion nternet addiction exposure was associated with an increased risk of suicide attempts, and this finding highlights the importance of addressing internet addiction symptoms among Chinese adolescents to better prevent suicidal behaviors.

关键字：adolescents, internet addiction, suicide attempts, risk factors, cohort study.

Group Interpersonal Psychotherapy for Generalized Anxiety Disorder (IPT-G-GAD) in China: Development and Adaption

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Objective Generalized anxiety disorder (GAD) is a common and disabling psychiatric disorder which negatively impairs patients' quality of life. Studies suggest that inadequate consideration of interpersonal problems may contribute to the poor treatment response in psychotherapy for GAD. Interpersonal psychotherapy (IPT) is an evidence-based psychosocial intervention that focuses on symptoms by improving interpersonal functioning, and research demonstrates that IPT is efficacious in treating social anxiety and panic disorders. The present study conducted a pilot testing and explored subsequent modification of a model of Group Interpersonal Psychotherapy for Generalized Anxiety Disorder in China.

Methods Initial group-IPT treatment handbook for

Chinese GAD patients was developed by reviewing the literature and referencing treatment manuals. Two pilot IPT groups were conducted in Renji Hospital (Shanghai) from January 2021 to June 2021. Each group treatment consisted of eleven patients and two certified IPT Community-Based therapists who were supervised by a certified IPT supervisor. Participants between the ages of 18 to 65 were eligible if they were: 1) diagnosed with GAD according to Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) criteria (American Psychiatric Association, 2013); 2) were experiencing their first episode of GAD; 3) had not been treated with antidepressant or anti-anxiety medication; 4) had not received Interpersonal Psychotherapy. Exclusion criteria included: 1) any mental illness diagnosis other than GAD; 2) suicidality; 3) current or previous history of alcohol, drug addiction. Anxiety and depression symptoms were measured using the 7- item Generalized Anxiety Disorder Questionnaire (GAD-7).

Results A total of 79 subjects were screened for the study. Twelve were excluded and two declined. The remaining 67 subjects were randomized to receive either sertraline and psychoeducation (n=31) or sertraline and group IPT (n=36). Dropout rates were 8.33% in the sertraline plus group IPT, versus 19.36% for sertraline plus psychoeducation group. The GAD-7 scores dropped from intake scores of 13.97 and 13.54 (sertraline plus group IPT and sertraline plus psychoeducation group, respectively), scores were 7.58 and 9.84 at week one, and were 5.81 and 6.88 at week 2. Scores on the GAD-7 were 4.71 and 4.88 at week 4, while 4.16 and 4.38 at week 8.

Conclusion This project was undertaken to develop and adapt the IPT for Groups protocol for work with generalized anxiety disorder patients in China and to collect preliminary data on its benefits. This is the first study to evaluate Group IPT for treatment of GAD; it is also one of the first IPT outcome studies conducted in China. Based on the data we collected, we now have an adapted protocol for Group IPT for GAD.

关键字：group interpersonal psychotherapy, generalized anxiety disorder, China, development, adaptation

Internet Gaming Addiction Among Children and Adolescents with Non-suicidal Self-Injury: A Network Perspective

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Objective : Internet gaming addiction is a growing global concern and mental health burden. Currently, no study has examined Internet gaming addiction among individuals with non-suicidal self-injury (NSSI). This study aims to examine the epidemiology, correlates, and network structure of Internet gaming addiction among children and adolescents with NSSI in China.

Methods This was a cross-sectional study conducted in Guangdong Mental Health Center, China, from Dec 2019 to Dec 2021. The 13-item Chinese Internet gaming addiction scale, SAS, SDS, and UCLA loneliness scale were adopted to evaluate patient's internet gaming addiction, anxiety, depression and loneliness. Univariate analyses, multivariate logistic regression, and network analysis were conducted.

Results A total of 110 children and adolescents with NSSI behaviors participated in the study, and 45 (40.9%) of them reported Internet gaming addiction. Multivariate logistic regression analysis revealed that male participants (OR = 6.047, P = 0.001) and those living on campus (OR = 2.677, P = 0.039) were more likely to suffer from Internet gaming addiction. Network analysis revealed that item1 ('Always thinking about online games when not playing'), item6 ('Clearly aware of the dangers of online games but fail to stop'), and item3 ('Moody / anxious / agitated / angry while not playing') were core symptoms for the identification of Internet gaming addiction, while item9 ('loss of interest'), and item13 ('deceiving') were the least influential symptoms in the network.

Conclusions Internet gaming addiction was prevalent among children and adolescents with NSSI. 'Preoccupation', 'Unsuccessful attempts to control playing', and 'Withdrawal' were of key importance for identifying Internet gaming addiction. Ongoing clinical care and targeted interventions to address these symptoms (e.g., strengthening self-control) may be important for reducing the risk of Internet gaming addiction in children and adolescents with NSSI.

关键字：Internet gaming addiction, NSSI, child, adolescents, network analysis

精神分裂症研究协作组

Inhibitory Effects of Liquiritin, A Natural Compound, Against Antipsychotic-induced Hyperprolactinemia Via Modulation of Dopamine D2 Receptors

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Objective Chinese liquorice (Glycyrrhiza uralensis, radix glycyrrhizae) is a commonly used herb in traditional Chinese medicine that may reduce antipsychotic-induced hyperprolactinemia. A component in the extract of Chinese liquorice is the flavone, liquiritin. This study investigated the effects of liquiritin on antihyperprolactinemia and its mechanisms of action, in vitro and in a rat model.

Methods The in vivo model of hyperprolactinemia was induced by sulpiride, a selective D2 and D3 antagonist, in Sprague Dawley rats. Model rats were administered daily intragastric liquiritin (10, 20, and 40 mg/kg) for 14 days; bromocriptine served as the positive control. The serum was collected and the pituitary gland was harvested. In vitro experiments utilized cultured MMQ rat prolactinoma cells, an exemplary in vitro model for hyperprolactinemia, to determine whether liquiritin targeted dopamine D2 receptors (D2R); small interfering RNA was used to knock down the endogenous D2R transcript. The concentration of prolactin in serum and culture medium were determined by radioimmunoassay. The pituitary gland and MMQ cells were analyzed by western blot and reverse transcription-polymerase chain reaction for cellular prolactin synthesis and the expression of mRNA.

Results Liquiritin significantly suppressed elevated serum prolactin, produced by chronic administration of sulpiride in rats, and reduced the expression of prolactin mRNA in the rat pituitary. Liquiritin also inhibited the release of prolactin from MMQ cells in a dose-dependent manner. The in vivo and in vitro effects of liquiritin were similar to that of bromocriptine. The inhibitory effect of liquiritin on the release of prolactin is completely abolished by the knockdown of D2R.

Conclusion These results indicate that liquiritin inhibits prolactin release by modulating the D2R. Liquiritin, a novel therapeutic agent, has promising potential for the treatment of antipsychotic-induced hyperprolactinemia.

关键字：liquiritin, hyperprolactinemia, D2R, RNAi.

Weight Changes Following Treatment with Aripiprazole, Risperidone and Olanzapine: A 12-month Study of First-episode Schizophrenia Patients in China

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Objective This study aimed to assess weight changes following antipsychotic treatment in first-episode schizophrenia (FES) patients and make a comparison of aripiprazole, risperidone and olanzapine. Predictors for long-term clinically relevant weight gain (CRW, ≥7%) were examined.

Methods We carried out a second analysis of data from the Chinese First-Episode Schizophrenia Trial. Repeated measures general linear model (GLM) statistics were used to compare body weight at each follow-up point (month of 1, 2, 3, 6, 9and 12). Logistic regression models were constructed to evaluate possible predictors for CRW.

Results Body weight increased with an average rate of 0.93 % per month, with the fastest growth rate occurring in first 3 months. CRW was observed in 79 % of patients. Participants from olanzapine group showed significantly higher weight gain than risperidone group and aripiprazole group. Repeated measures GLM revealed a significant main effect of time ($p < 0.001$) and a significant time*group interaction was revealed ($p < 0.001$), while the between-subject group effect was not statistically significant ($p = 0.272$). Multivariate logistic regression model showed that with smaller baseline BMI (OR = 1.33, $p < 0.001$), with a family history of mental disorder (OR = 5.08, $p = 0.004$), receiving olanzapine (OR = 2.35, $p = 0.001$), and CRW at the first-month (OR = 4.29, $p = 0.032$) were independent predictors for the first-year CRW.

Conclusion Antipsychotics are associated with a clinically significant weight gain in FES patients, which occurs mostly in first 3 months. Aripiprazole might not be an ideal choice in terms of long-term metabolic side-effects. Early and close metabolic monitoring should accompany antipsychotic prescription.

关键字：Schizophrenia, Weight gain, Antipsychotics, Metabolic Syndrome

Different Levels of Prepulse Inhibition in Patients with First-episode Schizophrenia, Bipolar Disorder, and Major Depressive Disorder

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Objective The present study aims to preliminarily explored the PPI deficits of the acoustic startle reflex in patients with FES, BD, and MDD, and the difference of deficiency extent among these disorders. Furthermore, a preliminary analysis was conducted to determine the sensitivity and specificity of the effect size of PPI deficits to differentiate FES, BD, and MDD from HC.

Methods Patients with FES, BD, or MDD, and healthy controls (HC) (n = 53, 30, 25, and 82, respectively) were tested using perceived spatial co-location and separation PPI paradigms (PSC-PPI, PSS-PPI), in which the leading ear given background noise was the same or different from the ear receiving the prepulse stimulus, respectively.

Results Using the PSS-PPI paradigm, the PPI levels of the 4 groups, from small to large, were FES, BD, MDD, and HC. Relative to the HC, the PPI deficits in the FES groups were significant ($P < 0.001$), but the PPIs were similar between BD and HC, and between MDD and HC. ROC curve analysis showed that the PSS-PPI (AUC = 0.73, $P < 0.001$) and the Latency (AUC = 0.72, $P < 0.001$) were significant for differentiating the FES and BD from the HC respectively.

Conclusion The level of PPI was lowest in patients with FES, followed by BD, MDD and HC. PSS-PPI is a more sensitive paradigm than PSC-PPI, and could significantly differentiate between FES and HC, with a large effect size. The latency had differentiating value of BD from HC. This result may provide a basis for further research on biological indicators that can assist differential diagnoses in psychosis.

关键字：first-episode schizophrenia, bipolar disorder, major depressive disorder, prepulse inhibition

Effect of Transcranial Direct Current Stimulation Combined with Cognitive Training When Targeting Posterior Parietal Cortex Vs Dorsolateral Prefrontal Cortex on Working Memory in Schizophrenia: A Randomized Clinical Trial

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Objective Working memory impairment are linked to irregularities in the dorsolateral prefrontal cortex (DLPFC) and the posterior parietal cortex (PPC), the aim of this study was to compare the efficacy of tDCS coupled with working memory training when distinctly targeting DLPFC or PPC for working memory deficits in schizophrenia.

Methods This randomized, double-blind clinical trial was conducted from September 2021 to May 2023 at a hospital in Beijing, China. A total of 60 clinically stable patients with schizophrenia, scoring 30-50 on the spatial span test of the MATRICS Consensus Cognitive Battery (MCCB) were included. Participants were randomly allocated into active DLPFC, active PPC, or sham stimulation. Ten sessions of tDCS were conducted twice daily for five days, in conjunction with N-back training. Participants were followed up to week 2. The primary outcome was change in the spatial span test score at week 1. Secondary outcomes included changes in scores of color delay-estimation task, and other cognitive tasks.

Results Among the 60 patients enrolled, 34 (57%) were female, the mean (SD) age was 33.2 (7.4) years, 54 (90%) completed the evaluation at week 1, and 52 (87%) at week 2. The active PPC group demonstrated a significantly greater improvement in spatial span test score at week 1 in comparison to the active DLPFC group ($P = .01$, Cohen's $d = .94$). Furthermore, the active PPC group exhibited an augmentation in color delay-estimation task capacity at week 1 relative to the active DLPFC group ($P = .03$, Cohen's $d = .80$), with this effect sustained at week 2 ($P = .01$, Cohen's $d = .93$). The active PPC group also showed increased color delay-estimation task capacity compared to the sham stimulation group at week 2 ($P = .02$, Cohen's $d = -.82$). There were no significant differences among the three groups in other cognitive tasks. No serious adverse events were reported.

Conclusion The findings from this study suggest that tDCS targeting PPC rather than DLPFC during concurrent working memory training may precisely improve working memory in schizophrenia, meriting further investigation.

关键字：Schizophrenia, Transcranial Direct Current Stimulation, Working Memory, Posterior Parietal Cortex, Dorsolateral Prefrontal Cortex

Impairment of Olfactory Identification Ability in Ultra-High Risk for Psychosis and Drug-naive First Episode Schizophrenia

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Objective ：Olfactory discrimination dysfunction has been described in patients with psychotic disorders. And These changes have also been observed in individuals with clinical or genetic high risk, suggesting Olfactory discrimination dysfunction may be the potential risk factor for developing psychosis. So, the purpose of our study is to explore the difference in olfactory discrimination ability in the prosal stage and early stage of psychosis and to explore the potential risk factor of developed psychosis.

Methods ：Olfactory identification and cognitive function were compared in 88 Ultra-high -risk (UHR) individuals, 111 Drug-na?ve first-episode schizophrenia (FES), 81 Genetic high-risk (GHR) individuals, and 110 healthy controls (HC). Besides Olfactory identification and cognitive function were compared among UHR individuals who later transitioned to psychosis (UHR-T; n = 58) and those who did not transition (UHR-NT; n = 30).

Results ：Olfactory Stick Identification Test for Japanese (OSIT-J) scores were decreased in patients FEP group compared to (UHR & GHR), Compared to HC, FES patients, and UHR showed significant defects in olfactory identification, but there were no differences in olfactory identification dysfunction between the GHR and HC group. Moreover, There was a significant impairment in olfactory identification ability in the UHR-T group that later developed schizophrenia spectrum disorder compared to the UHR-NT group.

Conclusion ：In conclusion, These findings suggest

that impairment of olfactory identification exists in the early stage of psychosis, and olfactory identification dysfunction may be a potential marker of transition to schizophrenia.

关键字：ultra-high risk individual, Olfactory identifcation dysfunction, Drug-naive first episode schizophrenia

Initial Drug Attitude As A Prediction of Medication Adherence in First-episode Schizophrenic Patients: A 1-year Prospective Study in China

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Objective We investigated the association of drug attitude (measured by the Drug Attitude Inventory, DAI-10) with the adherence at six time points (baseline, weeks 4, 8, 12, 26, and 39 weeks) during 1-year treatment. The possible factors associated with drug attitude toward medications (measured by DAI-10) at the interested time point were also studied.

Methods The analyzed data derived from a 1-year randomized, open-labeled clinical trial in China. Demographics, psychopathology, social functioning, and attitude toward drugs (measured by DAI-10) were collected at baseline, weeks 4, 8, 12, 26, 39 and 52. The association of drug attitude (measured by DAI-10) with the adherence at the six time points were calculated using the Mann Whitney U test. The optimal cut-off point of DAI-10 was then suggested using a Receiver-Operating-Characteristic-(ROC-) analysis. A cox-regression was conducted to further investigate the association of DAI-10 with discontinuation controlling for potentially confounding effects. We used multiple regression analysis to test the possible factors associated with DAI-10.

Results Among six time points, Only DAI-10 total score at baseline indicated a significant difference (p=0.004) between completed and discontinued groups. Females and Baseline DAI-10 total score more than -1 were indicated as independent protective factors for discontinuation in the following one-year antipsychotic drug treatments. At baseline, the severity of the disease (CGI-s) and insight were shown to be associated with DAI-10 total scores.

Conclusion Attitude towards antipsychotic drugs at the beginning of the treatment were shown a crucial role in predicting discontinuation during the treatment.

关键字：Schizophrenia; Drug attitude; Medication adherence

The Association between Different Symptom Groups of Schizophrenia and Retinal Structures

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Objective 1. Investigate the impairments of retinal structure in the Han patients with schizophrenia and enrich the database of the study on the impairments of the retinal structure of schizophrenia. 2. Investigate the changes of the macula and optic nerve fiber layer between in schizophrenic patients. 3. Investigate the impairments of retinal macular thickness and optic nerve fiber layer thickness in the negative and positive symptom groups of schizophrenia. 4. Investigate the relationship between the negative and positive symptom groups and retinal thickness.

Methods 50 patients with schizoprenia were included. Considering the positive factor and negative factor components in PANSS scale, the patients were classified according to the main symptom groups, 26 patients were collected in the negative symptom group and 24 patients were raised in the positive symptom group. Meanwhile, 33 healthy controls matched with age and gender of schizophrenia group were recruited from hospital staff and adult medical students by using SCI-D NP version evaluation by professional psychiatrists. The age, sex, education level, geographical coordinates, course, first age, medication status, family history and other demographic data and clinical data were collected. SANS was used in the negative schizophrenia symptom group; SAPS was used in the positive symptom group. The scanning information of the eyes were collected by using the Zeiss optical coherence scanner 4000 system (OCT). SPSS 24.0 (Chicago, IL) software was used to analyze the basic data and OCT data of the subjects. The chi square test was used for the comparison of the counting data, the normal test for the measurement data, the independent sample t-test was used for the comparison of the normal distribution data, the single factor variance analysis was used among the groups, and the correlation analysis was used to analyse the relation of the two variables.

Results 1. The central macular thickness of schizophrenia patients was thinner [(238.64 μ m ± 20.31 μ m) vs. (248.86 μ m ± 17.23 μ m), P = 0.002]. 2. The central macular thickness of the negative symptoms group was thinner [(237.46 μ m ± 23.09 μ m) vs. (248.86 μ m ± 17.23 μ m), P = 0.002], and that of the positive symptoms group was thinner [(239.92 μ m ± 16.95 μ m) vs. (248.86 μ m ± 17.23 μ m), P = 0.002]. The macular in inferior quadrant area of the negative symptoms group tended to be thinner than positive group [(309.94 μ m ± 21.97 μ m) vs. (313.27 μ m ± 13.19 μ m), P = 0.059]. 3. The correlation coefficient between the SANS score and retinal thickness was not statistically significant; the correlation coefficient between the SAPS score and retinal thickness was not statistically significant.

Conclusion The retinal thickness in schizophrenia became thinner in the central area of the macula. The retinal impairments were more serious in patients with negative symptoms.

关键字：Schizophrenia Positive Symptoms Negative Symptoms Retina Macula Optic Nerve Fiber Layer

听声识别精神分裂症：融合不同情绪和特征的语音判别分析

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目的 精神分裂症作为一种异质性的精神障碍，快速准确的诊断仍然是一个巨大的挑战。基于语音的精神分裂症判别分析展示了巨大的潜力。然而性别，年龄和受教育程度等人口学信息以及不同的情绪状态都可能影响判别模型的性能。因此在本研究中，构建了一个基于深度学习的精神分裂症语音判别模型，探索在融合个体信息和不同情绪刺激后精神分裂症的诊断正确率是否有提升。

方法 我们招募了 156 名精神分裂症患者和 74 名健康对照，完成不同情绪刺激的固定文本阅读任务并录音。构建卷积神经网络以融合人口学信息和梅尔频谱系数，应用于语音判别分析得到融合不同特征的结果。将不同情绪刺激的结果加权集成得到情绪融合结果。分析了不同情绪刺激和不同特征融合对精神分裂症诊断准确性的影响。

结果 结果表明，中性情绪刺激的判别分析结果优于正性和负性；融合不同特征后模型准确率明显提高；整合不同的情绪刺激和融合不同特征，提高了敏感性和特异性。最佳判别模型的总体分类准确率为 91.7%，灵敏度为 94.9%，特异性为 85.1%，ROC 为 0.963。

结论 在中性情绪刺激下，精神分裂症患者与健康对照者的言语差异较大，更有助于精神分裂症的判别分析。融合情绪，人口学信息和梅尔频谱系数可以在模型中提供个体差异信息，提高精神分裂症诊断的准确性。我们的研究结合了深度学习和语音分析，为提高精神分裂症的精准诊断提供了方法验证，并展现了在精神分裂症中使用语音分析的潜力。

关键字：精神分裂症；对数梅尔频谱图；情绪刺激；深度学习

早发型精神分裂症的免疫基因组学和免疫细胞特征分析

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目的 早发型精神分裂症（early-onset schizophrenia，EOS）是指发病年龄<18 周岁的一类精神分裂症。与成人精神分裂症患者相比较，EOS 患者遗传负荷较高，受环境因素影响小，以 EOS 患者为研究对象有助于精神分裂症遗传因素和发病机制的研究。许多新研究发现精神分裂症的基因位点集中在免疫系统相关基因。本研究旨在分析 EOS 的免疫基因组学特征及免疫细胞特征，进一步从免疫组学揭示 EOS 发病机制。

方法 RNA-seq 测序数据来自山西医科大学第一医院招募的参与者，包含 19 个 EOS 患者及 18 个健康对照（HC）外周血液中的全基因组 mRNA 表达。经 R 软件包 limma 筛选差异表达基因（DEGs），并进行加权基因共表达网络分析（WGCNA）筛选模块基因，且通过 Immport 数据库下载免疫相关基因 1793 个，经 Venn 图取三者交集为 EOS 免疫相关 DEGs。进而通过随机森林（RF）算法和支持向量机（SVM）算法筛选关键基因，并构建 ROC 曲线评估其诊断效能。同时使用 CIBERSORT 进行免疫浸润分析探索 EOS 患者中免疫细胞的浸润丰度，并探寻关键基因与免疫细胞之间的关联。

结果 RNA-seq 测序数据共鉴定出 1826 个 DEGs，其中 1266 个上调，560 个下调。WGCNA 筛选出两个关键模块和 222 个模块基因。Immport 数据库下载免疫相关基因 1793 个，取三者交集的 24 个基因为 EOS 免疫相关 DEGs。通过随机森林（RF）算法和支持向量机（SVM）算法交集筛选出 6 个关键基因：CCL8、PSMD1、AVPR1B、SEMG1、TLR3、F2R。建立关键基因的 ROC 曲线 AUC 值均>0.7，均具有良好的诊断效能。 免疫浸润结果显示：与健康对照相比，EOS 患者静息肥大细胞、静息 CD4+记忆 T 细胞的细胞比例显著增加，激活肥大细胞、中性粒细胞、激活 CD4+记忆 T 细胞的细胞比例显著降低。相关性分析结果显示：部分关键基因与免疫细胞具有显著的相关性。

结论 本研究通过筛选 DEGs 和 WGCNA 筛选出与 EOS 相关的差异基因,并与免疫相关基因取交集获得 EOS 患者中差异性表达的免疫相关基因。进一步筛选出 6 个关键基因，并验证其均有较高的诊断效能。免疫浸润分析揭示了 EOS 患者中存在部分免疫细胞的差异性表达，并发现部分关键基因与其之间具有一定的相关性，这为探索 EOS 的发病机制和诊断提供了新的见解。

关键字：早发精神分裂症

Neuroanatomical Abnormalities in Individuals at Early Stage of Schizophrenia: Relationship with Neurometabolites and Clinical Symptoms

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Objective The presence of brain structural and metabolite abnormalities has been observed in the early stages of schizophrenia or prior to disease onset, and these abnormalities may demonstrate progressive changes. However, the relationship between these two factors has rarely been studied. The aim of the present study was to explore the association between cortical abnormalities, metabolite levels, and clinical symptoms in clinical groups.

Methods We recruited a total of 51 drug-naive first-episode schizophrenia (FES) patients, 51 healthy controls (HC), and 51 individuals at ultra-high risk for psychosis (UHR), among whom 20 UHR individuals converted to psychosis (UHR-C) within a two-year period. T1-weighted

images and 1H-MRS data were acquired for all subjects at baseline. Voxel-based morphometry and surface-based morphometry analysis were separately used to measure grey matter volume (GMV) and cortical thickness (CT). Metabolite concentrations, including phosphocholine (Cho) and glutamate + glutathione (Glx), were also measured concurrently. We performed one-way analysis of variance (ANOVA) and assessed the effect of group membership (UHR-C, UHR unconverted to psychosis [UHR-NC], FES, HC). Pearson correlation analysis was conducted to evaluate the associations between these indicators in the UHR subgroups.

Results The UHR-C group exhibited significantly thicker CT in the right lateral occipital (rLO) cortex ($F(3,149)=4.418$, $p=0.005$) compared to the other three groups, and the right medial orbito-frontal (rMOF) cortex ($F(3,149)=7.273$, $p<0.001$) compared to the FES and HC groups. A significant CT reduction was observed in the FES group in the right fusiform cortex ($F(3,149)=4.846$, $p=0.003$) compared to the UHR-C and HC groups. No significant differences in metabolite levels and GMV were found among any of the groups ($p>0.05$). In the UHR-C group, CT in the rMOF was positively correlated with general symptoms ($r=0.603$, $p=0.005$) and Cho levels in the mPFC ($r=0.586$, $p=0.008$). Cho levels were also positively correlated with general symptoms ($r=0.657$, $p=0.002$). Furthermore, Glx levels were negatively correlated with disorganized symptoms ($r=-0.493$, $p=0.005$) in the UHR-NC group.

Conclusion The observed altered CT in the frontal-occipital area in the UHR-C group suggests its involvement in the onset of the disease. The thickened CT in the UHR-C group is associated with a disturbance in brain metabolite levels and may represent a compensatory effect. This compensatory effect exists prior to disease onset but may become exhaustive as the disease progresses due to potential neurotoxic effects. The findings of this multimodal brain imaging study provide valuable insights into understanding premorbid brain structural changes in patients with schizophrenia and the neural substrate underlying the altered neural activity associated with the disease.

关键字：Schizophrenia; Ultra-high risk; Cortical thickness; Magnetic resonance spectroscopy; Inflammation

CBT 研究协作组

Early Enhancement Effect of Low-frequency Repetitive Transcranial Magnetic Stimulation on Cognitive Behavioral Therapy in Patients with Panic Disorder

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Objective Cognitive behavioural therapy (CBT) is the first-line treatment for panic disorder (PD). However, some patients still have poor response to CBT, especially in the early stage of treatment. Thus, to find a new method to enhance the early effect of CBT is necessary. Current research aimed to verify whether low-frequency repetitive transcranial magnetic stimulation (l-rTMS) may enhancement the effect of CBT for PD patients in the early stage.

Methods PD patients were recruited and randomly assigned to the experimental group and the control group using a random number table. The patient of experimental group received CBT combined with true l-rTMS, and the control group received CBT combined with pseudo l-rTMS. Both groups received 12 sessions of CBT and 20 times of l-rTMS intervention in the first month of CBT. The target of l-rTMS stimulation was the left dorsolateral prefrontal cortex, the stimulation time was 30 minutes, and the frequency was five times once week. The patients' panic symptoms, anxiety, and social function were assessed with the Panic Disorder Severity Scale (PDSS), HAMA, and PSP at 7 timepoints.

Results A total of 50 patients with panic disorder were recruited and randomly assigned to the experimental group and the control group with 25 cases each. A total of 10 cases fell out of the two groups. The IPP analysis method was used to analyze the general demographic data and clinical characteristics of 40 patients who completed the treatment. It was found that there were no statistically significant differences between the two groups in terms of age, sex, course of disease, education, severity of panic disorder, anxiety, depression, personal and social functions ($P>0.05$). The PDSS and HAMA scores significantly reduced after intervention in both groups. The PSP score significantly increased after intervention in both groups. The difference of PDSS, HAMA, and PSP scores between the two groups at different time points (0,2, 4, 6, 8, 10 and 12 weekends) was compared by repeated measurement analysis of variance. It was found that there were statistical differences on PSSS and HAMA between groups, time points and interaction effects ($p<0.05$). Further post-mortem analysis: inter-group univariate analysis of variance found that there was a statistically significant difference in the total PDSS score and HAMA score between the two groups at the end of the 2nd, 4th, 6th and 12th weeks, and the PDSS score of the study group was lower than that of the control group; Intra-group paired t-test showed that the scores of PDSS in the two groups at the end of 2, 4, 6, 8 and 12 weeks were lower than the baseline. There was not significant difference on PSP between groups, time points and interaction.

Conclusion The effect of l-rTMS real stimulation combined with CBT in the treatment of panic disorder is better than that of l-rTMS false stimulation combined with CBT, which can significantly improve panic symptoms at the early stage.

关键字：Panic disorder, Cognitive behavioural therapy, Repetitive transcranial magnetic stimulation, Enhancement effect

Functional Connectivity of Goal-directed System on Efficacy of Cognitive Behavior Therapy for Obsessive-Compulsive Disorder

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Objective This study aims to investigate the association between baseline functional connectivity of brain regions related to goal-directed and habitual-learning, and the efficacy of exposure and response prevention therapy in individuals with obsessive-compulsive disorder (OCD). Also, the study aims to examine whether treatment response differs among patients with different disease duration and ages of onset.

Methods 35 OCD Patients were divided into two groups based on treatment response (Nrespond=18, Nnonrespond=17) after undergoing 8 weeks 16 sessions (twice a week) of cognitive behavior therapy including exposure and response prevention therapy. Further subgroup analysis was conducted based on disease duration (Nshort = 17, Nlong= 18) and age of onset (Nadolescent = 14, Nadult = 21), and data from symptom rating scales were collected prior to treatment, at week 4, and at week 8. We selected a total of 32 regions of interest (ROIs) that are relevant to goal-directed and habitual-learning processes for the collection of resting-state ROI-ROI functional connectivity data. Using repeated-measures linear mixed-effects models, we investigated the differences in baseline brain activity within the goal-directed network, habitual-learning network, and goal-habit network among different groups, including the treatment response group, duration of illness group, and age of onset group. Additionally, we examined the relationship between these differences in baseline brain activity and changes in Yale-Brown Obsessive Compulsive Scale scores.

Results Cognitive behavior therapy(including exposure and response prevention) resulted in varying degrees of improvement in OCD symptoms among patients. In the respond group, the smaller baseline levels of goal-directed brain regions, including the frontal lobe cortex and anterior cingulate cortex were associated with more significant symptom improvements. The decrease of functional connectivity of fear extinction-related brain regions in the goal-directed brain regions (anterior cingulate cortex and ventromedial prefrontal cortex) is accompanied by a decrease in Y-BOCS scores as treatment progresses. Additionally, in the groups of duration of illness and age of onset, Enhanced functional connectivity within and between default networks, highlight networks, and FPN networks contributes to the efficacy of cognitive behavioral therapy. Finally, most baseline functional connections showed significant differences compared to matched healthy controls.

Conclusion This study suggest that goal-directed system may influence the efficacy of exposure and response prevention therapy by participating in goal selection, maintenance, and emotion regulation. Furthermore, we found that disease duration and age of onset may affect treatment outcomes by modulating functional connectivity between goal-directed and habitual-learning brain regions.

关键字：obsessive compulsive disorder; exposure response prevention;mixed-effects linear model; duration of illness; goal-directed

预防自杀的认知行为治疗在自杀未遂抑郁症患者中的随访对照研究

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目的 探讨预防自杀的认知行为治疗治疗自杀未遂抑郁症患者的疗效。

方法 纳入 2021 年 9 月至 2022 年 8 月北京回龙观医院住院的自杀未遂抑郁症患者 112 例，采取随机数字表区组随机化法将患者分为干预组和对照组，干预组给予 12 次预防自杀的认知行为治疗，对照组给予支持性心理治疗，分别在干预前中后和干预结束后 1 个月（第 0、4、8、12 周末），采用 Beck 自杀意念评估量表（Beck scale for suicide Ideation-Chinese version,BSI-CV）和病人健康问卷抑郁量表（Patient Health Questionnaire depression scale,PHQ -9）评估患者自杀意念、自杀倾向和抑郁症状的变化。采用重复测量方差分析进行干预效果的分析。

结果 ①自杀意念：组别和时间交互作用不显著（F=0.509，P=0.677）。自第 8 周起，干预组自杀意念总分低于对照组（P＜0.001）；随时间变化两组患者第 4、8、12 周时的自杀意念总分均低于基线，第 8、12 周时总分均低于第 4 周（均为 P＜0.01）。②自杀倾向：组别和时间交互作用不显著（F=2.564，P=0.059）。两组患者的自杀倾向在各个时点的组间差异无统计学意义（F=0.001，P=0.975）；随时间变化两组患者第 4、8、12 周时自杀倾向总分均低于基线（P＜0.05），对照组干预后第 12 周时总分低于第 4 周（P＜0.01），其他时点之间差异无统计学意义（P>0.05）。③抑郁症状：组别和时间交互作用显著（F=3.843，P=0.012）。自第 4 周起，干预组抑郁得分低于对照组（P＜0.05）；随时间变化两组患者第 4、8、12 周时得分均低于基线，第 8、12 周时得分均低于第 4 周（均为 P＜0.01）。

结论 预防自杀的认知行为治疗对自杀未遂抑郁

症患者的抑郁症状的影响自干预第 4 周开始就显示出优越性；对自杀意念的效果自第 8 周始优于对照组，而对自杀倾向干预效果不明显。由于自杀倾向的跟踪需要一个长期过程，尚需进一步研究追踪预防自杀的认知行为治疗对自杀未遂抑郁症患者的长期效果。

关键字：认知行为治疗，自杀未遂，抑郁症，自杀意念，自杀倾向

社交焦虑障碍认知行为治疗技术专家共识的德尔菲法研究

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目的 本研究拟用德尔菲法（Delphi）调查社交焦虑障碍(Social anxiety disorder，SAD) 认知行为治疗（Cognitive Behavioral Therapy, CBT）技术在国内的应用情况，形成专家共识，为进一步规范 CBT 技术奠定基础。

方法 复习国内外关于社交焦虑障碍 CBT 技术的研究文献及书籍，筛选出 49 项 CBT 技术并制定专家咨询表，发放至国内符合遴选标准的 26 名 CBT 专家。从使用频率、治疗效果贡献程度和来访者接受度三个维度对各技术进行评估，共进行两轮专家咨询。计算专家积极性、专家权威系数、专家意见的集中程度和协调程度等统计指标，并根据各技术的综合秩次进行重要性大小排序。

结果 两轮专家咨询的积极性为 100%，专家权威系数分别为 0.96，0.95。技术各维度评分的肯德尔协调系数范围 0.31-0.51（$p<0.01$）。综合排序前五位的技术分别为建立治疗联盟、心理教育、识别自动思维、微观案例概念化、资料收集。而综合排序靠后，但国外研究已证实其有效性的技术，包括意象重构、录像反馈、现场暴露、想象暴露、正念呼吸和身体扫描。

结论 专家评分一致性较高且推荐使用的技术如下，第一，支持性的基本技术如，建立治疗联盟，心理教育、微观案例概念化等；第二，认知技术如识别自动思维，行为实验，可替代性思维等；第三，聚焦症状的行为技术如问题解决、社交技能训练、角色扮演等。总之，多数社交焦虑障碍 CBT 技术的专家评价一致性较高，且适宜性良好，但仍有部分社交焦虑障碍 CBT 的高阶技术在中国文化背景下的应用有待进一步探究。

关键字：社交焦虑障碍 认知行为技术 德尔菲法 技术成分

体现认知行为治疗中核心治疗元素之间相互影响的成语筛选与调查研究

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目的 筛选出能体现认知行为治疗（Cognitive behavior therapy，CBT）四大核心治疗元素（认知、情绪、行为和生理反应）之间相互影响的成语，并在此基础上确定可尝试应用于 CBT 本土化实践的成语。

方法 研究一：体现认知行为治疗核心治疗元素间相互影响的成语筛选研究 以商务印书馆出版的《新华成语词典》（第 2 版）作为筛选工具，采用三轮人工筛选法。首先，根据成语筛选标准，由两位接受过系统 CBT 培训的临床心理学硕士研究生对成语词典中的成语逐一进行独立筛选。然后，由一位具有 10 年 CBT 治疗经验的资深 CBT 治疗师审定并与两位研究生讨论，确定符合标准的成语。最后，将确定的初筛成语交由四位 CBT 专家（CBT 培训师和督导师）审定，再经全体讨论后，最终确定能体现 CBT 中认知、情绪、行为和生理反应相互影响的成语。 研究二：入选成语在大学生中的调查研究 以研究一筛选出的成语为基础编制《关于成语理解程度的调查问卷》，并在 1685 名不同专业和高校大学生中进行抽样调查，进一步确定可作为 CBT 治疗工具尝试应用于 CBT 实践的成语。

结果 研究一：体现认知行为治疗核心治疗元素间相互影响的成语筛选研究《新华成语词典》（第 2 版）中，体现认知影响情绪的成语 13 个；体现情绪影响认知的成语 5 个；体现认知影响行为的成语 42 个；体现行为影响认知的成语 1 个；体现认知影响生理反应的成语 6 个；体现情绪影响行为的成语 24 个；体现行为影响情绪的成语 1 个；体现情绪影响生理反应的成语 61 个；体现行为影响生理反应的成语 1 个；体现生理反应影响行为的成语 4 个；未发现生理反应影响认知和情绪的成语。 研究二：入选成语在大学生中的调查研究 推荐“知足常乐”、“风声鹤唳”、“分道扬镳”、“冷暖自知”、“寝食不安”、“不堪回首”、“不寒而栗”、“嗷嗷待哺”等 86 个成语可作为 CBT 治疗工具应用于本土化实践，其中体现认知影响影响情绪的成语 8 个，体现情绪影响认知的成语 4 个，体现认知影响行为的成语 23 个，体现行为影响认知的成语 1 个，体现认知影响生理反应的成语 3 个，体现情绪影响行为的成语 12 个，体现情绪影响生理反应的成语 34 个，体现生理反应影响行为的成语 1 个。

结论 中国成语中的确存在着诸多能体现 CBT 四大核心治疗元素（认知、情绪、行为和生理反应）之间相互影响的成语，并推荐 86 个成语作为 CBT 治疗工具。

关键字：认知行为治疗；本土化；治疗元素；成语；筛选与调查

（组内口头交流）

社交隔离、孤独感增加糖尿病相关痴呆发生风险：一项队列研究

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目的 2 型糖尿病患者易受到社交隔离与孤独感的影响，而社会心理因素很可能与痴呆发生有关。然而，我们仍不清楚社交隔离与孤独感是否与 T2DM 患者的痴呆发生风险相关。我们假设社交隔离和孤独感与 2 型糖尿病患者的新发痴呆相关，且两者分别由不同的因素介导。

方法 我们从英国生物样本数据库纳入了 24,986 名基线时患有 2 型糖尿病的参与者(平均年龄：60.0±6.9 岁，中位随访时间：12.0 年)。通过问卷调查评估他们的社交隔离和孤独感。新发痴呆病例通过医院记录和死亡登记系统进行确认。

结果 校正人口统计学因素后，社交隔离和孤独感与 2 型糖尿病患者新发痴呆风险增加相关；然而，在完全校正的模型中，这些关联显著减弱。健康行为主要解释了社交隔离与痴呆的关联，心理因素主要解释了孤独感与痴呆的关联。痴呆多基因风险评分或 APOE ε4 等位基因的携带状态显著影响了社交隔离或孤独感与痴呆发生的关联。

结论 社交隔离和孤独感与 2 型糖尿病患者的新发痴呆相关，并分别通过不同的中间途径介导。本研究结果有助于我们进一步了解不良社会因素对 2 型糖尿病患者认知结局的不利影响，并为降低 2 型糖尿病患者的痴呆风险提供了一个有前景的靶点。

关键字：社交隔离、孤独感、痴呆、英国生物样本数据库、2 型糖尿病

（组内口头交流）

Panic Disorder Caused by Childhood Traumatic Experiences Is Associated with NOS1AP DNA Methylation and Precentral Gyrus Function

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Objective To explore whether childhood traumatic experiences are associated with NOS1AP DNA methylation modification as well as brain function in patients with PD.

Methods 32 subjects with PD and 22 healthy people as control group were recruited. History of childhood traumatic experiences were reviewed by the Childhood Trauma Questionnaire (CTQ). Then, peripheral blood was collected from all participants for DNA methylation test. Next, the Amplitude of Low Frequency Fluctuation(ALFF) values of precentral gyrus were extracted from the patients' functional Magnetic Resonance imaging(fMRI)data. Finally, the correlation of DNA methylation, CTQ scores and ALFF values were analyzed respectively. Animal experiments were designed to test NOS1AP protein expression in the precentral gyrus with immunofluorescence histochemistry(IHC)and Western Blot (WB). To mimic childhood traumatic experiences, mice were treated with chronic restraint stress (CRS) for 21 days. Elevated plus maze (EPM) and open field test (OFT) were used to determine whether the mice showed anxiety-like behavior.

Results Peripheral blood sample showed one of the three fragments of the NOS1AP gene which were extracted from PD patients differed significantly from healthy people in the level of DNA methylation. And we found that the CG13 locus is less methylated than normal controls. The level of methylation at the CG13 locus was significantly correlated with patients' precentral gyrus ALFF values and somatic abuse scores on the CTQ scale. The CRS mice model showed obvious anxiety-like behavior compared to the control group. WB and IHC showed significant upregulation of NOS1AP protein expression in frontal cortex in CRS mice.

Conclusion Our results suggested that childhood traumatic experiences can influence NOS1AP DNA methylation levels and precentral gyrus function. The pattern of behavior change on brain function may be related to the upregulation of NOS1AP in the precentral gyrus.

关键字：NOS1AP; DNA methylation; panic disorder; Childhood traumatic experiences

（组内口头交流）

线上强化 CBT-I 治疗对慢性失眠障碍合并抑郁和/或焦虑症状的疗效研究

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目的 失眠认知行为治疗已被广泛验证可有效改善失眠，但存在治疗师资源有限、费用高昂等限制。网络技术的发展使得更高效的医学行为治疗成为可能，线上 CBT-I 干预应运而生，其有着成本低、访问方便和标准化等一系列优点，并且对失眠的疗效也被国内外不少研究证实，但线上 CBT-I 对失眠共病情绪问题的疗效研究较少。因此本研究旨在将失眠障碍及其合并的焦虑抑郁症状作为一个整体考虑，针对慢性失眠合并抑郁和/或焦虑症状的患者，开发出线上强化 CBT-I 疗法，探索其对失眠及其合并症状的可行性及长短期疗效。

方法 研究纳入 83 例慢性失眠障碍合并抑郁和/或焦虑症状的患者，按照 1：2 随机分配至线上心理教育对照组和线上强化 CBT-I 干预组，在基线、干预后 35 天和 6 个月评估 PSQI, HAMA, HAMD, ISI 和 DBAS 量表。

结果 干预组治疗前后 PSQI 得分（15.2 vs 8.8, p=0.007）、ISI 总分（19.7 vs 12.5, p=0.001）、 睡眠潜伏期（97.1 vs 32.8, p<0.001）均显著下降（P＜0.01），睡眠效率（61.5% vs 78.7%, p=0.002）、睡眠时长（5.1 vs 6.3, p=0.002）、DBAS 总分（34.6 vs 43.2, p<0.001）显著增加，且 6 个月后改善效果仍显著。而对照组 6 个月后睡眠效率、睡眠潜伏期及睡眠信念改善均不显著。此外，干预组治疗后的 PSQI（41.4% vs 21.8%, p=0.002），HAMD（47.7% vs 26.33%, p=0.016）及 HAMA 减分率

（51.0% vs 32.8%, p<0.001）均显著高于对照组，且 6 个月后仍显著。

结论 线上强化 CBT-I 治疗可以有效改善共病患者的失眠及情绪状况，且有着持续作用，这一标准化和规范化的程序提供了稳定的治疗质量，为失眠共病抑郁和/或焦虑问题的患者提供了便捷有效的治疗。

关键字：慢性失眠障碍, 失眠认知行为治疗, 线上强化 CBT-I, 共病焦虑抑郁

焦虑障碍研究协作组

不同亚型的焦虑障碍患者述情困难水平比较

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目的 述情障碍是多种精神障碍和心身疾病的发病高危因素，可能会影响到患者的治疗疗效。焦虑障碍分为不同亚型，本研究目的是探究首发未用药的不同亚型焦虑障碍患者的述情困难水平有无差异。

方法 在精神专科门诊收集符合ICD-11中焦虑障碍（包含广泛性焦虑障碍、惊恐障碍、社交焦虑障碍、场所恐惧症、特定恐惧症、分离性障碍、选择性缄默症等）诊断标准的患者，要求首发、未用药，对符合入组标准的患者在用药前进行基线评估，包含人口统计学资料收集，汉密尔顿焦虑量表（HAMA）及多伦多述情障碍量表（TAS-20）评估。

结果 我们在门诊共收集到471例焦虑障碍患者，294 例广泛性焦虑障碍、110 例惊恐障碍、49 例社交焦虑障碍、12 例场所恐惧症、6 例特定恐惧症。受试者平均年龄为 34 岁，平均受教育年限为 15 年；入组受试者以女性为主，64.17%为女性，35.83%为男性；51.47%为未婚，43.32%为已婚。研究发现不同的焦虑障碍亚型述情障碍量表得分差异不显著。

结论 焦虑障碍女性患病率高于男性，精神专科门诊最常见的焦虑障碍亚型是广泛性焦虑障碍。不同亚型的焦虑障碍患者均存在一定的述情困难且程度上无明显差异。

关键字：焦虑障碍，不同亚型，述情困难

Characteristics and Economic Burden of Patients with Somatoform Disorders in Chinese General Hospitals: A Multicenter Cross-sectional Study

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Objective This study aimed to early screen patients with SFD when they visited general hospitals using a new Chinese questionnaire and explore the characteristics and economic burden of these patients.

Methods Patients (n=1497) from the outpatient department of neurology, cardiology and gastroenterology of three large general hospitals were included. Participants were screened using a newly developed questionnaire, the Self-screening Questionnaire for Somatic Symptoms (SQSS), to identify the patients with SFD (total SQSS score ≥ 29 points). We compared the demographics and clinical information of patients with and without SFD. Logistic regression was used to explore potential factors related to medical expenses, visits to doctors and sick leave days taken.

Results The frequency of detection of patients with SFD was 17.03%. There were significant differences in employment, doctor visits, symptom duration, medical expenses, sick leave days, PHQ-15 scores, and PHQ-9 scores between patients with SFD and without SFD. General non-specific somatic symptoms were frequently present in patients with SFD. Several potential factors were associated with higher medical expenses, repeated doctor visits, and sick leave days taken in the regression analysis.

Conclusion The findings indicate that patients with SFD are common in general hospitals, and their direct and indirect economic burden is higher than that of non-SFD patients, which indicates that more screening effort should be made to this group to early identify their problems. Certain characteristics were identified among patients with SFD and several factors were associated with negative consequences of SFD, all of which might be prevented by developing a preventive intervention program to reduce the economic burden of the patients.

关键字：Somatoform disorders, Self-screening Questionnaire for Somatic Symptoms, Characteristic, Economic burden, General hospital

A Projection From Ventral Hippocampus To Basolateral Amygdala Is Involved in The Destabilization of Remote Fear Memory

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Objective Fear response often occurs after reactivation of fear memories by exposure to unconditioned stimulus (UCS) or fear-associated conditioned stimuli (CSs). Fear memories that were reactivated by fear-associated CSs undergo reconsolidation and interfering with this reconsolidation inhibit subsequent fear response. Our previous study demonstrated the efficacy of a novel UCS-based memory reconsolidation interference procedure for inhibiting nicotine craving induced by exposure to diverse nicotine-associated CSs and nicotine itself. In present study we intend to investigate the neural circuits underlying the destabilization after UCS-based retrieval.

Methods Brain activity was assessed by c-fos immunofluorescence after CS or UCS retrieval 1 d or 14 d after fear conditioning. Designer receptors exclusively activated by designer drugs (DREADDs), neural circuit tracing, fiber photometry and pharmacological interventions were used to explore the involvement of ventral hippocampus (vHipp) and basolateral amygdala (BLA) in the reconsolidation of recent and remote fear memory.

Results We found that CS and UCS retrieval induce different patterns of brain region activation and this pattern change with time. Both CS and UCS retrieval 1 d after learning induced the activation of prelimbic cortex (PrL), dorsal hippocampus and BLA. Fourteen days after conditioning, CS retrieval activated PrL and infralimbic cortex, while UCS retrieval activated PrL, vHipp, BLA and central amygdala. The projection from vHipp to BLA was also selectively activated by UCS retrieval. Propranolol microinjections into the BLA or anisomycin microinjections into the vHipp disrupted the UCS retrieval-mediated reconsolidation of remote fear memory, and this memory impairment effects persisted for at least two weeks with no recovery after reminder shock. Moreover, inactivation of vHipp, but not PrL projections to BLA by DREADDs after UCS retrieval impaired remote fear memory.

Conclusion Our results suggest that a projection from ventral hippocampus to basolateral amygdala may be involved in UCS retrieval-induced reconsolidation of remote fear memory.

关键字：UCS retrieval; fear memory; reconsolidation; vHipp; BLA

基于多模态数据和深度学习的焦虑障碍多亚型辅助诊断分型

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目的 本研究旨在采用深度学习方法，根据低频振幅（ALFF）、局部一致性（ReHo）以及脑灰质体积（VBM）的多模态数据提取脑网络信号并建模，对焦虑障碍（AD）亚型患者进行分类，同时发现与疾病相关的生物标志物。

方法 招募符合DSM-5诊断标准的广泛性焦虑症（GAD）患者48名、惊恐障碍（PD）患者51名、社交焦虑障碍（SAD）患者25名、特定恐惧症（SP）患者55名以及健康对照组（HC）108名，被试样本共计287个。采集其静息态影像数据，计算ALFF、ReHo、VBM指标，获取连接梯度数据（Connectome Gradient Data）。随后，引入基于自编码网络的二元假设模型对数据进行AD和HC的分型。若测试数据标签被预测为AD，则该测试数据进入AD亚型多元假设模型的分类框架，进行亚类的区分。随后，我们在高准确率的亚型分类基础上，采用多元方差分析进行了亚类间显著生物标志物提取。具体而言，对三个多模态数据为线索，构建脑区间的相关性矩阵，生成连接梯度数据。同时，对该数据采用现有基于自编码网络的二分假设分类方法进行AD患者与HC分类。在亚型分类框架中，则采用多元假设模型对其分类，即对测试数据标签分别做四种亚型（GAD、PD、SAD、SP）假设。在不同假设下，将训练数据和测试数据一起作用于基于多分类的特征选择方法（如基于多分类的支持向量机—特征消除方法，multi-class SVM-RFE），挑选出训练数据的典型脑梯度特征，随后送入自编码网络提取高级特征。最后，根据不同假设所提取高级特征进行亚型分类。提取生物标志物时，我们聚焦于亚型分类正确假设下提取的连接梯度数据所对应的脑区，并基于多模态数据进行多元方差分析，得到与疾病相关的显著脑区，以此作为生物标志物。

结果 在留一法（LOOCV）测试中，该深度学习框架对 AD 亚型分类的准确率为 97.9%，实现了高准确率的亚型分类目标。提取的显著生物标志物则集中于有限个脑区，包括眶部额下回、额中回、脑岛、杏仁核、楔前叶等。这些脑区都与情绪控制、奖惩机制存在强相关性，并与现有 AD 及其亚型的脑区发病机制有较好的印证关系。

结论 研究表明，采用多模态数据和深度学习方法可高精度地对 AD 亚型进行分类，并能提取辨别性脑区作为生物标志。其有助于深入理解 AD 亚型间差异，并为个体化治疗提供指导。

关键字：多模态，AD 亚型，多分类，连接梯度，二元假设

Transcriptome-neuroimaging Correlation Analysis Reveals Genes and Biological Processes Associated with Cortical Thickness in Obsessive-compulsive Disorder

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Objective Obsessive-compulsive disorder (OCD) is a debilitating psychiatric condition characterized by enduring and intrusive thoughts and repetitive compulsions. Previous studies have reported modifications in the thickness of the cerebral cortex in individuals with OCD. The objective of this study is to investigate the patterns of cortical thickness alterations in patients with OCD and elucidate the potential biological mechanisms underlying these changes.

Methods We conducted an analysis of cortical abnormalities in adults with OCD using data from the ENIGMA Obsessive-Compulsive Disorder Working Group. The study encompassed a total of 1488 patients diagnosed with OCD and 1436 healthy controls derived from the ENIGMA dataset. Furthermore, we performed validation utilizing an independent sample consisting of 45 OCD patients and 40 controls. Cortical thickness disparities between the OCD patients and healthy controls were examined, with a specific emphasis on identified cerebral regions. To gain insight into the biological mechanisms underpinning the observed cortical thickness differences, a functional enrichment analysis was conducted. This analysis entailed identifying biological processes, molecular functions, and cellular components associated with the differentially expressed genes within the regions exhibiting modified cortical thickness.

Results The analysis unveiled significant disparities in cortical thickness in specific cerebral regions of OCD patients compared to healthy controls. Specifically, noteworthy alterations were observed in the inferior parietal cortex bilaterally. The functional enrichment analysis of the differentially expressed genes within these regions highlighted substantial enrichment in various biological processes, including the aspartate family amino acid metabolic process, long-chain fatty acid metabolic process, and purine ribonucleotide metabolic process. Additionally, there was enrichment in molecular functions related to ATPase activity coupled with transmembrane movement of substances, as well as enrichment in cellular components such as the peroxisomal part and dynactin complex.

Conclusion Our findings provide compelling evidence for modifications in cortical thickness in the superior and inferior parietal cortices of individuals with OCD, indicating the involvement of these specific cerebral regions in the pathophysiology of OCD. The functional enrichment analysis suggests that dysregulation of biological processes related to metabolism and cellular functions, particularly involving peroxisomal and dynactin complex components, may contribute to the pathology of OCD. These results contribute to a deeper comprehension of the neurobiological basis of OCD and may have implications for the development of targeted therapeutic interventions for this psychiatric disorder.

关键字：first-episode drug-na?ve adult obsessive-compulsive disorder; AHBA; cortical thickness

Depression and Anxiety Symptoms Associated with Internet Addiction and Non-suicidal Self-injury in Chinese Adolescent Students - A Network Analysis

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Objective Non-suicidal self-injury (NSSI) and Internet addiction (IA) are adolescent maladaptive behaviors that are receiving increasing attention and exerting a significant impact on both adolescent development and public health, and depressive and anxiety symptoms are two of the most associated risk factors of NSSI and IA. This study aimed to use network analysis to explore the association and causal relationships between NSSI, IA, and depression-anxiety symptoms.

Methods A total of 1799 adolescents aged 12-16 completed self-report questionnaires. We conducted a conditional dependence test on NSSI and IA controlling for depression and anxiety, and constructed a partial correlation network and a direct acyclic graph incorporating NSSI, IA, nine depressive symptoms (from PHQ-9), and seven anxiety symptoms (from GAD-7).

Results Results suggested that there was no significant correlation between NSSI and IA after controlling for depression ($P = 0.25$) and anxiety ($P = 0.14$) symptoms. IA was mainly associated with Anxiety symptoms, and NSSI was associated with both anxiety and depressive symptoms. Suicidal ideation and afraid were causally related to NSSI, and restlessness was causally related to IA.

Conclusion This study suggests that NSSI and IA are conditionally independent of depression and anxiety. Specific symptoms including suicidal ideation, afraid, and restlessness are the key intervention targets of NSSI and IA

behaviors.

关键字：Non-suicidal self-injury, Internet addiction, network analysis, Bayesian network, depression, anxiety.

强迫症患者在模糊情景下决策行为的脑网络研究

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目的 强迫症是以闯入性、反复出现的想法和行为为主要临床表现的慢性精神疾病，其患者通常表现出执行功能的障碍。目前对强迫症执行功能的研究表明，强迫症有抑制控制缺陷（即冲动特质）、决策缺陷以及强化学习能力失调的特点，但三者之间的关系尚不明确，其神经影像机制仍需探讨。

方法 本研究纳入 25 名强迫症患者（OCD 组）与 27 名性别、年龄和受教育年限均匹配的健康志愿者（HC 组）作为研究对象，使用 Y-BOCS、BIS-11、BAI 和 BDI 量表进行临床信息评估，使用爱荷华博弈任务(IGT)进行决策功能评估，使用 fMRI 和独立成分分析(ICA)进行神经影响机制的评估。

结果 OCD 组和 HC 组在人口学信息上没有显著差异，但表现出注意冲动、Y-BOCS、BAI 和 BDI 得分的差异。在 IGT 中，不同被试的在不同阶段的净得分有显著差异。OCD 组的净得分在第二阶段显著低于第四阶段，HC 组的第一阶段的净得分显著低于第三阶段、第五阶段的净得分。为避免概率因素的影响，本研究进一步探究了被试在选项选择之间的差异，相比 HC 组，OCD 组的被试更偏向不利选项，OCD 组在五个阶段中的选项没有显著变化，而 HC 组随着实验阶段的进行，选择有利选项的次数显著升高。其次， ICA 结果显示，相比 HC 组，OCD 组的默认模式网络（DMN）内部和 DMN 与额顶网络（FPN）之间的功能连接更弱；网络内比较显示视觉网络内成分和躯体运动网络内成分功能连接在 HC 组中均显著强于 OCD 组。最后，DMN 内部功能连接与选项计分正相关(r=0.29)，与 Y-BOCS (r=?0.43)、BAI (r=?0.31)、BDI 得分(r=?0.33)负相关；DMN 与 FPN 功能连接与选项计分正相关(r=0.51)，与 Y-BOCS (r=?0.41)、BDI 得分 (r=?0.30)负相关。同时，Y-BOCS、DMN 与 FPN 功能连接以及 IGT 选项计分存在显著中介效应，其中 Y-BOCS 分数为自变量，选项计分为因变量，DMN 与 FPN 的功能连接为中介变量。

结论 强迫症患者存在一定程度的冲动特质，主要表现为注意冲动；强迫症患者模糊情景下的决策存在缺陷，不能从负面的失败反馈中获得经验进行调整，是强化学习功能的失调；强迫症患者的 DMN 内部功能连接以及 DMN 和 FPN 功能连接异常，可能与强迫症强化学习功能的失调有关。

关键字：强迫症；模糊情景下决策；强化学习；冲动；独立成分分析

（组内口头交流）

生活事件对青少年焦虑的影响：自我和谐和社会支持的链式中介作用

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目的 我国青少年的焦虑障碍发病率为 15~25%，青少年处于心理发育、社会发展的关键时期，面对多重压力，关注青少年的心理健康尤为重要。研究发现，生活事件与焦虑之间并不是简单的线性关系，往往受到个体心理特质和外界环境的影响。本研究旨在探究青少年生活事件、自我和谐、社会支持与焦虑的关系，试图揭示自我和谐及社会支持在青少年生活事件和焦虑之间的作用机制。

方法 本研究采用青少年生活事件量表（Adolescent Self-Rating Life Events Check List，ASLEC）、自我和谐量表(Self Consistency and Congruence，SCCS)、社会支持量表(Social Support Rate Scale，SSRS)和广泛性焦虑障碍量表（Generalized Anxiety Disorder，GAD-7）对青少年进行横断面调查，采用 SPSS20.0 及 Mplus7.0 进行数据统计。

结果 本研究共纳入 570 名青少年，青少年生活事件与自我和谐、焦虑显著正相关（r＝0.359， r＝0.286，均 p＜0.01），与社会支持显著负相关（r＝-0.243， p＜0.01）；自我和谐与社会支持显著负相关（r＝-0.434，p＜0.01），与焦虑显著正相关（r＝0.433，p＜0.01）；社会支持与焦虑显著负相关（r＝-0.299，p＜0.01）。生活事件对焦虑影响的中介效应主要通过三种途径实现，即生活事件→自我和谐→焦虑；生活事件→社会支持→焦虑以及生活事件→自我和谐→社会支持→焦虑，三种途径的中介效应占比分别为 39.328%、4.442%和 6.176%，效应量分别为 0.0363、0.0041 和 0.0057。

结论 生活事件不仅直接影响青少年焦虑，还通过自我和谐和社会支持的链式中介作用间接影响青少年焦虑。可以通过改善自我和谐、增强社会支持来降低青少年的焦虑，促进青少年的心理健康。

关键字：青少年；焦虑；生活事件；自我和谐；社会支持

（组内口头交流）

Longitudinal Study Tracking Cerebellar-cerebral Functional Connectivity in Patients with Obsessive-compulsive Disorder

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Objective The role of cerebellar-cerebral functional connectivity (FC) in obsessive-compulsive disorder (OCD) and its trajectory after pharmacotherapy, as well as its potential as a prognostic biomarker, are unclear.

Methods This study involved 37 drug-naive patients with OCD and 37 healthy controls (HCs). All participants underwent a functional magnetic resonance imaging (fMRI) scan at baseline. Subsequently, OCD patients received paroxetine treatment for four weeks and underwent another scan after treatment. Seed-based FC analyses were performed to examine differences in cerebellar-cerebral FC between patients with OCD and HCs, and between patients with OCD before and after treatment. Support vector regression (SVR) was performed to predict treatment response. Correlation analysis was used to explore the association between cerebellar-cerebral FC and clinical data.

Results Compared to HCs, patients with OCD exhibited reduced cerebellar-cerebral FC in executive, affective-limbic, and sensorimotor networks. Following treatment, patients showed partial clinical improvement and partial restoration of the previously decreased cerebellar-cerebral FCs. Abnormal cerebellar-cerebral FC at baseline was negatively correlated with the severity of compulsions ($r = -0.472$, $p = 0.004$) and social functional impairment ($r = -0.494$, $p = 0.002$). Changes in cerebellar-cerebral FC were linked to changes in cognitive function ($r = -0.440$, $p = 0.024$). SVR analyses based on abnormal cerebellar-cerebral FC showed significant correlations between predicted and actual treatment response ($p < 0.001$).

Conclusion Our findings suggest that cerebellar-cerebral FC plays a crucial role in the neuropsychological mechanisms underlying OCD and its pharmacological treatment. Furthermore, cerebellar-cerebral FC could serve as a potential prognostic biomarker for OCD.

关键字：cerebellum; paroxetine; treatment response; resting-state functional magnetic resonance imaging

（组内口头交流）

坦度螺酮 不同剂量治疗广泛性焦虑障碍对代谢指标的影响：一项多中心 RCT 的事后分析

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目的 探究坦度螺酮常规剂量（30 mg/d）和强化剂量（60 mg/d）在治疗 GAD 患者过程中对体重、BMI、血糖的影响。

方法 本研究是一项多中心、随机、平行对照临床试验（的事后分析。患者通过中心分层、区组随机化方法、1:1 比例进入常规治疗组（30 mg 组）和强化治疗组（60 mg 组）。患者在基线、第 1、2、4、6 周末接受访视，期间检测了患者的体重、BMI；在基线及治疗第 6 周末对患者的空腹血糖也进行检测。

结果 60 mg 组的基线体重高于 30 mg 组，两组在 BM、空腹血糖基线水平均无显著差异。治疗的 6w，60 mg 组的体重始终高于 30 mg 组（all $P > 0.05$），与基线特征保持一致。两组相较基线的体重改变量在各个随访时间点上均是轻微的，在第六周时 60 mg 组，与 30 mg 组没有显著性差异（$P = 0.903$）。以基线值作为协变量分析显示，60 mg 组与 30 mg 组的体重变化值在各时间点仍无显著差异；60 mg 组在治疗的第二周开始，BMI 水平低于 30 mg 组（$P<0.05$），两组在各个时间点较基线的 BMI 变化量均较轻微，且组间无显著差异（all $P > 0.05$); 60 mg 与 30 mg 组的空腹血糖无显著差异（ $P = 0.106$），与基线特征保持一致。

结论 坦度螺酮 60mg 与 30mg 短期治疗 GAD 患者时，对于体重、BMI、空腹血糖无显著影响，且高剂量并未增加体重或 BMI 上升或空腹血糖受损的风险。

关键字：广泛性焦虑障碍；坦度螺酮；体重；血糖；BMI

（组内口头交流）

Association of Polymorphisms in Hypocretin (Orexin) Receptor 1 and Plasma Hypocretin: Treatment Response Prediction in Major Depressive Depression

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Objective Genetic antecedents to depression may also contribute to biological involvement in its origin, devolution and clinical response. Hypocretins (orexins), excitatory neuropeptides generated within the hypothalamic region, regulate sleep, wakefulness, feeding behavior and energy metabolism. Clinical and preclinical studies suggested a potential link between hypocretin and depression.

Methods We divided major depressive disorder (MDD) patients into two groups according to the plasma hypocretin-1changes after 8-week escitalopram treatment: Hypocretin Increase group (Hypocretin-Inc) and Hypocretin Decrease (Hypocretin-Dec) group. Briefly, first, we explored changes in peripheral hypocretin-1 levels in patients with MDD before and after antidepressant treatment. Second, cognitive function and hypocretin-related SNPs were measured, leading to a more in-depth understanding of the pathogenesis of MDD. Third, we established the model by icv hypocretin-1 into the lateral ven-

tricle and observed the effect of hypocretin-1 on the metabolism of different brain regions using micoPET-CT. Finally, we attempted to elucidate the mechanism of its role in cerebral glucose metabolism.

Results Hypocretin-Dec groups showed better HAMD, HAMA, and cognitive function than the Hypocretin-Inc group. hypocretin or CUMS, Suvorexant (dual hypocretin receptor antagonist) could reverse the changeover the depression, anxiety and cognitive repairment from CUMS. And Hypocretin receptor 1(HCRTR1) single nucleotide polymorphism (rs2271933) differs between these two groups, indicating that HCRTR1 mutations underlie the etiology of clinical outcomes. Plasma Hypocretin-1 was positively correlated with HAMD and HAMA scores, and negatively correlated with the overall composite score of MCCB and verbal learning. 18F-FDG uptake decreased in the hippocampus of intracerebroventricular injection (icv) of hypocretin which mimics the hippocampus' 18F-FDG uptake of CUMS rats. Glucose-related molecular mRNA changes after icv.

Conclusion The hypocretinergic system related to the clinical outcomes included changes in core symptom severity and cognitive functioning from pre- to post-treatment. HCRTR1 mutations underlie the etiology of depression and cognitive repairment, and the hypocretinergic system regulates glucose metabolism and participates in the pathogenesis of depression and cognition from depression. Changes in plasma hypocretin and HCRTR1 polymorphisms could be the predictor for the depressive clinical outcome and cognitive recovery. Selective Hypocretin receptor antagonism takes advantage of these properties to develop depression therapeutics.

关键字：Hypocretin, Hypocretin receptor 1, rs2271933, Glucose metabolism, Depression

（组内口头交流）

Network Analysis Reveals Disrupted Functional Connectivity and Topology Properties in Panic Disorders

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Objective Panic disorder (PD) is a common disabling condition characterized by recurrent and unexpected panic attacks, accompanied by anticipatory anxiety and fear avoidance. Neuroimaging studies have indicated that emotional and behavioral impairments correlated with anxiety disorder are correlated with abnormalities of functional connectivity (FC) among brain regions and networks. However, we know little about the functional dysconnectivity including brain region nodes and modular brain networks, and the change of topological property brain networks in PD.

Methods We used the whole brain FC, modular networks, and graph-theory analysis to investigate an extensive network-level pathophysiological profile in PD patients. We collect functional MRI data from 82 PD and 97 healthy controls (HCs). Intrinsic FC between each pair of 160 regions, 6 intro- network and 15 inter networks were analyzed to distinguish patients from controls. We then explored the global and local properties of networks.

Results The whole brain FC analysis revealed several abnormal connectivity profiles including frontolimbic (frontal cortex, and insula), sensory and perceptual processing areas (occipital and posterior cingulate cortices (PCC)), and cerebellum. PD patients had lower FC of intra- insula, and other FC (frontal cortex-PCC, frontal cortex- cerebellum, and PCC-occipital cortex) were higher than HCs. PD subjects were characterized by 3 connectomic feature (within sensorimotor network (SMN), SMN and occipital network (OCN), OCN-cerebellum) of lower connectivity in modular network compared to HCs. At the global perspective, decreased small-worldness, global efficiency (Eg), normalized clustering coefficient, and increased characteristic path length (Lp) were detected in PD patients using graph-theory analysis. Moreover, positive correlations were found between the AUC of Lp and anxiety symptoms severity. At the local perspective, our findings revealed lower nodal efficiency (Ne) in the right mid insula, and both the AUC of Ne in insula and the FC of intra- insula were negatively associated with PD symptoms.

Conclusion Our findings emphasize the disorganization of topological among functional brain network and the important role of the insula, which provides new information and perspective for exploring the neural physiopathology in PD patients.

关键字：panic disorder; functional connection; modular network; topology properties

（组内口头交流）

Efficacy and Safety of Transcranial Direct Current Stimulation (tDCS) on Cognitive Function in Chronic Schizophrenia with Tardive Dyskinesia (TD): A Randomized, Double-blind, Sham-controlled, Clinical Trial

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Objective Previous studies have shown that transcranial direct current stimulation(tDCS) led to an improvement of cognitive function in patinets with schizophrenia, but rare study has explored the effect of tDCS on long-term hospitalized chronic schizophrenia with tardive dyskinesia(TD). The present research explored if cognitive function in patients with long-term hospitalized chronic schizophrenia with TD could be improved through tDCS.

Methods This study is a randomized, double-blind, sham-controlled clinical trial. Of the 52 patients, 14 dropped out and 38 completed the experiment. Thirty-eight patients on stable treatment regimens were randomly assigned to receive active tDCS(n=21) or sham stimulation(n=17) on weekdays of the first, third, and fifth weeks of treatment. Patients performed the Pattern Recognition Memory(PRM) and the Intra/Extradimensional Set Shift (IED) from the Cambridge Neuropsychological Test Automated Battery at baseline, at the 3-week of tDCS treatment

(week3), and the end of tDCS treatment (week5). Clinical symptoms were also measured at the baseline and the fifth week using the Scale for the Assessment of Negative Symptoms (SANS) and the Positive and Negative Syndrome Scale (PANSS).Side effects of tDCS were assessed with an experimenter-administered open-ended questionnaire during the whole experiment.

Results There were no significant differences in PRM and IED performance metrics, SANS total score and PANSS total score between active and sham tDCS groups at the end of the 5-wk treatment period (all P > 0.05).Furthermore, it was significant difference in the adverse effects of the tingling sensation between the two groups (P<0.05), but there was no significant difference in other side effects (P>0.05).

Conclusion According to these findings, there is no evidence in support of the use of anodal stimulationover the left dorsolateral prefrontal cortex an approach for improving cognitive function in patients with long-term hospitalized chronic schizophrenia with TD.

关键字：tDCS ;Randomized Controlled Trial ;Chronic Schizophrenia ;Tardive Dyskinesia;Pattern Recognition Memory;Intra/Extradimensional Set Shift.

老年精神病学组

农村地区首诊阿尔茨海默症的治疗情况分析

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目的 随着人口老龄化的加剧，老年痴呆症在社会中受到广泛关注。然而，农村地区的阿尔茨海默症识别率和重视率仍然偏低。本研究旨在通过分析农村地区阿尔茨海默症首次治疗情况，了解农村地区群众对阿尔茨海默症的认识，为社会健康教育和社区防治提供依据。

方法 本研究选取了 2021 年 5 月至 2023 年 5 月期间在我诊所门诊诊断为阿尔茨海默症的56位首发首治患者作为研究对象。通过医疗记录和病历资料，收集患者的首诊症状和首次治疗时间等相关信息。使用统计方法对收集到的数据进行分析，计算首诊症状的比例，并对农村地区老年痴呆症首次治疗时间进行描述性统计。

结果 本研究分析了56位农村地区阿尔茨海默症首发首治患者的数据。结果显示，45%的患者首诊症状为精神症状，表现为行为异常、情绪波动,、幻觉、妄想等；38%的患者首诊症状为记忆力减退，表现为遗忘、迷失方向等。而其他症状，如运动障碍、语言障碍等的比例较低。

结论 在农村地区的阿尔茨海默症患者中，精神症状是首诊症状的主要类型，其次是记忆力减退。这可能与农村地区的社会文化背景、缺乏对该疾病的了解和认识和医疗资源有限有关。为了改善农村地区老年痴呆症的识别和治疗情况，需要加强对农村地区阿尔茨海默症的宣传，提高群众对老年痴呆症的认识和重视程度，以便早期诊断和治疗。

关键字：阿尔兹海默症；农村

知情者报告的认知下降可预测主观认知下降（SCD）的纵向转归：一项 7 年的随访研究

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目的 通过 7 年的随访队列研究来确定知情者报告的记忆衰退(IMD)在主观认知下降(SCD)老年人中的纵向预测价值。

方法 90 例 SCD 纳入研究。对基线的研究对象分为有知情者报告认知下降的 SCD（+ IMD）组和无知情者报告认知下降的 SCD（-MID）组。然后，进行 7 年认知随访，并诊断，使用 Logit 回归模型来确定基线知情者报告的认知下降是否可以预测 7 年随访的结果(稳定或进展)。

结果 37 例 SCD 受试者存在知情者报告的认知下降。在基线时，+IMD 组比 -IMD 组表现出更多的抑郁症状(p＝0.016)。在控制年龄，性别，教育年限和

抑郁状态后，+ IMD 组的认知功能，如北京版蒙特利尔认知评估(MoCA) ，数字广度前瞻测试(DST-F) ，视觉匹配和推理(VMR)和韦氏成人智力量表-图片完成(WAIS-PC)评分显着低于-IMD 组。在 7 年的随访中，54.0% (20/37)的 + IMD 参与者转为轻度认知障碍或痴呆，22.6% (12/53)的-IMD 参与者转为 MCI。在控制基线抑郁状态和认知功能后，+ IMD 组的简易精神状态检查(MMSE)、 MoCA 和言语流畅性(VFT)的随访评分显著低于-IMD 组。此外，在控制年龄，性别，教育年限，血管风险因素及基线 30 项老年抑郁量表(GDS-30)和认知测试评分后，+IMD 组的 MMSE、听觉词汇学习测验(AVLT)延迟回忆项目的下降幅度更大(OR = 3.361,95%置信区间[CI]1.138-9.925，p = 0.028)，+ IMD 组更有可能在 7 年的随访中进展为认知障碍。

结论 + IMD 组的参与者认知能力较差，未来更有可能转变为认知障碍。我们的长期随访研究证实了知情者对 SCD 认知变化的重要性，这可以帮助临床医生重视知情者报告，识别随着时间的推移有认知衰退风险的个体。

关键字：主观认知下降，知情者，轻度认知障碍，痴呆

阿尔茨海默病和轻度认知功能障碍血浆 pNFL、P-tau181 及视网膜变化相关研究

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目的 阿尔茨海默病(Alzheimer Disease , AD)早期诊断、治疗十分困难。血浆标记物检测技术的提高使得其成为辅助诊断 AD 的一种方便、可靠的手段。神经丝轻链 （NFL）与磷酸化 Tau 181 蛋白（P-tau181）是有潜力生物标志物。AD 大脑病理改变可以通过视网膜体现，成为一种新的生物标志物。本文旨在研究轻度认知功能障碍（MCI）、 AD 和正常对照组间血浆 pNFL 水平、P-tau181 水平及视网膜厚度、血管密度的差异，探索血浆标记物检测结合眼底检查能否更加准确的协助诊断。

方法 本研究为病例对照研究。自昆明医科大学第一附属医院精神科门诊、住院部收集 MCI 和 AD 患者，正常对照组来自社区。采用简明精神状态检查量表、蒙特利尔认知评估量表评估认知水平。采用 Simoa 方法检测 pNFL、P-tau181 水平；眼底检查：光学相关断层扫描及光学相关断层扫描血管成像。受试者分为三组，轻度认知功能障碍组、阿尔茨海默组、正常对照组。比较三组的血液标记物水平、认知功能、视网膜厚度、血管密度的差异。统计使用 SPSS 25.0。采用卡方检验、单因素 ANOVA、K 个独立样本 T 检验，ROC 曲线评价各种检查诊断 AD 的准确性。

结果 共收集 143 例受试者，MCI44 例、AD55 例、对照 44 例。血浆检测分析结果：MCI 组 pNFL 水平较正常对照组高，MCI、AD 组无显著差异。MCI 组 P-tau181 水平较正常对照组高，AD 组较 MCI 组高；pNFL（AUC=0.712）、P-tau181（AUC=0.763）水平均可协助诊断 AD，二者联合眼底检查更加准确（AUC=0.784），联合认知量表、眼底检查更加精准（AUC=0.983）。

结论 P-tau181 水平升高可以区分 MCI 与 AD。pNFL 水平及 P-tau181 水平变化是认知功能下降的独立危险因素。pNFL、P-tau181 水平联合眼底视网膜厚度协助诊断 AD 更加精准。

关键字：阿尔茨海默病；轻度认知功能障碍；血浆神经丝轻链；血浆磷酸化 Tau 181 蛋白；视网膜神经纤维层

脑脊液 β 淀粉样蛋白 42 和 NLRP3 与麻痹性痴呆患者认知功能障碍、精神行为症状及预后的相关性分析

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目的 分析脑脊液 β 淀粉样蛋白 42（Aβ-42）和核苷酸结合寡聚结构样受体蛋白 3（NLRP3）与麻痹性痴呆（GPI）患者认知功能障碍、精神行为症状及预后的相关性。

方法 选取 2020 年 1 月-2021 年 9 月本院收治的 78 例 GPI 患者为研究对象（研究组），另选取同时期本院收治的 58 例手术行腰椎麻醉的非神经系统疾病患者为对照组。检测两组患者脑脊液 Aβ-42、NLRP3 水平，同时分别采用蒙特利尔认知检查量表（MoCA）、神经精神量表问卷（NPI）评估两组患者认知功能与精神行为症状。采用 Person 相关性分析分析脑脊液 Aβ-42、NLRP3 水平与 MoCA、NPI 水平的相关性。

结果 研究组脑脊液 Aβ-42 水平低于对照组（P<0.05），NLRP3 水平高于对照组（P<0.05）。研究组 MoCA 水平低于对照组（P<0.05），NPI 水平高于对照组（P<0.05）。Person 相关性分析显示，脑脊液 Aβ-42 水平与 MoCA 水平呈正相关（r=-0.583，P<0.05）；脑脊液 Aβ-42 水平与 NPI 水平呈负相关（r=0.562，P<0.05）；脑脊液 NLRP3 水平与 MoCA 水平呈负相关（r=-0.574，P<0.05）；脑脊液 NLRP3 水平与 NPI 水平呈正相关（r=0.557，P<0.05）。预后不良组患者反复多次驱梅治疗占比，脑脊液 NLRP3 水平、NPI 评分高于预后良好组（P<0.05）。预后不良组患者脑脊液 Aβ-42 水平、MoCA 评分低于预后良好组（P<0.05）。Logistic 回归分析显示，治疗情况、Aβ-42、NLRP3、MoCA、NPI 水平均是影响 GPI 患者预后不良的危险因素（P<0.05）。脑脊液 Aβ-42、NLRP3 单独及联合预测 GPI 患者预后不良的灵敏度分别为 84.12%、85.63%、90.35%，AUC 分别为 0.743、0.769、0.841，特异度分别为 66.72%、63.85%、62.48%。

结论 脑脊液 Aβ-42 与 NLRP3 水平在 GPI 患者体内表达异常，与 GPI 患者认知功能障碍、精神行为症状关系密切，可在一定程度上作为评估 GPI 患者预后的预测价值，且两者联合检测效能更高。

关键字：β 淀粉样蛋白 42；核苷酸结合寡聚结构样受体蛋白 3；麻痹性痴呆；认知功能障碍；精神行为症状；预后

青少年和成年早期重性抑郁障碍患者脑白质完整性异常的比较研究

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目的 重性抑郁障碍（Major Depressive Disorder，MDD）是以心境低落、兴趣减退、快感缺失为核心症状的一种重性精神疾病，大多数 MDD 患者在青少年和成年早期首次发病。本研究使用脑磁共振弥散张量成像技术结合临床心理测评数据，进行青少年和成年早期 MDD 患者大脑白质完整性差异的比较和研究，探索研究青少年和成年早期 MDD 患者大脑白质异常改变的相同点和差异，寻找可能存在的青少年重性抑郁障碍脑白质改变特异性标志。

方法 本研究纳入年龄为 13-24 岁的 168 名研究对象，其中 13-17 岁的青少年 MDD 患者（adolescent MDD，adMDD）44 名，与之匹配的青少年健康对照（adolescent Healthy control，adHC）37 名；18-24 岁的成年早期 MDD（early adult MDD，eaMDD）患者 46 名与之匹配的成年早期健康对照（eaHC）41 名。采集人口学资料、使用儿童与青少年精神障碍半定式诊断检查手册（K-SADS-PL）确定 adMDD 组诊断，结构式临床会谈(SCID)确定 eaMDD 组诊断。研究对象通过汉密尔顿抑郁量表、汉密尔顿焦虑量表量化临床症状。进行磁共振扫描以获得脑白质完整性影像数据，指标使用各向异性分数（FA）。扫描完成后对研究对象进行至少三个月的电话随访。对收集到的人口学资料和临床症状测评结果进行统计分析，对白质脑影像进行预处理，对影像进行统计分析，进行 GRF 校正，定位存在统计学差异的脑簇，对差异脑簇进行白质脑区定位，对差异的脑区进行提值，提取的 FA 值参与之后的相关分析。对异常脑区提取的 FA 值和临床症状评分以年龄、性别作为控制变量进行偏相关分析。

结果 1.与 adHC 相比，adMDD 在左侧外囊、左侧上纵束和左侧前放射冠白质 FA 值增加（P＜0.05）。2.与 eaHC 相比，eaMDD 全脑白质未发现 FA 值显著差异。3.偏相关分析显示 adMDD 患者的左侧外囊白质 FA 值与 HAMA 评分呈正相关关系（r=0.400，P=0.016）。

结论 1.青少年重性抑郁障碍患者在左侧外囊、左侧上纵束和左侧前放射冠白质完整性有显著异常改变。2.成年早期重性抑郁障碍患者脑白质完整性无显著异常变化。3.青少年重性抑郁障碍患者左侧外囊白质完整性的变化与焦虑症状的严重程度有关。4. 青少年和成年早期重性抑郁障碍患者存在不同的脑白质完整性改变。

关键字：重性抑郁障碍；白质完整性；神经影像学；焦虑症状；弥散张量成像。

基于 A/T(N)研究框架靶向 Aβ 和 tau 蛋白 PET 与阿尔茨海默病的诊断和鉴别

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阿尔茨海默病（Alzheimer’s disease，AD）是老年人最常见的神经退行性疾病,其主要病理是神经细胞外 β 淀粉样蛋白（amyloid β-protein, Aβ）沉积和细胞内 tau 蛋白的过度磷酸化。本文简要阐述 AD 与非 AD 的病理过程，并介绍目前已临床应用的 3 种靶向 Aβ（18F-flutemetamol、18F-florbetapir 和 18F-florbetaben）和 1 种靶向 tau 蛋白（18F-flortaucipir）的正电子发射计算机断层（positron emission tomography,PET）显影剂，以及与二代显影剂的比较，探讨按照 A/T(N)研究框架联合靶向 Aβ 和 tau 蛋白 PET 检测在 AD 中的诊断应用，以及与路易体痴呆(Dementia with lewy bodies, DLB)、额颞叶痴呆(Frontotemporal dementia, FTD)和帕金森病痴呆(Parkinson’s disease dementia, PDD)等常见神经退行性疾病的鉴别。认为联合开展靶向 Aβ 和 tau 蛋白 PET 检测有助于分析 AD 的病理机制，能够提高 AD 的诊断效率和准确性。

关键字：阿尔茨海默病；Aβ；tau；正电子发射计算机断层显像；诊断；鉴别

轻度认知障碍患者昼夜活动节律的静息态脑功能研究

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目的 轻度认知障碍（MCI）是正常衰老和痴呆的过渡状态，MCI 患者是罹患阿尔茨海默病（AD）的高风险人群，认知障碍具有高患病率、高致残率、高社会经济负担，低就诊率的特点，目前仍无根治的药物，防治的重点在于对危险因素的早识别、早干预以延缓或降低 MCI 向 AD 的转化。昼夜节律紊乱是 MCI 发生发展的高危因素，既往研究发现 MCI 及 AD 患者存在松果体（PG）的萎缩，动物模型中发现节律中枢（视交叉上核，SCN）的破坏，但其脑功能受损模式仍未知，探索 MCI 患者 SCN 及 PG 的静息态脑功能改变有助于理解昼夜节律紊乱与认知障碍的关系，为寻找诊疗靶点提供理论支持。

方法 纳入 31 名 MCI 及 35 名正常对照（NC），要求其连续 7 天佩戴腕表式体动仪、采集人口学及临床信息、完成神经心理评估及磁共振扫描。对比 MCI 与 NC 的静息态脑功能指标、采用相关及回归分析探索昼夜活动节律、认知功能、静息态脑功能之间的相关性。

结果 与 NC 相比，MCI 患者 SCN 及 PG 的功能连接（FC）发生改变，包括降低的 FC：左侧 SCN 与

前扣带回、双侧 SCN 与中央前回的 FC；升高的 FC：右侧 SCN 与后扣带回、海马、枕上回、枕中回的 FC 和 PG 与额中回、前扣带回、岛叶、额下回眶部的 FC。SCN 及 PG 的静息态脑功能与节律及认知功能相关，回归分析发现与节律平均值、视空间和语言功能关系最密切的是右侧 SCN 与海马的 FC；与节律的日间稳定性最密切的是右侧 SCN 与枕中回、中央前回的 FC；与节律的相对振幅最密切的是右侧 SCN 的分数低频振幅（fALFF）；与总体认知和执行功能最密切的是左侧 SCN 与前扣带回的 FC、与记忆力最密切的是左侧 SCN 与前扣带回的 FC、PG 的局部一致性（Reho）及其与额中回的 FC、与注意力最密切的是 PG 与额中回的 FC。

结论 MCI 患者 SCN、PG 静息态 FC 存在异常并与昼夜活动节律及认知功能相关，提示 SCN、PG 跨脑区的交互异常可能是 MCI 患者节律紊乱的脑功能基础。

关键字：轻度认知障碍 昼夜节律 磁共振成像 功能连接

轻度认知障碍患者决策反馈加工神经活动特征

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目的 本研究旨在考察 MCI 患者组在风险决策和模糊决策时决策反馈加工过程相关的神经活动特征。

方法 纳入 19 名 MCI 患者和 20 名年龄、性别和教育水平相匹配的健康对照（Healthy control，HC）。所有受试者均采用计算机版神经心理测验（CNCB）评估神经认知功能，并采集了骰子游戏任务（Game of dice task，GDT）和爱荷华博弈任务（Iowa gambling task，IGT）下的脑电图（EEG）信号。通过分析任务态下奖赏正波（Reward positivity，RewP）评价反馈加工过程的动机特征，反馈 P3（Feedback-P3，fb-P3）评价认知资源分配特征，反应时评价信息处理速度，事件相关振荡（Event related oscillation，ERO）评价决策反馈后的信息整合和行为调节能力。

结果 在 GDT 任务中，MCI 组的 RewP（$p = 0.022$）和 fb-P3（$p = 0.045$）振幅低于 HC 组，反馈的幅度和效价调节 RewP（ $p = 0.008$；$p = 0.017$）和 fb-P3（$p < 0.001$；$p < 0.001$）的幅值。在 IGT 任务中，同样发现 MCI 组与 HC 组相比存在较低的 RewP 和 fb-P3 幅值（$p = 0.07$；$p = 0.010$），反馈幅度和效价调节 RewP 的幅值（$p = 0.002$；$p = 0.020$），RewP（$\Delta M = 1.95$?V, $p < 0.001$；$\Delta M = -1.04$?V, $p < 0.001$）和 fb-P3（$\Delta M = 2.33$?V, $p < 0.001$；$\Delta M = -2.52$?V, $p < 0.001$）效价效应在不同反馈幅度之间相反。此外，反应时结果表明 MCI 组比 HC 组需要更长的时间做出模糊决策（$p = 0.041$）。ERO 结果显示 MCI 组 delta 功率在两种决策任务中均低于 HC 组（GDT： $p = 0.045$；IGT：$p = 0.011$），而 theta 功率无组间差异（$p > 0.100$）。

结论 本研究发现 MCI 患者在风险决策和模糊决策的反馈评估阶段存在神经活动的减弱，提示其决策反馈加工过程可能存在动机、认知资源分配以及信息整合和行为调节能力的异常。

关键字：轻度认知障碍；风险决策；模糊决策；反馈加工；EEG

（组内口头交流）

Diminished Activation of Excitatory Neurons in The Prelimbic Cortex Leads To Impaired Working Memory Capacity in Mice.

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Objective Working memory capacity (WMC) impairment is an early sign of Alzheimer's disease (AD), but the underlying mechanisms remain unclear. Clarifying how WMC is affected will help us better understand the pathological mechanism of AD.

Methods We used the olfactory working memory capacity (OWMC) paradigm to evaluate WMC in 3-month-old 5XFAD (an animal model of AD [TG]) mice. Immunofluorescence staining of the prefrontal cortex (PFC) was performed to detect the number of FOS-positive (FOS+) neurons, calmodulin-dependent protein kinase II-positive (CaMKII+) neurons, and glutamate decarboxylase-positive (GAD+) neurons in the prelimbic cortex (PrL) and infralimbic cortex (IL). A chemogenetic method was then used to modulate the inhibition and activation of excitatory neurons in the PrL of WT and 5XFAD mice and to measure the memory capacity of mice.

Results WMC was significantly diminished in 5XFAD mice compared to littermate WT mice. Neuronal activation of the PrL, but not the IL, was attenuated in 5XFAD mice performing the OWMC task. Subsequently, the FOS+ neurons were co-localized with both CaMKII+ neurons and GAD+ neurons. The results showed that the activation of excitatory neurons in the PrL was correlated with WMC in mice. Our results further demonstrate that the chemogenetic inhibition of PrL excitatory neurons resulted in reduced WMC in WT mice, while the chemogenetic activation of PrL excitatory neurons improved the WMC of 5XFAD mice.

Conclusion The diminished activation of PrL excitatory neurons in 5XFAD mice during task performance is associated with reduced WMC, and activation modulation of excitatory neurons by chemogenetic methods can improve memory capacity impairment in 5XFAD mice. These findings may provide a new direction for exploring AD therapeutic approaches.

关键字：Alzheimer's disease, working memory capacity, 5XFAD mice, FOS, excitatory neuron

（组内口头交流）

Efficacy and Safety of Computerized Cognitive Training Added To SSRIs in Late-life Depression with Cognitive Impairment: A 12-Week, Randomized Controlled Study

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Objective This randomized, open-label study compared the therapeutic effects of computerized cognitive training (CCT) combined with Selective serotonin reuptake inhibitors (SSRIs) in late-life depression(LLD) patients with cognitive impairment.

Methods Study data were collected from May 5, 2021, to April 21, 2023. Outpatients who met diagnostic criteria for major depressive disorder according to DSM-V criteria that had a total score on the 17-item Hamilton Depression Rating Scale (HAMD-17) ≥ 18 and Montreal Cognitive Assessment scale (MOCA) < 0.001) in both groups, while MMRM analysis revealed a significantly greater reduction in cognitive function (ADAS-cog total score) from baseline to outcome in the CCT and SSRIs group compared to the SSRIs and blank control [(F (1,115) =13.65, least-squares mean difference [95% CI]: ?2.77 [?3.73, ?1.81], p<0.001)]. Depression symptom improvement on the HAMD-17 was greatest for the CCT and SSRIs group compared to the control group, and the difference was statistically significant. [MMRM, estimated mean difference (SE) between groups ?3.59 [?5.02, ?2.15], p < 0.001]. The baseline-to-week-8 least-squares mean change of the HAMA scores, NPI scores were greater in the CCT and SSRIs group than in the control group (all P < 0.05). The most frequent TEAEs in both groups were dry mouth, somnolence, and constipation. There was no significant difference in the incidence of adverse events between the two groups.

Conclusion CCT combined with SSRIs was efficacious and well tolerated in LLD with cognitive impairment.

关键字：late-life depression; cognitive function; computerized cognitive training; SSRIs

（组内口头交流）

抑郁和焦虑在中国老年人关节炎与早期认知功能下降关系中的作用：链式中介作用

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目的 关节炎是一种常见慢性病。关节炎与早期认知功能下降存在一定的关联。心理健康可能在其中起着重要作用，但潜在的机制仍不清楚。本研究探讨抑郁和焦虑在中国老年人关节炎与早期认知功能下降关系中的作用。

方法 从 2021 年 10-12 月收集的广东省居民心理健康调查基线数据中选取 65 岁以上的老年人。排除数据缺失的问卷及自我报告患有神经系统疾病的受试者。收集其人口学资料、生活习惯和慢性病患病情况。采用痴呆筛查表（AD-8）、患者健康问卷抑郁量表（PHQ-9）和广泛性焦虑障碍量表（GAD-7）评估早期认知功能下降、抑郁和焦虑症状。在控制潜在混杂因素后，采用分层 Logistic 回归模型估计与关节炎与早期认知功能下降的关系。采用链式中介模型来研究抑郁和焦虑是否在关节炎与早期认知功能下降中起中介作用。

结果 共有 3781 名老年人纳入本研究，关节炎的自我报告率为 12.8%，早期认知下降的发生率为 16.19%。在单因素分析中，老年人的早期认知功能下降与关节炎、抑郁症状、焦虑症状、年龄、婚姻状况、收入、饮茶习惯、目前吸烟、共患其他慢性病存在关联（p< 0.05）。分层 Logistic 回归结果显示，控制人口学资料和生活习惯后，自我报告关节炎的老年人的早期认知功能下降发生率边缘显著地高于对照组（OR=1.279 ，95%CI: 0.998~1.638，p=0.051）。进一步控制焦虑和抑郁后，老年人关节炎和早期认知功能下降不存在关联（OR=1.194 ，95%CI: 0.927~1.539， p= 0.170）。链式中介作用表明，抑郁症状、焦虑症状在关节炎和早期认知下降的关系之间起部分中介作用，链式中介作用显著（βa=0.025, 95% CI: 0.008~0.028; βb=0.019, 95% CI: 0.005~0.038）。

结论 关节炎可能是老年人早期认知下降的一个危险因素。老年人的关节炎既能直接影响早期认知下降，也能通过抑郁和焦虑症状间接影响早期认知水平。为提高老年关节炎患者的预后及生活质量，临床上需要及时地对高风险患者的心理健康水平进行筛查及干预。

关键字：老年人，关节炎，早期认知功能下降，抑郁，焦虑

（组内口头交流）

语言训练对轻度阿尔茨海默病总体认知功能和执行功能的作用效果分析

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目的 研究语言训练对轻度阿尔茨海默病（AD）总体认知功能和执行功能的作用效果。

方法 选择 2020 年 5 月到 2023 年 1 月在我院接受治疗的 AD 患者 99 例作为观察对象，按随机数表法分成古汉语组 33 例，英语组 33 例，以及现代文组 33 例。为古汉语组实施古汉语的高强度执行控制训练，为英语组实施英语的低强度执行控制训练，为现代文组实施现代文的无执行控制训练。各组均治疗 3 个月，分别在治疗前、治疗 4 周后，以及治疗 3 个月后对患者进行认知功能评价。对比各组 MMSE 评分，WCST 评分，ADAS-cog 评分，QOL-AD 评分，语言流畅性评分，数字广度评分。

结果 治疗 4 周及治疗 3 个月后，各组的 MMSE 评分较治疗前均明显升高，且古汉语组和英语组的 MMSE 评分均分别高于现代文组，而古汉语组又高于英语组，差异均有统计学意义（P＜0.05）。同时，各组

的 QOL-AD 评分较治疗前均明显升高，且古汉语组和英语组的 QOL-AD 评分较现代文组均明显更高，而古汉语组又较英语组明显更高，差异有统计学意义（P＜0.05）。治疗 4 周及治疗 3 个月后，各组的 ADAS-cog 评分及 WCST 评分错误应答分值和持续性错误分值较治疗前均明显降低，而语言流畅性评分、数字广度评分、WCST 评分完成分类分值较治疗前均明显升高，差异有统计学意义（P＜0.05）。治疗 3 个月后，古汉语组和英语组的 ADAS-cog 评分及 WCST 评分错误应答分值和持续性错误分值较现代文组均明显更低，而语言流畅性评分、数字广度评分、WCST 评分完成分类分值较现代文组均明显更高，差异有统计学意义（P＜0.05）。治疗 3 个月后，古汉语组的 ADAS-cog 评分及 WCST 评分错误应答分值和持续性错误分值较英语组明显更低，而语言流畅性评分、数字广度评分、WCST 评分完成分类分值较英语组明显更高，差异有统计学意义（P＜0.05）。

结论 语言训练对轻度阿尔茨海默病总体认知功能和执行功能的作用效果较好，且以选择古汉语为最佳，英语次之，现代文效果相对较弱，值得临床关注。

关键字：语言训练；轻度；阿尔茨海默病；总体认知功能；执行功能；作用效果

进食障碍研究协作组

Nicotine Decreases Pain Behaviors and Nerve Regeneration Via The A7 Nicotinic Acetylcholine Receptor in Two Rat Nerve Injury Models

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Objective Neuropathic pain is stubborn and associated with peripheral nerve regeneration process. Nicotine has been found to reduce pain but whether it is involved in the regulation of nerve regeneration and the underlying mechanism are unknown.

Methods The rat chronic constriction injury (CCI) model and tibial nerve crush model were used in this study. Western blotting and/or immunofluorescent staining were applied to detect growth associated protein 43 (GAP43) and IBA1. The selective α7 nicotinic acetylcholine receptor (nAChR) blocker, methyllycaconitine (MLA) was intraperitoneal administrated to assess the behavioral and molecular mechanism of nicotine in analgesia.

Results nicotine reduced anatomical measures of regeneration as well as expression of regeneration marker growth associated protein 43 (GAP43). In the tibial nerve crush model, nicotine treatment significantly suppressed GAP43 expression and functional reinnervation as measured by myelinated action potential and electromyography of gastrocnemius. In both models, nicotine treatment reduced macrophage density in the sensory ganglia and peripheral nerve. These effects of nicotine were reversed by the selective α7 nicotinic acetylcholine receptor (nAChR) blocker, methyllycaconitine. In addition, nicotine significantly elevated expression of PTEN (the phosphatase and tensin homolog deleted on chromosome 10), a key player in both regeneration and pain. Pharmacological interference of PTEN could regulate GAP43 expression, pain related behaviors and macrophage infiltration in nicotine-treated nerve crush model.

Conclusion Our results reveal that nicotine and its α7-nAChR regulate both peripheral nerve regeneration process and pain though PTEN and downstream inflammation-related pathway.

关键字：Nicotine; Nerve regeneration; Neuropathic pain; α7-nAChR; PTEN

Study on Intestinal Flora Characteristics and Metabolomic Analysis in Children and Adolescents with First Untreated Obsessive-compulsive Disorder

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Objective Numbers of adult patients with obses-

sive-compulsive disorder (OCD) start from children or adolescents, so early identification and intervention become the key to control the disease. However, its etiology has not been fully clarified. This study sought to explore the relationship between the pathogenesis and gut microbiota in children and adolescents with OCD.

Methods Multi-omics combined analysis of the gut microbiota in first-episode children and adolescents with OCD was performed. Stool samples were collected from 49 first-episode untreated children and adolescents with OCD and 42 age - and sex-matched healthy controls (HC), and all subjects were evaluated for clinical parameters. A total of 91 samples were analyzed by 16S rRNA sequencing and metabonomic based on UHPLS-MS. Correlation analysis was conducted between metagomic sequencing results and clinical parameters to explore the relationship between intestinal flora and OCD symptoms and the possible functional pathways involved in the pathogenesis.Fecal samples from 19 OCD and 18 HC subjects were analyzed by Illumina HiSeq sequencing platform using metagenomic high-throughput sequencing method. Association analysis was performed on metagenomic and metabonomics analysis data to clarify the association between differential flora and differential metabolites.

Results 1. The diversity index of intestinal flora in patients with OCD was significantly decreased (obs, P<0.001; chao1, P<0.001; ACE, P<0.001; shannon, P<0.001; simpson, P<0.05; good, P<0.001), and the microbial interaction network was significantly weaker than that in HC group. 2. The relative abundance ratio (F/B) of Firmicutes /Bacteroidetes in OCD group was significantly lower (P<0.001). 3. The abundance of butyrate-producing bacteria such as Romboutsia (q<0.01), Mitsuokella (q<0.01), and Terrasporobacter (q<0.01) in the intestine of patients with OCD decreased significantly. 4. The random forest model identified 30 specific bacteria as markers, and the AUC between OCD patients and HC was 0.9011. 5. There is a correlation between the changes of clinical parameters in OCD group and the abundance of specific bacteria in intestinal flora. 6. A total of 43 endogenous differential metabolites were screened out in OCD-HC group, and there was a correlation between the differential metabolites and the differential flora (P<0.05). 7. The relative contents of Neopterin and Sepiapterin, the intermediate products of folate biosynthesis, were significantly higher in OCD group (P<0.05); Glucocorticoids and corticosterones significantly decreased in regulating lipolysis in adipocytes and prion diseases (P<0.05).

Conclusion Gut microbiata of children and adolescents with OCD were disordered at phylum, genus and species level, and the diversity of flora was significantly reduced. The OCD and HC groups had distinctive intestinal flora. Several gene functional and metabolic pathways of intestinal flora in OCD patients are destroyed.

关键字：Obsessive-compulsive disorder; gut microbiota; children and adolescents; metagenomics; metabolism

进食障碍患者临床表现的性别差异

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目的 探究进食障碍（ED）患者身体质量指数（BMI）、行为症状及心理特征等方面的性别差异。

方法 以门诊及住院诊治的 ED 患者为研究对象，纳入 986 名 ED 患者，其中男性 54 名，女性 932 名。使用进食障碍问卷（EDQ）及进食障碍调查量表（EDI-1）进行评估。在经过倾向性评分匹配消除年龄、学历的差异后，对比不同性别 ED 患者在 BMI、行为症状以及心理特征方面的差异。采用分层回归分析探究可能影响男性及女性患者罹患神经性厌食（AN）的因素。

结果 （1）男性 ED 患者的最高、最低、期望 BMI 均高于女性，在 BN 及 EDNOS 中，男性期望与目前 BMI 的差值（分别为 0.36±0.63 kg/m2、0.21±0.62 kg/m2）与女性（分别为-2.43±0.37 kg/m2、-1.80±0.49 kg/m2）相比具有显著差异。（2）男性 ED 患者较女性使用泻药行为的比例更小、频率更低，且其限制进食行为的频率更低，选择减少主食作为节食方式的比例更小。（3）男性 ED 患者报告了更少的增重恐惧、体重/体型对自尊自信的影响以及与暴食发作相关的失控感和痛苦感。（4）男性患者 EDI-1 总分和对瘦的追求、内省因子分低于女性，且 EDI-1 总分的性别差异不随诊断亚型的变化而变化。（5）在 ED 患者中进行的 Logistics 回归分析发现，对身体不满因子得分和目前 BMI 与罹患 AN 负关联；成熟恐惧因子得分与罹患 AN 正关联，在女性 ED 患者中的分析结果与男女合并分析结果一致，而在男性 ED 患者中仅发现目前 BMI 与罹患 AN 负关联。

结论 （1）男性患者的瘦身动机更弱，暴食相关的心理特征更不明显。（2）基于 EDI-1 评估的男性患者症状严重程度可能更轻。（3）影响男性患者罹患 AN 的行为及心理因素可能与女性不同。

关键字：进食障碍，性别差异，身体质量指数，行为症状，心理特征

The Predictive Role of Frontoparietal Network in Clinical Symptoms and Treatment Response in Anorexia Nervosa

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Objective Anorexia nervosa (AN) is an eating disorder characterized by severe dietary restriction, misperceptions of body shape and weight, fear of weight gain, combined with some emotional problems. AN has been characterized as an over-control disorder with increased resting-state functional connectivity (RSFC) in the frontoparietal control network (FPCN). However, there has been limited exploration of neuroimaging biomarkers for predicting treatment response in AN. The study aimed to

investigate the role of FPCN in predicting clinical symptoms and treatment response in AN patients.

Methods Seventy-nine female AN patients who had not received prior treatment and forty matched healthy controls (HCs) were recruited for this study. All participants completed the Questionnaire Version of the Eating Disorders Examination (version 6.0) to assess the severity of AN. Additionally, RSFC data were obtained from all participants at baseline. AN patients then underwent outpatient treatment for four and twelve weeks, during which time their clinical symptoms were evaluated using the same measures as at baseline.

Results After controlling for depression and anxiety symptoms, the AN group still exhibited increased RSFC in the right posterior parietal cortex (PPC) and dlPFC compared to HCs. Moreover, RSFC in the PPC to inferior frontal gyrus (IFG) was found to be an important predictor or tend to be an important predictor for the clinical symptoms after controlling for age, and treatment response of AN after controlling for age, age of onset and BMI.

Conclusion Alterations in RSFC of FPCN may provide a possible neural marker to assist in predicting clinical symptoms and treatment response in AN patients, providing new insight into the pathogenesis of AN and allowing for early prevention and treatment.

关键字：Anorexia nervosa, clinical symptoms, treatment response, resting-state functional connectivity, frontoparietal control network

（组内口头交流）

中国暴食障碍诊疗专家共识

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目的 暴食障碍是以反复发作性暴食为主要特征的一类进食障碍。暴食患者存在反复冲动的暴食行为，导致多种躯体问题，并共病多种精神障碍，需引起重视。然而，目前在中国，对于暴食障碍不能早期识别和诊治，导致病程迁延。因此，在中华医学会心身医学分会进食障碍协作学组的组织下，由 9 名精神科医学专家组，基于循证医学证据、国内外指南与专家共识、专家经验等制定本专家共识，以期提高国内专业人员对暴食症的识别和诊治水平。

方法 在中华医学会心身医学分会进食障碍协作组的组织下，由 9 名精神科医学专家组成了制定《中国暴食障碍诊疗专家共识》的专家组，进行线上调研和讨论，纳入本共识的临床问题以及目前诊疗方法的归纳总结。专家组以“eating disorders”、“binge eating disorder”、“psychotherapy”、“pharmacological treatment” “depression”、“bipoloar disorder”、“anxiety”、“fluoxetine”为关键词，系统检索了国内外主要数据库。检索时间为建库至 2023-03-30，限定语种为英文或中文。检索、精筛后获得相关文献和国内外权威指南共识共 42 篇。专家组结合相关文献总结，提出本共识和推荐建议。

结果 结合检索整理的国际权威指南共识结果，共识撰写专家组从定义、流行病学、临床特征何评估、诊断与鉴别诊断、治疗原则与方法、需特殊关注的人群等几个方面对暴食障碍的特点及诊治进行了全面阐述及推荐建议。

结论 目前 BED 的发病机制仍未明了，对其发病机制有待进一步深入了解。已开发的治疗方案，如心理治疗、药物治疗、行为减重治疗以及多种治疗方式相结合的模式被证明有效，且仍不断有新的治疗方法出现。但暴食障碍自 DSM-5 中才被单独列出，目前研究结论存在研究时间较短，样本量较小等问题，还有待进行更长时间和更大样本量的研究来验证已有结论。

关键字：暴食障碍；心理治疗；药物治疗；共识

（组内口头交流）

Transcranial Direct Current Stimulation Modulates EEG Microstates in Obsessive-Compulsive Disorder

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Objective Transcranial direct current stimulation (tDCS) could potentially serve as a safe, accessible, promising therapeutic approach for obsessive-compulsive disorder (OCD). The objective of this study was to evaluate the effect tDCS on electroencephalography (EEG) microstates and identify potential biomarker to predict the efficacy.

Methods A total of 24 individuals diagnosed with OCD underwent ten sessions of tDCS, while 27 healthy individuals were included as controls. The microstates A, B, C, and D were extracted both before and following tDCS. Comparative analysis of microstate metrics was performed between the OCD group and the healthy control group, as well as within the OCD group before and after tDCS. Multiple linear regression was conducted to detect potential biomarkers of tDCS.

Results In comparison to the healthy control group, individuals with OCD exhibited significantly reduced duration and coverage of microstate A ($t = -0.530$, $p = 0.015$), which demonstrated a significant increase towards healthy levels following tDCS ($t = -0.196$, $p = 0.039$). Moreover, the occurrence of microstate D was found to be higher in the OCD group compared to the healthy controls ($t = 2.549$, $p = 0.014$). The transition between microstate A and C was significantly different between OCD and healthy control groups (from microstate A to C: $t = -2.862$, $p = 0.006$, from microstate C to A: $t = -2.399$, $p = 0.020$), which was no

longer observed following tDCS. Multiple linear regression revealed that the duration of microstate C could predict OCD symptom improvement following tDCS (R2 = 0.622, p = 0.001).

Conclusion The results of this work showed the aberrant of large-scale EEG brain network that could be modulated by tDCS. Notably, the duration of EEG microstate

关键字：obsessive-compulsive disorder; transcranial direct current stimulation; EEG microstate; biomarker

（组内口头交流）

阈下抑郁对肥胖和病态肥胖人群认知功能损伤的影响研究

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目的 探讨阈下抑郁对肥胖和病态肥胖人群的认知功能的影响，并分析肥胖及阈下抑郁与认知功能的相关性。

方法 本研究纳入 35 例肥胖组被试者，37 例病态肥胖组被试者，以及 43 例正常对照患者，采用认知功能成套测验—共识版（MATRICS Consensus Cognitive Battery，MCCB）评估 3 组人群的 7 个领域的认知功能；同时评估 3 组 研究对象的情绪分数 ，抑郁分数，将患者分为伴阈下抑郁的肥胖组（Complicated with Subthreshold depression，CSD）和不伴阈下抑郁的肥胖组（Not Complicated with Subthreshold Depression，NCSD）。统计分析这 3 组人群 的认知功能的差异，并分析肥胖和阈下抑郁与认知功能的相关性。

结果 肥胖组和病态肥胖组的工作记忆[（47.76±1.765）&（45.56±1.780）与（55.49±2.242）]分数均低于 HC 组（58.35±8.437）（P<0.05）；NCSD 组、CSD 组和 HC 组的信息处理速度、注意警觉性、工作记忆、词语学习、推理和问题解决、社会认知、总体综合认知领域存在统计学差异（p<0.05）。谁？体重指数（Body Mass Index，BMI）与信息处理速度、注意警觉性、推理和问题解决、总体综合分数呈负相关（P＜0.01）；谁？阈下抑郁的 HAMD 分数与信息处理速度、词语学习、工作记忆、推理和问题解决、注意/警觉性、社会认知、总体综合分数领域均存在负相关（p＜0.01）。

结论 肥胖人群存在工作记忆和推理和问题解决领域的认知功能损伤，随着肥胖人群的 BMI 值升高，出现认知损伤和阈下抑郁的风险越高，且伴有阈下抑郁的肥胖人群的认知功能损伤更为显著。

关键字：肥胖；病态肥胖；阈下抑郁；认知功能

（组内口头交流）

基于网络的认知行为疗法治疗成人暴食谱系障碍疗效的荟萃分析

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目的 基于网络的认知行为疗法（internet-based cognitive behavioral therapy，iCBT）是近年来较新的心理治疗施行方式，已有许多研究尝试探究此疗法对暴食谱系障碍的临床疗效，但各研究结果尚存在不一致性，本文对现有的相关文献进行荟萃分析，以评价其临床应用价值。

方法 系统地检索 Pubmed、Embase、Web of Science、Cochrane Library、PsycINFO 英文数据库以及中国知网、万方、CBM 中文数据库，将所有已发表的随机对照试验进行筛选、收集并汇总，检索日期截止至 2022 年 10 月。对纳入文献进行质量评价，然后将检索到文献的数据通过 Revman5.4 软件进行合并统计分析，获得加权平均差（Weighted Mean Difference，WMD）、标准化均数差（Standardized Mean Difference，SMD）或相对危险度（Relative Risk，RR），及各自的 95%置信区间。

结果 最终纳入 10 篇符合纳入标准的随机对照试验，共计 1931 例暴食谱系障碍患者。统计结果显示，iCBT 对暴食谱系障碍患者的暴食相关临床症状改善更显著（即 EDE-Q 总分减少更显著，WMD=-0.83，95%CI[-1.07,-0.59]，P<0.00001），客观暴食发作次数（Objective Binge Episodes，OBEs）减少更明显（WMD=-6.48，95%CI[-10.38，-2.59]，P=0.001），与对照组结果相比具有统计学意义。我们还发现 iCBT 对抑郁（SMD=-0.40，95%CI[-0.59，-0.21]，P<0.0001）、焦虑（SMD=-0.24，95%CI[-0.45，-0.04]，P<0.02）、自尊（WMD=2.76，95%CI[1.44，4.09]，P<0.0001）等方面都有不同程度的改善作用，但治疗脱落率与对照组之间差异具有统计学意义（RR=2.03，95%CI[1.46，2.83]，P<0.0001）。

结论 iCBT 对改善暴食谱系障碍患者的典型临床症状有明显的效果，并且能缓解抑郁、焦虑情绪，提高自尊。

关键字：暴食谱系障碍；神经性贪食；暴食障碍；认知行为疗法；互联网；

（组内口头交流）

进食障碍患者注意偏向及抑制控制的事件相关电位研究

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目的 通过回顾进食障碍患者注意偏向及抑制控制两方面的事件相关电位研究，探究进食障碍患者认知异常背后的神经认知机制。

方法 使用主题词“进食障碍（英文主题词：eating disorder）”和“事件相关电位（英文主题词：event-related potential）”为基本条件，设计检索式分别检索中国知网、中国生物医学文献数据库、万方数据库、PubMed 数据库、Embase 数据库，汇总并剔除重复文献后，获得 138 篇待筛文献，通过阅读标题、摘要、全文或引文并结合纳排标准，最终纳入 15 篇文献进行分析。

结果 10 篇研究通过被动浏览范式诱发的事件相关电位探究了进食障碍患者的注意偏向特点，发现与正常人群相比，患者在被动浏览范式中被食物、体型线索诱发出了振幅更高的 P200 及 EPN、P300 及 LPP。5 篇研究通过被动浏览、Go/No-go 或 Stop-signal 范式所诱发的事件相关电位探究了进食障碍患者的抑制控制特点，发现进食障碍患者在不同的范式中诱发产生了振幅或潜伏期异常的 N200 及 P300。

结论 进食障碍患者存在注意偏向以及抑制控制方面的异常，并具有相应的事件相关电位特征。此类异常特征可能为疾病的跨诊断分类提供神经电生理方面的机制依据，并为针对进食障碍患者的相关疗法，如注意偏向修正训练或者抑制控制训练等提供疗效评估手段。

关键字：进食障碍；注意偏向；抑制控制；事件相关电位；综述

（组内口头交流）

消化科门诊患者的进食障碍风险评估

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目的 进食障碍（eating disorder，ED）患者常存在消化道症状。不少患者在确诊前会去消化科门诊就诊，甚至出现患者长时间在消化科治疗而延误进食障碍诊疗的状况。本研究旨在调查消化科门诊患者的进食障碍风险，并探讨该风险与性别、年龄和负面情绪的关系，为进食障碍的及时诊断和治疗提供参考。

方法 本研究的被试选取自中国人民解放军 63820 部队医院消化科门诊患者。由于进食障碍多发于青春期和成年早期，因此研究只考虑年龄为 16 岁至 50 岁之间的患者，符合条件的患者有 463 名，其中有 256 名患者愿意参加本研究，并最终完成了问卷，删除没有认真填写的问卷，最后留存 200 名患者（男女比例 1：1）的数据。该研究通过了中科院心理研究所和解放军 63820 部队医院的伦理审核，所有参与研究的患者填写了知情同意，自愿参与本研究。 自评问卷内容包括基本信息（性别、年龄、婚姻状况等），进食障碍症状（EDE-Q 量表）和负性情绪（DASS-21 量表）。

结果 按照 DSM-5 标准，9.5%的患者有进食障碍患病风险；女患者进食障碍的患病风险为 16%，要显著高于男性患者（3%）。75%具有进食障碍风险的女性患者年龄在 30 岁以下。此外，本研究还发现负面情绪会增加进食障碍风险，OR=1.072（95%CI：1.033-1.112）。

结论 消化科门诊患者存在较高的进食障碍风险，尤其是 30 以下的女性患者。且负面情绪会增加进食障碍风险。

关键字：消化；进食障碍；诊断；治疗

精神康复协作组

The Relationship between The Self-stigma and The Quality of Life in Long-term Hospitalized Patients with Schizophrenia: A Cross-sectional Study

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Objective Self-stigma of mental illness refers to the phenomenon where individuals with mental disorders internalize the negative stereotypes and prejudices associated with mental illness prevalent in society, and apply these stereotypes to themselves. This self-stigma often leads patients to feel ashamed, inferior, and guilty about their condition, perceiving themselves as defective or unworthy of acceptance. To explore the impact of self-stigma on the quality of life of patients with schizophrenia, and which factors affect the quality of life through self-stigma as a mediator.

Methods This study adopted a cross-sectional design and randomly selected 170 hospitalized patients with schizophrenia for evaluation. The assessment tools included the Positive and Negative Syndrome Scale (PANSS), Self-Esteem Inventory (SEI), Connor-Davidson Resilience Scale (CD-RISC), Internalized Stigma of Mental Illness Scale (ISMI), Schizophrenia Quality of Life Scale (SQLS), Coping Questionnaire for Schizophrenia Patients (CQSP), Social Support Rating Scale (SSRS), and Temporal Experience of Pleasure Scale (TEPS). Correlation analysis, regression analysis, and mediation analysis were used to test the correlation and mediation effects.

Results Self-shame has a significant impact on quality of life (T = 8.13, p = 0.00). Self-esteem (T = -2.11, p = 0.04) and coping strategies, specifically problem-solving (T = -2.58, p = 0.01) and avoidance (T = 4.65, p = 0.00), have a greater impact on self-shame. When self-shame is used as a mediator, the problem-solving factor in coping strategies has an indirect effect on quality of life, which is significant (AB = -0.16, P = 0.02), while the avoidance factor in coping strategies has a direct effect on quality of life, which is significant (C' = 0.54, p < 0.001), and an indirect effect, which is also significant (AB = 0.25, p < 0.001).

Conclusion Self-stigma has a significant impact on the quality of life. Clinical work to improve the quality of life of patients with schizophrenia should focus on self-stigma and factors that affect self-stigma, especially self-esteem and coping strategies.

关键字：schizophrenia, self-stigma, quality of life, self-esteem, coping strategies

Aberrant Metabolism of The Gut Microbiota Mediates Tryptophan-Associated Cognitive Impairment in Drug-na?ve, First Episode Schizophrenia Patients

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Objective Cognitive impairments in patients with schizophrenia (SCZ) are associated with poor functional outcomes. The microbiome–gut–brain axis is related to brain health and cognition.

Methods Here, we present a half-year follow-up study involving metabolomics and metagenomics, from 210 first-episode, drug-na?ve SCZ patients and 159 healthy controls (HCs). We collected biological samples at baseline (all participants) and 6 months after risperidone treatment (SCZ patients). Cognitive function was assessed using the MATRICS Consensus Cognitive Battery (MCCB).

Results The differential metabolites and microbial markers are associated with metabolic pathways involving amino and fatty acids. Follow-up study revealed that metabolites N-acetyl-serotonin (NAS) and stearic acid (SDA) and microbial species from the genera Blautia spp. and Ruminococcus spp. were associated with cognitive function in SCZ patients. These microbial species expressed genes that regulate tryptophan metabolism. Faecal microbiota transplantation resulted in higher colonic levels of microtoxin (lipopolysaccharides and purlisin), proinflammatory cytokines and tryptophan-related genes in mice receiving microbiota from SCZ patients, suggesting that the intestinal microbiota and metabolome interact and converge on inflammation and tryptophan metabolism.

Conclusion Future research on genome-microbiome-metabolite interactions is warranted to advance our understanding of the role of NAS and SDA in the cognitive impairments of SCZ and to explore novel interventions.

关键字：Schizophrenia, Gut microbiota, Metabolism, Tryptophan, Inflammation, Cognitive impairments

基于人工智能的音视频特征模型在抑郁症识别中的应用

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目的 随着人工智能技术的发展，表情识别技术和声音检测技术在抑郁障碍的识别中得到了越来越广泛的应用，数字医疗的发展也为精神疾病的诊断带来了新的方向。抑郁症患者人群与正常人群在语音特征及面部表情方面存在差异，而目前广泛使用的数据集多来自国外，本研究将针对中国人群建立广泛实用的抑郁症音视频数据集；同时既往研究多采用定式任务或临床访谈中的音视频数据，本研究将创新性地使用人机交互访谈中产生的语音及表情数据，探讨人机交互中基于语音特征/面部表情的模型识别抑郁患者的有效性。

方法 纳入 80 例抑郁患者及 40 例健康对照组，在处理音频数据时，我们筛选出人机交互数据中 10 秒以上且有声的片段，提取 25 类声学特征进行数据分析，采用经典的支持向量机（Support Vector Machine）作为基本分类模型；处理视频数据时，我们采用了经预训练的端到端的层次化深度学习框架，用于处理长时间高冗余度、可边长度的视频。具体而言，所采用的层次模型使用 3D 卷积神经网络来进行局部时空模式探索，以及一个基于冗余感知的自注意力机制用于问题级别的全局特征聚合，使用 5 折交叉验证（5-fold cross validation）计算模型的平均准确率。

结果 本研究纳入的抑郁组和对照组年龄匹配，人机交互中基于语音特征的模型区分抑郁患者的准确率为 82.42%；基于面部表情特征的模型区分抑郁患者的准确率为 70.24%。

结论 本研究提供了一种使用人机交互过程中产生的音视频数据识别抑郁症的新方法，其中使用语音特征的模型性能优于面部表情特征。这表明，声学特征及面部表情可能成为抑郁症新的客观指标，且人机交互可以成为有效的数据获取方式。未来我们将进一步扩大样本量，并采用外部验证的方式评估模型的性能。

关键字：语音识别 面部表情检测 抑郁症 人工智能

高频 rTMS 调节 Sigma-1 受体和神经元活动增强应激后食蟹猴认知功能的研究

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目的 通过对应激后食蟹猴进行高频重复经颅磁刺激（ rTMS）干预，探索高频 rTMS 增强认知功能的机制，包括高频 rTMS 对 Sigma-1 受体（ σ1R）水平的影响以及不同 rTMS 方案对神经元电活动的作用。

方法 选择非人灵长类动物（NHP）作为研究对象，应用手指迷宫测试评估认知功能；利用正电子发射计算机断层显像（PET）手段评检测 σ1R 在大脑中的变化；采用颅内电极记录不同 rTMS 方案诱发神经元电活动的变化。

结果 （1）训练结束后，猴子成功完成学习测试；猴子在学习测试后的第一个月和第二个月手指迷宫测试的成功率没有明显变化，而第四个月成功率显著下降（$P<0.05$）。（2）应激开始后，食蟹猴血浆皮质醇水平明显升高（$P<0.05$），并且在应激结束后一个月仍维持在较高水平；应激两个月后，手指迷宫记忆测试的成功率明显下降（$P<0.05$），随着应激时间延长下降趋势逐渐增加，rTMS 干预后成功率明显提高（$P<0.05$）；应激三个月后食蟹猴对糖水的偏好程度明显下降（$P<0.05$），rTMS 干预后一个月偏好程度明显增加（$P<0.05$）；在应激期间猴子出现拔毛、咬伤和过度手淫症状，在应激结束后一个月仍没有恢复，经过高频 rTMS 干预后上述症状明显缓解。（3）评估 NHP 应激后和干预后脑内 σ1R 的变化。在应激后，多数脑区(+)-[18F]TZ3108 的摄取量明显下降（$P<0.05$），其中枕叶下降最明显，其次为顶叶、脑桥、额叶、丘脑、中脑、尾状核、颞叶。干预后大多数脑区 BPND 值升高， 但只有脑桥有统计学意义（$P<0.05$）。在认知功能改善明显的猴子中， rTMS 靶区、左侧额叶和顶叶脑皮层、左侧额叶脑白质中 σ1R 水平明显升高（$P<0.05$）。（4）在 10Hz rTMS 方案下，多数神经元发放率增加，少数发放率降低或无明显变化；在 1Hz rTMS 方案下，发放率受到抑制的神经元比例较 10Hz 增加，多数神经元发放率增加。

结论 食蟹猴应激后出现了认知功能下降，高频 rTMS 可以改善认知功能损伤；认知功能受损可能与 σ1R 下降相关；高频 rTMS 可能通过调节刺激靶区、同侧额叶和顶叶皮层、同侧额叶白质中 σ1R 而增强认知功能；rTMS 诱发神经元发放率增加可能是改善认知功能的原因。

关键字：经颅磁刺激；应激；Sigma-1 受体；认知功能

民族心理与精神医学学组

The Prevalence of Mental Disorders in Inner Mongolia Autonomous Region, China: A Cross-sectional Epidemiological Study

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Objective Inner Mongolia Autonomous Region, located in the northern frontier of China, was one of the multi-ethnic settlements. Mental health resources were short and unevenly distributed. So far, the epidemiological investigation of mental disorders in the whole region had not been reported. To understand the prevalence and distribution of various mental disorders in Inner Mongolia

Methods This study is a cross-sectional survey, using the multistage stratified sampling method with unequal probability. The sample population of our survey was randomly distributed in 11 cities, 41 counties or districts , 246 villages or communities, and 22942 household addresses in Inner Mongolia。14164 qualified samples were selected, and 12625 respondents actually participated in the survey, with a response rate of 89.13%. The survey was conducted in two stages. The tools in the first stage include the Composite International Diagnostic Interview 3.0 (CIDI), and the tools in the second stage include the Structured Clinical Interview for DSM?IV Axis I disorders (SCID) , the Community Screening Instrument for dementia from the 10/66 dementia diagnostic package, and the Geriatric Mental State Examination(GMS). Two-stage investigation uses data verification aiming at internal logic among items, ratio of "don't know" or "refuse to answer", outliers of data and rationality of interview time, and telephone verification and recording verification aiming at irregular behavior of interviewers. We weighted the data to adjust the sampling, non-response, post-event stratification and extreme value of dependent variable.

Results Among the five major mental disorders, including mood disorder, anxiety disorder, substance-use disorders, Impulse-control disorders and eating disorder, the weighted 12-month prevalence rate of mood disorder was the highest (8.71%), followed by anxiety disorder (4.64%), substance use disorder (4.42%), intermittent explosive disorder (1.10%) and eating disorder (0.03%). The weighted lifetime prevalence rate of schizophrenia and other psychotic diseases was 0.68%, and the weighted lifetime prevalence rate of dementia in people aged 65 and above was 7.82%. The 12-month prevalence rates of mood disorder, anxiety disorder, substance use disorder and eating disorder have gender differences. The 12-month prevalence rates of anxiety disorder and senile dementia are different in different regions. There are age differences in 12-month prevalence of mood disorders. There are ethnic differences in 12-month prevalence rate of dementia.

Conclusion Depression and dementia weresevere in our district. There were gender and age differences in various mental disorders. The government should pay more attention to the psychological problems of women, the elderly and other focus groups and control men's unhealthy lifestyles such as smoking and drinking. Because of ethnic integration, there is no obvious difference in prevalence rate between Han and Mongolian.

关键字：cross-sectional investigation；prevalence；mental disorders

Association of Insulin Signaling Pathway Gene Polymorphism and Brain Function with Clinical and Cognitive Feature of Early-onset Obsessive-compulsive Disorder

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Objective More and more studies had focused on the metabolic disorders related to Obsessive Compulsive Disorder (OCD), especially OCD and glucose and lipid metabolism. Studies have shown that OCD was closely related to central insulin signaling pathway, and both of them were closely related to neurodevelopmental disorders. Based on the gene-brain-clinic/cognitive multi-model, this study aims to explore the gene polymorphisms of central insulin signaling pathway and resting-state functional brain imaging changes in early-onset obsessive-compulsive disorder (EO-OCD) from the neurodevelopmental perspective . Meanwhile, we also explore how these genetic imaging changes effects on clinical and cognitive impairment of EO-OCD.

Methods A total of 108 EO-OCD and 105 healthy controls(HC) were recruited. A total of 12 SNPs in 11 genes related to central insulin signaling pathway were genotyped by molecular testing technology, and the genetic model was established by SNPSTATS software. Brain resting-state functional magnetic resonance imaging (rs-fMRI) data were collected from 69 EO-OCD. The difference of amplitude of low frequency vibration (ALFF) between EO-OCD and HC was compared, and the difference brain regions were used as regions of interest/seeds(ROIs). The ROIs were to analyze the effect of A allele on the whole brain functional connectivity (FC) of EO-OCD patients with or without A allele. The MATRICS Consensus Cognitive Battery (MCCB) was used to evaluate 76 EO-OCD patients and 49 HC, and a mediating effect model between gene-imaging-clinical characteristics and cognition was established.

Results RACGAP1 rs297941 is associated with EO-OCD. In EO-OCD patients, ALFF values were increased and brain activity was enhanced in the right precu-

neus of the A allele compared with the GG genotype. However, the ALFF values of the right supramarginal gyrus and the postcentral gyrus were decreased, and the brain activity was weakened. FC was enhanced between the right superior temporal gyrus and the left and right supplementary motor areas, between the right cerebellum and the left angular gyrus of the inferior parietal border, and between the left angular gyrus and the right cerebellum in the A allele carriers. The mediating effect model showed that ALFF in the right postcentral gyrus had a mediating effect between rs297941 polymorphism and cognitive fluency score. The FC from the left angular gyrus to the right cerebellum had a mediating effect between rs297941 polymorphism and cognitive processing speed score. ALFF in the right supramarginal gyrus has a mediating effect between rs297941 polymorphism and Y-bocs thinking scores and total scores.

Conclusion RACGAP1 rs297941 was associated with EO-OCD. The EO-OCD group showed distinct brain activity in the left precuneus, right precuneus, right supramargonic gyrus, right cerebellum, left angular gyrus, right postcentral gyrus and right superior parietal gyrus. Carriers of the A allele had altered spontaneous

关键字：Early-onset obsessive-compulsive disorder; Neurodevelopment; Insulin signaling pathway; RACGAP1 gene; Brain imaging

动力性人际治疗对抑郁症患者心智化功能的改善作用及其与抑郁症状变化的关系：一项多中心随机对照研究

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目的 抑郁症（MDD）是一种常见的心境障碍，常伴有心智化功能受损。动力性人际治疗（DIT）是一种关注 MDD 患者心智化功能的短程、手册化治疗，已被证明能有效改善 MDD 患者的抑郁症状。本研究考察 DIT 对 MDD 患者心智化功能的改善作用及其与抑郁症状变化的关系。

方法 212 名 MDD 患者被随机分配到 DIT+药物治疗组（DIT: n=116）和单纯药物治疗组（ADM: n=96），接受 16 周的治疗。通过汉密尔顿抑郁量表（HAMD）和反思功能问卷（RFQ）分别评估抑郁症状和心智化功能。依据意向性分析原则，采用混合线性模型比较不同治疗方式对患者抑郁症状和心智化功能的改善作用，并进一步分析 DIT 组患者心智化功能的变化与抑郁症状变化的关系。

结果 对 HAMD 的分析发现，组别×时间的交互作用显著（F(5,786.42)=5.196, p<0.001），DIT 组在 2 周、8 周、12 周和 16 周的分数均低于 ADM 组（p<0.05）；对 RFQ 的分析发现，确定性维度（RFQ-C）组别×时间的交互作用边缘显著（F(1,135.25)=3.852, p=0.052），治疗前两组间无显著差异（p=0.283），但治疗后 DIT 组的分数显著高于 ADM 组（p=0.004），且仅 DIT 组治疗前后的 RFQ-C 得到改善（p<0.001）。不确定性维度（RFQ-U）组别×时间的交互作用显著（F(1,143.31)=7.558, p=0.007），治疗前两组间无显著差异（p=0.270），但治疗后 DIT 组的分数显著低于 ADM 组（p<0.001），且仅 DIT 组治疗前后的 RFQ-U 得到改善（p<0.001）；对 DIT 组进行相关分析显示，RFQ-U 与 HAMD 变化显著相关（r=0.332, p=0.007），RFQ-U 与 HAMD 变化显著相关（r=0.332, p=0.007），RFQ-C 与 HAMD 变化边缘显著相关（r=-0.206, p=0.097），RFQ-C 与 HAMD 变化边缘显著相关（r=-0.206, p=0.097）。进一步比较 DIT 治疗有反应者与无反应者治疗前后 RFQ 的变化，发现仅有反应者的 RFQ-C（t=-4.350, p<0.001）与 RFQ-U（t=2.865, p=0.006）在治疗后有显著改善。

结论 DIT 联合药物治疗对 MDD 患者具有有效性，能有效改善心智化功能，抑郁症状变化与心智化功能改善有关。

关键字：抑郁症；动力性人际治疗；心智化功能

Sex-specific Associations of Childhood Maltreatment with Social Cognition in Chinese Han First-episode, Drug-naive Major Depressive Disorder

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Objective Childhood maltreatment (CM) has been linked to social cognition deficits in major depressive disorder (MDD), but little is known about sex-specific effects. This study aimed to investigate the sex-specific associations of CM with social cognition in first-episode drug-naive patients with MDD.

Methods A total of 251 Han Chinese participants, comprising 117 first-episode drug-na?ve MDD patients and 134 healthy controls (HCs), were recruited and assessed for demographic and clinical characteristics. All participants completed the Childhood Trauma Questionnaire (CTQ), Toronto Alexithymia Scale (TAS-20), Interpersonal Reactivity Index–C (IRI), and Facial Emotion Recognition Test. Partial correlation analysis was used to explore the sex-specific association of CM with social cognition.

Results Our findings revealed significant differences in the associations of CM with social cognition between males and females in both HCs and MDD patients. Moreover, in comparison to HCs, the associations of CM with social cognition displayed distinct and even contrasting sex-specific patterns in MDD patients. Remarkably, these opposing associations of CM with social cognition exhibited both similar and different sex-specific patterns among MDD patients. Specifically, male MDD patients exhibited unique imbalanced associations between emotional neglect and alexithymia, while both female and male MDD patients shared imbalanced associations of childhood abuse with empathy.

Conclusion These results emphasize the importance of considering the sex-specific impacts of CM on

social cognition in MDD and highlight the need for personalized interventions and treatments for MDD patients with a history of CM.

关键字：Childhood maltreatment, Sex-specific, Social cognition, Major depressive disorder

（组内口头交流）

首发未用药精神分裂症患者血浆补体系统异常与皮层厚度下降、逻辑记忆功能受损的关联研究

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目的 精神分裂症是常见的、会严重影响患者的社会功能，并对个人和家庭带来严重疾病负担的重性精神疾病。越来越多的证据表明，感染和免疫功能异常与精神分裂症的发生发展密切相关。有关补体蛋白是否在精神分裂症患者中存在异常，仍缺乏系统研究。更进一步，补体系统在重性精神疾病中与大脑病理生理机制的关系我们仍然知之甚少。

方法 本研究通过采用人类补体蛋白 2-免疫学复合分析法测定了补体成分 1q（complement component 1q, C1q），补体成分 3（complement component 3，C3），补体成分 3b（complement component 3b, C3b）， 补体成分 4（complement component 4，C4），因子 B（factor B，FB）、因子 H（factor H， FH）和丙哌啶(properdin)的血浆补体蛋白浓度。采用阳性和阴性症状量表（Positive and Negative Symptom Scale, PANSS）评估患者的症状严重程度。我们还通过韦氏成人智力测试，CANTAB 来测量所有参与者的认知功能。使用 3.0T Phillips 磁共振仪采集了所有被试的结构相磁共振数据。我们的研究分为两个部分进行，第一部分探索了首发未用药精神分裂症患者血浆补体系统与正常对照相比是否存在异常。第二部分探索了异常补体系统与异常皮层厚度、认知功能缺陷的关系。

结果 我们的主要研究结果如下：1）首发未用药精神分裂症患者与对照组相比，患者经 10 倍对数转化后的血浆补体成分 C1q、C4、因子 B、因子 H 和丙哌啶水平显著高于对照组。2）在首发精神分裂症患者中，血浆 C4 和因子 H 水平与左侧初级感觉运动区皮层厚度呈显著负相关，而在正常受试者中血浆 C4 水平与左侧前额叶皮层厚度呈正相关。同时，在所有被试和首发精神分裂症患者中，我们发现逻辑记忆分数分别与补体成分 3 和补体成分 4 呈负相关。

结论 本研究结果为精神分裂症炎症反应异常假说机制提供了初步的临床证据，为精神分裂症炎症反应可能导致异常皮层厚度改变、认知功能下降（逻辑记忆损害）提供了重要依据。

关键字：精神分裂症 补体系统 神经炎症 逻辑记忆 皮层厚度

（组内口头交流）

Abnormal Interhemispheric Functional Cooperation in Schizophrenia Follows The Neurotransmitter Profiles

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Objective Interhemispheric cooperation is one of the most prominent functional architectures of the human brain. Interhemispheric cooperation deficits have been reported in patients with schizophrenia (SCZ) using increasingly powerful neurobehavioral and neuroimaging measures. However, these methods rely in part on the assumption of anatomic symmetry between hemispheres. In the present study, we explored interhemispheric cooperation deficits in SCZ using a newly developed index Connectivity between Functionally Homotopic voxels (CFH) which is unbiased by hemispheric asymmetry.

Method Eighty-six SCZ patients and 86 age- and sex-matched healthy controls (HCs) were recruited. Multimodal magnetic resonance imaging was conducted on all subjects and whole-brain CFH maps were constructed for comparison between groups. We also examined the correlations of CFH values differing between SCZ and HC groups with various neurotransmitter receptor and transporter densities.

Result Schizophrenia patients exhibited significantly lower CFH values in the frontal lobes, left postcentral gyrus, and right inferior temporal gyrus, and significantly greater CFH values in the right caudate nucleus compared to HCs. Moreover, CFH values differing in patients were significantly correlated with positive symptom score and illness duration. Functional connectivity within frontal lobes was significantly reduced at the voxel cluster level compared to healthy subjects. Finally, the CFH abnormal map of schizophrenia patients was spatially associated with the densities of dopamine D1 and D2 receptor, F-DOPA, dopamine transporter, serotonin transporter, and acetylcholine transporter.

Conclusions Regional abnormalities in interhemispheric cooperation may contribute to the clinical symptoms of schizophrenia. Further, these CFH abnormalities may be associated with dysfunction in neurotransmitter systems strongly implicated in schizophrenia.

关键字：Schizophrenia; Interhemispheric cooperation; Functional connectivity; Receptor; Transporter

（组内口头交流）

东亚及欧洲人群抑郁症的共遗传研究

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目的 通过比较不同人群之间遗传变异的共同点和差异，确定是否存在特定的遗传风险因素在不同人群中的共同作用，鉴定与抑郁症相关的共同遗传变异位点。判断是否有民族特异性的遗传风险因素，探索种族/民族间抑郁症患病率差异的遗传基础，开发针对不

同人群的抑郁症预防和治疗策略提供指导，以及为跨文化精神健康服务的发展提供支持。

方法 利用来自东亚和欧洲人群的独立的全基因组关联研究抑郁症表型结果，先通过 LDSC 计算两者整体的连锁不平衡程度，再应用新的统计遗传学方法（MiXeR 和联合假阳性率发现率分析），研究具有混合效应方向的遗传重叠。之后确定欧洲与亚洲人群共同相关的基因座，并对其进行功能注释，将其映射到推定的基因组中。

结果 LDSC 结果显示东亚和欧洲人群有一定的遗传相关性，MiXeR 和联合假阳性绿分析显示，两者之间存在基因位点的重叠，并有证据表明在独立样本中存在一致的遗传效应。确定欧洲和东亚人群之间共同相关的基因座。这些基因座可能与抑郁症的发病有关，并且在不同人群之间共享一定的遗传风险。对共同相关的基因座进行功能注释和基因组映射，发现这些基因座与神经发育有关。

结论 东亚及欧洲人群抑郁症的无论是从连锁不平衡还是从共享的遗传变异位点角度都存在很强的共遗传，这些位点可是解释了跨民族的抑郁症发生的机制，以及解释不同人群之间的抑郁症患病率差异，为跨文化精神健康研究和干预提供重要的信息和指导。

关键字：抑郁症；共遗传；跨种族

（组内口头交流）

四川省高校少数民族学生心理健康状况和相关影响因素的研究

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目的 旨在探索中国高校少数民族学生心理健康问题负担和影响因素。

方法 新冠疫情解封后，于 2022 年-12 月 14 日~2023 年 2 月 28 日，通过问卷星调查四川省内高校(包括大学、大专、中专)在校学生的心理健康状况。收集包括人口社会学、经济、家庭、心理压力等资料，心理健康状况用一般健康问卷(GHQ-12)、广泛性焦虑量表（GAD-7)、抑郁自评量表(PHQ-9)和创伤后应激障碍(PTSD)评估量表(PCL-5)测量。多因素逻辑回归分析探索影响学生心理健康的因素。

结果 23102 名学生参与了调查，共有 22602(97.8%)例有效问卷。学生中位数年纪 19(13-26)岁，女性 14302(63.3%)名；少数名族共计 2526(11.2%)名，彝族 1184(5.2%)，藏族 804(3.6%)，羌族 133(0.6%)，其他民族学生合计 405(1.8%)。少数民族学生中 236(11.2%)有一般健康问题，853(33.8%)有焦虑，1022(40.5%)有抑郁，917(36.3%)有 PTSD 症状，均高于在汉族学生中的比例。与汉族相比，少数民族学生在一般健康问题(aOR 0.95, [95% CI, 0.81-1.11])和抑郁症状(aOR 1.08,[95% CI, 0.99-1.19])的风险无显著差异；但彝族和其他少数民族学生出现焦虑(彝族: aOR 1.14,[95% CI，1.0 -1.31]；其他少数民族:aOR 1.32,[95% CI, 1.07-1.64])和 PTSD 症状(彝族:aOR 1.24,[95% CI, 1.09-1.41]; 其他少数民族:aOR 1.37,[95% CI, 1.10-1.70])的风险显著增加。不论民族，同性性取向、贫困、父母单身、抽烟、喝酒、已婚、感染新冠、被隔离、疫情出行压力、担忧疫情影响家庭经济，均会增加学生出现一般健康问题、焦虑、抑郁、PTSD 症状的风险。学业压力对一般健康是保护性因素，但会增加焦虑、抑郁、PTSD 症状的风险。相较于权威型，父母教养方式为其他类型的学生出现心理健康问题的风险增高，忽视型风险最大。

结论 疫情解封后学生心理健康问题仍不容忽视，少数民族有与汉族学生不同的影响因素。应开展纵向研究，探索少数民族学生心理健康问题的变化趋势，研究制定符合需求的、有文化适应性的心理健康政策和干预服务，提高学生心理健康。

关键字：少数民族学生，心理健康，影响因素，抑郁，焦虑，四川省

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Associations of Adverse Childhood Experiences with Depressive Disorders in Later Life: Results From The China Mental Health Survey

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Objective It is unknown the relationship between adverse childhood experiences (ACEs) and depressive disorders among Chinese older adults, although many studies have documented the association between ACEs and depressive symptoms across the life span. This study aims to examine the association of ACEs with depressive disorders among older adults in China.

Methods This study used data from the China Mental Health Survey (CMHS), which is the first nationally representative survey of community-based adult mental disorders and mental health services conducted in China from 2013 to 2015. Depressive disorders were diagnosed using the Chinese version of the Composite International Diagnostic Interview-3.0 (CIDI). Finally, 2317 individuals aged 60 years or over were included in the CMHS. Logistic regression models were established to assess the associations between ACEs and depressive disorders.

Results This study proved ACEs increased the risk to have past-year depressive disorders in older adults. Individuals who experienced ACEs (compared to no ACE exposure) were more likely to experience past-year depressive disorders (OR=1.718, 95% CI=1.051-2.808). After adjustment for age, sex, marital status, employment status, education, rural or urban residence, region, and physical diseases, the association between ACEs and past-year depressive disorders were still significant(OR=1.718, 95%CI=1.051-2.808). There was a significant effect of neglect on depressive disorders in males (OR=3.510, 95% CI=1.471-8.373) rather than in fenmales; However, family violence had a significant effect on depressive disorders in females（OR=3.942，95%CI=1.378-11.275 rather than in ,males.

Conclusion ACEs were associated with increased risk for past-year depressive disorders in older adults. ACEs had long-term negative impact on the mental health of Chinese adults in their later life.

关键字：Adverse childhood experiences; depressive disorders; mental health; older adults

山东省 65 岁以上老年人痴呆现状调查

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目的 了解全省 65 岁以上老年人痴呆患病现状，为推动老年人常见心理问题早筛早诊早治工作提供参考依据。

方法 采用分层多阶段随机抽样方法，在全省选取 39 个县（市、区），58 个街（镇），167 个居（村）委员会，每个居（村）委员会至少调查 35 名 65 岁以上老年人，样本量为 5600 人。与调查对象签订知情同意书后，由经过培训的社区卫生服务中心人员采用 AD8 问卷、简版社区痴呆筛查表（CSI-D）进行筛查。对筛查出的所有阳性样本及同比例或 15%（两者取高者）的阴性复查样本由精神科医师进行疾病诊断。

结果 1.本次调查共收回问卷 6538 份，男性 44.77 %，女性占 55.23%。65 岁以上老年人痴呆的阳性率为 25.24%，患病率粗率为 6.78%。2.在不同特征居民老年痴呆阳性率的对比中，男性老年痴呆阳性率（21.01%）低于女性老年痴呆阳性率（28.66%），其原因可能为女性的寿命高于男性，痴呆发病后女性比男性的存活时间更长。随着年龄的增加，老年痴呆的阳性率逐渐增高。65-69 岁人群的阳性率（20.55%）最低，80 岁及以上居民的老年痴呆阳性率（35.03%）最高，70-79 岁人群中阳性人数有 886 人（26.27%）。高中及以上学历老年痴呆阳性率最低（15.24%），其次是初中学历（20.85%）和小学学历（22.95%）的人群，不识字或识字很少的人群老年痴呆阳性率最高（30.70%）。受教育程度低的人群患老年痴呆的风险性增高，教育功能会提高人群的认知能力，可以在一定程度上降低和推迟老年痴呆的发生。未婚老年人的阳性率高于已婚老年人，分别为 29.41%、23.02%，既往研究表明丧偶、独居的老年人其老年痴呆发生率要远高于一般老年人，其获得的社会支持较少。农民老年痴呆阳性率（27.11%）高于其他人群，其他职业的人群参与社会活动和与人交往的频率可能要高于农村人群，其外部活动的多样性以及活动时间会在一定程度上减缓和降低老年痴呆的发生。

结论 山东省 65 岁以上老年人老年痴呆患病率稍高于全国平均水平（5.6%）。老年痴呆筛查阳性率与年龄、性别、文化程度和婚姻情况密切相关。建议在社会心理服务体系建设中，推动老年期痴呆早期、定期、规范筛查，并积极开展“医院-社区-家庭”一体化的社区综合防治。不断开展健康宣教工作，提高居民心理健康素养，逐步形成关注老年痴呆、关爱老年人的社会氛围

关键字：老年痴呆、筛查、现状调查

The Global Burden of Six Psychiatric Disorders and Health Inequality From 1990 To 2019

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Objective The aim of this study is to characterize the burden of six psychiatric disorders, including depressive disorders (DD), bipolar disorder (BD), schizophrenia (SCZ), anxiety disorder (AD), autism spectrum disorders (ASD), and attention-deficit/hyperactivity disorder (ADHD), and to investigate cross-country inequalities

across different levels of socio-demographic development.

Methods The disability-adjusted life years (DALYs) estimates for the six psychiatric disorders, along with their 95% confidence intervals (CI), were obtained from the Global Burden of Disease Study. Age-standardized DALYs rates (ASDR) were calculated for 204 countries. To evaluate the distributional inequalities in the burden of these mental disorders, we employed the slope index of inequality and concentration index, which are two standard metrics of absolute and relative gradient inequality recommended by the World Health Organizations.

Results There were also significant disparities in the global DALYs rates of the six psychiatric disorders by age and gender, and there was notable heterogeneity in the ASDR across 204 countries in 2019. Furthermore, the Slope Index of Inequality also revealed a shift from 93.5 (95% CI: 22.0 to 165.1) in 1990 to 131.9 (95% CI: 64.2 to 199.6) in 2019 for DD, from 97.7 (95% CI: 77.5 to 117.8) in 1990 to 95.7 (95% CI: 73.9 to 117.5) in 2019 for BD, from 119.4 (95% CI: 109.4 to 129.4) in 1990 to 131.8 (95% CI: 122.0 to 141.6) in 2019 for SCZ, from 157.0 (95% CI: 122.7 to 191.2) in 1990 to 156.3 (95% CI: 119.5 to 193.1) in 2019 for AD, from 6.2 (95% CI: 2.2 to 10.2) in 1990 to 4.7 (95% CI: 0.4 to 9.0) in 2019 for ASD, from 7.0 (95% CI: 5.1 to 9.0) in 1990 to 2.7 (95% CI: 0.9 to 4.6) in 2019 for ADHD. The concentration index also indicated 39.0 (95% CI: 30.8 to 47.3) in 1990 and 41.4 (95% CI: 33.3 to 49.4) in 2019 for DD, 41.8 (95% CI: 34.0 to 49.5) in 1990 and 39.8 (95% CI: 32.0 to 47.6) in 2019 for BD, 42.8 (95% CI: 34.8 to 50.8) in 1990 and 43.2 (95% CI: 35.3 to 51.2) in 2019 for SCZ, 41.8 (95% CI: 33.9 to 49.7) in 1990 and 41.6 (95% CI: 33.8 to 49.5) in 2019 for AD, 40.3 (95% CI: 32.4 to 48.3) in 1990 and 39.7 (95% CI: 32.0 to 47.5) in 2019 for ASD, 44.4 (95% CI: 36.4 to 52.5) in 1990 and 44.0 (95% CI: 36.2 to 51.8) in 2019 for ADHD.

Conclusion There is a significant heterogeneity in ASDR across countries, as well as in the age and sex distribution of the global DALYs rate among the DD, BD, SCZ, AD, ASD and ADHD. Countries with high level of socio-demographic development bore a disproportionately greater burden of these psychiatric disorders, and the degree of inequality between these countries and those with high levels of socio-demographic development has exacerbated over time.

关键字：Psychiatric disorders, Disability-adjusted life-years, Health inequality, the Global Burden of Diseases

The Association between Various Dimensions of Sleep Parameters and Mental Health: A Large Cross-sectional Study of 13554 Chinese Students

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Objective We aimed to investigate the association between multiple sleep variables and mental health among Chinese students aged 9–22.

Methods We stratified the included 13,554 students by educational levels. Sleep parameters contained sleep duration on school days and weekends, napping time, chronotype and social jetlag (SJL), which were calculated via questionnaires. Individual psychological well-being and distress were assessed by Warwick-Edinburgh mental Well-being scale and the Kessler Psychological Distress Scale 10 respectively. The multiple linear and binary logistic regression were applied to analyze the association of sleep with mental health.

Results Short sleep on school days showed significantly positive association with psychological problems. While among senior high school students, we found reverse result that sleeping less might negatively associated with more severe distress (7-8 h: aOR = 0.67, 95% CI: 0.46, 0.97). The association of sleep duration with mental health was attenuated a lot on weekends. The chronotype was significantly related with mental health in primary and junior high school: intermediate chronotype (vs late chronotype) was associated with greater wellbeing (β = 1.03, 95% CI: 0.09, 1.96; β = 1.89, 95% CI: 0.81, 2.97) and less distress (aOR = 0.78, 95% CI: 0.60, 1.00; aOR = 0.73, 95% CI: 0.58, 0.91). The relationship between SJL, napping duration and psychological health problems were also observed in some educational levels.

Conclusion Sleep deprivation on school days, late chronotype and SJL were positively associated with worse mental health in our study, which differed among various educational stages.

关键字：Sleep; Chronotype; Social jetlag; Mental health; Students

Correlation Analysis of Depressed Patients with Borderline Personality Traits and Non-suicidal Self-injure Behavior

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Objective Adolescent with psychiatric disorders and non-suicidal self-injure behavior are a serious public health problem. Fewer studies have explored the relationship between borderline personality traits and non-suicidal self-injure behaviour in patients with depressive disorders. This paper focuses on the prevalence of non-suicidal self-injure behaviour in adolescents with depressive disorders and compares the clinical characteristics of adolescents with depressive disorders with and without borderline personality disorder traits.

Methods This cross-sectional study included 391 patients aged 13-25 years, including 297 (76.0%) females, who visited at the Brain Hospital of Guangzhou Medical University from January 2022 to May 2023, and included patients with a diagnosis of unipolar or bipolar depression based on the diagnostic criteria called ICD-10. Self-assessment and unstructured interviews were used to assess patients' depressive symptoms, borderline personality traits, negative adolescent life events and non-suicidal self-injure behavior using the Hamilton Depression Inventory

(HAMD-17), Borderline Symptom List-23 (BSL-23), Adolescent Life Events Questionnaire and Non-Suicidal Self-injure Brief Assessment Tool respectively. Data were analyzed using SPSS23 software with t-tests or non-parametric tests for continuous variables based on normality, chi-square tests for categorical variables, and multivariate logistic regression to explore risk factors for non-suicidal self-injure behavior.

Results A total of approximately 60.35% (236/391) of patients with depressive disorders were found to exhibit non-suicidal self-injure behaviour. Patients with non-suicidal self-injure behaviour were more likely to be female (X2=21.66,P<0.001), younger (t=5.182,P<0.001), to have a previous history of suicide (t=22.119,P<0.001) and to have more severe depressive symptoms (t=-3.699,P<0.001) than those without non-suicidal self-injure behaviour. Borderline personality traits were more obvious(t=-7.187,P< 0.001) and negative life events were more frequent in adolescents (t=-2.585,P=0.01). After adjusting for confounding variables, multivariate logistic regression found that female (OR=3.088, 95%CL 1.787-5.337,P<0.001), previous suicidal history (P=0.005), and borderline traits (OR=1.033,95%CL1.017-1.045,P<0.001) independently influenced depressed patients' non-suicidal self-injure behaviour.

Conclusion The prevalence of non-suicidal self-injure behaviour was higher among adolescents with depressive disorders, and females, previous suicidal history, negative adolescent life events, borderline traits, and depression levels were strongly associated with non-suicidal self-injure behaviour. However, the relationship between borderline personality traits and non-suicidal self-injure behaviour was more significant after adjusting for population characteristics.Further research is needed to explore the relationship between life events, borderline traits and NNSI.

关键字：adolescent, depression ,BPD, non-suicidal self-injure behavior, adolescent life events.

Exploring Influencing Factors and Differences of Suicidal Ideation and Suicide Attempts Among Depressed Adolescents Based on Decision Tree Model

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Objective Suicide has been recognized by the World Health Organization as a major global public health issue. Depressed adolescents with abnormal psychological conditions are more prone to experiencing suicidal health problems. To effectively prevent suicide behavior, it is crucial to further enhance our understanding of suicide. Therefore, we explored the influencing factors of suicidal behavior among depressed adolescents in different stages of suicide, comparing the similarities and differences between suicidal ideation and suicide attempts.

Methods A multicenter survey was conducted in 14 tertiary hospitals' psychiatric departments across nine provinces in China. A total of 2,343 depressed adolescents aged 12-18 years were recruited through convenience sampling. We utilized a decision tree classification model, incorporating 31 factors encompassing participants' suicidal behavior. All factors are categorized into demographic characteristics, psychological traits, and social stressors. The importance of each factor was measured using Gini coefficients.

Results Among the 2,343 participants, valid data from 2,300 completed surveys were collected after excluding cases with unanswered suicide-related questions. The model demonstrated a good fit with high accuracy (SI=0.86, SA=0.85 and F-Score (SI=0.85, SA=0.83). The predictive importance of each factor varied between groups with suicidal ideation and with suicide attempts. The most significant influencing factor in both groups was depression (16.7% for suicidal ideation, 19.8% for suicide attempts). However, factors such as perceived academic stress, level of hopelessness, and age were more closely associated with suicidal ideation (7.2%, 9.1%, 7.1%) than suicide attempts (1.6%, 5.0%, 3.2%). Factors related to the current atypical school status, duration of education, and the extent of perceived loneliness due to external abandonment were relatively more important in the suicide attempt stage (10.10%, 8.6%, 7.4%) compared to suicidal ideation (3.5%, 2.6%, 2.3%).

Conclusion Individual risk factors, such as depression and stress, significantly influence suicidal behavior of depressed adolescents and exert a greater impact on suicide ideation than suicide attempt. While the social and environmental context where individuals exist, including education and social connectedness, has a larger impact on suicide attempts among depressed adolescents.

关键字：Suicidal ideation, Suicide attempt, Decision Tree, Feature importance

（组内口头交流）

Human Resources Available To Provide Treatment and Social Welfare Services To Mentally Ill Individuals in Mainland China: A Scoping Review

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Objective Mental health professionals in various institutions in mainland China provide treatment and social support services to individuals with mental disorders. Over the last 20 years of rapid urbanisation, the numbers, type, distribution, and qualifications of these professionals have

changed dramatically. However, there has been no systematic attempt to collect information about this transformation in the human resources available to provide mental health services—information that needs to be regularly updated to improve the country's coordination of these services.

Methods This scoping review compiles current details on China's mental health workforce and identifies critical gaps in available research and reporting. We systematically reviewed all relevant studies and reports published between 1 January 2000 and 30 June 2021 in six databases (Web of Science, Pubmed, CNKI, Wanfang, the National Science and Technology Library of China, and the State Council Policy Document Database of China) and one website (the National Health Commission of the People's Republic of China). We also reviewed yearbooks about provincial health services available on the websites of provincial Health Commissions from 2000 through 2020.

Results We identified 82 reports from 69 studies and two relevant government reports. From 2000 to 2020, the number of psychiatrists in the country increased by 139%, and the number of psychiatric nurses increased by 340%. However, the much higher number of mental health professionals per 100,000 population and the better quality of training of mental health professionals in urban, eastern provinces compared to rural, western provinces remained unchanged over the 20 years. Progress has been made in standardising the training of psychiatrists, but there are no standardised training programs for psychiatric nurses, clinical psychologists, or psychiatric social workers.

Conclusion Future research needs to address several issues that limit the effectiveness of policies aimed at increasing the size, quality and equitable distribution of China's mental health workforce: 1) limited data available about the numbers and training of mental health professionals in many provinces, 2) absence of data about mental health-related training of non-psychiatric medical professionals and non-medical personnel (including teachers, police, family members, and others) who provide essential monitoring and supportive care to those with mental illness, and 3) failure to formally assess the outcomes of the training programs.

关键字：mental health services, mental disorders, human resources, China

（组内口头交流）

兴奋-抑制神经递质失衡在迟发性运动障碍临床识别和发生机制中的作用

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目的 迟发性运动障碍(TD)是精神科最为棘手、致残性最高，且目前仍无有效治疗手段的药物不良反应。其发病机制未明，既往研究提示，兴奋-抑制性神经递质失衡，在其病理生理机制中作用关键。本研究通过检测细胞内外，皮质-纹状体-白质通路，谷氨酸-GABA 系统功能。为 TD 机制的认识提供新证据，为临床诊断及治疗评价提供生物学指标。

方法 1：以伴有 TD 的精神分裂症患者(TD 组)50 例，性别、年龄、受教育年限、利手、病程及抗精神病药相匹配的不伴有 TD 的精神分裂症患者（NT 组）50 例和健康对照(HC 组)50 例为研究对象。采集前扣带回谷氨酸和 GABA 磁共振波谱，通过异常不自主运动量表(AIMS)评估 TD 严重程度 2：采集上述三组被试静息态功能磁共振成像，进行全脑局部一致性(ReHo)分析，对运动环路做静息状态功能连接(rsFC)分析。3：检测白质区域易损伤指数(RVI)作为认知缺陷预测指标，采集认知功能成套测验(MCCB)。4：应用 Freesurfer 及 VBM 计算脑皮质体积、厚度、表面积。比较组间差异，分析各指标间相关关系。

结果 1：TD 组谷氨酸最高(243.35 ± 379.76 ppm)，NT 组最低(44.51 ± 118.09 ppm)，HC 组居中(191.37 ± 296.89 ppm)。TD 组 GABA(15.00 ± 15.65 ppm)明显低于，NT 组(25.15 ± 30.16 ppm)和 HC 组(25.13 ± 24.58 ppm)(图 1)。TD 组 GABA 浓度与 AIMS(颈肩髋)有正相关趋势。2：疾病组 ReHo 减低(图 2)；TD 组比 NT 组 ReHo 增加(图 3)；TD 组 ReHo 与 AIMS 相关。疾病组运动环路 rsFC 减低(图 4)；TD 组比 NT 组 rsFC 减低(图 5)；TD 组 rsFC 与 AIMS 负相关(图 6)。3：TD 组 RVI 最高，NT 组次之，均显著高于 HC 组。NT 组 RVI 与言语流畅性和加工速度负相关，而 TD 组不存在这种相关性。4：TD 组左中央前上沟皮质体积、表面积仍较非 TD 组大；TD 组 AIMS 总分与左中央前上沟皮质体积正相关。灰质体积示 NT 组和 TD 组广泛减小，额叶更明显；TD 组比 NT 组脑干等增大，楔叶、舌回减小(图 7)。TD 组灰质体积与 AIMS 正相关(图 8)。

结论 TD 影响皮质-纹状体-白质通路微结构，兴奋-抑制性神经递质失衡与 TD 患病风险的增高可能有关。

关键字：磁共振成像，神经细胞内，脑代谢，异常不自主运动

（组内口头交流）

Prevalence of and Factors Associated with Overweight and Obesity in Patients with Severe Mental Disorders in Shenzhen: Results From The Urban Chinese Population

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Objective The objective was to analyze the prevalence of overweight and obesity in patients with SMDs and the factors associated with their sociodemographic and disease characteristics in a cross-sectional population-based study.

Methods This analysis examined the prevalence of overweight and obesity in 14,868 managed SMD patients in an urban area of Shenzhen city based on data from the health information monitoring system in 2020. Sociodemographic and physiological characteristics of overweight and obesity in SMD patients were described. Multivariate logistic regression models were used to identify the factors associated with the prevalence of overweight and obesity

in patients with SMDs.

Results Records of 14,868 participants were included for analysis. The prevalence of overweight and obesity in patients with SMDs in this study was 32.6% and 16.1%, respectively. In multivariate analysis, married status, Shenzhen household registration, management durations of 5-10 years and >10 years, participation in family physician services, taking clozapine or aripiprazole, FPG>6.1 mmol/L, hypertension, TC≥5.2 mmol/L, TG≥1.7 mmol/L, and more frequent follow-ups in the past year were associated with higher odds of overweight and obesity. Compared to their respective reference categories, living with parents, spouse and children, taking risperidone, aripiprazole, amisulpride and perphenazine, FPG>6.1 mmol/L, hypertension, TC≥5.2 mmol/L, TG≥1.7 mmol/L, and more frequent follow-ups in the past year were associated with higher odds of obesity.

Conclusion We observed a high prevalence of overweight and obesity in patients with SMDs in this study. The findings highlight the need for integrated management of overweight and obesity risk factors among patients with SMDs.

关键字：Severe mental disorders; Overweight; Obesity; China

（组内口头交流）

广东省青年人抑郁、焦虑与不良生活方式的关联性研究

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目的 调查广东省青年人抑郁、焦虑症状的流行情况，分析抑郁、焦虑与不良生活方式的关联性，为青年人群心身健康问题的防治策略和干预措施提供证据。

方法 利用 2022 年开展的“广东省居民心理健康素养调查”的数据，采用多阶段分层随机抽样法于省内 21 个地市抽取 18-44 岁的青年居民作为研究对象，共纳入有效样本 28789 例。抑郁和焦虑症状分别采用患者健康问卷抑郁症状群量表（PHQ-9）和广泛性焦虑障碍量表（GAD-7）评估，纳入 8 种不良生活方式因素，包括吸烟、饮酒、非规律一日三餐、不锻炼、屏幕时间过长、久坐行为、非正常体重（BMI 过高/过低）、失眠。协变量纳入社会人口学特征、慢性病数、心理健康素养。基于复杂加权统计，分析广东省青年人抑郁、焦虑症状的流行情况，采用 Rao-Scott χ 2 检验分析各因素与抑郁、焦虑的关联性；使用二阶聚类法，对各不良生活方式因素进行聚类分析；采用多因素 Logistics 回归，通过三种不良生活方式组合（模型 1：代入各个不良生活方式因素；模型 2：代入不良生活方式总数；模型 3：代入各个不良生活方式类别），分析其与抑郁、焦虑的关联性。

结果 广东省青年人群抑郁、焦虑症状检出率分别为 28.0%和 19.5%。其中，81.6%的青年同时存在 1-4 种不良生活方式。通过二阶聚类法，得出 8 个类别，依据各类别组成概率，命名为健康生活组（10.0%）、不锻炼-屏幕时间过长-吸烟-饮酒组（19.0%）、不锻炼-久坐行为-屏幕时间过长组（13.0%）、不锻炼-屏幕时间过长-失眠组（14.9%）、不锻炼组（9.8%）、不锻炼-屏幕时间过长-非规律一日三餐组（17.8%）、非正常体重-不锻炼-屏幕时间过长组（6.%）、不锻炼-屏幕时间过长组（9.5%）。多因素 Logistics 分析发现，非规律一日三餐、不锻炼、屏幕时间过长、久坐行为、失眠是抑郁的危险因素；饮酒、非规律一日三餐、不锻炼、屏幕时间过长、久坐行为、失眠是焦虑的危险因素；不良生活方式越多，抑郁、焦虑的风险越大；不锻炼-屏幕时间过长-失眠组和不锻炼-屏幕时间过长-非规律一日三餐组患抑郁、焦虑的风险较大，且远大于单个不良生活方式因素的风险。

结论 广东省青年人群的抑郁、焦虑症状发生率较高，不良生活方式流行程度较高，呈簇集特征，需健康促进相关专业人员关注不良生活方式的聚集作用和联合作用对心理健康的威胁，加强心身健康教育。

关键字：青年人，抑郁，焦虑，生活方式，关联性

（组内口头交流）

The Impact of Childhood Trauma on Emotional Distress and The Mediating Role of Sense of Coherence Among College Students in China

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Objective Childhood trauma is strongly linked to emotional distress. However, there has been limited investigation into the relationship between childhood trauma and emotional distress. This study attempted to examine the relationship among childhood trauma, sense of coherence (SOC) and mental health, and further explore the moderating role of SOC in college students.

Methods This cross-sectional study focused on Chinese undergraduate college students who were administrated online questionnaires consisting the childhood trauma questionnaire(CTQ), SOC scale, Patient Health Questionnaire 9(PHQ-9) and Generalized Anxiety Disorder Questionnaire(GAD-7). T tests were used to assess the statistical significance of sample characteristics. Path analysis and structural equation modeling(SEM) were employed to examine the relationships among the variables in the hypothesized model. Moderation analysis was conducted to explore the impact of SOC on the relationship

between CTQ and GAD-7/PHQ-9, where CTQ served as the independent variable and GAD-7/PHQ-9 as the dependent variable. Logistic regression analysis was utilized to explore the relationship between mental health problems, SOC, and other potential causes.

Results A total of 2307 Chinese college students (1044 female, 1263 male) participated in this study. In this study, female have higher SOC than male(T=-4.089, P<0.001). Female have better comprehensibility(T=-4.933, P<0.001） than male. Secondly, the study indicated that college students who have experienced childhood trauma have a higher proportion of anxiety(14.95%) and depression(32.44%) compared to those who have not experienced childhood trauma (anxiety: 4.99%; depression: 14.02%). In logistic regression analysis, women were not at higher risk of developing mental health problems than men(OR, 0.928; 95%CI: 0.757 to 1.137), younger college students,especially freshmen, were at increased risk of developing depression(OR, 0.617; 95%CI: 0.480 to 0.792) or anxiety(OR, 0.587; 95%CI: 0.406 to 0.847) than older college students, and participants with low SOC were more likely to have symptoms of anxiety or depression than people with high SOC (OR＜0.001).The results showed that SOC had negative moderating effects on the relationship between CTQ on GAD-7 (standard β = -0.45, P<0.001) and PHQ-9 (standard β = -0.467, P<0.001).

Conclusion Childhood trauma has been linked to an increased risk of emotional distress among college students. This study also revealed that SOC plays a negative moderating role in this process, broadering implications for mitigating emotional distress and enhancing trauma and distress adjustment. Additionally, these findings highlight the need for future research to explore the mechanisms underlying the development of depression and anxiety among college students, with a particular focus on understanding the roles of various influencing factors at psychological and social levels.

关键字：college students, sense of coherence, childhood trauma, mental health

（组内口头交流）

Preventing Post-discharge Suicides in Psychiatric Patients: Insights From Patients, Lay Healthcare Supporters, and Mental Health Professionals - A Qualitative Analysis

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Objective Discharged psychiatric patients are at higher risk of suicide due to various risk factors in their lives compared to the general population. However, specific problems and needs of these patients after discharge remain unclear. This study aims to qualitatively investigate the problems and needs from the perspectives of patients, their lay health supporters (LHSs), and mental health professionals (MPs), to offer guidance for reducing post-discharge suicide.

Methods This study is part of a larger implementation study based on Shenzhen Kangning Hospital (SKH) in Shenzhen, Guangdong, China. Under the community-based participatory research framework, we recruited discharged psychiatric patients, their LHSs, and MPs as a collaborative community team, and we conducted individual in-depth interviews for patients and LSHs and focus group interviews withs MPs. We utilized a thematic analysis approach to identify sub-themes and themes from interviews through systematically coding and condensing the data.

Results A total of 45 participants were recruited for interviews, comprising 17 patients, 8 LHSs, and 20 MPs. We conducted 25 individual in-depth interviews and 3 focus group interviews. Through the interviews, we identified three themes of post-discharge problems: problems related to self, family-related problems, societal and community-related problems. We also identified four themes related to reducing post-discharge suicide: proactive self-management, multifunctional relatives, multifunctional MP group, and a warm society. The tangible support from LHSs and emotional support from MPs are strongly emphasized. Follow-up interventions were identified as the most significant way to addressing these unmet needs. Instrumental support from the community and a caring and non-discriminatory environment for individuals with mental disorders are essential for reducing suicide risk.

Conclusion Establishing an integrated mental health care service network that connects psychiatric patients, LHSs, and MPs cross community and societal sectors, with patient-centered follow-up care at its core, is a practical approach to better address patients' needs and reduce post-discharge suicide.

关键字：Post-discharge suicide; Psychiatric patients; Problems and unmet needs; Community-based participatory research; Thematic analysis

（组内口头交流）

Characteristics and Associated Factors of Psychotic-like Experiences in Remission: A Cross-sectional Study Among College Students in China

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Objective Psychotic-like experiences (PLEs) are common and associated with potential poor mental health among adolescents. Although the associated factors of PLEs have been widely explored in previous research, the characteristics and associated factors of remission PLEs remain unclear. Therefore, the aim of this proposed cross-sectional study is to describe the characteristics of those who reported remitted PLEs through comparing them with non-PLEs and current PLEs in a large sample of college students in five domains: demographics, lifestyle, psychosocial factors, lifetime affective symptoms and sleep problems.

Methods A total of 4,208 college students completed an online self-report questionnaire between October and December 2020. The 15-item positive subscale of the community assessment of psychic experiences (CAPE-P15) was used to assess non-PLEs, remission and current PLEs. Multivariate logistic regression models were used to examine associations between remission PLEs and a range of factors from demographic, lifestyle, psychosocial factors, lifetime affective symptoms and sleep problems.

Results Three developmental trajectories of PLEs were observed: non-PLEs (47.27% of the sample), remission PLEs (40.42%) and current PLEs (12.31%). The factor values of the remission group were almost in between non-PLEs and current PLEs. Recent adverse life events, resilience, depressive/anxiety symptoms and early wakening are shared associated factors for the promotion of the remission of PLEs and prevention of the onset of PLEs; social support is the specific associated factor for the promotion of the remission of PLEs; sex, age, chronic physical illness, alcohol intake, childhood trauma and waking up easily at night are specific associated factors for the remission of PLEs in comparison to the non-PLEs group.

Conclusion To our knowledge, this is the first study to explore associated factors for the remission of PLEs from multiple domains (including socio-demographic, lifestyle, psychosocial factors, lifetime affective symptoms and sleep problems). We found almost all the measures among the remission group were consistent between the current PLEs group and non-PLE group. These findings suggest that remission PLEs are a vital and unique developmental trajectory and provide preliminary targets for the development of precision prevention and intervention for adolescents at risk of mental health problems. Further investigation may shed light on the causality of the relationship between remission PLEs and these associated factors.

关键字：Psychotic-like experiences; Associated factor; Adolescents; Remission

（组内口头交流）

Development and Validation of A Predictive Model for Readmission of Major Depressive Disorder Patients with Negative Attempts

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Objective A chronic disease known as major depressive disorder (MDD) is characterized by a significant probability of relapse. The study aimed to investigate the factors associated with the occurrence of readmission in first-hospitalized MDD patients with negative attempts to build a predictive model eventually.? [Methods]The study enrolled 3977 MDD patients. By reviewing the patient visit records in the hospital information system (HIS), biochemical parameters, demographic characteristics, clinical course, symptom characteristics, family history, concomitant somatic disorders, and tobacco and alcohol habits were acquired. The data were randomly split into a training set and a validation set in R software. Statistical descriptions and univariate logistic regression analysis were performed on the training set. The multivariate logistic analysis incorporated factors that were linked to the outcome in univariate analysis to create a stepwise regression model (with a p threshold <0.2). Then visualize it with Nomogram. In the next step to evaluate the model, we successively evaluated the model with the training set and validation set data in three directions from the discrimination, calibration, and clinical decision curve analysis, respectively.

Results (1) There was a significant difference in the incidence of readmission between first-hospitalized MDD patients with negative attempts and those without negative attempts; (2) Length of stay, course of the disease, somatic symptoms, psychosis symptoms, anxiety symptoms, alcohol/tobacco dependence, family history of psychiatric disease, continued use of antidepressants combined with antipsychotics or not after discharge, and TBIL were included in these variables to build a predictive model in R software called “model. step”; (3) The AUCROC was 0.783 for the training set and 0.778 for the validation set. The Hosmer-Lemesho (H-L) test for calibration was P = 0.3521 for the training set and P = 0.8497 for the validation set.

Conclusion In conclusion, the study showed that the incidence of readmission was significantly higher in first-hospitalized MDD patients with negative attempts than in first-hospitalized MDD patients without negative attempts. The model built by these factors has acceptable discrimination, and calibration and also has certain clinical applicability. For better clinical applicability and a better prognosis for MDD patients, the model still has to be further tuned after many validations in several centers.

关键字：negative attempts, major depressive disorder, first-time hospitalized, readmission, predictive model.

（组内口头交流）

Altered Relationship between Functional Connectivity and Fiber- Bundle Structure in High-functioning Adults with Autism Spectrum Disorder

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Objective Autism spectrum disorder (ASD) is a pervasive neurodevelopmental disorder characterized by abnormalities in structure and function of the brain. However, the impact of ASD on the relationship between fiber-bundle microstructures and functional connectivity (FC), particularly how they are coupled, remains unclear.

Methods Here, we examined structural and functional images of 26 high-functioning adult males with ASD and 26 typically developing controls (TDCs) that were matched for age, gender, and full-scale IQ. We utilized fixel-based analysis to extract microstructural information from fiber tracts, which was then used to predict FC using

a multilinear model.

Results Our results revealed that the structure-function relationships in both ASD and TDC cohorts were strongly aligned in the primary cortex but decoupled in the high-order cortex, and the ASD patients exhibited reduced structure-function relationships throughout the cortex compared to the TDCs. Furthermore, we observed that the disrupted relationships in ASD were primarily driven by alterations in FC rather than fiber-bundle microstructures. The structure-function relationships in the left superior parietal cortex, right precentral and inferior temporal cortices, and bilateral insula could predict individual differences in clinical symptoms of ASD patients.

Conclusion These findings underscore the significance of altered relationships between fiber-bundle microstructures and FC in the etiology of ASD.

关键字：autism spectrum disorder (ASD); magnetic resonance imaging (MRI); structure-function relationships; fiber-bundle microstructures; functional connectivity

（组内口头交流）

Revealing The Potential Causality of Suicidal Ideation and Psychopathic Symptoms Among Survivors 10 Years after The Wenchuan Earthquake Using Network Analysis

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Objective Little is known about which psychopathic symptom is most associated with suicidal ideation and their potential causal relationship among earthquake survivors. Using a 10-year large cohort of Chinese adolescents exposed to the Wenchuan earthquake, this study aimed to identify the most critical psychopathic symptoms linked to suicidal ideation and to examine the potential causality between the above variable.

Methods A total of 684 survivors who completed surveys at 6 months and 10 years post-earthquake and had one or above psychopathic symptoms were included in the analyses. Socio-demographic, post-traumatic stress symptoms, depressive symptoms, and suicidal ideation were measured at 6 months and/or 10 years post-earthquake. A gaussian graphical model (GGM) network, a flow network of suicidal ideation, and a directed acyclic graphs (DAG) network were performed based on R version 4.1.3.

Results The GGM network revealed that"Depressed mood" had the highest EI value. The flow network showed that nine symptoms were directly associated with suicidal ideation, especially "Negative beliefs - Suicidal ideation" with the highest edge weight value (0.28), followed by "Depressed mood - Suicidal ideation (the edge weight value = 0.24)". In addition, the DAG network revealed that anhedonia could affect "Depressed mood", which further lead to "Suicidal ideation", and finally trigger "Negative beliefs".

Conclusion The pathway of "Anhedonia → Depressed mood → Suicidal ideation" was a crucial psychopathic mechanism of suicidal ideation. It informs that intervening in anhedonia and depressed mood among earthquake-exposed survivors is necessary to potentially decrease the risk of future suicidal ideation.

关键字：Suicidal ideation; psychopathic symptoms; earthquake survivors; network analysis

（组内口头交流）

Changes of Suicide Rate and Risk Factors for Non-psychiatric Inpatients During Hospitalization in General Hospital

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Objective Currently, there remains a dearth of research on suicide among non-psychiatric inpatients in general hospitals. It is fundamental to identify the suicide risk of non-psychiatric inpatients. We investigated the suicide risk, suicide risk factors and mental health status of non-psychiatric inpatients in general hospital, with the aim of developing assessment methods preventive interventions to reduce the occurrence of suicidal behavior among general hospital patients.

Methods A prospective study was conducted at a tertiary general hospital with 1385 inpatient beds in Guangzhou, Guangdong Province, China. On-line assessment of mental health status and suicide was completed at admission and discharge. We assessed depression, anxiety, insomnia and suicide via the Patient Health Questionnaire-9, Generalized Anxiety Disorder-7, Athens Insomnia Scale and Columbia Suicide Severity Rating Scale. Binary logistics regression was used to examined the risk factors of suicide.

Results From April 1, 2021 and January 31, 2022, 3685 inpatients admitted to 24 non-psychiatric departments who finished assessment both at admission and discharge were consecutively enrolled in the study. Most inpatients were young and middle-aged, low education, low-income families, short hospital stay, and form the department of internal medicine and surgery. The detection rates of depression, anxiety and insomnia were 14.6%, 9.0% and 17.8%, respectively. There were 2.7% of inpatients at a suicide risk. Binary logistics regression demonstrated that the inpatients with anxiety were at higher risk of suicide.

Conclusion The comorbidity of physical illnesses and mental health problems, including depression, anxiety, insomnia, and suicide among non-psychiatric patients in general hospital was common. Medical staff in general

hospitals should be trained to improve their ability to identify mental disorders and high-risk individuals for suicide, provide timely interventions and effectively reduce the suicide risk of patients.

关键字：General hospital, inpatient, suicide risk, mental health

（组内口头交流）

Exploring Bullying Experiences and Self-Harm Among High School Students Using Network Analysis

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Objective Given the increasing prevalence and potentially fatal outcome of self-harm among adolescents, exploring correlates associated with self-harm is urgent. Bullying is extremely prevalent among adolescents and is associated with an elevated risk of self-harm and suicide. Most previous research has employed regression analyses to demonstrate the independent association between bullying and self-harm after controlling demographics. However, the mechanism between bullying experiences and self-harm has less been investigated. This study used network analysis to delineate the relationship between self-harm, bullied experience, and other correlates of self-harm in a population-based sample of adolescents.

Methods A cross-sectional study was conducted among 3535 Chinese adolescents at middle and high schools aged 12-19. Self-harm was assessed using the question, "During the past 12 months, have you ever hurt yourself on purpose?" Bullying was measured according to the frequency of bullying experiences in the last month. Binary logistic regression was used to analyze the independent correlates of self-harm. In addition, network analysis was employed to examine the interplay between self-harm, bullying, and other correlates, including being left-behind, parents' marital status, academic pressure, feeling of insecurity to school, social support, loneliness, sleep quality, and depressive symptoms.

Results Among 3535 adolescents, 50.6% were girls, with a mean age of 15.55 (1.58) years. The 12-month prevalence of self-harm among the adolescent sample was 8.0%. 41.0% of adolescents reported being bullied in the past month. Bullying victimization was significantly associated with self-harm, adjusting for other correlates (OR= 2.16, 95%CI: 1.58-2.95, P<0.001). The estimated network consisted of ten nodes and twenty-nine non-zero edges and showed a significant relationship between bullying and self-harm in the adolescent sample. Depressive symptoms, loneliness, and self-ham were central factors in the network model. The edge weights indicated that self-harm was significantly associated with all measured correlates. The strongest association was with depressive symptoms, followed by being left-behind, bullying, and loneliness. Bullying was significantly associated with most correlates of self-harm, including loneliness, depressive symptoms, feeling of insecurity to school, and social support.

Conclusion Our findings suggest that self-harm prevention should focus more on adolescents who have experienced bullying. Parents, health professionals, and educational staff should routinely evaluate adolescents' experiences with bullying and provide timely support. School-based cooperative approaches for reducing bullying behaviors are also needed. Besides, future interventions for self-harm should comprehensively consider the interplay of various factors.

关键字：Bullying；Self-Harm; Network analysis

网络精神病学组

抑制控制功能在青少年网络游戏成瘾与非自杀性自伤行为的中介作用

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目的 目前青少年网络游戏成瘾和情绪障碍共病情况普遍，并且多以非自杀性自伤行为为主要表现形式，严重影响青少年的社会功能，成为了当前世界性公共卫生难题。冲动性高是网络游戏成瘾是常见的临床危害特征，与抑制控制损害密切相关。对于网络游戏成瘾和非自杀性自伤行为之间的因果关系尚不清楚，尤其是网络游戏成瘾作用于青少年非自杀性自伤行为的相关机制尚无明确证据。因此，本研究探索抑制控制功能在网络游戏成瘾和非自杀性自伤之间的中介作用，为两者共病的防治提供依据。

方法 采用网络成瘾测评量表、Barratt 冲动量表及与抑制控制相关的部分认知功能测验，包括连线测验 A(Trail Making Test A, TMT-A)，符号编码(Symbol Coding, SC)，神经心理评估成套测验迷宫测验(Neuropsychological Assessment Battery-Mazes, Mazes)于 2020 年 1 月到 2023 年 5 月共有 1002 名 14-20 岁的青少年抑郁患者在住院期间进行评估研究。用 SPSS24.0 软件进行统计分析。

结果 相关分析结果显示，网络成瘾、非自杀性自伤评估、抑制控制损害均呈正相关，相关系数为 0.401～0.699（均 P＜0.01）。结构方程模型分析结果显示，抑制控制损害在青少年网络成瘾和非自杀性自伤间起完全中介作用，中介效应模型拟合较好（$\chi2$ /df = 3.587, CFI = 0.911, TFI = 0.921, RMSEA = 0.072, SRMR = 0.028）。抑制控制功能损害可正向预测非自杀性自伤程度（r= 0.52, P< 0. 001），采用偏差校正百分位 Bootstrap 进行中介效应检验, 抑制控制损害在网络游戏成瘾与青少年非自杀性自伤的中介效应 95%的区间为[0.10, 0.71], 中介效果量为 41.38%, 中介作用显著。

结论 青少年网络成瘾对非自杀性自伤有一定预测作用，通过抑制控制损害发挥间接作用。

关键字：网络游戏成瘾，非自杀性自伤，抑制控制，认知功能测试

Difference in Relationship of Peer Victimization and Mental Health in Vocational School Students by Genders : A Network Analysis

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Objective We sought to explore the interconnection of peer victimization, depression, anxiety, wellbeing and mental resilience across genders and find the key symptoms related to peer victimization respectively in male and female vocational school students.

Methods A total of 4929 students from vocational school were included. The Multidimensional Peer Victimization Scale (MPVS) was used to measure peer victimization, the nine-item Patient Health Questionnaire (PHQ-9), the seven-item Generalized Anxiety Disorder Scale (GAD-7), the Warwick-Edinburgh Mental Well-being Scale (WEMWBS), and the 10-item Connor-Davidson Resilience Scale (CD-RISC-10) were used to measure mental health including anxiety and depressive symptoms, well-being and mental resilience. Network analysis was used to explore the interconnection of peer victimization and mental health respectively by genders. Central symptoms were identified via centrality indices.

Results Suicide thought and depressed mood were the most central nodes of the network respectively in male and female students. Also, chronic depressed mood played important role in the network in both male and female students.

Conclusion Suicide thought was the key symptom related to peer victimization in male vocational school students however depressed mood in female students. Screening and curbing suicide thought and depressed mood is likely to protect students suffering peer victimization from further harm.

关键字：peer victimization , anxiety, depression, gender difference

Hypoconnectivity within The Orbitofrontal-striatal-thalamic Network in Patients with Obsessive-compulsive Disorder without Depression.

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Objective Alterations in the functional connectivity within and between orbitofrontal-striatal-thalamic (OST), cingulo-opercular network (CON), and default mode network (DMN) network are widely detected to explore the pathogenesis in obsessive-compulsive disorder (OCD). Comorbid mood disorders co-occur commonly with OCD, and work is needed to assess the connectivity of these functional connectivity networks in patients with OCD without a mood disorder.

Methods Fifty-four OCD patients with no depression and 42 healthy controls aged 18-51 were compared in this study. Resting-state fMRI was used to compare the functional connectivity within and between the DMN, CON, and OST networks. The regions of interest (ROIs) for DMN and CON were selected from previous categorizations. ROIs for striatal and thalamic in OST are chosen from papers of Di Martino et al. and Fitzgerald et al. Others were selected from the Harvard-Oxford atlas as distributed with FSL.

Results The average Y-BOCS score in the OCD group was 20.15 (7.13). There were no differences in mean age, gender percentage, education, or FD between the two groups (Ps > .05). Significant differences could be seen in the connectivity within the OST network (F=6.84, p=.011, FDR adjusted p=0.044). Additionally, connectivity within the OST network was more less in the OCD group (M=.30) than that in the HC group (M=.34, SD=.12). There were no significant differences in the other networks (within DMN, within CON, OST-CON, OST-DMN, DMN-CON) (all FDR adjusted p > .050).

Conclusion Hypoconnectivity in OST is a characteristic of OCD without psychiatric comorbidity, suggesting that previous reports of altered functioning of this network in individuals with OCD were not due to comorbid mood disorders.

关键字：obsessive-compulsive disorder, functional connectivity, orbital-striatal-thalamic network, cingulo-opercular network, default mode network

人牙髓干细胞改善慢性不可预知温和刺激模型小鼠的抑郁样行为及认知功能的研究

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目的 抑郁症是一种常见的精神障碍，其对人类健康的威胁越来越受到研究者们的重视。大量研究表明，异常的神经元功能、过度激活的小胶质细胞和过度的神经炎症反应与抑郁症的发作有关。 目前在神经科学领域，干细胞疗法被用于研究多种神经退行性疾病及神经损伤性疾病。人牙髓干细胞（hDPSC）位于牙髓的血管周围壁龛内，被认为起源于迁移的颅神经嵴（CNC）细胞，同时可以高度表达多种神经生物标志物。多项实验表明牙髓干细胞可以通过诱导分化为神经系统细胞和分泌细胞因子的作用促进神经修复，减少神经炎症，以保护和滋养受损神经微环境中的神经元。然而，牙髓干细胞在治疗抑郁症等精神疾病中的作用还未得到充分研究。

方法 制备慢性不可预知温和刺激（CUMS）抑郁模型是通过将实验动物随机暴露于各种低强度的社会和环境刺激下，持续 7 周实现。随后进行脑立体定位注射，将 1μL 的人牙髓干细胞（1*10^5/ml）双侧注射到腹侧海马内。动物抑郁样行为及认知功能通过开放矿场实验（OFT）、蔗糖偏好实验（SPT）、悬尾实验（TST）和 Morris 水迷宫实验（MWM）等动物行为学实验评估。

结果 慢性不可预知温和刺激诱导小鼠抑郁样行为及认知功能损伤，使小鼠 OFT 的中心区域时间减少，TST 的不动时间增加，SPT 中蔗糖偏好降低，以及 MWM 中规定时间内通过水面平台的次数减少。海马注射人牙髓干细胞的实验组小鼠相比于假手术组，OFT 的中心区域时间增加，TST 的不动时间减少，SPT 中蔗糖偏好升高，以及 MWM 中规定时间内通过水面平台的次数增多。但相比于对照组，两组的 OFT 运动总距离均有降低。

结论 我们的研究结果揭示了人牙髓干细胞可以一定程度上逆转 CUMS 造成的小鼠抑郁样行为，并挽救认知功能损害。此外，也为应用干细胞疗法治疗抑郁症等精神疾病的机制研究提供了实验支持。

关键字：抑郁症、牙髓干细胞、慢性不可预知温和刺激

（组内口头交流）

Gender Differences of Neurometabolic and Neuroendocrine Alternations and Its Lateralization in Adolescents with Major Depression

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Objective : H protons magnetic resonance spectroscopy (1H-MRS) has been used to detect the biochemical metabolism changes in major depressive disorder (MDD). While, the current research on the mechanism of gender-related adolescent depression is still insufficient. Lateralization study can better reflect the characteristic changes of brain function in patients with depression. The study foucus on the neurometabolic and neuroendocrine alternations , so as to find gender-related differences in endocrine alternations and brain metabolism in patients with depression.

Methods : A total of 121 adolescents with MDD(43 with male, and 78 with female) were recruited in this study. Bilateral metabolite levels of the prefrontal cortex (PFC), anterior cingulated cortex (ACC), lenticular nucleus (LN) of basal ganglia, thalamus and cerebellum were obtained by 1H-MRS at 3.0 T, and then the ratios of N-acetyl aspartate (NAA) and cholinecontaining compounds (Cho) to creatine (Cr) were determined, respectively. Finally, we calculated the LI values of various brain regions to compare the lateralization characteristics of brain metabolism in patients with depression.

Results : 121 adolescent MDD participants were enrolled in our study. Significant differences in endocrine indices were observed in TT4 (t= -2.718, p =0.008), ACTH (z = -2.943, p = 0.004) between male and female MDD patients. Relative to the male MDD patients, female MDD patients exhibited higher TT4 level, but lower ACTH level in the blood. Significant differences in cerebellum NAA/Cr and Cho/Cr ratios were observed in the Cho/Cr ratios in the left cerebellum(t = 2.656, p = 0.009) between the two groups. Female MDD patients showed significantly lower Cho/Cr ratios in left cerebellum than male patients. Correlation analysis shows there was a significant positive correlation between TT4 and Cho/Cr ratios in the left cerebellum in male adolescents (r = 0.391, p = 0.01). Comparison of the LI of the PWM, ACC, BG,and cerebellum in the female group to the standard value (Standard value = 1.0) showed a higher LI in the Cho/Cr ratio in the thalamus((t = 3.029,p = 0.003) , and a higher LI in the NAA/Cr ratio in the BG of female group, at a confidence level of p < 0.05(t = 3.182,p = 002).

Conclusion : Depressed adolescents have characteristic endocrine and brain metabolic pathogenesis related to sex. Female depressed adolescents exhibited higher TT4 level, but lower ACTH level than male ones, and female adolescents patients showed significantly lower Cho/Cr ratios in left cerebellum than male patients. For male patients, there was a significant positive correlation between TT4 and Cho/Cr ratios in the left cerebellum. Higher LI of the Cho/Cr ratio in the thalamusand and higher LI of the NAA/Cr ratio in the BG seems to be a metabolic trait specific to female.

关键字：Adolescents Major depressive disorder Biochemical abnormalities lateralization

社会心理服务研究协作组

The Role of O-GlcNAcylation in Mood Disorders and Comorbid Metabolic Syndrome

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Objective Mood disorders including major depressive disorder and anxiety are the leading cause of disability worldwide and place a substantial economic burden on society. O-GlcNAcylation, a dynamic posttranslational modification, acts as both a metabolism regulator and a stress sensor. Although the relevant underlying biological mechanisms are still lacking, mood disorders have been closely associated with several metabolic abnormalities such as high rates of obesity and metabolic syndrome. Therefore, the current study aims to examine whether O-GlcNAcylation is involved in mood disorders and comorbid metabolic syndrome and to better characterise the O-GlcNAcylation site associated with this relationship.

Methods C57BL/6 mice aged 8 weeks were randomly divided into normal diet (chow) group and high fat diet (HFD) group. Transcriptome-wide association was used to analyze the correlation between O-GlcNAcylation associated proteins and body weight, depressive- and anxiety-like behavioral phenotypes. Additionally, blood, adipose tissue and hypothalamic paraventricular nucleus (PVN) of mice were collected. Furthermore, Western blot was used to detect O-GlcNAcylation, O- GlcNAc transferase (OGT) and O-GlcNAcase (OGA). Moreover, chow and HFD mice were treated with OGA inhibitor PUGNAc by stereotactic injection into PVN to observe the effects of inhibition of OGA on depressive- and anxiety-like behavior. Subsequently, the effects of OGA inhibitor were verified and the O-GlcNAcylation site transcription factor FoxO1 in PVN were also identified. The expression of FoxO1 and phospho-Foxo1 in the PVN was detected. Finally, chow and HFD mice were given FoxO1 transcription activity inhibitor AS1842856 to observe the effects of inhibition of FoxO1 on depressive- and anxiety-like behaviors.

Results Transcriptome-wide association showed that OGA expression in hypothalamus was positively correlated with behavioural deficits. OGT expression was negatively correlated with body weight, depressive- and anxiety-like behaviors of mice. While FoxO1 was positively correlated with these behavioral phenotypes. In addition, the O-GlcNAcylation in PVN of HFD mice at 8 weeks was decreased, and the OGA was increased simultaneously. Moreover, inhibition of OGA prevented the HFD-induced depressive- and anxiety-like behaviors, as well as significantly improved the long-term HFD caused O-GlcNAcylation and increase the expression of phospho-FoxO1. Finally, total-FoxO1 was increased and phospho-FoxO1 was decreased in PVN of HFD mice, and inhibition of FoxO1 transcription could prevent depressive- and anxiety-like behaviors induced by chronic HFD treatment.

Conclusion The current findings reveal that targeting the metabolic function through O-GlcNAcylation and

the key downstream site might give us a better understanding of the underlying mechanisms of mood disorders comorbid metabolic syndrome and provide preventive strategies and improved treatments.

关键字：O-GlcNAcylation, depression, anxiety, obesity, body mass index

基于倾向性评分匹配法探讨 COVID-19 疫情对青少年学生非自杀性自伤行为的影响

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目的 了解 COVID-19 疫情对荆州市学生的非自杀性自伤行为的影响及相关因素。

方法 2021 年 6 月-2022 年 1 月，采用冉茂盛整编《青少年学生心理健康状况调查问卷》用方便整群抽样对学生调查。回收 16025 份问卷，有效问卷 12507 份，有效率 78.04%。是否自伤作为因变量，性别、年龄、独生子女作为混淆变量进行 1:2 倾向性评分匹配后，采用单因素分析和二元 logistic 回归模型，使用 R 软件中的 scale 函数对数据进行了标准化和中心化处理，prcomp 函数进行主成分分析，计算各主成分得分加权和，乘以其对应的标准差，得出疫情指数。使用 mediate 函数进行中介分析并进行 bootstrap 检验。

结果 共完成 7275 例匹配，其中 NSSI 2425 例。单因素分析显示，青少年学生在焦虑、抑郁、社会支持、疫情造成心理压力、是否隔离、自己或家属是否有以下情况（感染 / 疑似感染 / 密切 接触 / 服务志愿者）、家庭组成、疫情前后家庭经济、疫情前后家庭关系、疫情前后朋友关系、疫情对学习的影响程度、疫情后学习是否恢复、疫情后生活秩序是否恢复、疫情后生活是否恢复、自我学业满意度上 NSSI 检出率差异均有统计学意义。二元 logistic 结果显示，危险因素有抑郁(OR=1.084)、焦虑(OR=1.143)、自己或家属有感染 / 疑似感染 / 密切 接触 / 服务志愿者情况(OR=1.228)、母亲受高等教育(OR=1.336)、父亲职业为企业与公司职员(OR=1.300)、非核心家庭及主干家庭(OR=1.213)、疫情前后家庭关系恶化(OR=1.526)、疫情后学习未恢复(OR=1.166)、自我学业满意度一般(OR=1.265)或不满意(OR=1.409)。此外，疫情指数对焦虑和抑郁具有显著的正向影响，而对社会支持具有显著的负向影响。焦虑得分、抑郁得分和疫情指数都与 NSSI 呈正相关关系。在中介分析中，焦虑、抑郁在疫情指数对 NSSI 影响中起到了中介作用，中介效应占总效应的 52.5%(B = 0.0142) 、60.3% (B = 0.01633)；而社会支持起到了负向中介作用 23.2% (B = 0.00628)。

结论 青少年学生在疫情期间存在焦虑、抑郁和社会支持不足的问题，疫情对学生的心理和生活产生了显著的影响，要重视青少年学生的心理健康问题和社会支持，同时，也需要关注家庭和社会的支持和帮助。

关键字：非自杀性自伤；Covid-19；学生；

中国内地心理援助热线设置情况

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目的 心理援助热线是一种受众面广、行之有效、相对方便实用的心理服务途径，成为向公众提供心理危机干预、心理健康教育、心理咨询的重要途径，在处理心理应激和预防心理行为问题方面发挥着重要作用。本研究旨在了解中国内地当前心理援助热线设置和服务开展情况，为政府相关部门进一步完善心理援助热线建设提供参考依据。

方法 国家精神卫生项目办公室编制心理援助热线设置情况调查表，2022 年 31 个省（自治区、直辖市）精神卫生项目办每月上报热线服务号码、服务时间、坐席数、热线咨询员数、接听量，采用描述性统计、Kruskal Wallis 检验对热线设置和服务情况进行分析。

结果 截至 2022 年底，中国内地 31 省（自治区、直辖市）以公立精神卫生医疗机构和精防机构为主的心理援助热线 650 条，7 天*24 小时全时段的服务热线占 68.3%，热线坐席 1288 个，热线咨询员 8152 人。2022 年每条热线接听量平均为 1668 次，东部地区热线接听量高于中西部地区（H=6.159,P<0.05），省级热线接听量高于市级和区县级（H=30.417,P<0.01）。

结论 心理援助热线是公众寻求心理健康服务的适宜形式之一，得到了较高利用。下一步应整合资源，优化热线号码，不断加强宣传，强化队伍建设，加强热线服务的规范性，更好地满足公众的需要。

关键字：心理援助热线；热线坐席；接听量

Lifetime Help-seeking and Delays after First Onset of Mood Disorders and Anxiety Disorders in The China Mental Health Survey

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Objective Utilization of mental health services after disorder onset is low and delayed among individuals with common mental disorders, despite high disease burdens and available effective treatments. This study aims to examine failure and delays in help-seeking and associated

factors among individuals with lifetime disorder of mood disorders and/or anxiety disorders in China.

Methods We used data from the China Mental Health Survey (CMHS), a nationally representative epidemiological survey of mental disorders, including 32 522 participants aged 18 years and older across 31 provinces. We assessed lifetime mental disorders, age of onset, and help-seeking behaviour, using the Composite International Diagnostic Interview (CIDI). Logistic and Cox regression analyses were used to examine the correlates of sociodemographic and clinical factors with lifetime help-seeking and delays to initial health care.

Results We identified 3075 patients with any lifetime disorder, and 521 (16.9%, 95% CI: 15.6-18.3%) have sought some type of services (mental health speciality, general medical, human services, and complementary and alternative medicine). The median delays to initial health care were 1 (IQR: 0-7), 5 (IQR: 1-10), and 10 (IQR: 0-29) years for depressive disorders, bipolar disorders, and anxiety disorders. comorbidity, age of onset, and family history were associated with lifetime help-seeking, although the pattern varied between disorder classes.

Conclusion Failure and delays in help-seeking are common in China. Developing national strategies to expand effective coverage of mental health services, as well as improving mental health literacy and screening for common mental disorders would be beneficial to increase help-seeking and fill the treatment gap.

关键字：help-seeking behaviour; treatment gap; depression; anxiety; bipolar disorder

Delayed Dopaminergic Projection From Ventral Tegmental Area To Prelimbic Cortex Modulates Remote Memory Retrieval

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Objective Studies have shown that there is a late consolidation phenomenon, which exists in 12-24 hours after the acquisition of fear memory, and specially mediates the long-term maintenance of fear memory. However, the specific neurobiological mechanism of this process is still unclear. The medical prefrontal cortex (mPFC) is one of the most important brain regions for storage of long-term and remote memory. Recent studies have shown that its early activity after the acquisition of fear memoriy plays an important role in the expression of remote memory. However, it is not clear whether the mPFC is also existed in late consolidation and how it mediates the long-term storage and maintenance of memory.

Methods The study used a rat fear conditioning model and combined with immunofluorescence, pharmacological intervention, electrophysiological recordings and chemical genetics to investigate the specific neurobiological mechanism at the cellular, molecular and circuit levels of late activation in mPFC and the role of this process in the retrieval of remote fear memory.

Results After fear memory training, the expression of c-fos and the excitatory synaptic tramission in prelimbic cortex (PrL) was significantly increased in the early and delayed activation; in addition, the activated neurons were mainly combined by excitatory neurons in the early and delayed activation. (2) After contextual fear memory training, the injection of protein synthesis inhibitor anisomycin into PrL during the early activation of PrL could specifically decrease the expression of recent fear memory, but had no effect on remote memory. However, after contextual fear memory training, the injection of protein synthesis inhibitor anisomycin could specifically decrease the expression of remote fear memory, but had no effect on recent memory. (3) After contextual fear memory training, the injection of D1/5 antagonist SCH into PrL during the delayed activation, which could specifically reduce the expression of remote fear memory, but had no effect on recent fear memory; in addition, the microinjection of D1/5 agonist SKF into PrL during the delayed activation could promote the expression of remote fear memory, but had no effect on recent fear meory. (4) PrL received dopaminergic projections from VTA; After contextual fear memory training, the antagonist of D1/5 SCH could block the increasing effect on spontaneous excitatory postsynaptic currents in the pyramidal neurons in PrL during the delayed activation. The projection of VTA to PrL was both sufficient and necessary for delayed activation of PrL.

Conclusion Concluding the above results, there were protein synthesis-dependent early and delayed activation phenomenon in the PrL brain region. In addition, dopamine D1/5 receptors mediated the dopaminewhich played an important role in the delayed activation of PrL and mediated the expression of remote fear memory.

关键字：Remote fear memory, Prelimbic cortex, Late consolidation, Dopaminergic system, Ventral Tegmental Area.

社会支持对社区严重精神障碍患者的疾病病耻感、精神症状和社会功能影响的纵向研究

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目的 本研究探讨社会支持对社区严重精神障碍（精神分裂症或双相情感障碍）患者的疾病病耻感、精神病性症状和社会功能的影响及其作用路径。

方法 采用纵向研究的方法，选取 312 位处于社区康复阶段的严重精神障碍患者，分别在基线（T1）和 6 个月（T2）时对患者进行评估。在 T1 时，分别采用社会支持评定量表（SSRS）、病耻感感受调查表(ISMI)、阳性与阴性症状量表（PANSS）、个人与社会表现量表（PSP）对患者的社会支持水平、病耻感、精神病性症状和社会功能进行评估。在 T2 时，对患者的病耻感、精神病性症状和社会功能进行随访评估。采用

分层多元回归方法检验T1社会支持水平对T2病耻感、T2 精神病性症状和 T2 社会功能的预测作用；并检验病耻感在社会支持与患者精神病性症状之间的中介作用，及病耻感和精神病性症状在社会支持与患者社会功能之间的中介作用。

结果 （1）T1 社会支持水平越高，在 T2 时患者的病耻感越低（β = -0.11, p = 0.031），精神症状得分越低（β = -0.19, p < 0.001），社会功能越好（β = 0.13, p = 0.010）；（2）T2 时的病耻感在 T1 社会支持对 T2 精神症状的预测作用中起中介作用（间接效应：β = -0.04, 95% CI [-0.07, -0.02]），即 T1 时较低的社会支持水平可通过增加患者的病耻感，从而引起其精神症状的恶化；（3）T2 时的病耻感和精神症状在 T1 社会支持对 T2 社会功能的预测作用中起链式中介作用，其中路径 1（T1 社会支持→T2 病耻感→T2 社会功能）的间接效应不显著（β = -0.01, 95% CI [-0.04, 0.01]），路径 2（T1 社会支持→T2 精神症状→T2 社会功能）的间接效应显著（β = 0.07, 95% CI [0.02, 0.12]），路径 3（T1 社会支持→T2 病耻感→T2 精神症状→T2 社会功能）的间接效应显著（β = 0.02, 95% CI [0.01, 0.04]），即 T1 时较低的社会支持水平可通过增加患者的病耻感，引起其精神病性症状的恶化，从而进一步降低其社会功能。

结论 提高处于社区康复阶段的严重精神障碍患者的社会支持水平有助于降低其病耻感，从而进一步改善其长期的精神病性症状和社会功能。为促进患者的长期康复，有必要对其提供多角度全方位的社会支持服务，以改善患者的预后。

关键字：严重精神障碍；社会支持；病耻感；精神病性症状；社会功能

基于客观语音特征的青少年失眠的识别和预测研究

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目的 本研究旨在探索与青少年失眠、抑郁、失眠伴抑郁的不同亚型青少年患者的临床症状和语音声学特征差异，将客观指标应用于辅助临床区分不同亚型的青少年患者。

方法 研究对象为江苏省泰州、宜兴和射阳三个地区参与心理健康筛查项目的 11427 名年龄在 10-18 岁的青少年，进行临床量表评估和语音采集。采用 SPSS 26.0 软件进行统计分析，通过对性别、年级和经济发展水平进行卡方检验，检验人口学特征是否存在差异。针对健康组、失眠组、抑郁组和失眠伴抑郁组的样本，使用独立样本 Kruskal-Wallis test（K-W 检验）分析四组间的语音特征差异。

结果 健康组、失眠组、抑郁组和失眠伴抑郁组的样本在人口学特征无显著差异。在症状差异分析中，根据青少年情绪状态-抑郁分量表，健康组与失眠组的抑郁症状分数显著低于抑郁组和失眠伴抑郁组；青少年情绪状态-焦虑分量表，失眠伴抑郁组的焦虑症状分数显著高于健康组、失眠组、抑郁组；青少年情绪状态-压力分量表，健康组与失眠组的抑郁症状分数显著低于抑郁组和失眠伴抑郁组；根据青少年失眠量表，健康组与抑郁组的抑郁症状分数显著低于失眠组和失眠伴抑郁组。在语音差异分析中，共振峰特征、梅尔倒谱系数和有效语音段在健康组中表现最高，失眠组共振峰特征值低于健康组，抑郁组和失眠伴抑郁组共振峰特征值最低；频率特征在健康组中普遍表现最高，在失眠组和失眠伴抑郁组频率特征值低于健康组，在抑郁组中表现最低；时域特征在健康组中普遍表现最高，在失眠组和抑郁组中时域特征低于健康组，在失眠伴抑郁组表现最低。

结论 失眠、抑郁、失眠伴抑郁的不同亚型青少年患者存在临床症状的表现，提示失眠可能是抑郁的初期症状，而语音声学特征中的共振峰、梅尔倒谱系数、有效语音段、频率和时域特征可以作为客观的声学指标进一步区分失眠、抑郁、失眠伴抑郁的不同亚型青少年患者，为青少年失眠和抑郁的早期识别和干预提供了重要的研究证据。

关键字：语音特征；青少年失眠；共振峰；梅尔倒谱系数；频率；时域特征

The Familial Transmission of Suicide and Non-suicidal Self-injury in Different Income Levels in Town

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Objective The familial transmissions of suicide and non-suicidal self-injury were discovered before. However, whether the transmissions could be different in different income levels and the influential factors needs to be discovered. Our study aims to investigate the questions.

Methods Data from 13988 pairs of parents' and children's reports in the town of Chongqing in China were analyzed. The children's age was between 7 to 12 years old. There were six income levels that categorized into < ￥2000, ￥2000-￥3999, ￥4000-￥5999, ￥6000-￥9999, ￥10000-￥19999, >￥20000. The children's depression symptom was measured by the Center for Epidemiological Studies Depression Scale for Children (CES-DC) while the anxiety symptom was measured by the Screen for Child Anxiety Related Emotional Disorders (SCARED).

Results The familial transmission of suicide was significant in all income levels except the highest level while the familial transmission of NSSI was significant in all income levels except the lowest level. Besides, the suicide transmission was significant in female children but not in male children, in fathers with low education level but not with high education level, and when the time spent with father was long but not short in the low-income level. In the low- and high-income levels, the suicide and NSSI transmission occurred mainly in male children, in mothers

with high education and when the time spent with mother was long. Moreover, the suicide and NSSI transmissions were totally or partly through children's depression and anxiety.

Conclusion In the low-income level, the suicide transmission might be influenced more by the lack of materials instead of parents' parenting through children's depression and anxiety. In the high-income level, the suicide and NSSI transmissions were mainly influenced by mothers and for male children partly through children's negative mood. In the medium income level, the suicide and NSSI transmissions were mainly from parents and partly through children's negative mood.

关键字：suicide，non-suicidal self-injury，family，depression，anxiety，children

（组内口头交流）

A Phase 3, Multicenter, Double-blind, Randomized, Placebo-controlled Clinical Trial To Verify The Efficacy and Safety of Ansofaxine (LY03005) for Major Depressive Disorder

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10.Second Hospital of Shanxi Medical University
11.Beijing Anding Hospital of Capital Medical University
12. The Affiliated Brain Hospital of Guangzhou Medical University
13.Shenzhen Kangning Hospital
14.Nanjing Brain Hospital
15.Huzhou Third Municipal Hospital
16.Xi 'an Mental Health Center
17.Hunan Brain Hospital
18.Renmin Hospital of Wuhan University
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Objective Major depressive disorder (MDD) is the most prevalent form of depression and is becoming a great challenge for public health and medical practice. Although first-line antidepressants offer therapeutic benefit, about 35% of depressed patients are not adequately treated, creating a large unmet medical need. The study assessed the efficacy and safety of ansofaxine (LY03005), a potential triple reuptake inhibitor of serotonin, norepinephrine and dopamine, in adults with MDD.

Methods This multicenter, double-blind, randomized, placebo-controlled phase 3 clinical trial was conducted in China and patients with MDD according to the Diagnostic and Statistical Manual of Mental Disorders 5th edition were included. After screening, patients were randomly assigned (1:1:1) to ansofaxine 80 mg/day, ansofaxine 160 mg/day, or placebo groups. The primary efficacy endpoint was the MADRS total score change from baseline to the end of week 8. Safety indexes include adverse events, vital signs, physical examinations, laboratory tests, 12-lead electrocardiograms (ECG) and evaluation of suicide tendency and sexual function. This study was registered at ClinicalTrials.gov (No. NCT04853407).

Results A total of 691 patients were screened from December 2018 to December 2020. Among them, 558 patients were randomized and took the study drug as the following: ansofaxine 80 mg (n = 187), ansofaxine 160 mg (n = 186) and placebo (n = 185). Significant differences were found in mean changes in MADRS total scores at week 8 in the two ansofaxine groups (80 mg, -20.0; 160 mg, -19.9) vs. placebo (-14.6; p <0.0001). All doses of ansofaxine were generally well-tolerated. Treatment-emergent adverse events (TEAEs) were reported by 137 (74.46%) patients in ansofaxine 80 mg group, 144 (78.26%) patients in ansofaxine 160 mg and 125 (67.93%) patients in placebo group. The incidence of treatment-related adverse events (TRAEs) were 59.2% (109 patients, 233 events), 65.22% (120 patients, 296 events) in the 80, 160 mg ansofaxine groups and 45.11% (83 patients, 170 events) in the placebo group.

Conclusion The initial results of this trial indicate that ansofaxine (80, 160 mg per day) were effective and safe in the treatment of adult MDD patients.

关键字： Major depressive disorder, Ansofaxine (LY03005), Triple reuptake inhibitor,Efficacy, Safety

（组内口头交流）

精神专科医院新冠疫情前后医院感染特征比较

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目的 比较新冠疫情前后精神专科医院患者医院感染特征，探究新冠疫情对精神专科医院医院感染发生的影响。

方法 通过医院感染预警系统回顾性调查选取2019年1月1日-2022年12月31日期间北京市某精神专科医院医院感染患者信息，划分2019年医院感染患者为新冠疫情发生前组，2020-2022年医院感染患者为新冠疫情发生后组，应用《医院感染病例调查表》收

集患者信息，比较分析新冠疫情前后精神专科医院患者医院感染发病率及感染特征差异。

结果 共调查出院患者38611例,医院感染951例，其中男性540例，女性411例;2019-2022年各年医院感染率依次为1.71%、3.15%、2.76%、2.35%；男性医院感染率依次为2.31%、4.45%、4.17%、3.33%，女性医院感染率依次为1.29%、2.23%、1.92%、1.69%。各年医院感染率男性高于女性、65岁及以上者高于65岁以下者、住院日＞90天者高于90天以下者（P＜0.05）；2019年的年度医院感染率、≤18岁及18-65岁组患者医院感染率、住院日＜30天及30-60天组患者医院感染率低于2020-2022年各年（P＜0.05），2022年的年度医院感染率、18-65岁组及≥65岁组、住院日＜30天组的患者医院感染率低于2020年（P＜0.05）。

结论 精神专科医院受建筑布局、患者特点、管理方式影响，在突发传染病疫情防控中存在短板与局限性，新冠疫情后医院感染率高于疫情前。强化疫情防控及医院感染控制措施对精神专科医院院感防控有积极作用，疫情后第三年医院感染率低于疫情后第一年。男性、高龄及住院日长是医院感染率发生的高危因素，在院感防控中应多加关注。

关键字：精神专科医院；医院感染；新冠疫情；特征比较

（组内口头交流）

新冠疫情解封后不同学习阶段学生的心理健康现状及其影响因素的研究

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目的 本研究旨在探索新冠疫情限制解除后，青少年和青年学生的心理健康状况（如抑郁、焦虑、创伤后应激障碍（PTSD）、失眠）及其影响因素。

方法 于2022年12月14日-2023年2月28日在四川省162所学校(初中、高中和大学)的90118名学生中实施调查，主要采用“问卷星”的方式进行线上问卷自评。包括三部分，第一部分包括基本信息、与疫情相关的信息等；第二部分包括心理健康相关问卷，如患者健康问卷(PHQ-9)、广泛性焦虑量表(GAD-7)、DSM-5创伤后应激障碍量表（PCL-5）、失眠严重程度指数（ISI）和社会支持量表（SSRS）；第三部分包括不良行为相关问卷，如网络成瘾量表（IAT）、自杀行为、校园欺凌行为以及网络欺凌行为问卷等。参与者分为三组:初中生组、高中生组和大学生组。首先使用方差分析对三组的人口资料和量表资料进行比较分析。其次，将人口资料、分组及上述除PHQ-9及GAD-7以外的所有量表资料作为自变量，分别以是否存在抑郁症状（PHQ-9≥5：存在抑郁症状），是否存在焦虑症状（GAD-7≥5：存在焦虑症状）为因变量，分析三组参与者患抑郁或焦虑的风险。最后，使用二元逻辑回归分别对三组的抑郁症状和焦虑症状进行了危险因素分析。

结果 三组学生抑郁症状、焦虑症状和PTSD的患病率仍然较高，均与疫情封控时相当。三组中，高中组学生出现抑郁症状、焦虑症状、PTSD、失眠和自杀观念（终身）的比率最高。与初中组学生相比，高中组学生出现抑郁症状的概率增加了79.8%，大学组学生增加了45.5%；高中组学生出现焦虑症状的概率增加了76.7%，大学组学生增加了39.5%。对于所有学生，抑郁和焦虑症状增加的危险因素包括：学业成绩不理想、自杀观念（终身）、有精神障碍史、以及较高得分的IAT、ISI、网络欺凌行为量表和校园欺凌行为量表，而较高水平的社会支持则降低抑郁和焦虑症状的风险。此外，三组学生还分别存在特殊、不同的影响抑郁和焦虑症状的因素。

结论 新冠疫情解封后，不同学习阶段的学生仍然存在不可忽视的心理健康问题。政府卫生健康部门、教育部门以及学校应特别、长期关注青少年和青年学生，特别是高中生的心理健康。应综合考虑不同学习阶段学生的心理健康状况的特点，以及心理健康相同和不同的影响因素，制定和发展有针对性的健康政策和社会心理服务干预措施。

关键字：新冠解封；学生；心理健康

（组内口头交流）

Effect of Targeted Memory Reactivation During Sleep on Memory Performance in Old Adults

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Objective The cognitive ability of the elderly declines at different speeds with aging, among which the hippocampus-dependent memory decline is the most significant. Improving the memory performance of the elderly is the key to promote their quality of life. This study intends to detect the memory performance of the elderly by giving them auditory cues exposure during non-rapid eye movement stage 2 sleep.

Methods We recruited healthy subjects aged between 55 and 75 years in our study. During the learning stage, subjects need to learn two different kinds of pictures, one of which is directly associated with auditory cues and the other is indirectly associated with auditory cues. Subjects in sleep group were arranged to take a nap, and the auditory cues were given when polysomnography showed that they were entered the non-rapid eye movement stage 2 sleep; in the meantime, the subjects in wake group stayed awake and were given the same auditory cues. All of the subjects were told to remain awake after the intervention completed, followed by the recognition test of the pictures directly and indirectly associated with the auditory cues. The recognition level of pictures directly and indirectly associated with auditory cues was evaluated by the relative accuracy index.

Results Exposure to auditory cues during non-rapid eye movement stage 2 sleep could improve the relative accuracy index for recognition of pictures indirectly associated with auditory cues in sleep group. However, there was no significant improvement in the relative accuracy index

for recognition of pictures directly associated with auditory cues. In addition, auditory cues exposure during sleep increased power spectrum and power spectral density of slow wave oscillation and fast spindle in frontal region and central region.

Conclusion This study mainly found that auditory cues exposure during non-rapid eye movement stage 2 sleep can improve the memory performance of the elderly, which may be related to the increase of the power spectrum of slow wave oscillation and fast spindle wave in the elderly during the sleep.

关键字：sleep, cue exposure, old adults, memory

（组内口头交流）

Mental Health Literacy of Urban and Rural Residents in Guangdong Province

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Objective ：Mental health literacy refers to people's ability to use a combination of mental health knowledge, skills, and attitudes to maintain and promote mental health. A high level of mental health literacy helps identify mental illness early, reduces stigma, and provides effective support and treatment, thereby improving the mental health of individuals and the public.As the largest economic province in China, Guangdong province is not yet aware of the level of mental health literacy of its residents. Therefore, the aim of this study is to assess the level of mental health literacy of urban and rural residents in Guangdong province and its related influencing factors.

Methods ：Stratified multi-stage random sampling method was used to select 51774 urban and rural permanent residents aged 18 years and above，and the National Mental Health Literacy Questionnaire(NMHLQ)was used to conduct household survey.The NMHLQ included knowledge judgment,self-assessment and case study．The total score of knowledge judgment≥80 points，the total score of self-assessment≥24 points，and the total score of cases ≥28 points were considered to be the standard of mental health literacy.Descriptive statistics were estimated using the Complex Samples Package for the composition ratios, means, and prevalence of the population with different characteristics. The distribution of different sociodemographic characteristics of the study population and the comparison of the prevalence of chronic diseases were determined using the Rao-Scott $\chi 2$ test.

Results :The mental health literacy attainment rate of urban residents in Guangdong Province is 13.6%, and that of rural areas is 8.6%.Urban residents scored higher than rural areas in mental health knowledge, mental health awareness, mental illness recognition, and overcoming stigma, while they scored lower in positive mindset, access to mental health knowledge, and attitude toward seeking help from psychological professionals were lower than those in rural areas.Logistic regression analysis showed that women, brain workers, years of education >12, high income, regular diet, non-smoking and non-drinking were protective factors for mental health literacy.

Conclusion :The mental health literacy level of urban and rural residents in Guangdong Province is low, and its mental health literacy level is closely related to the existence of demographic characteristics and living habits.

关键字：ental health literacy；urban and rural residents；cross-sectional studies

（组内口头交流）

The Effect of Systematic Couple Group Therapy on Families with Depressed Juveniles: A Polit Trial

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Objective To explore the short-term efficacy of 5-week systemic couples group therapy on families with children and adolescents diagnosed with depression.

Methods Twelve families with children and adolescents diagnosed with depressive disorder and parents with a communication problem and current dyadic adjustment score (DAS) below 95 were enrolled. Before and after the treatment, the indicators of parental communication are measured by Conflict and Problem-solving Scale (CPS), Communication Pattern Questionnaire (CPQ), The Primary Communication Inventory (PCI) and communication frequency scale. Dyadic Adjustment Scale (DAS) and Quality of Marriage Index (QMI) are used to measure marital quality. Children Perceived Inter-Parental Conflict (CPIC) and Children's Depression Inventory (CDI) are used to measure their perceived parental conflicts and depression symptoms.

Results For parents, there is significant improvement in overall communication satisfaction and constructive communication indicators (including mutual constructive communication pattern and cooperative communication strategy). It also shows significantly lower mean scores for destructive communication indicators (including demand-avoidance communication pattern and mutual avoidance communication pattern; destructive communication strategies including verbal aggression, physical aggression, child involvement, stalemate and avoidance-capitulation, etc.). The frequency of communication between couples was significantly increased. The subjective marital satisfaction and marital adjustment of couples were significantly improved. For the children and adolescents, they perceive significantly lower conflict intensity, lower conflict frequency and higher conflict resolution degree from the parents. Their coping efficacy was also significantly increased. The improvement of children's depression symptoms was significantly positively correlated with the improvement of parents' communication quality and marriage quality. Although the depression scores of the children show a declining trend (from 29.58±11.62 before treatment to 25.17±14.64 after treatment），no significant improvement was detected.

Conclusion Systemic couples group therapy shows

positive effects on families with children and adolescents diagnosed with depression. After the treatment, parental communication and marital quality are significantly improved. Children and adolescents perceive significantly lower levels of parental conflicts. The greater the improvement of parents' communication quality and marital quality, the greater the alleviation of children's depression symptoms. While there is a declining trend in children and adolescents' depressive symptoms, no significant improvement is detected.

关键字：depression; children and adolescents; group couple therapy; marital conflicts

（组内口头交流）

基于潜类别分析的学业目标及归因风格对心理健康影响研究

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目的 学业在大学生生活中占有重要地位，不同的学业目标和归因风格与情绪变化密切相关。本研究的目标是基于学业目标和归因风格确定高校学生学业相关亚型，探讨不同亚型学生的心理健康、学业成绩间的差异。此外，本研究还将基于不同的学业相关亚型识别心理问题高危亚型及学业成绩对不同亚型的心理健康的中介调节模式。

方法 2022 年 9 月（T1）至 2023 年 3 月（T2）进行为期 6 个月的纵向研究，4907 名来自同一所高校的新生完成 2 次心理健康评估。在首次评估阶段完成成就目标定向量表与多维多向归因量表，并进行潜在类别分析。此外，本研究还收集了新生第一学期学业成绩。使用单因素方差分析比较不同亚型学生抑郁、焦虑、失眠和压力差异。使用二元逻辑回归比较不同亚型学生随学业增长其抑郁、焦虑、失眠和压力症状加重的风险。使用单因素方差分析对不同亚型学生学业成绩进行比较，并采用中介分析探究学业成绩在学生亚型的抑郁、焦虑、失眠和压力增长中的调节作用。

结果 本研究提取三组不同的学业相关亚型，即低学业目标型（n=282）、高学业目标自我实现型（n=2695）和高学业目标他人标准型（n=1930）。在新生入学时(T1)和第一学期结束后(T2)，高学业目标他人标准型学生在抑郁、焦虑、失眠和压力症状高于其他两组亚型。低学业目标型成绩低于其他两组亚型，高学业目标两组间成绩则无差异。随着学业的增加，高学业目标他人标准型与高学业目标自我实现型学生相比，更易出现抑郁（OR 1.72，95%CI 1.35-2.19）、焦虑（OR 2.33，95%CI 1.78-3.04）、失眠（OR 2.21，95%CI 1.29-2.35）、异常压力（OR 1.74，95%CI 1.68-2.92）。高学业目标他人标准型与低学业目标型的学生相比，更易存在焦虑（OR 2.08，95%CI 1.10-2.96）、异常压力（OR 2.61，95%CI 1.32-5.16）。学业成绩在高学业目标两组学生产生心理问题的过程中其部分或完全中介作用。

结论 持有高学业目标依赖于通过他人的标准来展示自己能力的学生，即高学业目标他人标准型，尽管在学业成绩上较优秀，但随学年增加和学业加重，其也越容易出现心理问题。并且，良好的学业成绩并没有改善心理健康问题的出现。高校新生可通过早期的心理健康教育树立更加完善的学业价值观，用以预防心理健康问题发生发展。

关键字：学业目标；成就归因；心理健康；潜在类别

（组内口头交流）

公共卫生事件下大规模集会医疗保障人员心理干预研究

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目的 了解北京冬奥会期间医疗保障人员的心理健康状况，从人口学特征、社会支持和应对方式等方面探究心理健康的影响因素。针对焦虑、抑郁等症状对处于“红码区”的人员给予积极心理学方法的干预，探究这种干预方法的疗效。

方法 第一部分：采用方便抽样的方法于 2022 年 2 月-2022 年 3 月，选取参加北京冬奥会医疗保障的人员共 300 名，其中“红码区”人员 150 人，“绿码区”人员 150 人。通过“问卷星”在线发放心理健康测评工具，包含人口学变量、7 项广泛性焦虑障碍量表、9 条目患者健康问卷、领悟社会支持量表和简易应对方式量表，对 300 名医疗保障人员进行心理健康状况调查，以抑郁症状、焦虑症状等阳性检出率作为结局指标，采用线性回归分析探究影响心理健康的因素。 第二部分：依据积极心理学理论，建立三级心理干预模型，一级干预：全员预防性干预。二级干预为焦虑和/或抑郁评分在中度以上的医疗保障人员进行的干预。三级干预是为那些有更严重心理健康问题的人启动应急反应机制，将人员转介至精神卫生专业人员诊断和治疗。采用三级干预模型，对处于“红码区”的 150 名人员根据心理健康状况调查进行相应的心理干预，4 周后对这些人员再次进行心理健康评估，评估内容同干预前。运用配对样本 T 检验、重复测量方差分析和卡方检验等统计学方法分析，探究积极心理学干预的疗效。

结果 第一部分研究共纳入 300 名受试者，总体阳性检出率分别为：检出焦虑症状共 177 人，检出率 59%；检出有抑郁症状共 210 人，检出率 70%；采取消极应对方式共 65 人，检出率 21.7%。线性回归分析显示：性别、日工作时长、是否接诊阳性病例、社会支持、积极应对方式和消极应对方式为焦虑的影响因素；学历、日工作时长、是否接诊阳性病例、社会支持、积极应对方式和消极应对方式为抑郁的影响因素。第二部分研究结果显示，干预后 GAD-7、PHQ-9 和消极应对总分均有明显降低（p 均<0.01；Cohen's d 值分别为 1.93、2.31、1.73），干预后积极应对得分有所上升（p<0.01，Cohen's d 值=-1.46）。

结论 在参加北京冬奥会医疗保障的人员普遍存在一定的心理健康困扰，主要表现为抑郁情绪、焦虑情绪。性别、学历、是否接诊阳性病例、每日工作时长、

社会支持、积极应对和消极应对为抑郁情绪、焦虑情绪的影响因素。积极心理学干预能显著改善焦虑、抑郁情绪，提升积极应对水平。

关键字：公共卫生事件，大规模集会，医疗保障，心理干预，北京冬奥会

物质依赖学组

Common Structural Signature Alterations in Chronic Ketamine Users and Chronic Methamphetamine Users

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Objective Altered cortical thickness in chronic ketamine users and chronic methamphetamine users have been found, respectively. However, the core vulnerabilities cross substance use disorders remain unknown. The current study aimed to detect if chronic ketamine users and chronic methamphetamine users shared similar impaired in brain structural properties and if the shared structural signatures can classify cross two substance use disorders.

Methods T1-weighted magnetic resonance imaging (MRI) data from 99 chronic ketamine users, 139 chronic methamphetamine users and 105 health control were analyzed by using FreeSurfer software. A general linear model was applied to compared cortical thickness, surface area and subcortical volume between different substance use disorders and health control, respectively. Machine learning algorithms based on co-varying brain regions were used to identify addiction disorders from healthy control.

Results We found that chronic ketamine users showed widely reduced cortical thickness compared with healthy control, while chronic methamphetamine users also exhibited widely reduced brain cortical thickness. In total, chronic ketamine users and chronic methamphetamine users shared similar pattern in cortical thickness, surface area and subcortical volume. Based on co-vary abnormal brain cortical thickness, the support vector machine model using structural features of one addiction disorder can classify the other disorder with the accuracy for identifying chronic ketamine users of 74.23% and the accuracy for identifying chronic methamphetamine users of 71.94%.

Conclusion Our results show substantial similarities in sMRI phenotypes between two substance use disorders and suggest that the cortical in co-varying brain regions are a transdiagnostic neuroimaging biomarkers to predict addiction abusers.

关键字：Addiction, Ketamine, Methamphetamine, Machine Learning, Transdiagnostic

Causal Relationship between Substance Use and Insomnia: A Bidirectional Mendelian Randomization Study

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Objective : Insomnia is a significant factor that affects both physical and mental health and may increase the risk of various mental disorders, causing a considerable

burden on mental health. Substance use, particularly tobacco and alcohol use, is a significant health issue affecting the Chinese population. Previous studies have suggested a correlation between substance use, such as tobacco and alcohol, and the occurrence of insomnia, and insomnia may further aggravate substance use problems. However, the causal relationship between the two is still unclear. This study aimed to use a bidirectional Mendelian randomization approach to explore the causal relationship between substance use and insomnia.

Methods The Mendelian randomization (MR) method used genome-wide association study (GWAS) summary data to study the causal relationship between exposure and outcome. Bidirectional MR tested the bidirectional effects of the two factors and determined the bidirectional causal relationship between the two factors. This study used GWAS data on alcohol addiction (N = 6514), weekly alcohol consumption (N = 335394), smoking initiation (N = 607291), daily smoking quantity (N = 249752), and two insomnia traits (N = 462341; N = 336965) to conduct bidirectional MR analysis and confirmed the robustness of the analysis using sensitivity analysis.

Results The bidirectional MR results indicated that weekly alcohol consumption (IVW: P = 0.017, b = 0.063; Weighted median: P = 0.025, b = 0.048) and smoking initiation (IVW: P = 0.008, b = 0.036; Weighted median: P = 0.04, b = 0.023) had promoting effects on insomnia. However, although IVW suggested that insomnia had an effect on alcohol addiction (P = 0.036) and daily smoking quantity (P = 0.016), sensitivity analysis using methods such as Weighted median and Weighted mode did not support this.

Conclusions This study, through bidirectional MR analysis, found that tobacco use and alcohol consumption have a promoting effect on insomnia, which is consistent with previous reports. However, this study's results do not support the speculation that insomnia itself promotes alcohol and tobacco use. Insomnia caused by alcohol and tobacco use may be related to the neural excitability and awakening function abnormalities caused by substance use, and patients with insomnia may be less likely to seek relief through tobacco and alcohol. This study reveals the potential causal relationship between substance use and insomnia through Mendelian randomization analysis based on large-scale GWAS data, providing new evidence for clinical diagnosis and treatment. Future large-scale cohort studies are needed to further explore the causal relationship between substance use and insomnia.

关键字：Mendelian randomization; tobacco use; alcohol use; insomnia

下丘脑室旁核及其脑区微环路在可卡因诱导的条件性味觉厌恶中的作用

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目的 药物成瘾是一种危害严重的脑疾病，目前药物成瘾的研究多集中于成瘾性药物奖赏效应所形成的关联性记忆，对其产生的厌恶性关联记忆如条件性味觉厌恶（CTA）等的关注较少，关于参与药物成瘾厌恶性记忆的脑区及其神经机制尚不清楚。因此，本研究旨在探索可卡因厌恶性记忆产生的机制，为进一步理解药物成瘾记忆形成的机制提供理论基础。

方法 （1）动物禁水 24 h 后进行 7 天的饮水适应期，第 8 天给予动物新颖味觉溶液 30 min，并在 30 min 后腹腔注射可卡因（30 mg/kg）或对照溶剂（1 ml/kg），第 9 天恢复饮水 30 min，第 10 天进行 CTA 测试；（2）免疫荧光染色检测可卡因 CTA 形成过程中各脑区 Fos 蛋白表达及其在目标脑区内与特异神经元类型标志物的共标情况；（3）全细胞膜片钳技术检测可卡因 CTA 形成后，目标脑区中特异神经元类型的突触传递变化；（4）化学遗传学和光遗传学手段对目标脑区及其特异神经元类型的活性进行调控。

结果 （1）多种新颖味觉与可卡因的关联均可引起不同种属动物对该味觉溶液产生厌恶反应，且单次关联即可引起动物饮用量的显著降低；（2）可卡因引起小鼠多个脑区内 Fos 蛋白表达增加，但下丘脑室旁核（PVN）内 Fos 蛋白表达在 CTA 关联后进一步增多，使用化学遗传学抑制或激活 PVN 脑活性均可阻止小鼠 CTA 的形成。此外，特异性标记并激活 PVN 印迹神经元也可诱导出小鼠的味觉厌恶；（3）CTA 关联可引起小鼠 PVN 脑区的 Fos+神经元与促肾上腺皮质激素释放因子（CRF）神经元的共标率增加，同时引起 Fos+神经元与催产素（OXT）神经元共标率下降。可卡因 CTA 形成后，PVN CRF 神经元的自发型兴奋性突触后电流（sEPSC）和自发型抑制性突触后电流（sIPSC）均没有变化，而 PVN OXT 神经元 sEPSC 的频率下降，其 sEPSC 的振幅及 sIPSC 则没有改变；（4）化学遗传学或光遗传学手段激活 PVN OXT 神经元可抑制小鼠 CTA 的形成，化学遗传学抑制其活性则可增强可卡因 CTA；（5）化学遗传学手段抑制 PVN CRF 神经元也可阻止小鼠 CTA 的形成，而化学遗传学或光遗传学激活 PVN CRF 神经元则对可卡因 CTA 没有影响。

结论 本研究探讨了 PVN 脑区及其不同神经元类型参与可卡因 CTA 形成的机制，为理解药物成瘾记忆提供了新的视角和神经生物学基础。

关键字：可卡因，条件性味觉厌恶，成瘾记忆，记忆形成，下丘脑室旁核

A Joint Study of Whole Exome Sequencing and Functional MRI Analysis in Methamphetamine Use Disorder

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Objective Methamphetamine use disorder (MUD) is a worldwide public mental problem influenced by both environmental and genetic factors. Genetic studies of MUD have focused on common variants and have been

constrained by the heterogeneity of clinical symptoms.

Methods We sequenced the exome of 91 cases and 51 controls of Han Chinese ancestry and scanned their brain. Burden tests of rare variants were performed first to explore the association between genes/pathways and MUD. Secondly, parallel Independent Component Analysis was conducted to investigate genetic underpinnings of brain function changes of MUD.

Results One gene (SPATA21, p=8.66×10-3) and four pathways (ABC-type xenobiotic transporter activity, p=1.14×10-4; methyltransferase complex, p=1.78×10-5; histone methyltransferase complex, p=3.48×10-5; ABC transporters, p=1.76×10-4) achieved significance separately in burden test and GO/KEGG pathway analysis. In addition, we identified one pair of imaging-genetic components of significant correlation (r = -0.525, p<0.001). The genetic component enriched in four pathways, namely dynein intermediate chain binding (p=7.90×10-4), dynein light intermediate chain binding (p=3.69×10-4), minus-end-directed microtubule motor activity (p=2.06×10-4), and axonemal dynein complex (p=3.18×10-4). Changes of brain function mediated the effects of genetic variants on MUD in cases.

Conclusion Both rare variants analysis and imaging-genetic analysis found evidence corresponding with the adverse neural development and defective synaptic plasticity hypotheses of MUD. The mediation of brain functional changes indicates that genetic component may act on MUD through changing brain activity.

关键字：Methamphetamine use disorder; functional magnetic resonance imaging; whole exon sequencing; rare variants

Neural Mechanism Underlying Altered Activity in The Anterior Cingulate Cortex During Methamphetamine Cue-Induced Reinstatement

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Objective To reveal the precise role of anterior cingulate cortex (ACC) in methamphetamine cue-induced reinstatement and its circuitry mechanism in regulating relapse-related behaviors.

Methods Adult male Sprague-Dawley rats were trained using a fixed-ratio schedule to establish stable methamphetamine (METH) self-administration behavior. After two weeks of home-cage abstinence, brains were harvested following extinction or cue-induced reinstatement sessions. c-Fos immunoreactivity were measured among multiple brain regions. We tested the effects of inhibitory (hM4Di) and excitatory (hM3Dq) designer receptors exclusively activated by designer drugs (DREADDs) in ACC on METH self-administration and different forms of reinstatement tests. We also investigated the effect of ACC pyramidal neurons modulation on METH-induced cognitive impairment using a novel-object recognition task. Fluoro-Gold based retrograde tracing was employed to identify potential upstream nuclei involved in ACC regulation.

Results Compared to the control group without cues, subjects exposed to conditioned cues exhibited significantly higher levels of c-Fos immunoreactivity in the anterior cingulate cortex (ACC), prelimbic cortex, infralimbic cortex, claustrum, and basal lateral amygdala. Notably, both the claustrum and ACC neurons consistently demonstrated activation during METH self-administration and cue-induced reinstatement sessions. Chemogenetic activation of ACC pyramidal neurons enhanced cue-induced drug seeking, while inhibition of the ACC mitigated cognitive impairments during METH withdrawal. Furthermore, the increased expression of c-Fos in the ACC-projecting claustrum neurons suggests their involvement in regulating METH cue-induced reinstatement.

Conclusion The ACC plays a crucial role in METH relapse-related behaviors, as its activation promotes cue-induced reinstatement, while inhibiting the ACC alleviates cognitive impairments during withdrawal. The claustrum may be involved in regulating the ACC excitability to modulate METH reward and cue-induced reinstatement.

关键字：methamphetamine, anterior cingulate cortex, cue-induced reinstatement, relapse

Age of Onset Affects Recurrence of Alcohol Use Disorder: A 7-year Retrospective Cohort Study

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Objective The role of age of onset in the development of alcohol use disorders remains unclear. We thus retrospectively investigated a large-scale cohort to explore the effect of age of onset on the course of alcohol use disorders.

Methods In this study, a total of 14,357 inpatients with alcohol use disorders were recruited over a 7-year time span, and after applying rigorous data criteria, 2,176 inpatients were ultimately included in the statistical analysis. Patients were divided into three age subgroups according to their age of onset, which were early adult onset(EAO), middle adult onset(MAO) and late adult onset(LAO).

Results The proportion of recurrence was statistically different in the subgroups with different age of onset (X2=9.819, df=3, P=0.007), the Bonferroni post hoc test suggested a higher proportion of recurrence in the EAO than that in the MAO subgroup (66.1% vs 59.5%, P<0.05).

We then performed a Binary logistic regression. Taking patients in the EAO subgroup as a reference, patients with MAO had a lower risk of recurrence (OR=0.75, 95%CI=0.63-0.90, P=0.002), however, the risk of recurrence in the LAO subgroup was not statistically different from the EAO (OR=0.78, 95%CI=0.54-1.11, P=0.17). Subsequently, a survival analysis for recurrence within one year was performed. There were statistically differences in Kaplan-Meier method estimates of the probability of disease-free survival (DFS) at day 365 between the three age of onset subgroups (33.9%, 40.5%, 39.7%, respectively; P=0.03). Specifically, post hoc tests suggested that DFS was lower in the EAO subgroup than in the other two groups (median DFS=197, 95%CI=172.10-221.90, P=0.012). Finally, we follow-up all patients for 5 years for cerebral atrophy onset, and the results suggest that the incidence of cerebral atrophy during the follow-up period was lower in the EAO subgroup than that in the other two subgroups (OR=1.42, 95%CI=1.19-1.70, P<0.001; OR=1.62, 95%CI=1.14-2.31, P=0.007, respectively), but this difference was no longer statistically significant after controlling for the age factor (both P>0.05).

Conclusion This is the first large sample size study to explore the influence of age of onset on alcohol use disorders in a Chinese population. Our study found that alcohol use disorders with onset in early adult are associated with more recurrences. These findings will help explore risk factors for alcohol use disorders and provide preliminary evidence for clinical development of prevention strategies.

关键字：Alcohol use disorders; age of onset; recurrence; cerebral atrophy; early-adult onset

丘脑前内侧核到基底外侧杏仁核的神经投射在尼古丁成瘾中的作用

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目的 药物成瘾是一种反复发作的慢性脑病，主要表现为对成瘾药物的精神依赖。尼古丁作为烟草依赖最相关的成分，主要通过激活大脑自然奖赏系统中的烟碱乙酰胆碱系统，启动其奖赏效应。既往研究表明，基底外侧杏仁核（BLA）与丘脑前核参与调控记忆、认知、成瘾行为。然而，丘脑前核的亚区之一丘脑前内侧核（IAM）是否与基底外侧杏仁核之间存在神经投射，这一神经投射是否参与尼古丁成瘾行为及其具体机制，尚未有研究报道。本研究采用大鼠条件位置偏好模型（conditioned place preference, CPP），探究丘脑前内侧核至基底外侧杏仁核的神经投射是否参与调节尼古丁成瘾行为及其环路机制。

方法 采用无偏倚设计和三室训练箱构建尼古丁 CPP 模型，在进行尼古丁训练和消退后给予应激或低剂量尼古丁进行点燃。通过大鼠脑立体定位注射技术，在大鼠基底外侧杏仁核双边注射逆行示踪病毒，确认丘脑前内侧核到基底外侧杏仁核的神经投射。在大鼠基底外侧杏仁核双边注射逆行示踪病毒，结合免疫荧光染色检测尼古丁 CPP 点燃时各脑区 cFos 表达及其在目标脑区内与相关病毒表达的共标情况。运用光遗传学技术调控 IAM→BLA 神经投射并观察其对大鼠尼古丁成瘾行为的影响。

结果 确认 IAM 和 BLA 脑区之间存在投射；利用光遗传学技术抑制 IAM→BLA 神经投射发现大鼠尼古丁 CPP 点燃时的 CPP 得分明显上升，即对 IAM→BLA 投射的抑制能促进低剂量尼古丁诱导的雄性大鼠的点燃；相对的用光遗传激活 IAM→BLA 神经投射则可以抑制低剂量尼古丁诱导的雄性大鼠的点燃。

结论 光遗传学调控 IAM→BLA 神经投射可双向调节药物诱导的尼古丁 CPP 点燃，说明该神经环路可能在尼古丁成瘾及复吸中发挥重要作用。

关键字：丘脑前内侧核；基底外侧杏仁核；尼古丁点燃；条件位置偏好

（组内口头交流）

海洛因稳定戒断者的执行功能和前瞻记忆状况—基于眼动追踪和 E-Prime 任务的研究

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目的 美沙酮替代治疗后，海洛因使用障碍（Heroin Use Disorder, HUD）患者的复吸率仍然很高，对医疗护理工作带来了重大挑战。成瘾所致认知控制缺陷是 HUD 患者复吸的重要内因并且可能长期表现。对此，本研究旨在探究长期戒断后，海洛因稳定戒断者的执行功能和前瞻记忆等相关认知控制表现。

方法 这项病例对照研究纳入了 63 名接受美沙酮维持治疗一年以上的戒断后稳定期 HUD 患者，以及基线资料相匹配的 31 名健康对照组。其中 HUD 患者根据既往是否海洛因复吸划分为复吸组（n＝41）和非复吸组（n = 22）。对于各组执行功能的评估，主要包括执行功能量表和眼动追踪任务；对于前瞻记忆的评估，使用前瞻回溯记忆量表以及基于 E-Prime 的前瞻记忆任务。

结果 （1）海洛因复吸组在执行功能量表各因子及总分、反向眼跳幅度、反向眼跳速度表现上显著差于非复吸组及健康对照组（P＜0.05），而非复吸组与健康对照组差异无统计学意义（P＞0.05）；（2）海洛因复吸组与非复吸组在眼跳错误率上显著高于健康对照组（P ＜ 0.05）；（3）海洛因复吸组与非复吸组在前瞻记忆量表得分以及前瞻记忆任务上与健康对照组差异无统计学意义（P＞0.05）；（4）相关分析结果显示，反向眼跳幅度和速度得分与执行功能得分呈负相关（r＜0，P＜0.05）；（5）逐步回归分析结果显示，以反向眼跳幅度和速度作为因变量，执行功能的转换与自我监控因子进入回归方程；（6）受试者工作特征（Receiver Operating Characteristic，ROC）曲线结果显示，对于 HUD 患者复吸筛查，眼动追踪任务显示较高的敏感性，而执行功能量表显示较高的特异性。

结论 （1）在戒断后稳定期， HUD 患者中仍然存在执行功能损害和较高的眼跳错误率，但前瞻记忆没有表现出显著损害；（2）反向眼跳幅度和速度对于 HUD 患者的复吸倾向表现出较高的筛查价值，执行功能的转换与自我监控能力可能是其重要影响因素；（3）对 HUD 患者开展执行功能评估并结合反向眼跳幅度和速度，显示了较高的筛查特异性和敏感度，有望成为识别 HUD 患者早期复吸倾向新的筛查指标。

关键字：海洛因；复吸；稳定戒断者；执行功能；前瞻记忆；眼动追踪

（组内口头交流）

乳酸及胶质细胞—神经元间乳酸转运在可卡因潜伏心理渴求中的作用及机制

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目的 药物成瘾是一种慢性复发性脑疾病，其最为核心且难以解决的问题是戒断后存在的潜伏心理渴求及由此导致的复吸行为。乳酸参与了长期记忆的形成及奖赏记忆的再巩固，但其是否参与药物相关线索诱导的潜伏心理渴求尚不明确。本研究旨在探讨中央杏仁核（CeA）中乳酸及胶质细胞与神经元之间的乳酸转运在可卡因潜伏心理渴求中的作用及其机制，以期为降低戒断后心理渴求和临床防复吸治疗方法的探索提供新的理论依据。

方法 （1）大鼠经历可卡因自身给药训练后，于戒断第 1 天或第 30 天测试前在 CeA 注射糖原磷酸化抑制剂（DAB），观察对潜伏心理渴求的影响。（2）利用膜片钳技术探究 DAB 灌注后 CeA 中神经元自发兴奋性突触后电流（sEPSC）的变化。（3）给药前在 CeA 注射乳酸，观察能否恢复潜伏心理渴求，并采用蛋白免疫印迹分析（WB）检测突触可塑性相关蛋白的变化。（4）采用 WB 检测戒断第 1 天和第 30 天乳酸转运体（MCT1/2/4）在 CeA 中表达水平的变化。（5）于可卡因戒断后第 1 或 30 天在 CeA 注射 MCT2-ODN 或戒断后第 3 天给予 AAV-hSyn-shMCT2RNA 以敲降 MCT2，观察对潜伏心理渴求、GluA1/2/3 蛋白水平以及 CeA 神经元 sEPSC 的影响。（6）于可卡因戒断后第 1 或 30 天在 CeA 注射 MCT4-ODN 或戒断后第 3 天给予 AAV-GFaABC1D-shMCT4RNA 以敲降 MCT4，观察对上述指标的影响。（7）第 30 天给予 MCT2-ODN 或 MCT4-ODN 前注射乳酸，观察能否恢复潜伏心理渴求。

结果 （1）戒断第 1 天或第 30 天 CeA 注射 DAB 可显著降低戒断第 30 天时可卡因相关线索诱导的渴求。（2）对戒断第 30 天大鼠的脑片进行 DAB 灌注后，CeA 脑区中 sEPSC 的频率显著降低，幅度无明显改变。（3）提前给予乳酸可恢复被 DAB 破坏的潜伏心理渴求以及突触可塑性相关蛋白的表达。（4）和戒断第 1 天相比，CeA 中 MCT2 和 MCT4 在可卡因戒断第 30 天时的表达增加。（5）敲降 MCT2 或 MCT4 均可抑制潜伏心理渴求，降低戒断第 30 天 CeA 中 GluA1/2/3 的水平及神经元 sEPSC 的频率。

结论 本研究发现了乳酸以及胶质细胞与神经元之间的乳酸转运在可卡因潜伏心理渴求过程中的重要作用，抑制中央杏仁核中的乳酸生成及乳酸转运能降低戒断期可卡因相关线索诱导的心理渴求，为治疗药物成瘾和预防复吸提供新的研究方向。

关键字：乳酸，乳酸转运，中央杏仁核，潜伏心理渴求，可卡因

（组内口头交流）

Amygdala Astrocytes Modulate The Erasure of Drug Addiction Memory

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Objective Addictive substances, as unconditioned stimuli, induce changes in brain circuits associated with reward, cognition, and emotional states, potentially integrating into the memory system to form pathological addictive memories. In clinical practice, memory extinction is commonly employed to suppress addictive memories. However, their efficacy is limited. Recent studies have shown that astrocytes, in addition to their supportive and nutritive roles for neurons, also play a crucial role in synaptic plasticity, suggesting their potential involvement in addictive memory. Therefore, this study aims to elucidate the role of astrocytes in the extinction of drug addiction memory and investigate the underlying neurobiological mechanisms.

Methods The self-administration of cocaine was used as an animal model for addictive memory. A combination of techniques, including immunoblotting, immunofluorescence, brain slice patch-clamp recordings, and Golgi staining, were employed to explore the role of astrocytes and synaptic plasticity mechanisms in the extinction of addictive memory.

Results (1) In the drug-priming test following self-administration extinction training, the intensity of cocaine craving in rats was associated with co-labeling of astrocytes in the basolateral amygdala (BLA) region with addictive engram. (2) Chemogenetic inhibition of astrocyte activity combined with extinction training effectively facilitated the elimination of cocaine addiction memory and reduced psychological craving. Electrophysiological results showed a significant increase in the AMPA/NMDA ratio, and Golgi staining revealed a significant increase in mushroom-like dendritic spines in the BLA region during this process. Conversely, chemogenetic activation of astrocyte activity produced opposite effects, suggesting that astrocyte activity influences synaptic plasticity during the erasure of addictive memory. (3) Further western blot analysis revealed a significant increase in microtubule stability in the BLA region of rats with effectively inhibited drug addiction memory, indicating the involvement of microtubule proteins in the erasure of addictive memory. (4) Single-cell sequencing analysis of rats with different levels of cocaine craving demonstrated that astrocytes in the BLA region were associated with addictive relapse behaviors

and microtubule protein stability. (5) Enhancing microtubule protein stability with the drug EPOB, in combination with extinction training, increased the number of mushroom-like dendritic spines in the BLA region, accompanied by a significant increase in the AMPA/NMDA ratio. (6) Further investigation revealed the reversible effect of astrocyte activation on the extinction of addictive memory following the increased microtubule protein stability induced by EPOB.

Conclusion This study demonstrates that intervening in astrocyte activity, in combination with extinction training, may promote the erasure of addictive memory by reshaping synap

关键字：addictive memory, memory extinction, astrocytes, microtubule protein stability, synaptic plasticity

（组内口头交流）

Functional Connectivity Changes in The Resting-state of The Amygdala in Alcohol-dependent Patients with Depression

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Objective Differences in the functional connectivity of the amygdala in alcohol-dependent patients with or without depression were compared based on resting-state functional magnetic resonance imaging to explore the characteristics of functional connectivity changes in alcohol-dependent patients with depression.

Methods A total of 60 alcohol-dependent patients and 31 healthy controls were included in the study. Based on the Patients Health Questionnaire-9 scores, alcohol-dependent patients were classified into alcohol-dependent patients with depression and alcohol-dependent patients without depression. Three groups of resting-state functional magnetic resonance imaging data were collected and the whole brain functional connectivity was calculated using the amygdala as the region of interest. Voxel-based ANCOVA analysis was performed for functional connectivity on the three groups. Post hoc t-tests between the two groups were performed using the least significant difference correction method. The results are corrected for the Gaussian random field multiplicity comparison. In addition, the relationship between values of functional connectivity in statistically significant brain regions and alcohol dependence scale and Patients Health Questionnaire-9 score was explored.

Results Compared with alcohol-dependent patients without depression, alcohol-dependent patients with depression had reduced functional connectivity between the right amygdala and the left middle temporal gyrus. Compared with healthy controls, the functional connectivity of the right amygdala with left superior temporal gyrus, the right superior temporal gyrus and the right caudate nucleus was reduced in the alcohol-dependent patients with depression, and the functional connectivity of the left amygdala with the left and right superior temporal gyrus was reduced. Compared with healthy controls, the functional connectivity of the right amygdala with left superior temporal gyrus and right insula was reduced in the alcohol-dependent patients without depression. There was no significant correlation between the values of functional connectivity in statistically significant brain regions and the scores of alcohol dependence scale and Patients Health Questionnaire-9.

Conclusion The functional connectivity between the right amygdala and the left superior temporal gyrus is altered in alcohol-dependent patients, and the functional connectivity changes between the amygdala and the temporal lobe is more extensive in alcohol-dependent patients with depression, which may be a key neural mechanism for alcohol dependence comorbid depression.

关键字：alcohol dependence; amygdala; depression; functional connectivity; resting-state functional magnetic resonance imaging; temporal gyrus.

（组内口头交流）

基于虚拟现实的线索暴露治疗对酒依赖患者心理渴求及生理反应的影响

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目的 探讨基于虚拟现实的线索暴露治疗是否能够降低酒依赖患者线索暴露时的心理渴求及生理反应，为酒依赖的治疗提供新的治疗手段。

方法 选取 2022 年 5 月-10 月在新乡医学院第二附属医院住院治疗的 44 例男性酒依赖患者，在完成急性戒断治疗后对酒依赖患者进行一次基于虚拟现实的线索暴露（评估），记录其暴露前后心理渴求、心率、皮电、呼吸的变化情况。采用随机数字表法将其随机分为研究组（n=23）和对照组（n=21）。对照组仅接受常规临床治疗，研究组在常规临床治疗的基础上另加 8 次基于虚拟现实的线索暴露治疗（治疗），每周 3 次（间隔 1 日），共 8 次。完成治疗后再次对酒依赖患者进行一次基于虚拟现实的线索暴露（评估），记录其暴露前后心理渴求、心率、皮电、呼吸的变化。比较治疗前后酒依赖患者线索暴露时的心理渴求及生理反应情况。

结果 两组患者的年龄、受教育年限、累计饮酒时间、成瘾时间以及日饮酒量比较，差异无统计学意义（P＞0.05）；治疗前，两组患者线索暴露前后心理渴求、心率、皮电、呼吸的变化值比较，差异无统计学意义（P>0.05）；治疗后，研究组线索暴露前后心理渴求、心率的变化值较对照组明显降低，差异有统计学意义（P<0.05），皮电、呼吸的变化值与对照组比较，差异无统计学意义（P>0.05）；治疗后，研究组线索暴露前后心理渴求、心率的变化值较治疗前明显降低，差异有统计学意义（P<0.05），皮电、呼吸的变化值较治疗前无明显变化，差异无统计学意义（P>0.05）；治疗后，对照组线索暴露前后心理渴求、心率、皮电、呼吸的变化值较治疗前无明显变化，差异无统计学意义（P>0.05）。

结论 基于虚拟现实的线索暴露治疗可以降低酒依赖患者线索暴露时的心理渴求及生理反应。

关键字：虚拟现实；线索暴露治疗；渴求；生理反应；酒依赖

（组内口头交流）

The Input of Paraventricular Nucleus of Thalamus To Nucleus Accumbens Modulates Alcohol Dependence Formation Via Aversion Processing

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Objective The objectives of this study are to examine the impact of the PVT-NAc neural pathway on the formation of alcohol-induced conditioned place preference (CPP) and conditioned place aversion (CPA) by modulating aversive responses. Additionally, we aim to investigate the changes in PVT-NAc neuronal activity during the process.

Methods Male C57BL/6 mice were subjected to stereotaxic surgery to receive targeted injections of viral vectors in PVT and NAc regions expressing either activated or inhibitory DREADDS (Designer Receptor Exclusively Activated by Designer Drugs). Following a recovery period of at least 2 weeks, the mice underwent conditioning procedures involving exposure to ethanol (2 g/kg) to induce CPA (Experiment 1) or CPP (Experiments 2). Prior to the training sessions, all experimental groups in Experiment 1 and Experiment 2 received injections of CNO (0.2 ml/20g) to activate or inhibit the PVT-NAc pathway. CPA and CPP scores were assessed through two separate testing sessions conducted after the completion of training. Subsequently, the neuronal activity of PVT-NAc neurons was measured.

Results The chemogenetic inhibition of the PVT-NAc pathway in mice led to a significant reduction in the expression of alcohol-induced CPA. Moreover, the analysis of PVT-NAc neurons C-fos expression levels showed significantly higher activation in mice exhibiting higher CPA scores (Experiment 1). Conversely, the activation of the PVT-NAc pathway significantly inhibited the formation of alcohol-induced CPP in mice (Experiments 2).

Conclusion The present results demonstrate that inhibiting the PVT-NAc pathway reduces the aversive effects of alcohol, while activating this pathway attenuates the rewarding properties of alcohol in mice. By modulating the neural circuitry involved in alcohol aversion and reward, interventions aimed at the PVT-NAc pathway may help mitigate the negative consequences associated with alcohol consumption. These findings suggest that targeting the PVT-NAc pathway could hold promise as a therapeutic approach for the treatment of alcohol use disorders.

关键字：Alcohol use disorder; Paraventricular nucleus of the thalamus; Aversion

（组内口头交流）

Neurobiology of Addictive Memory Retrieval: Focusing on The Medial Prefrontal Cortex

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Objective Substance use patterns that are maladaptive cause serious social problems. Developing a pathological addiction memory is a result of repeated exposure to addictive drugs and drug-related cues. A memory retrieval process is triggered by an internal or external cue that induces memory imprinting expression. Recent research on addiction-related memory processes suggests that the retrieval of addictive memory can induce relapse, while multiple retrievals (ie, extinction training following brief cue-elicited memory retrieval) can attenuate the ability of cues to elicit learned behaviors. Therefore, it is important to understand the process of addictive memory retrieval.

Methods We conducted a systematic review of literature on cue induced-memory retrieval in three databases. We extracted data from studies meeting our inclusion criteria, which related to substance craving induced by cue and data based on addictive memory retrieval and medial prefrontal cortex (mPFC).

Results We reviewed 312 research outputs. A total of 42 articles meeting the inclusion criteria were found. mPFC serve a pivotal role in regulating learning and memory for addiction. Different ensembles of mPFC response to discrete cue-elicited memory retrieval. Glutamatergic projections from the mPFC to subcortical regions (ie, NAc and VTA) contribute to addictive memory retrieval and induce substance craving. Cortical inhibitory neurons contact each other to form a network of inhibitory synaptic connections. Inhibitory neurons play a role in encoding in valence processing through regulating the activity of excitatory neurons. In addition, specific ensembles may act as a memory switch to modulate memory retrieval for addiction.

Conclusion mPFC is implicated in processing addictive memory retrieval, including responding to cue and encoding valence while the mechanisms of mPFC regulating in addictive memory retrieval is still not well understood. The present review summarizes current evidence about mPFC as a key region in sensory-guided, valence-driven relapse behavior.

关键字：addiction, memory retrieval, mPFC

（组内口头交流）

孤啡肽受体激动剂 Ro 64-6198 对大鼠海洛因奖赏和复吸的影响

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目的 海洛因作为传统毒品，相较新型毒品其具备更强的成瘾性、毒害性、依赖性。当前海洛因成瘾人数绝对占比依然较高，长期使用海洛因导致的强迫性反复药物寻求和使用及复吸问题仍然棘手。本研究旨在探究孤啡肽（nociceptin，NOP）受体激动剂对于大鼠海洛因成瘾奖赏和复吸行为的影响。

方法 建立海洛因自身给药成瘾大鼠模型，利用动物行为学方法观察并分析 NOP 受体激动剂 Ro 64-6198 及联合 NOP 受体拮抗剂 SB-612111 对于大鼠海洛因奖赏及复吸行为的影响。SD 雄性大鼠在固定比率（FR=1）程序下注射剂量为（0.05 mg/kg，0.2 g/L）海洛因进行自身给药训练，每天 4 h，连续 10 d，建立稳定的海洛因自身给药模型，在第 11 天将大鼠随机分为 4 组，分别腹腔注射生理盐水，0.3，1，3mg/kg NOP 受体激动剂 Ro 64-6198，进行奖赏测试。随后置于饲养笼内自然戒断 14 d，在第 15 天进行环境线索（CC）诱导的大鼠海洛因复吸测试；消退 1 天后，在戒断的第 17 天进行条件性线索（CS）诱导的大鼠海洛因复吸测试；消退 1 天后，在戒断的第 19 天，大鼠腹腔注射相同剂量的生理盐水或 0.25mg/kg 海洛因随后进行条件性线索（CS）诱导的大鼠海洛因复吸测试；消退 1 天后，在戒断的第 21 天，大鼠腹腔注射相同剂量的生理盐水或 1.25mg/kg 育亨宾随后进行环境线索（CC）诱导的大鼠海洛因复吸测试。

结果 大鼠海洛因自身给药训练 10 d，建立了稳定的自身给药行为。不同浓度 NOP 受体激动剂 Ro 64-6198 对于大鼠海洛因奖赏行为具有呈一定剂量依赖性的抑制作用，且在 3mg/kg 呈现出显著性的降低【F(3,16)=2.858, P=0.070】。1 和 3mg/kg NOP 受体激动剂 Ro 64-6198 能抑制四种诱导条件下大鼠海洛因复吸行为，且 1mg/kg NOP 受体激动剂 Ro 64-6198 的抑制作用最显著【F(3,16)=6.734, P=0.004】，当联合 1mg/kg NOP 受体拮抗剂 SB-612111 时可实现 NOP 受体激动剂 Ro 64-6198 抑制作用的逆转 (P=0.028)。

结论 NOP 受体激动剂 Ro 64-6198 抑制大鼠海洛因奖赏行为和复吸行为，NOP 受体拮抗剂可以阻断 NOP 受体激动剂的抑制作用，结果提示 NOP 受体激动剂可能对治疗海洛因成瘾和复吸具有治疗潜

关键字：海洛因；静脉自身给药；孤啡肽；奖赏；复吸；引燃；线索

（组内口头交流）

The Resting-state Functional Connectivity Changes in The Right Anterior Cingulate Cortex of Chronic Ketamine Users

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Objective Ketamine abuse has become a significant concern due to its widespread recreational use and its potential neurotoxic effects on the brain. Chronic ketamine users (CKUs) often experience cognitive impairments, but the underlying neural mechanisms are not well understood. This study aimed to investigate the resting-state functional connectivity (FC) changes in the right anterior cingulate cortex (ACC) of CKUs and their relationship with cognitive performance. The selection of the right ACC for investigation was based on its strong involvement in drug addiction, as supported by previous studies.

Methods Resting-state functional magnetic resonance imaging (fMRI) data were collected from CKUs and healthy controls (HCs). The MATRICS Consensus Cognitive Battery (MCCB) was used to assess cognitive function.

Results 28 CKUs and 30 healthy controls were recruited. Group-level comparisons revealed that CKUs exhibited increased functional connectivity between the right ACC and the right postcentral gyrus compared to HCs.A positive correlation was observed between right ACC-right postcentral gyrus functional connectivity and reasoning and problem-solving score of MCCB. However, no significant correlation was found between functional connectivity and ketamine use characteristics in CKUs.

Conclusion Our study revealed enhanced functional connectivity between the right ACC and the right postcentral gyrus in CKUs. This enhanced functional connectivity may indicate functional compensation for cognitive deficits in CKUs, especially for reasoning and problem-solving impairments in CKUs.

关键字：Ketamine, Chronic ketamine use, Cognitive impairments, Right anterior cingulate cortex, Functional connectivity.

（组内口头交流）

Disrupted White Matter Structural Networks in Individuals with Alcohol Dependence

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Objective Previous diffusion tensor imaging (DTI) studies have demonstrated widespread white matter microstructure damage in patients with alcoholism. However, very little is known about the alterations in the topological architecture of white matter structural networks in alcohol dependence (AD). This study aimed to explore the alterations in the topological architecture of white matter structural networks in AD.

Methods : A total of 67 AD inpatients during early abstinence and 69 healthy controls were included in this study. The graph theoretical analysis method was applied to investigate the topological organization of the white matter structural networks, including global and local topological parameters, and network-based statistics were applied to identify structural connectivity alterations.

Results : Both the patient and control groups showed small-world properties in white matter structural networks. However, compared to controls, AD patients exhibited abnormal global network properties characterized by increased small-worldness, normalized clustering coefficient, clustering coefficient, and shortest path length; and decreased global efficiency and local efficiency. Further analyses revealed decreased nodal efficiency and degree centrality in AD patients mainly located in the default mode network (DMN), including the precuneus (PCUN), anterior cingulate and paracingulate gyrus (ACG), median cingulate and paracingulate gyrus (DCG), posterior cingulate gyrus (PCG), and medial part of the superior frontal

gyrus (SFGmed). Furthermore, based on NBS approaches, patients displayed weaker subnetwork connectivity mainly located in the region of the DMN. Additionally, altered network metrics were correlated with Intelligence Quotient (IQ) scores and Global Assessment Function (GAF) scores.

Conclusion : Our results may reveal the disruption of whole-brain white matter structural networks in AD individuals. The alterations in brain white matter structural networks may provide new insights for understanding the pathophysiological mechanisms of AD and facilitating the development of therapeutic and prevention strategies.

关键字：alcohol dependence; diffusion tensor imaging; graph theoretical analysis; network-based statistic; white matter structural networks

（组内口头交流）

Dampened Diurnal Oscillation of The Gut Microbiota in Alcohol Dependence Patients with Sleep Disturbance

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Objective Both alcohol dependence (AD) and sleep disturbance may render alteration of the gut microbiota, which may further disrupt the circadian rhythmicity of gut microbiota and the host. However, the gut microbiota composition and rhythmicity has rarely been studied in the AD patients with sleep disturbance. Herein, we elucidated changes of gut flora and diurnal oscillation of gut microbiota in AD patients with sleep disturbance.

Methods Thirty-two AD patients and 20 healthy subjects were included in this study. Fecal samples at 7:00 AM, 11:00 AM, 3:00 PM, and 7:00 PM were collected from each subject; 16S rDNA sequencing was conducted. Furthermore, AD patients were sub-grouped into the AD patients with sleep disturbance (ADwSD) group and the AD patients without sleep (ADw/oSD) disturbance for further analyses.

Results PSQI scores were lower in AD patients, compared with healthy subjects ($p < 0.001$); The ADwSD group showed higher levels of anxiety, depression and withdrawal than the ADw/oSD group (all $p < 0.05$). The gut microbiota in the ADwSD group differed from that of the ADw/oSD group ($p < 0.05$); At different taxonomic levels, bacterial abundance differed between the ADwSD and ADw/oSD groups, e.g., Cyanobacteria and Pseudomonadales (all $p < 0.05$). The gut microbiota in the ADw/oSD exhibited robust diurnal oscillation ($p < 0.05$), which were statistically insignificant in the ADwSD group.

Conclusion AD patients with sleep disturbance exert altered profiles of the gut microbiota in composition, function and diurnal oscillation, which may provide novel perspectives into the mechanism of sleep disturbance in AD.

关键字：alcohol dependence, sleep disturbance, diurnal oscillation, gut microbiota, dysbiosis, rhythmicity

妇女精神医学学组

Peripheral Biomarkers To Differentiate Bipolar Depression From Major Depressive Disorder: A Real-world Retrospective Study

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Bipolar depression (BPD) is often misdiagnosed as a major depressive disorder (MDD) in clinical practice, which may be attributed to a lack of robust biomarkers indicative of differentiated diagnosis. This study analysed the differences in various hormones and inflammatory markers to explore peripheral biomarkers that differentiate BPD from MDD patients. Propensity score matching (PSM) was used to control for the effect of potential confounders in the MDD and BPD groups. A total of 2,048 BPD and MDD patients were included. A panel of blood tests was performed to determine the levels of sex hormones, stress hormones, and immune-related indicators. A receiver operating characteristic (ROC) curve was used to analyse the potential biomarkers for differentiating BPD from MDD. Compared to patients with MDD, BPD patients expressed a longer duration of illness, more hospitalisations within five years, and an earlier age of onset, along with fewer comorbid psychotic symptoms. In terms of biochemical parameters, MDD patients presented higher IgA and IgM levels, while BPD patients featured more elevated neutrophil and monocyte counts. ROC analysis suggested that combined biological indicators and clinical features could moderately distinguish between BPD and MDD. In addition, different biological features exist in BPD and MDD patients of different ages and sexes. Differential peripheral biological parameters were observed between BPD and MDD, which manifested between sexes and ages. A combined diagnostic model that integrates clinical characteristics and biochemical indicators has a moderate accuracy in distinguishing BPD from MDD.

关键字：Bipolar depression; Major depressive disorder; Peripheral biomarkers

冰毒成瘾者肠道菌群特征的性别差异研究

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目的 冰毒是我国范围内最广泛使用的精神活性物质，冰毒成瘾（MUD）为社会带来了严重的公共卫生负担。最近有证据显示，肠道菌群可能参与了 MUD 的过程。来自肠道细菌的脂多糖可能进入循环血液，激活大脑中的小胶质细胞，从而减少戒断后对冰毒的渴望。在人类研究中，也有项研究表明男性 MUD 患者的肠道菌群与健康对照（HC）相比存在显著差异。然而，既往证据均基于男性受试者，而性别已被证实会影响冰毒成瘾及戒断过程。女性患者罹患神经精神并发症的风险更高、且更有可能在治疗干预中获益。本研究旨在确定全性别人群中 MUD 患者和 HC 之间的肠道菌群差异，并探索 MUD 患者的性别特异性特征。

方法 本研究纳入戒断后 MUD 患者及 HC 各 50 名（女性各 20 名），签署知情同意书后采集受试者人口学资料（性别、年龄、BMI 等）、临床信息（毒品使用信息、消化道症状、戒断症状）并应用 T 检验/卡方检验进行组间比较及组内（不同性别）比较。同时采集受试者粪便样本进行 16S rDNA 测序以分析受试者肠道微生物群。

结果 MUD 患者与 HC 在性别、年龄、BMI 上未见显著差异。与 HC 相比，MUD 患者微生物群在 alpha 多样性 Chao1、Shannon 指数上未见显著差异；在基于 Bray-Curtis 距离的 beta 多样性上存在显著差异（PERMANOVA, $p = 0.035$）。在物种组成上，MUD 患者肠道微生物群存在厚壁菌门、变形菌门的富集，以及拟杆菌门、放线菌门的减少。MUD 患者中，不同性别患者的病程未见显著差异，且不同性别 MUD 患者与同性别 HC 相比，微生物群整体改变与前述结果一致。在物种水平上，女性人群中，MUD 患者肠道微生物群中拟杆菌属、Prevotella_9 属出现显著降低，而在男性人群中则未观察到此改变。

结论 MUD 患者和 HC 之间的肠道菌群差异在整体水平（如多样性、菌门水平）上呈现跨性别的一致变化，在属水平上，拟杆菌属、Prevotella_9 属的降低是女性 MUD 患者的性别特异性改变。

关键字：性别差异；成瘾；肠道菌群

Altered Reward Circuit Function Moderate The Relationship between Childhood Maltreatment and Depression Severity in Adolescents

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Objective The role of childhood maltreatment (CM) is believed to be crucial in the aberrant function of reward circuit in adolescent-onset major depressive disorder (AO-MDD). Nevertheless, the impact of abnormalities in the GP-based reward circuit on the association between CM and the severity of AO-MDD remains largely unknown.

Methods The GP-based resting-state functional connectivity (RSFC) was analyzed in a sample of 75 patients with AO-MDD and 80 healthy controls in order to identify potential abnormalities in the GP-based reward

circuit in AO-MDD patients. Furthermore, we investigated the possible associations between aberrant GP-based reward circuit functioning, CM and its subtypes (namely, childhood abuse and childhood neglect), as well as the severity of AO-MDD.

Results Compared to the healthy control group, patients with AO-MDD demonstrated a reduction in RSFC between the left posterior GP and the right dorsomedial prefrontal cortex (DMPFC). Our moderation analysis revealed that the abnormal RSFC between the posterior GP and DMPFC had a moderating effect on the relationship between CM and the severity of AO-MDD. Furthermore, upon further interaction decomposition, we observed a positive correlation between CM and AO-MDD severity exclusively in patients with AO-MDD who exhibited lower RSFC between the posterior GP and DMPFC. For AO-MDD patients with higher RSFC between posterior GP and DMPFC, the relationship between CM and AO-MDD severity was not discernible.

Conclusion Our findings underscore the crucial role of anomalies in the reward circuit in AO-MDD and furnish novel leads for probing the relationship among CM, malfunctioning of the reward circuit, and AO-MDD.

关键字：adolescent-onset major depressive disorder; childhood maltreatment; globus pallidus; dorsolateral prefrontal cortex; functional connectivity

Differential Associations between Working Memory Impairment and Gray Matter Volume Changes in Remitted Schizophrenia and Bipolar Disorder Patients

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Objective : Cognitive deficits are frequently observed in individuals with remitted schizophrenia (SZ) and bipolar disorder (BD), persisting even during periods of symptom remission and impacting patients' social functioning and recovery. The underlying mechanisms of these impairments, potentially related to alterations in gray matter volumes (GMV), remain unclear. This study aimed to investigate whether the association between working memory impairment and GMV changes differs between remitted SZ and BD patients, providing insights into the neurobiological underpinnings of these conditions.

Methods A total of 137 adult participants, including 46 remitted SZ patients, 35 remitted BD patients, and 56 age-, sex-, and education-matched healthy controls (HC), were enrolled. All participants completed spatial span and digital sequence tests, along with structural magnetic resonance imaging scans. Image data were preprocessed and analyzed using VBM8, SPM8, and Dpabi software packages in MATLAB. Demographic data, cognitive test scores, and correlations between cognitive performance and GMV were analyzed using SPSS.

Results 1. Both remitted SZ and BD patients exhibited significantly lower test scores on the spatial span ($p < 0.001$) and digital sequence tests ($p < 0.001$) compared to HC. 2. GMV reductions were observed in remitted SZ and BD patients compared to HC ($p < 0.001$), particularly in the insula, superior temporal pole, amygdala, anterior cingulate gyrus, and frontal cortex (superior gyrus, middle gyrus, inferior tegmental gyrus, and orbitofrontal gyrus). 3. No significant correlations were found between GMV and cognitive test scores in remitted SZ patients ($p > 0.05$). 4. In remitted BD patients, the spatial span and digital sequence tests showed significant correlations with GMV changes in the right insula, amygdala, superior temporal pole, medial superior frontal gyrus, and dorsolateral superior frontal gyrus ($r = 0.390$, $p = 0.025$; $r = 0.554$, $p = 0.001$).

Conclusion Both remitted SZ and BD patients exhibit working memory impairments; however, only BD patients show associations with GMV changes. These findings suggest that the underlying pathophysiological mechanisms of cognitive impairments in these two disorders may differ in terms of gray matter volume alterations.

关键字：remitted Schizophrenia; remitted Bipolar Disorder; cognitive deficits; gray matter volumes

基于 RhoA/ROCK 信号通路探讨类惊恐发作对大鼠血管内皮损伤的影响

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目的 本研究利用动物模型观察惊恐发作对血管内皮功能、结构的影响及 RhoA/ROCK 信号通路在其中的作用以及氟西汀对血管内皮细胞的保护作用。

方法 将电极植入大鼠背侧中脑导水管周围灰质（Dorsolateral periaqueductal gray dPAG）上，对大鼠 dPAG 脑区进行电刺激以激发大鼠跑或跳跃行为作为惊恐发作模型。实验 1：以人群中惊恐发作持续时间（5-20 分钟）为参考，27 只大鼠随机分为 3 组：电刺激 dPAG 5 分钟组、10 分钟组、15 分钟组，结束后测定内皮依赖性血管舒张功能。实验 2：45 只大鼠随机分为 5 组：空白组、假手术组、电刺激组、电刺激+普萘洛尔（β 肾上腺受体阻滞剂）组、电刺激+法舒地尔（ROCK 抑制剂）组，每组 9 只。依据实验 1 结果中引起血管内皮损伤的电刺激时间为实验 2 电刺激时间。实验 3：将 30 只大鼠随机分为 3 组： 假手术组、电刺激组、电刺激+氟西汀组,每组 10 只。假手术组及电刺激组连续腹腔注射生理盐水 21 天；电刺激+氟西汀组连续腹腔注射氟西汀 21 天；给药前及第 21 天给药后 30 分钟均测定逃逸阈值并在第 21 天行大鼠 dPAG 电刺激，结束后取材。实验 2 结束后对各组血压、心率、血清去甲肾上腺素水平及 RhoA/ROCK 信号通路相关蛋白进行检测。实验 2 及实验 3 测血管内皮依赖性舒张功能、血管组织 eNOS、内皮素-1、血清炎症因子及氧化应激等相关指标进行比较。

结果 电刺激 dPAG 15 分钟使大鼠血压、心率、血清去甲肾上腺素水平升高、血管组织 RhoA/ROCK 信号通路被激活、血管内皮细胞脱落、血管内皮依赖性舒

张功能减低、血管组织 eNOS 及 p-eNOS 表达降低、内皮素-1 表达升高,同时观察到电刺激组大鼠血清炎症因子水平升高、氧化-抗氧化失衡。应用普萘洛尔及法舒地尔后血管内皮功能障碍、血清炎症因子水平、氧化应激得到改善。同样，氟西汀慢性给药后,模型大鼠血管内皮损伤、血清炎症因子水平 IL-6、hs-CRP 及氧化应激得到改善。

结论 电刺激大鼠诱发类惊恐发作 15 分钟可致血管内皮损伤，机制之一可能是类惊恐发作引起交感神经兴奋，诱发模型大鼠炎症因子、氧化应激水平升高，进而激活 RhoA/ROCK 信号通路，且氟西汀在抗惊恐发作同时可预防血管内皮损伤，其机制可能通过降低全身炎症及氧化应激水平起到保护血管内皮细胞的作用。

关键字：惊恐发作；背侧导水管周围灰质；血管内皮功能障碍；交感神经激活；炎症因子；氧化应激；氟西汀

A Study of Cognitive Function in Adolescent with Melancholic Major Depressive Disorder Based on FNIRS

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Objective To observe the characteristics of cognitive impairment and corresponding cerebral hemodynamics in adolescent melancholic MDD, and to elucidate the relationship between cognitive impairment and depressive symptoms in the group.

Methods Fifty-seven and 44 adolescent patients with MDD with or without melancholic feature (MDD-MEL/nMEL) and 58 healthy controls (HCs) were recruited. We used the repeatable battery for the assessment of neuropsychological status (RBANS) measuring neurocognitive function, and used functional near infrared spectroscopy (fNIRS) monitoring cerebral hemodynamic changes, described by β value. And we compared RBANS scores and β value among three groups. Subsequently, according to the HAMD reduction rate at 8 weeks, patients with MDD-MEL were divided into response group (n=24) and non-response group (n=15). Then we analyzed the neurocognitive test and frontotemporal cerebral blood flow changes in the two groups during follow-up.

Results (I) Neurocognitive function: There were no significant differences between the adolescent with MDD-MEL and MDD-nMEL in RBANS scores (all $p > 0.05$). But the absolute scores of immediate memory, attention, delayed memory and total scores in the adolescent with MDD-MEL were lower than those in the MDD-nMEL, and both lower than those in the HCs. Besides, there were time effects on total score of RBANS ($F=27.335$, $p < 0.001$), immediate memory ($F=17.833$, $p < 0.001$), verbal function ($F=5.263$, $p = 0.032$), and delayed memory ($F=7.669$, $p = 0.011$) between the MDD-MEL responders and non-responders. And there was a significant difference in immediate memory between the response and the non-response ($F = 20.336$, $p < 0.001$). （II）Frontotemporal cerebral hemodynamics: HBO concentration of cerebral blood flow in the adolescent with MDD-MEL was significantly lower than that in the MDD-nMEL in eight channels (channels 10, 16, 20, 25, 27, 37, 41, 45) ($p < 0.05$, Bonferroni correction). Besides, there was no temporal effect on β values between the responding and the non-responding group ($p > 0.05$). The main effect was not significant and there was no interaction.

Conclusion Adolescents with MDD-MEL may have more severe cognitive impairment, and the cerebral hemodynamics of the medial prefrontal cortex may be significantly decreased. Cognitive impairment in adolescents with MDD-MEL is associated with poor prognosis of the disease.

关键字：adolescent melancholic depressive disorder; cognitive function; near infrared brain function imaging; medial prefrontal cortex

Gender Effects on Differentiating Patients with Major Depressive Disorder From Bipolar Disorder in Depressive State: A FMRI Study with Follow-up

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Background Bipolar disorder (BD) is difficult to discriminate from major depressive disorder (MDD) before the appearance of mania or hypomania. This study was designed to identify whether patients with MDD and those who converted to BD are distinguishable using dynamic amplitude low-frequency fluctuations (dALFF) and describe the gender effects on the identification of the two disorders.

Methods : We compared the dALFF values of 35 BD patients who converted from MDD during the 2-year follow-up, 99 MDD patients, and 130 healthy controls (HCs) using two-way ANOVA. Pearson's correlation was used to compare dALFF in dysfunctional brain regions and clinical characteristics.

Results : A main effect of diagnosis was discovered in the frontal and occipital gyrus. For the main effect of gender, both the left middle occipital gyrus and the medial part of the superior frontal gyrus had higher dALFF values in males compared to females. An interaction of gender and diagnosis effect was observed in the right precentral gyrus. Male MDD patients exhibited a higher dALFF value than male BD patients. Additionally, we discovered a higher dALFF value in females than in males in BD patients. WCST scores were positively associated with dALFF values in the frontal and occipital gyrus in MDD patients. Meanwhile, dALFF values in the occipital gyrus positively correlated with WCST in female MDD patients only.

Conclusions Our study is the first to find that BD and MDD can be differentiated at an early stage, and gender effects on the disorders should be taken into consideration.

关键字：bipolar disorder, major depressive disorder, gender, dALFF, follow-up

Risk Factors for Violent Behaviors in Patients with Schizophrenia: 2-year Follow-up Study in Primary Mental Health Care in China

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Objective The consequences and impact of violent behavior in schizophrenia are often serious, and identification of risk factors is of great importance to achieve early identification and effective management.

Methods This follow-up study sampled adult patients with schizophrenia in primary mental health care in a rural area of southern China, in which 491 participants completed a comprehensive questionnaire at baseline and the 2-year follow-up. Sociodemographic, clinical and psychological assessment data were collected from all participants. Paired sample T-Tests and the McNemar Test were performed to examine changes over the follow-up period. Generalized Estimating Equations (GEE) were used to analyze the risk factors for violent behavior.

Results The results showed that about two in five community-dwelling patients with schizophrenia reported violent behavior in the past year. At follow-up, participants were significantly less employed, had more times of hospitalization, more psychotropic medication, and severer depressive symptoms, but had better health-related quality of life than at baseline. Use of clozapine and better insight into medication decreased the possibility of violent behavior, while more severe positive symptoms, insomnia, as well as use of second-generation antipsychotics other than clozapine, antidepressants and mood stabilizers increased the possibility of violent behavior.

Conclusion Risk evaluation, prevention and management of violence in patients with schizophrenia are demanded in primary mental health care.

关键字：violence, schizophrenia, risk factor, primary care, Generalized Estimating Equations

（组内口头交流）

Relationship between Covid-pandemic Anxiety and Sleep Disorder with Menstrual Disorders Among Female Medical Workers

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Objective It has been more than 2 years since the 2019 novel coronavirus disease (COVID-19) pandemic destabilized the world, adversely affecting not only physical health, but also mental health. During this time, frontline medical workers were at a greater health risk, especially female medical workers. Changes or abnormalities in the menstrual cycle—an important indicator of women's health—may jeopardize female reproductive functioning. Considering that emotional health and sleep status may be related to the menstrual cycle, this study aimed to investigate the association between menstrual cycle changes, anxiety, sleep dysfunction, and other factors among female medical workers during the COVID-19 pandemic.

Methods A cross-sectional survey was conducted by distributing online questionnaires to female medical workers in China from February to May 2022. The study included 160 women aged 18–45 years old. The questionnaires covered data related to the participants' sociodemographic characteristics, medical and reproductive history, and lifestyle. The Rating Scale for Clinical Manifestations of Menopathy (SCMM), Self-Rating Anxiety Scale (SAS), and Sleep Dysfunction Rating Scale (SDRS) were utilized. Data were analyzed using chi-square tests, t-tests, and linear regression analysis.

Results A total of 160 female medical staff were randomly selected in this research, of whom seven scored less than 3 points, 85 scored 3-11 points, and 68 scored more than 11 points on the total score of the SCMM. Compared to pre-pandemic scores, scores of dizziness and tinnitus were significantly higher during the COVID-19 pandemic. Scores corresponding to the following clinical symptoms were also higher during the pandemic: Menopathy, including hypaphrodisia, dim complexion, abnormal urination, languidness, dim menstruation, thin menstruation, dysmenorrhea, and empty or saggy lower abdomen ($p<0.05$). However, pre-pandemic scores of vaginal bleeding quantity were significantly higher than those found during the COVID-19 pandemic ($p<0.05$). Scores of vaginal bleeding quantity were significantly lower in cabin hospitals than other types of hospitals, and a similar finding was observed for vaginal bleeding duration (all $p<0.05$). Moreover, the findings of the univariable and multivariable linear regression analysis revealed a link between consistent exercise, the underlying illness, the SDRS score, the SAS score, and the total score of SCMM ($p<0.05$).

Conclusion In this study, we found that menstruation in female medical workers was affected by the COVID-19 pandemic. Furthermore, regular exercise and good physical condition were protective factors, while anxiety and insomnia were risk factors for menstrual abnormalities.

关键字：COVID-19, Menstrual Cycle, Female, Medical workers, Cross-sectional Survey, China

（组内口头交流）

Association between Dietary Patterns and Premenstrual Disorders: A Cross-sectional Analysis of College Students in China

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Objective Premenstrual disorders (PMDs) are prevalent among women of reproductive age and have negative impacts on their physical and mental well-being. While previous studies have explored the role of dietary factors in the development of PMDs, limited evidence exists regarding the associations between dietary patterns and PMDs, particularly in Asian populations.

Methods This cross-sectional study involved young female adults recruited from the Care of Premenstrual Emotion (COPE) prospective cohort study in China. PMDs were assessed using the Calendar of Premenstrual Experiences, and the consumption frequency of 12 common food groups was evaluated using a Food Frequency Questionnaire. Principal component analysis was utilized to extract dietary patterns, and standardized dietary pattern scores were calculated and transformed into quintiles. Multivariate regressions, adjusted for potential confounders, were conducted to investigate the associations between PMDs, food groups, and dietary patterns. Sensitivity analyses were stratified by place of origin and coexistence of depression or anxiety. Furthermore, the associations of a specific dietary pattern, identified as associated with PMDs, with PMD subtypes of different onset time and severity were explored.

Results The study included 1382 participants (mean age= 20.0 [standard deviation 1.41]), of whom 337 (24.4%) reported having PMDs. Three dietary patterns were identified and named based on regional food preferences: Traditional North China Diet (characterized by high consumption of wheat, other staple foods, fish/seafood, and preserved vegetables), Traditional South China Diet (characterized by high consumption of rice, red meat, and poultry), and Lacto-ovo Vegetarian Diet (characterized by high consumption of fresh vegetables, fruits, and dairy products). The Traditional South China Diet showed an association with a decreased incidence of PMDs (OR=0.88[95% Confidence interval 0.78–1.00]; P for trend=0.035). No significant differences were observed in the associations between the Traditional South China Diet and different PMD subtypes.

Conclusion Adherence to the Traditional South China Diet may be beneficial in the early prevention and management of PMDs and their symptoms.

关键字：Premenstrual disorders; Principal component analysis; dietary patterns; Traditional South China Diet

（组内口头交流）

The Prominent Role of The Amygdala-hippocampal Circuit in Premenstrual Syndrome and Premenstrual Dysphoric Disorder: Evidence From Multimodal Neuroimaging

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Objective Premenstrual syndrome (PMS) or premenstrual dysphoric disorder (PMDD) usually presents with mild to moderate emotional and physical symptoms that affect patients' routine work, social activities, and family lives. However, their pathogenesis and the up-downstream regulating mechanisms are still unclear. Hence, we conducted this research to further reveal the role of the amygdala-hippocampal circuit in PMS and PMDD.

Methods We summarized findings of PMS and PMDD related to the amygdala and hippocampal by retrospect literature over the past decades.

Results First, structural and functional alterations of the amygdala in PMS and PMDD were closely associated with emotional regulation. Sufficient evidence suggests that fluctuations in sex hormones may be a pivotal factor in brain structural remodeling. Additionally, several studies verified that estrogen concentrations significantly influenced the severity of symptoms and brain activity. Currently, generally agreed that damage to the amygdala may lead to aberrations in top-down inhibition processes in the limbic system, which involves the core pathological mechanism of PMS and PMDD. Furthermore, numerous human and animal studies have confirmed that estrogen can modify the hippocampus's structure, metabolism, and function. The estradiol level positively correlated with the hippocampus's connectivity, volume, and white matter integrity in healthy females. Inversely, patients exhibit different alterations in grey matter density, functional activity, and connectivity in the hippocampus. Indeed, ovarian gonadal hormones could pass through the blood-brain barrier and subsequently affect mood and behavioral patterns by regulating the amygdala-hippocampal circuit. Sex hormones can profoundly affect the HPA axis and neurotransmitters such as serotonin, dopaminergic, and GABA. Besides, in healthy females, harmonious covariations existed between the metabolism, structure, and function of the amygdala-hippocampal circuit and ovarian gonadal hormone levels during the menstrual cycle. Nevertheless, various inappropriate manifestations and remodeling of metabolic, structural, and functional systems have occurred in PMS and PMDD. Why the amygdala-hippocampal circuit are the most susceptible region in PMS and PMDD? In brief, there are extensive distributions of estradiol and progesterone receptors in the limbic system, and these receptors are the most densely concentrated in the neurons and glial cells of the amygdala and hippocampus. These neurotransmitters, ovarian hormones, and their receptors are crucial factors in inducing structural and functional abnormalities in the amygdala and hippocampal, which can trigger relevant symptoms.

Conclusion The amygdala-hippocampus circuit is the most vulnerable area in PMS and PMDD. Therefore,

we should pay attention to this circuit for further guiding the individualized identification, classification, and treatment.

关键字：Keywords: Premenstrual Syndrome; Premenstrual Dysphoric Disorder; Neuroimaging; Oestrogen; Amygdala-Hippocampal Circuit

（组内口头交流）

A Sex-specific Interaction between Family Function and The PCDH9 Rs9540720 Polymorphism—A Novel Risk Factor for The Development of Major Depressive Disorder in Chinese Freshmen

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Objective According to previous studies, family functioning has been associated with major depressive disorder. Then, the interaction between family functioning and PCDH9 rs9540720 gene polymorphism on major depressive disorder remains to be investigated.

Methods Blood samples were provided by 4866 (69.76%) of the 6985 respondents who completed follow-up and were genotyped for PCDH9 rs9540720 using the QIAamp96DNA QIAcube HT kit. The comprehensive international diagnostic interview (CIDI-3.0) was used to assess major depressive disorder. Family functioning was assessed using the Family Assessment Device (FAD).

Results The prevalence of MDD was 2.36% (95% CI: 1.96%-2.83%). After adjusting for covariates, the AA genotype of PCDH9 rs 9540720 showed a protective effect (P<0.05) in the total sample (OR=0.49, 95% CI:0.24-0.90) and in the female sample (OR=0.44, 95% CI:0.18-0.94); Affective Responsiveness in family function showed a risk effect in the total sample (OR=1.72, 95% CI:1.10-2.72) showed a risk effect, while in females Affective Responsiveness (OR=1.77, 95% CI:1.02-3.09) showed a risk effect in the female sample (P<0.05). In men neither genetics nor environment had a significant effect (P>0.05). After controlling for covariates, the interaction of genes (rs 9540720) and environment (general function) showed a risk effect in the total sample (OR=6.97,95% CI:1.17-41.13) and in the female sample (OR=8.46, 95% CI:1.01-72.84). Specifically, rs9540720 AA genotype carriers in the total and female samples were observed to be at higher risk of MDD development when family functioning was poor.

Conclusion The risk of MDD in college freshmen, especially in women, is influenced by a combination of genes (PCDH9 rs9540720) and environment (family functioning). Focusing on unhealthy family functioning and MDD susceptibility genotypes could help screen college students for major depressive disorder.

关键字：Major depressive disorder; Family function; Gene-Environment Interaction; rs9540720; Freshmen; Gender specificity

司法精神病学组

Incidence and Factors Associated with Suicidal Behavior in Patients with First Hospitalization for Major Depression Disorder：a Large Sample Cross-sectional Study

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Objective Suicidal behavior (SB) and major depressive disorder (MDD) stand as prominent worldwide public health issues, with MDD being among the leading causes of SB. Therefore, this study's objective was to determine the prevalence of SB and its related factors among first-time hospitalized MDD patients in China and to develop predictive models for SB in this population.

Methods A total of 981 patients with MDD who were hospitalized for the first time were recruited for this study. Sociodemographic and general clinical data of the included patients were collected, and common metabolic parameters and thyroid function were extracted. Depressive symptoms, anxiety symptoms and psychotic symptoms and severity of illness were assessed using the Hamilton Depression Assessment Scale (HAMD), the Hamilton Anxiety Assessment Scale (HAMA) and the Positive Symptom Subscale (PSS) of Positive and Negative Syndrome Scale (PANSS), and the Clinical Global Impression Scale - Severity of Illness (CGI-SI), respectively.

Results Our study revealed a 13.46% prevalence of SB among MDD patients hospitalized for the first time. The clinical subgroup with SB displayed more severe psychopathological and psychological symptoms and worse metabolic outcomes than the group non-SB. PSS score, HAMA score, CGI-SI score, triglyceride (TC) levels, waist circumference (WC), and diastolic blood pressure (DBP) emerged as independent risk factors for SB. The combination of PSS, HAMA, and CGI-SI scores demonstrated excellent discriminatory capabilities regarding MDD patients with and without SB.

Conclusion The prevalence of SB is high among first-hospitalized MDD patients, and the severity of clinical symptoms and multiple metabolic parameters are risk factors for SB. We determined that the PSS, HAMA, and CGI-SI can jointly discriminate well between the target group for combined SB.

关键字：Major depression disorder; Suicidal behavior; Incidence; Metabolic indicator; cross-sectional study

伴暴力犯罪行为精神分裂症患者的影像和遗传特征研究

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目的 精神分裂症与暴力密切相关，但机制不明。本研究旨在探索伴暴力犯罪行为精神分裂症患者的临床特征、静息态前额叶区域功能连接特征及可能的多基因遗传风险特征，并基于临床特征-前额叶功能连接-多基因风险评分，采用机器学习方法构建精神分裂症患者的暴力分类模型。

方法 本研究采用病例对照研究设计，以伴暴力犯罪行为精神分裂症患者为暴力组，既往从无攻击他人行为的精神分裂症患者为非暴力组。最终纳入暴力组 134 例，非暴力组 141 例。采集了受试者的社会人口学及临床资料及静息状态下的近红外功能成像前额叶功能连接及多基因风险评分（SCZ-PRS）数据。基于临床特征、前额叶功能连接及 SCZ-PRS 多维度因素采用逻辑回归、随机森林及朴素贝叶斯三种机器学习的方法建立精神分裂症患者的暴力分类模型。

结果 1.暴力组患者存在男性比例高、文化程度低、未治期长，首发年龄大、精神病态评分更高等特点（P<0.05）。 2.在前额叶功能连接特征上，暴力组在额极-右侧三角部（PFC-TRI.R）（P=0.041）、右侧背外侧前额皮层-右侧三角部（DLPFC.R-TRI.R）（P=0.028）、右侧三角部-右侧前运动和辅助运动皮层（TRI.R-PMSMC.R）（P=0.016）及右侧三角部-左侧前运动和辅助运动皮层（TRI.R-PMSMC.L）（P=0.048）之间的 FC 均低于非暴力组，而双侧前运动和辅助运动皮层之间的 FC 则高于非暴力组（P<0.001）。关联分析结果显示，在暴力组中，FCPMSMC.R -PMSMC.L 与精神病态（PCL:SV）反社会因子呈正相关（r=0.172，P=0.048）。3.SCZ-PRS 相关分析的结果显示，在伴暴力犯罪行为精神分裂症患者中，SCZ-PRS 与 FCPMSMC.R-PMSMC.L 呈正相关（P=0.002-0.029），但未发现 SCZ-PRS 与暴力风险相关的临床指标之间存在明显的相关性。4.基于临床特征、静息态前额叶脑区功能连接及 SCZ-PRS 多维度数据构建的机器学习模型中，使用随机森林模型对暴力组与非暴力组进行分类的效果最好，其准确性达 0.942，灵敏度为 0.985、特异度为 0.895。

结论 1.前额叶中负责语言管理的右侧三角部的枢纽功能异常及负责复杂运动控制及认知控制的前运动及辅助运动皮层连接的异常激活均可能与精神分裂症的暴力相关。2.精神分裂症的多基因遗传风险可能通过

关键字：精神分裂症；暴力风险；近红外脑功能成像；静息态前额叶功能连接；多基因风险评分

2001-2022 年我国精神卫生政策文本分析及优化建议

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目的 探讨近20年精神卫生政策制定存在的问题并提出改进意见。

方法 本文收集整理 2001-2022 年我国精神卫生的 22 份政策文本，从政策类型、发文数量、政策效力级别及制定部门、政策工具等方面进行分析。

结果 2001 年至 2022 年 22 年间共有 22 份相关政策法规颁布实施，精神卫生政策发文呈周期性波动趋势。精神卫生政策类型多样，表现为法律、条例、指导意见、工作规划、纲要、通知等 6 种形式。政策类型以地方性的“条例”为主，共有 14 部，占所有政策文本的 63.7% 以上；而“指导意见”“工作规划”等数量较低，一共只有 7 份，占政策文本的 31.8% 。22 份现行有效的精神卫生政策文件中国家和地方层面皆有：国家层面的相关政策有 8 份：法律一部、国务院规范性文件 2 部、党内法规制度 3 部、部门工作文件 2 份；地方层面精神卫生条例有 14 部，其中省级地方性法规 8 部、设区的市地方性法规 6 部。环境型政策工具占比最高，共 566 条，高达 63.3%，供给型政策工具 220 条，占 25.2%，而需求型政策工具 109 条占 11.5%。其中，供给型政策工具中，组织管理占比达 9.2%，而财政投入占比较低，仅占 1.5%；环境型政策工具中，标准规范占比最高 19.8%，其次是权益保障占比 19%；而需求型政策工具中试点示范最低，仅占 0.8%，健康教育占比较高，达 6.9%。

结论 我国精神卫生政策类型权威性高，但地域性差异大；政策制定的不连续，发文数量偏少；国家对精神卫生工作关注不够，地方政府缺乏精神卫生工作实施细则；政策工具使用不当，需求型政策工具相对匮乏。建议增强政策的权威性与约束力，提高政策的操作性；强化人、财、物等方面的保障，增强政策的连续性；加强政府不同部门之间的合作，形成协同合作机制；合理运用政策工具，完善精神卫生政策体系。

关键字：精神卫生；政策工具；文本分析

伴暴力犯罪行为精神分裂症患者的面部情绪识别特征研究

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目的 本研究拟探讨伴暴力犯罪行为的精神分裂症患者面部情绪识别功能特征及其与疾病症状之间的关系。

方法 本研究采用病例对照研究设计，以伴暴力犯罪行为精神分裂症患者（涉凶杀及故意伤害罪，经鉴定为无刑事责任能力）为暴力组，既往从无攻击他人致轻伤及以上级别的精神分裂症患者为非暴力组。招募时对两组患者的年龄和性别进行匹配，采集受试者的社会人口学资料，使用阳性和阴性症状量表（PANSS）

评估受试者的疾病症状，采用面部情绪识别任务（包含悲伤、愤怒、恐惧等 6 种情绪图片）评估两组患者的面部情绪识别功能。使用独立样本 t 检验和协方差分析方法比较两组的面部情绪识别得分，使用偏相关分析探讨有差异的情绪识别得分与PANSS各症状量表评分之间的关系。

结果 本研究共招募 391 例精神分裂症患者，其中暴力组 238 例，非暴力组 153 例。暴力组阴性症状量表评分低于非暴力组，在阳性症状和一般精神病理症状量表评分中，两组无明显差异。暴力组患者的面部情绪识别得分排序为：快乐＞中性＞悲伤＞恐惧＞厌恶＞愤怒；非暴力组患者的厌恶情绪识别得分高于恐惧情绪，其余得分情况与暴力组类似。暴力组患者在悲伤（7.26±2.06 vs 6.82±2.35，P＜0.05）、恐惧（7.02±2.40 vs 6.72±2.46，P＜0.05）、快乐（8.96±1.72 vs 8.33±2.25，P＜0.001）和中性（8.47±2.01 vs 7.90±2.31，P＜0.001）四个维度的得分均高于非暴力组；两组在愤怒和厌恶情绪识别得分上未见明显差异。暴力组患者的恐惧、快乐和中性情绪识别得分与 PANSS 阳性症状、阴性症状及一般精神病理症状评分均呈负相关，悲伤情绪识别得分与PANSS阴性症状及一般精神病理症状评分呈负相关。

结论 伴暴力犯罪行为和不伴暴力犯罪行为的精神分裂症患者可能存在相似的面部情绪识别缺陷；伴暴力犯罪行为的精神分裂症患者对部分面部情绪的。

关键字：精神分裂症；暴力犯罪；面部情绪识别

睡眠障碍研究协作组

快速眼动期睡眠对恐惧记忆泛化的抑制作用及其神经影像机制

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目的 恐惧记忆泛化是生物长期进化过程中表现出的适应性反应。过度泛化是对安全刺激与危险刺激间差异辨别能力的减弱,无法区分与危险线索相似度高的泛化刺激，从而引起不适当的焦虑样症状以及相关精神疾病（如创伤后应激障碍、惊恐障碍、广泛性焦虑障碍等）。睡眠在恐惧记忆的泛化中起到重要作用，其中快速眼动睡眠与创伤后应激障碍在内的过度泛化相关精神疾病的发展、维持和恶化关联密切。然而，快速眼动睡眠与恐惧记忆泛化之间的关联缺少研究证据。本研究的目的旨在明确快速眼动睡眠与恐惧记忆泛化的关联及相关神经影像机制。

方法 通过分夜睡眠限制范式（前半夜/后半夜睡眠限制）干预快速眼动期睡眠时间及占比（前半夜以非快动眼睡眠为主，后半夜以快动眼睡眠为主），探究快速眼睡眠能否特异性抑制恐惧记忆泛化。在 118 名受试者随机分为早期睡眠组（快速眼动睡眠占比少，ES，N=40）、晚期睡眠组（快速眼动睡眠占比多,LS，N=39）、整夜睡眠对照组（TS，N=39）。实验流程包括睡前恐惧记忆习得、醒后近期-恐惧记忆泛化测试、一周后远期-恐惧记忆泛化测试。在上述泛化测试中，均同步采集任务态影像学数据和行为学数据（主观恐惧评级、客观皮肤电导反应），通过一般线性模型分析三组被试在加工泛化刺激线索时脑功能的变化。

结果 ES 组的恐惧泛化程度显著高于 LS 与 TS 组，快速眼动睡眠占比与恐惧记忆泛化程度呈显著负相关，但并不影响恐惧记忆的表达。核磁结果发现，ES 组在近期处理泛化刺激时前额叶、枕中回、顶下小叶、楔前叶、舌回的激活程度显著低于其他两组（PFWE<0.05）；并且，ES 组在一周后处理泛化刺激时，前额叶、楔前叶等脑区的激活程度仍然显著低于其他两组。

结论 快速眼动睡眠有助于抑制恐惧记忆的泛化，可能与其参与了前额叶、顶下小叶、楔前叶等脑区的情绪与记忆整合功能有关。本研究发现为临床治疗非适应性恐惧泛化相关疾病提供新思路。

关键字：恐惧记忆泛化，睡眠，快速眼动睡眠，神经影像机制

全蛋白质组关联研究发现失眠症新型易感基因 CAMLG

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目的 失眠症是常见的复杂疾病，遗传因素在其发病中起重要作用。全基因组关联研究(GWAS)鉴定出多个失眠症易感基因。然而，易感位点如何参与失眠风险机制尚不完全清楚。通过整合多组学数据，如基因组学、蛋白质组学和转录组学数据等，有望解释易感基因参与失眠症的发病机制，进而为失眠症的发病机制提供重要线索。

方法 本研究利用英国生物银行 UK biobank 的失眠症全基因组关联研究结果(N=386,988)、人脑蛋白质组(N=376)数据以及人脑转录组学(N=888)数据，开展全蛋白质组和全转录组关联研究。采用孟德尔随机化分析和共定位分析筛选易感基因与失眠症的因果关系。利用独立的蛋白质组学(N=152)和转录组数据对结果进行验证。针对筛选出的新失眠易感基因 CAMLG 进行功能验证。

结果 全蛋白质组关联研究鉴定出 5 个失眠易感基因，包括 ADO, LXN, STAU1, CAMLG 和 GFM1，它们通过各自顺式调节机制影响其脑中的蛋白水平，孟德尔随机化分析和共定位分析结果表明上述基因与失眠症存在显著因果关系。基于独立的人脑蛋白质组学数据集(N=152)的验证结果表明，ADO, LXN, CAMLG 和 GFM1 基因与失眠症显著关联。全转录组关联研究结果表明，LXN, CAMLG 和 GFM1 基因在 mRNA 水平与失眠症显著关联。基因表达区域及细胞类型的分析表明，LXN, CAMLG 和 GFM1 基因在与失眠相关的大脑区域富集表达，包括兴奋性神经元、星形胶质细胞和少突胶质细胞前体细胞。随后，本研究选取新发现的失眠症新型易感基因 CAMLG 开展功能分析，结果表明 CAMLG 敲低可通过促进 GABRG2 蛋白降解降低 GABRG2 水平。CAMLG 的缺乏促进了 GABRG2 在细胞质晚期内体中的定位，表明 CAMLG 通过核内体-溶酶体途径部分调控 GABRG2 的降解。结果提示 CAMLG 下调促进 GABRG2 在神经元中的加速降解可能是导致抑制性神经元功能异常并诱发失眠症状的原因。

结论 全蛋白质组关联研究发现 LXN, CAMLG 和 GFM1 为失眠症易感基因，为失眠症的机制和治疗研究提供了潜力的治疗靶点。

关键字：失眠症，全蛋白质组关联研究，CAMLG，GABRG2

失眠障碍患者睡眠觉醒周期蓝斑功能与负性情绪的相关性研究

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目的 失眠障碍（insomnia disorder，ID）是最常见的睡眠障碍，患者常伴发包括焦虑和抑郁症状在内的负性情绪。然而，ID 相关负性情绪的神经生物学机制仍未知。既往研究证实蓝斑是情绪调控的关键脑区，其同时也参与了睡眠觉醒调控。本研究旨在探索 ID 患者睡眠觉醒周期蓝斑与全脑功能连接的变化情况，及其与主观睡眠质量、焦虑和抑郁症状的关系。

方法 本研究纳入符合 DSM-5 诊断标准的 37 例 ID 患者及年龄、性别和受教育年限匹配的 30 名健康受试者。所有受试者首先完成一般人口学资料采集、匹兹堡睡眠质量指数量表、抑郁自评量表、焦虑自评量表的评估，佩戴腕式体外活动仪并记录两周睡眠日记，随后经历连续两晚的多导睡眠监测，并在一周后在北京大学磁共振研究中心接受同步脑电-功能磁共振成像（Electroencephalogram-functional magnetic resonance imaging, EEG-fMRI）扫描，以收集整个睡眠觉醒周期的脑电和脑影像数据。选择蓝斑作为种子点，计算其与全脑的功能连接。通过混合线性效应模型计算基于种子点的功能连接的组与睡眠时相交互作用。随后运用 Spearman 相关性分析探索蓝斑脑功能与匹兹堡睡眠质量指数、抑郁自评量表得分、焦虑自评量表得分之间的相关性。

结果 蓝斑与全脑功能连接的分析结果显示，右顶叶、左颞叶、左岛叶和边缘叶存在组与睡眠时相的交互作用。与健康对照组相比，ID 患者在非快速眼动睡眠 2 期和非快速眼动睡眠 3 期蓝斑与边缘叶的功能连接显著增强。在混合样本中，非快速眼动睡眠 2 期蓝斑与边缘叶的功能连接与抑郁自评量表得分（$r=0.337$，$p=0.019$）和匹兹堡睡眠质量指数评分（$r=0.401$，$p=0.003$）呈显著正相关。

结论 非快速眼动睡眠 2 期睡眠期间蓝斑与边缘叶神经环路的异常调控可能是 ID 伴发抑郁情绪的潜在神经生物学机制。

关键字：失眠障碍；抑郁；蓝斑；同步脑电与功能磁共振

Insomnia with Objective, But Not Subjective, Short Sleep Duration Is Associated with Increased Risk of Incident Hypertension: The Sleep Heart Health Study

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Objective Insomnia with objective short sleep duration (ISSD) has been associated with higher risk of cardiometabolic morbidity. In this study, we examined the association between ISSD, also based on subjective sleep duration, with incident hypertension in the Sleep Heart Health Study (SHHS).

Methods We analyzed data from 1413 participants free of hypertension or sleep apnea at baseline from the SHHS with a median follow-up duration of 5.1 years. Insomnia symptoms were defined based on difficulty falling asleep, difficulty returning to sleep, early morning awakening, or sleeping pill use more than half days in a month. Objective short sleep duration was defined as polysomnography-measured total sleep time

关键字：Insomnia, Hypertension, Objective sleep duration, Incidence, Polysomnography

Food Insecurity is Associated With The Prevalence of Insomnia: Findings from The Longitudinal Ageing Study in India (Lasi)

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Objective Whether food insecurity (FI), a social determinant of health, is associated with insomnia in the older generation is uncertain. This study explored the relationship between FI and insomnia among older Indians.

Methods Data from the Longitudinal Ageing Study in India (LASI) wave 1 (2017-2018). Older adults (≥ 60 years) completing FI and insomnia surveys were recruited. FI was indicated by the lack of assesses to enough food in the past year. Insomnia was determined by the presence of any of three symptoms ≥ 5 times/week: difficulty in initiating sleep (DIS), difficulty in maintaining sleep (DMS), or early morning awakening (EMA). The association between FI and insomnia was assessed by multivariable logistic regression adjusted for potential covariates. The interactions in subgroups of age, sex, drinking, smoking, economic status, and living arrangement were also evaluated.

Results 31186 participants met the entry criteria. Overall prevalence was 7.24% for FI and 11.40% for insomnia. In the fully adjusted model, food insecurity was correlated with insomnia (OR 1.49; 95% CI 1.31-1.70) and was related to DIS, DMS, and EMA (OR 1.38; 95% CI 1.18-1.62, OR 1.46; 95% CI 1.25-1.71, and OR 1.43; 95% CI 1.23-1.88, respectively). A significant interaction effect by age categories was observed between FI and insomnia (p = 0.046). Positive relationships were observed in all age categories, and the magnitude of association was slightly increased with age (OR 1.36; 95% CI 1.14-1.61 in 60-70 years, OR 1.53; 95% CI 1.21-1.92 in 70-80 years, OR 2.20; 95% CI 1.54-3.14 in ≥ 80 years).

Conclusion FI was associated with a higher prevalence of insomnia among older Indians. Our findings elicit concern for public health policies, programs, and practices to address FI, which is imperative to ensure the health and well-being of the older population.

关键字：Food insecurity; insomnia; India

虚拟现实技术辅助治疗慢性失眠有效性及安全性的随机对照研究

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目的 探讨虚拟现实技术（VR）对慢性失眠患者辅助治疗的有效性和安全性。

方法 招募慢性失眠患者 116 例，采用随机数字表法分为试验组（VR+常规治疗，n=58）和对照组（普通动画+常规治疗，n=58），为期 2 周，共完成 8-10 次 VR 治疗，治疗后随访 4 周。在治疗前、治疗 2 周末、治疗结束后 2 周、治疗结束后 4 周分别采用失眠严重程度指数（Insomnia Severity Index，ISI）、匹兹堡睡眠质量指数（Pittsburgh Sleep Quality Index，PSQI）、抑郁自评量表（Self-rating Depression Scale，SDS）和焦虑自评量表（Self-rating Anxiety Scale，SAS）评估 2 组受试者的主观睡眠情况和抑郁焦虑严重程度，采集连续 24 小时的体动记录仪数据，用于分析总睡眠时间、入睡潜伏期、睡眠效率和入睡后觉醒（WASO）时间等睡眠-觉醒节律参数。重复测量方差分析比较 2 组各时间点组内变化差异，卡方检验或 Fisher 确切概率法比较 2 组有效率及不良反应率等。

结果 试验组和对照组在不同时点的 ISI 总分（F=52.339，P<0.01）和 PSQI 总分（F=41.212，P<0.01）差异均有统计学意义。试验组治疗 2 周末和治疗结束后 2 周的 PSQI 总分显著低于对照组（均 P<0.05），治疗 2 周末 PSQI 较治疗前的改善值显著高于对照组（P=0.0051）。以 ISI 减分率作为有效性评价指标，2 组在治疗 2 周末、治疗结束后 2 周和治疗结束后 4 周的有效率差值[95% CI]分别为 27.67% [13.94%, 41.40%]、23.77%[8.72%, 38.81%]、16.34%[3.51%, 29.17%]，不同时点 2 组有效率差异均有统计学意义，试验组均优于对照组。试验组治疗 2 周末的 SDS 总分、SAS 总分均显著低于对照组（均 P<0.05）。体动记录仪数据分析显示，试验组在治疗 2 周末的睡眠效率显著高于对照组（P=0.0243），且治疗结束后 4 周的总睡眠时间较治疗前的改善值显著高于对照组（P=0.0201）。2 组各项不良事件的发生率差异均无统计学意义且无严重不良事件发生。

结论 VR 对慢性失眠患者的睡眠、情绪具有较好的辅助改善作用，安全性较好，可作为慢性失眠治疗的一种增效策略。

关键字：虚拟现实技术，VR，慢性失眠

精神创伤研究协作组

创伤后应激障碍发病与韧性的结构相似性网络及全脑基因表达关联研究

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目的 创伤后应激障碍（post-traumatic stress disorder, PTSD）是一种慢性精神障碍，历了重大创伤事件的人群中有约 30%的个体会罹患 PTSD，而经历了创伤暴露未患病者（trauma-exposed control, TEC）的神经改变可能是创伤个体韧性的关键。研究表明 PTSD 患者和 TEC 个体均存在多个脑区的结构异常，然而不同区域之间的结构相似性网络（morphometric similarity network, MSN）异常仍然不清楚。MSN 的改变可能与不同脑区的基因共表达模式变化有关。本研究旨在探究 PTSD 和 TEC 的 MSN 改变，以及其与全脑基因表达的关联，为进一步理解 PTSD 的发病机制和找到潜在干预靶点提供参考。

方法 本研究样本来自汶川地震重灾区的地震幸存者，其中 PTSD 患者 63 例，TEC 66 例。另招募未经历地震的健康志愿者（HC）52 例。使用 3.0 T MRI 成像系统获取所有受试者头部 T1 加权图像。将大脑划分为 308 个区域，对每例受试者进行皮层重建并提取形态学指标用于构建 MSN。采用一般线性模型计算 PTSD 与 HC，TEC 与 HC 的区域 MSN 差异性。利用 AHBA 数据库中汇总的健康人全脑基因表达数据，采用偏最小二乘回归（PLS）建立全脑区域 MSN 改变与基因表达的关联，找到与区域 MSN 关联最强的基因，并进行基因进行功能富集分析。

结果 PTSD 患者和 TEC 相比于 HC 均出现左侧中央前回 MSN 升高、右侧额中回喙部 MSN 减低，TEC 出现特异性左侧下顶叶、海马旁回等脑区 MSN 升高以及左侧枕叶、右内侧眶额回等脑区 MSN 减低。与 PTSD 患者全脑 MSN 变化显著相关的基因有 3367 个，与 TEC 全脑 MSN 变化显著相关的基因 4380 个（标准化系数 Z<-3 或>3，pFDR < 0.005）。在这些基因中，PTSD 与 TEC 的 Jaccard 相似系数为 0.71，TEC 中有 28.06%的特异性表达基因，PTSD 中仅 2.31%的特异性表达基因。基因富集分析显示小分子分解代谢过程、膜组织、突触信号传递调控等功能存在富集。

结论 本研究将区域 MSN 表型异常与基因表水平进行关联，有助于理解重大创伤后 PTSD 发病与韧性的微观分子功能与宏观脑结构改变的调控机制。

关键字：创伤后应激障碍，神经影像，形态相似性网络，基因表达，韧性

抑郁症患者血清细胞因子水平及其与症状和代谢指标的相关性

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目的 抑郁症是一种包含情绪、认知和躯体三维度症状的常见精神疾病。既往研究证实外周细胞因子可以通过血脑屏障进入中枢，引发中枢炎症级联反应，介导抑郁的发生。代谢综合征（metabolic syndrome，MetS）主要表现为肥胖、糖脂异常和高血压，荟萃分析表明抑郁症和 MetS 之间存在双向关联，队列研究显示抑郁症患者发生 MetS 风险是健康人的 1.5 倍，抑郁症和 MetS 都可被认为是“低度炎性状态”，细胞因子在其中发挥重要作用。本研究通过检测抑郁症患者血清中细胞因子，分析其与代谢指标及抑郁症状的相关性。

方法 收集抑郁症患者 108 例作为病例组，招募健康对照 47 例作为对照组，测定两组血清中细胞因子 IL-4、IL-6、IL-10、IFN-γ 及 TNF-α 水平；使用相关性分析的方法分析抑郁症患者血清中细胞因子水平与症状及代谢相关指标的关系，代谢指标包括 BMI、TBC、CRE、BUN、UA、TG、CHOl、LDL、HDL、GLU 及 HbA1c。

结果 （1）共收集受试者 155 例，其中病例组 108 例，对照组 47 例。病例组和对照组的年龄、性别、吸烟状况、BMI 的差异无统计学意义（P>0.05）。（2）两组血清细胞因子检测发现，病例组血清中 IL-4、IFN-γ 及 TNF-α 水平低于对照组，IL-6 和 IL-10 水平高于对照组，差异有统计学意义。（3）在病例组中，相关性分析发现 HAMA 总分与 IFN-γ 和 TNF-α 水平呈正相关，未发现 HAMD 总分与细胞因子水平相关；IL-6 水平与 TG、CHOl 及 LDL 呈正相关；IL-10 水平与 CHOl 水平呈正相关；病例组 TNF-α 水平与 CRE 水平呈负相关；未发现其他细胞因子与代谢指标之间的相关性。

结论 抑郁症患者存在免疫功能异常，这种免疫功能的紊乱与抑郁症患者伴随出现的代谢异常有一定关联。

关键字：抑郁症，细胞因子，症状，代谢指标

Susceptibility Or Resilience To Childhood Maltreatment Is Related To Hippocampal Subfield Volumes in Major Depressive Disorder Versus Healthy Populations

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Objective Childhood maltreatment (CM) has profound effects on patients with major depressive disorder (MDD) and healthy populations. Numerous studies have linked CM to morphological abnormalities in brain areas responsible for cognitive and emotional processing, such as the hippocampus. However, the hippocampus is not a homogeneous structure but comprises several subfields, and the impact of CM on the morphology of these subfields has not been fully elucidated. In this study, we aimed to investigate whether abnormalities in hippocampal subfield volumes exist in MDD patients and healthy controls (HCs)

and whether such alterations are related to CM.

Methods We employed an advanced automated hippocampal segmentation procedure to measure the hippocampal subfields volumes in MDD patients with CM (n=48), MDD patients without CM (n=30), HCs with CM (n=57), and HCs without CM (n=46).

Results Our analysis has revealed reduced volumes of several hippocampal subfields, such as cornu ammonis (CA), subiculum, molecular layer, and hippocampal body in HCs with CM. In addition, decreased volume in the hippocampus amygdala-transition-area subregion was found in MDD patients with CM. Furthermore, moderation analysis has demonstrated that the altered CA4 subfield volume moderated the relationship between CM and depression severity. Additionally, HCs with CM showed an increase in volume in the right CA3 and amygdala-transition-area subfields, compared to MDD patients with CM, suggesting that increased volume in hippocampal subfields may serve as a potential mechanism of resilience.

Conclusion Collectively, our findings corroborate the notion that CM exerts a significant impact on the morphology of hippocampal subfields, manifesting in both MDD patients and healthy individuals.

关键字：major depressive disorder; childhood maltreatment; hippocampal subfields; resilience; susceptibility

基于质子磁共振波谱成像技术探索青少年双相抑郁患者非自杀性自伤神经代谢改变

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目的 借助氢质子磁共振波谱（1H Magnetic Resonance Spectroscopy,1H-MRS）成像技术探讨青少年双相抑郁患者非自杀性自伤行为与腹内侧前额叶（Ventromedial Prefrontal Cortex,vmPFC）各代谢物之间的关系。

方法 本研究分析了伴或不伴 NSSI 的青少年双相抑郁患者的神经代谢差异。收集了 40 例在 1 个月内未接受药物治疗的青少年双相抑郁患者，根据他们有无 NSSI 行为，分为有 NSSI 组（21 例）和无 NSSI 组（19 例）。使用 1H-MRS 检测所有患者的腹内侧前额叶脑生化代谢物比值。

结果 有 NSSI 青少年双相抑郁患者 vmPFC 的 NAA/Cr 低于无 NSSI 青少年双相抑郁患者，有 NSSI 青少年双相抑郁患者 vmPFC 的 Cho/Cr 和 HAMD 评分有显著正相关性。研究结果表明，有 NSSI 的青少年双相抑郁患者 vmPFC 中 NAA 代谢水平降低，此外，有 NSSI 行为的青少年双相抑郁患者 vmPFC 的 Cho 水平可能与更严重的抑郁情绪有关。

结论 我们的研究指出，青少年双相抑郁患者 NSSI 行为可能与 vmPFC 神经元功能障碍有关，此外膜磷脂分解代谢水平异常可能与更严重的抑郁情绪有关，本研究为青少年双相抑郁患者 NSSI 行为的病理生理机制提供了参考。

关键字：青少年双相抑郁；非自杀性自伤；质子磁共振波谱；

（组内口头交流）

一线消防人员重大救援后应激相关心理反应及其影响因素研究

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目的 调查参与特别重大事故救援的一线消防人员的创伤后应激障碍、抑郁、焦虑症状，同时探究不同因素对于消防人员的 PTSD 的影响，为参与救援行动的一线消防人员制定针对常见精神障碍的干预措施提供理论依据。

方法 研究对象：295 名参与了湖南省某突发特别重大事故抢险救援行动的一线消防人员。研究时点：（1）重大救援前 1 年、发生后 2 周调查消防人员的抑郁、焦虑症状，共回收了 259 份有效问卷；（2）发生后 2 周、发生后 3 月随访了消防人员的 PTSD 症状，共回收了 274 份有效问卷。研究工具：抑郁自评量表、焦虑自评量表、创伤后应激障碍检查表等量表。统计学方法：描述性分析、单因素分析、配对 T 检验比较事故前后抑郁、焦虑的发生率及其症状变化；多重非参数检验分析了 PTSD 症状在人口学变量、职业背景变量类别的差异，以及不同时期、不同岗位的消防人员 PTSD 症状差异，二元 logic 回归分析探究创伤暴露程度、人口学、职业背景、心理弹性、社会支持因素对于消防人员 PTSD 症状发展的潜在影响。

结果 重大救援事件发生之后消防人员抑郁症状发生率从 55.6%下降至 39%，焦虑症状发生率从 2.7%上升到 4.6%，PTSD 症状的发生率为 7.7%；重大救援事件后消防人员的抑郁症状，包括性兴趣/自尊丧失症状、忧虑/焦虑心境、躯体化症状较救援前存在统计学差异；消防人员的焦虑症状，如运动性紧张以及混合症状较救援前存在统计学差异；消防人员的 PTSD 症状在受教育程度、工作年限、心理弹性上存在统计学差异；消防人员的 PTSD 症状，如负性认知及情绪症状在创伤暴露后 2 周与暴露后 3 月之间存在统计学差异；不同岗位的消防人员抑郁、焦虑症状无差异，PTSD 症状存在统计学差异；消防人员 PTSD 症状的严重程度与创伤暴露程度有关。

结论 （1）参与此重大救援的一线消防人员抑郁症状发生率较高于其他研究，焦虑症状发生率相较其他研究低。总体而言，此研究中一线消防人员的抑郁症状较焦虑症状突出；（2）创伤暴露后 3 月较之 2 周，PTSD 症状发生率较高、症状较前有所加重，本次研究中 PTSD 发生率总体低于其他研究。（3）一线消防人员的创伤暴露程度是导致 PTSD 症状严重程度的独立风险因素，受教育程度、工作年限、心理弹性可能是影响 PTSD 症状的因素。

关键字：消防人员；创伤后应激障碍；影响因素

壁报交流

精准医学研究协作组

含利托那韦成分的抗病毒药物与精神科常用药物相互作用的药学建议

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目的 利托那韦是抗逆转录病毒药，常与其他抗病毒药组成复方制剂（如奈玛特韦/利托那韦、洛匹那韦/利托那韦、先诺特韦/利托那韦等）。利托那韦是多种代谢酶的抑制剂或诱导剂，与精神科药物联用时存在复杂的药物-药物相互作用。尽管药品说明书、国内外文献提供了药物联用建议，但临床实践时仍存在国内外药物品种不同、推荐意见不一致或无法实施等不足。

方法 为此，中国药理学会药源性疾病专委会药源性精神疾病学组和首都医科大学附属北京安定医院联合发起，组织医学和药学专家，在对国内外相关综述、共识、指南和数据库文献梳理的基础上，结合我国药品现状和临床实践制订了《含利托那韦成分的抗病毒药物与精神科常用药物相互作用的药学建议》（简称建议）。

结果 首先，分别为精神疾病患者因病情需要新增含利托那韦成分抗病毒药物治疗，和正在服用含利托那韦成分抗病毒药物治疗的患者需新增精神科药物治疗制定了各自的决策路径。其次，将含利托那韦成分的抗病毒药物与国内常用精神科药物联用的相互作用风险分为 4 级，并对每个风险等级中的精神科药物进行了详细的说明，包括相互作用机制，精神科药物浓度变化、药学建议和文献依据。最后，还对含利托那韦成分的抗病毒药物在初始服药和停用时的注意事项，以及联合用药过程中，精神科药物减停的注意事项进行了阐述。

结论 本建议归纳了含利托那韦成分的抗病毒药物与国内常用精神科药物联合使用的药学建议，可为临床实践提供参考。

关键字：利托那韦，药物-药物相互作用，治疗药物监测。

生命不同阶段多重应激对代谢综合征的影响

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目的 探讨生命不同阶段（胎儿期、童年期和成年期）多重应激对代谢综合征发生率的影响。

方法 在 2013-2014 年间调查开滦矿业集团工人，以胎儿期是否暴露于地震作为胎儿期创伤性事件，采用儿童期创伤问卷（Childhood Trauma Questionnaire，CTQ）和生活事件量表（life event scale，LES）分别评估儿童期创伤和成年期生活事件。收集所有受试者一般人口学资料，如性别、年龄、出生日期、家庭收入、受教育情况、吸烟及饮酒史等。进行体格检查，如测量腰围、臀围、身高和体重等。留取血液样本进行血糖、血脂等检查。胎儿期地震暴露组为 1976 年 7 月 29 日至 1977 年 4 月 28 日出生，在胎儿期经历地震；胎儿期非暴露组为 1977 年 7 月 29 日至 1978 年 4 月 28 日出生，地震至少 1 年后出生，胎儿期未遭受地震应激。将 CTQ≥26 分定义为存在儿童期创伤，将 LES≥32 分定义为存在成年期生活事件。将所有受试者根据生命不同阶段遭受创伤性事件的情况分为4组：无应激组、1 个应激组、2 个应激组和 3 个应激组，比较 4 组代谢综合征的发生率。计量资料以?x± s 表示，多组间比较采用单因素方差分析；计数资料用百分率表示，采用 χ2 检验进行组间比较；采用多因素 logistics 回归分析进行代谢综合征的影响因素分析。

结果 最终有 626 人纳入统计分析，其中无应激组 29 人、1 个应激组 249 人、2 个应激组 275 人和 3 个应激组 73 人。 4 组间代谢综合征的发生率比较存在统计学差异（χ2=21.981，P＜0.001），随着遭受创伤时期数量增加代谢综合征发生率增加，分别是 1 个应激组 17.3%，2 个应激组 20.0%，3 个应激组 42.5%。多因素 logistics 回归分析显示，在胎儿期、童年期和成年期均遭受创伤性事件是代谢综合征的独立风险因素（OR=3.134, 95%CI=1.042, 9.429）。吸烟能增加代谢综合征的患病风险（OR=1.809, 95%CI=1.40, 2.871）。

结论 生命不同阶段遭受多重创伤性事件会增加代谢综合征的患病风险。吸烟是代谢综合征的患病的风险因素。

关键字：多重应激；代谢综合征；胎儿期；童年期；成年期

首发抑郁症患者治疗前后肠道菌群及短链脂肪酸的特征性分析

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目的 探索首发抑郁症患者治疗前后肠道菌群结构及肠道代谢产物短链脂肪酸（SCFAs）差异。

方法 本研究纳入 2021 年 5 月 1 日至 2021 年 11 月 1 日就诊于河北医科大学第一医院精神科门诊的首发抑郁症患者（MDD）组 45 例，同时进行招募健康志愿者（CG）组 22 例。所有受试者由精神科医师进行临床资料采集，对受试者进行汉密尔顿抑郁量表（HAMD）、汉密尔顿焦虑量表（HAMA）、躯体化症状自评量表（SSS）、连线测验 A（TMT-A）、反刍思维问卷（RRS）。并收集受试者的粪便样本，并对粪便样本提取 DNA，进行 16S rRNA 肠道菌群基因检测，采集静脉血进行短链脂肪酸检测。其中 21 名抑郁症患者在抗抑郁治疗 1 个月后再次进行量表评估、菌群检测及血液检测。比较抑郁症患者与健康对照组、抑郁症患者治疗前后在临床参数、肠道菌群菌群结构、血清 SCFAs 的差异性。

结果 MDD 组与 HC 组的肠道 β 多样性有显著差

异，MDD 组 Akkermansia 菌、 Megamonas 菌、Lachnospira 菌、Prevotellaceae 菌、Subdoligranulum 菌、Blautia 菌、Streptococcus 菌、Dialister 菌减少，MDD 组血液异戊酸（Z=2.95, P=0.003）、乙酸（Z=2.92, P=0.004）含量增加。抑郁症组治疗前后各量表得分比较均有明显统计学意义（HAMA, t=8.22, P＜0.05; HAMD, t=11.04, P＜0.05; SSS, Z=5.72, P＜0.05; TMT-A, z=4.61, P＜0.05; RRS, Z=5.85, P＜0.05）。抑郁症组治疗前后肠道菌群 α 多样性及 β 多样性无明显差异。治疗后肠道 Odoribacter 菌（P=0.04）及血液异戊酸（P=0.03）减少。

结论 首发抑郁患者与健康对照组在肠道菌群多样性和结构上发生显著差异。首发抑郁症患者治疗 4 周后症状改善，治疗后肠道多样性和结构上没有发生显著差异，血清 SCFAs 中异戊酸减少。

关键字：首发抑郁症；肠道菌群；SCFAs

嗅觉特征联合神经心理学测试对轻度认知障碍的诊断价值

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目的 探讨嗅觉特征联合神经心理学测试对轻度认知障碍（mild cognitive impairment，MCI）的诊断价值。

方法 2021 年 4 月至 2021 年 10 月在石家庄裕华区及邢台入组社区老年人 MCI 者 70 例，NC 组 236 例。利用中国科学院开发的中国人群的嗅觉识别测验（CSIT）嗅棒采集受试者嗅觉识别功能，通过神经心理学测试了解患者的认知功能状况，并通过武汉赛维尔生物科技有限公司的 ELISA 方法对受试者血浆生物标志物（Aβ40、Aβ42、p-tau217）进行检测，利用 SPSS 26.0 和 MedCalc20.027 对数据进行统计分析，通过受试者工作曲线比较嗅觉特征、嗅觉特征结合波士顿命名（Boston Naming Test ，BNT）或血浆生物标志物、波士顿命名结合血浆生物标志物对 MCI 识别的准确率、敏感度及特异度。

结果 与对照组相比，在嗅觉特征中，MCI 组的识别准确率低，组间差异有统计学意义（P<0.05）；在认知测试中，MCI 组的得分更低。与单独嗅觉特征相比，嗅觉特征结合 BNT 的组合在识别 MCI 中的敏感性较高（75.0%）、特异性较高（73.8%），ROC 曲线下面积为 0.788；嗅觉特征结合血浆 Aβ40 对于识别 MCI 的敏感性降低（51.8%）、特异性提高（83.5%），ROC 曲线下面积为 0.709；与单独 BNT 相比，BNT 结合血浆生物标志物 Aβ40 对 MCI 识别敏感性降低（61.1%）、特异性（84.6%）提高，ROC 曲线下面积为 0.770。

结论 对于社区可疑 MCI 的筛查可以采用嗅觉特征结合 BNT 的认知测试，并且 BNT 结合血浆 Aβ40 也可以提高识别 MCI 的特异度，这些组合可能在筛查 MCI 可疑人群方面具有潜在应用价值。但嗅觉特征联合血浆生物标志物的组合对 MCI 的预测作用需要进一步的研究。

关键字：老年人，轻度认知功能损害，嗅觉特征，神经心理学测试，血浆生物标志物，预测作用

中性粒细胞与淋巴细胞比值等指数在双相抑郁与单相抑郁诊断中的价值评估

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目的 研究表明心境障碍的病理机制可能与免疫激活有关。中性粒细胞与淋巴细胞比值（Neutrophil To Lymphocyte Ratio, NLR）等免疫细胞比率指数常被作为研究双相障碍和抑郁症外周炎症标志物。比较分析在发作中双相障碍患者不同状态和单相抑郁症中这些炎症标记物的表现，进一步分析炎症标记物对在双相抑郁与单相抑郁诊断中的价值评估，为治疗心境障碍提供更好指导。

方法 本研究为回顾性研究，纳入河北医科大学第一医院 2022 年 1 月到 2022 年 12 月内住院的患者，共计 404 名，将总样本分为四组（BD 躁狂 175 例、BD 抑郁症 85 例、BD 混合 42 例、单相抑郁 102 例）。从住院数据库中检索中性粒细胞、单核细胞、淋巴细胞和血小板、血脂、hsCRP 等数据。并利用这些参数计算了 NLR 等指数。二元 logistic 回归来探讨炎症标记物对双相抑郁与单相抑郁之间的相关性，并利用 ROC 曲线来判断上述炎症标记物对双相抑郁与单相抑郁诊断中的价值评估。

结果 与单相抑郁组相比，双相躁狂和抑郁患者的 hsCRP、白细胞及 NLR 等免疫细胞比率水平较高（P<0.05）。在四组患者当中，BD 躁狂患者炎症激活指数最高。多因素 logistic 回归发现 NLR[OR=1.836，95%CI（1.169-2.884），P=0.008]、hsCRP[OR=1.209，95%CI（1.008-1.454），P=0.040]是 BD 抑郁发生的危险因素，此外，使用 NLR、hsCRP 指标绘制 ROC 曲线评估诊断单双相抑郁的价值，其曲线下面积分别为 0.641、0.637，并将此两指标组合诊断，发现 NLR+hsCRP 曲线下面积为 0.709。

结论 验证了炎症在心境障碍病理机制中的重要性，其中 NLR 及 hsCRP 等指标在单双相抑郁之间的鉴别诊断中有一定价值，且 NLR+hsCRP 指标组合诊断价值优于单个指标 NLR 及 hsCRP。

关键字：双相障碍；抑郁症；炎症；中性粒细胞；淋巴细胞

精神障碍住院患者高尿酸血症的患病率及尿酸与年龄的关系：一项横断面研究

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目的 本研究旨在评价精神疾病住院患者高尿酸血症的发生率及血清尿酸与年龄的关系。

方法 选取 2021 年 12 月至 2022 年 1 月，在河北医科大学第一医院精神科住院患者 1761 名（665 名男性和 1096 名女性）。通过调取患者的住院病历信息进行横断面研究。根据年龄将参与者分为三组，包括未成年组（17 岁及以下）、青年组（18-45 岁）、中老年组（45 岁及以上）。选取患者的姓名、性别、年龄、身高、体重等基本信息，以及甘油三酯、胆固醇、肌酐、尿酸等生化指标，分析高尿酸血症（hyperuricemia，HUA）的患病率以及这些指标与患者高尿酸血症的关系。采用 Kruskal-Wallis 检验、卡方检验和多元线性 logistic 回归法验证住院精神病患者的 SUA 水平和年龄，并通过平滑曲线拟合探究血清尿酸（serum uric acid，SUA）与年龄之间的关系。

结果 HUA 的估计患病率为 35.4%。与 45 岁及以上人群相比，17 岁及以下人群的 HUA 患病率显著更高（分别为 40.5%和 24.9%，P < 0.001）。未调整混杂因素的情况下，17 岁及以下与 HUA 相关（OR 2.06;95%CI 1.57-2.71）。进一步调整潜在混杂因素，17 岁及以下仍与 HUA 显著相关（调整后 OR 6.85;95%CI 4.79-9.80）。此外，男性患者与女性患者相比，年龄与 HUA 之间的关联更强。SUA 与年龄，体重指数，甘油三酯，总胆固醇，血压不成正比。

结论 平滑曲线拟合表明 SUA 与年龄之间存在非线性关系。年龄是精神疾病住院患者 SUA 的保护因素。

关键字：高尿酸血症；尿酸；年龄；精神病患者；精神病

短链脂肪酸介导炎症反应改善 CUMS 诱导的抑郁和焦虑样行为

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目的 肠道微生物群在抑郁症的发病过程中发挥着重要作用，短链脂肪酸（SCFAs）是肠道微生物最主要的代谢产物，具有抗炎特性。越来越多的证据表明炎症是抑郁症发病的关键致病因素，toll 样受体 4 (Toll-like receptor 4, TLR4)在机体面临应激或损伤时会被激活并增强促炎细胞因子的表达，持续的压力和释放的促炎细胞因子会导致慢性神经炎症。本研究探讨 SCFAs 干预是否通过调控 TLR4/MyD88/NF-κB 炎症通路产生抗抑郁作用。

方法 本研究针对 C57BL/6 J 小鼠进行慢性不可预测轻度应激（Chronic unpredictable mild stress, CUMS）通过蔗糖偏好实验（SPT）、强迫游泳实验（FST）和旷场实验（OFT）进行评估，利用 16S rRNA 基因序列分析小鼠的肠道微生物群；采用免疫荧光染色和 Western blot 方法分别分析海马组织中星形胶质细胞和 TLR4/MyD88/NF-κB 炎症通路的活化情况。

结果 SCFAs 可显著改善 CUMS 诱导的抑郁和焦虑样行为 SPT (F(2,15)=10.912, P=0.001), FST (F(2,15)=10.912, P=0.001), OFT 中心时间 (F(2,15)=12.599, P=0.001) of the OFT ；各组的粪便微生物组成有差异，在科水平，CUMS-SCFAs 组 Rikenellaceaee 与 Bacteroidaceae 相对丰度增加，Clostridia_UCG-014 相对丰度降低；在属水平，Clostridia_UCG-014 和 Prevotella 相对丰度降低，Alistipes 相对丰度增加；此外 SCFAs 可抑制海马区 GFAP 阳性星形胶质细胞的活化(F(2,6)=16.565, P=0.004)，并降低 TLR4/MyD88/NF-κB 通路的表达 TLR4 (F(2,6)=70.588, P<0.001), MYD88(F(2,6)=174.388, P<0.001), NF-κB(F(2,6)=14.40, P=0.005)。

结论 研究结果表明，SCFAs 改善了小鼠的抑郁和焦虑样行为，同时改变了粪便微生物组成及中枢炎症水平。我们发现了 SCFAs 的抗抑郁作用以及可能的作用机制。

关键字：抑郁症；短链脂肪酸；炎症；肠道微生物群

代谢相关疾病与轻度认知损害的相关性研究

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目的 探讨代谢相关疾病与轻度认知损害（MCI）的相关性，尝试从代谢炎症角度探索 MCI 的风险因素，为可能的阿尔茨海默病（AD）患者在 MCI 阶段甚至更早的时期做出干预治疗及预防提供理论依据。

方法 本研究纳入了河北省石家庄及邢台市的社区老年人 219 人，其中存在代谢相关疾病（高血压、高血脂、2 型糖尿病）患者 145 人，及健康对照者 74 人，统一标准测量身高、体重及腹围，采用蒙特利尔认知评估量表（Montreal Cognitive Assessment，MoCA）等评估两组的认知功能情况，使用 ELISA 方法对血浆中 Aβ40、Aβ42、P-tau217、炎症因子 ILβ-1、IL-6、TNF-α 水平进行定量分析。使用基于 SPSS 26.0 软件对上述量表得分及血液样本等数据分析组间差异并探究轻度认知损害的风险因素。

结果 1.代谢相关疾病组与健康对照组的 AD 生物标记物和炎症因子的差异存在统计学意义，其中代谢相关疾病组 ILβ-1（H=4259.50，P=0.013）、IL-6（H=4341.00，P=0.021）、Aβ40（H=3372.50，P＜0.001）高于健康对照组，TNF-α（H=4232.50，P=0.011）、Aβ42/Aβ40（H=3493.00，P＜0.001）、Aβ42（H=3938.50，P=0.001）低于健康对照组，其余指标组间差异无统计学意义（P>0.05）。2.代谢相关疾病组与健康对照组 MCI 的构成比（χ2 =7.397，P=0.007）、腹围（H=2543.00，P＜0.001）和身体质量指数（BMI）（H=2863.50，P=0.012）均高于健康对照组，组间差异均有统计学意义。3.将是否为 MCI 作为因变量，性别、年龄、文化程度、腹围、BMI、是否代谢相关疾病、上述血液指标作为自变量纳入回归分析，结果表明，仅腹围是 MCI 的危险因素（OR=1.130，95%CI=1.040-1.227，P=0.004），相对于文盲，小学、初中是 MCI 的保护因素（OR=0.124、0.185，

95%CI=0.023-0.656、0.043-0.802，P=0.014、0.024）。

结论 腹围是 MCI 的风险因素，应对代谢相关疾病人群检测认知功能水平，并积极控制腹围，预防认知损害。

关键字：代谢相关疾病；轻度认知损害；身体质量指数；腹围；Aβ40；Aβ42；P-tau217；炎症因子

经历儿童期虐待事件的青少年发生自杀的风险增加：边缘型人格特征和近期负性生活事件的中介作用

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目的 既往研究认为儿童期虐待可能会引起情绪调节、身份认同和人际关系这三种能力的降低，以上均导致了青少年群体自杀风险的增加。基于生物心理社会模型，我们认为边缘型人格特征和近期负性生活事件可能是童年期创伤和自杀风险之间的联系的中介。然而，关于儿童期虐待经历导致青少年发生自杀行为的机制性研究相对较少，本研究旨在探讨边缘型人格特征和近期负性生活事件的中介作用。

方法 本研究于 2021 年 4 月至 2022 年 12 月纳入 12 至 18 岁的青少年受试者共 246 人，其中 137 人被诊断患有当前的精神障碍，109 人是健康对照。采用童年期创伤问卷、贝克自杀意念量表、青少年生活事件量表、青少年自我伤害行为问卷、巴瑞特冲动人格问卷和情绪调节困难量表评估受试者临床特征。根据温忠麟推荐的中介效应检验的偏差校正非参数百分位 Bootstrap 方法，应用 SPSS 宏程序 PROCESS 的 model6 进行序列中介效应检验。首先将自变量、因变量和中介变量进行标准化处理，然后在控制年龄和性别的条件下，重复取样 5000 次，计算 95%的置信区间。

结果 我们的研究结果表明，儿童期虐待显著预测自杀（β=0.48）；儿童期虐待预测边缘型人格特征（β=0.17）；儿童期虐待预测近期负性生活事件（β=0.17），边缘型人格特征预测近期负性生活事件（β=0.11）；儿童期虐待、边缘型人格特征和近期负性生活事件同时纳入回归方程时，儿童期虐待对自杀的直接预测显著（β=0.30），边缘型人格特征正向预测自伤（β=0.20），近期负性生活事件正向预测自伤（β=0.21）。中介效应分析表明：边缘型人格特征和近期负性生活事件在儿童期虐待和自杀之间起中介作用，中介效应值为 0.18，占儿童期虐待对自杀的总效应（0.48）的 37.5%。

结论 儿童期虐待会增加自杀的风险，并且这种效应是通过边缘型人格特征和近期负性生活事件的共同作用形成的，对此进行有针对性的干预可能会降低青少年的自杀风险。

关键字：儿童期虐待；自杀；青少年；边缘型人格特征；近期负性生活事件

胎儿期经历地震应激和抑郁症状对成年男性脑网络拓扑属性的影响

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目的 探讨胎儿期经历地震应激及抑郁情绪对成年男性脑网络拓扑属性的影响。

方法 于 2014 年 2 月至 2015 年 7 月于唐山调查胎儿期经历地震应激的男性受试者共 956 名，筛选符合各分组条件受试者共 34 名，分为应激抑郁组(n=8)、应激健康组(n=15)、健康对照组（n=11）。采用汉密尔顿抑郁量表（Hamilton depression scale，HAMD）评估抑郁症状的严重程度，并行脑静息态功能磁共振成像扫描（resting-state functional magnetic resonance imaging，rs-fMRI），使用图论方法分析三组受试者的脑网络拓扑属性，并对三组大脑网络聚类系数、特征路径长度、标准特征路径长度、小世界属性值、全局效率及局部效率进行比较。

结果 与健康对照组相比，应激抑郁组聚类系数、特征路径长度、全局效率显著下降(均 P<0.05)；应激健康组特征路径长度、全局效率显著下降(均 P<0.05)。与健康对照组相比，应激抑郁组受试者内侧额上回（p＜0.001，t=-2.631）节点介数下降，颞下回（p＜0.001，t=3.203）节点介数增加；后扣带回（p＜0.001，t=-2.209）节点度中心性下降，颞上回（p＜0.001，t=3.505）、眶部额上回（p＜0.001，t=2.641）度中心性增加；缘上回节点效率下降（p＜0.001，t=-4.515）。应激健康组较健康对照组中央后回（p＜0.001，t=-2.133）节点介数下降，背外侧额上回（p＜0.001，t=-2.226）节点效率下降。应激抑郁组较应激健康组海马（p＜0.001，t=-2.158）节点度中心性下降。

结论 产前地震应激和抑郁情绪与成年男性脑网络功能改变有关，且产前地震应激较抑郁情绪对脑网络功能的影响明显，两者联合作用对成年男性脑网络功能的影响尤为显著。

关键字：胎儿期应激；抑郁；拓扑属性；图论；小世界

Correlation Between Behavioral Impairment and Peripheral Blood Biomarkers in Patients with Mild Cognitive Impairment

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Objective Mild behavioral impairment (MBI) in non-demented elderly adults may be influenced by early Alzheimer's disease (AD) pathology. We examined the prevalence of mild behavioral impairment (MBI) in healthy older adults (HOA) and individuals with mild cognitive impairment (MCI), and the association between

MBI and plasma biomarkers of Alzheimer's disease (AD).

Methods A total of 241 subjects (136 HOA and 105 MCI) were enrolled in the Yuhua District of Shijiazhuang City, Hebei Province, in China. The MBI Symptom Checklist was employed for assessment and diagnosis of MBI. Fasting venous blood was collected from 70 patients (32 HOA, 38 MCI), and Aβ40, Aβ42, and P-Tau217 levels were measured using enzyme-linked immunosorbent assay.

Results The prevalence of clinically related MBI in HOA and MCI groups was 4.4% and 15.3%, respectively ($\chi2$=7.262, P=0.007), especially in terms of decreased motivation, impulse dyscontrol (highest detection rate), and social inappropriateness (P<0.05), but there were no differences in emotional dysregulation and abnormal perception or thought content (lowest detection rate) (P>0.05). Additionally, no significant difference in total MBI incidence and MBI subdomains between genders was observed. MBI total score was correlated with Aβ42 and P-Tau217 (r=-0.392, P=0.029; r=-0.403, P=0.025), but not with Aβ40 or Aβ42/40 ratio. Among the subdomains, impulsivity domains were correlated with Aβ42 (r=-0.401, P=0.025).

Conclusion Both MCI and HOA demonstrated a higher prevalence of MBI, with impulse control behavior being the most common. MBI not only serves as an independent risk factor for cognitive decline but is also associated with AD biomarkers.

关键字：Mild cognitive impairment; Mild behavioral impairment; Alzheimer's disease; Neuropsychiatric symptom; Aβ42; P-tau

应激易感小鼠肠道菌群与短链脂肪酸和炎症水平的差异

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目的 长期暴露在慢性应激下，抑郁的发生率会增加。然而，慢性应激只会引起一部分个体患病风险增加。目前认为炎症是一种促进应激易感性的机制。本研究探讨经历慢性不可预测轻度应激（CUMS）易感组小鼠与抵抗组小鼠的肠道菌群、肠道菌群代谢产物短链脂肪酸（Short chain fatty acids, SCFAs）及体内炎症水平差异。

方法 本研究针对 C57BL/6 J 小鼠进行 CUMS，通过蔗糖偏好实验（SPT）、强迫游泳实验（FST）和旷场实验（OFT）进行评估，根据焦虑和抑郁行为学测试结果分为 CUMS 易感组与 CUMS 抵抗组，采用 16S rRNA 基因序列分析小鼠的肠道微生物群，采用液相色谱和气相色谱质谱法检测粪便中 SCFAs；采用 ELISA 和 Western blot 方法分析海马组织中炎症因子及 TLR4/MyD88/NF-κB 炎症通路的活化情况。

结果 CUMS 易感小鼠表现出更严重的抑郁和焦虑症状（SPT, F(2,12)=18.761, P<0.001; FST, F(2,12)=3.889, P<0.05;），α 多样性显著差异，海马中白细胞介素 (IL)-1β （F(2,9)=4.588, P=0.039) 和 TLR4/MYD88/NF-κB 炎症通路组分表达升高（TLR4(F(2,6)=47.623, P<0.001), MYD88(F(2,6)=41.982, P<0.001), NF-κB(F(2,6)=18.294, P=0.003)）。CUMS 抵抗组小鼠粪便中的 SCFA 水平明显高于对照组小鼠(乙酸 (F(2,9)=8.135, P=0.010), 丙酸 (F(2,9)=3.342, P=0.082), 丁酸 (F(2,9)=12.589, P=0.002), 戊酸 (F(2,9)=25.922, P<0.001), 异丁酸 (F(2,9)=28.953, P<0.001), 异戊酸 (F(2,9)=24.252, P<0.001)。

结论 暴露于 CUMS 压力下的小鼠并不总是表现出抑郁和焦虑的症状。CUMS 易感组小鼠肠道菌群多样性和 MYD88、NF-κB、TLR4 蛋白水平均高于 CUMS 抵抗组。CUMS 抵抗组的 SCFA 水平明显高于 CUMS 易感组。肠道菌群和 SCFAs 改变可能是提高慢性应激后恢复能力的途径。

关键字：慢性应激；抑郁症；短链脂肪酸；炎症；肠道微生物群

CLOCK 基因多态性与双相障碍、精神分裂症易感性的 Meta 分析

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目的 探讨昼夜节律时钟基因 CLOCK 多态性与双相障碍、精神分裂症易感性的关系。

方法 通过计算机检索 PubMed、Embase 和 Scopus 数据库，查找建库至 2022 年 9 月有关 CLOCK 基因与双相障碍、精神分裂症易感性关系的研究文献。使用关键词“single nucleotide polymorphism”或“polymorphism”、“SNP”，以及“bipolar disorder”、“schizophrenia”、“clock”来筛选文章并提取数据。通过 Stata17.0 进行统计学分析，卡方检验计算 CLOCK 基因的分布与哈代温伯格定律（Hardy Weinberg Equilibrium, HWE）检验，采用 95% CI 合并 OR 检验评估 CLOCK 基因多态性与双相障碍、精神分裂症发病风险之间的关联强度，依次比较等位基因模型、显性模型、隐性模型。

结果 共检索文献 529 篇文献，最终纳入 7 篇，包括一项高加索人种研究（病例组 121 例和对照组 121 例）和 6 项蒙古利亚人种研究（病例组 1,695 例和对照组 2,896 例）。其中双相障碍有关的 SNP 为 rs3736544[隐性模型(OR=1.10,95%CI=0.64～1.87,P= 0.706)，显性模型(OR=1.14,95%CI=0.70～1.88,P=0.099)和等位基因模型 (OR=1.07,95%CI=0.85 ～ 1.35,P=0.158)] 和 rs1801260[隐性模型 (OR=1.06,95%CI=0.59 ～ 1.91,P= 0.392)，显性模型(OR=0.84,95%CI=0.68～1.04,P=0.257) 和等位基因模型 (OR=1.15,95%CI=0.95 ～ 1.39,P=0.213)]，与精神分裂症有关的 SNP 为 rs1801260[隐性模型 (OR=0.29,95%CI=0.03 ～ 2.48,P= 0.004)，显性模型 (OR=0.64,95%CI=0.32 ～ 1.27,P ＜ 0.001)和等位基因模型(OR=0.63,95%CI=0.32～1.27, P ＜0.001)]。昼夜节律时钟基因 CLOCK 多态性与双相障碍、精神分裂症易感性之间的相关性在各基因模型

中无统计学意义。

结论 昼夜节律时钟基因 CLOCK 基因多态性与双相障碍、精神分裂症发病风险之间的相关性较弱，需要纳入更多高质量的研究进行进一步分析。

关键字：昼夜节律；时钟基因；基因多态性；双相障碍；精神分裂症；Meta 分析

轻度认知障碍患者在双重任务行走中的姿势改变

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目的 比较轻度认知障碍（mild cognitive impairment,MCI）患者与认知正常老年人在行走过程中的姿势特征，分析 MCI 患者在行为运动学上的标志性改变，并探讨姿势与认知功能的关联。

方法 在 2022 年 2 月-2022 年 3 月的邢台老年认知筛查队列中纳入 54 例 MCI 患者及 56 例认知正常老年人。要求所有受试者完成双重任务行走（即在平坦地面上行走的同时进行 100 连续减 7 的计算任务），并接受神经心理评估。使用 OpenPose 系统提取人体 25 个关键点的坐标，分析了在双重任务行走过程中 13 个关节之间的相对距离与 10 个关节角度的变化。使用斯皮尔曼相关性分析对姿势特征与蒙特利尔认知评估量表（ MoCA)子量表的关系进行分析，采用受试者工作特征曲线（ROC）分析评估姿势特征识别 MCI 患者的能力。

结果 与认知完整组相比，MCI 患者在垂直方向上双手之间运动距离的变异程度更大（Z=-3.211, P=0.001）；在水平方向上，左腿向外侧的摆动幅度更大（Z=-1.967, P=0.049），右侧髋关节的活动范围更小（t=2.058, P=0.042），左侧膝关节的伸展程度更小（Z=-2.667, P=0.008）。这四种姿势特征都与视空间功能相关：视空间子量表得分越低，双手垂直运动距离的变异程度越大（r=-0.257,P=0.007），左腿向外侧摆动幅度更大（ r=0.263,P=0.0067 ），右侧髋关节的活动范围（ r=0.204,P=0.032 ）及左侧膝关节的伸展程度（r=0.266,P=0.005）更小。根据 ROC 分析显示：在双重任务中，双手的运动特征在 MCI 识别中表现出较好的判别能力（AUC=0.678，P=0.001），敏感度为 64.8%，特异性为 64.3%；其次为左膝特征（AUC=0.647，P=0.008）、左腿特征（AUC=0.609，P=0.049）。联合三个指标对 MCI 的识别能力最好（AUC=0.730，P＜0.001），敏感度及特异度均得到了提高（敏感度为 66.7%，特异性为 76.8%）。

结论 轻度认知障碍患者在双重任务行走中表现出独特的姿势特征。这些特征与视空间功能明显相关，并为 MCI 的早期识别提供了新的思路与客观证据。

关键字：轻度认知障碍；双重任务；步态；姿势

新型冠状病毒感染导致医护人员返岗压力及影响因素分析

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目的 探讨新型冠状病毒感染后医护人员返岗压力及相关影响因素。

方法 本研究选取 2022 年 11 月至 2023 年 1 月感染新冠病毒的河北医科大学第一医院医疗工作人员 131 例作为研究对象，调查工具采用自制一般情况调查表、焦虑自评量表（SAS）、抑郁自评量表(SDS)。应用 SPSS25.0 软件对数据进行统计学分析。计数资料使用例数和百分率描述，计量资料以 M(P25,P75) 表示。在本次分析中根据数据的特性主要运用卡方检验和秩和检验分析。

结果 本次参与调查的 131 例医护人员中医师所占比例为 44%，护士所占比例为 58%。医护人员中 58% 在感染新冠症状好转后立即返岗。在新冠感染后医务人员投入工作精力显著低于感染前（?2 =15.54，P =0.019）；女性医护人员的焦虑水平显著高于男性（Z =-3.516,P <0.001），女性医护人员的抑郁水平显著高于男性（Z =-3.162,P =0.002）；博士及以上学历者的焦虑水平显著高于本科（Z =11.059,P =0.011），其余学历组别之间焦虑抑郁症状无明显差异；与家人居住者焦虑水平显著高于独居人员（Z =-2.047，P =0.041）；因担心传染给家人而产生返岗焦虑的医护人员的抑郁水平明显高于因其他原因而产生返岗焦虑的医护人员（Z =-2.628，P=0.009）；存在返岗焦虑的医护人员感染前投入的工作精力明显少于不存在返岗焦虑的医护人员（?2=14.318，P <0.001）；存在返岗焦虑的医护人员与不存在返岗焦虑的医护人员相比，所认为的合理返岗时间不同（?2=8.298，P =0.029），不存在返岗焦虑的医护人员对返岗更积极；对返岗、在岗存在焦虑的医护人员出现中重度抑郁的比例显著高于对返岗、在岗不存在焦虑的医护人员（?2 =8.017，P =0.022）。

结论 医护人员面对疫情容易产生焦虑抑郁情绪，尤其是女性，以及与家人共同生活的医护人员。对返岗产生焦虑的主要来源主要是担心传染给家人及对合理返岗时间存在异议，而且这种对返岗的焦虑会影响工作精力并带来抑郁情绪。所以医院应设置合理的返岗时间并关注对医护家属的传染问题，从而减少医护人员对返岗的焦虑，维护医护人员的工作精力和心理健康。

关键字：新型冠状病毒感染；医护人员；返岗压力；心理状况

伴焦虑症状的儿童青少年抑郁症患者主观时间知觉的改变

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目的 时间知觉是人脑对时间的感知能力。研究发现，时间知觉受性别、年龄、情绪、疾病等相关因素的影响。目前关于抑郁症患者时间感知变化的研究结论并不一致，本研究通过评估儿童青少年抑郁症患者主观时间知觉及焦虑抑郁得分，旨在讨论其主观时间知觉的改变以及伴焦虑症状对儿童青少年抑郁症患者的主观时间知觉影响。

方法 收集河北医科大学第一医院精神科的66例ICD-10诊断为抑郁症患者（平均年龄15.42岁）和石家庄一中、石家庄栾城区第二中学以及栾城区职业技术教育中心招募的66例健康对照组（平均年龄15.80岁）的一般信息，采用主观时间知觉量表（包括“时间压力”、“时间扩张”、“时间隐喻快速”、“时间隐喻慢速”四个维度）评估被试的主观时间认知，选用汉密尔顿抑郁量表评估患者的抑郁症状，选用广泛性焦虑障碍量表筛查焦虑症状。采用 t 检验和秩和检验比较抑郁组和健康对照组的主观时间知觉得分，伴或不伴有焦虑症状以及不同焦虑程度的抑郁症患者主观时间知觉得分，采用 Spearman 相关分析探究抑郁症患者中有无焦虑症状及焦虑症状的严重程度和时间知觉是否相关，以 $P < 0.05$ 认为有统计学意义。

结果 1、抑郁组在时间扩张和时间隐喻慢速得分高于健康对照组（$P<0.05$），时间压力得分高于对照组（$P=0.126$），在时间隐喻快速得分低于对照组（$P=0.022$）。2、抑郁组中，GAD-7得分和主观时间知觉各维度均成正相关（$P<0.05$），HAMD得分与时间扩张、时间隐喻慢速成正相关（$P<0.05$）。3、抑郁组中65%的患者伴有焦虑症状，伴焦虑症状组在时间压力、时间扩张和时间隐喻：慢速的得分高于不伴焦虑症状组（$P<0.05$）。4、焦虑程度越高，在时间压力、时间扩张的得分越高（$P<0.05$），多重比较时发现，重度焦虑组在时间压力得分高于无焦虑组（$P=0.001$），重度焦虑组在时间扩张得分高于轻度焦虑组（$P=0.042$）。

结论 与健康对照组相比，抑郁组患者的主观时间知觉发生改变。患有抑郁症的儿童青少年患者的时间感知改变表现为时间变慢。伴焦虑症状的抑郁症患者更容易感受到时间变快，主观体验到时间压力，同时伴焦虑症状也进一步加重患者的时间变慢的体验。上述时间知觉体验的变化可能涉及相关脑区结构的改变，未来需进一步研究以探讨其具体机制。

关键字：时间知觉；抑郁症；焦虑症状；儿童青少年

疫情期间青少年精神障碍患者休学情况及家庭影响因素分析

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目的 探讨疫情期间因精神心理疾病休学的青少年患者疾病分布情况，并分析家庭因素对其可能产生的影响。

方法 筛选2021年1月至2022年12月期间于河北医科大学第一医院精神卫生中心门诊就诊的青少年患者。填写一般情况调查表，采用汉密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD）、焦虑自评量表（SAS）、抑郁自评量表（SDS）评估患者焦虑抑郁的严重程度；采用中学生心理健康量表、社会适应性自评问卷、自尊量表、青少年生活事件量表、中学生人际关系测量、家庭环境测评量表（FES-CV）、父母教养方式评价量表（EMBU）评估休学青少年患者适应能力、人际交往能力、应激相关因素及家庭因素。

结果 共筛选150名休学的青少年患者，包括抑郁障碍（n=107）、焦虑障碍（n=13）、双相情感障碍（n=4）、适应障碍（n=11）、强迫障碍（n=6）、精神分裂症（n=6）、注意缺陷与多动障碍（n=2）、孤独症（n=1）。结果显示，抑郁障碍患者占有比例为71.3%，占休学青少年患者的绝大部分。分析年龄、性别、教育阶段、目前治疗、是否存在NSSI行为是否会影响患者焦虑抑郁的程度，分析家庭环境、父母教养方式与中学生心理健康、社会适应性、自尊、青少年生活事件、人际关系的相关性。结果显示，性别（$p=0.028$）、有无NSSI行为（$p=0.034$）、FES-CV矛盾性（$p<0.001$）可以显著影响HAMA分数。性别（$p=0.003$）、有无NSSI行为（$p=0.002$）、FES-CV矛盾性（$p<0.001$）可以显著影响HAMD分数。性别（$p=0.004$）、有无NSSI行为（$p=0.020$）、FES-CV矛盾性（$p=0.007$）可以显著影响SAS分数。性别（$p=0.014$）、有无NSSI行为（$p=0.006$）、FES-CV矛盾性（$p=0.010$）可以显著影响SDS分数。FES-CV组织性可以显著影响社会适应性（$p=0.033$）、人际关系（$p=0.042$）。FES-CV矛盾性可以显著影响青少年生活事件中的受惩罚（$p=0.005$）、健康适应（$p=0.002$）。父母教养方式与患者焦虑抑郁程度、社会适应性、自尊、人际关系无明显相关关系。

结论 疫情期间，家庭环境对休学学生心理健康的影响较大，组织性和矛盾性影响更为明显。日常生活中，父母应注意营造良好的家庭环境，促进儿童、青少年等学生心理的健康发展。

关键字：疫情 休学 青少年 精神障碍 家庭环境

抑郁症患者血清胃饥饿素水平以及光照治疗效果的初步探索性研究

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目的 胃饥饿素是一种调节食欲的激素，在情绪调节中也发挥作用。目前关于胃饥饿素与抑郁症之间的关系仍有争议，光照疗法是治疗抑郁症的一种物理治疗，其机制可能是通过眼-脑激素调节通路调节胃饥饿素分泌进而缓解抑郁症状。本研究旨在调查抑郁症患者血清胃饥饿素水平，探索光照治疗的疗效及对胃饥饿素水平的影响。

方法 筛查2021年9月至2022年12月在河北医科大学第一医院精神卫生中心住院的抑郁症患者，采用随机数字表法随机分为光疗组（光照治疗+药物组，

n=30）、单纯药物组（n=30），同时在查体中心招募健康对照组（n=30），治疗 1 周。光照治疗采用光疗室的方式，光照强度为 10000lux，于清晨 7:30 至 8:00 进行 30 分钟光照，连续治疗 7 天。在治疗前及治疗第 1 周末，采用 17 项汉密尔顿抑郁量表(Hamilton depression scale, HAMD17)和汉密尔顿焦虑量表(Hamilton anxiety scale, HAMA)评定患者的临床症状，比较 3 组基线及治疗后光疗组和单纯药物组的有效率和缓解率，同时留取患者血液标本用于检测胃饥饿素水平。采用 $\chi 2$ 检验和重复测量方差分析进行统计比较。采用独立样本 t 检验比较光疗组及单纯药物组在治疗 1 周末各量表总分、因子分减分率及胃饥饿素水平的差异。

结果 治疗前光疗组及单纯药物组 HAMD、HAMA 总分以及胃饥饿素水平均高于健康对照组（F=63.467/60.043，P＜0.001）。光疗组在治疗 1 周末 HAMD 及 HAMA 评分显著低于单纯药物组（F=4.973/5.352，P=0.033/0.027）；光疗组在治疗 1 周末胃饥饿素水平与健康对照组无明显差异，单纯药物组胃饥饿素水平仍明显高于健康对照组（F=4.186,P=0.20）。

结论 以光疗室的方式进行光照治疗能显著改善抑郁症患者的抑郁、焦虑情绪，抑郁症患者胃饥饿素水平升高，光照治疗后胃饥饿素水平趋于正常，胃饥饿素水平的变化可能是光照治疗改善患者抑郁症状的相关机制之一。

关键字：光照治疗；光疗室；抑郁症；胃饥饿素；机制探索

某高校医学生网络使用现状及影响因素调查分析

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目的 调查高校医学生网络使用现状及相关的影响因素。

方法 采用互联网自评问卷方式，于 2021 年 10 月 11 日-2021 年 11 月 7 日，对河北省某医学院校 7201 名医学生进行网络使用现状的调查。采用中文版网络成瘾量表（the Internet Addiction Test，IAT）、匹兹堡睡眠量表（PSQI）、焦虑自评量表（SAS）、抑郁自评量表（SDS）评估网络使用状况、睡眠、焦虑、抑郁情绪，并收集人口学一般资料。根据 IAT 量表评分界定无网络成瘾组、疑似成瘾组和成瘾组，比较组间网络使用状况并分析网络成瘾影响的相关因素。

结果 筛查出存在网络使用问题的学生（IAT≥40 分）共 1788 例（24.8%），其中疑似成瘾者 1721 例（23.9%），成瘾者 67 例（0.9%）。R×C 卡方检验分析显示：三组中家庭教养方式、经历校园欺凌、学习压力、人际关系不良、睡眠质量差、焦虑、抑郁情绪在无网络成瘾组、疑似成瘾组、成瘾组之间差异具有统计学意义（P＜0.001），日常体育锻炼、内向性格在疑似成瘾和成瘾组与无网络成瘾组之间差异具有统计学意义（P＜0.001）。三组在性别、年级、婚恋情况、吸烟、饮酒无统计学差异（P＞0.05）。多元 Logistic 回归分析显示：焦虑和抑郁情绪是网络成瘾的主要影响因素（P＜0.001，OR=4.866，6.038）；人际关系不良、溺爱型家庭、睡眠质量差、校园欺凌、日常体育锻炼也是网络成瘾的影响因素（P＜0.05，OR=4.023、3.147、2.168、1.938、0.386）。

结论 医学生网络使用问题检出率 24.8%，焦虑和抑郁情绪是网络成瘾的主要危险因素，日常体育锻炼是网络成瘾的保护因素。

关键字：医学生；网络成瘾；焦虑抑郁；影响因素；调查分析

深部经颅磁刺激治疗抑郁症的疗效及脑影像学变化

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目的 探讨抑郁症患者经过深部经颅磁刺激治疗（deep transcranial magnetic stimulation，dTMS）后大脑静息态影像学变化及其与患者焦虑抑郁及自杀意念症状的关系。

方法 本研究为前瞻性研究，研究对象为 2022 年 9 月-2022 年 11 月在河北医科大学第一医院精神卫生中心门诊或住院入组的抑郁症患者（n=5），所有患者在治疗前及 20 次 dTMS 治疗后均进行临床资料评估（包括汉密尔顿焦虑量表（Hamilton anxiety scale，HAMA）、汉密尔顿抑郁量表（Hamilton depression scale，HAMD）和贝克自杀意念量表（Beck scale for suicide ideation-Chinese version，BSI-CV)）和磁共振扫描。纳入年龄、性别匹配的健康对照组 5 例行磁共振扫描。使用美国西门子公司 3.0T 磁共振成像系统完成受试者影像数据的采集。计算大脑内每个体素与其周围相邻体素在时间序列上的一致性，得出该体素的肯德尔和谐系数（ReHo 值），以差异脑区为种子点计算患者治疗前后种子点与全脑的功能连接值。用 MATLAB2018b 平台 SPM 所带统计分析软件对抑郁组和健康对照组的 ReHo 值进行独立样本检验，再对抑郁症患者 dTMS 治疗前后的 ReHo 值及功能连接值进行配对样本 t 检验。结果采用 FWE 校正（体素水平 P＜0.001，簇水平 P＜0.05，双侧检验）。

结果 深部经颅磁刺激治疗后，抑郁症患者 HAMA 总分、精神焦虑因子分和躯体焦虑因子分较前显著降低，HAMD 总分、焦虑/躯体化因子分、认知因子分和迟滞因子分较前显著降低，贝克自杀意念量表得分也较前显著降低（均 P＜0.05）。与健康对照组相比，抑郁症患者右背外侧额上回、右前扣带回 ReHo 值明显升高，左距状裂周围皮层、右枕上回 ReHo 值明显降低（P＜0.05，FWE 校正）。深部经颅磁刺激治疗后，患者右背外侧额上回 ReHo 值降低（t=-32.98，P＜0.05）。以右背外侧额上回为感兴趣区，20 次深部经颅磁刺激治疗后，右背外侧额上回与左中央后回功能连接增强

（t=13.25，k=22，x=-54,y=-12,z=36）。

结论 dTMS 治疗后患者右背外侧额上回 ReHo 值降低、右背外侧额上回与左中央后回功能连接增强，可能与 dTMS 抗焦虑、抗抑郁以及降低自杀意念相关。

关键字：dTMS；抑郁症；自杀意念；功能连接；reho

内源性大麻素基因多态性与抑郁障碍临床症状的相关性研究

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目的 探讨应激与内源性大麻素单核苷酸多态性（SNP）对抑郁障碍及其临床特征的影响。

方法 2021 年 11 月-2022 年 6 月在河北医科大学第一医院精神卫生中心纳入抑郁组 100 例以及对照组 55 例，调查被试者的应激因素，包括家庭教育方式，评估童年期创伤问卷、生活事件量表、压力知觉量表。对于评估抑郁障碍的临床特征，采用 HAMD、HAMA、PSQI 及贝克自杀意念问卷中文版。应激—内源性大麻素 SNPs—抑郁障碍发病之间的相关性采用 logistic 回归分析。将 100 例抑郁组的抑郁障碍临床特征进行深层分析，应激—内源性大麻素 SNPs—抑郁障碍临床特征之间的相关性采用回归模型的协方差分析。

结果 压力知觉（OR=22.749，95%CI=7.525～68.774，P＜0.001）、家庭教育方式（OR=23.246，95%CI =1.293～8.152，P = 0.012）与抑郁障碍存在关联性。CNR2 rs2501432 TT 基因型（OR=4.447，95%CI =1.155～17.124，P＝0.030）、FAAH rs324420 AA 基因型（OR=11.929，95%CI =1.003～142.335，P = 0.049）与抑郁障碍发病相关。将 100 例抑郁组的抑郁障碍临床特征进行深层分析。CNR1 rs1049393 TT 型为 HAMA 分值的保护性因素（F =4.650，P = 0.002），FAAH rs324420 对 HAMA 分值的危险因素（F =4.566，P = 0.013）。CNR1 rs2023239、CNR1 rs7766029、CNR1 rs7766029、CNR2 rs2501432 与压力知觉以协同作用的方式对 PSQI 分值产生影响。

结论 CNR2 rs2501432 TT 型、FAAH rs324420 AA 型为抑郁障碍的危险因素 CNR1 rs1049393 CC 型、FAAH rs324420 AA 型为抑郁障碍焦虑程度的危险因素。CNR1 rs104939 CC 型是压力知觉与非民主型家庭方式背景下抑郁障碍的保护因素。压力知觉与 CNR1 rs104939、CNR1 rs2023239、CNR1 rs7766029、CNR2 rs2501432 以协同作用的方式对抑郁障碍的睡眠质量产生影响。

关键字：抑郁障碍；内源性大麻素基因多态性；应激

内源性大麻素外周 AEA、2-AG 水平与抑郁障碍临床症状的相关性

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目的 初步探索外周内源性大麻素 AEA、2-AG 水平与抑郁障碍临床症状的相关性。

方法 纳入 2021 年 11 月-2022 年 6 月在河北医科大学第一医院精神卫生中心门诊就诊及住院治疗的抑郁障碍患者。健康对照组均为招募的志愿者，其性别、年龄、受教育程度与病例组相匹配。评估抑郁障碍的临床特征，采用汉密尔顿抑郁量表（Hamilton Depression Scale, HAMD）、汉密尔顿焦虑量表（Hamilton Depressive Scale, HAMA）、匹兹堡睡眠质量指数（Pittsburgh sleep quality index, PSQI）及贝克自杀意念问卷中文版。比较抑郁组与对照组外周 AEA、2-AG 水平；采用 Spearman 相关分析，探索抑郁组外周 AEA、2-AG 水平与抑郁障碍临床特征的相关性；采用 kruskal-wallis 秩和检验（H-检验），分析内源性大麻素基因多态性与外周 AEA、2-AG 水平的相关性。

结果 抑郁组较对照组外周 AEA（14.70±3.46 vs 292.01±21.77，P＜0.001）、2-AG（105.77±21.90 vs 2081±355.48，P＜0.001）水平显著下降。在抑郁组中，AEA 水平与 HAMA 分值呈负相关（r = -0.241，P = 0.016）。AEA 与 HAMD 分值（r＝-0.166，P＝0.099）、PSQI 分值（r＝-0.139，P＝0.169）、自杀意念（r＝0.073，P = 0.470）未见相关性。2-AG 与 HAMD 分值（r = -0.069，P＝0.493）、HAMA 分值（r＝-0.159，P＝0.113）、PSQI 分值（r = -0.086，P = 0.396）、自杀意念（r = -0.094，P = 0.350）未见相关性。

结论 外周 AEA、2-AG 水平的下降与抑郁障碍相关。在抑郁障碍人群中，AEA 水平的与焦虑症状的严重程度呈负相关。检测外周 AEA、2-AG 水平的变化可能有助于识别抑郁障碍及其临床特征。

关键字：抑郁障碍；内源性大麻素；AEA；2-AG

正念减压对乳腺癌患者及其照顾者负性情绪的对照研究和机制探讨

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目的 本研究将在心理治疗师的指导下，进行标准化 MBSR（mindfulness based stress reduction）对乳腺癌患者及其照顾者负性情绪的研究，并且评估机制。这项随机对照研究将通过分析干预前后的负性情绪相关量表来评估 MBSR 的疗效。此外，本研究还将评估细胞因子和端粒酶水平，以探索 MBSR 的生物学机制。

方法 研究于 2022 年 6 月开始至 2023 年 12 月结束，主要实施单位为河北医科大学第一医院和天津肿瘤医院，这项随机对照试验将以 1：1 的比例随机将符合纳入标准的 60 对乳腺癌患者及其照顾者的二元组分为 MBSR 组和 NMBSR(non- mindfulness based stress reduction)组。MBSR 组参与者接受为期 8 周的正念减

压治疗，而 NMBSR 组参与者仅接受健康教育。主要结果将包括对癌症复发恐惧量表、匹兹堡睡眠量表、医院焦虑抑郁量表、五因素正念觉知量表等量表。次要结果将包括血清细胞因子 IL-6（interleukin-6）、IL-10（interleukin-10）、IFN-γ（Interferon-γ）和 TNF-α（Tumor Necrosis Factor-α）的浓度，血清端粒酶活性（Telomerase activity，TA），以及白细胞端粒长度（Telomere length，TL）的测定。采用 SPSS 25.0 软件、GraphPad Prism 8 软件进行数据分析，符合正态分布的计量资料描述为均值±标准差，组间比较采用 t 检验、非正态分布计量资料描述为中位数（四分位数间距），组间比较采用非参数检验（Wilcoxon 秩和检验）、计数资料采用 χ2 检验，相关性分析采用 Pearson 相关分析。

结果 后期的研究正在进行中，前期的结果显示，乳腺癌和照料者二元组在干预组与对照组相比，干预组患者的生活质量和焦虑抑郁有显着改善，端粒酶活性较对照组更高。与对照组相比，干预组的照顾者的焦虑抑郁有所改善（P＜0.05）。

结论 MBSR 是一种无风险、操作灵活、成本效益高的干预措施，会改善癌症患者的负性情绪。这项研究中描述的随机对照试验将测试这种非药物干预是否可以减少乳腺癌患者的负性情绪，提供一种有效的非药物治疗方式改善肿瘤患者的负性情绪。

关键字：乳腺癌；正念减压；焦虑；端粒；细胞因子

经皮颅-耳电刺激对不同程度抑郁症患者的疗效及安全性评估

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目的 经皮颅-耳电刺激（TECAS）作为一种联合耳迷走神经刺激和经皮三叉神经刺激的新治疗方法，与单纯药物治疗对照，评估其对不同程度抑郁症患者的疗效及安全性。

方法 所有参与者来自河北医科大学第一医院就诊的患者，筛查 165 人，最终共纳入 135 名患者，其中研究组为在家接受早晚 2 次 30 分钟的 TECAS 治疗（n=68），对照组为服用草酸艾司西酞普兰片（n=67），剂量为 5-20mg/天，两组疗程共 8 周。主要指标是蒙哥马利抑郁量表（MADRS）的减分值、生活质量量表（SF-36）的评分及不良反应记录表，次要指标包括汉密尔顿抑郁量表（HAMD）及汉密尔顿焦虑量表（HAMA）。

结果 研究组失访 5 人、症状好转拒绝继续治疗 2 人及治疗无效出组 1 人，最终完成治疗及评估 60 人。对照组失访 4 人、因副作用拒绝治疗 3 人及症状好转拒绝继续治疗 2 人，最终完成治疗及评估 58 人。在轻中度患者中，研究组第 4 周 VT 得分小于对照组（Z＝-2.328，P＝0.020），第 8 周 RP（Z＝-2.168，P＝0.030）、GH（Z＝-2.045，P＝0.041）及 VT（Z＝-2.296，P＝0.022）得分小于对照组，其余结果均无统计学差异（P＞0.05）。在重度患者中，研究组在第 2 周（Z＝-2.590，P＝0.010）、第 4 周（Z＝-3.552，P＜0.0001）及第 8 周（Z＝-4.002，P＜0.001）MADRS 减分值高于对照组；第 2 周（Z＝-2.269，P＝0.023）、第 4 周（Z＝-3.882，P＜0.001）及第 8 周（t＝6.147，P＜0.001）HAMD 减分值高于对照组；第 4 周（t＝2.033，P＝0.047）及第 8 周（t＝3.475，P＝0.001）HAMA 减分值高于对照组；第 4 周（t＝2.395，P＝0.020）及第 8 周（t＝3.807，P＜0.001）精神焦虑因子减分值高于对照组；第 2 周（Z＝-2.320，P＝0.020）及第 8 周（t＝2.309，P＝0.025）躯体焦虑因子减分值高于对照组。不良反应中，研究组[14（23.3）]较对照组[25（43.1）]低且具有统计学意义（X2＝5.209，P＝0.022）。

结论 TECAS 对不同程度的抑郁症患者均具有较佳的疗效，尤其是重度抑郁症患者疗效及安全性均优于草酸艾司西酞普兰，可以作为治疗不同程度抑郁症患者的新疗法。

关键字：抑郁症；经皮颅耳电刺激；疗效；安全性；重度抑郁

SuPAR 在经历童年创伤的青少年抑郁障碍患者中的水平及早期预测价值

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目的 探讨童年创伤对青少年抑郁障碍患者可溶性尿激酶型纤溶酶原激活物受体（Soluble Urokinase Plasminogen Activator Receptor, suPAR）水平的影响及分析 suPAR 在经历童年创伤的青少年抑郁障碍患者中的早期预测价值。

方法 根据 DSM-5 抑郁障碍的诊断标准，患者均来自 2021 年 8 月至 2022 年 11 月在河北医科大学第一医院精神卫生中心住院的青少年抑郁障碍患者（12-18 岁）共 117 例，根据 CTQ 分为创伤组和非创伤组。采用 HAMD-17 评估抑郁症状严重程度。以 ELSIA 方法检测血浆 suPAR 水平及血清 hs-CRP 水平。流式细胞术测定血浆 12 项细胞因子水平。采用 ROC 曲线分析 suPAR 对经历童年创伤的青少年抑郁障碍患者的早期预测价值。

结果 本研究纳入创伤组 88 例（75.2%），非创伤组 29 例（24.8%）。两组在亲子关系、精神症状方面有差异（P<0.05）。与非创伤组相比，创伤组的 HAMD-17 得分更高（P＜0.05），suPAR、IL-2、IL-4、IL-1β 水平更高（P＜0.05）。Spearman 分析显示 suPAR 与 CTQ（r=0.211，P=0.023）、情感虐待（r=0.223，P=0.016）、情感忽视（r=0.218，P=0.018）、躯体虐待（r=0.210，P=0.023）、HAMD-17（r=0.329，P＜0.001）呈正相关性。ROC 曲线分析显示，suPAR、IL-2、IL-4 和 IL-1β 预测经历童年创伤的青少年抑郁障碍患者的曲线下面积(AUC)分别为 0.687、0.651、0.642、0.659，当 suPAR 的临界值为 4.74ng/ml 时，其敏感度为 86.4%，但特异度为 41.4%。

结论 1.青少年抑郁障碍患者中童年创伤的检出

率较高。经历童年创伤的患者亲子关系更差，精神症状突出，抑郁症状更严重；suPAR、IL-2、IL-4、IL-1β 水平更高。suPAR 与情感虐待、情感忽视、躯体虐待有关。2.suPAR 在经历童年创伤的青少年抑郁障碍患者中有一定的早期预测价值。

关键字：青少年；抑郁障碍；童年创伤；suPAR

早期与晚期轻度认知障碍患者静息态 ALFF 值改变与诊断

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目的 比较正常对照组（Normal Control, NC）、早期轻度认知障碍（Early mild cognitive impairment, EMCI）、晚期轻度认知障碍（Late mild cognitive impairment, LMCI）三组患者不同脑区低频波动振幅（Amplitude of Low Frequency Fluctuation, ALFF）值，找出差异脑区，为 MCI 的进一步细分提供影像学依据。

方法 收集阿尔茨海默病神经影像学倡议（Alzheimer's Disease Neuroimaging Initiative, AD） 3 阶段病人，EMCI 患者男 15 例，女 12 例；LMCI 患者男 4 例，女 6 例；NC 组男 14 例，女 15 例。均行常规磁共振成像（Magnetic Resonance Imaging, MRI）检测，排除脑外伤等疾病，Hachinski 缺血指数量表（HIS）分数高于 4 分。行血氧依赖静息态核磁共振（BOLD-fMRI）检查。完成 MMSE、MoCA 等量表测评。对差异脑区进行统计提取 ALFF 值，分析相关性。

结果 1.NC 组、EMCI 组、LMCI 组在年龄、性别方面没有统计学差异(P＞0.05)，受教育程度存有统计学差异（P＜0.05），Rey 听觉语言学习测试（RAVLT），阿尔茨海默病评定量表-认知量表（ADAS-cog），功能活动问卷（FAQ），存在统计学差异（H=6.99、7.30、8.06，P＜0.05）；2.NC 组和 EMCI 组对比，颞上回区域存在统计学差异（P＜0.05），ALFF 值呈下降趋势；NC 组和 LMCI 组对比，多重校正后，楔前叶区域存在统计学差异（P＜0.05），ALFF 值呈上升趋势；EMCI 组和 LMCI 组对比，中央前回及枕中回存在统计学差异（P＜0.05），ALFF 呈上升趋势；3.三组人群 RAVLT_learning 量表在枕中回呈现出统计学差异（r=-0.27，P＜0.05）；4.用单一脑区对 NC、EMCI、LMCI 进行诊断，未见统计学差异（P＞0.05）。将差异脑区联合后进行诊断，未见统计学差异（P＞0.05）。

结论 三组人群存在差异脑区、量表，ALFF 值在诊断方面未见统计学差异，但仍有作为潜在诊断指标的潜力。

关键字：阿尔茨海默病；静息态核磁共振成像；轻度认知障碍；早期轻度认知障碍；晚期轻度认知障碍；低频波动振幅

儿童青少年双相情感障碍相关静息态脑功能磁共振成像研究的荟萃分析

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目的 大量静息态功能磁共振成像（resting-state functional magnetic resonance imaging, rs-fMRI）研究揭示了儿童青少年双相情感障碍（pediatric bipolar disorder, PBD）患者自发神经活动异常的脑区，但结果并不一致。本研究对既往 PBD 患者的 rs-fMRI 研究进行 Meta 分析，探索 PBD 相对一致的活动异常的脑区，揭示 PBD 潜在的生物学机制。

方法 检索自建库至 2022 年 12 月，Pubmed 、Embase、Web of science、中国知网、万方和维普数据库，对 PBD 脑功能改变的文献并加以筛选，提取相关数据并进行纽卡斯尔-渥太华量表（newcastle-ottawa scale, NOS）质量评估，将提取的脑影像学数据使用激活似然估计法（activation likelihood estimation, ALE）进行 Meta 分析。最后，将 ALE 的输出结果整合到 Mango 软件中进行脑成像处理。

结果 共检索 1519 篇文献，最终纳入 8 篇文献，NOS 文献质量评价量表评分为 6~7 分，提示文献质量较好。采用激活似然估计法发现 PBD 患者较 HCs，右侧海马旁回，左侧尾核活动增强（体素分别为 536 mm3、400mm3，P<0.05），其中右侧海马旁回被激活的可能最大，左侧楔前叶[布罗德曼分区 7（BA7）]，左侧扣带回（BA24），左侧梭状回（BA19），右侧楔前叶（BA7）活动减弱（体素分别是 2880 mm3、600 mm3、496 mm3、448mm3，P<0.05），其中左侧楔前叶被激活的可能性最大。

结论 通过 ALE 元分析发现，PBD 患者较为一致的活动异常的脑区是右侧海马旁回和左楔前叶，这为我们从神经影像学角度探寻 PBD 患者潜在生物标志物提供了重要线索。

关键字：静息态脑功能磁共振成像，儿童青少年双相障碍，Meta 分析，激活似然估计法，自发神经活动

室内光照辅助治疗抑郁症的疗效与安全性的初步研究

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目的 探讨室内光照辅助治疗抑郁症的临床疗效与安全性。

方法 筛查 2021 年 9 月至 2022 年 12 月在河北医科大学第一医院精神卫生中心住院的抑郁症患者，采用随机数字表法随机分为试验组（光照治疗+药物组，n=40）和对照组（单纯药物组，n=40），治疗 2 周，治疗后继续随访 2 周。光照治疗采用室内光照的方式，光照强度为 10000lux，于清晨 7:30 至 8:00 进行 30 分钟光照治疗，连续治疗 14 天。在治疗第 1、2 周末及治疗结束后随访第 1、2 周末，采用 17 项汉密尔顿抑

郁量表（Hamilton Depression Scale, HAMD17）和汉密尔顿焦虑量表（Hamilton Anxiety Scale, HAMA）评定患者的临床症状，比较 2 组有效率和治愈率。采用 χ2 检验和重复测量方差分析进行统计比较。采用非参数检验比较 2 组在治疗 1 周末各量表总分及因子分减分率的差异。脱落病例资料均按照末次结转法（Last Observation Carried Forward, LOCF）进行缺失值处理后纳入统计学分析。

结果 试验组与对照组在治疗 1 周末及 2 周末两组的有效率差异有统计学意义（P=0.005、P=0.015）；两组的治愈率在治疗第 1、2 周末，治疗后随访第 1、2 周末差异均无统计学意义（均 P>0.05）。治疗 1 周末时 HAMD17 中除体重因子之外，2 组其他因子分和总分的减分率差异均有统计学意义（均 P<0.05）；2 组的 HAMA 总分及各因子分减分率在治疗 1 周末时差异有统计学意义（均 P<0.05）。在整个观察期间，HAMD17 评分时间与组别之间存在交互效应（F=9.662，P<0.05），简单效应分析显示试验组治疗前、治疗 1 周末、2 周末及治疗后随访 1 周末、2 周末时的 HAMD17 评分下降显著优于对照组（均 P<0.05）。试验组在接受 2 周的室内光照治疗期间无严重不良事件发生，无躁狂或轻躁狂发作，观察试验组患者光照治疗前后对眼睛的影响，结果显示眼前节照相检查结果均无异常，视力也无下降。

结论 室内光照治疗方式能显著改善抑郁症患者的抑郁、焦虑情绪，对认知及睡眠等反面也有积极影响，起效迅速且安全性较好，可作为抑郁症的一种无创性辅助治疗方法。

关键字：光照治疗，室内光照，抑郁症，快速起效，安全性

太极运动对老年人认知功能及嗅觉识别功能的影响研究

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目的 探讨太极运动对老年人认知功能及嗅觉识别功能的影响。

方法 2021 年 4 月-10 月在石家庄市裕华区招募老年人 272 例，2022 年 2 月-3 月于邢台市王其和太极协会招募老年人 291 例，其中 46 人因年龄小于 55 岁被排除在外。将入组老人分为太极组(TC, n=249)和无运动组(NE, n=258)，太极组进一步分为 3 年及 3 年以下组(TC-1, n=86)和 3 年以上组(TC-2, n=163)，分别对 3 组老人进行认知功能评估；包括蒙特利尔认知评估量表(MoCA) 、简易智能精神状态量表(MMSE) 、临床痴呆评定量表(CDR) 、日常生活能力量表(ADL)以及波士顿命名测试(BNT)，并采用中国人群嗅觉识别测试棒(CSIT)进行嗅觉识别功能检查。

结果 TC-1 组、TC-2 组 MMSE 得分均高于 NE 组(t=2.748，P=0.006；t=2.417，P=0.016)；TC-2 组 MoCA 得分高于 NE 组(t=2.141，P=0.033)；TC-2 组 BNT 得分高于 NE 组、TC-1 组(H=14.497，P＜0.001)；TC-2 组 MoCA 视空间得分优于 TC-1 组(H=7.630，P＜0.05)；TC-2 注意、延迟回忆得分均优于 NE 组(H=8.561，P＜0.05；H=12.222，P＜0.05)；TC-1 组抽象得分低于 NE 组、TC-2 组(H=9.299，P＜0.05)；TC-2 组 ADL 得分低于 NE 组(H=10.261，P＜0.05)；而在 CDR 得分上，TC-1、TC-2 组显著低于 NE 组(H=12.734，P＜0.001)；与 TC-2 组相比，TC-1 组更容易患嗅觉识别障碍(OR =2.844，Z2=4.251，P=0.039)。

结论 1. 参加 3 年以上太极运动的老年人认知功能优于参加太极运动 3 年及 3 年以下老年人或平时不规律参加运动的老人。2. 参加 3 年以上太极运动的老年人嗅觉识别功能优于参加太极运动 3 年及 3 年以下老年人。

关键字：太极运动， 认知功能， 嗅觉识别功能, CSIT 评分

青少年抑郁障碍伴 NSSI 患者与冲动性、血清非酶性抗氧化物之间的相关性研究

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目的 本研究旨在探讨冲动性及血清非酶性抗氧化物可否作为青少年抑郁障碍伴非自杀性自伤（Non-suicidal self-injury, NSSI）的相关因素；同时探究在青少年抑郁障碍伴 NSSI 患者中，成瘾特征与冲动性及血清非酶性抗氧化物之间的关系。

方法 1. 纳入青少年抑郁障碍患者 126 例，将 72 例伴 NSSI 的青少年抑郁障碍患者作为实验组，54 例不伴 NSSI 的青少年抑郁障碍患者作为对照组，所有患者收集一般人口学资料。 2.使用 Barratt 冲动量表、汉密尔顿抑郁量表及汉密尔顿焦虑量表评估两组患者的冲动性、抑郁及焦虑情况。渥太华自伤量表评估伴 NSSI 的青少年抑郁障碍患者的自伤情况。由全自动生化分析仪检测生化指标中白蛋白、尿酸和总胆红素的水平。

结果 1.两组中，伴 NSSI 组的年龄较低（P＜0.05），饮酒史占比较高（P＜0.05）；2.两组冲动性比较，伴 NSSI 组的 Barratt 冲动量表的总分及运动冲动性的评分较高（P＜0.05）；3.两组血清非酶性抗氧化物水平，伴 NSSI 组的血清白蛋白及总胆红素水平较低（P＜0.05）；4.进行二元 Logistic 回归，运动冲动性（OR＝1.096, 95%CI: 1.018 - 1.179），白蛋白（OR = 0.704, 95%CI: 0.584 - 0.848），总胆红素（OR = 0.841, 95%CI: 0.735 - 0.962）为青少年抑郁障碍发生 NSSI 的风险因素；5.ROC 曲线发现，运动冲动性、白蛋白及总胆红素可作为青少年抑郁障碍发生 NSSI 的预测指标（AUC > 0.7, P < 0.05）；6.分析渥太华自伤量表，近 1 月自伤大于 1 次患者，其初始自伤年龄较低（P＜0.05），抵制自伤的动力越差（P＜0.05），成瘾特征总分较高（P＜0.05）；7.相关性分析发现，成瘾特征与运动冲动性及自伤时，这种冲动感觉是舒适呈正相关（P＜0.05）。

结论 1. 白蛋白、总胆红素及运动冲动性可作为青少年抑郁障碍发生 NSSI 行为相关风险因素。 2. 在青少年抑郁障碍伴 NSSI 患者中，运动冲动性得分越高，自伤时冲动感觉越舒适，其成瘾特征总分越高。

关键字：青少年抑郁障碍，非自杀性自伤，冲动性，血清非酶性抗氧化物，成瘾特征

生物信息学探索 m6A 修饰在重性抑郁障碍发生及亚型分类中的作用

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目的 通过生物信息学探索 m6A 修饰在 MDD 发生中的作用，为 MDD 诊断和治疗提供新的思路。

方法 1.在NCBI-GEO 数据库中检索确定了 MDD 和健康人群的外周血样本基因数据集 GSE98793、GSE32280 和 GSE38206。基于生物信息学的方法进行 m6A 调控因子表达的差异分析。2.通过残差的比较选择最适合筛选核心 m6A 调控因子的机器学习模型，使用机器学习模型和诺谟图模型筛选核心 m6A 调控因子，通过核心 m6A 调控因子构建能区分 MDD 和健康人群的分类模型和预测模型，并用验证集进行验证。3.通过生物信息学的方法筛选 MDD 和健康人群的差异表达基因，之后使用 LASSO 算法筛选出 MDD 关键基因。利用 STRING 数据库和 PPI 网络识别与核心 m6A 调控因子相关的 MDD 关键基因。4.利用单一样本基因集合富集分析进行免疫浸润的差异比较以及 m6A 调控因子与 MDD 免疫浸润的相关性确定。5.应用共识聚类的方法对核心 m6A 调控因子介导的 m6A 修饰进行了亚型聚类分析，并对不同的 m6A 修饰亚型进行了免疫浸润及生物学通路的分析。

结果 1.在 MDD 与健康人群的外周血样本中存在 4 种差异的 m6A 调控因子，其中 HNRNPC 在 MDD 患者中低表达，IGFBP3、YTHDC2 和 YTHDF3 在 MDD 患者中的高表达；2.采用随机森林和诺谟图模型筛选出 HNRNPC、IGFBP3、YTHDC2 和 YTHDF3 为核心 m6A 调控因子，并可以区分 MDD 和健康人群以及预测 MDD 的发生；3.通过 LASSO 算法对 40 个差异基因进行筛选，共得到 12 个 MDD 关键基因。识别出 1 个 MDD 关键基因（IARS）与核心 m6A 调控因子相关，表明 m6A 修饰可能通过介导 IARS 在 MDD 的发生发展中发挥作用；4.与健康人群相比，免疫浸润中的调节性 T 细胞在 MDD 中增加，另外嗜酸性粒细胞与 4 种核心 m6A 调控因子相关性最高；5.在 MDD 中，基于 4 种核心 m6A 调控因子筛选出两种不同 m6A 修饰亚型：集群 A 和集群 B。这两种亚型在免疫浸润程度和生物通路存在显著差异。

结论 本研究发现了参与 MDD 发生、亚型分类的 4 种核心 m6A 调控因子，并且免疫浸润参与了 MDD 不同亚型的靶向治疗，为 MDD 发生和治疗提供新的思路。

关键字：重性抑郁障碍，m6A 修饰，共识聚类，免疫浸润

强光治疗改善抑郁症睡眠问题的对照研究

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目的 抑郁症是一种严重的精神疾病，往往伴随睡眠问题，睡眠问题会严重影响患者的抑郁情绪。目前对睡眠的改善主要以药物治疗和心理治疗为主，但疗效有限。近年来，光照治疗在改善抑郁症患者睡眠问题方面被寄予厚望。本文旨在探讨强光治疗广泛应用于伴有睡眠问题的抑郁症的治疗前景。

方法 2021 年 10 月至 2022 年 11 月从河北医科大学第一医院精神卫生中心纳入符合《简明国际神经精神障碍访谈检查》（M.I.N.I.5.0）中抑郁发作诊断的患者 46 例，按照随机数字表法 1:1 分为单纯药物组（N=30 例）及强光治疗组（N=30 例），单纯药物组只接受抗抑郁药治疗，强光治疗组接受抗抑郁药治疗的同时给予光照治疗，光照治疗采用光疗室的方式，光照强度为 10000lux，于清晨 7:30 至 8:00 进行 30 分钟光照治疗，连续治疗 14 天。基线及 2 周末均采用匹兹堡睡眠质量指数（Pittsburgh sleep quality index, PSQI）评估睡眠情况。

结果 基线时单纯药物组和强光治疗组在 PSQI 总分及主观睡眠质量、入睡时间、睡眠时间、睡眠效率、睡眠紊乱、催眠药物、日间功能紊乱等因子分无统计学差异（P>0.05）。治疗 2 周后，强光治疗组在 PSQI 总分及入睡时间、睡眠时间因子分减分率较单纯药物组更高（P<0.05），其余差异治疗无统计学意义（P＞0.05）。

结论 抗抑郁药联合强光治疗对抑郁症患者入睡时间、睡眠维持时间的改善比单纯抗抑郁药治疗效果更好，可以作为辅助改善抑郁症患者睡眠问题的一种无创性物理疗法。

关键字：抑郁症；强光治疗；睡眠问题

血清 NfL 及炎症因子在阿尔兹海默病早期识别中的作用研究

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目的 既往研究发现血液神经丝轻链（Neuroflament light，NfL）与认知功能的评估存在关联，认知功能的下降与较高的循环炎症水平有关，但尚不清楚血液 NfL 的含量与炎症因子及认知功能之间的内在联系。所以本研究的目的是探究血清 NfL 和炎症因子在早期识别阿尔兹海默病中的作用，探究血清 NfL 和炎症因子之间的关系。

方法 河北医科大学第一医院精神卫生中心研究员自 2021 年 4 月-2022 年 2 月从社区招募 157 名 55 岁

及以上的受试者，将其按认知功能分为三组。由受过培训的精神科医师对受试者行认知评估并采集血清样本，通过采用酶联免疫吸附试验（enzyme linked immunosorbent assay，ELISA）检测神经丝轻链、炎症因子及其他阿尔兹海默病（Alzheimer's disease，AD）病理学指标浓度，分析认知功能、NfL、炎症因子及其他 AD 病理学指标的相关性，并探寻其识别轻度认知功能障碍（Mild Cognitive Impairment，MCI）的能力。计数资料的比较采用卡方检验。对受试者各种认知测查量表及血液指标浓度进行特征曲线（receiver operating characteristic，ROC）分析，计算曲线下面积（area under the curve，AUC），以灵敏度和特异度评估诊断性能。

结果 1.MCI 人群血清 NfL 的水平较健康对照组上升（F=7.582，P=0.023）；2.血清 NfL 的含量与炎症因子 IL-1β 及 IL-6 及 Aβ40 均存在正相关，相关系数分别为 0.471、0.269、0.386；3.血清 NfL 与 p-tau217 和波士顿命名试验联合后能明显提高预测 MCI 的准确率，AUC 分别为 0.687 和 0.742，但血清 NfL 与炎症因子结合对提高预测 MCI 的准确率并无作用。

结论 血清 NfL 的含量与认知及炎症因子存在关系，能够帮助早期识别 MCI 人群，与 BNT 或 p-tau217 结合后能提高预测准确率。说明 NfL 有希望成为早期识别阿尔兹海默病外周血生物标志物，为阿尔兹海默病的治疗提供新理念。

关键字：神经丝轻链；炎症因子；轻度认知功能障碍；阿尔兹海默病

医学生的自杀意念及相关因素

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目的 自杀意念(SI，Suicide ideation)可以看作是发生自杀行为的一个前兆。本研究的主要目的是评估医学生自杀意念的严重程度，并探讨其相关因素。

方法 选取河北省某医学院校在校大学生 7176 人，采用网络自评问卷进行横断面研究；使用自编一般人口学问卷收集年龄、性别、家庭教养方式、是否留守儿童、个性特征等社会人口学资料；使用童年期创伤问卷简表(CTQ-SF)、青少年自我评定生活事件清单(ASLEC)、贝壳自杀意念量表(BSSI)和心理弹性量表(CD-RISC)进行评估。采用单因素方差分析和二元 logistic 回归分析医学生自杀意念的相关因素。

结果 终生自杀意念检出率为 13.4%，一周自杀意念检出率为 6.2%。专制型家庭教养方式(OR=1.55，P<0.001)、饮酒(OR=1.70，P<0.001)、内向(OR=1.20，P<0.05)、失恋(OR=1.73，P<0.05)、独生子(OR=1.24，P<0.01)、躯体疾病(OR=1.47，P<0.01)、童年期创伤经历(OR =1.03，P<0.001)、负性生活事件(OR=1.01，P<0.001) 是终生自杀意念的危险因素；专制型家庭教养方式 (OR=1.29，P<0.05)、内向(OR=1.29，P<0.05)、童年期创伤经历(OR=1.04，P<0.01)、负性生活事件(OR=1.01，P<0.001) 是一周自杀意念的危险因素；良好的心理弹性(OR=0.96、0.96，均 P<0.001)是终生自杀意念和一周自杀意念的保护因素；精神科就诊(OR=1.67、1.51，均 P<0.05)以及心理咨询经历(OR=1.94、1.77，均 P<0.001)是终生自杀意念和一周自杀意念的预警因素。

结论 专制型家庭教养方式、饮酒、内向性格、失恋、独生子、有躯体疾病、童年期创伤经历、有较多负性生活事件经历的医学生更易产生自杀意念；良好的心理弹性有助于减少自杀意念；对有精神科就诊和心理咨询经历的医学生应当提供更多的关注。

关键字：医学生；自杀意念；检出率；相关因素

精神分裂症患者血浆奥氮平及其主要代谢产物 N-去甲奥氮平浓度与代谢参数的关系

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目的 奥氮平是治疗精神分裂症常用的非典型性抗精神病药物之一，与其他抗精神病药物相比，它具有的疗效佳，锥体外系不良反应发生率较低等优点，但具有代谢异常发生率高的缺点。因此医生在使用奥氮平时需要权衡利弊。本研究将在接受奥氮平治疗的精神分裂症患者中考察奥氮平及其主要代谢产物 N-去甲奥氮平稳态血浆浓度与代谢参数之间的关系，为临床精准用药提供依据。

方法 本研究入组了 352 例接受奥氮平治疗的精神分裂症住院患者，诊断依据为 DSM-V。采用高效液相-串联质谱（HPLC-MS/MS）方法检测奥氮平及其主要代谢产物 N-去甲奥氮平稳态血浆浓度；同时收集其常规生化检测中与代谢相关的参数，包括胰岛素、 葡萄糖、总胆固醇（TC）、甘油三酯（TG）、高密度脂蛋白胆固醇 (HDL-c)、低密度脂蛋白胆固醇(LDL-c)、C 反应蛋白（CRP）和同型半胱氨酸水平；统计分析这些代谢相关的参数与血浆奥氮平及其主要代谢产物 N-去甲奥氮平稳态血浆浓度之间的关系。

结果 在接受奥氮平治疗的住院精神分裂症患者中，较低的血浆 N-去甲奥氮平浓度与高的葡萄糖、TG 水平以及胰岛素抵抗（HOMA-IR）相关，而较高的血浆奥氮平浓度与较高的 CRP 和同型半胱氨酸水平相关。

结论 这些结果表明氮平及其主要代谢产物 N-去甲奥氮平可能对奥氮平引起的糖脂代谢异常有不同的影响，N-去甲奥氮平可能平衡奥氮平诱导的胰岛素抵抗以及糖脂代谢异常。该研究结果提示在接受奥氮平治疗的精神分裂症患者中对奥氮平及其主要代谢产物 N-去甲奥氮平进行治疗药物监测以及定期检测各种代谢参数有重要的临床意义。

关键字：精神分裂症，治疗药物监测，奥氮平，N-去甲基奥氮平，代谢异常

使用支持向量机识别误诊的双相障碍患者：基

于确诊情感障碍的功能磁共振进行特征选择

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目的 重性抑郁障碍（major depressive disorder, MDD）和双相障碍（bipolar disorder, BD）是两种致残、致死率较高的情感障碍，由于 MDD 和 BD 临床症状相似，缺乏客观生物标记物，缺乏对患者的跟踪随访，鉴别两种疾病的病理生理机制不明等原因，两种疾病的鉴别一直是临床上亟待解决的问题。由于鉴别困难导致的治疗不当、预后不良等问题给患者、家庭乃至全社会带来沉重负担。本研究旨在建立 MDD-BD 鉴别模型，并将此模型用于识别转躁患者，以明确两种情感障碍早期鉴别的影像学机制，并提示哪些 MDD 患者存在潜在转躁风险。

方法 基线采集 92 名 MDD 患者和 48 名 BD 患者的静息态功能磁共振数据，之后对 MDD 患者进行 2 年以上随访。随访后，MDD 患者中有 23 名患者确诊为转躁患者。之后使用支持向量机分类器基于 48 名 BD 和 50 名 MDD 的功能连接（functional connectivity, FC）数据建立 MDD-BD 分类器，并将该分类器在新的数据集（23 名转躁患者和 19 名 MDD）进行测试。

结果 MDD-BD 分类器识别转躁患者的准确率为 81%（敏感度=82.6%，特异度=79%，AUC=74.6%）。特征选择结果表明皮质-边缘神经环路的脑区对分类贡献最大。此外，BD 患者和转躁患者在该神经环路的所有脑区 FC 值无统计学差异（$p>0.05$），而 BD 患者和转躁患者在该神经环路的大部分脑区（左侧中央后回、左侧额中回、右侧额中回、左侧枕中回、左侧中央前回、左侧顶下回、左侧颞下回）均表现出与 MDD 之间的统计学差异（$p<0.05$）。FC 值与抑郁、焦虑、躁狂/轻躁狂症状评分无相关关系（FDR 校正）。

结论 BD 可能在皮质-边缘神经环路存在一些素质性的因素，不受疾病发作状态影响；基于这些素质性的影像特征，可以通过诊断明确的 BD 建立模型预测早期 BD 的发生。

关键字：重性抑郁障碍，双相障碍，转躁患者，功能磁共振，支持向量机

芍药甘草汤治疗精神分裂症患者高泌乳素血症的随机对照研究

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目的 大多数抗精神病药物都是多巴胺 D2 受体拮抗剂，高催乳素血症是抗精神病药物治疗中常见的副作用。而高催乳素血症往往会导致患者出现性功能障碍。目前的研究发现芍药甘草汤能显著改善多巴胺 D2 受体和多巴胺转运体的功能，可以抑制催乳素的分泌，但是对患者用药期间出现的性功能障碍的疗效尚不明确。评价芍药甘草汤治疗高催乳素血症的疗效与安全性，及其对性功能障碍的影响。

方法 在山东省精神卫生中心的住院及门诊患者中，根据入组标准招募 62 名精神分裂症患者。将其随机分成两组，实验组（采用芍药甘草汤干预治疗）和对照组，进行为期 8 周的随机对照研究。在基线期和治疗后的第 4 周、8 周对两组患者进行性激素检查，采用阳性与阴性症状量表 PANSS、治疗副反应量表 TESS 评估患者的精神症状和不良反应。在基线期和 8 周末时采用亚利桑那性体验量表 ASEX 评估患者的性功能变化。

结果 1. 实验组入组 32 例。对照组入组 30 例。两组患者基线时的年龄，病程，性别，受教育年限无显著差异（$p>0.05$）。 2.在入组时，两组抗精神病药物治疗方案无显著差异（$p>0.05$）。在整个研究期间，患者的抗精神病方案保持不变。联合苯海索和苯二氮卓类药物治疗锥体外系反应和失眠。 3.采用广义估计方程分析显示，基线时两组之间的催乳素水平无显著差异（$p>0.05$）。在第 4 周、第 8 周末，对照组催乳素血清浓度水平均显著高于实验组（$p<0.05$）。在第 4 周、第 8 周末，实验组血清催乳素水平与基线相比无显著差异（$p>0.05$），对照组血清催乳素水平均显著高于基线（$p<0.05$）。两组之间的雌二醇、睾酮、孕酮、卵泡刺激素和促黄体生成素的血清浓度水平在基线、4 周末和 8 周末时均无显著差异（$p>0.05$）。 4.采用协方差分析比较两组间 ASEX 评分的差异。基线期两组之间的 ASEX 总分无显著差异（$p>0.05$）。第 8 周末，实验组的 ASEX 总分显著低于对照组（$p<0.05$）。对每个条目单独分析，第 8 周时，实验组在性冲动、性唤起、阴道润滑(女性)/阴茎勃起(男性)得分明显低于对照组，差异具有统计学意义（$p<0.05$）；两组间在性高潮能力）和性满意度上得分比较没有显著差异（$p>0.05$）。 5.第 8 周时，两组 TESS 评分无显著差异（$p>0.05$））。 6.治疗前后两组间 PANSS 评分无显著差异（$p>0.05$）。

结论 芍药甘草汤不能显著降低抗精神病药物引起的

关键字：高催乳素血症、抗精神病药物、芍药甘草汤、精神分裂症、性功能障碍

二甲双胍通过抑制 SREBP 及其下游靶基因改善奥氮平引起的代谢异常

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目的 奥氮平是一种广泛应用于精神障碍临床治疗的非典型抗精神病药物，常导致脂质代谢紊乱。最近的研究表明，二甲双胍可以改善抗精神病药物引起的脂质代谢异常，但其潜在机制尚不清楚。SREBP 转录因子在调节细胞胆固醇和脂肪酸生物合成中起着至关重要的作用。本研究旨在探讨二甲双胍是否通过调节

SREBP 及其下游靶基因改善奥氮平诱导的代谢异常，为开发新型靶向药物提供理论依据和科学依据。

方法 招募首发或半年内未服用抗精神病药物的精神分裂症患者 60 例，性别不限，年龄：18-60 岁。阳性和阴性症状量表评分（PANSS）≥60 分，临床总体印象量表（CGI）≥4 分，血脂、体重、血压、血糖等均在正常范围内。随机分为两组，分别给予奥氮平与奥氮平+二甲双胍药物治疗。分别在研究基线、4 周、8 周采集空腹血，检测血脂四项（ LDL、HDL、TG、TC）、空腹血糖，检测患者治疗前后外周血中 SREBP mRNA，及 下游靶基因 HMGCS1、HMGCR、SCD、FASN mRNA 表达水平。

结果 (1)脂质代谢指标:第 4 周末，奥氮平组(n=11)与奥氮平加二甲双胍组(n=11) TC、LDL 水平比较，差异有统计学意义($P < 0.05$)，第 8 周比较，差异无统计学意义(图 1)。(2)SREBP 及下游靶基因 mRNA 表达水平:第 8 周末，奥氮平组患者外周血浆中 SREBP 及其下游靶基因 mRNA 表达量升高(n=5)，奥氮平+二甲双胍组降低(n=5) ($P < 0.05$)。两组间表达量差异有统计学意义($P < 0.05$)(图 2)。

结论 二甲双胍治疗 4 周可有效改善奥氮平所致精神分裂症患者 TC 和 LDL 水平升高。这种改善可能是通过 SREBP 及其下游靶基因介导的。

关键字：精神分裂症；奥氮平；二甲双胍；血脂代谢；SREBP

调节激肽原 L 的 miRNA 基因多态性与精神分裂症易感性相关:一项初步的人群的研究

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目的 miR-SNP 是一种影响 miRNA 基因、miRNA 结合位点或 miRNA 生物发生的功能性单核苷酸多态性(SNP)。本研究旨在探讨调节激肽原 L 蛋白的 miRNAs 基因多态性与精神分裂症(SCZ)之间的关系。

方法 采用生物信息学方法预测调控激肽原 L 蛋白的 miRNAs 基因多态性位点。采用 imLDR 多 SNP 分型技术检测 513 例精神分裂症患者和 509 例对照者的 rss56103835、rs6513496、rs651349 和 rs2986407 基因多态性。随后在 SNPstats 计算的最优遗传模型下评估 miR-SNP 变异与 SCZ 易感性和 SCZ 患者症状的关联。使用广义多因子降维(GMDR)和 logistic 回归计算 miR-SNP 相互作用。最后本研究利用 PsychENCODE 基因表达数据集进一步探索 SNP 在人脑中的时空表达模式，分析 miR-SNP 定位基因在生命早期大脑不同区域中的表达变化。探讨其在 SCZ 的发生发展及其症状中的可能作用。

结果 研究发现，在显性模型下 has-miR-323b rs56103835 与精神分裂症的相关性有统计学意义。基因-基因互作结果显示，三因子模型(rss56103835 /rs2986407 /rs2155248)效果最好，但尚不能认为与 SCZ 显著相关。rs2986407 基因型为 CC 或 CT 的 SCZ 患者比 TT 患者更容易出现幻听。 基因时空表达模式分析显示，MIR1343 在出生后 150 天内显著下降，纹状体区 MIR1343 下降最为显著。随后，小脑皮层的 MIR1343 水平持续上升。MIR323B 在出生后的前 100 天显著下降，杏仁核区域除外，随后在新皮层和小脑皮层中呈持续上升趋势。

结论 我们的数据显示，hsa-miR-323b-rs56103835 从 C 到 T 的突变与精神分裂症的易感性相关。hsa-miR-1343-rs2986407 从 T 突变为 C 增加了 SCZ 患者幻听的风险。MIR323B 和 MIR1343 在早期大脑发育中可能发挥重要作用。

关键字：激肽原 L, CST9, miRNA 单核苷酸多态性，精神分裂症，幻听

Specific Timing of Slow Oscillation-spindle Coupling During Sleep Is Essential for Reprocessing of Negative Emotional Memories

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Objective Neuronal activities during memory encoding in the awake are often reprocessed during subsequent sleep, particularly especially non-rapid eye movement sleep. However, the time window and mechanism of this process remains largely unknown. Here, we aimed to capture the time window of negative emotional memory reprocessing during sleep and to explore the effect of sleep-specific oscillations in this process.

Methods This study used a balanced crossover design. 56 healthy people (17?25 years, right-handed) were enrolled (four females, mean age = 22.05 ± 1.41 years). Memory performance was evaluand by the recognition test after sleep. We used a semi-positive definite programming-based Support Vector Machine (SVM) classifier, which enables automatic learning to generate optimal kernel functions, and thus classification optimization.

Results We found a generalized pattern of memory reprocessing that preferentially processed negative emotional memories rather than neutral memories. This process was accompanied by increased negative emotional memory-specific slow oscillations (SO) spindle coupling in 2nd sleep cycles. The density of SO-spindle coupling can predict the delayed recognition performance. Moreover, the recall of negative emotional memories was significantly reduced after the inhibition of SO-spindle coupling by transcranial alternating current stimulation in 2nd sleep cycles.

Conclusion Our findings indicate that negative emotional memories are preferentially processed in the 2nd sleep cycle, and SO-spindle coupling plays an important role.

关键字：SO-spindle coupling, memory reprocessing, 2nd sleep cycles, negative emotional memory

全基因组关联分析揭示与电休克治疗精神分裂症疗效有关的共表达模块

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目的 电休克疗法（modified elctroconvulsive therapy, MECT）用于精神分裂症治疗具有起效快、有效率高的优点，然而其作用机制仍未完全阐明。为进一步探索前期发现的包含 425 个基因的外周血基因共表达模块与精神分裂症患者电休克治疗（modified elctroconvulsive therapy, MECT）之间的关联，本研究采用全基因组关联研究（Genome-Wide Association Studies，GWAS）的方法，分析模块中基因的多基因风险分数（polygenic risk score, PRS）与 PANSS 减分率的关联。

方法 本研究共纳入 255 例精神分裂症患者，所有患者均接受了两周 6 次的 MECT。在治疗前后分别进行阳性与阴性症状量表(Positive and Negative Syndrome Scale, PANSS)评估来评价 MECT 的疗效。提取所有患者的外周血 DNA，采用博奥晶典精准医疗研究芯片进行全基因组分型。经过质控，共有 489,294 个 SNP 及 247 位患者数据纳入进一步研究。采用 PRSice-2 软件对模块中 425 个基因的 PRS 与 PANSS 进行回归分析。

结果 255 位患者平均年率 38.8±12.4 岁，平均病程 10.9±9.7 年。治疗前 PANSS 总分、阳性量表分、阴性量表分、一般精神病理量表分均显著高于治疗后（P<0.001）。前期发现的共表达模块中的 425 个基因的多基因风险分数（polygenic risk score, PRS）与 PANSS 减分率显著相关（B = 35.59, P= 0.021）。

结论 该模块中的基因常见变异与 MECT 的疗效有关，可能可以用于预测 MECT 的疗效及进一步阐明 MECT 治疗精神分裂症的机制。

关键字：精神分裂症；电休克治疗；全基因组关联分析

Inter-Linking The Brain Transcriptome and GWAS Risk Variants Revealed Neural Circuits Prognostic of Nicotine Use Severity

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Background Genome-wide association studies (GWAS) have identified many risk variants for smoking-related traits, but the neural bases of these risk variants remain unclear. Here, we focused on human brain transcriptomes and genetic effects of cigarettes per day (CPD) to investigate the neurogenetic mechanisms of why some people smoke more.

Methods We constructed whole-brain and intramodular region-specific coexpression networks using BrainSpan's transcriptomes and the GWAS-identified risk variants of CPD derived by the U.K. Biobank (N=128,434). We confirmed the associations between CPD and the gene sets in the region-specific subnetworks using an independent cohort (N=118,549) and conducted bioinformatic analyses.

Results Eight brain-region-specific coexpression subnetworks were identified in association with CPD (p-values<0.01): amygdala, hippocampus, medial prefrontal cortex (MPFC), orbitofrontal cortex (OPFC), dorsolateral prefrontal cortex, striatum, mediodorsal nucleus of the thalamus (MDTHAL), and primary motor cortex (M1C). The gene sets in the eight subnetworks were associated with CPD (adjusted p-values=0.0499~1.01×10-10). We identified three hub proteins encoded by GRIN2A (glutamate-receptor-ionotropic-NMDA-subunit-2A) in the amygdala, PMCA2 (plasma-membrane-Ca2+-ATPase-2) in the hippocampus, MPFC, OPFC, striatum, and MDTHAL, and SV2B (synaptic-vesicle-glycoprotein-2B) in M1C. Intriguingly, the pancreatic secretion pathway appeared in all the significant protein interaction subnetworks, suggesting pleiotropic effects between pancreatic diseases and cigarette smoking.

Conclusions To our knowledge, we present the first study linking brain transcriptomes and GWAS risk variants to identify brain-region-specific networks enriched for CPD. The three hub proteins are encoded by genes implicated in stress response, drug memory, calcium homeostasis, and inhibitory control. The findings provide new evidence of the neurogenetic underpinnings of smoking severity.

关键字：Brain transcriptome, coexpression network, cigarettes per day, GRIN2A, PMCA2, SV2B

血浆氧化甾醇在早发性精神分裂症患者中性别特异性变化

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目的 ：氧化甾醇是胆固醇的含氧代谢产物，参与发育、细胞信号传导和突触功能，这些生理过程受损可能是在精神分裂症的重要发病机制。氧化甾醇种类多样，根据其羟化酶的不同生成多种氧化甾醇。其中，24（S）-羟基胆固醇（24S-OHC，主要脑型氧化甾醇）和 27 羟基胆固醇（27-OHC，来自外周系统的主要氧化甾醇）的血浆水平可以在一定程度上代表脑-外周系统胆固醇稳态。本课题组前期研究提示首发精神分裂症患者血浆 24S-OHC 显著增加，但 27-OHC 水平降低，与精神病性症状存在显著关联，这种变化在精神分裂症临床超高危患者中就已经出现。本研究的目的是探索氧化甾醇与早发性精神分裂症（EOS）患者临床特征的潜在联系。

方法 本研究分为两个部分，首先招募 142 名健康受试者，观察氧化甾醇随年龄的特征性变化。其次，

招募了 71 名 EOS 患者来探索氧化甾醇在 EOS 中的作用。采集受试者外周血，采用液相色谱-串联质谱法检测氧化甾醇的水平。

结果 首先，我们证明了在 1 至 41 岁的 EOS 患者和健康个体中，胆固醇稳态的年龄依赖性变化。24S-OHC 水平随着年龄增长显著降低，在 0-3 岁降低最为显著；而 27-OHC 水平相对稳定，在中青年时期随着年龄增长有增加的趋；。这种氧化甾醇随年龄的变化无性别差异。另一方面，我们发现 EOS 患者血浆 27-OHC 的性别特异性表达，男性的 27-OHC 水平高于女性。我们还发现，EOS 患者的 24S-OHC/27-OHC 比值与阴性症状呈正相关。此外，尽管女性患者的阳性症状比男性更为突出，但男性和女性患者在 27-OHC 和 PANSS 评分之间表现出相反的关联趋势，尤其是在阳性评分方面。

结论 虽然脑氧化甾醇已被报道可能作为治疗精神分裂症干预的靶点，我们的研究证明胆固醇稳态，特别是脑和外周氧化甾醇可能在 EOS 中发挥性别特异性作用。

关键字：早发性精神分裂症；胆固醇代谢；氧化甾醇；24-羟基胆固醇；27 羟基胆固醇。

重性抑郁发作反刍思维相关的静息脑磁频谱与功能连接特征

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目的 对于抑郁症和双相障碍患者来说，反刍思维是重性抑郁发作期的重要临床特征之一。反刍思维的脑电生理机制尚不明确，尤其缺乏重性抑郁发作患者相关的临床研究。本研究旨在探究重性抑郁发作反刍思维相关的静息脑磁频谱和功能连接特征。

方法 纳入 95 例处于重性抑郁发作期的抑郁症（n = 40）及双相障碍（n = 55）患者，以及 52 例健康对照，进行脑磁图（Magnetoencephalography, MEG）静息态扫描，同时完善其人口学、临床资料以及反刍思维量表（Rumination Response Scale, RRS）的评估。患者组与健康对照组进行各脑区各频段频谱功率及相干性（Coherence）的组间比较，两组间存在显著差异的脑区能量及功能连接与反刍思维量表得分进行偏相关分析（控制年抑郁症状、焦虑症状、年龄等因素），得出与反刍思维相关的局部脑区能量及功能连接。

结果 1）频谱分析显示重性抑郁发作患者组在双侧额叶、右颞叶 theta 频段能量显著弱于健康对照组，而右额叶、双侧颞叶和左顶叶 beta 频段能量显著高于健康对照组。Spearman 非参数偏相关显示患者组左前额 theta 频段能量与 RRS 呈显著负相关（r = -0.321, P= 0.005）；3）在 gamma 频段，患者组左额_左颞、左额_右颞功能连接显著高于健康对照组，右额_左顶功能连接显著低于健康对照组。其中，左额_左颞（r = 0.325, P = 0.001）及左额_右颞（r = 0.338, P = 0.001）功能连接均与反刍思维总分显著正相关。

结论 重性抑郁发作时静息 MEG 能量及脑区交互的异常主要累及前额叶和双侧颞叶，左额 theta 功率下降以及左额对双颞区在 gamma 频段功能连接增强与反刍思维有关，这反映了重性抑郁发作“自上而下”控制效能的降低，额颞区功能紊乱可能是重性抑郁发作反刍思维的神经电生理基础。

关键字：反刍思维；重性抑郁发作；脑磁图；功能连接；频谱分析

精神分裂症持续性幻听的功能网络研究

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目的 在伴持续性幻听的精神分裂症患者中构建功能像拓扑网络，探究持续性幻听的功能网络特征。

方法 本研究纳入 90 名伴持续性幻听的精神分裂症患者（pAH 组）、55 名不伴幻听的精神分裂症患者（non-pAH 组）及 83 名性别和年龄匹配的健康受试者（HC 组）。本研究收集受试者的一般临床资料，进行临床评估，并采集静息态功能像磁共振数据，基于 Dosenbach160 模板构建功能像拓扑网络，探究三组受试者结构网络全局属性及局部属性的差异，在 pAH 组探究拓扑属性与临床症状的相关性。

结果 与 HC 组相比，两组患者特征路径长度升高，全局效率及局部效率下降；左侧颞顶联合区的介中心性下降，右侧小脑下部的度中心性升高，额颞顶枕及岛叶区域的节点聚类系数、节点效率及节点局部效率下降；感觉运动网络、枕叶网络模块内的连接强度以及额顶网络-枕叶网络模块之间的连接强度下降，顶叶、岛叶、丘脑及小脑区域的节点参与系数升高；两组患者均存在功能连接下降的子网络，而 pAH 组全脑累及范围更广泛。与其他两组分别相比，pAH 组左侧前额叶前部和右侧楔前叶的节点效率下降，辅助运动区的节点局部效率下降。pAH 组左侧前额叶前部的节点效率与 PANSS 阳性量表分正相关，左侧岛叶中部的度中心性与 PANSS-GPS 得分及 PANSS 总分负相关，右侧额叶的参与系数与 PANSS P3 条目分正相关。

结论 幻听及非幻听患者均表现出网络整合能力及信息传递效率下降、全脑广泛节点的信息传输能力下降、网络模块化紊乱、全脑广泛的功能连接下降。幻听患者的局部属性与临床症状相关，且仅幻听患者表现出左侧前额叶前部、右侧楔前叶、辅助运动区的信息传递能力下降。本研究为探索持续性幻听的机制提供了宝贵证据，为临床早期识别及靶向干预提供了理论基础。

关键字：精神分裂症；持续性幻听；功能磁共振；功能网络

精神分裂症持续性幻听的因果结构协变网络研究

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目的 幻听是精神分裂症核心的阳性症状之一，25-30%的患者经过两种抗精神病药物治疗后仍遭受幻听的困扰，持续超过一年可被定义为持续性幻听。幻听极大损害患者的生活质量，造成沉重的社会与经济负担，但其神经病理机制尚不明确。本研究旨在伴持续性幻听的精神分裂症患者中构建因果结构协变网络，探究持续性幻听相关的灰质体积渐进病变模式。

方法 本研究纳入90名伴持续性幻听的精神分裂症患者（pAH 组）、55 名不伴幻听的精神分裂症患者（non-pAH 组）及 83 名性别和年龄匹配的健康受试者（HC 组）。本研究收集受试者的一般临床资料，进行临床评估，并采集 3D T1 结构像磁共振数据，在 pAH 组构建因果结构协变网络，探究全脑灰质体积萎缩的渐进式模式及起源点，探究起源点与其他区域之间的因果效应传递模式。

结果 随着幻听程度的加重，灰质体积萎缩从丘脑逐渐累及至额叶、颞叶、海马、小脑等区域。在因果结构协变网络中，丘脑是因果起源点，右侧岛盖部额下回、双侧中央后回、左侧丘脑、右侧额中回是中转节点，额颞顶枕、边缘系统、小脑等区域是目标节点。丘脑灰质体积改变的影响经由中转节点传递至目标节点，形成丘脑-皮层-小脑的因果环路。

结论 幻听患者的灰质体积改变呈现出渐进模式，丘脑是病变的起源点，因果效应经由额顶区域传递至其他皮层区域及小脑。本研究为探索持续性幻听的机制提供了宝贵证据，为临床早期识别及靶向干预提供了理论基础。

关键字：精神分裂症；持续性幻听；结构磁共振；因果结构协变网络

尼古丁对精神分裂症认知功能和海马 Glx 的影响

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目的 精神分裂症是一种严重的慢性精神疾病，主要症状包括幻觉、妄想、情感淡漠和社交活动退缩等，并常伴有不同程度的认知功能障碍。临床研究发现，精神分裂症患者吸烟率可高达 79%，远超正常人群和其他精神障碍患者。有研究提示精神分裂症患者可能通过吸烟获得某些“益处”，然而当前相关研究结果并不一致。氢质子磁共振波谱成像（1H-MRS）作为无创性测量大脑中代谢物水平的成像方法被广泛利用。本课题采用 1H-MRS 技术开展 RCT 研究，探究尼古丁对精神分裂症患者认知功能和海马谷氨酰胺复合物（Glx）的影响。

方法 纳入不吸烟精神分裂症患者进行随机分组。试验组使用尼古丁贴片（14mg/片/天），安慰剂组使用外观类似的安慰剂贴片（1 片/天）。收集所有受试者的人口学信息，在基线和干预 2 周后均采用重复性成套神经心理状态测验（RBANS）量表评估精神分裂症患者的认知功能以及完成海马 1H-MRS 波谱。分析比较两组干预后认知功能和海马 Glx 水平的变化。将试验组干预后认知功能变化和 Glx 变化进行偏相关分析。

结果 尼古丁贴片干预 2 周后，试验组患者的即刻记忆得分、言语功能得分、注意力得分和 RBANS 总分均显著上升，试验组患者左侧海马的 Glx 水平较基线均显著下降，上述结果均通过 FDR 校正。试验组患者干预后 Glx 水平变化和注意力得分变化呈正相关，未通过 FDR 校正。

结论 短期尼古丁干预有助于改善不吸烟精神分裂症患者的认知功能（即刻记忆、言语功能和注意力）；不吸烟精神分裂症患者经尼古丁短期干预后，海马的 Glx 水平降低，这种改变可能在相应的认知功能改善中发挥一定作用。

关键字：精神分裂症；尼古丁；Glx；认知功能；磁共振成像

Sex Differences in The Association of Treatment-resistant Schizophrenia and Serum Interleukin-6 Levels

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Objective Low-grade inflammation and altered inflammatory markers have been observed in treatment-resistant schizophrenia (TRS). Interleukin-6 (IL-6) is one of the pro-inflammatory cytokines linked with TRS and receives increasing attention. Previous studies showed that patients with TRS might have higher IL-6 levels compared with healthy individuals and treatment-responsive patients. Besides, emerging evidence has suggested that there are sex differences in the associations between IL-6 levels and various illnesses, including chronic hepatitis C, metabolic syndrome, etc.; however, there is limited study on TRS. In this present study, we aimed to compare the serum IL-6 levels of TRS and partially responsive schizophrenia (PRS) and explore potential sex differences in the association of TRS and IL-6 levels.

Methods The study population consisted of a total of 90 patients with schizophrenia: 64 TRS patients (45.3% males and 54.7% females) and 26 PRS patients (46.2% males and 53.8% females). We measured serum IL-6 levels using enzyme-linked immunosorbent assay (ELISA) and analyzed them separately by gender, controlling for confounders (age, education, medication, body mass index, and PANSS scores) rigorously.

Results The results showed that patients with TRS had higher serum IL-6 levels than patients with PRS ($p = 0.002$). In females, IL-6 levels increased significantly in

the TRS group compared with the PRS group (p = 0.005). And a positive correlation tendency was observed between IL-6 levels and PANSS general sub-scores (r = 0.31, p = 0.039), although this correlation was not significant after correcting for multiple comparisons. Whereas, there were no differences in IL-6 levels between the TRS and PRS (p = 0.124) in males.

Conclusion Our findings provided evidence supporting the hypothesis that the inflammatory response system (IRS) may play a role in the pathogenesis of TRS in a sex-dependent manner. In addition, sex differences in the immune dysfunction of individuals with schizophrenia cannot be neglected, and inflammation in male and female TRS should be discussed separately.

关键字：Treatment-resistant schizophrenia; Interleukin-6; Cytokines; Inflammation; Sex.

Multiple Serum Anti-glutamate Receptor Antibody Levels in Clozapine-treated/naive Patients with Treatment Resistant Schizophrenia

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Objective Glutamatergic function deficits have been associated with the pathogenesis of treatment-resistant schizophrenia (TRS), while the effects of clozapine on the glutamate system may contribute to its superior efficacy. In recent years, evidence emerged supporting the involvement of immune processes and increased prevalence of antineuronal antibodies in TRS. In this present study, we aimed to investigate multiple anti-glutamate receptor antibody levels in TRS and explored the effects of clozapine on these antibody levels.

Methods We measured and compared multiple anti-glutamate receptor (NMDAR, AMPAR, mGlur3, mGluR5) antibody levels among clozapine-treated patients with TRS (TRS-C, n=37), clozapine-na?ve patients with TRS (TRS-nC, n=39), and patients with nTRS (NTRS, n=35), using enzyme linked immunosorbent assay (ELISA). Severity of clinical symptoms was evaluated with Positive and Negative Symptom Scale (PANSS). Cognitive function was assessed using the MATRICS Consensus Cognitive Battery (MCCB).

Results The four glutamate receptor antibody levels in the TRS-nC were higher than those in the NTRS (p < 0.001). The anti-mGluR3 antibody levels in the TRS-C were similar to those in the NTRS (p = 0.233), and the other three antibody levels were between the NTRS and the TRS-nC. However, in all three groups, no significant associations were found between antibody levels and symptom severity or cognitive function.

Conclusion Our findings suggest that both glutamatergic function deficits and immune processes may play a role in the pathogenesis of TRS. The effect of clozapine targeting anti-glutamate receptor antibody levels may be an element of its pharmacology that contribute to its therapeutic effects.

关键字：treatment-resistant schizophrenia, clozapine, anti-glutamate receptor antibody, NMDA, AMPA, mGluR

Identification and Functional Analysis of Circulating Extrachromosomal Circular DNA in Schizophrenia Implicate Its Negative Effect on The Disorder

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Objective Despite the remarkable advances in the genetics of schizophrenia (SCZ) in recent years, identifying the specific genetic biomarkers of SCZ has been challenging. Extrachromosomal circular DNAs (eccDNAs) are circular DNA molecules derived and free from linear chromosomes, which can carry functional DNA elements and disturb gene expression and regulation. Here, we explored the presence of circulating eccDNA in the plasma of chronic SCZ and compared their eccDNA profiles against that of the healthy controls.

Methods 211 differential eccDNAs carrying genic segments (eccGene), including eccTAOK2, eccDNMT3B, eccSIRT5, eccJAG1 and so on, were identified in 10 chronic SCZ patients, whereas only 26 specific eccGenes were found in the 17 healthy people.

Results Human phenotype ontology enrichment analysis upon the 211 SCZ-specific eccGenes showed that six of them were enriched in the phenotype of progressive intellectual disability (FDR < 0.05). Among the SCZ-specific eccGenes, functional assays of two artificial eccDNAs carrying TAOK2-intronic sequence showed that they attenuated the TAOK2 mRNA expression in both U-251MG and SH-SY5Y cell lines, which the function was further confirmed by the dual-luciferase reporter gene assay. In addition, RNA-seq analysis showed that introduction of the artificial eccTAOK2 in U-251MG cells resulted in dysfunction of the immune-related biological processes.

Conclusion Together, these results suggest that circulating eccDNAs have negative effects on SCZ and underscore its potential role as a valuable noninvasive biomarker for the diagnosis and monitoring of the disorder.

关键字：schizophrenia；eccDNAs；negative effects

Exosome and Exosomal Contents in Schizophrenia

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Objective Schizophrenia (SCZ) is a severe neuropsychiatric disorder with high heredity and complex pathophysiology. Recently, increasing studies have focused on the role of exosomes in SCZ due to accumulating knowledge in biological function of exosome. Here, we review recent research advances on the association of exosomes and SCZ.

Methods We searched the literature for nearly 5 years with schizophrenia and exosome as keywords on Pubmed, and found 11 relative articles.

Results It was reported that miR-137 and miR-206 upregulated in blood exosome in schizophrenia patients, and exosome-derived miR-223 increased in postmortem orbitofrontal cortex (OFC). A study of plasma exosome circRNAs in SCZ patients identified 44 differentially expressed circRNAs compared to matched healthy controls, including 38 upregulated, 6 downregulated and 8 novel circRNAs. In another study, researchers found that the expressions of two lncRNAs, MIAT and PVT1, in serum exosomes of SCZ patients without medication were significantly different from those of healthy controls, and that 1-month risperidone treatment could affect the expression of MIAT and PVT1. A series of proteins related to mitochondria, including Mitofusin 2 (MFN2), cyclophilin D (CYPD) and syntaphilin (SNPH) are reported significantly changed in both astrocyte-derived EVs (ADEVs) and neuron-derived EVs (NDEVs) in individuals with first episode psychosis (FEP). A recent study examined the levels of exosomal Aβ and tau in SCZ and found that the level of astrocyte-derived exosomal Aβ42 protein was increased in SCZ patients compared to healthy controls. Moreover, the level of P-T181-tau protein in astrocyte-derived exosome was also increased in SCZ patients and was associated with worse executive function. Ranganathan found that the level of glial fibrillary acidic protein (GFAP), a marker of astrocytic pathology, was higher in plasma exosomes of SCZ patients compared to healthy controls, while the expression of α-II-Spectrin was significantly lower. A multicenter metabolomics study identified 25 blood exosome-derived metabolites that were significantly different in SCZ, and these metabolites were found to be enriched in two pathways: glycerophospholipid metabolites and the biosynthesis of phenylalanine, tyrosine, and tryptophan. Another study found decreased levels of the insulin upstream signaling transduction protein pS312-IRS-1 in blood exosome of drug-na?ve first-episode schizophrenia.

Conclusion Exosomes have the potential to serve as biomarkers for the diagnosis of SCZ. Components of exosomes, including nucleotides such as miRNA, circRNA, and lncRNA, as well as proteins and metabolites, have been shown to be differentially expressed in SCZ in various studies. These findings indicate some underlying mechanisms to SCZ including the neuroinflammation hypothesis, neurodevelopment aberrance, abnormal mitochondria function and oxidative stress and glutamate receptors dysfunction.

关键字：schizophrenia, exosome, biomarker, omics, miRNA

Neural Variability in Three Major Psychiatric Disorders

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Objective Across the major psychiatric disorders (MPDs), a shared disruption in brain physiology is suspected. Here we investigate the neural variability at rest, a well-established behavior-relevant marker of brain function, and probe its basis in gene expression and neurotransmitter receptor profiles across the MPDs.

Methods We recruited 219 healthy controls and 279 patients with schizophrenia, major depressive disorder, or bipolar disorders (manic or depressive state). The standard deviation of blood oxygenation level-dependent signal (SDBOLD) obtained from resting-state fMRI was used to characterize neural variability. Transdiagnostic disruptions in SDBOLD patterns and their relationships with clinical symptoms and cognitive functions were tested by partial least-squares correlation. Moving beyond the clinical sample, spatial correlations between the observed patterns of SDBOLD disruption and postmortem gene expressions, Neurosynth meta-analytic cognitive functions, and neurotransmitter receptor profiles were estimated.

Results Two transdiagnostic patterns of disrupted SDBOLD were discovered. Pattern 1 is exhibited in all diagnostic groups and is most pronounced in schizophrenia, characterized by higher SDBOLD in the language/auditory networks but lower SDBOLD in the default mode/sensorimotor networks. In comparison, pattern 2 is only exhibited in unipolar and bipolar depression, characterized by higher SDBOLD in the default mode/salience networks but lower SDBOLD in the sensorimotor network. The expression of pattern 1 related to the severity of clinical symptoms and cognitive deficits across MPDs. The two disrupted patterns had distinct spatial correlations with gene expressions (e.g., neuronal projections / cellular processes), meta-analytic cognitive functions (e.g., language/memory), and neurotransmitter receptor expression profiles (e.g., D2/serotonin/opioid receptors).

Conclusion In conclusion, neural variability is a potential transdiagnostic biomarker of MPDs with a substantial amount of its spatial distribution explained by gene expressions and neurotransmitter receptor profiles. The pathophysiology of MPDs can be traced through the measures of neural variability at rest, with varying clinical-cognitive profiles arising from differential spatial patterns of aberrant variability.

关键字：Major psychiatric disorder; transdiagnositc biomarker; neural variability; gene expression; neurotransmitter

剪切波弹性成像在精神病长期服药患者肝脏弹性评估中的应用价值

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目的 探讨剪切波弹性成像（SWE）在精神病长期服药患者肝脏弹性评估中的应用价值。

方法 选取 2018 年 7 月~2019 年 7 月我院收治的 90 例精神分裂症长期服药患者，均进行 SWE 检查和肝穿刺病理活检，分 析比较患者肝纤维化情况、一般资料、影响患者肝纤维化的多因素以及各指标对患者的评估价值。

结果 经肝穿刺病理活检，90 例患者肝纤维化显著 52 例（57.78%）、非显著 38 例（42.22%）；肝纤维化显著组肝纤 维化-4 因子指数（FIB-4）、谷草转氨酶/血小板比率指数（APRI）及杨氏模量值高于非显著组（P 均＜0.05）； FIB-4、APRI 及杨氏模量值是精神病长期服药患者肝纤维化程度的危险因素（P 均＜0.05）；FIB-4、APRI、杨氏 模量值及联合对 FIB-4、APRI 及杨氏模量值的 AUC 为 0.719、0.659、0.928、0.940，杨氏模量值及联合的特异度 高于 FIB-4、APRI（P 均＜0.05）。

结论 SWE 检查可有效评估精神病长期服药患者肝纤维化程度，杨氏模量值在患者的肝脏弹性评估中具有临床应用价 值。

关键字：精神病；精神分裂症；剪切波弹性成像；肝脏弹性；杨氏模量值

首发精神分裂症患者治疗前后镜像同伦功能连接值 与临床疗效相关性的研究

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目的 镜像同伦功能连接（the voxel-mirrored homotopic connectivity, VMHC）可部分反映大脑在静息状态下，两侧大脑半球之间神经元功能连接活动的强弱。本研究目的在于探索首发精神分裂症患者在治疗前 VMHC 是否存在显著异常的脑区，以及这些脑区治疗前后 VMHC 值与患者临床症状、认知功能变化的相关性。

方法 选取符合 DSM-IV 诊断标准的 43 名首发精神分裂症患者（first episode schizophrenia group，FESZ 组），和 30 名年龄、性别相匹配的健康对照（HC 组），使用 PANSS 量表评估患者临床症状，并使用 MATRICS 共识认知成套测验（MCCB）进行认知功能评估。4 周药物治疗后，再次测评患者临床症状及认知功能。治疗前后患者均采集 T1、BOLD 数据，使用 DPABI 工具包计算治疗前 FESZ 组和 HC 组 VMHC 值并进行统计分析，以阳性脑区作为感兴趣区（ROI），提取这些 ROI 治疗前后 VMHC 值，以性别、年龄做协变量，采用偏相关分析与 PANSS、MCCB 各指标做相关性分析研究。

结果 FESZ 组和 HC 组 VMHC 统计结果显示，VMHC 显著增强的脑区为双侧扣带回中部（Cingulated M），显著降低的脑区为双侧小脑后叶和前额叶部分脑区（$p<0.01$, FDR 校正）。治疗前后的偏相关分析结果显示，扣带回中部的 VMHC 值在治疗前后的降分率与 PANSS 阳性量表的减分率呈显著正相关（R=0.851，P<0.0001）；与 MCCB 中数字序列 T 分的加分率呈显著正相关（R=0.627，P=0.016）；与 MCCB 中符号编码 T 分的加分率呈显著正相关（R=0.497，P=0.05）。

结论 FESZ 治疗前，扣带回中部 VMHC 显著增强，部分前额叶和小脑后叶 VMHC 显著降低，说明 FESZ 静息状态下，双侧大脑半球之间的功能连接失衡，前后脑出现减弱，大脑中部出现增强。治疗后，扣带回中部 VMHC 值显著降低，且与部分量表的变化存在正相关，提示治疗后扣带回中部 VMHC 值减弱与治疗效果正相关。VMHC 值是一个具有较高特异性的评价指标，治疗前后各脑区 VMHC 值的变化，尤其是扣带回中部 VMHC 值的变化在评价临床疗效中的应用价值值得深入探讨。

关键字：镜像同伦功能连接（the voxel-mirrored homotopic connectivity, VMHC）；首发精神分裂症；MATRICS 共识认知成套测验（MCCB）；扣带回中部

抑郁障碍及高危亲属身体成分的性别差异研究

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目的 通过生物电阻抗分析法观察首发抑郁障碍（FE-MDD）、高危亲属（FDR）与健康受试者（HC）不同性别的身体成分差异，探讨重性抑郁障碍（MDD）患者身体成分的特点。

方法 本研究收集 140 名首次发作以及从未治疗过的诊断为 MDD 的门诊患者，根；同期选取健康志愿者为对照组（n=134）,以及随机选取 MDD 患者的父母或者儿女为一高危亲属（n=112）。收集一般资料以及采用身体成分分析仪进行身体成分测量。

结果 高危亲属体脂百分比高于健康受试者，相位角及矿物质低于健康受试者，女性中首发患者体脂百分比、内脏脂肪显著高于健康受试者；高位亲属的矿物质低于对照组。相位角（OR: 0.286,Cl:0.157~0.52）是抑郁障碍的保护因素，在女性中内脏脂肪（OR：1.019,95%，Cl:1.004~1.034）是郁障碍的危险因素；矿物质（OR: 0.099,Cl:0.023~0.433）是抑郁障碍的保护因素。

结论 首发抑郁障碍及高危亲属身体成分较健康受试者均会出现一定程度的变化，且存在性别差异，内脏脂肪面积、体脂百分比、矿物质及相位角可能是 MDD 的影响因素之一，因此在临床上应该对抑郁障碍患者以及高危亲属早期进行身体成分监测，为早期干预提供重要依据。

关键字：首发抑郁障碍；身体成分；内脏脂肪；相位角；矿物质；生物电阻抗分析

Decreased Resting-state Neural Signal in The

Left Angular Gyrus As A Potential Neuroimaging Biomarker of Schizophrenia: An Amplitude of Low-frequency Fluctuation and Support Vector Machine Analysis

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Objective Schizophrenia (SCH) is primarily diagnosed based on specific clinical symptoms, with the lack of any objective SCH-related biomarkers often resulting in patient misdiagnosis and the underdiagnosis of this condition. This study was developed to assess the utility of amplitude of lowfrequency fluctuation (ALFF) values analyzed via support vector machine (SVM) methods as a means of diagnosing SCH.

Methods In total, 131 SCH patients and 128 age- and gender-matched healthy control (HC) individuals underwent resting-state functional magnetic resonance imaging (rs-fMRI), with the resultant data then being analyzed using ALFF values and SVM methods.

Results Relative to HC individuals, patients with SCH exhibited ALFF reductions in the left angular gyrus (AG), fusiform gyrus, anterior cingulate cortex (ACC), right cerebellum, bilateral middle temporal gyrus (MTG), and precuneus (PCu) regions. No SCH patient brain regions exhibited significant increases in ALFF relative to HC individuals. SVM results indicated that reductions in ALFF values in the bilateral PCu can be used to effectively differentiate between SCH patients and HCs with respective accuracy, sensitivity, and specificity values of 73.36, 91.60, and 54.69%.

Conclusion These data indicate that SCH patients may exhibit characteristic reductions in regional brain activity, with decreased ALFF values of the bilateral PCu potentially offering value as a candidate biomarker capable of distinguishing between SCH patients and HCs.

关键字：amplitude of low-frequency fluctuation, schizophrenia, resting-state fMRI, support vector machine, imaging biomarker

Efficacy of Individualized Repetitive Transcranial Magnetic Stimulation Treatment for Depression: A Systematic Review and Meta-analysis

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Objective There are increasing studies on individualized repetitive transcranial magnetic stimulation (rTMS) strategies for the treatment of major depressive disorder (MDD), which include individualized target and individualized frequency/timing. However, it remains unknown whether these individualized rTMS strategies are effective, and more importantly, whether they are superior to stand rTMS in treating depression. This systematic review and meta-analysis aim to provide a comprehensive overview of the existing individualized methods for treating MDD, with a focus on their clinical use and efficacy.

Methods We conducted a systematic search in PubMed, EMBASE, and the Cochrane Library for randomized controlled trials (RCTs) that focused on individualized rTMS treatment for depression. Two authors independently conduct article selections, data extraction, and bias risk evaluation. Meta-analysis was conducted to compare the symptom severity difference of post-rTMS with 1) individualized targeting compared to the sham group or standard group; and 2) individualized frequency/timing compared to the sham group or standard group. Additionally, meta-regression analysis was conducted to investigate the influence of pulse numbers on effect size. We also discussed improvements in cognition and adverse effects of individualized rTMS.

Results A total of 14 RCTs were included in the meta-analysis, with 11 RCTs focused on individualized targeting strategy and 3 RCTs on individualized frequency/timing. The pooled effect size of the meta-analysis indicated that individualized targeting rTMS had an antidepressant outcome (SMD = -0.64, 95%CI: [-0.92, -0.35], $p < 0.001$) compared to the sham group. The total number of pulses had a significant influence on the effect size ($R2 = 56.42\%$, $p = 0.035$), indicating that the efficacy of the individualized rTMS target increased with an increasing total number of pulses. Moreover, individualized rTMS targeting had a superior antidepressant outcome (SMD = -0.38, 95%CI: [-0.75, -0], $p = 0.049$) compared to the standard group. Individualized frequency/timing rTMS was found to be antidepressant efficacious (SMD = -0.37, 95%CI: [-0.69, -0.05], $p = 0.025$) compared to the sham group, but not superior (SMD = -0.35, 95%CI: [-0.95, 0.24], $p = 0.25$) compared to the standard group. Four RCTs reported cognitive functioning outcomes after individualized targeting rTMS treatment, with two supporting a significant improvement and the rest finding no difference between the individualized targeting rTMS and the sham group. The most commonly reported adverse effect was headache, with a higher incidence in the individualized group (26/261) compared to the sham group (12/161) and standard group (2/57).

Conclusion This study provides the first quantitative synthesis demonstrating the antidepressant efficacy of individualized rTMS, with individualized targeting rTMS showing promise for MDD treatment.

关键字：individualized rTMS, individualized target, individualized frequency, individualized timing, Major depressive disorder

SOD 和 HsCRP 与残留阴性症状精神分裂症患者萝卜硫素疗效的关系

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目的 越来越多的证据表明，氧化应激和免疫炎症过程与精神分裂症的阴性症状相关。萝卜硫素(Sulforaphane, SFN)除具有较强的抗氧化和抗炎活性外，还可改善精神分裂症患者的认知功能。探讨 SFN 对阴性症状精神分裂症患者的疗效及对超氧化物歧化酶(superoxide dismutase, SOD)和炎症标志物高敏 c 反应蛋白(high-sensitivity C-reactive protein, HsCRP)水平的影响。

方法 共纳入45例处于稳定期以阴性症状为主的精神分裂症患者。入组患者在原治疗基础上加用 SFN 片，剂量为 90mg /d，共治疗 24 周。在基线、12 周和 24 周时，我们对参与者进行了访谈并评估了其医疗状况。采用阳性与阴性症状量表(PANSS)减分率评价各组治疗效果，采用副反应量表(TESS)评价不良反应，并检测 SOD、HsCRP 等指标。

结果 PANSS 阴性分量表评分显著降低($P < 0.001$)， SOD 活性显著升高($P<0.001$)， HsCRP 显著升高($P<0.05$)。PANSS 阴性分量表减分率有效组 HsCRP 改善显著($P<0.05$)。

结论 SFN 可能作为一种潜在的辅助干预措施，安全地改善精神分裂症的阴性症状。降低 HsCRP 水平的抗炎作用是 SFN 改善精神分裂症患者阴性症状的可能机制。

关键字：精神分裂症，萝卜硫素，阴性症状，超敏 c 反应蛋白，超氧化物歧化酶

首发未服药精神分裂症患者肠道微生物组特征改变

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目的 肠道微生物与精神分裂症的病因学研究已然受到广泛关注，已有一系列高水平关联研究表明精神分裂症患者的肠道菌群组成会发生变化，然而，引发这些变化的因素却很难确定。有研究指出，细菌以外的肠道微生物的作用应得到重点关注。肠道病毒组数量极其庞大，在塑造肠道菌群群落组成，以及调节肠道菌群代谢、进化和适应性方面发挥重要作用。本研究将探索肠道病毒组在肠道菌群与精神分裂症发病关联中的调控作用。

方法 本研究从四川大学华西医院心理中心招募首发未服药的精神分裂症患者和地域来源及性别、年龄等人口学特征相似或相近的健康对照共 95 例，精分患者的诊断符合 DSM-5 中相应的诊断标准。样本采集包括一般人口学信息和粪便样本采集等。对粪便样本进行肠道微生物（病毒和细菌）宏基因组测序。探索各个样本在不同分类水平（界、门、纲、目、科、属、种）上含有何种病毒/菌群及其相对丰度，并进行群落结构的分析（α 和 β 多样性分析）。采用偏最小二乘判别分析挑选对分组贡献较大的差异微生物，在此基础上探索分类学的疾病特异性病毒-细菌组跨界相关性（Trans-kingdom correlation），将性别、BMI 等因素作为协变量构建偏相关网络。

结果 研究共招募 95 名被试（48 名患者和 47 名健康对照）。对于肠道菌群，两组间 α 多样性在各水平上无显著差异，在科、属、种水平上组间 β 多样性存在显著差异；对于肠道病毒组，两组间 α 多样性在目、科两水平上存在显著差异，在目、属、种水平上组间 β 多样性存在显著差异。判别分析共鉴定出 9 种对组间差异贡献较大的病毒和 28 种细菌。跨界偏相关网络分析表明精神分裂症组和健康对照组的病毒-细菌关联模式存在较大差异。

结论 本研究结果表明，除肠道菌群以外，肠道病毒也显示出与精神分裂症的发病相关。在精分患者和健康对照中肠道病毒与肠道菌群的关联模式差异将促进我们对肠道微生物群如何影响精神分裂症的发生的理解，也为发现潜在的、便于临床转化的可干预靶点（饮食结构指导、联用抗生素、补充益生元等方案）提供了前期基础。

关键字：肠道微生物，精神分裂症

非典型抗精神病药治疗后血清催乳素的预测模型

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目的 高催乳素血症（hyperprolactinemia, HPRL）是部分非典型抗精神病药常见的不良反应之一，可引起女性月经量少、周期延长、闭经、溢乳以及男性性功能障碍等症状。在需长期服药的患者中血清催乳素备受关注，本研究应用定量药理学的方法建立用药后血清催乳素的预测模型。

方法 收集 528 例精神科病房 2018 年 1 月 1 日-2022 年 12 月 30 日服用单种非典型抗精神病药治疗且至少有两次血清催乳素检测结果的患者，整理人口学、非典型抗精神病药物种类、剂量、用药时间、血清催乳素水平、HPRL 相关症状、减轻 HPRL 的药物等数据，采用非线性混合效应模型的方法建立血清催乳素随用药时间变化的 Emax 模型。

结果 528 例建模患者年龄 42.08±15.67（14～75）岁，女性 51%，98%为汉族。依据用药种类不同，更易出现 HPRL 的：氨磺必利（5%）、利培酮（25.6%）、帕利哌酮（9.5%）、奥氮平（23.4%）、氯氮平组（14%），上述各组血清催乳素用药后变化较快，且规律类似，43 天左右达血清催乳素峰值。阿立哌唑（14%）、喹硫平（6.5%）、齐拉西酮组（2%）血清催乳素升高不明显。模型诊断图、可视化预测检验图说明模型的准确性和预测能力较好。

结论 服用易引起 HPRL 的非典型抗精神病药 1 月内血清催乳素升高最快，1 月半左右达峰，适宜在该

阶段临床监测催乳素并适当干预，防止因 HPRL 停药。

关键字：非典型抗精神病药，血清催乳素，高催乳素血症

Efficacy of Accelerated Continuous and Intermittent Theta-burst Stimulation for Treatment-Resistant Depression and Suicidal Ideation

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Objective Suicidal ideation is a substantial clinical challenge in treatment resistant depression (TRD). Recent work demonstrated promising antidepressant effects in TRD patents with no or mild suicidal ideation using a specific Transcranial Magnetic Stimulation (TMS) protocol termed intermittent theta burst stimulation (iTBS). To reduce the financial and time burden of TMS therapy, intensive (accelerated) treatment schedules have been developed involving higher dosing and multiple sessions per day. Recent protocol modifications provided a striking advance in terms antidepressant clinical efficacy. More specifically, known as Stanford Neuromodulation Therapy (SNT), demonstrated promising outcomes with 64.3% response rate at four-week follow-up. In addition to iTBS, continuous TBS (cTBS) delivered to the right DLPFC has also demonstrated therapeutic efficacy in TRD patients. Compared to iTBS, cTBS is more often used to manage anxiety symptoms, and it is noteworthy that anxiety demonstrates a moderate covariance with suicidal risks. Here, we examined the clinical effects of accelerated schedules of iTBS and continuous TBS (cTBS) in patients with moderate to severe suicidal ideation.

Methods TRD patients (n=44) with moderate to severe suicidal ideation were randomized to receive treatment with either accelerated iTBS or cTBS. These were delivered in ten daily TBS sessions (1800 pulses/session) for five consecutive days (total 90,000 pulses). Neuronavigation was employed to target accelerated iTBS and cTBS to the left and right dorsolateral prefrontal cortex (DLPFC) respectively. Clinical assessments were performed at baseline, post treatment, two weeks and four weeks post intervention.

Results Accelerated cTBS and iTBS led to substantial and comparable antidepressant effects at treatment end-point, and at 2- and 4-week follow-up (response rates, cTBS= 54.54%, 50.00%, 54.54%; iTBS= 59.09%, 54.54%, 54.54%). Critically, accelerated cTBS was superior to iTBS in the management of suicidal ideation (mean effect of group, PBonferroni = 0.04) and anxiety symptoms (interaction effect, PBonferroni = 0.01 at post-treatment). During the 4-week follow-up, 72.73% of the patients in the accelerated cTBS group achieved remission of suicidal ideation, compared to 31.82% in the accelerated iTBS group (Pcorrected = 0.007). At 4-week follow-up (week 5), the response rates of depression were comparable in the two groups (RatecTBS = 54.54%, RateiTBS = 54.54%, Pcorrected = 1.000). In terms of anxiety, the accelerated cTBS group demonstrated a better response rate than the accelerated iTBS group (RatecTBS = 81.82%, RateiTBS = 50%, Pcorrected = 0.026).

Conclusion These findings provide the first evidence that accelerated schedules of left-DLPFC iTBS and right-DLPFC cTBS are comparably effective in managing antidepressant symptoms and indicate that right-DLPFC cTBS is superior in reducing suicidal ideation and anxiety symptoms.

关键字：treatment-resistant depression; suicidal ideation; theta-burst stimulation; DLPFC

基于群体药代动力学模型探索氨磺必利在特殊人群中的个体化给药方案

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目的 基于中国精神障碍患者氨磺必利群体药代动力学模型，年龄作为显著影响氨磺必利清除率的因素，研究特殊年龄人群的个体化给药方案，为临床给药提供技术指导。

方法 基于前期建立的氨磺必利群体药代动力学模型，对 13~18 岁（青少年）和 65~69 岁（老年人）特殊年龄段人群进行仿真在 50-1200mg/d 剂量下的血药浓度范围。

结果 当青少年服药剂量小于 300 mg·d-1，氨磺必利血药浓度低于 AGNP 指南推荐有效浓度范围下限（100 ng·mL-1）当给药剂量大于 800 mg·d-1，氨磺必利平均血药浓度大于 320 ng·mL-1；给药剂量增加至 1200 mg·d-1，青少年氨磺必利血药浓度均不会超 600 ng·mL-1。当老年人服药剂量在 100~300 mg·d-1，氨磺必利平均血药浓度在 AGNP 指南推荐的有效浓度范围内（100~320 ng·mL-1）；当老年人服药剂量超过 600 mg·d-1 血药浓度超过实验室警戒浓度（640 ng·mL-1）。

结论 青少年如果期望获得有效治疗浓度需加大给药剂量且氨磺必利用于青春期精神分裂症的资料有限，通常是不建议青春期至 18 岁的青少年使用氨磺必利，老年人给药剂量超过 600 mg·d-1，需密切监测氨磺必利血药浓度。

关键字：氨磺必利；模型仿真；特殊年龄段人群；个体化给药

基于脑电微状态 k-mers 的词袋模型对重度抑郁症进行分类的机器学习研究

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目的 脑电微状态类似于自然语言中的字符，由几个微状态组成的短片段(k-mers)类似于单词，而微状态序列则类似于自然语言。我们的目的在于探究微状态 k-mers 是否可以作为重度抑郁症的神经生物标记，以及能否在个体水平识别重度抑郁症。

方法 我们使用词袋模型来处理微状态序列，使用 k 范围为 1 到 10 的 k-mer 作为单词计算词频（TF），并将考虑或不考虑逆文档频率(IDF)的 TF 作为特征。本研究包含两个独立的重度抑郁症数据集。我们分别对数据集 1(27 名患者和 26 名对照)和数据集 2(34 名患者和 30 名对照)进行嵌套交叉验证，然后在一个数据集上进行训练，在另一个数据集上进行测试，反之亦然。计算敏感度、特异度以及 AUC 等指标评估机器学习性能。

结果 在数据集 1 中，使用 4-mers 的 TF 作为特征的 L1 正则化模型的 AUC 为 81.5%，在数据集 2 中，使用 9-mers 的 TF 作为特征的 L1 正则化模型的 AUC 达到 88.9%。当使用数据集 1 作为训练集时，使用 9-mers 的 TF- IDF 作为特征的 L2 正则化模型预测数据集 2 的最佳 AUC 为 74.1%；而数据集 2 作为训练集时，8-mers 的 TF 作为特征的 L1 正则化模型预测数据集 1 的最佳 AUC 为 70.2%。

结论 我们的研究提示微状态 k-mers 可作为重度抑郁症的神经生物标记物，并能在个体水平识别重度抑郁症患者。本研究结果将有助于推动使用自然语言处理技术进一步探索微状态序列在神经精神疾病精准诊疗中的价值。

关键字：重度抑郁症，脑电图微状态，k-mers，词袋模型，机器学习

基于智商作为代理表型的精神分裂症异质性分析

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背景 精神分裂症（Schizophrenia，SCZ）是一种由不同症候群组成的，异质性高，病因未明重性精神障碍；既往大量的研究提示无论以哪种临床症候群表现为主的精神分裂症患者均存在不同类型的认知缺陷。利用认知指标作为代理表型对精神分裂症进行基于生物学基础的再分类成为一种切实可行的研究方式。目的 探索基于智商作为代理表型是否可以为揭示精神分裂症的病理生理机制以及再分类提供重要证据。

方法 本研究运用一种新的代理表型方法（Proxy-phenotype method, PPM），利用当前最新地全基因组关联分析（Genome-wide association study, GWAS）结果以及基于生物信息学算法的转录组关联分析（Transcriptomic association study，TWAS）寻找与智商（Intelligence, IT）以及精神分裂症相关联的，在背侧前额叶（Dorsal lateral prefrontal cortex, DLPFC）表达的智商代理基因（IT-proxy genes）；并运用表达预测算法对独立样本 DLPFC 区域的 IT-proxy genes 进行预测以及新的亚型寻找；后利用不同纬度的，包括认知、影像以及纵向临床量表在内的数据对新的亚型进行特征定义。最后结合小鼠神经元生长对上述基因进行生物功能的探索。

结果 联合 GWAS 和 TWAS 的 PPM 方法发现 10 个基因在 DLPFC 的表达存在与智商以及 SCZ 的显著关联；在一组包括 155 名首发未服药的精神分裂症患者以及 189 名匹配的正常对照的独立样本中我们对上述 10 个 IT-proxy genes 在 DLPFC 进行表达预测以及组间比较，结果提示上述基因在 DLPFC 的表达存在显著的组间差异并可以利用上述 10 个基因的表达矩阵在患者组侦测到 4 个亚型；进一步对 4 种亚型进行特征定义发现 4 种亚型在工作记忆存在显著的组间差异；在颞极、枕额叶、顶内沟以及前额叶的灰质体积存在组间差异，其差异在上述脑区组成的结构网络中更为突出；纵向临床大体功能量表提示其中 1 组亚型相比较于其他 3 组亚型存在显著的预后不良；小鼠神经元生长研究提示上述基因可以显著的促进神经元，特别是其结构中树突棘的生长。

结论 由多种认知模块组成地智商作为代理表型可以有效识别精神分裂症的异质并进行亚型的侦测，这些亚型为疾病精准诊疗提供重要证据。

关键字：精神分裂症；智商；代理表型；背侧前额叶；生物亚型

Genetic Correlation and Overlap between Suicidal Behaviors and Mental Health Conditions

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Objective To investigate the genetic association between mental disorders and nonfatal suicide attempts (SA), which occur far more frequently and are a major source of disability and social and economic burden.

Methods We used genome-wide association summary statistics from individuals with European ancestry from the Psychiatric Genomics Consortium (schizophrenia [SCZ], major depressive disorder [MDD], bipolar disorder [BD], anxiety disorder [ANX] and post-traumatic stress disorder [PTSD]), International Suicide Genetics Consortium (SA), and Million Veterans Program (opioid use disorder [OUD] and alcohol use disorder [AUD]). We estimated genome-wide and regional genetic correlation, and

cortical gene expression of each phenotype. Shared loci were identified and mapped to genes, which were further tested for functional enrichment.

Results We observed positive genome-wide genetic correlations between mental disorders and SA (range 0·26–0·86, rgSA-MDD=0.86, p=2.5E-123, rgSA-BD=0.26, p=1.33E-07). After conditioning SA data with major mental disorders, genome-wide genetic correlations between SA and most mental disorders remained positively significant (range 0·08–0·42, rgSA-MDD=0.42, p=2.08E-11, rgSA-SCZ=0.04, p=1.29E-27). When zooming into local regions, seven (SA-BD) to 81 (SA-ANX) shared loci were identified for pairs involving SA and one of those mental disorders. Cortical gene expression analysis indicated YOD1 as the only shared cis-eQTL gene for multiple phenotype pairs (FDR = 0.021). However, enrichment analysis did not yield significant results.

Conclusion This study underscores the urgent need to address the genetic architecture of suicide behaviors, among individuals with or without major mental disorders.

关键字：suicide attempt, genetic correlation, mental diseases

Load-dependent Inverted U-shaped Connectivity of The Default Mode Network in Schizophrenia During A Working Memory Task: Evidence From A Replication FMRI Study

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Objective Working memory (WM) deficit is associated with aberrant brain connectome degree distribution in schizophrenia. However, the brain neural mechanism underlying the degree redistribution pattern in schizophrenia is still uncertain.

Methods We examined the functional connectome degree distribution in 81 schizophrenias and 77 healthy controls (HCs) across different WM loads during an nback task. We tested associations between the altered degree distribution and clinical symptoms and conducted functional connectivity analyses to investigate the neural mechanism underlying altered degree distribution. These analyses were repeated in another independent dataset of 96 subjects. Machine-learning analysis was employed to study the ability of the degree distribution pattern of one dataset to discriminate patients from controls in the second dataset.

Results Patients showed a decreased centrality in the dPCC (dorsal posterior cingulate cortex) for the '2back vs. 0back' contrast compared with HCs. The dPCC centrality pattern across all WM loads fitted the 'inverted U-shape' with a left shift of this pattern in patients. This reduced centrality correlated with severity of delusions and related to its reduced functional connectivity with dorsal precuneus. These results were replicated in the second independent dataset, and the machine-learning analyses achieved 0.71 accuracy.

Conclusion Schizophrenia is characterized by a load-dependent reduction of centrality in dPCC, and it relates to the severity of delusions. We raise the possibility that restoring dPCC centrality in the presence of cognitive demands may have a therapeutic effect on persistent delusions in schizophrenia.

关键字：: schizophrenia, working memory, N-back, graph theory, inverted-U shape, delusion;

CYP2C19 基因多态性与艾司西酞普兰治疗药物监测的临床应用分析

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目的 探讨细胞色素 P450 2C19（CYP2C19）基因多态性及其他影响因素与艾司西酞普兰血药浓度相关性，为治疗药物监测（TDM）临床应用提供参考。

方法 回顾性收集我院 2020 年 1 月-2022 年 12 月使用艾司西酞普兰住院患者的 TDM 结果及年龄、性别、肝功能、合并用药及 CYP2C19 基因多态性等临床资料，分析 CYP2C19 基因多态性及其他影响因素对艾司西酞普兰血药浓度影响。

结果 93 例中国汉族抑郁住院患者中，CYP2C19*2、*3 及*17 等位基因突变率分别为：33.33%、5.91%和 0.54%，基因型分布符合中国汉族人群的遗传平衡定律。超快代谢型（UM）（*1/*17）、广泛代谢型（EM）（*1/*1）、中间代谢型（IM）（*1/*2、*1/*3）和慢代谢型（PM）（*2/*2、*2/*3）的艾司西酞普兰校正血药浓度（CDR）分别为 104.16，（92.42±9.41），（137.15±11.95）和（185.59±22.28）(ng·mL-1)/(mg·kg-1)。与 EM 组比较，PM 患者艾司西酞普兰的血药浓度增加 93.17%，IM 患者增加 44.73%（P< 0. 05）。多元线性回归显示，CDR、是否 PM 和是否 IM 是影响艾司西酞普兰血药浓度的主要因素（R2=0.417，P< 0. 001），模型可解释 41.7%的艾司西酞普兰血药浓度的变化。

结论 中国汉族抑郁患者中 CYP2C19*2、*3 基因多态性与艾司西酞普兰血药浓度有关，PM 患者应根据血药浓度进行剂量调整。

关键字：艾司西酞普兰；CYP2C19；基因多态性；治疗药物监测

Study of The Functional Network Characteristics of Mood Disorder And Its Association with Clinical Symptom Dimensions

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Objective Major depressive disorder (MDD) and bipolar disorder (BD) are two closely related types of mood disorders. According to the DSM-5, patients with

major depressive disorder and bipolar disorder can be further classified into depression with mixed features (MMF) and bipolar disorder with mixed features (BMF). The purpose of this study is to explore the abnormal patterns of different large-scale functional brain networks in MDD, BD, MMF and BMF patients and to find brain networks related to depressive and manic symptoms in the mood disorder spectrum.

Methods In this study, patients with MDD, BD, MMF, BMF and healthy controls (HC) was collected, resting fMRI scans were completed, the severity of depressive and manic symptoms of patients group was assessed by the Hamilton Depression Rating Scale and the Young Mania Rating Scale, respectively. Based on the functional connectivity matrix of each subject, the brain network related to depressive and manic symptoms was separately identified in the patient group using the network-based statistics (NBS) method. Pearson correlation was used to calculate the relationship between the averaged functional connectivity within the two brain networks and the severity of clinical symptoms. One-way analysis of variance was used to compare the difference in functional connectivity of brain networks related to different symptoms in subtypes of patients and HC. For networks with significant main effects, post-hoc tests were performed to compare between group differences.

Results A total of 168 participants were included in analysis, including 42 MDD, 30 BD, 27 MMF, 27 BMF, and 42 HC. Two within-network functional connectivity and 7 between-network functional connectivity were significant among different groups, and the patients group generally showed significantly higher functional connectivity than the HC. The brain network related to depressive symptoms included 82 functional connectivity ($r=0.66$, $P<0.05$). The brain network related to manic symptoms comprised 87 functional connections ($r=0.59$, $P<0.05$). In the brain network corresponding to manic symptoms, BD MMF and BMF exhibited significantly higher averaged functional connectivity than HC, and BMF showed significantly higher averaged functional connectivity than MDD. In the brain network corresponding to depressive symptoms, there were no significant group differences.

Conclusion This study demonstrated that patients with MDD, BD, MMF, BMF exhibit abnormal brain network connectivity patterns relative to HC, and may be influenced by a common factor. From the viewpoint of the entire mood disorder spectrum patients, depressive and manic symptoms can be characterized by different brain networks. The findings of this study contribute to further understanding of abnormal brain function patterns in patients with different subtypes of mood disorders and provide support for the search of relationships between clinical symptoms and neuroimaging features.

关键字：mood disorder, resting-state fMRI, functional connectivity, brain networks, clinical symptoms

Combined Application of Weighted Gene Co-expression Network Analysis and Machine Learning in Depression

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Objective The objective of this study was to understand Major depressive disorder (MDD) better, a complicated mental disorder marked by high relapse rates and low treatment response. By analyzing the transcriptome expression profiles in the peripheral blood of MDD patients, the study intended to identify potential biomarkers of MDD.

Methods The study selected and preprocessed GSE98793. The technique of Gene Set Enrichment Analysis (GSEA) was applied to choose the MDD-related pathways. A range of analytical methods, including gene differential analysis, weighted gene co-expression network analysis (WGCNA), and LASSO regression, was used to recognize hub genes associated acutely with MDD. Based on the gene expression profiling of the entire sample (MDD/control:64/64), this study preliminarily constructed the immune infiltration landscape in patients and identified immune cells significantly associated with MDD. Machine learning (ML) was used to create risk prediction models to diagnose MDD, and the diagnostic efficacy was evaluated based on the receiver operating characteristic curve (ROC) and the area under the curve (AUC).

Results The study discovered 15 essential genes significantly associated with MDD. The CIBERSORT analysis revealed that the proportions of naive CD4+ T-cells, activated memory CD4+ T-Cells, monocytes, CD8+ T-cells, and resting memory CD4+ T-cells were all related to MDD. Using machine learning techniques, six MDD risk prediction models were constructed. The optimum model was the random forest, with the AUC in the test set being 0.86.

Conclusion In conclusion, creating diverse machine learning models utilizing these biomarkers may contribute to more accurate MDD diagnosis. The outcomes underline the importance of using these biomarker data to enhance the understanding, detection, and treatment response predictions for MDD.

关键字：MDD, machine learning, weighted gene co-expression network analysis, neuroinflammation, transcriptome

吸烟对精神分裂症临床表现和脑形态的影响

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目的 精神分裂症是一种严重的慢性精神疾病，主要症状包括幻觉、妄想、情感淡漠和社交活动退缩等，以及出现不同程度的认知功能障碍。临床研究发现，精神分裂症患者吸烟率可高达 79%，该现象受到学界广泛关注。既往有研究提示，吸烟精神分裂症患者的脑形态可能存在异常。本研究通过对比吸烟和不吸烟精神分裂症患者临床表现和脑形态的差异，探究吸烟精神分裂症患者临床表现和脑形态的特点。

方法 纳入吸烟精神分裂症患者、不吸烟精神分裂症患者和健康对照。收集所有受试者的人口学信息，采用阳性和阴性症状量表（PANSS）、9 项患者健康问卷（PHQ-9）、7 项广泛性焦虑障碍量表（GAD-7）和重复性成套神经心理状态测验（RBANS）量表评估精神分裂症患者的临床表现，其中吸烟患者需完成吸烟情况评估。所有受试者完成高分辨 3D-T1 加权结构像数据采集。比较吸烟和不吸烟精神分裂症患者临床表现的差异。比较三组受试者的皮层厚度、表面积、皮层下结构体积和海马亚区体积的差异。将组间比较有显著差异的脑结构指标与临床表现进行偏相关分析。

结果 吸烟精神分裂症患者的 PHQ-9 得分显著低于不吸烟精神分裂症患者（p=0.013），通过 FDR 校正。吸烟精神分裂症患者的注意力得分较不吸烟精神分裂症患者低（p=0.026），未通过 FDR 校正。吸烟精神分裂症患者的吸烟情况和临床表现无相关性(p 均>0.05)。吸烟精神分裂症患者右外侧眶额叶（p=0.048）和右颞横回（p=0.043）的皮层厚度较不吸烟精神分裂症患者低，未通过 FDR 校正。吸烟精神分裂症患者海马亚区-右侧海马伞体积较不吸烟精神分裂症患者更小（p=0.011），未通过 FDR 校正。

结论 吸烟精神分裂症患者可能表现出更轻的抑郁症状，注意力有受损的趋势；吸烟精神分裂症患者右外侧眶额叶和右颞横回的皮层厚度呈现更低的趋势，海马亚区-右侧海马伞的体积呈现下降更明显的趋势。

关键字：精神分裂症；吸烟；临床表现；脑形态；磁共振

尼古丁对精神分裂症认知功能和海马 NAA 水平的影响

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目的 精神分裂症是一种严重的慢性精神疾病，主要症状包括幻觉、妄想、情感淡漠和社交活动退缩等，认知功能障碍正是该疾病核心症状之一。临床研究发现，精神分裂症患者吸烟率高，远超正常人群和其他精神障碍患者，进一步研究提示精神分裂症患者吸烟行为可能是自我给药帮助缓解症状，然而当前相关研究结果并不一致。氢质子磁共振波谱成像（1H-MRS）作为无创性测量大脑中代谢物水平的成像方法被广泛利用。本课题采用 1H-MRS 技术开展 RCT 研究，探究尼古丁对精神分裂症患者认知功能和海马 N-乙酰天门冬氨酸（NAA）的影响。

方法 纳入不吸烟精神分裂症患者进行随机分组。试验组使用尼古丁贴片（14mg/片/天），安慰剂组使用外观类似的安慰剂贴片（1 片/天）。收集所有受试者的人口学信息，在基线和干预 2 周后均采用重复性成套神经心理状态测验（RBANS）量表评估精神分裂症患者的认知功能以及完成海马 1H-MRS 波谱。分析比较两组干预后认知功能和海马 NAA 水平的变化。将试验组干预后认知功能变化和 NAA 变化进行偏相关分析。

结果 尼古丁贴片干预 2 周后，试验组患者的即刻记忆得分、言语功能得分、注意力得分和 RBANS 总分均显著上升，试验组患者左侧海马的 NAA 水平较基线均显著下降，上述结果均通过 FDR 校正。试验组患者干预后 NAA 水平变化和注意力得分变化呈正相关，未通过 FDR 校正。

结论 短期尼古丁干预有助于改善不吸烟精神分裂症患者的认知功能（即刻记忆、言语功能和注意力）；不吸烟精神分裂症患者经尼古丁短期干预后，海马的 NAA 水平降低，这种改变可能在相应的认知功能改善中发挥一定作用。

关键字：精神分裂症；尼古丁；NAA；认知功能；磁共振成像

Identification of Male Schizophrenia Patients Using Brain Morphology Based on Machine Learning Algorithms

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Objective A fast diagnosis of schizophrenia is crucial to prescription of an appropriate antipsychotic in the early stage which is able to make treatment more efficient. Current diagnosis of schizophrenia is carried out based on doctors' judgment through observing behaviors and psychiatric symptoms of patients. However, in many cases, the diagnosis is not highly reliable, due to clinician subjectivity, patient heterogeneity and nomenclature inadequacy, leading to diagnosis of schizophrenia in the early stages being still considered a challenging task.

Methods A total of 78 male subjects composed of 60 patients with schizophrenia who met the Diagnostic and Statistical Manual of Mental Disorders-5 and 18 healthy controls participated in this study. The Least absolute shrinkage and selection operator (LASSO) was applied to select the important features from several brain morphological indexes including cortical volume (CV), cortical thickness (CT) and cortical surface area (CSA) as input features for classification. The establishment and evaluation of models were conducted in R software. The entire data was randomly divided into training (70%) and testing sets (30%). The training set was used for developing models, and the testing set for assessing the performance of models. Four commonly used machine learning algorithms including GLM, RF, KNN, SVM were tested for classifier selection process. Performance of classification models

was evaluated with the area under receiver operating characteristic curves (AUC) and balanced accuracy.

Results There were no significant differences in age and whole brain volume between patients with schizophrenia and healthy controls. The important features were selected by LASSO, including banks of superior temporal sulcus (bankssts), cuneus, inferior temporal, isthmus cingulate, lateral occipital, lingual, paracentral, parsopercularis, superior frontal, temporal pole, and insula region. After the important features were selected using LASSO, we compared differences in them between groups. Patients with schizophrenia showed reductions in left bankssts area, left inferior temporal area, left lateral occipital area and left superior frontal volume as well as increased cortical thickness in left lingual, right cuneus and lateral occipital regions, compared with healthy controls. RF outperformed other machine learning algorithms and achieved the better classification performance with an AUC of 0.886. Subsequently, CV, CT and CSA were used for development of classification models using the RF algorithm, respectively. Among three brain morphological features, CT performed best and its AUC and balanced accuracy reached 0.605.

Conclusion In this study, we found structural abnormality in some brain regions primarily involved in temporal and frontal lobes in schizophrenia patients. Compared with other algorithms, RF showed better performance in discriminating male schizophrenia patients from healthy controls.

关键字：Schizophrenia, Machine learning, classification, structure MRI

基于质谱技术的抑郁症代谢组学研究进展

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目的 重性抑郁障碍（Major depressive disorder，MDD）是一种以显著而持久的心境低落为主要临床特征的精神疾病。MDD 病因复杂，其发病机制尚未完全阐明。基于质谱的代谢组学可以在代谢水平上为 MDD 的预后、治疗反应和相关生物标志物提供新的见解。

方法 我们在 Web of Science 和 PubMed 数据库中使用了“depression”以及“metabonomics”等关键词检索相关文章，根据需要选取近五年发表的英文研究。

结果 MDD 的质谱代谢组学研究常用的方法有液相色谱-质谱联用（Liquid chromatography–mass spectrometry，LC-MS）、气相色谱-质谱联用（Gas chromatography-mass spectrometry，GC-MS）、超流体临界色谱-质谱联用（Supercritical fluid chromatography-mass spectrometry，SFC-MS）以及质子转移反应质谱（Proton-transfer reaction mass spectrometry，PTR-MS），常见的代谢组学平台包括靶向代谢组学（Targeted metabolomics）、非靶向代谢组学（Untargeted metabolomics）以及拟靶向代谢组学（Pseudotargeted metabolomics），关注较多的代谢物可分为氨基酸类代谢、脂质类代谢以及肠道微生物相关的代谢物等，此外中药类、益生菌类以及常见抗抑郁合成药治疗前后代谢物的变化也是研究的重点内容。

结论 随着质谱代谢组学检测技术的发展，代谢组学在 MDD 研究中的作用凸显。代谢组学挖掘出大量 MDD 生物标志物及其代谢途径信息，然而这些信息在 MDD 发展中所起的作用尚未完全阐明，如何利用这些数据来提高 MDD 的诊断、治疗和预后仍不清楚。未来，多种质谱技术和代谢组学平台的整合开发以及与其它领域技术的联合应用将为 MDD 的深入研究提供更准确和完整的信息。

关键字：抑郁症，质谱，代谢组学

基于列线图的氨磺必利停药风险预测模型建立与验证

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目的 抗精神病药物的连续治疗是防止和延缓精神症状复发的有效手段，本研究调查了精神病院治疗期间使用抗精神病药氨磺必利的停药情况，探讨停药的风险因素，并构建风险预测模型，为临床用药决策提供依据。

方法 回顾性分析 2019 年 1 月至 2021 年 3 月使用氨磺必利的患者资料，获取相关资料及实验室检测指标、临床疗效总体改善情况及不良反应发生情况，并通过 1 年随访整理氨磺必利的停药情况。采用 t 检验和单因素方差分析评估氨磺必利血药浓度与临床疗效和不良反应的关系。将所有患者作为训练集，使用重复抽样 1000 次的 bootstrap 方法进行验证。使用 Lasso 生存分析初步筛选的潜在风险预测因子，接着使用多因素 cox 生存分析模型将选定的风险预测因子进一步纳入多变量生存分析。基于最终模型确定氨磺必利停药预测模型的风险因素，构建列线图用于预测服用氨磺必利用 6 个月及 12 个月的停药风险。使用一致性指数（C 指数）、校准曲线、决策曲线分析（DCA）进行模型的区分度、校准度和临床实用度验证，构建列线图。本研究使用 R 软件 4.1.2 版本进行统计分析和作图。$P<0.05$ 为差异具有统计学意义。

结果 共纳入了 172 例患者，随访 1 年后 45.3% 的患者停止使用氨磺必利。氨磺必利使用时间中位数 14 个月，停药组中中位数为 5 个月，未停药组中中位数为 16 个月。Cox 回归结果发现氨磺必利停药风险和性别、是否共病高脂血症和氨磺必利的血药浓度显著相关。合并高脂血症的患者，其停药风险比未发生高脂血的患者高 3.7 倍。氨磺必利血药浓度每增加 100 ng/ml 患者出现停药的可能性增加 1.135 倍，而当浓度达到 800 ng/ml 时，其停药风险增加将近 2 倍。氨磺必利停药风险诺莫图的 C 指数为 0.713，校准曲线显示 6 个月、12 个月和 18 个月的停药风险预测结果与实际结果一致性强。

结论 本研究虽未发现氨磺必利药物浓度与疗效和不良反应有明显相关性，但是发现药物浓度对预后

的判断具有一定的意义。针对有高脂血症的女性患者，药物浓度越高，其治疗结局不佳停药的风险越高，这提示我们可以提前做出用药决策并定期监测血药浓度和血脂水平。本研究根据血药浓度、合并症和临床疗效绘制的列线图，可以用于预测精神分裂症患者使用氨磺必利的停药风险，辅助用药决策的制定。

关键字：氨磺必利；停药；列线图；血药浓度

内源性大麻素在抑郁动物模型中的变化规律及其与糖皮质激素含量的相关性

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目的 检测内源性大麻素花生四烯乙醇胺(AEA)及 2-花生四烯酸甘油(2-AG)在抑郁模型动物体内的含量变化，分析其与经典应激/抑郁生化指标糖皮质激素(CORT)含量的相关性，从而为进一步探讨内源性大麻素系统在抑郁症中发挥的作用及意义奠定基础，二者相互辅助以使抑郁相关的生化检测更具有可信度。

方法 选用 260-280g 成年 SD 大鼠,分为对照组、模型组。对照组不做其他处理。抑郁组接受为期 7 天，每天连续 4 小时的束缚，后进行 3 天的获得性无助实验，分为两天的训练期及一天的测试期。以 10 天为一周期，两周期的应激造模结束后，采用糖水偏好实验、旷场实验和强迫游泳对实验 SD 大鼠进行行为学检测。采用 UPLC-MC 测定束缚应激结合获得性无助应激造模的抑郁 SD 大鼠的血清内 AEA、2-AG 及 CORT 的相对含量。

结果 获得性无助实验结合慢性束缚应激可使 SD 大鼠出现抑郁样行为，抑郁大鼠血清 2-AG 相较于正常大鼠有显著降低，AEA 有升高趋势，CORT 显著升高。其中 CORT 含量与 2-AG 具有显著负相关性($p = 0.0051^{**}$, $r = ?.646$)，AEA 含量与 CORT($p > 0.05$, $r = .071$)及 2-AG($p > 0.05$, $r = -.031$)均无显著相关性。

结论 内源性大麻素信号失调可能与负性情绪状态和应激反应增多等抑郁状态的出现有关。2-AG 表达水平明显低于对照组，其含量变化稳定，可作为除皮质酮外的一种抑郁样状态生化检测指标。CORT 含量与 2-AG 具有显著负相关性，可与糖皮质激素作为同时反映抑郁状态的检测指标。

关键字：抑郁；内源性大麻素；AEA；2-AG

Seizures Induced by Atypical Antipsychotics: A Real World Study From 2004 To 2022 Based on The FAERS Database

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Objective The atypical antipsychotics were reported to be associated with seizures, however, few large, long-term and real-world studies about atypical antipsychotic-associated seizures have been conducted. This pharmacovigilance study aimed to characterize the potential association between sezures and atypical antipsychotic using the FDA Adverse Event Reporting System (FAERS) data.

Methods Data from the first quarter of 2004 to the third quarter of 2022 in FAERS database were downloaded for disproportionality analysis. The Medical Dictionary for Regulatory Activities (MedDRA) was used to identify adverse events including seizures. Disproportionality was estimated using reporting odds ratios (ROR) corresponding 95% confidence intervals (CIs) and information component (IC) along with 95% CIs.

Results Between the first quarter of 2004 to the third quarter of 2022, 41886918 AE reports were submitted to FAERS. A total of 6436 cases were utilized in IC and ROR calculations commonly used the atypical antipsychotics, and three or more reported cases the adverse events related to seizures. A significant disproportionality signal (ROR025>1) was seen with all 8 atypical antipsychotics (including clozapine, quetiapine, olanzapine, aripiprazole, risperidone, lurasidone, paliperidone and ziprasidone). Among the 8 atypical antipsychotics, clozapine and quetiapine performed widest spectrum of seizures related events with 15 PTs associated with seuzures, followed by olanzapine (N = 11) and aripiprazole (N = 9). In this estimation about every drug, the largest effect size was observed for “alcoholic seizure” with clozapine (ROR=19.94, ROR025=7.13; IC=0.38, IC025=-1.39), “convulsive threshold lowered” with quetiapine (ROR=12.74, ROR025=8.26 2; IC=0.31, IC025=-0.41), “convulsion neonatal” with olanzapin (ROR=9.26, ROR025=5.71; IC=0.35, IC025=-0.47), “convulsive threshold lowered” with aripiprazole (ROR=7.52, ROR025=3.87; IC=0.41, IC025=-0.73), “convulsive threshold lowered” with ziprasidone (ROR=18.47, ROR025=6.88; IC=0.38, IC025=-1.39), “hyponatraemic seizure” with risperidone (ROR=8.21, ROR025=3.64; IC=0.42, IC025=-0.99), “seizure like phenomena” with lurasidone (ROR=10.22, ROR025=5.30; IC=0.36, IC025=-0.78), and “atonic seizures” with paliperidone (ROR=6.36, ROR025=2.63; IC=0.48, IC025=-1.08).

Conclusion The atypical antipsychotics may increase the risk of seizures in varying degrees, findings of this study warrants further pharmacovigilance data and clinical causality assessment.

关键字：atypical antipsychotic, FDA adverse event reporting system, seizures, pharmacovigilance, reporting odds ratio

Using A New Algorithm for Diagnosing Major Depression Based on Multidimensional Clinical Indicators

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Objective Major depressive disorder (MDD) is a prevalent mental illness that significantly impairs physical and psychosocial functioning. Accurate diagnosis is crucial for early treatment of MDD. Recent research suggests that machine learning (ML) can successfully classify individuals by detecting and monitoring biomarkers. However, most current diagnostic models for depression use only single-dimensional data. Therefore, a new deep learning algorithm based on multidimensional clinical indicators was developed to diagnose MDD.

Methods In this study, we recruited 100 patients with MDD and 100 healthy individuals. Depressive symptoms were assessed using the Hamilton Depression Rating Scale 17. We measured plasma levels of interleukin-6, interleukin-1β, tumor necrosis factor-α, mature brain-derived neurotrophic factor, tissue plasminogen activator, precursor of brain-derived neurotrophic factor, Tyrosine Kinase receptor B, and hypocretin-1. Among them, 95 participants (46 patients and 49 age-gender matched healthy controls) underwent MRI scans. We analyzed correlations between the indicators to determine variables significantly related to depressive symptoms, plasma cytokine levels, and gray matter volume. To further objectively differentiate depressed patients from healthy controls, we used these biological indicators as features to develop a novel method based on Graph Convolution Network. We then compared this method to 9 traditional machine learning approaches, We reported the results of 3-fold cross-validation during the classification process. To prevent overfitting, we designed a data augmentation strategy that added Gaussian noise during the training and testing procedures.

Results By combining the plasma cytokine levels and neuroimaging indicators, our model achieved an accuracy and F1 score of 91.36% and 92.43%, respectively, which were 2.47% and 1.67% higher than those of the random forest method without data augmentation. After data augmentation, the accuracy and F1 score reached 95.06% and 95.43%, respectively.

Conclusion This study is the first to develop a new model that utilizes non-traditional machine learning algorithms to integrate plasma cytokine levels and neuroimaging indicators for distinguishing between MDD and HC. Compared to a combination of single-dimensional multi-indicators, the multi-dimensional multi-indicator approach used in our model demonstrated higher accuracy in distinguishing MDD patients from HC subjects. Therefore, attributes of different natures can be utilized to improve the diagnostic performance of the model.

关键字：Major Depression; deep learning; Psychiatry; Neural networks; biomarkers

Gut Bacteroides in Common Psychiatric Disorders

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Objective To review the role of Bacteroides in common psychiatric disorders and their related mechanism mediated by microbiota-gut-brain (MGB) axis.

Methods The literature yielded a total of 242 articles regarding the role of Bacteroides in psychiatric diseases covering the period 2013 to 2023 by database search.

Results A significant elevation of Bacteroides level was found in major depressive disorder (MDD) patient compared with healthy controls (HCs). Bacteroides were also targeted for antidepressant regulation, such as sertraline and fluoxetine. A latest study has found that Bacteroides fragilis, Bacteroides uniformis and Bacteroides caccae could induce depressive-like symptoms in antibiotic-treated mice, but Bacteroides ovatus not. Evidence indicated that the level of Bacteroides increased significantly in bipolar disorder (BD) patients. At the specie level, an elevation of Bacteroides barnesiae and Bacteroides togonis, and a reduction of Bacteroides helcogenes were observed in BD patients compared with HCs. Some schizophrenia (SCZ)-focused clinical trials revealed a lower Bacteroides level in patients relative to HCs. Bacteroides were proved to be lower in SCZ patients with aggression and correlated negatively with aggressive behaviors. A relatively higher level of Bacteroides has been reported in the autism spectrum disorder (ASD) children. At the specie level, a significant increase was observed in the level of Bacteroides plebeius, Bacteroides intestinalis and Bacteroides faecis, while the level of Bacteroides fragilis, Bacteroides caccae, Bacteroides intestinihominis, Bacteroides ovatus, Bacteroides stercoris and Bacteroides dorei decreased in children with ASD compared to the controls. Inserra et al. found Bacteroides were higher in animals with decreased anxiety-like behavior.Bacteroides uniformis CECT 7771, Bacteroides thetaiotaomicron and Bacteroides fragilis were proved to ameliorate anxiety?like behavior in mice. Based on the strong correlation between Bacteroides and psychiatric disorders, we describe possible mechanisms by which Bacteroides mediates the regulation of psychiatric disorders. These mechanisms rely mainly on the MGB axis including neurotransmitters (GABA and 5-HT) and microbiota-derived metabolites (SCFAs metabolism and tryptophan metabolism). Currently, the mechanism of Bacteroides in psychiatric disorders has limited to the results of correlation analysis. Thus, it is mandatory to conduct in vivo and in vitro experiments to clarify the action mechanisms of Bacteroides in psychiatric disorders.

Conclusion This review raises important issues regarding the role that Bacteroides play in common psychiatric disorders, which can be used as diagnostic markers or therapeutic targets for psychiatric disorders in the future.

关键字：Psychiatric disorders; Bacteroides; Microbiota-gut-brain axis

长程间歇性 θ 脉冲刺激模式治疗重性抑郁障碍

快感缺失的疗效分析及脑电机制研究

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目的 快感缺失是重性抑郁障碍（MDD）的核心症状之一，也是疗效差的预测因子，在充分药物及心理治疗后仍有部分患者有残留，寻找有效的治疗方法十分必要。经颅磁刺激可直接作用于奖赏环路调节神经兴奋性以改善快感缺失症状。本研究探讨长程间歇性θ脉冲刺激模式（piTBS）干预 MDD 快感缺失的疗效，并对其脑电机制进行初步探索。

方法 本研究将患者分为联合干预组（A 组）和药物组（B 组），A 组给予 piTBS 治疗和药物治疗（SSRIs），B 组仅给予药物治疗（SSRIs），在治疗前、2 周、4 周、8 周分别进行 HAMD-24 项量表、SHAPS 量表、YMRS 量表评估，在治疗前和 8 周采集静息态脑电数据。

结果 1.疗效研究结果：①2 周及 4 周时两组间治疗有效率有显著差异（2 周：A 组 52%，B 组 24%，P=0.039＜0.05，4 周：A 组 74%，B 组 44%，P=0.027＜0.05）。②2 周及 4 周时两组间 SHAPS 量表减分率有显著差异（2 周：A 组 25.41±16.37，B 组 14.00±22.90，P=0.043＜0.05；4 周：A 组 35.97±15.17，B 组 24.14±25.73，P=0.047＜0.05）。③两组在各评估节点的 YMRS 总分均＜5 分，研究期间没有患者出现躁狂/轻躁狂症状增加。2.脑电功率谱结果：①A 组治疗前后存在差异的电极点有：δ 频段：C3、CP3、F4、CP2、PO4；θ 频段：C3、CP3、AF8、CP2；α 频段：F3、C3、C5、CP2；β 频段：F4；γ 频段：F4、P6。②B 组治疗前后 δ 频段在 F1、FC1、Fz、FCz 电极点存在差异。③两组患者 8 周脑电功率谱对比发现存在差异的电极点有：δ 频段：AF7、AF8、Fz、F1、F7、F8、FCz、FC1、FT7、C6、T7、T8、TP8；θ 频段：AF7、AF8、Fz、F7、FC1、FT7；α 频段：AF7、F7、F8、FCz、FC1、FT7、C6、T7、P5、P6；β 频段：AF7、F7、FC1、FC6、FT7、C6、T7；γ 频段：FT7、CP3。

结论 1.piTBS 模式联合药物干预抗抑郁治疗效果明显，且可以快速改善抑郁障碍快感缺失症状。2.piTBS 模式主要通过改变患者前额叶、左侧额叶、右侧顶叶及右侧枕叶的活动来改善抑郁症状及快感缺失症状。

关键字：重性抑郁障碍；快感缺失；间歇性 θ 脉冲刺激；功率谱密度

难治性精神分裂症的皮层厚度及个体化结构协变网络研究

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目的 难治性精神分裂症（Treatment resistant schizophrenia，TRS）对药物治疗效果不佳，具有沉重的疾病负担。既往研究已经发现了精神分裂症表现出了以额颞叶为主的灰质形态学改变，然而关于 TRS 形态学属性的特异性变化仍不清楚。另一方面，基于组水平的结构脑网络研究被广泛应用于探究精神分裂症患者的脑网络属性改变，而基于个体水平探究 TRS 脑网络属性的研究还未存在。因此本研究采用形态学分析和个体化结构协变网络方法，探究 TRS 皮层厚度及结构协变网络属性的改变。

方法 （1）本研究采集了 52 例难治性精神分裂症、34 例精神分裂症治疗有效者（Treatment Responder, TR）以及 84 例健康对照（Healthy control, HC）的 3D T1 结构加权像。我们通过 FreeSurfer 软件测量了 68 个皮层区域的皮层厚度。使用一般线性模型比较三组间皮层厚度的差异。（2）基于皮层厚度，构建个体化脑结构协变网络，基于图论分析，采用方差分析比较三组人群结构协变网络全局及局部属性的差异。（3）采用相关分析方法，在 TRS 患者中，探索其临床特征与其特异性改变的形态及拓扑学指标之间的关系。

结果 （1）形态学研究显示：在皮层厚度方面：与 HC 组相比，TRS 组与 TR 组均表现出以额颞叶为主的皮层厚度下降，其中 TRS 组（53/68）较 TR 组（22/68）皮层厚度下降更为广泛（P＜0.05, FDR 校正）。与 HC 和 TR 组分别相比，TRS 组的双侧梭状回、双侧脑岛、左侧颞中回、左额下回岛盖部及右后扣带回的皮层厚度的显著降低（P<0.05, FDR 校正）；其中 TR 的左侧颞中回皮层厚度也显著低于 HC（P<0.05, FDR 校正）。（2）结构协变网络研究显示：与 HC 组比，TRS 组具有更低的聚类系数及局部效率，其中，男性较女性患者具有更低的聚类系数及局部效率。（3）相关分析显示：在 TRS 组中，患者左侧颞中回的皮层厚度与 PANSS 总分呈负相关（r=-0.328，uncorrected P=0.017）。

结论 TRS 患者较 TR 患者表现出更广泛的灰质损害，尤其以额颞叶为主；同时 TRS 患者存在特异性区域的皮层厚度减少，分别位于梭状回、脑岛、左额下回岛盖部、左侧颞中回及及右后扣带回。TRS 患者具有更低的聚类，局部效率。表明 TRS 患者可能存在大脑局部处理信息能力的下降。

关键字：难治性精神分裂症；脑形态学；结构协变网络；个体化

The Differences of Neuroendocrine Abnormalities between Major Depressive Disorder and Bipolar Disorder in Adolescents and Adults

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Objective While patients with major depression disorder (MDD) and bipolar disorder (BD) often exhibit neuroendocrine abnormal alterations, there is a lack of studies directly comparing the neuroendocrine differences between MDD and BD patients in different age groups. The study aims to examine the relationship of neuroendo-

crine pathways with mood disorders by comparing the differences in measures of neuroendocrine function between untreated first consultation patients with MDD and BD in adolescents and adults.

Methods A sample of 280 MDD and 187 BD was recruited, which was divided into MDD adolescents, BD adolescents, MDD adults and BD adults according to age. Adrenocorticotropic hormone(ACTH), cortisol(COR), testosterone(T) and prolactin (PRL) were measured for all patients. Analysis of covariance (ANCOVA) was used to assess the differences of neuroendocrine abnormalities between MDD and BD groups, and the occurrences of abnormal hormone secretion in MDD and BD groups were compared by chi-square test. Spearman correlation analysis was used to analyze the correlation between all hormone indicators, total scores of HAMD, total scores of HAMA and total scores of YMRS.

Results ANCOVA showed that serum levels of COR(F=7.999, p=0.005) and T(F=5.719, p=0.018) were higher in adolescent patients with MDD than in adolescent patients with BD, and serum level of ACTH(F=4.552, P=0.034) was higher in adult patients with MDD than in adults patients with BD. X2 tests demonstrated that the incidences of increased COR(X2=4.804, p=0.028) and T(X2=5.957, p=0.015) were significantly higher in MDD adolescents than in BD adolescents. Spearman correlation analysis showed that T was negatively and significantly correlated with the HAMD total score both in MDD adolescents and BD adolescents.

Conclusion Our findings indicated that the dysfunction of neuroendocrine Hypothalamic–Pituitary–Adrenal (HPA) axis differs between MDD and BD patients in both adolescent and adult groups. And T could be used as markers for severity and symptoms of adolescent patients with MDD.

关键字：neuroendocrine, major depression disorder, bipolar disorder

斯皮诺素通过调节 HPA 轴拮抗慢性束缚应激大鼠焦虑行为

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目的 慢性压力应激会导致广泛性焦虑。斯皮诺素是酸枣仁中黄酮类主要成分，具有镇静催眠、抗焦虑作用。本研究旨在探讨斯皮诺素对慢性束缚应激大鼠焦虑行为的拮抗作用及其机制

方法 50 只 SD 大鼠随机分为空白组、模型组、斯皮诺素高、低剂量组(15 mg/kg/d)、(5 mg/kg/d）和阳性对照组(Dzp)（3.6 mg/kg/d）,除空白组外，其余各组大鼠采用慢性束缚应激复制焦虑模型，每天束缚 3h，连续 21 d。从第 11 天开始，每天束缚结束后 0.5 h，空白组和模型组灌胃给予蒸馏水，给药组灌胃给予相应药物，连续 10d。通过高架十字迷宫实验和旷场实验观察大鼠行为学的变化。采用 ELISA 检测血浆皮质酮（CORT）水平，以及终纹床核（BNST）和下丘脑两个脑区谷氨酸/γ-氨基丁酸（Glu/GABA）、去甲肾上腺素(NE)和促肾上腺皮质激素释放激素（CRF）水平。采用 qPCR 及 Western blot 测定 BNST 和下丘脑匀浆中糖皮质激素受体 GR 及 cAMP 应答元件结合蛋白（CREB）表达水平

结果 行为学结果显示，相较于 Con 组，Mol 组在旷场中央区的活动距离、滞留时间（P＜0.001）及在高架十字迷宫中开臂进入次数百分比、滞留时间百分比（P ＜ 0.05）均显著降低，SPI 给药能显着增加旷场中央区的活动距离和滞留时间（P =0.024）及在高架十字迷宫中开臂进入次数百分比（P＜0.05）和滞留时间百分比。Elisa 结果显示，Mol 组相较于 Con 组，血浆 CORT 显着上升,（P=0.019），而 SPI 给药能有效抑制 CORT 升高(PSPI-L=0.032, PSPI-H=0.005)。Mol 组 BNST 区 Glu/GABA 比例升高(P=0.014)，BNST 区和下丘脑区 NE 水平升高，SPI 给药能显著降低 Glu/GABA 比例及 NE 和 CRF 水平，且呈剂量依赖趋势。qPCR 和 western blot 显示，慢性束缚能增加 BNST 区和下丘脑区 GR 基因表达水平和 GR、CREB 磷酸化水平，而 SPI 给药能抑制因束缚所致 GR 表达的增加和 GR 和 CREB 磷酸化水平。

结论 Spi 可改善慢性束缚应激所致大鼠焦虑症，其作用机制可能与调控 HPA 轴表达，降低大脑终纹床核和下丘脑的 GR 表达，继而抑制血浆中 CORT 浓度升高有关，同时，Spi 对 HPA 的调控作用可能通过 GR-CREB 信号传导通路所介导。

关键字：HPA 轴、斯皮诺素、慢性束缚、焦虑

未服药强迫症患者脑区表面积增大与动态功能改变

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目的 根据以往的研究，已经发现强迫症患者的大脑区域存在结构和功能上的异常。然而，对于未经药物治疗的强迫症患者来说，关于大脑区域结构变化与静息状态下动态功能连接（dFC）变化之间的关联，仍存在不确定性。

方法 对 48 例未接受药物治疗的强迫症患者和 39 例健康对照组进行了 T1 加权磁共振成像和静息状态功能磁共振成像。研究的主要目标是比较强迫症患者和健康对照组在皮层面积方面的差异。随后，以皮层面积异常的脑区作为种子进行 dFC 分析，并使用偏相关分析探索强迫症患者的皮层面积和 dFC 变化与临床信息之间的关系。最后，应用逻辑斯蒂回归分析检测是否可以使用多模态成像数据的变化来区分强迫症患者和健康对照组

结果 强迫症的人在左侧背侧视觉流区和左侧楔前叶视觉区的表面积有所扩大，而与右侧岛叶中部的 dFC 在左侧背侧视觉流区有所降低，同样，左侧楔前叶视觉区与右侧颞顶枕交界区 1 的 dFC 也有所降低。皮层表面积和 dFC 值的变化都能用来区分强迫症患者

和健康对照组，这种区分的准确性为0.9，敏感性为0.91，特异性为 0.87

结论 在静息状态下，左侧背侧视觉流区和左侧楔前叶视觉区皮层表面积的扩大以及动态功能连接的变化，可能构成了强迫症病理生理过程的一个重要部分

关键字：强迫症 磁共振成像

Attention Avoidance To Alcohol-related Stimuli in Alcohol-dependent Patients with A Treatment Period of 3–5 Years: Evidence From ERP

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Objective Alcohol dependence symbol (ADS) refers to a recurrent, chronic encephalopathy caused by prolonged, high-dose alcohol abuse that leads to central nervous system intoxication, characterized by mental and physical dependence on alcohol. The clinical manifestations include compulsive drinking experiences, increased tolerance to alcohol, and withdrawal syndrome after stopping drinking, including tremors, transient hallucinations, and seizures, which seriously affect patients' The clinical manifestations include compulsive drinking experiences, increased tolerance to alcohol, and withdrawal syndrome after stopping drinking, including tremors, transient hallucinations, and seizures, which seriously affect patients' ability to learn and live. This study aimed to examine the attentional bias for alcohol-related stimuli of the patients.

Methods The cue-target paradigm was used to examine the attentional bias towards alcohol-related stimuli and neutral stimuli in patients with a treatment period of 3–5 years. In the cue-target, alcohol-related stimuli refer to a glass filled with alcohol, while neutral stimuli refer to an empty glass. During the experiment, the EEG of patients would be recorded. The early PD (80–150 ms), PD (150–250 ms) and the CDAP (400–750 ms) were adopted to reflect the patient's neural activity.

Results For behavioral results, compared to reaction time (RT) for consistent conditions of the cue-target (471 ms), the RT was significant shorter for inconsistent conditions of the cue-targe (439 ms) [t (8) = 3.684, p = .006, d = 2.604]. The ERP results as follows, for early PD time window, alcohol-related stimuli induced a more positive ERP wave amplitude on the contralateral (.055 μV) side than on the ipsilateral side (-1.098 μV) [t (8) = 3.234, p = .012, d = 2.287]; For PD time window, alcohol-related stimuli also induced a more positive ERP wave amplitude on the contralateral (.132 μV) side than on the ipsilateral side (-.964 μV) [t (8) = 3.398, p = .009, d = 2.402]; For CDAP time window, The same pattern was be found, -.6 for contralateral side and -1.53 for ipsilateral side, respectively [t (8) = 2.389, p = .044, d = 1.689].

Conclusion These results suggest that patients with treatment period of 3–5 years showed attentional avoidance of alcohol-related stimuli in the early stage of attention. Patients actively and consistently suppressed alcohol-related stimuli.

关键字：Alcohol dependence symbol, Attentional bias, Attentional avoidance

Personality Traits As Predictors for Treatment Response of Selective Serotonin Reuptake Inhibitors Among Unmedicated Obsessive-Compulsive Disorder： A 12-weeks Retrospective Longitudinal Study

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Objective As first-line treatment for obsessive-compulsive disorder (OCD), selective serotonin reuptake inhibitors (SSRIs) have yet to achieve a satisfactory therapeutic effect. Even after standard treatment with SSRIs, there are still 40%~60% of OCD patients having residual chronic symptoms. Recent studies have shown that personality traits could be the potential source of the heterogeneity in the OCD treatment outcomes. Therefore, we further investigated the predictive effect of personality traits for the response to SSRIs among OCD patients.

Methods A total 61 unmedicated OCD patients and 35 healthy controls (HC) were enrolled in this 12-weeks retrospectively study. The personality traits were assessed at baseline using Eysenck Personality Questionnaire (EPQ) in the both two groups. The scores of Yale-Brown Obsessive Compulsive Scale (Y-BOCS) were used to evaluated the severity of OCD symptoms in the 0, 2, 4, 8 and 12 week of monotherapy with SSRIs, respectively. The treatment responses were set as the primary outcomes according to the reduction rate of Y-BOCS (response: ≥25%; marked response: ≥50%).

Results Compared with HC, OCD individuals showed significantly higher scores of Neuroticism trait. Correlation analyses revealed the association between Psychoticism traits and disease duration. It was also found that disease duration and family history were closely related to obsessive thoughts and total score of Y-BOCS. Results from 12-weeks follow-up suggested that 80.33% OCD patients represented a response to SSRIs treatment, while only 44.26% OCD patients showed a marked response. Subsequent multivariate Cox proportional analyses indicated that both Neuroticism and Extraversion traits could predict a response (slight improvement) to SSRIs, and only Extraversion trait heralded a marked response (dramatic improvement).

Conclusion Our study found that Neuroticism and Extraversion traits could affect the response of OCD patients to monotherapy of SSRIs to various degrees. The finding of the present study indicated that personality traits may develop the susceptibility of OCD and could also predicated the outcomes of SSRIs treatment.

关键字：Obsessive-compulsive disorder; Personality

traits; Selective serotonin reuptake inhibitors; Treatment response; Retrospective study.

伴忧郁特征未服药抑郁症患者的结构影像学及分子特征

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目的 忧郁型抑郁症是重度抑郁症中常见亚型。忧郁型抑郁症很难治疗，因为其背后的神经生物学基础我们知之甚少。因此，本研究将基于体素的形态测量分析与神经递质系统衍生图谱信息相结合，探索忧郁型抑郁症患者是否存在灰质的结构变化以及这些变化背后的分子基础。

方法 招募 137 名未服药重度抑郁症患者和 75 名健康对照者进行结构性磁共振成像，并采用基于体素的形态测量分析对成像结果进行了分析。然后根据蒙哥马利-艾斯伯格抑郁评定量表和汉密尔顿抑郁评定量表上的得分，将患者分为忧郁型抑郁症和非忧郁型抑郁症两个亚组。接下来，分析组间灰质体积变化与神经递质受体或转运体密度分布之间的空间相关性。

结果 与健康对照者相比，非忧郁型抑郁症患者的双侧海马、双侧丘脑、右侧杏仁核和右侧后扣带回/楔前叶的灰质体积方面显著减小。与非忧郁型抑郁症患者相比，忧郁型抑郁症患者的双侧后扣带回/楔前叶和外侧枕叶皮层的灰质体积显著减小。非忧郁型抑郁症患者和健康对照者之间的灰质体积无显著差异。其中，左外侧枕叶皮层、右外侧枕叶皮层和双侧后扣带回/楔前叶的灰质体积与疾病的严重程度没有关系。此外，与健康对照者相比，由忧郁型抑郁症导致的灰质体积的变化在空间上与 5-羟色胺转运体、大麻素受体和 μ-阿片受体有关。与非抑郁型抑郁症患者相比，忧郁型抑郁症导致的灰质体积的变化在空间上与囊泡乙酰胆碱转运体有关。

结论 本研究发现抑郁症亚型患者的大脑灰质体积有异常改变，此外，还发现了一系列的神经递质受体可能与这些改变有关。本研究结果可能提供了对抑郁症亚型结构异常的分子机制的更全面的理解，并有可能为开发新的治疗策略提供新线索。

关键字：忧郁特征；重度抑郁症；楔前叶；基于体素的形态学测量；神经递质受体

Carbamazepine Induced Adverse Drug Reactions: A Simple, Economical Detection To Identify Patients Carrying The HLA-B*15:02 Allele Using PCR-RFLP Method

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Objective HLA-B*15:02 allele is strongly associated with Carbamazepine-induced SJS/TEN in subjects of Han Chinese. In this study, we developed a novel PCR-RFLP approach to detect the HLA-B*15:02 mutation in high effectiveness.

Methods rs2844682 and rs3909184 have been previously suggested as tag SNVs for HLA-B*15:02. For rs3909184, A 1221bp fragment was amplified by PCR, digested with Pml I restriction endonuclease and separated by 2.5% agarose gel electrophoresis for PCR-RFLP analysis. For rs2844682, we constructed the EcoR I restriction site by site-directed mutagenesis using overlapping PCR and amplified a 1077bp fragment, then digested with EcoR I restriction endonuclease and separated by 2.5% agarose gel electrophoresis for PCR-RFLP analysis.

Results It was verified by pyrosequencing that HLA-B*15:02 genotype could be detected by PCR-RFLP method, and the process was simple, accurate and economical.

Conclusion We developed a sensitive, simple and economical approach to detect HLA-B*15:02 genotype, and can be the preferred new method when genotyping another SNP site.

关键字：Carbamazepine, PCR-RFLP, overlapping PCR, site-directed mutagenesis, HLA-B*15:02, single nucleotide polymorphism

负性生活事件对儿童青少年抑郁症患者 AHR 甲基化水平和抑郁严重程度的影响

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目的 抑郁症是常见的精神疾病之一，是全球残疾的主要原因，其病因复杂，遗传和环境在发病过程中起重要作用。越来越多的研究集中于抑郁症的表观遗传学机制，其中 DNA 甲基化是最常见的表观遗传修饰。儿童青少年抑郁症病程比成人更长，首发年龄更小，复发率及自杀风险更高。本课题组前期已在儿少抑郁症患者与正常对照组间发现 AHR 甲基化水平存在差异，因此本研究拟进一步探讨儿少抑郁症的环境因素与 AHR 甲基化、抑郁严重程度的相关性，旨在从表观遗传学解释儿少抑郁症的发病机制。

方法 于重庆医科大学附属第一医院精神科门诊纳入 10-19 岁诊断为首发重性抑郁障碍的患者 36 例，详细评估入组者贝克抑郁量表，青少年生活事件量表，采集静脉血。对外周血 AHR DNA 甲基化水平、青少年生活事件量表、贝克抑郁量表、进行偏相关分析，评估 AHR DNA 甲基化是否与青少年生活事件和抑郁严重程度之间存在显著关联。

结果 青少年生活事件量表与 AHR_13、AHR_14 甲基化水平存在相关性，控制了体重、年龄、身高、性别等混杂因素过后，人际关系、学习压力与 AHR DNA

甲基化无显著相关性（p＞0.05）；受惩罚和 AHR_13_214 甲基化水平正相关（p＜0.05，r=0.390）；丧失和 AHR_13_61 甲基化水平负相关（p＜0.05，r=0.-0.409），和 AHR_14_101 甲基化水平正相关（p＜0.05，r=0.0.377）；健康适应和 AHR_13_90 甲基化水平正相关（p＜0.05，r=0.520）；其他和 AHR_13_90 正相关（p＜0.05，r=0.402），和 AHR_13_214 正相关（p＜0.05，r=0.390），和 AHR_14_197 负相关（p＜0.05，r=-0.368）。贝克抑郁量表得分与人际关系（p＜0.05，r=0.628）、学习压力（p＜0.05，r=0.572）、受惩罚（p＜0.05，r=0.688）、丧失（p＜0.05，r=0.371）、健康适应（p＜0.05，r=0.625）、其他（p＜0.05，r=0.764）均正相关；与 AHR 甲基化水平无显著相关性（p＞0.05）。

结论 青少年抑郁症严重程度与负性生活事件密切相关，提示负性生活事件可能为抑郁症发病的关键因素。且负性生活事件与 AHR 部分位点甲基化水平相关，说明环境因素可能通过影响 AHR 甲基化位点介导青少年抑郁症的发生。

关键字：DNA 甲基化，抑郁症，儿童青少年，负性生活事件

自我关怀在父母教养方式与青少年抑郁发生中的中介效应研究

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目的 了解青少年抑郁症患者父母教养方式、自我关怀水平和抑郁水平的现状，分析其在性别、年级、居住地等因素上的差异；探讨青少年抑郁症患者父母教养方式、自我关怀和抑郁之间的关系，验证自我关怀的中介作用。

方法 纳入符合精神障碍诊断与统计手册第 5 版（DSM-5）抑郁症诊断标准的门诊及住院的青少年抑郁症患者 282 例，性别、年龄、年级、居住地、独生情况相匹配的正常对照 200 例。采用贝克抑郁自评量表（BDI）、父母教养方式量表（EMBU）和自我关怀量表（SCS）进行测量。

结果 （1）病例组和对照组在贝克抑郁得分、自我关怀各维度及自我关怀总分存在显著差异（t=-11.725~16.586，P＜0.05）；病例组和对照组除父母亲偏爱被试因子外，在父母教养方式其余各因子得分存在显著差异（t=-6.877~9.562，P＜0.05）。（2）不同性别青少年抑郁症患者贝克抑郁得分、自我关怀总分及自我友善、自我批判维度得分存在显著差异(t=-2.981~2.331，P<0.05)。（3）青少年抑郁症患者的父母教养方式各因子得分均与贝克抑郁得分显著相关（r=-0.470~0.382，P<0.05），其自我关怀总分和自我关怀各维度得分均与贝克抑郁得分显著相关（r=-0.569~0..586，P<0.05）。（4）父亲情感温暖、理解能够显著的负向预测贝克抑郁得分（β=-0.356，P<0.05），父亲惩罚、严厉和母亲惩罚、严厉能够显著的正向预测贝克抑郁得分（β=0.182，P<0.05；β=0.157，P<0.05）；自我关怀总分能显著的负向预测贝克抑郁得分（β=-0.569，P<0.05）。（5）自我关怀在父亲情感温暖、理解因子（F1）和贝克抑郁评分之间存在部分中介作用，中介效应占总效应的 20.00%；自我关怀在父亲惩罚、严厉因子（F2）和抑郁评分之间存在部分中介作用，中介效应占总效应的 32.92%；自我关怀在母亲惩罚、严厉因子（M4）和抑郁评分之间存在部分中介作用，中介效应占总效应的 40.88%。

结论 青少年抑郁症患者的父母教养方式和自我关怀对抑郁有重要影响，父母教养方式可以通过影响青少年抑郁症患者的自我关怀水平来影响抑郁水平。鼓励父母采用积极恰当的教养方式，有助于培养青少年更多的自我关怀，降低青少年抑郁症患者的抑郁情绪。

关键字：青少年，抑郁症，父母教养方式，自我关怀

Building A Novel Self-iterative Clinical Pharmacist Intervention Model in Psychiatric Hospital: Application and Evaluation

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Objective Clinical pharmacist intervention (CPI) in psychiatric hospital has not been popularized in China. This study aimed to construct a real-time dynamic self-iterative CPI model in The Affiliated Mental Health Center of Jiangnan University and evaluate its effect.

Methods We focused on the running data in 2021 and 2022. The number of interventions, intervention types and intervention strategies after the model were evaluated.

Results In 2021 and 2022, a total of 443 cases were reported and among them, 271 CPI cases were identified during ward rounds by physicians, pharmacists and nurses (61.17%). The proportion of CPI through ward rounds and information system gradually decreased while intervention through other ways increased. Meanwhile, there are various of CPI types including adverse reactions (26.86 %), blood concentration (13.32%), drug usage and dosage (10.61%) and among them, adverse reactions are the focus of pharmacists' attention. Besides, the intervention strategies of pharmacists mainly concentrated in medication change (18.74 %), medication discontinuation (15.58 %) and dose reduction (12.19 %). New pharmaceutical technologies such as therapeutic drug monitoring and drug gene detection help pharmacists accelerate CPI time and increase the credibility of medication recommendations. In addition, self-iteration mechanism can continuously optimize the model operation.

Conclusion Overall, the CPI model established in this study effectively promote pharmacist intervention and accelerate pharmaceutical transformation.

关键字：clinical pharmacist intervention model, psychiatric hospital, drug gene detection, self-iteration

基于机器学习分类算法的拉莫三嗪血清稳态浓度达标预测

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目的 本研究通过应用 4 种机器学习算法（XGBoost、LightGBM、Catboost、随机森林），以癫痫患者的人口统计学资料和用药方案为基础，建立 LTG 血药浓度达标预测模型，协助临床判断不同患者 LTG 稳态浓度能否达到治疗窗，为临床个体化给药方案的制定提供一定的参考。

方法 通过病历系统和检验系统收集患者的临床资料、合并用药情况和拉莫三嗪血药浓度数据，使用 Juypter notebook 对数据进行预处理。采用 KNN 算法对缺失值进行插补，对连续型变量进行归一化处理，分类型变量进行独热编码。以 AGNP 共识指南中拉莫三嗪治疗窗作为达标标准。将数据集按 7：3 随机分为训练集和测试集，分别用于模型建立和模型验证。以五折交叉验证法减少模型过拟合，贝叶斯优化算法调整参数得到最佳模型。采用混淆矩阵图、准确性、精确率、召回率、F1 值和 AUC 来评估模型的预测性能。

结果 总共收集到277例符合标准的患者的资料，通过 XGBoost、LightGBM、Catboost、随机森林 4 种算法成功建立预测模型，4 个模型均能较好的预测拉莫三嗪稳态浓度的达标情况，准确性、精确率、召回率、F1 值和 AUC 均>0.8。其中随机森林算法的预测能力最好，准确性、精确率、召回率、F1 值和 AUC 均>0.87。

结论 本研究建立的 4 个预测模型能够较好的判断患者接受拉莫三嗪治疗后血清浓度达到治疗窗的情况，可促进临床对治疗效果的评估，为个体化用药提供参考。

关键字：拉莫三嗪；机器学习；分类算法；稳态浓度；治疗药物监测

CYP3A4 基因多态性对精神分裂症患者齐拉西酮血药浓度的影响

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目的 研究细胞色素 P450 酶 3A4（CYP3A4）基因多态性对精神分裂症患者齐拉西酮血药浓度的影响。

方法 纳入70例精神分裂症患者使用齐拉西酮治疗，采用聚合酶链反应-限制性内切片段长度多态性法（PCR-RFLP）测定 CYP3A4 基因分型，高效液相色谱串联质谱法（LC-MS/MS）测定齐拉西酮稳态谷浓度，单因素方差分析比较组间血药浓度的差异，多元线性回归分析协变量性别、年龄、体重、剂量、合并用药、基因分型与血药浓度的相关性。

结果 70 例患者 CYP3A4 基因 *1G 和*18B 等位基因突变频率为 25.71%和 1.43%，齐拉西酮血药浓度为（100.35± 82.66）ng·mL-1，C/D 为（1.23± 0.73）ng·mL-1·mg-1·d； 男性组与女性组、＜30 岁组与≥30 岁、单一用药组与合并用药组、CYP3A4 *18B AA 组与 AG 组，组间血药浓度和 C/D 差异无统计学意义（P> 0.05）。CYP3A4 *1G 不同基因型分组的 C/D，CC 组为（1.17±0.62）ng·mL-1·mg-1·d，CT 组为（1.12±0.69）ng·mL-1·mg-1·d，TT 组为（2.44±1.02）ng·mL-1·mg-1·d，经组内两两比较，TT 组齐拉西酮 C/D 较 CT 组高，差异有统计学意义（P< 0. 05）；多元线性回归分析调整后 R2=0.503（P< 0. 001），剂量与血药浓度存在显著正相关，CYP3A4 *1G TT 型患者的血药浓度较 CC 型患者高 35.40%（P< 0. 05）。

结论 CYP3A4 基因多态性可影响齐拉西酮血药浓度，结合基因多态性和血药浓度能更好的实现个体化用药。

关键字：齐拉西酮；CYP3A4；基因多态性；血药浓度

Multi-level Genomic Analysis of Autism Tendency in Adult

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Objective Autism is a generalized developmental disorder that originated from infancy, characterized by disorder in social communication, abnormal communication and stereotyped behavior.Autism not only happen in children, but also could be harmful in adults. Although it may not meet the clinical diagnostic criteria, people with high autism tendency are more likely to develop autism in the future. At present, autism is believed to be a polygenic genetic disease.

Methods We have enrolled 700 and 1513 healthy adult volunteers in two cohorts. Their peripheral blood were collected, withgenomic DNAextracted and detected by Illumina Zhonghua-8 gene chips. Detected SNPs were then imputed with IMPUTE2 software. Meanwhile, their autistic tendencyscores were quantified by the China Adult Autism Scale, with demographic data collected. Genome-wide association study was performed at SNP, gene and pathway levels.Meta-analysis was performed.

Results The autistic tendency ranged between 5 and 33 points, with an average of 19.2 points, conforming to a normal distribution. Gender was significantly correlated with autism tendency, so was included in the analysis as a confounding factor. SNP level association analysis found 5 and 1 SNPs achieved genome-wide significancein the two cohorts separately, but were not verified in the other cohort. Gene level analysis found one gene ANKRD16 was significant after multiple correction in the cohort of 1513 people. Gene level meta-analysis found GPD2 was significant after correction.Pathway analysis found FEEDER PATHWAY reached corrected significance.

Conclusion Since it is hard to recruit large number of autism patients for a solid GWAS, conducting genomic

analysis in healthy people with autism tendency might be an alternative with advantage of larger sample size and more potential targets for medical interference.

关键字：autism tendency, GWAS, adult, multi-level

功能异常脑区和 TPH2 甲基化相互作用与抑郁症关联研究

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目的 抑郁症 (MDD) 是全球常见的精神疾病之一。我们将探讨 rs-fMRI 结合 TPH2 基因甲基化水平之间相互作用与 MDD 发生的关联性。

方法 本研究共纳入 300 例 MDD 患者和 100 例健康对照 (HCs)，其中 101 例 MDD 和 64 例 HCs 扫描 MRI。本研究使用 MATLAB(2014a)的 RESTplus 软件分析 rs-fMRI 资料，分别使用了低频振幅（ALFF）、区域一致性（ReHo）和分数低频振幅（fALFF）探讨脑区局部自发性的神经活动，并进行功能连接（FC）的分析。分析扫描 MRI 的 MDD 患者组和 HCs 组之间的一般资料和脑区异常活动值，通过广义线性模型分析 rs-fMRI 发现的脑区异常的活动和 TPH2 甲基化水平相互作用与 MDD 发生的关联性。最后使用 R 语言进行错误发现率（FDR）多重检验校正。

结果 本研究纳入 291 例 MDD 患者和 100 例 HCs。Rs-fMRI 分析显示：在 MDD 组和 HCs 之间，右侧扣带回、右侧颞上回（STG）和左侧舌回的 ALFF 存在明显差异性（$p<0.05$）；右侧颞中回（Middle temporal gyrus, MTG）、左侧颞上回、左侧楔叶和左侧枕中回（MOG）的 ReHo 存在明显差异性（$p<0.05$）；以上述结果作为 ROIs 进一步分析 MDD 和 HCs 之间的 FC 差异性，发现左侧前扣带回与右侧扣带回的 FC、右侧 STG 与右侧颞下回（ITG）的 FC、右侧 STG 与左侧 STG、右侧 STG 与右侧额上回（SFG）的 FC 和右侧 STG 与左侧枕下回（IOG）以及右侧 MTG 与右侧 MOG 的 FC 具有差异性（$p<0.05$）；研究进一步发现 MDD 和 HCs 之间右侧 STG 的 ALFF 活动与 TPH2-5-203 甲基化、左侧舌回的 ALFF 活动与 TPH2-9-178 甲基化相互作用与 MDD 的发生存在关联性（$p=0.004$；$p=0.048$）；右侧 MTG 的 ReHo 活动水平与 TPH2-5-203 甲基化与 MDD 的发生存在关联性以及右侧 STG 与左侧 IOG 之间的功能连接与 TPH2-9-178 甲基化的相互作用与 MDD 的发生相关（$p=0.018$；$p=0.021$）。

结论 本研究表明 MDD 患者相较于 HCs，额上回、颞叶、枕中回、枕下回、舌回及楔叶的功能活动存在异常，而右侧颞上回、颞中回、左侧舌回和枕下回的功能活动与 TPH2 甲基化相互作用与 MDD 的发生存在关联，这提示着上述两者的联合有助于及早发现 MDD

关键字：抑郁症，静息态功能磁共振，DNA 甲基化，TPH2

抗抑郁药效与靶向测序基因的多基因风险评分的相关性研究

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目的 重性抑郁障碍（MDD）是临床上常见的一类精神障碍性疾病。目前临床上治疗 MDD 主要以药物为主，但抗抑郁疗效个体差异很大，约有 2/3 的 MDD 患者在初始抗抑郁治疗后未能达到症状缓解。近年来，全基因组关联研究已经发现了多个基因组区域的遗传变异影响抗抑郁药效的易感性。本研究旨在从抑郁症患者靶向外显子测序层面上探究靶向外显子测序基因的多基因风险评分(PRS)与抗抑郁药效的关联。

方法 本研究使用日本生物银行的东亚人 GWAS summary 数据作为 PRS 计算的 Base 集，招募 1000 名 MDD 患者，将其 1309 个基因的靶向外显子测序结果作为 PRS 计算的 target 集，利用 PLink 1.9 软件计算精神分裂症表型 PRS、抑郁症表型 PRS。以 MDD 患者治疗前和治疗后 2 周汉密尔顿抑郁症 17 项评分（HAMD-17）的减分率作为评价抗抑郁药疗效的指标。同时纳入 MDD 患者治疗前儿童期创伤、家庭环境、生活事件、社会支持、多伦多述情障碍、快感缺失、贝克自杀意念量表以评估 MDD 患者的临床症状和心理特征。采用 Spearman 相关性分析、多元线性回归统计等方法进行分析。

结果 根据 PRS 既往相关研究，选定在 0.001、0.05、0.1、0.2、0.3、0.4、0.5 七个阈值下分别计算并得到相关表型的 PRS，并利用所得到的 PRS 进行后续分析。相关性分析结果显示：0.05 阈值下的精神分裂症表型 PRS 与 HAMD-17 两周减分率呈负相关（$P<0.05$），而 7 个阈值下抑郁症表型 PRS 均与 HAMD-2 周减分率未见显著相关性（$P>0.05$）。多元逐步回归分析结果显示：纳入精神分裂症 PRS 的模型 1 中，家庭环境-知识性、生活事件-一年内负性事件值、社会支持-主观支持、0.1 阈值下精神分裂症 PRS、多伦多述情障碍-总分是 MDD 患者抗抑郁药疗效的影响因素（$P<0.05$）。纳入抑郁症 PRS 的模型 2 中，家庭环境-知识性、生活事件-一年内负性事件值、社会支持-主观支持、0.1 阈值下抑郁症 PRS、多伦多述情障碍、家庭环境-组织性是 MDD 患者抗抑郁药疗效的影响因素（$P<0.05$）。

结论 多基因风险评分可以在一定程度上反应遗传变异在抗抑郁药效差异中的易感性，0.05 阈值下的精神分裂症表型 PRS 与 HAMD-17 两周减分率存在相关性，并且 0.1 阈值下的精神分裂症或抑郁症表型 PRS、临床症状及心理特征与抗抑郁药效有关。

关键字：多基因风险评分；抗抑郁药；靶向测序

利用临床心理特征、遗传变量构建抗抑郁药效预测模型

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目的 抑郁症是一种常见的精神疾病，对患者身心健康造成了严重影响。现有的抗抑郁药物在治疗效果上存在很大差异，因此如何预测抗抑郁药物的治疗反应具有重要的临床价值。抗抑郁药效受遗传因素影响，抑郁症患者的临床和心理特征被认为是预测治疗反应的可能因素。本研究将进行靶向外显子基因测序，利用机器学习方法将基因单核苷酸多态性（SNPs）、临床特征和心理特征结合生成预测模型，提高预测抗抑郁药效的准确度，为临床治疗提供一定的参考。

方法 本研究共招募了1000名首发或未服药大于2周的抑郁症患者，接受单一抗抑郁药治疗8周。在基线期和治疗后第2、4周时采用17项汉密尔顿抑郁量表（HAMD-17）评估患者抑郁症状严重程度及其变化。观察患者4周时的治疗效果，标准为HAMD-17减分率＜50%为无效，HAMD-17减分率≥50%为有效。在基线期收集患者的一般人口学资料、临床特征（包括Beck自杀意念量表、快感缺失量表、多伦多述情障碍量表）和心理特征（社会支持量表、家庭环境量表、童年创伤经历量表，生活事件量表），基于KEGG通路数据库，围绕MDD病因假说和发病机制以及抗抑郁作用相关通路共筛选1309个候选基因，通过Illumina MiSeq平台完成测序，使用PLINK软件筛选高质量SNP，剔除缺失率大于20%、最小基因频率低于5%的SNP标记。最终纳入845名患者、65个特征变量构建数据集。将数据集划分为训练集（N=591）和测试集（N=254），对训练集做数据预处理，递归消除法筛选出59个特征，基于随机森林算法构建4周抗抑郁药效预测模型。利用网格搜索进行超参数优化，比较纳入不同特征变量组合后模型的预测效果，记录测试集的准确率、召回率和F1值等评估指标。

结果 对于接受4周抗抑郁药治疗的患者，仅纳入一般人口学资料和临床特征的疗效预测模型训练集和测试集的准确率为79.9%、54.4%，增加心理变量后模型准确率为79.9%、56.1%，增加遗传变量后模型准确率为80.4%、58%，同时纳入心理、遗传变量后模型准确率为99.7%、76.8%。

结论 通过对比不同特征变量组合下模型的预测性能，发现将遗传因素、心理特征和临床特征组合起来能够进一步提高模型的预测能力，为临床用药决策的制定提供了一定的参考价值。

关键字：机器学习；抗抑郁药；疗效；单核苷酸多态性

辅助分子伴侣 FKBP51 对糖皮质激素受体的调节及其与抑郁症的关系

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目的 据世界卫生组织统计，全球约有3.5亿抑郁症患者，预计到2030年，抑郁症将上升至世界疾病负担首位[1]。多年以来，人们不断探索抑郁症的病因和发病机制，但直到现在仍未完全阐明。在抑郁症的众多发病机制中，神经内分泌失调是一个重要因素，而糖皮质激素受体（glucocorticoid receptor , GR）的研究较为深入，故本篇摘要将探讨辅助分子伴侣FKBP51对GR活性的影响及其与抑郁症的关系，以期为抑郁症的防治提供新线索

方法 计算机检索Pubmed、中国知网、Embase、万方数据库中发表的关于FKBP51和GR及其与抑郁症的相关研究，检索时限为2017年1月1日到2022年12月31日。中文主题检索词为“抑郁症”、“糖皮质激素”，英文主题检索词为（“FKBP5/FKBP51”）、（“glucocorticoid receptor/GR”）、（“depressi*”）。Pubmed检索策略：((depressi*) AND (FKBP5 OR FKBP51)) AND (GR OR glucocorticoid receptor) AND (2017:2022[pdat])

结果 正常情况下当机体出现应激反应时，自主神经系统和HPA轴将被激活，GR通过负反馈调节抑制亢进的HPA轴，使其恢复到正常水平，辅助分子伴侣FKBP51在这一过程中将协助GR进行核转位，故FKBP51表达量的高低将影响GR的信号转导过程，进而对机体的应激反应产生影响。随着时代的发展，人们发现FKBP5基因的单核苷酸多态性与FKBP51的表达水平、抑郁症发病风险以及机体对抗抑郁药物的反应有关。近些年来，研究人员们发现除了环境因素和FKBP5的单核苷酸多态性以外，表观遗传改变与二者一起增加抑郁症的易感性。目前众多研究显示慢性应激可致FKBP5甲基化程度降低，而DNA甲基化程度又与FKBP51的表达呈负相关，当FKBP51表达失衡时，GR信号转导过程将发生改变，最终将导致HPA轴持续性功能失调，抑郁症易感性增加

结论 综上所述，辅助分子伴侣FKBP51通过在GR的信号转导过程中发挥重要作用进而与抑郁症密切相关。随着人们对GR和FKBP51研究的不断深入，相信在不久的将来选择性FKBP51抑制剂将在抑郁症治疗中大放异彩

关键字：辅助分子伴侣、FKBP51、糖皮质激素受体、抑郁症

The Effects of Gender, Age, Dose Regimen and Co-medication on Amisulpride Serum Concentration Based on Therapeutic Drug Monitoring

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Objective This study aims to illuminate the impact of age, gender, dose regimen and co-medication to amisulpride serum concentration.

Methods The effects of gender, age, dose regimen, and co-medication on amisulpride serum concentrations and dose-corrected serum concentrations (C/D ratios) on 158 in-patients treated with amisulpride were investigated.

Results The results showed that the median amisulpride serum drug concentration and the median amisulpride C/D ratio in female patients were significantly higher than that in male patients. (P = 0.004 and 0.002, respectively) The C/D ratios in patients over 60 years old was significantly higher than that in younger (P = 0.005). At different dose regimen, namely, once daily (QD) or twice daily (BID), there were significant differences in amisulpride concentration and C/D ratios (both P < 0.001). However, further study showed that there was no difference when the dose was same. When compared with high dose (400 mg/d) and lower dose (800 mg/d), there were significant differences in C/D ratios (P < 0.001). Interestingly, the median C/D ratios decreased with daily dose increased. Furthermore, the serum concentration increased linearly with the daily dose (r = 0.46, P < 0.001). The amisulpride C/D ratios have no differences between coadministration with clozapine and amisulpride monotherapy (P = 0.703); coadministration with Fluphenazine and Eszopiclone, the amisulpride C/D ratios would decrease in different degrees (P = 0.021 and 0.005, respectively); while Coadministration with valproic acid, the serum concentration of amisulpride would increase (P = 0.021).

Conclusion The results of this retrospective analysis will be helpful to provide patients with a more personalized amisulpride regimen.

关键字：Amisulpride, Serum concentration, C/D ratios, Co-medication

Association Between Electroconvulsive Therapy and Depressive Disorder: Bibliometric Analysis and Global Trends

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Objective Depressive disorder is a chronic mental illness that is vulnerable to relapse, imposes a huge economic burden on society and patients, and is a major global public health problem. Depressive disorders are characterized by depressed mood, decreased energy and interest, and suicidal ideation and behavior in severe cases. They can be treated through pharmacotherapy and psychotherapy or physical treatments such as electroconvulsive therapy (ECT). In patients with suicidal ideation, behavior, or refractory depressive disorder ECT has a faster onset of action and better efficacy than pharmacotherapy. This study used bibliometric and visual analyses to map the current state of global research on ECT for depressive disorder and to predict future research trends in this area.

Methods A literature search was performed for studies on ECT and depressive disorder in the Web of Science Core Collection (WoSCC) database. All studies considered for this paper were published between 2012 and 2021. Bibliometric and co-occurrence analyses were performed using the CiteSpace software.

Results In total, 2184 publications were retrieved. The number of publications on ECT and depressive disorder have been increasing since 2012, with China being a emerging hub with a growing influence in the field. Zafiris J. Daskalakis is the top author in terms of number of publications, and The Journal of ECT is not only the most published journal but also the most co-cited journal in the field. Co-occurrence analysis showed that electroconvulsive therapy, treatment-resistant depression, bipolar disorder, hippocampus, efficacy, and electrode placement are current research hotspots. Molecular biomarkers, neuroimaging predictors, and late-life depression will become research hotspots in the future.

Conclusion Our analysis made it possible to observe an important growth of the field since 2012, to identify key scientific actors in this growth and to predict hot topics for future research.

关键字：Electroconvulsive therapy; Depressive disorder; CiteSpace; Bibliometrics analysis; Global trends

抗精神病药物对首发精神分裂症患者大脑结构及功能的影响

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目的 探讨首发未服药精神分裂症患者治疗前后与健康对照者大脑结构及功能差异。

方法 纳入 36 例首首发未服药精神分裂症患者（患者组）及年龄、性别、教育年限相匹配的 25 名健康对照（对照组），进行静息态脑功能磁共振（rest fMRI）扫描，对患者组进行阳性阴性症状量表 (PANSS)评分后，抗精神病药物干预治疗 12 周，再次采用 fMRI 检测脑功能活动情况及 PANSS 评分，并进行比较。

结果 与对照者相比，首发未服药精神分裂症患者颞下回、颞上回、右侧楔前叶、右中央前回、左侧中央沟盖、右侧颞叶、额上回、内侧额回、左侧尾状核，右侧楔叶、左侧顶上回、右侧补充运动区、右侧额下回三角部、右侧额中回、右侧颞中回、左侧脑岛、右侧中央旁小叶脑区存在局部活性异常（P＜0.05），提示这些脑区的异常与精神分裂症的疾病易感性有关。且经抗精神病药物治疗 12 周后，额上回、右侧叶、右侧楔前叶、右中央前回、左侧沟盖、左侧顶上回的活性异常有所改善（P＜0.05）。其中患者中央沟盖、左侧顶上回的大脑自发活动特征的改变与临床症状的改善相关（P＜0.05）。

结论 首发未服药精神分裂症患者与健康对照组比较有多个脑区功能活动异常，药物治疗后有所改善。

关键字：精神分裂症、静息态脑功能磁共振、抗精神病药物、阳性阴性症状量表

Changes in Peripheral Blood Levels of NLR, MLR, RLR, and SII in Patients with Depression

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Objective To explore the application value of peripheral blood neutrophil to lymphocyte ratio (NLR), monocyte to lymphocyte ratio (MLR), platelet-to-lymphocyte ratio (PLR) and systemic immune-inflammatory index (SII) in depressive disorder.

Methods A total of 190 patients with major depression (MDD group) and age- and gender-matched 100 healthy controls (HC group) admitted to our hospital from January 2023 to June 2023 were collected. We analyzed the participants' platelet (PLT), neutrophil (NEU), lymphocyte (LYM), and monocyte (MON) counts, compared the differences in NLR, MLR, PLR and SII, and explored the relationships between depression and these indicators.

Results There were significant differences in MON, MLR and SII among the there groups（F=52.561,52.104,18.670, both P＜0.01). The MON, MLR and SII of MDD group was significantly higher than that of HC group, and the difference was statistically significant (both P＜0.01).

Conclusion Increased MON, MLR and SII, as signs of inflammatory response, may be biological indictors of depressive disorders.

关键字：depression, neutrophil-to-lymphocyte ratio (NLR), monocyte-to-lymphocyte ratio (MLR), platelet-to-lymphocyte ratio (PLR), systemic immune-inflammation index (SII)

The Influence of Genetic and Environmental Factors on Adolescent Anxiety: A Twin Study

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Objective Anxiety is a common psychological problem among adolescents and has become the focus of public attention in China, but little was known about the etiology of anxiety in Chinese adolescents. This study explored the influence of genetic and environmental factors on adolescent anxiety. Sex differences were also examined.

Methods Anxiety is a common psychological problem among adolescents and has become the focus of public attention in China, but little was known about the etiology of anxiety in Chinese adolescents. This study explored the influence of genetic and environmental factors on adolescent anxiety. Sex differences were also examined.

Results The effects of A and E on adolescent anxiety were 0.34 (95% CI=0.12-0.53) and 0.66 (95% CI:0.47-0.89), respectively. Adolescent anxiety was significantly positively correlated with peer relations (r =0.138, P<0.05) and negatively correlated with prosocial behavior (r =0.045, P

关键字：genetic; environmental; adolescent; anxiety; twins

喹硫平在中国精神分裂症及情感性障碍患者的群体药代动力学及其影响因素的研究

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目的 喹硫平是一种二苯并硫氮杂?类非典型抗精神病药物，目前已经被广泛应用于精神分裂症及双相情感障碍的临床治疗。本研究通过用非线性混合效应模型（NONMEM）方法建立喹硫平在中国精神分裂症及情感性障碍患者中的群体药代动力学（PPK）模型并研究其影响因素。

方法 回顾性的收集 304 例患者的 485 份血药浓度数据及临床资料，血药浓度为临床常规血药浓度监测采集的稳态谷浓度。采用 NONMEM 软件通过一级吸收和消除的单室模型建立了中国精神分裂症及情感性障碍患者的喹硫平速释片群体药代动力学模型，药动学参数用含个体间和个体内变异交互作用的一阶条件估算法计算，考察了生理因素（包括年龄、体重、性别等）以及实验室检查（胆红素、总蛋白、白蛋白、ALT、AST、γ-GTP、血肌酐等）对喹硫平药动学的影响。采用拟合优度诊断图、自举法（bootstrap）和正态化预测分布误差法（NPDE）进行模型评估。

结果 最终模型中喹硫平的表观清除率（CL/F）和表观分布容积（V/F）的群体典型值分别为 83 L/h 和 1350 L。协变量分析结果显示年龄对喹硫平的 CL/F 具有显著性影响，建立的最终模型 CL/F 参数公式如下：CL/F（L/h）= 83 × (AGE /43.1)-0.301。CL/F 的个体间变异和残差变异分别为 20.8%和 11.1%。最终模型评估显示该模型具有良好的稳定性和可靠性。

结论 本研究为首次在中国精神分裂症及情感性障碍患者中开展的喹硫平的群体药代动力学研究本研究，并考察了多种因素对喹硫平 PK 参数的影响，结果表明年龄是影响喹硫平清除率的重要因素。患者年龄的增加可以导致喹硫平药物清除率的非线性减少，该研究可为临床制定喹硫平个体化给药方案提供依据。

关键字：群体药代动力学；非线性混合效应模型；喹硫平；精神分裂症；情感性障碍

A Population Pharmacokinetic Analysis of Amisulpiride in Adult Chinese Patients with Schizophrenia：Impact of Creatinine Clearance Rate

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Objective Amisulpride, as an antipsychotic, signif-

icantly exceeded the therapeutic reference range in a considerable percentage of the serum concentrations of Chinese patients, thus it is necessary to investigate its pharmacokinetic effects in different populations. The purpose of this study was to establish and validate a population pharmacokinetic (PPK) model of amisulpiride in Chinese adult schizophrenia patients, and to investigate the effects of covariates on the pharmacokinetic parameters of amisulpiride.

Methods 168 serum concentrations of 88 patients were collected from routine clinical monitoring in this retrospective study. Covariates were recorded which including demographic parameters (gender, age, weight), biological characteristics (serum creatinine, creatinine clearance) and co-medications. The PPK model of amisulpride was established by a nonlinear mixed effects modeling (NONMEM) approach. To evaluate the final model, goodness-of-fit (GOF) plots, bootstrapping validation (1000 runs), and normalized prediction distribution error (NPDE) were carried out.

Results A one-compartment model with first-order absorption and elimination was developed, the population estimate of the apparent clearance (CL/F) and apparent volume of distribution (V/F) was 32.6 L/h and 391 L, respectively. We found that creatinine clearance rate was a significant covariate affecting the clearance of amisulpride in this study. The established model was as follows: CL/F= 32.6(CLcr/114.3)0.485 (L/h). Evaluation by GOF plots, bootstrap and NPDE proved that the final model was reliable. Comparison of identified PK parameters in Chinese patients with previous PPK analysis in Caucasian patients indicated that the CL/F of amisulpride was similar, while the V/F was lower compared with Caucasian patients, which may lead to relevant differences in amisulpride serum concentrations during steady state.

Conclusion Ceatinine clearance was found to be an important covariate affecting the apparent clearance of amisulpiride for the first time. The study illustrated differences in PK parameters between Chinese and Caucasian patients. A PPK model of amisulpride in Chinese schizophrenic patients was successfully established by NONMEM and may offer a powerful approach for individualizing doses and therapeutic drug monitoring.

关键字：population pharmacokinetics；amisulpride；creatinine clearance rate；schizophrenia；therapeutic drug monitoring

青少年抑郁症全基因组甲基化分析及候选基因甲基化水平横纵向对比和相关性研究

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目的 本研究旨在探讨环境因素可能通过改变基因位点甲基化水平介导青少年抑郁症的发生发展，以期为寻找青少年抑郁症诊治的客观生物标记物提供新思路。

方法 采用 850k 甲基化芯片检测 3 对同卵不同抑郁表型青少年双生子外周血甲基化，并通过基因本体富集分析、京都基因与基因组百科全书分析、蛋白相互作用分析获得候选基因。进一步采用多重 PCR 结合 MethylTarget 技术定量检测 10 例药物干预治疗前后青少年抑郁症患者，14 例青少年抑郁症患者，18 例健康对照组外周血候选基因位点的甲基化水平。最后将差异基因位点甲基化水平与抑郁严重程度、童年创伤进行相关性分析。

结果 850k 甲基化芯片共检测到 57 个不同甲基化水平的基因，其中 NOS1、ARHGEF12、GRID2 等基因甲基化水平较高，AHR、RFX7、ZCCHC11 等基因甲基化水平较低。进一步在横断面研究中发现青少年抑郁患者外周血 AHR_13 203、AHR_14 127 甲基化水平高于健康对照组，AHR_14 71 甲基化水平低于健康对照组。在控制年龄、体重指数等变量后，发现童年创伤总分与贝克抑郁量表得分，AHR_13 203，AHR_14 127 显著正相关，与 AHR_13 153 负相关。进一步研究发现 AHR_13 203 位与情感虐待、性虐待、情感忽视正相关，AHR_14 127 与情感虐待、躯体虐待、性虐待正相关。纵向干预研究中发现 AHR_13 67 和 AHR_14 154 甲基化水平在干预后下降，AHR_14 106 和 AHR_14 180 甲基化水平在干预后升高。在控制年龄、体重指数等变量后发现汉密尔顿抑郁得分与 AHR_13 67 正相关、与 AHR_14 106 负相关（所有统计检验均采用双侧，$p < 0.05$ 为有统计学意义，$r > \pm 0.3$ 为有相关性）。

结论 同卵不同抑郁表型双生子之间 850k 甲基化芯片结果存在差异，其中 AHR 不同片段和位点的甲基化水平在青少年抑郁症患者及药物治疗干预前后均显著存在差异且部分位点与童年创伤有关。提示 AHR 部分位点的甲基化水平变化可能成为青少年抑郁症诊治的关键生物标记物。

关键字：抑郁症；青少年；DNA 甲基化；虐待

血小板计数对精神分裂症患者服用抗精神病药物后临床症状和代谢指标变化的预测作用研究

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目的 （1）分析精神分裂症（SZ）患者血小板计数（PLT）与临床症状、代谢指标是否相关？（2）服用抗精神病药物 6 周后，患者 PLT 如何变化，7 个不同药物治疗组是否有差异？（3）基线血小板计数对 SZ 患者疗效及代谢变化是否有预测作用，以及预测作用是否独立于白细胞计数、代谢指标？

方法 在这项随机临床试验中，我们将 2985 例 SZ 住院患者随机分配到 5 种非典型抗精神病药物组和 2 种典型抗精神病药物组中的一组，并分别在基线、第 2 周、第 4 周、第 6 周时进行随访，评估临床症状、测量代谢指标、血常规和生化。采用重复测量方差分析检验 PLT 随时间的变化是否有统计学意义；采用潜伏生长曲线模型（LGM）来拟合阳性和阴性综合征量表

（PANSS）评分、代谢指标的纵向变化趋势；并通过结构方程拟合 PLT 和其他血液指标、代谢指标对临床疗效和代谢指标纵向变化的预测作用。

结果 共有 2596 例患者完成随访，基线 PLT 与白细胞总数、身体质量指数、总胆固醇和低密度脂蛋白呈正相关（FDR q<0.05），与 PANSS 评分无相关。经过 6 周治疗，阿立哌唑和齐拉西酮组患者 PLT 显著增加。结构方程中，基线 PLT 能与白细胞计数、代谢指标一起预测抗精神病药物治疗后的阴性症状改善，PLT 较低的患者，阴性症状改善越明显，但不能预测阳性症状。

结论 SZ 患者 PLT 与白细胞总数、血脂等代谢指标正相关，但不能预测其用药后的纵向变化。PLT 与临床症状不相关，但是可以作为患者阴性症状改善的预测指标，其机制有待进一步研究。

关键字：精神分裂症；阴性症状；血小板计数；白细胞总数；脂代谢

Integration of Multi-omics Summary Data Reveals The Role of N6-methyladenosine in Neuropsychiatric Disorders

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Objective In this study, we utilized multi-omics summary data to explore the relationship among m6A-QTLs and other multi-molecular phenotypes and seven neuropsychiatric diseases.

Methods We integrated multi-omics data and genome-wide association study summary data of seven neuropsychiatric diseases to analyze diseases-related m6A site and the association between m6A and gene/protein by using transcriptome-wide association study tool and Summary-data-based Mendelian randomization.

Results We firstly identified 86 m6A sites associated with seven neuropsychiatric diseases. Subsequently, we identified 7881 associations of m6A sites and gene expressions and 916 out of the m6A - gene associations were between the 82 disease-related m6A sites and 606 genes. We further identified 58 out of the genes were disease-related by performing transcriptome-wide association study. Finally, we integrated these results and obtained 81 associations linking m6A - disease, m6A - gene and gene - disease, suggesting potential pathogenic mechanisms in which m6A influences disease through the regulation of gene expression. In addition, we also analyzed the effect of gene expression on m6A, the post-transcription effect of m6A on protein, and related association with diseases as well.

Conclusion Our study provide new insights into the genetic component of m6A in neuropsychiatric disorders and offer promising targets for further mechanistic investigations and the development of new therapeutics.

关键字：N6-methyladenosine (m6A); neuropsychiatric disorders; transcriptome-wide association study (TWAS); Summary-data-based Mendelian randomization (SMR); eQTL; pQTL

Application of Physiologically Based Pharmacokinetic (PBPK) Model To Predict The Pharmacokinetic Changes of Aripiprazole Combined with Risperidone

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Objective The objective of this study was to investigate the pharmacokinetic changes of aripiprazole caused by various influencing factors when it was co-administered with risperidone through PBPK models, so as to provide clinicians with valuable references for formulating an optimal dosage regimen.

Methods The initial PBPK models of aripiprazole and risperidone were developed by gathering basic physicochemical parameters and parameters related to absorption, distribution, metabolism, and excretion from literature and pharmacology databases. Then, by combining the inhibitory parameters, the enzymatic kinetic parameters of different CYP2D6 genotypes as well as the changes in anatomical and physiological parameters when liver function is damaged, the corresponding PBPK models were further established to predict common pharmacokinetic changes caused by these influencing factors. Finally, based on the simulation of PBPK models, this study put forward dosage optimization recommendations for situations where risks may exist.

Results The simulations of PBPK model revealed that co-administration of risperidone did not result in significant changes in the exposure level of aripiprazole. However, the CYP2D6 genotype was found to have a significant impact on the exposure level of aripiprazole, with the addition of risperidone not increasing the variability among individuals with different genotypes. For individuals with CYP2D6 intermediate metabolizer (IM) genotype, a dose reduction of approximately 14% is recommended for aripiprazole. Likewise, individuals with CYP2D6 poor metabolizer (PM) genotype should receive a greater reduction of approximately 28% in aripiprazole dosage. Furthermore, in patients with mild liver damage, a dose reduction of approximately 11% is advised when aripiprazole is combined with risperidone. However, when patients with mild liver damage have CYP2D6 genotypes of IM and PM, aripiprazole doses should be further reduced to 61% and 51%, respectively.

Conclusion The PBPK models demonstrated that the co-administration of aripiprazole and risperidone would not significantly impact the plasma concentration of aripiprazole, and there was no increased risk of drug-drug interaction due to CYP2D6 genetic polymorphism. However, in patients with mild hepatic damage, co-administration of the two drugs can lead to an increase in the exposure level of aripiprazole. Therefore, it is crucial to appropriately reduce the dose of aripiprazole to mitigate potential risks, particularly when the patient has CYP2D6 IM or PM genotype.

关键字：Physiologically Based Pharmacokinetic Model; aripiprazole; combination medication; genetic polymorphisms of drug-metabolizing enzymes; hepatic impairment; dosage optimization

基于神经影像和机器学习的以耳针疗法为基础的 taVNS 治疗妊娠期及产后抑郁症的疗效预判研究

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目的 基于神经影像和人工智能机器学习，研究以中医学针灸耳针疗法为基础的经皮耳穴-迷走神经电刺激（ta vagus nerve stimulation，taVNS）治疗妊娠期及产后抑郁症的疗效预判。

方法 临床常用的抑郁症药物治疗只有约 40%的患者在初始治疗后获得缓解，且存在着程度不一的副作用、药物依赖以及停药后复发等不足之处。而对于孕产妇而言，抑郁症没有绝对安全有效的治疗方法。因此，临床迫切需要开发新的有效、简便、安全的补充替代疗法，taVNS 治疗抑郁症成为可深入研究的问题。采用机器学习及脑影像技术，建立人工智能癫痫预测模型，以及电休克疗法（Electroconvulsive Therapy,ECT）治疗抑郁症的疗效预测支持向量机（Support Vector Machines,SVM）模型。 基于临床已有 taVNS 物理治疗效果及影像组学和机器学习的新进展，并与中医学结合，在前期研究基础上，进行前瞻性临床试验，获得临床疗效、脑形态、静息态脑区局部功能以及全脑网络等多维度数据，采用机器学习方法，分析及提取疗效预测相关的影像学标记物，综合多种统计算法，建立 taVNS 治疗妊娠期及产后抑郁症的疗效预测模型，在临床实践中验证和提高该预测模型的效能。 （1)通过前瞻性临床研究，收集 taVNS 抗抑郁临床病例，汇总既往研究成果，通过影像组学和机器学习方法，识别出适宜人群的相关系列影像学标记物。（2）优化机器学习参数，融合多维度数据，建立 taVNS 治疗抑郁症的疗效预测模型，并测试其稳定性。（3）通过前瞻性临床研究，将预测的疗效和实际疗效交叉验证，以评估疗效预测模型准确性，优化参数，提高效能。

结果 通过研究为筛查 taVNS 适宜的孕产妇抑郁症人群提供新方法，从而实现精准治疗，为临床广泛开展新技术经皮耳穴-迷走神经刺激技术治疗抑郁症打下科学基础，为其它针刺类似特色技术临床应用提供新的研究范式。

结论 将人工智能运用于影像组学构建辅助疾病诊断和疗效预测模型等方面研究具有较好的基础及广阔的应用前景。借助这一手段对 taVNS 治疗妊娠期及产后抑郁症进一步研究，将促进 taVNS 技术从基础研究推广到临床应用。

关键字：妊娠期及产妇抑郁症；物理治疗；中西医结合耳针疗法

Chronic Restraint Stress–induced Depression?like Behavior Is Mediated by Upregulation of Melanopsin Expression in C57BL/6 Mice Retina

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Objective : Depression is associated with circadian disturbances in which melanopsin was a key mechanism. Further studies have demonstrated that melanopsin gene variations are associated with some depressive disorders and aberrant light can impair mood through melanopsin-expressing retinal ganglion cells (mRGCs). The goal of this study was to explore the direct relationship between depression and melanopsin

Methods Adult C57BL/6 male mice were physically restrained for 16 h in a 50-ml polypropylene centrifuge tube and all behavioral tests were performed after CRS treatment. Western blot analysis and immunofuorescence were used to detect melanopsin expression in the retina of C57BL/6 mice. And we observed the change of the electrophysiological function and release of glutamate of mRGCs

Results The melanopsin expression upregulate in mRGCs of chronic restraint stress (CRS)-treating mice which exhibit depression-like behavior. The frequency of blue light-induced action potentials and light-induced glutamate release medi ated by melanopsin also increase signifcantly. This change of melanopsin is mediated by the CRS-induced glucocorticoid

Conclusion CRS may induce the depression-like behavior in mice via glucocorticoid-melanopsin pathway. Our fndings provide a novel mechanistic link between CRS-induced depression and melanopsin in mice.

关键字：Chronic restraint stress, Depression, Melanopsin, mRGCs, Glucocorticoid

继续教育协作组

Abnormal Neural Responses in Three Phases of Reward Processing in Individuals with Major Depressive Disorder: A Task-fMRI Study

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Objective Anhedonia is a diagnostic hallmark of major depressive disorder (MDD). Mounting evidence suggests that anhedonia in MDD is associated with aberrant reward processing. Reward processing includes three phases: reward anticipation, outcome consumption and choice evaluation. However, few studies have simultaneously investigated the neural responses in the three phases of reward processing.

Methods By using a roulette task, neural responses during reward anticipation, outcome monitoring and choice evaluation were assessed in 89 unmedicated patients with MDD and 35 healthy controls (HC).

Results Relative to the HC, individuals with MDD showed exaggerated brain activity in the medial superior frontal gyrus (SFG) during the reward anticipation, blunted activation in the striatum, including the nucleus accumbens (NAc) and caudate, and medial prefrontal cortex during the outcome consumption, and blunted activation in the SFG during the choice evaluation.

Conclusion These findings hint at a convergent impairment in the frontostriatal circuit during the three phases of reward processing. The hypoactivation in the NAc parallels current evidence on a central role for the NAc in consummatory pleasure. The dissociation between the SFG activity of reward anticipation and choice evaluation may represent a divergent pathophysiology for anticipatory and consummatory anhedonia.

关键字：Major depressive disorder, anhedonia, reward processing, task-fMRI

本科医学生学习精神病学前后对其态度的变化及影响因素

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目的 探究本科医学生学习精神病学理论课及见习课前后对精神病学态度的变化及其影响因素，探索整合翻转课堂教学和微课教学方式的效果。

方法 采用方便抽样，对中南大学湘雅医学院的152名医学本科生进行问卷调查。被调查者经过为期半年的精神病学理论学习和见习培训，收到有效问卷149份，有效率98.0%。精神医学16人（10.74%），临床医学71人（47.65%），麻醉学29人（19.46%），预防医学33人（22.15%）。所用教材为人民卫生出版社出版的第8版《精神病学》。

结果 经过系统的学习，与基线期相比，经过学习后的医学生ATP总分显著增高（P<0.001）。除精神医学专业外，临床医学（P=0.003）、预防医学（P=0.005）、麻醉学（P=0.013）的学生经过系统学习后，ATP总分均有显著提高。进一步对比具体的条目，发现以下6个条目的分数有显著提升。共情能力总分和培训前的ATP-30总分存在显著正相关的关系，即共情能力越强，培训前的ATP-30总分越高。

结论 在本研究中，我们详细阐述了本科医学生学习精神病学理论课及见习课前后对精神病学态度的变化，以及推测了可能的影响因素。我们发现共情能力越强的学生，在未接受系统教育前对于精神病学的态度越积极。在经过精神病学理论和见习课程的系统学习后，不同专业的医学生ATP-30分数均有显著提升，且相较于其他国家的平均分数，此次受访学生ATP-30分数普遍较高。其中有六个条目的内容有显著提升，是需要靠见习才能了解的知识，凸显了见习的重要性。本研究采用微课结合翻转课堂教学法，取得良好成效，期望为国内其他院校的精神病学临床见习带教提供参考，进一步促进精神医学专业的临床见习带教水平，共同为培养生物-心理-社会医学模式下全面发展的高素质医学人才做出贡献。

关键字：精神病学；精神医学态度问卷（30条目）；教学方式

中文版神经精神科生物节律评估访谈在抑郁症患者中信效度研究

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目的 神经精神科生物节律评估访谈(BRIAN)量表用于神经精神科临床评估生物节律，该量表从睡眠、活动、社会节律、饮食习惯四个维度较为全面的评估生物节律，本研究检验中文版神经精神科生物节律评估访谈(BRIAN-C)量表在抑郁症患者中的信度及效度。

方法 采用BRIAN-C量表、16项抑郁症状快速评估量表（Brief 16-Item Quick Inventory of Depressive Symptomatology Self-Report,QIDS-SR16）、广泛性焦虑量表(7-item generalized anxiety disorder scale,GAD-7)、6项生活质量问卷(6-item Quality of life short form,SF-6)对122例抑郁症患者及122例对照进行施测，分别采用鉴别力指数D、相关性分析评价条目的区分度、同

质性，采用 Cronbach's α 系数、Spearman-Brown 系数、组内相关系数（ICC）、重测相关系数评价信度，分别采用验证性因素分析、相关性分析、ROC 曲线评价结构效度、校标效度、预测效度。

结果 纳入研究组和对照组各 122 例。BRIAN-C 量表条目同质性分析均显示有统计学差异（p<0.05），相关系数 r 在 0.359-0.852 之间；Cronbach′s α 系数为 0.911，Spearman-Brown 系数为 0.807；ICC 为 0.639(95%CI: 0.375~0.729)、重测相关系数 r 为 0.432(p=0.001)；验证性因素分析显示拟合度指标为：χ2/df=1.937，GFI =0.822，CFI =0.877，TLI=0.855，RMSEA=0.088；BRIAN-C 得分与 QIDS-SR16、GAD-7、SF-6 得分均呈显著相关性（p<0.05），相关系数 r 分别为 0.735、0.462、-0.692；ROC 曲线显示区分抑郁症与对照的 AUC 为 0.939（95% CI: 0.909～0.970，P＜0.05），29 分是最佳临界值，其对应的灵敏度为 0.861，特异度为 0.926。

结论 中文版 BRIAN 具有良好的信效度，相对于国内现有的评估工具，本量表能够较为全面、简洁、准确的评估抑郁症患者的生物节律,可以在抑郁症患者当中推广使用。

关键字：抑郁症；可重复性, 结果；神经精神科生物节律评估访谈

首发早发性和晚发性抑郁症患者静息态功能磁共振低频振幅的研究

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目的 既往研究发现不同年龄段发病的抑郁症有不同的临床特征，发病年龄 18 岁以前的早发抑郁症（Early onset depression，EOD）较发病年龄在 45 岁以后晚发抑郁症（Later onset depression，LOD）有较高的阳性家族史、自杀风险和较高的转躁风险，同时研究发现存在不同的脑影像学特征。本研究旨在探讨首发早发性抑郁症和晚发性抑郁症脑静息态低频振幅（amplitude of low frequency fluctuation，ALFF）特征。

方法 招募来自南京医科大学附属脑科医院符合 DSM5 抑郁症诊断标准的首发患者。按照起病年龄，分为 18 岁以前的早发抑郁症 40 名，45 岁以后起病的晚发抑郁症抑郁症 50 名，同时招募 70 名年龄、性别、受教育年限匹配的健康对照。将 3 组受试进行 3.0T 静息态功能磁共振扫描，计算灰质体积（gray matter，GM）和 ALFF。为去除年龄的影响，将灰质总体积和年龄为协变量计算三组 ALFF 差异，首先进行单因素方差分析，高斯随机场法（Gaussian random field，GRF）校正，其次在三组比较差异有统计学意义的基础上，进行 hoc t 检验，对每两组 ALFF 进行两两比较，继续使用 GRF 校正。

结果 三组被试在双侧颞下回、右颞上回、左矩状回、左枕下回、右舌回、左额上回、左直回、右额下回、右枕中回、左丘脑、双侧楔前叶、右缘上回、左楔叶、右侧辅助运动区、左侧顶下回、左侧中央后回、左中央前回（单体素 p<0.001，连续体素值 K≥35，GRF 校正后 p<0.05）。在方差分析基础上进行两两事后独立样本 t 检验，与 LOD 组相比，EOD 组在右舌回、左枕下回、左额上回、左中央前叶 ALFF 值增高，左直回、右颞上回、左颞下回 ALFF 值下降（单体素 p<0.001，连续体素值 K≥17，GRF 校正后 p<0.05）。

结论 首发 LOD 与 EOD 患者存在不同的静息态脑活动特征。右舌回、左枕下回、左额上回、左中央前叶、左直回、右颞上回和左颞下回的脑局部能量活动特征可能和 LOD 与 EOD 的发病机制有关。

关键字：早发性抑郁症；晚发性抑郁症；静息态功能磁共振；低频振幅

精神科住院医师规范化培训 OSCE 采用标准化病人和真实病人的结果比较

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目的 客观结构化临床考试（Objective Structure Clinical Examination, OSCE）又称为多站式临床考试，它要求学生在特定的时间内通过多个模拟临床情境的“考站”，完成一系列的临床任务，是评估住院医师岗位胜任力的客观测评形式。自 2022 年起，按照河北省卫生与健康委员会的要求，住院医师规范化培训结业技能考试 OSCE 采用真实的临床病人，本研究将探讨采用真实病人（real patient, RP）的 OSCE 与既往 SP 相比，学员对考核的满意度与考核结果的比较。探讨在精神科住院医师规范化培训 OSCE 采用标准化病人和真实病人考试结果的差异。

方法 选择河北医科大学第一医院 2018 级、2019 级精神科住院医师规范化培训学员 38 名，其中 2018 级学员采用 SP 考核（SP 组），2019 级学员采用 RP 考核（RP 组），SP 组参加了 2020 年年度 OSCE 技能考核，RP 组参加了 2021 年年度 OSCE 技能考核，采用“五站式”包括（1）辅助检查及影像学解读、（2）临床技能、（3）临床思维、（4）神经系统检查或临床沟通、（5）心肺复苏。每站考核采用满分 100 分的原始得分作为评价指标，满意度采用自制的 OSCE 考核满意度文件，比较两次考核的结果和学员满意度。

结果 满意度调查结果显示 SP 组在“我觉得病人很配合”条目选择“非常同意”、“同意”的学员比例明显高于 RP 组（P<0.05）OSCE 考核结果方面，2 组在临床技能、临床思维、临床沟通、神经系统查体、心肺复苏五站的考核成绩无明显差异。

结论 在 OSCE 中采用 RP 可能导致学员主观感觉考核难度增加，但采用 SP 还是 RP 均不会影响学员的考核结果。

关键字：精神科；住院医师规范化培训；OSCE；

标准化病人；真实病人

精神分裂症与双相 I 型障碍的近红外脑功能成像研究

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目的 精神分裂症（schizophrenia，SP）和双相 I 型障碍（bipolar disorder-I）都是常见的重性精神障碍，因为临床表现等诸多相似性，二者鉴别有一定困难。SP 和 BP-I 在言语流畅性表现有差异，比较二者在言语流畅性任务（verbal fluency task，VFT）下前额叶皮质（prefrontal cortex，PFC）的激活模式，可能有助于二者的诊断与鉴别诊断。功能性近红外光谱技术（functional near infrared spectroscopy，fNIRS）可以反映 PFC 在认知任务下的脑血流的变化，近年来被用作精神障碍的辅助诊断。

方法 2020 年 3 月至 2021 年 9 月收集新乡医学院第二附属医院住院的 SP 和 BP-I 躁狂发作患者，同期从社区招募健康志愿者（healthy controls，HC）。分别采用阴性和阳性症状量表、杨氏躁狂量表、健康生活 9 项问卷和蒙特利尔认知评估量表对患者组的精神症状和认知功能进行评估。采用 52 通道的 fNIRS，测量三组人群在 3 种 VFT（语义 VFT 和两种语音 VFT）期间前额叶氧合血红蛋白（oxyhemoglobin，HbO2）及脱氧血红蛋白（reduced hemoglobin，HbR）相对浓度变化的特征，比较任务间及组间的激活差异。将有差异的变量纳入模型分析，建立可用于疾病分类的模型。

结果 最后共纳入 SP 组 60 例、BP-I 组 42 例和 HC 组 44 例。SP 和 BP-I 在语义和语音 VFT 下的产词数均低于 HC，但是语义流畅性缺陷更明显。SP 和 HC 在语义 VFT 期间前额叶的激活比语音 VFT 期间更广。SP 在语义和语音 VFT 期间均存在前额叶低激活，而 BP-I 仅在语义 VFT 期间表现前额叶低激活。综合各组在语义 VFT 下 HbO2 与 HbR 的激活情况，SP 以双侧背外侧、腹外侧前额叶低激活为主，BP-I 双侧颞上回及右侧额叶低激活为主。采用 Logistics 回归分析和神经网络分析对 SP 和 BP-I 分别进行分类建模，模型对 SP 和 HC 的分类正确率在 80%左右，对 BP-I 和 HC 的分类正确率在 74%左右。

结论 SP 和 BP-I 语义言语流畅性缺陷更明显。汉语中，语义 VFT 涉及的神经元活动更广泛，对前额叶激活更敏感。SP 的前额叶功能缺陷广泛，尤以双侧背外侧和腹外侧前额叶皮质为主，BP-I 的前额缺陷以右侧额叶及双侧颞上回为主。

关键字：精神分裂症；双相 I 型障碍；言语流畅性任务；近红外光谱脑功能成像技术

Does Electroencephalography Seizure Duration Account for An Adequate Treatment of Magnetic Seizure Therapy for Schizophrenia?

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Objective A seizure duration longer than 15 s has been applied to define the treatment seizure for Magnetic seizure therapy (MST), which is modified from electroconvulsive therapy (ECT) without much validation. Our objective was to investigate whether this seizure duration was suitable for MST treating schizophrenia.

Methods Thirty-five and thirty-three inpatients with schizophrenia were included to receive ten sessions of MST and ECT respectively. The clinical symptom was assessed using Positive and Negative Symptom Scale (PANSS) at baseline and 4-week follow-up. EEG was monitored during each MST or ECT treatment using bifrontal electrodes.

Results The proportion of participants achieved the 15 s threshold were only 28.6 % in the MST group, without differences between responders and non-responders. For patients receiving MST, the average EEG seizure duration was correlated with the percentage of PANSS reduction ($t(33) = 2.53$, $p = 0.016$, uncorrected; $t(33) = 2.02$, $p = 0.053$, corrected with clinical characteristics). The average EEG seizure duration predicted the clinical response at a trend level ($Z = 1.73$, $p = 0.085$) with an optimal cut-off of 11.3 s. All patients in the ECT group achieved the 15 s threshold, however, their average EEG seizure duration was uncorrelated with clinical improvement.

Conclusion Adequate length of EEG seizure may be essential for the antipsychotic effect of MST, though affected by various clinical and technical factors. Our findings suggested a shorter duration of seizure was more suitable for MST compared to ECT when treating patients with schizophrenia.

关键字：magnetic seizure therapy; electroencephalography; seizure duration; schizophrenia

Role of GDNF in Aberrant Activity within DMN Subsystems During Rumination in Major Depressive Disorder

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Background The neurotrophic hypothesis might play a role in major depressive disorder (MDD), but it remains unclear the relationship between glial cell line-derived neurotrophic factor (GDNF) and brain activity in patients with MDD. In this study, we focused on the altera-

tions of activity of default mode network (DMN) subsystem, level of GDNF and rumination to investigate the role of GDNF in MDD.

Methods Here, individuals with MDD (n = 33) and healthy controls (n = 33) completed a rumination state task during a magnetic resonance imaging (MRI) scan, in which they were induced into a continuous, active rumination state. The fALFF (fALFF) was calculated to characterize spontaneous brain activity of DMN. Serum levels of GDNF were measured in all participants. Correlation between fALFF values and GDNF levels as well as rumination in MDD was calculated.

Results Compared with the HCs, MDD patients showed decreased GDNF levels. MDD patients showed a significant decreased activity in the DMN DMPFC subsystem during rumination as well as inversed activity during distraction state (t = -2.727, p = 0.008; t = 2.649, p = 0.011, respectively), and increased activity in MTL subsystem during rumination in MDD patients (t = 2.610, p = 0.011). Moreover, abnormal activity in the DMN DMPFC subsystem during rumination were positively correlated with the GDNF (r = 0.406, p = 0.019) levels and negatively related to brooding scores (r = -0.456, p = 0.009) in MDD. However, the activity of DMN MTL subsystem was positively correlated with the brooding scores(r = 0.408, p = 0.018).

Conclusions Our findings demonstrate that GDNF levels are associated with impaired activity of DMN subsystems in MDD patients and was associated with rumination symptom, suggesting that GDNF might play a crucial role in brain functional abnormalities in MDD.

关键字：major depressive disorder, rumination, fMRI, fALFF，GDNF

抗抑郁药物治疗前后抑郁症患者在自我面孔识别任务下的脑激活变化

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目的 自我面孔识别是自我参照认知的重要组成部分，研究发现自我面孔识别与情感状态密切相关。然而，抗抑郁治疗前的抑郁发作期和治疗后抑郁缓解或部分缓解期的抑郁症患者自我面孔识别相关脑区的激活是否存在变化仍未知。本研究基于自我面孔识别任务采用功能磁共振成像技术比较成人抑郁症患者抗抑郁治疗前的抑郁发作期和治疗后抑郁缓解或部分缓解期的脑激活变化。

方法 成人抑郁发作组(n=59)（符合精神障碍诊断与统计手册(SCID-5)重性抑郁障碍的诊断标准,且HAMD-17≥17 分)，成人抑郁缓解/部分缓解状态组(n=33)（符合精神障碍诊断与统计手册(SCID-5)重性抑郁障碍的诊断标准，目前为完全缓解或部分缓解，且HAMD 介于 0-15 分)和健康对照组(n=36)在任务态功能磁共振扫描过程中进行自我面孔识别任务。自我面孔识别任务范式采用 Block 设计，包括的图像有自我中性面孔，他人中性面孔，他人厌恶面孔，空白背景图。统计分析基于 MATLAB 的 spm 软件进行多因素方差分析 3 组（抑郁发作状态组，抑郁缓解/部分缓解状态组，正常组）× 3 刺激水平（自我中性面孔 vs 空白背景图，自我中性面孔 vs 他人中性面孔，自我中性面孔 vs 他人厌恶面孔）的脑激活信号值变化的比较分析。

结果 多因素方差分析显示诊断分组与任务刺激水平在左侧枕叶、左侧梭状回存在显著交互作用。在自我中性面孔 vs 空白背景图的任务刺激水平下，诊断分组的简单效应显示，与健康对照组相比，抑郁发作状态组与抑郁缓解/部分缓解状态组在双侧枕叶、双侧梭状回脑区的脑激活均存在显著性降低，抑郁发作状态组与抑郁缓解/部分缓解状态组之间没有显著性差异。在自我中性面孔 vs 他人中性面孔的任务刺激水平下，诊断分组的简单效应显示，与抑郁缓解/部分缓解状态组和正常对照组相比，抑郁发作状态组在右侧额下回、右侧岛叶存在显著的脑激活下降，而抑郁缓解/部分缓解状态组与正常对照组之间的脑激活无显著性差异。

结论 自我面孔识别任务下，成人抑郁症患者在治疗前后均存在视觉皮层、梭状回的脑激活下降；抗抑郁药物治疗可改善抑郁症患者右侧额下回、右侧岛叶的脑激活。研究结果提示，视觉皮层、梭状回脑激活下降可能与抑郁症自我参照认知异常的神经病理基础有关，是抑郁症神经影像学异常的素质标记；抑郁症患者右侧额下回、右侧岛叶的脑激活下降可能是抑郁症的神经影像状态标记。

关键字：抑郁症； 任务态功能磁共振成像；自我面孔识别； 梭状回；视觉皮层

结节性硬化复合体基因多态性与精神分裂症的关联研究

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目的 哺乳动物雷帕霉素靶蛋白信号通路调控蛋白翻译，参与细胞生长、增殖，与突触可塑性密切相关，结节性硬化复合体 1（Tuberous Sclerosis complex，TSC1）和 TSC2 是该通路中的重要调节因子，本研究探讨 TSC1、TSC2 基因多态性与精神分裂症的关系。

方法 纳入 933 例精神分裂症患者和 1339 例健康对照，用 SNaPshot 技术对 TSC1、TSC2 基因的标签 SNP 进行基因分型，比较病例组和对照组间的等位基因、基因型的分布频率有无差异。用 SYBR Green 实时定量 PCR 检测 53 例精神分裂症患者和 53 例健康对照外周血中 TSC1、TSC2 的 mRNA 表达水平。

结果 精神分裂症患者组 TSC2 基因 rs2074969-A 等位基因的频率低于健康对照组（13.1% vs 16.0%，P=0.006，OR=0.79，95%CI：0.67-0.94），经 Bonferroni 校正后差异有显著性（校正 P=0.006×6=0.036<0.05）。rs2074969-A 等位基因携带患者（AG+AA）的 TSC2 基因的 mRNA 表达量显著低于 GG 基因型患者（P=0.004）。

结论 rs2074969（TSC2）基因多态与 TSC2 基因

表达及精神分裂症患病风险有关。

关键字：精神分裂症 结节性硬化复合体 单核苷酸多态性 关联研究 基因表达

Relationship between Implicit and Explicit Memory and Childhood Traumatic Experiences of First-degree Relatives in Patients with Obsessive-compulsive Disorder

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Objective To explore the correlation between childhood trauma characteristics of first-degree relatives (father or mother) of patients with obsessive-compulsive disorder (OCD) and implicit、 explicit memory.

Methods Sixty OCD patients and their first-degree relatives were included. Childhood trauma experience was assessed using the childhood Trauma questionnaire-short form (CTQ-SF).The Yale-Brown scale for obsessive-compulsive symptoms (Y-BOCS) evaluates the severity of compulsive symptoms in patients. The childhood trauma questionnaire-short form (CTQ-SF) assessed the childhood traumatic experiences of first-degree relatives (father or mother).The adult attachment scale (AAS) assesses the type of attachment of a first-degree relative (father or mother). Word perception speed test task and word recognition task were used to test the response time and accuracy of implicit memory and explicit memory. SPSS 22.0 was used for statistical analysis to compare the correlation between obsessive-compulsive symptoms, implicit memory, explicit memory and childhood trauma characteristics of first-degree relatives in patients with obsessive-compulsive disorder.

Results The accuracy of implicit memory response in OCD patients was negatively correlated with the scores of physical neglect [(9.18±2.801)] and physical abuse [(6.05±1.707)] of first-degree relatives (father or mother) [(r=-0.260, $p < 0.05$); (r= -0.417, $p < 0.01$)]. The obsessive-thinking [(11.08±4.784)] score of OCD patients was negatively correlated with the dependency subscale score of first-degree relatives (paternal or maternal) AAS [(19.07±3.568)] [(r=-0.318, $P < 0.05$)].

Conclusion The accuracy of implicit memory response in patients with obsessive-compulsive disorder is related to childhood traumatic experiences of first-degree relatives (father or mother), especially physical abuse and neglect of first-degree relatives (father or mother).

关键字：obsessive-compulsive disorder，implicit and explicit memory，childhood traumatic experiences

血清泌乳素对老年精神分裂症患者骨密度影响的相关研究

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目的 本研究拟收集老年精神分裂症患者，充分纳入和骨质疏松相关因素，尤其患者用药情况，拟探讨高泌乳素血症对老年精神分裂症患者骨密度的影响，并进一步探索抗精神病药物与其相关的因素，以指导临床用药。

方法 将南京脑科医院精神科≥60 岁且已完善骨密度测定以及泌乳素测定的精神分裂症患者作为研究对象，入组标准： 符合国际疾病分类精神与行为障碍（ICD-10）中精神分裂症诊断标准；排除标准：家族中无遗传性骨代谢系统疾病史； 进食障碍、酒精滥用或依赖；长期服用糖皮质激素、维生素 D、降钙素、二磷酸盐、钙剂等药物者；长期卧床或乘坐轮椅。HPRL(hyperprolactinemia ）诊断标准：女性血清（PRL)>25ng/ml，男性血清 PRL≥20ng/ml。将研究对象中 PRL 水平满足诊断标准则诊断为 HPRL。将满足 HPRL 诊断标准的老年精神分裂症患者（n=31）归为 HPRL 组；将不满足 HPRL 诊断标准的老年精神分裂症患者（n=33）归为对照组。使用 SPSS 22.0 对数据进行统计分析。采用方差分析比较高泌乳素血症组和正常泌乳素组精神分裂症患者之间骨密度的差异；采用单因素回归分析和多元逐步线性回归分析探索骨密度可能的影响因素。

结果 实验组 BMD 与 BMI 呈正相关，与年龄、PRL 呈负相关。多因素线性回归分析显示，年龄、BMI、HPRL 是影响 BMD 的独立相关因素，且骨密度和催乳素水平显著负相关(P〈0.05)。

结论 高泌乳素血症是抗精神病药物的常见不良反应，可降低老年精神分裂症患者骨密度。抗精神病药所引起的高泌乳素血症与骨密度减少、骨质疏松症的发生有关。在老年精神分裂症患者使用抗精神病药物治疗的同时，需注意泌乳素、骨密度检测，必要时采用降泌乳素及改善骨质疏松等对症治疗。

关键字：高泌乳素；老年精神分裂症患者；骨密度；骨质疏松

抑郁症患者自杀意念和自杀未遂的大脑局部一致性差异：一项基于静息态功能磁共振的研究

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目的 自杀包括自杀意念、自杀未遂和自杀死亡。自杀多发生在抑郁症患者中，因此确定抑郁症患者自杀意念和行为相关风险的生物标志物是降低自杀死亡率的关键。

方法 本研究依据抑郁症患者入组前两周内有无自杀未遂行为和意念分为自杀未遂组（Suicidal attempts，SA）、自杀意念组（Suicidal ideation，SI）和疾病对照组（Depression control，DC），并招募与研究组年龄等相匹配的健康对照组（Health control，HC 组）。

使用汉密尔顿抑郁量表（Hamilton Depression Scale，HAMD-17）、自杀意念量表（Scale for Suicide Ideation，SSI）评估患者抑郁和自杀症状。对静息态功能磁共振图像进行局部一致性（Regional homogeneity，ReHo）分析，并采用置换检验（Permutation Test，PT）随机重复 5000 次，结合无阈值族群增强（Threshold-Free Cluster Enhancement，TFCE）的方法进行多重比较校正。并与临床心理评估量表评分进行相关性分析。

结果 纳入 SA 组 30 例、SI 组 33 例、DC 组 41 例、HC 组 36 例。四组被试在年龄、性别、受教育年限和药物使用等方面均无统计学差异。DC、SI 和 SA 组三组在 HAMD-17 总分（F=46.015，P＜0.001）、认知障碍因子（F=132.374，P＜0.001）、阻滞因子（F=32.971，P＜0.001）、睡眠障碍因子（F=9.026，P＜0.001）组间比较存在统计学差异。SA 组 SSI 总分显著高于 SI 组（t=-5.370，P＜0.001）。ReHo 结果显示，四组在右侧岛叶及颞横回（F=12.311，P＜0.05）、左侧中央后回（F=8.353，P＜0.05）、右侧中央后回的 ReHo 值（F=7.543，P＜0.05）、左侧中央后回及顶下缘角回（F=9.592，P＜0.05）存在显著差异。SA 仅在右侧中央后回的 ReHo 值较 SI 显著降低并存在统计学差异（P＜0.05）。SA 组右侧中央后回的 ReHo 值与 SSI 评分呈负相关（r=-0.745，P＜0.001）。

结论 抑郁症自杀未遂与意念和无自杀症状的抑郁症相比在右侧中央后回的局部一致性减弱，这可能是区别抑郁症自杀未遂和意念的潜在生物学标志物。

关键字：抑郁症，自杀意念，自杀未遂，静息态功能磁共振，局部一致性（Regional homogeneity，ReHo）

功能近红外脑成像应用于儿童精神障碍性疾病的研究进展

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目的 儿童精神障碍性疾病发病率及疾病负担逐渐升高。常见儿童精神障碍性疾病除了精神分裂症、抑郁障碍、焦虑障碍等同时常见于成年人的精神疾病以外，还包括一些特发于儿童期者，如注意缺陷多动障碍、孤独症谱系障碍等。儿童精神障碍性疾病因识别率低、治愈率低给患儿、家庭及整个社会带来了严重负担。现阶段儿童精神障碍性疾病病因和发病机制迄今不明确，症状缺乏特异性，诊断一致性较低，给患儿早期诊断和规范化干预工作带来极大的困难。功能近红外脑成像是一种非侵入性、无痛的新兴的神经成像技术，广泛应用于神经病学与精神病学的辅助诊断等领域，如抑郁症、脑卒中等疾病。近年来，不少学者已经将其应用于儿童精神障碍性疾病(如注意力缺陷多动障碍、孤独症谱系障碍)的研究。本综述以期为儿童精神障碍性疾病患者辅助诊断提供依据。

方法 本综述基于近年来国内外相关临床指南，结合近年来国内外对功能近红外脑成像在儿童精神障碍性疾病中的研究做一系统综述，总结功能近红外脑成像应用于儿童精神障碍性疾病的研究进展。

结果 功能近红外脑成像应用对儿童精神障碍性疾病早期识别、诊断、评估、治疗、疗效评估及预后预测提供依据有重大意义，可作为一种安全的新兴得技术供临床选择，但必须是遵守安全指南的前提下且结合患者具体情况。

结论 功能近红外脑成像可进一步研究儿童精神障碍性疾病与脑机制之间的关系，并用于指导和优化临床治疗及后续康复方案，同时应根据患者症状加以不同的有针对性的临床应用。

关键字：功能近红外脑成像 儿童精神障碍性疾病 早期诊断 早期干预

谷氨酸通路基因与快感缺失症状的关联研究

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目的 快感缺失是精神分裂症（schizophrenia，SZ）阴性症状的主要症状，同时也是重型抑郁障碍（major depression disorders，MDD）的核心症状。目前其发生机制仍不清楚，谷氨酸能系统可能参与快感缺失的病理生理机制。本研究探讨快感缺失症状与 N-甲基 D-天冬氨酸受体（N-methyl D-aspartate receptor，NMDAR）通路基因的关联。

方法 纳入 279 例 SZ 患者，236 例 MDD 患者及 236 例健康对照（healthy control，HC）。采用时间性愉快体验量表中文版（Temporal Experience of Pleasure Scale, TEPS），Chapman 社会快感缺失量表（The Chapman Revised Social Anhedonia Scale，CSAS）和躯体快感缺失量表（The Chapman Revised Physical Anhedonia Scale，CPAS）评估愉快体验能力。选取 NMDAR 通路的 NOS1AP，GSK3B，DAOA，DISC1 及 GRIN2A 基因的 17 个 SNP 位点进行基因分型，采用广义多因子降维法（generalized multifactor dimensionality reduction，GMDR）（version 1.0）分析基因交互作用对快感缺失症状的影响。

结果 SZ 与 MDD 患者的期待性和即时性愉悦体验显著低于 HC，MDD 患者期待性愉快体验显著低于 SZ 患者，而 SZ 与 MDD 两组间在即时性愉快体验上无显著差异。GMDR 分析发现由 DAOA-rs3916965 与 DISC1-rs821577 组成的 2 位点模型对 SZ 患者总体愉悦体验能力具有预测作用；由 NOS1AP-rs1858232 和 GRIN2A-rs1014531 组成的 2 位点模型可以预测 MDD 患者期待性愉悦体验；SZ 和 MDD 高风险组愉快体验能力显著低于低风险组。

结论 NMDAR 通路基因-基因交互作用可能参与快感缺失症状的发生。

关键字：精神分裂症；重性抑郁障碍；快感缺失；NMDAR 通路基因

Retinal Structure and Function As Potential Biological Markers in Major Depressive Disorder: A Scoping Review

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Objective Anatomically and developmentally, the retina is considered to be an extension of the central nervous system and has the opportunity to break through the bottleneck in psychiatry medicine research as a specific biomarker. This article summarizes the related studies on retinal structure or function as potential biomarkers of major depressive disorder (MDD), to clarify the pathophysiological mechanisms of MDD and provide theoretical references for developing or improving objective examination methods.

Methods We searched PubMed, Embase, APA PsycInfo, Web of Science, Ovid, ProQuest, CNKI, Wanfang Database, CBM, VIP, and other databases based on the scoping review methodology framework up to June 2023. Two researchers independently screened the literature and summarized the application status of objective instruments for retinal in MDD patients as well as the correlations between the retina markers and MDD.

Results A total of 19 articles were eligible, including 14 case-control studies, 1 cohort study, 1 longitudinal study, 1 cross-sectional study, and 2 systematic reviews. Twelve studies analyzed the correlation between the markers of MDD and retinal structures such as central macular thickness, and nerve fiber layer thickness measured by OCT. Seven studies examined retinal function based on visual electrophysiology such as electroretinogram and visual evoked potential. The results showed that retinal function could be used as a potential biomarker for MDD even in the early stage of the disease risk trajectory. Some studies also used mixed applications of multiple examination tools.

Conclusion The characteristics of the retinal structure have been confirmed to be associated with MDD, but it is prone to dynamic changes with age stratification, different medication types, and disease severity. There are few studies on retinal function characteristics as potential biomarkers of MDD, especially lack of the safe, unified, and standardized examination methods. Future studies should explore the feasibility of combining retinal structure and function as MDD biomarkers deeply, and find out the optimal combination of various tools.

关键字：Major depressive disorder; Retinal; Biomarkers; Scoping review

The Therapeutic Effect and Mechanism of Repetitive Transcranial Magnetic Stimulation on Children with ADHD Dyslexia：A Protocol

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Objective Evidences have demonstrated that 20%-40% of children with attention deficit hyperactivity (ADHD) suffer from dyslexia simultaneously, which seriously reduces their ability in reading, writing and language expression, resulting in a decline in their overall academic performance, and psychosocial problems. Repetitive transcranial magnetic stimulation (rTMS), as a safe and effective physical therapy, have been widely used in improving symptoms of attention and behavior in patients with ADHD, but there are only few reports on the clinical efficacy of dyslexia.

Methods This study was designed to observe the improvement of dyslexia in ADHD children before and after rTMS treatment, and explore its mechanism through the changes of N400 brain evoked potential waveforms. It aimed to provide feasible guarantee for further expanding the application of rTMS in the field of children's mental health and the effective development of precision treatment for dyslexia in children with ADHD.

Results Overall, 30 patients with ADHD and 30 healthy children will be recruited into case and control groups in this study. Prior to the commencement of treatment, the SNAP-IV, Dyslexia Checklist for Chinese Children (DCCC) and Chinese Reading Skill Diagnostic Test (CRSDT) will be used as assessment tools to evaluate clinical symptoms and reading ability. Over a 4-week period, patients and health controls will receive the true rTMS and pseudo rTMS respectively, and SNAP-IV, DCCC and CRSDT will be applied to evaluate the effects before treatment (baseline) and after treatment. Moreover, the event-related potential N400 waveform of the case group will be collected before and after treatment.

Conclusion This study will analyze the applicability and effectiveness of rTMS in ADHD children with dyslexia by horizontally comparing the improvement of reading ability in case group and control group, as well as longitudinally comparing the improvement of clinical symptoms and reading ability of the participants in case group. Additionally, the mechanism of the action of rTMS in the treatment of dyslexia was also explored by further analysis of N400 waveform changes.

关键字：ADHD; rTMS; dyslexia; efficacy; mechanism

A Decision Tree Model for Detecting High-risk Factors of Sleep Disorder Among Community-dwelling Elderly Residents From PCHSIs

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Objective Difficulties with sleep and disruptions to circadian rhythms in the elderly population are getting

worse and significant as the global population ages. However, caregivers in aged families and professions in medical institutions are more likely to confront patients with sleep disorder, but lack effective methods/tools to identify risk factors and formulate intervention measures.

Methods Overall, 656 participants were enrolled from 6 primary community health services institutions (PCHSIs). After implementing descriptive statistics, t-test and bivariate logistic regression analyses, the model of sleep disorders among the elderly community-dwelling residents were built employing decision tree method.

Results In total, 35.52% (233/656) participants from PCHSIs have been screened with sleep disorders. There were seven risk factors (sex, negative life events, psychological resilience, irrational belief, personality, satisfaction with the income and frequency of physical activity participation) with fewer branches were used in this decision tree model. The sensitivity, specificity, positive predictive value, negative predictive value, and area under the curve (AUC) for detecting sleep disorder among the elderly community-dwelling residents were78.46%, 63.64%, 80.95%, 60.00%, 0.769 (95% CI: 0.731-0.808), respectively.

Conclusion Findings further indicate that sleep disorder has become a significant problem among the elderly population. Subjects with high risk of sleep disorders had significantly higher level of negative life events, irrational belief, but lower satisfaction with the income, psychological resilience and less physical activity. This simple decision tree model will help the elderly and their caregivers assessing the risk of sleep disorder easily and formulate targeted and effective intervention measures.

关键字：sleep disorders; elderly; community; primary community health services institutions

Age of Onset for Major Depressive Disorder and Its Association with Symptomatology and Metabolism

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Objective Few studies have investigated the effect of age of onset (AOO) on clinical features of patients with Major depressive disorder (MDD) and explore its potential influencing factors. Therefore, our study compared the clinical features, endocrine metabolism and neurometabolism of MDD patients with different AOO, and explored the underlying mechanisms for AOO of MDD.

Methods In present study, 200 drug-na?ve patients with MDD, aged between 18 and 60, were included and divided into three groups according to AOO: the adolescence onset group (AO, age 10-17, n=55), the early adulthood onset group (EAO, age 18-29, n=79), the late adulthood onset group (LAO, age 30-60, n=66). After recruitment, all participants were evaluated to record their clinical features. Peripheral blood was collected to detect thyroid function and trace elements of all patients. Additionally, all subjects underwent protons magnetic resonance spectroscopy (1H-MRS) to collect neurometabolic ratios of N-acetyl aspartate (NAA) and choline-containing compounds (Cho) to creatine (Cr) in prefrontal cortex (PFC) and thalamus. Finally, differences of metabolite levels were calculated and multivariate analysis was adopted to explore the influencing factors for AOO of MDD.

Results In terms of symptom dimension, except for the somatization of anxiety (p=0.049), there were no significant differences between the three AOO groups in the remaining six factors scores of 24-item Hamilton Depression Rating Scale (HDRS-24), but severity of depression was higher in LAO patients than in EAO patients. AO patients with MDD showed more depressive episodes, longer duration of illness, and a greater incidence of suicidal ideation (all $p<0.05$). Both AO and EAO patients showed elevated triiodothyronine level than LAO (all $p<0.001$), while only EAO showed higher thyroid stimulating hormone than LAO (p=0.045). In addition, LAO patients exhibited lower phosphorus levels and higher ceruloplasmin levels compared to the other two groups (all $p<0.001$), while EAO was higher than LAO in the comparison of blood zinc level (p=0.011). In the aspect of neurometabolic levels, the NAA/Cr ratio of AO and EAO groups in right PFC and bilateral thalamus were higher than that in LAO group ($p<0.001$, p=0.002, $p<0.001$). Furthermore, serum phosphorus, zinc, ceruloplasmin levels and the NAA/Cr ratio of right PFC were closely related to AOO, which may affect the AOO of patients with MDD (all $p<0.05$).

Conclusion MDD patients with earlier AOO showed more complex clinical features such as more depressive episodes, longer duration of illness, and a greater incidence of suicidal ideation, while those with later AOO showed more metabolic disturbances in terms of thyroid function, microelement and neurometabolism. What's more, altered serum trace elements levels and neurometabolic abnormalities in right PFC may be important factors affecting the AOO of MDD patients.

关键字：major depressive disorder; age of onset; thyroid hormone; microelement; neurometabolism

A Controlled Study of The Rehabilitation Effects of Online Mindfulness Interventions in Patients with Anxiety Disorder with Or without Somatization Symptoms at Home During COVID-19

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Objective During community lockdown to prevent the COVID-19, patients with anxiety disorders are unable to seek medical attention in a timely manner and are overly worried about the epidemic, resulting in increased anxiety and somatic symptoms. Mindfulness-application-experts have developed a Online-Mindfulness Based Intervention for Anxiety (EMBIA). The objective of this study was to compare the effects of EMBIA on anxiety disorders with

or without somatization symptoms.

Methods The 800 subjects in this study were recruited and provided EMBIA during 2021-2022. Inclusion criteria: ①Meet the DSM-5 diagnostic criteria for anxiety disorders; ②Age 18-65 years old; ③ High school and above education level; ④No psychiatric drugs were used in the 8 weeks prior to the intervention. Exclusion criteria: ①accompanied by psychotic symptoms or personality disorders; ②history of mental disorders that meet the diagnostic criteria for other disorders in the DSM-5; ③Have serious physical diseases and are in an unstable period; ④ Have alcohol, drug or Internet addiction. The EMBIA intervention lasts for 10 weeks and consists of 2 hours session each, as well as approximately 20-30 minutes practise a day after class. GAD-7, PHQ-9 and PHQ-15 were used to evaluate anxiety, depression and somatization before and after the intervention. The amount of intervention was counted, such as the number of classes and exercises after class, etc.

Results Finally, 800 subjects in 673 to complete all 10 weeks intervention. There were 125 males (18.6%) and 548 females (81.4%). The age mean±standard was 46.63±9.99 year. Before and after intervention, the GAD-7 scores were 10.78±3.97 and 5.68±3.79 (t value 29.78, P=0.000), and the PHQ-9 scores were 9.01±4.60 and 5.52±3.87 (t value 17.29, P=0.000), respectively. P=0.000) and PHQ-15 scores were 11.06±4.72 and 7.50±4.40, respectively (t value 19.41, P=0.000). Before and after the intervention, anxiety improved in 219 (32.5%), and cured in 285 (42.3%). A paired t-test was performed between 224 subjects with PHQ-15 score ≤9 and 147 subjects with PHQ-15 score ≥15 was found that both groups of subjects had improved GAD-7, and there was no significant difference(t=-0.553, p=0.581). Pearson correlation test was conducted between The Times of class and The Times of after-class practice punching and the score reduction rate of the three psychological indicators. It was found that The Times of class had no correlation with the score reduction rate of the three indicators of GAD-7, PHQ-9 and PHQ-15, but the number of after-class practice punching was correlated with the score reduction rate of GAD-7.

Conclusion EMBIA courses can be helpful for people with anxiety disorders who are not taking medication. Improvements in anxiety disorders were similar regardless of whether somatization symptoms were present. The frequency of practice after class was positively correlated with the improvement of anxiety.

关键字：Mindfulness; Anxiety; Depression; Somatization; COVID-19

Whole-exome Sequencing in A Multiplex Bipolar Disorder Family Identifies TIMELESS As A Risk Gene

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Objective Bipolar disorder (BD) is a common, complex, and heritable psychiatric disorder characterized by episodes of severe mood swings. The contribution of both common and rare risk variants to the genetic architecture of BD has been documented in whole exome and whole genome sequencing approaches. Genome-wide association studies have identified multiple variants that can contribute to the disease, but few of these risk variants or genes can be repeated and their mechanisms are not completely clear. Less work has been undertaken to assess the contribution of rare variants in the development of this complex disorder. Due to the high heterogeneity and segregation of BD between different families, there is an urgent need to identify highly penetrant rare variants through multiply affected family. In this study, we aimed at identification of rare, penetrant risk variants utilizing whole exome sequencing (WES) in a three-generation Chinese family with multiple members affected with BD.

Methods WES was performed on a density Chinese BD family with four individuals affected BD and three healthy family members. The analyses focused on i) the identification of rare, damaging variation, and ii) the molecular function in which these rare variants play a role using several in silico prediction tools. Sanger sequencing was conducted to confirm the segregation. Finally, protein structure was performed to evaluate the effect of the detected variants.

Results Filtered data from WES according to the candidate variants prioritized strategy, combined with in silico analyses, we revealed two novel rare and potentially damaging frameshift variants (rs574933916, rs531096022) in the gene TIMELESS. Sanger sequencing validated the segregation. The two variants were shared by four affected individuals but were absent in unaffected members. These two insertion variants were located in an evolutionary conserved position and predicted to be damaging to protein coding by different prediction tools. TIMELESS plays an important role in the DNA replication and genome stability and in the regulation of the circadian clock.

Conclusion This study provides an insight of how multiplex affected family used to identify rare variants on risk for disease. The novel rare variants identified in TIMELESS further deepen our understanding of mutation spectrum and provide additional evidence to the role of TIMELESS in causation of BD. Future work in larger samples is needed to fully investigate the role of the TIMELESS in BD.

关键字：Bipolar Disorder, Whole-exome sequencing, Sanger sequence, frameshift variants, TIMELESS

产前抑郁筛查量表的编制与初步验证

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目的 编制产前抑郁筛查量表（prenatal depression screening scale,PDSS）用于产前抑郁的筛查，为临床及科研提供更好的测评产前抑郁的工具；初步验证产前

抑郁筛查量表，探索影响孕妇产前抑郁的因素。

方法 (1）以 DSM-5 和 ICD-11 中抑郁障碍诊断标准以及各类抑郁自评量表为理论基础，检索大量产前抑郁相关文献，并与孕妇进行结构化访谈，建立条目池。(2）专家咨询后，根据专家意见进行条目的删减和修改。(3）在产科门诊选取孕妇进行预调查，对问卷的用词采取了通俗化处理，并进一步删除不适宜孕妇回答的条目，初步形成量表。(4）采用方便抽样的方法在产科门诊进行正式调查。(5）用 SPSS 和 Amos 对量表做统计学分析，最终正式确定量表。(6）采用一般情况调查量表、PDSS、EPDS、Beck、PHQ-9、HAMD 对孕妇进行调查，探讨影响 PDSS 得分因素，并绘制各量表 ROC 曲线，比较 AUC，结合临床实践，选出最适宜孕妇群体的抑郁评价量表。

结果 (1)专家咨询：积极度为 100%，Cr 为 0.810。（2）经过各种条目分析以及探索性因子分析，各条目因子负荷量均大于 0.4，总体累计方差贡献率为 65.408%。量表总克隆巴赫 α 系数为 0.924，重测信度为 0.880，分半信度为 0.873，信度良好。验证性因子分析显示 x/df=1.461，RMSEA=0.064，CFI=0.920，GFI=0.869，TLI=0.901，IFI=0.923，拟合指标均达标。（3）以患者的一般情况为自变量，PDSS 总分作为因变量，分别做单因素方差分析。统计学上有显著性差异的是“家庭月收入”、“个人收入”、“计划妊娠及期待值”、“妊娠期间合并症/并发症”、“抑郁症病史”、“经前烦躁史”、“分娩医疗保险”、“痛经史”。(4）ROC 曲线分析中 EPDS 曲线下面积为 0.864，PHQ-9 为 0.871,Beck 为 0.907，PDSS 为 0.877。

结论 （1）编制《产前抑郁筛查量表》符合量表编制基本流程，信效度均达标，可以用于产前抑郁的筛查。(2）孕妇在妊娠期间多感到思维没有以前敏捷、易怒、易焦虑、睡眠质量下降。(3）经济水平、妊娠期间合并症/并发症、抑郁症病史、经前烦躁史、痛经史是产前抑郁的影响因素。(4）与 EPDS、HAMD、PHQ-9、Beck 相比，本量表更适用于孕妇产前抑郁筛查。

关键字：产前抑郁；抑郁量表；围产期心理健康

基于网络的产前正念干预对围产期女性产后抑郁预防的有效性研究

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目的 本研究初步建立一套基于互联网的产前正念干预方案，并探讨该干预方案对产后抑郁的预防效果，以期降低围产期女性罹患产后抑郁的风险，也为产后抑郁的防治奠定理论基础。

方法 选取 2021 年 12 月-2022 年 10 月在中国医科大学附属第一医院产科门诊进行常规产检、自愿接受干预的孕晚期女性作为研究对象，采用随机数表法将其随机分入干预组和对照组，两组各 50 例。对照组接受常规产检和健康教育，干预组在对照组的基础上接受基于网络的产前正念干预措施。在干预开始之前和产后 4 周采用 EPDS、GAD-7、PSS、PSQI、FFMQ 分别评估两组研究对象产后抑郁、焦虑、知觉压力、睡眠质量和正念水平等方面的变化情况。

结果 干预前后，干预组和对照组在健康情况调查表、EPDS、GAD-7、PSS、PSQI、FFMQ 中得分的差异均没有统计学意义（P＞0.05），而实施干预后干预组 FFMQ 总分明显高于对照组（P＜0.05），说明干预组正念水平较对照组有显著改善；干预组新发 8 例（19.0%），对照组新发 20 例（44.4%），比较两组发病率具有统计学意义（P＜0.05），干预前后干预组 EPDS 得分比较差异有统计学意义（P＜0.05），而对照组无明显统计学差别（P＞0.05），表明干预组抑郁水平明显改善；干预组 GAD-7 得分比较差异有统计学意义（P＜0.05），而对照组没有明显的统计学差别（P＞0.05），说明通过实施正念干预，干预组焦虑水平显著改善；干预前后 PSS 得分比较差异均有统计学意义（P＜0.05），说明干预组知觉压力水平较对照组有明显改变；两组干预前后 PSQI 得分比较差异均无统计学意义（P＞0.05），提示正念干预对孕妇产后睡眠质量没有显著改善；干预组在 4 周干预后 FFMQ 总分及描述、觉知地行动维度差异具有统计学意义（P＜0.05），观察、不判断、不行动维度没有明显改变，而对照组 FFMQ 总分及各个维度均未有显著变化（P＞0.05），表明经正念情绪管理干预后，干预组孕妇正念水平有明显提高，以描述和觉知地行动维度为主。

结论 本研究发现基于网络的产前正念干预对于改善产后焦虑、知觉压力、以及提升正念水平有积极作用，提示临床心理健康教育可以通过实施产前正念干预措施，从而帮助围产期女性预防产后抑郁的发生和产后负性情绪的出现

关键字：围产期；产后抑郁；正念干预

经颅磁刺激治疗伴快感缺失抑郁症患者的功能近红外脑成像研究

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目的 抑郁症是以情绪低落为主要表现的疾病，快感缺失作为抑郁症的核心症状之一。爆发式丛状刺激(TBS)是经颅磁刺激治疗的新型治疗模式，因其刺激时间短、可多次重复治疗等优势逐渐成为新的治疗方案。本研究采用双侧 TBS（biTBS：左侧 iTBS 治疗，右侧 cTBS 治疗）分别作用于背外侧前额叶及眶额叶两个不同位点对抑郁症快感缺失患者进行治疗，观察 biTBS 治疗患者快感缺失及其他抑郁症状的疗效，对比不同靶点对于快感缺失和其他抑郁症状是否存在疗效差异，使用近红外脑功能检测对比治疗前后抑郁患者前额叶激活程度的改变。

方法 收集昆明医科大学第一附属医院精神科就诊的抑郁症伴快感缺失患者，将他们分为三组进行 biTBS 治疗，第一组以左右背外侧前额叶为靶点（DLPFC 组)；第二组以左右眶额叶为靶点（OFC 组)；

第三组以左右眶额皮层为靶点的伪 TBS 治疗（shamOFC 组）。收集与抑郁组患者相匹配的健康对照组（HC 组）。所有抑郁组患者治疗前、治疗第 5 天和治疗结束分别进行 17 项汉密尔顿抑郁量表、斯奈思-汉密尔顿快感量表评估患者疾病严重程度。在治疗前中后期分别使用近红外脑功能检测评估患者在语言流畅度任务（VFT）下前额叶的血红蛋白的浓度及分布。

结果 1.OFC 组和 DLPFC 组治疗后 HAMD 及 SHAPS 评分均低于 shamOFC 组差异有统计学意义（P＜0.05），DLPFC 组与 OFC 组治疗后分数无明显差异（P＞0.05），随着治疗时间的延长 HAMD 分数都存在不同程度的减低（P＜0.05）。2.近红外检测结果显示基线时 MDD 组与 HC 组相比，MDD 组的前额叶氧合动力曲线整体偏低平，OFC 组和 DLPFC 组经过 biTBS 治疗后右侧的氧合动力曲线较较治疗前明显降低，双侧前额叶较治疗前激活减弱，其中右侧更明显。

结论 1.相较于假刺激组，biTBS 辅助药物治疗对 MDD 患者的抑郁症状和快感缺失的治疗有效，OFC 组与 DLPFC 组疗效相近，可作为一个潜在治疗靶点。2.VFT 任务下抑郁患者在抑郁发作期间与健康对照相比存在广泛的双侧前额叶激活程度减低。3.biTBS 可能会造成双侧前额叶的激活程度下降，抑郁症状的改善可能和右侧 DLPFC 的部分脑区的氧合血红蛋白浓度呈负相关。

关键字：抑郁症；快感缺失；经颅磁刺激治疗；近红外脑功能检测

首次躁狂发作和首次抑郁发作患者血清甲状腺激素水平的比较

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目的 探究首发躁狂患者和首发抑郁障碍患者外周学甲状腺激素水平差异，及其与疾病的相关性。

方法 纳入 2022 年 8 月——2022 年 10 月于南京脑科医院精神科住院患者，其中首发躁狂患者 30 例（既往无抑郁发作史）和首发抑郁患者 33 例（既往无躁狂发作）的数据进行回顾性分析。卡方检验被用于比较首次发作的双相情感障碍和首次发作的抑郁障碍患者的性别、是否吸烟和是否饮酒的差异；独立样本 t 检验被用于比较两组患者的年龄、BMI、血清 TT3，TT4，FT3，FT4，水平的差异；Mann-Whitney U 被用于比较两组患者的血清 TSH 水平的差异；以血清 TT3，TT4，FT3，FT4，TSH 为因变量，通过二元逻辑回归探究入组被试的诊断和甲状腺激素水平的相关性。

结果 本研究共入组 63 名被试，所有被试甲状腺激素水平均在临床界定的正常范围内且无甲状腺相关疾病。两组基本资料比较中，性别（?2=0.09，df=1，p=0.923）、吸烟史（?2=0.55，df=1，p=0.458）和饮酒史（?2=3.508，df=1，p=0.061）无显著差异。两组的年龄（t=0.86, df=53, p=0.395）、BMI（t=1.10, df=61, p=0.277）也无统计学差异。两组间血清 TT3（t=0.305, df=61, p=0.761），TT4（t=-2.76, df=61, p=0.783），FT3（t=0.387, df=61, p=0.700）无明显差异。但相比于首发抑郁患者（M±SD=16.22±2.61），血清 FT4 表达水平（t=4.627, df=61, p<0.001）在首发躁狂组（M±SD=20.03±3.86）明显更高, Bonferroni 校正（p=0.05/10）后两组间的差异仍然显著；相比于首次发作的抑郁障碍组（M±SD=2.19±1.14），TSH（Z=-2.11, p=0.035）在首发躁狂组（M±SD=1.70±1.08）明显更低, 但 p 值未能通过 Bonferroni 校正（p=0.05/10）。二元逻辑回归显示两组患者的疾病诊断和血清 FT4（B=-0.44，df=1，p<0.001）显著相关，而与 TT3，TT4 和 TSH 无关。

结论 本研究结果表明，首发抑郁患者 FT4 水平明显低于首发躁狂患者，并且首发抑郁和首发躁狂诊断和血清 FT4 表达水平密切相关。

关键字：首发躁狂；首发抑郁；甲状腺激素

运动后 beta 反弹减弱反映重性抑郁障碍患者的精神运动改变：一项脑磁图研究

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目的 精神运动改变是重性抑郁障碍患者的常见症状。初级运动皮质在精神运动改变的机制中起着至关重要的作用。既往研究发现运动异常患者的感觉运动皮层运动后 beta 反弹改变。然而，重性抑郁障碍患者运动后 beta 反弹的变化尚不清楚。本研究旨在探讨重性抑郁障碍患者精神运动改变与运动后 beta 反弹的关系。

方法 共计 132 名受试者包括 65 名健康对照和 67 名重性抑郁障碍患者。患者来自于 2010 年到 2020 南京医科大学附属脑科医院心境障碍科住院诊断为重性抑郁障碍正处于抑郁发作的患者。健康人招募于社区。在脑磁图扫描期间，所有参与者都完成了一项简单的右手视觉运动任务。采用时频分析方法，在源重建水平测量左侧初级运动皮质的运动后 beta 反弹。采用阻滞因子得分和神经认知功能测验，包括数字符号转换测验、连线测验 A 式和言语流利性测验，来评估精神运动表现。采用皮尔逊相关分析评估运动后 beta 反弹与精神运动改变之间的关系。

结果 在所有三项神经认知测试中，患者组的神经认知表现都比对照组差。与对照组相比，患者的运动后 beta 反弹降低。在患者组中，运动后 beta 反弹降低与阻滞因子分呈负相关。此外，运动后 beta 反弹和数字符号转换测验得分之间存在正相关，与言语流利性测验得分呈负相关。

结论 我们的发现提示，初级运动皮质中运动后 beta 反弹的减弱可能是重性抑郁障碍精神运动改变的原因之一，可能与临床精神运动症状和认知功能障碍有关。

关键字：脑磁图；重性抑郁障碍；精神运动改变；

运动后 beta 反弹

精神科专业住院医师规范化培训中如何进行分阶段及分层递进培养

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目的 在日趋完善的住院医师规范化培训计划中，分阶段及分层递进式教学模式充分体现“以学生为主体，以教师为主导”的教学原则，为了更好的进行精神医学的人才培养，探讨分阶段及分层递进教学模式在精神科住院医师规范化培训中的应用进行本研究。

方法 通过计算机检索中国知网（CNKI）、万方数据知识服务平台等数据库，检索时间为 2010 至 2023 年 6 月，检索词为“分层递进”、“分阶段递进”、“精神科”、“住院医师规范化培训”，纳入有效参考文献 35 篇。结合各基地住院医师规范化培训过程中分阶段及分层递进培养的一系列方案和措施，以齐齐哈尔医学院附属第二医院精神科专业基地实践经验为例，紧扣住培“两个标准”，围绕精神科住培教学过程中如何开展分阶段及分层递进的教学模式进行了总结及深入思考。

结果 在住培教学过程中进行分阶段及分层递进教学是各专业基地目前积极推广应用的教学模式，部分基地积极探索在轮转培训计划、培训课程、教学活动、带教和考核等各个环节实施分层递进，不断优化以临床胜任力为导向的住院医师规范化培训模式，逐步提高和完善住院医师的临床胜任力。此种教学模式能科学、有效地提高住院医师培训质量。但在精神科专业基地目前尚无单独针对此种教学模式的探讨及报道，且精神科住培方面的文章数量非常少。

结论 只有因地制宜、因人施教才能取得更好的培训效果，通过分层递进的培养模式能调动学员的学习自主性，加深对学科的认识，从浅到深，从简单到复杂，层层递进地让学员树立临床自信，强化临床思维，巩固临床知识，完善医患沟通。通过以胜任力为导向的分层递进教学，对提高规范化培训质量和水平，具有积极促进作用。本文通过分析其他专业基地的教学经验及结合精神科专业基地教学实践，总结了目前精神科住培过程中从按年级进行分阶段培养方案及在实际教学课程设置、教学目标及要求、轮转科室具体教学活动、带教及考核等多方面分层培养模式进行总结。为能够培养具备六大核心胜任力的优秀精神科医师提供参考依据，以期为全国各家精神科住培基地提供借鉴。

关键字：分阶段递进 分层递进 精神科 住院医师规范化培训

Atypical Antipsychotics Resulting in Self-perceived Hot: A Case Report

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Objective Atypical antipsychotics have complex pharmacological properties. In addition to blocking 5-HT2A and D2 receptors, they also act on other neurotransmitters, such as noradrenaline transporter, M1, M3, H1, α1-adrenergic and α2-adrenergic. Blockade of α1 receptor can lead to adverse cardiovascular reactions such as orthostatic hypotension, dizziness, and sleepines. This paper reports a case of self-perceived hot caused by taking atypical antipsychotic drugs, in order to get clinical attention.

Methods A 31-year-old Han male has been diagnosed with schizophrenia for 6 years due to auditory hallucinations, persecutional delusions, and relational delusions. The patient was hospitalized after the initial onset of the disease. After taking olanzapine 20mg/d, auditory hallucinations and delusions gradually disappeared, but he had irritable temper and felt hot without fever. After discharge, the patient adhered to medication for 6 months and partially recovered his social function. But he discontinued treatment for felt hot. 8 months later, his symptoms relapsed and was hospitalized for a second time, and the drug was adjusted to risperidone 2mg twice a day. The psychotic symptoms were improved, but he still felt hot even lead to poor sleep at night. After discharge, he took medicine regularly under the supervision of their family members and could keep working outside the hospital for 1 years. But he secretly discontinued the medication due to the discomfort of feeling hot again. He relapsed again for the third time, drug adjustment for paliperidone 3mg/d and clozapine 25mg/d. He complained of hot and irritability, and asked to take a cold bath.

Results Aripiprazole 25mg/d and clozapine 25mg/d were prescribed to him. Three days later, the patient was happy that the self-perceived hot disappeared and the mood was no longer irritable. During follow-up after discharge for 6 months, self-conscious hot did not recur and psychotic symptoms were well controlled.

Conclusion To our knowledge, this is the first report of self-perceived hot in patients with atypical antipsychotics. Atypical antipsychotic medications have complex pharmacologic mechanisms, and a review of this patient's history reveals that all previous antipsychotic medications antagonize the α1-adrenergic receptor, which leads to telangiectasis, and this may have been the cause of his felling of fever with normal temperature. Aripiprazole and amisulpride have no α1-adrenergic receptor antagonism, and the absence of fever after switching to aripiprazole supports this finding. This case suggests that when a patient with schizophrenia who is under treatment reports adverse effects of abnormal somatosensory, the antipsychotic medication used by the patient should be reviewed, and a change of medication may be considered to avoid this adverse effect and improve the patient's adherence to treatment.

关键字：Schizophrenia, Atypical antipsychotics,α1-adrenergic receptor

情感忽视和情绪智力对青少年抑郁症非自杀性自伤行为的影响：有调节的中介模型

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目的 探索情感忽视和情绪智力对青少年抑郁症患者非自杀性自伤行为的影响，以及抑郁症状和情绪智力在其中的有调节的中介作用。

方法 纳入174例符合DSM-5诊断标准的青少年抑郁症患者（10-18岁），采用童年创伤问卷(Childhood Trauma Questionnaire, CTQ)、抑郁自评量表(Self-rating Depression Scale, SDS)、青少年自我伤害问卷、情绪智力问卷(Emotional Intelligence Scale, EIS)分别评估患者的情感忽视、抑郁症状、非自杀性自伤行为(Non-suicidal Self-injury, NSSI)和情绪智力。使用皮尔逊相关或斯皮尔曼相关对各量表得分之间的关系进行探查；使用 Hayes 编制的 PROCESS 宏程序进行有调节的中介模型分析；使用简单斜率分析进一步探讨情绪智力如何调节抑郁症状和NSSI的关系。

结果 NSSI的检出率为55.2%（96/174）。情感忽视与 NSSI 呈显著正相关(r=0.40, p<0.001)；情感忽视显著正向预测抑郁症状 (β=0.93, p<0.001)，抑郁症状显著正向预测 NSSI (β=1.01, p<0.001)；情绪智力和抑郁症状的交互项显著负向预测 NSSI(β=-0.03, p<0.001)。简单斜率分析显示，低情绪智力者的抑郁症状对NSSI的预测作用(β=1.58, p<0.001)大于高情绪智力者的抑郁症状对 NSSI 的预测作用(β=0.44, p=0.02)。

结论 青少年抑郁症患者的抑郁症状在情感忽视与NSSI之间起完全中介作用，情绪智力调节了中介模型的后半路径，在抑郁症状对NSSI的影响中起调节作用，随着情绪智力水平的降低，青少年抑郁症患者的抑郁症状严重程度对NSSI的预测作用越来越强。

关键字：青少年抑郁症，非自杀性自伤行为，情感忽视，情绪智力

艾司氯胺酮激活Nrf2抑制炎症反应发挥快速抗抑郁作用

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目的 探讨艾司氯胺酮对LPS所诱导的抑郁样行为的影响及可能机制。

方法 采用脂多糖（LPS）腹腔注射构建诱导抑郁样行为。将40只C57BL/6J小鼠随机分为对照组（Con）、模型+生理盐水组（LPS+Sal）、模型+艾司氯胺酮治疗组（LPS+Es-Ket）和模型+艾司氯胺酮+Nrf2信号通路抑制剂组（LPS+Es-Ket+ML385），每组10只。LPS+Sal组、LPS+Es-Ket组和LPS+Es-Ket+ML385组连续5天腹腔注射LPS（1mg/kg）进行造模，Con组仅注射生理盐水。造模结束后，Con组和LPS+Sal组小鼠均接受10?L/g生理盐水，LPS+Es-Ket组和LPS+Es-Ket+ML385组接受10mg/kg艾司氯胺酮腹腔注射，随后LPS+Es-Ket+ML385组立即接受30 mg/kgML385腹腔注射，24h后依次进行旷场实验、新奇抑制摄食实验、悬尾实验检测各组小鼠抑郁样行为。随后，处死小鼠，分离出前额叶皮层和海马组织，通过Western Blot检测小鼠前额叶皮层和海马组织中Nrf2、IL-1β、TNF-α和iNOS的表达情况。

结果 1.较Con组，LPS+Sal组和LPS+Es-Ket+ML385组旷场运动总距离、中心区运动距离、进入中心区次数、中心区停留时间比均显著降低（P均<0.05）、进食潜伏期和悬尾不动时间增加（P均<0.05）；较LPS+Sal组和LPS+Es-Ket+ML385组，LPS+Es-Ket组旷场运动总距离、中心区运动距离、进入中心区次数、中心区停留时间比均显著增加（P均<0.05）、进食潜伏期和悬尾不动时间减少（P均<0.05）；Con组与LPS+Es-Ket组各行为学指标均无统计学差异（P均＞0.05）。2.较Con组，LPS+Sal组和LPS+Es-Ket+ML385组前额叶皮层和海马组织中Nrf2分子表达下降，IL-1β、TNF-α和iNOS分子表达上调（P均<0.05），LPS+Es-Ket组前额叶皮层和海马组织中Nrf2表达较LPS+Saline组增加，IL-1β、TNF-α和iNOS分子表达下降（P<0.05），Con组与LPS+Es-Ket组上述分子表达均无差异（P>0.05）。

结论 艾司氯胺酮可快速改善LPS所导致的小鼠抑郁样行为，其抗抑郁作用会受到Nrf2通路抑制剂的影响。

关键字：抑郁症；核因子 E2 相关因子 2；炎症；艾斯氯胺酮

马来酸氟伏沙明对伴胃肠道症状的儿童青少年强迫症患者疗效及其肠道菌群的影响研究

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目的 明确伴胃肠道症状的首发未用药儿童青少年强迫症患者肠道菌群的整体结构特征。探究伴胃肠道症状的儿童青少年强迫症患者经马来酸氟伏沙明治疗的临床疗效与安全性。比较伴胃肠道症状的儿童青少年强迫症患者经马来酸氟伏沙明治疗前后肠道菌群变化情况，并寻找出显著差异菌群及其与临床疗效之间的相关性。

方法 1、将2022年1月～2023年1月于本院心理科就诊的30例伴胃肠道症状的儿童青少年强迫症患者作为研究对象，对所有受试者进行相关临床量表的评定，并留取粪便样本。2、给予伴胃肠道症状的首发未用药儿童青少年强迫症患者马来酸氟伏沙明足量治疗12周，于治疗4、8、12周后复测CY-BOCS、HAMD、HAMA、GSRS、TESS以及CGI，完成随访后再次收集粪便样本，并对治疗前后的样本进行16SrRNA测序。

3、通过比较治疗前后患者肠道菌群变化情况以及强迫、焦虑、抑郁等临床症状的严重程度，明确马来酸氟伏沙明对伴胃肠道症状的儿童青少年强迫症患者的临床疗效与安全性，并进一步探讨该药物对伴胃肠道症状的儿童青少年强迫症患者肠道菌群的影响。

结果 1、经马来酸氟伏沙明治疗 12 周后伴胃肠道症状的 OCD 患者（OCD12W）胃肠道症状明显减轻（P < 0.05）。2、 OCD12W 组患者肠道菌群各多样性指数均显著升高（obs，P < 0.05；chao1，P < 0.05；ACE，P < 0.05；shannon，P < 0.05；simpson，P < 0.05）。2、OCD12W 组厚壁菌门 / 拟杆菌门的相对丰度比值（F/B）显著升高（P < 0.001）。3、OCD12W 组患者肠道瘤胃球菌属（Ruminococcus，q＜0.01）、大肠埃希菌-志贺氏菌属（Escherichia-shigella，q＜0.01）等与胃肠道症状相关的菌属的相对丰度显著升高。4、OCD 组各临床参数的变化与肠道菌群中特定细菌的丰度改变之间存在相关性（P＜0.05）。

结论 1、经 12 周马来酸氟伏沙明治疗，首发未用药儿童青少年 OCD 患者胃肠道症状明显改善，肠道菌群多样性显著升高。2、首发未用药儿童青少年 OCD 患者肠道稳态被破坏与瘤胃球菌属（Ruminococcus）等与胃肠道症状密切相关的菌属相对丰度显著降低有关。3、首发未用药儿童青少年 OCD 患者各临床参数的变化与肠道菌群特定物种的丰度改变之间存在关联。

关键字：肠道菌群；强迫症；儿童青少年；马来酸氟伏沙明

基于高通量测序方法的儿童青少年强迫症患者肠道菌群特征分析

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目的 强迫症（obsessive compulsive disorder，OCD）是一种病因未明的致残性精神障碍，其发生发展过程与肠道菌群的关联尚未被完全阐明。本研究旨在通过 16SrRNA 测序和宏基因组学联合分析的方法，为首发未用药儿童青少年强迫症患者是否存在肠道菌群功能紊乱提供直接证据，同时寻找强迫症的潜在生物标志物。

方法 1、本研究首先收集了 49 例首发未用药儿童青少年强迫症患者（OCD）和 42 例年龄、性别与之匹配的健康对照者（HC）的粪便样本，同时对受试者进行随访及各临床参数的评估。2、采用 16S rRNA 测序的方法对 49 例强迫症组（OCD 组）和 42 例健康对照组（HC 组）的粪便样本进行分析。3、利用宏基因组学高通量测序方法基于 Illumina HiSeq 测序平台对 19 例 OCD 及 18 例 HC 受试者的粪便样本进行分析。

结果 1、OCD 患者肠道菌群各多样性指数均显著降低（P < 0.001），同时其微生物互作网络明显弱于 HC 组。2、OCD 组厚壁菌门 / 拟杆菌门的相对丰度比值（F/B）显著降低（P < 0.001）。3、OCD 患者肠道罗姆布茨菌属（Romboutsia，q ＜ 0.01）、光冈菌属（Mitsuokella，q＜0.01）、土孢杆菌属（Terrisporobacter，q＜0.01）等产丁酸盐菌的丰度显著降低。4、随机森林模型识别 30 个特异性菌属作为生物标记物，OCD 组和 HC 组之间的 AUC 为 0.9011。5、OCD 组各临床参数的变化与肠道菌群中特定细菌的丰度改变之间存在相关性（P＜0.05）。

结论 1、首发未用药儿童青少年 OCD 患者肠道菌群的多样性显著降低，且微生物互作网络存在明显缺陷。2、首发未用药儿童青少年 OCD 患者肠道稳态被破坏与罗姆布茨菌属（Romboutsia）等产丁酸盐细菌的相对丰度显著降低有关。3、OCD 组和 HC 组可通过以包特氏菌属（Bordetella）为主的特异性肠道菌群生物标记物进行区分。

关键字：肠道菌群；强迫症；儿童青少年；宏基因组学；

五羟色胺再摄取抑制剂对首发未用药儿童青少年强迫症患者肠道菌群的影响

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目的 强迫症（OCD）是一种以反复持久出现的强迫观念和（或）强迫行为为基本特征的慢性致残性精神障碍。本研究旨在通过 16S rRNA 测序、宏基因组学和代谢组学多组学联合分析的方法，探讨 SSRIs 治疗对首发未用药儿童青少年 OCD 患者肠道菌群结构和功能的影响，为 OCD 的早期诊断和疗效预测提供重要的理论基础。

方法 本研究首先收集了 26 例首发未用药儿童青少年 OCD 患者，对受试者进行随访及各临床参数的评估，并留取粪便样本。利用 16S rRNA 扩增子测序技术、宏基因组高通量测序，并基于超高效液相色谱系统-质谱联用（UHPLS-MS）技术采用代谢组学的方法对 26 例经过 12 周 SSRIs 药物干预的 OCD 患者（OCD12W）肠道菌群粪便样本进行多组学分析，探讨治疗前后（OCD0W-OCD12W）肠道菌群变化特征，并寻找与疗效相关的特异性菌群标记物和可能涉及到的代谢通路。

结果 1、药物干预后强迫症组（OCD12W）肠道菌群各多样性指数与干预前组（OCD0W）相比均无显著性差异（P＞0.05）。2、随机森林模型在治疗有效组（Respond）和无效组（Nonrespond）患者中识别了 13 个特异性菌属作为微生物标志物，其 AUC 为 0.8274。3、OCD0W-OCD12W 组共筛选出 63 个差异代谢物，其中叶酸合成通路（Folate Biosynthesis）的中间产物新喋呤（Neopterin）和墨蝶呤（Sepiapterin）在 OCD12W 组的相对含量显著降低（P <0.05）；延胡索酸（Fumarate）、2-氧代异戊酸（2-oxoisovalerate）、3-脱氢奎尼酸（3-dehydroquinic acid，DHQ）等参与氨基酸生

物合成通路的代谢物显著升高（P <0.05）。

结论 1、短期 SSRIs 治疗可以改善儿童青少年 OCD 患者临床症状，但不能显著改变其肠道菌群的组成和结构。2、OCD 患者对药物干预的疗效也可以通过以丛生放线菌属（Actinospica）为主的特异性生物标记物模型进行预测。3、OCD 患者肠道菌群代谢产物表达存在紊乱，并造成相关代谢通路功能异常，药物治疗可部分恢复。

关键字：强迫症；儿童青少年；宏基因组学；代谢组学；五羟色胺再摄取抑制剂

Anti-Myelin Oligodendrocyte Glycoprotein Antibody-Associated Meningitis with Psychotic Symptoms

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Objective The current study aims to discuss the possible relationship between anti-Myelin Oligodendrocyte Glycoprotein (MOG) antibody-associated meningitis and psychotic symptoms based on a case report.

Methods We report one case of a 31-year-old female presented with headache, fever, thinking rupture, and dissociative amnesia. We summarize all test results of the patient, combining the diagnosis, treatment and clinical effect, to find out the relationship between MOGAD and psychotic symptoms.

Results The patient was diagnosed with viral encephalitis and treated with antiviral therapy for 7 days after lumbar puncture in a local hospital, with the CSF nucleated leukocyte count of 17 × 106/L (reference range: 0–8 × 106/L). She regained consciousness; however, developing new symptoms of splitting of thought and dissociative amnesia. So lumbar puncture was performed again. CSF analysis showed the nucleated leukocyte count decreased to 2 × 106/L. Only pachymeningeal enhancement was observed on T2-weighted FLAIR MRI after gadolinium enhancement, with a disorganized alpha rhythm on EEG. She was treated with sufficient antiviral and anti-psychotics, totally recovered from dissociative amnesia but was discharged for unsatisfactory remission of splitting of thought. This time, anti-MOG IgG antibodies were found in her serum, with a titer of 1:10 (reference range: negative). Thus, she was diagnosed with anti-MOG antibody-associated meningitis and treated with intravenous methylprednisolone therapy. Finally, she recovered totally during the subsequent visit after two weeks. Enhanced MRI showed reduction in pachymeningeal enhancement in the third-month of follow-up.

Conclusion There might be relationship between MOG and psychosis. Firstly, psychotic symptoms may be the main manifestation of anti-MOG antibody-associated meningitis. Secondly, it implied the importance of immunotherapy in the treatment of anti-MOG antibody-associated encephalitis or meningitis with psychotic symptoms. Thirdly, the patient showed pachymeningeal enhancement instead of brain parenchymal lesions. Due to the atypical clinical features and CSF/MRI changes, this rare kind of MOGAD must be considered especially when the patient presents with fever, headache, and mental disorders with meningitis-like image changes. In conclusion, our findings prove the complexity of the clinical manifestations of anti-MOG antibody-associated diseases in patients with psychotic symptoms as the primary or main symptom. Thus, this report may expand our understanding of autoimmune psychosis.

关键字：Psychosis, Myelin oligodendrocyte glycoprotein (MOG), Meningitis, Splitting thoughts, Case report

双相障碍灰质体积和功能连接与电压门控钙离子通道 CACNB2 基因的关联研究

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目的 探索双相障碍（Bipolar Disorder，BD）与健康对照（Health Control，HC）间大脑灰质体积和功能连接的差异，以及电压门控钙离子通道基因 CACNB2 rs11013860 多态性与双相障碍交互作用的大脑灰质体积及大脑功能连接的脑区。

方法 纳入 173 名 BD 患者和 207 名 HC，采集其一般信息、外周血、临床量表评分，通过磁共振成像（MRI）进行大脑结构及功能的检测，用 imLDRTM 法检测 CACNB2 rs11013860 基因多态性。通过 MATLAB2019a、DPABI 等软件对脑影像进行预处理；控制年龄、性别、受教育年限及大脑体积等协变量，分析两组受试者脑灰质体积(grey matter volume，GMV)、功能连接指标度中心（Degree Centrality，DC）的差异；应用 SPM12 分析诊断与 rs11013860 基因型对 GMV、DC 的交互作用。将 volex 水平 P<0.005，cluster 水平（FDR 校正）P<0.05 定义为有统计学差异。

结果 与 HC 组相比，BD 组双侧梭状回/前扣带回/扣带旁回/内侧额上回/眶内侧额上回/舌回/小脑前后叶、海马旁回、左侧颞上回/楔前叶/小脑坡、右侧岛叶等脑区 GMV 降低。BD 组双侧前扣带回/扣带旁回/额上回/颞上回/颞中回/枕上回等脑区 DC 降低；双侧额中回/额下回三角部/楔前叶/丘脑/尾状核/海马、左颞中回/角回/颞上回/后扣带回等 DC 增强。 与非风险等位基因携带者 CC 组相比，CACNB2 rs11013860 的风险等位基因纯合子携带者 AA 组左侧距状裂、双侧舌回/楔叶等脑区的 GMV 减小。未发现 rs11013860 基因对 DC 有影响。右侧小脑前叶/小脑后叶/小脑坡/小脑山顶/海马旁回/舌回的 GMV 存在诊断与 rs11013860 基因的交互效应。患者组表现为风险等位基因携带者纯合子组（AA 组）大脑灰质体积较非风险等位基因携带者

（CC 组）增大；正常对照表现为风险等位基因携带者（AA、AC 组）大脑灰质体积较非风险等位基因携带者减少。

结论 本研究发现 BD 与 HC 组间的灰质体积和功能连接均存在差异，主要集中于小脑、扣带回、额/颞上回、海马、楔前叶等情绪环路上；CACNB2 rs11013860 基因可能通过影响右侧小脑/海马旁回/舌回等脑区的灰质体积导致 BD 的发生。

关键字：双相障碍，单核苷酸多态性，基因，磁共振成像，交互作用

免疫炎症与奖赏功能在青少年抑郁障碍中的研究进展

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目的 青少年抑郁障碍是一种严重且越来越常见的精神疾病，存在显著的痛苦和功能障碍，与成年后的精神疾病及心理社会功能障碍发生密切相关，已成为当今重大的公共卫生问题之一。目前抑郁障碍的具体病理机制尚未明确，近年来，奖赏-炎症整合模型被提出，研究发现免疫炎症系统和奖赏系统在抑郁障碍中双向关联相互作用，本文就免疫炎症与奖赏功能在青少年抑郁障碍中的相互作用研究进展作一综述，为青少年抑郁障碍的精准干预及治疗提供新的方向。

方法 综述近 5 年青少年抑郁障碍免疫炎症及奖赏功能相关的研究进展，总结二者之间的相互作用机制和影响因素。

结果 目前，免疫-炎症假说已成为抑郁障碍病理机制研究的热点之一，免疫炎症是抑郁障碍潜在的重要促发因素，主要通过影响大脑奖赏相关的神经回路及神经递质与奖赏功能相互作用。白介素-6（interleukin-6,IL-6）、肿瘤坏死因子（tumor necrosis factor,TNF）、C-反应蛋白（C-reactive,CRP）等细胞因子及炎症蛋白通过影响奖赏相关脑区、改变腹侧纹状体的多巴胺释放和激活犬尿氨酸等途径导致奖赏反应性和目标导向行为的降低，对青少年抑郁障碍不同方面的动机行为造成损害。除此之外，童年逆境、近期压力可调节免疫炎症与奖赏功能在青少年抑郁障碍中的相互作用。

结论 免疫炎症和奖赏功能相互作用可能是青少年抑郁障碍的重要发病机制，为未来青少年抑郁障碍发病机制研究及有效的干预治疗提供理论依据。

关键字：免疫炎症；奖赏功能；抑郁障碍；青少年

住院医师规范化培训学员心理健康评定量表编制

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目的 编制《住培学员心理健康评定量表》并检验其信效度，为中国住培学员心理健康研究提供有效且具有针对性的测评工具，使住培学员心理健康水平客观化。

方法 在文献综述、半结构化访谈的基础上，基于心理健康的概念框架和前人编制的心理健康量表构建《住培学员心理健康评定量表》的结构与量表条目池。于 2021 年 9 月采用 Delphi 专家咨询法对量表条目进行定性评价，根据专家对条目的重要性和适用性的评分以及意见，对量表条目进行修改。于 2021 年 11 月采用方便整群抽样选取云南省昆明市某住培基地进行调查，共回收 386 份有效问卷，采用极端组比较、题目与总分相关、探索性因子分析等方法。于 2022 年 9 月对云南省昆明市两个住培基地发放正式版量表进行调查，共回收有效问卷 650 份。采用内部一致性系数、分半信度、效标效度、验证性因子分析等方法对量表性能进行评价。

结果 初次发放共回收 386 份问卷，对量表条目进行定量评价及筛选，结果显示《住培学员心理健康评定量表》由 6 个维度（压力知觉与应对、躯体症状、临床工作失误、支持网络、培训满意度、情绪行为反应）共 41 个条目组成，6 个维度方差累积贡献率达到 63.818%。再次发放共回收 650 份问卷，以进行量表的性能评价，总量表的 Cronbach's α 系数为 0.954，分半信度为 0.887；各维度 Cronbach's α 系数为 0.835～0.935，分半信度为 0.782～0.867，由此可见量表的信度良好。验证性因子分析显示，$\chi 2/df = 2.108$（$P < 0.001$），GFI ＝0.901，AGFI＝0.876，NFI＝0.930，RFI ＝0.917，CFI＝0.962，RMSEA＝0.041，模型拟合优度较好，表明该量表结构效度良好。

结论 《住培学员心理健康评定量表》基本满足量表编制要求，信效度良好，可以作为住培学员心理健康水平的评估工具。

关键字：住培学员；心理健康；量表编制

精神疾病中情感迟钝的研究进展

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目的 情感迟钝（emotional blunting）表现为高级和细腻情感的逐渐丧失、缺乏亲情友爱，严重者可使患者的生活质量下降及所承担的社会责任减少。情感迟钝可见于精神分裂症、抑郁障碍、双相情感障碍、创伤后应激障碍、痴呆等多种精神疾病中，尽管逐渐引起研究者的注意，但临床的认识及相关研究空白较大。情感淡漠（apathy）指对周围事物漠不关心，缺乏对外界刺激相应的情感反应，常与意志减退相伴。我们阅读文献后发现一些研究者将淡漠与情感迟钝交替使用，且描述的情感损伤的症状相似。本文综述了情感迟钝在各疾病中的相关研究，介绍了情感迟钝症状的评估工具

及治疗方式，以期为该症状提供更全面的了解认识，并为临床治疗提供参考。

方法 通过检索知网（情感迟钝）OR（淡漠）OR（淡漠综合征），Pubmed (((((emotional blunting) OR (emotional adverse effects)) OR (apathy syndrome)) OR (emotional* numb*)) OR (interpersonal adverse effects)) OR (cognitive blunting) 等进行整理分析和总结，检索式为主题和关键词，检索时间为 2000 年 1 月直今。

结果 现有针对情感迟钝这类情感反应降低的症状研究，大多将情感迟钝与淡漠两个术语随意使用，但是一项因素分析指出情感迟钝和淡漠是精神病性障碍阴性症状维度中的两个不同因素，也有研究者认为情感迟钝是淡漠症状的基础，除此之外还有一部分研究者认为淡漠是情感迟钝的一部分；多种疾病提示情感迟钝与认知障碍有关，因此这类症状是情感问题还是认知问题，仍需进一步的研究论证；目前尚无公认的情感迟钝的测量工具，在临床上使用多种评估工具进行评估，测量结果难免会存在差异；对于情感迟钝的治疗主要考虑减少用药剂量，更换不同类型的药物，及使用多巴胺能或抗胆碱酯酶等药物，但是会存在病情反复及加重的风险。

结论 目前缺少公认统一的针对情感迟钝症状的测量工具，对于不同疾病出现的情感迟钝症状，其治疗方式也需要我们临床医生的关注，以此来判断病情严重程度、规范并促进基于评估的临床诊断与治疗，以期针对症状为患者提供更好的治疗；未来仍需结合潜在的神经生物学基础和功能性神经成像技术进一步解析机制。

关键字：情感迟钝；抑郁症；精神疾病；评估工具；治疗

实施性科学在抑郁症中的运用进展

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目的 抑郁症是最常见的精神障碍之一，其高致病、高复发、高致残的特征会对患者造成极大的疾病负担，亟待更有效且具成本效益的干预措施。近年来许多研究聚焦于抑郁症的基础研究，但可惜的是，其可能的病因和发病机制仍然未明。据估计，基础研究的成果平均需花费 17 年才有可能进入临床实践。实施性研究就此应运而生，其是针对政策和干预措施的实施过程，及影响这些过程的情境因素的科学研究，可以弥补最佳证据与临床运用之间的鸿沟，促进研究结果和基于循证的证据在日常实践中的系统吸收以提高卫生服务的质量和有效性。实施性科学比传统临床研究更广泛，不仅关注患者，还关注医疗服务提供者、组织和政策层面，需要跨学科的合作。总的来说，实施性科学是寻找“实施”有效干预措施的影响因素，弥补循证证据与临床实践之间鸿沟的科学。针对抑郁症的实施性研究正在蓬勃发展，但临床对其的意识仍然很局限，此综述旨在填补这一信息鸿沟，以促进实施性科学在临床中的应用。

方法 计算机检索 PubMed，收集使用实施性科学原理针对抑郁症的研究。检索时间为建库至 2022 年 11 月 1 日。英文检索词包括“major depressive disorder”，“depression”，“implementation science”，“implementation research”，“diffusion”等。

结果 实施性研究主要包括两个阶段。第一阶段通常会确定待解决问题的干预措施及其必要性。通常会通过形成性研究来明确政策或干预的必要性，其中包括现况调查，采用定性、定量或混合方法对实施者、潜在受众和其他利益相关方进行调查。第二阶段是在第一阶段的基础上，确定了干预措施和支持因素后，设计全面可靠的实验方案和试点研究，以确定是否可以通过对照试验或其他方法将干预措施推广到更大的环境，评估干预措施的临床有效性和实施性指标（可及性、可接受度、适合性、采纳性、可行性和保真度等）。

结论 这一类旨在促进基于循证的干预在临床的实施，弥补最佳证据和临床运用之间鸿沟的研究即为实施性研究。本综述将介绍实施性科学的定义及其在抑郁症中的运用进展，实施性科学如何推进高质量证据在真实世界的实施，并呼吁在抑郁症及其他精神障碍领域中更广泛地使用实施性科学，扩大有效干预措施的实施。

关键字：抑郁症，实施性科学，基于循证的证据，推广

重复经颅磁刺激治疗抑郁症认知功能障碍的研究进展

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目的 抑郁症是我国最常见的精神障碍之一，其认知功能障碍影响着患者的预后和生活质量，也与抑郁症高复发率有关，给个人、家庭和社会带来了沉重的负担。因此，改善抑郁症患者认知功能至关重要。重复经颅磁刺激（Repetitive transcranial magnetic stimulation，rTMS）是无创脑刺激技术的一种，广泛用于抑郁症的治疗，但对抑郁症患者认知功能障碍的疗效尚未得出统一结论。本文旨在探究 rTMS 对抑郁症患者的认知功能障碍的疗效，并分析其治疗相关机制及安全性，进一步归纳精准、个体化 rTMS 治疗抑郁症认知障碍的最新进展，为下步开展相关临床工作和科研工作提供理论借鉴。

方法 通过计算机检索 PubMed、Web of Science、中国知网（CNKI）、万方数据知识服务平台等数据库，检索时间为建库至 2023 年 1 月，中文检索词包括“rTMS”、“抑郁症”、“认知”，英文检索词包括“depression”、“rTMS”、“cognitive”。文献纳入标准：文献内容涉及 rTMS 治疗抑郁症患者对认知功能的影响，文献排除标准： 与本文主题无关联的文献、质量较差的文

献等。最终纳入文献 33 篇。

结果 通过回顾相关文献，可见 rTMS 与改善抑郁症患者工作记忆、执行功能、注意力和信息处理速度等认知功能有关，但并非所有研究都观察到认知的变化。毕竟磁脉冲波形、线圈的形状和方向、刺激的强度、间隔和频率等不同的刺激参数，不同的刺激部位，以及不同的认知任务，都会影响研究的结果。年龄也可能是 rTMS 治疗抑郁症认知功能障碍效果的独立影响因素，老年人群认知改善的潜力可能更大，因为年轻患者的认知功能可能显示出天花板效应，但其抗抑郁疗效与年龄可能并无相关联系。

结论 总之，rTMS 可以改善抑郁症患者的认知功能障碍部分维度，有治疗抑郁症患者认知功能障碍的潜力，且不依赖其抗抑郁作用，也无认知副作用，未来可能成为一种恢复抑郁症患者认知功能的代偿治疗模式。近些年个体化的精准 rTMS 抗抑郁疗效得到了验证，但对抑郁症认知功能障碍疗效尚缺乏相关研究，未来需结合影像学探索基于个体化的精准 rTMS 最佳方案，改善抑郁症患者认知功能障碍，提高其生活质量，帮助其更好的回归社会。

关键字：抑郁症；经颅磁刺激；认知障碍

Sex Differences of Glutamate, GABA and BDNF in Patients with Major Depressive Disorder

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Objective Women are about twice as likely as are men to develop depression during their lifetime. There is a lack of attention to sex in clinical diagnosis and treatment, mainly due to the unclear mechanism of sex differences in major depressive disorder (MDD). This article reviews the sex differences in glutamate (Glu), γ-aminobutyric acid (GABA) and brain-derived neurotrophic factors (BDNF) in MDD patients in order to better understand the pathogenesis of depression.

Results 1 Sex differences in glutamatergic system There were significant sex differences in Glu metabolism in human. The medial prefrontal cortex (mPFC) Glu levels are sensitive to ovarian hormone fluctuations and women seem to exhibit higher levels of Glu compared to men in the striatum, cerebellum, the sensorimotor cortex and anterior cingulate cortex (ACC) in normal volunteers. In female MDD patients, the concentration of Glu in the mPFC was positively correlated with the HAMA score. And the expression of glutamate transporter genes and glutamate receptor subtypes in female was higher than in male in the dorsolateral prefrontal cortex (DLPFC). Different from DLPFC region, levels of Glx (Glu and Gln mixture) and Glu in ACC were declined in female MDD patients. This may indicate that the changes in different brain regions are sex-specific, but the study sample size is small and needs to be confirmed in a larger population in the future. 2 Sex differences in GABA The subtype of GABA neurons, SST neurons, has sex differences in patients with MDD. The defect of SST gene expression in ACC and subgenus prefrontal cortex (sgPFC) is greater in women. Decreased expression of SST gene and protein in amygdala after death was limited to female with MDD. In addition, the effect of ovarian steroid fluctuations on GABA and GABA receptors also linked to the increased risk of depression in women. For example, higher levels isoprogesterone during pregnancy and sharply reduction at birth are leading to an overall decline in GABA function. In general, fluctuations in female GABA transmission may increase depression sensitivity. 3 Sex differences in BDNF There was no significant sex difference in serum BDNF concentration in normal healthy people. In MDD, only female MDD patients had significantly lower serum BDNF protein levels. A significant positive correlation between baseline BDNF and disease severity was detected in women. At present, whether the level of BDNF in MDD patients has sex difference is still controversia. Confirming the sex difference of BDNF in MDD patients and exploring its molecular pathways are expected to bring new targets for the precise treatment of depression in addition to serotonin and glutamate-related neurotransmitters.

Conclusion On the whole, the levels of Glu, GABA and BDNF in patients with depression have significant sex differences. This may help to develop drugs that efficiently regulate the binding of related transmitters and specific receptors in women.

关键字：major depression, neurotransmitters, glutamate, GABA, BDNF, sex differences

ITBS 对 CPZ 诱导的脱髓鞘小鼠抑郁样行为及海马髓鞘相关分子表达的影响

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目的 探讨 iTBS 对双环己酮草酰二腙(CPZ)诱导的脱髓鞘小鼠抑郁样行为及海马髓鞘碱性蛋白（MBP）、少突胶质细胞转录因子 2(Olig2)、环腺苷酸-磷酸二酯酶（CNPase）的影响。

方法 选取 C57BL/6 雄性小鼠 32 只，随机分为对照组（Con 组）、对照+iTBS 治疗组（Con+iTBS 组）、CPZ 造模组（CPZ 组），CPZ+iTBS 治疗组（CPZ+iTBS 组），每组 8 只。Con 组及 Con+iTBS 组均给予正常饲料喂养 6 周，CPZ 组及 CPZ+iTBS 组均给予 0.2% (质量分数) CPZ 的混合饲料饲喂养 6 周，诱导脱髓鞘小鼠模型，造模结束后，照预先设定的参数对 Con+iTBS 组及 CPZ+iTBS 组进行 iTBS 治疗，治疗十天，实验期间观察记录小鼠体质量的变化。随后通过糖水偏好实验和悬尾实验评估小鼠抑郁样行为。随后处死并分离出小鼠的海马组织，通过 western blot 检测小鼠海马组织中的 MBP、Olig2、CNPase 的表达情况。

结果 1.相较于 Con 组，CPZ 组小鼠的个体质量显著降低（$P<0.05$），Con+iTBS 组及 CPZ+iTBS 组并

无显著性差异。2.相较于 Con 组，CPZ 组小鼠悬尾不动时间减少（P<0.05），糖水偏好指数减少（P<0.05）；较 CPZ 组，CPZ+iTBS 的悬尾不动时间增加（P<0.05），糖水偏好指数增加（P<0.05）；Con 组与 CPZ+iTBS 的各组行为学指标并无显著性差异。3.相较于 Con 组，CPZ 组小鼠海马组织中的 MBP、Olig2 和 CNPase 分子表达下降；较 CPZ 组，CPZ+iTBS 的组小鼠海马组织中的 MBP、Olig2 和 CNPase 分子表达上调（P<0.05），Con 组与 CPZ+iTBS 组上述分子表达均无显著性差异。

结论 iTBS 可能通过上调 CPZ 诱导的脱髓鞘小鼠海马组织中的 MBP、Olig2、CNPase 的表达水平，进而改善其抑郁样行为。

关键字：iTBS；抑郁样行为；髓鞘损伤；海马

Comparison in Clinical Efficacy about Continuing, Reducing, Increasing, Switching, Or Stopping Antidepressant Medications in Patients with Depressive Disorders Who Are Clinically Stable: A Systematic Review and Network Meta-analysis

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Objective In the management of depression, achieving and maintaining remission during the stabilization phase is crucial for preventing relapse and improving the overall quality of life for patients. However, current evidence-based guidelines lack clear indications for different maintenance treatment strategies, including continuing the antidepressant at standard doses recommended for acute treatment, reducing the current antidepressant dose, increasing the dose, switching to another antidepressant, or even discontinuing the medication. The purpose of our study is to compare the effectiveness of these treatment strategies.

Methods We conducted a comprehensive search of databases including MEDLINE, EMBASE, PsycInfo, Central, Cinahl, Web of Science, and PubMed to obtain published and registered randomized controlled trials (RCTs) from inception to December 4, 2022. RCTs meeting the following criteria were included in the analysis: (1) participants aged ≥18 years; (2) diagnosed with depressive disorder; (3) achieved clinical stability; (4) compared at least two of the five strategies; (5) recorded rates of relapse; (6) sample size > 30 and follow-up ≥ 6 weeks. We simultaneously excluded RCTs that recruited individuals with "treatment-resistant" characteristics. Data extraction and quality assessment were independently performed by two reviewers. For each outcome and comparison, we conducted standard fixed-effects pairwise and network meta-analyses(NMAs) within a frequentist framework using the Stata (version 17) network packages. Subgroup analyses were performed to assess the moderating effect on depression relapse rates based on factors such as gender, country, type of medication, follow-up period, severity, and disease staging.

Results 24 records (involving 6,055 individuals) were included for analysis. All continuation strategies were significantly more effective in preventing relapse compared to stopping antidepressants. Specifically, continuing (OR 0.38, 95% CI 0.33-0.44), reducing (OR 0.37, 0.23-0.59), increasing (OR 0.40, 0.23-0.69), and switching (OR 0.50, 0.34-0.72) demonstrated significant efficacy. There were no statistically significant differences among the four continuation strategies. The ranking of efficacy showed that reducing was slightly superior to continuing, followed by increasing and switching, with stopping showing the lowest efficacy.

Conclusion Our systematic review and network meta-analysis indicate that among stable-phase patients with depression, all continuation strategies are significantly more effective compared to stopping medication. Additionally, reduction is superior to continuation at standard dosage. Our research findings support the update of clinical guidelines, emphasizing that reduction and continuation during the maintenance treatment phase yield the best overall efficacy in preventing relapse while reducing economic costs.

关键字：Depressive disorders; Network meta-analysis; Treatment strategies; Relapse

睡眠障碍患者临床特征的性别差异-基于多导睡眠监测的研究

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目的 本研究采用多导睡眠监测（PSG）对不同性别患者的睡眠特征进行分析，发现睡眠障碍患者临床特征的性别差异，分析睡眠障碍对男女患者情绪、认知功能的影响，以期为临床精准治疗提供依据。

方法 本研究共纳入来自浙江大学医学院附属第二医院精神科 2021.01 至 2022.12 期间 185 名睡眠障碍住院患者。研究采用匹兹堡睡眠量表(PSQI) 、汉密尔顿焦虑量表 (HAMA) 、汉密尔顿抑郁量表-17 项 (HAMD-17) 、简明智能精神状态检查 (MMSE) 、数字广度测验 (DST) 以及数字符号问卷(DSST) 对患者的睡眠及情绪、认知功能进行评估。采用多导睡眠脑电记录仪对患者进行标准的睡眠监测。我们使用 EXCEL 数据库管理数据，采用 SPSS 26.0 软件对数据进行统计分析。 计量资料采用 ANOVA 方差分析、各指标间的关系采用 SPEARMAN 相关分析，检验标准：α=0.05 双侧检验。

结果 MMSE 与 N3 期、REM 期呈正相关；DST 与 N3 期呈正相关，与 N2 期呈负相关；DSST 与总睡眠时间、睡眠效率、N3 期、REM 期呈正相关，与 N2 期呈负相关，（P＜0.05）。 男、女睡眠障碍患者的呼吸暂停低通气指数 (AHI) 与身体质量指数 (BMI) 呈正相关（P＜0.05）。进一步的分层分析以身体质量指数 (BMI) 为协变量进行协方差分析，以 BMI =22 分组，高 BMI 组比低 BMI 组的 AHI 高，同时以 BMI 为协变

量，男性 AHI 患者显著高于女性（P＜0.05）。

结论 1、PSG 睡眠结构分析发现：男性睡眠障碍患者的 N1 期时长和占比均高于女性患者，提示男性睡眠障碍患者较女性睡眠障碍患者浅睡眠延长更显著。2、男性、女性睡眠障碍患者焦虑程度越高，总睡眠时间、深睡眠时间、REM 期时间越短，提示睡眠障碍患者焦虑程度越高睡眠质量越差。3、女性睡眠障碍患者较男性患者抑郁症状更明显，女性患者较男性患者主观感受不良更显著。4、男性、女性睡眠障碍患者均存在执行功能下降，与 REM 潜伏期、N2 期、N3 期以及 REM 期有关。5、睡眠呼吸暂停低通气情况与男、女性的体重增高有关，在排除体重影响因素后，男性 AHI 仍高于女性。

关键字：睡眠障碍，多导睡眠监测，睡眠分期，性别差异，焦虑，抑郁

高强度高频重复经颅磁刺激对伴有自杀意念的青少年抑郁症患者的疗效及对唾液皮质醇的影响

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目的 比较高强度高频重复经颅磁刺激（aTMS）与标准高频重复经颅磁刺激（rTMS）对青少年抑郁症患者抑郁症状和自杀意念的疗效差异。同时，分析 aTMS 对患者唾液皮质醇浓度变化的影响，并探讨治疗前后唾液皮质醇浓度与抑郁程度和自杀意念的相关性。

方法 选取我院精神科伴有自杀意念的青少年抑郁发作患者分为高强度组 27 例和标准组 30 例，其中高强度组男性 7 名，女性 20 名，标准组男性 7 名，女性 23 名。高强度组每日接受两次 rTMS 治疗，4000 脉冲/日，连续治疗 7 天，共 28000 个刺激。标准组每日接受一次 rTMS 治疗，2000 脉冲/日，连续治疗 14 天，共 28000 个刺激。分别在治疗前（T1）以及治疗后第一周末（T2）、第二周末（T3）、第四周末（T4）进行汉密尔顿抑郁量表-24 项（HAMD）、自杀意念量表（SSI）、临床疗效总评量表严重程度分量表 (CGI-SI) 评定，以及测定各时点次日早晨 8：00 患者唾液皮质醇浓度。同时，观察并记录治疗期间可能与经颅磁刺激治疗有关的不良反应。

结果 两组患者在基线 T1 期的 HAMD、SSI、CGI-SI 量表总分及唾液皮质醇浓度无显著差异(P＞0.05)。经过治疗后，两组在 T4 期的 HAMD、SSI、CGI-SI 量表总分及唾液皮质醇浓度较同组 T1 期均有不同程度下降(P＜0.05)。高强度组 T4 期总显效率为 77.8%，标准组 T4 期总显效率为 53.3%，两组显效率无显著性差异（P＞0.05）。与标准组同期比较，高强度组在 T2 期 SSI 总分下降更明显（P＜0.05）。两组在 T4 期 HAMD、SSI、CGI-SI 量表总分及唾液皮质醇浓度比较均无显著差异(P＞0.05)。两组患者 T1 期唾液皮质醇浓度与 HAMD 评分呈正相关（P＜0.01）

结论 1.aTMS 治疗相比标准 rTMS 治疗在对青少年抑郁症患者自杀意念程度的改善具有更加快速起效的优势，其疗效在治疗第 1 周末可见。2.aTMS 治疗可以改善青少年抑郁症患者的抑郁症状及自杀意念，其在治疗第 4 周的疗效及安全性等同于标准 rTMS 治疗。3.两种 TMS 治疗均可以降低青少年抑郁症患者的唾液皮质醇水平。4.青少年抑郁症患者唾液皮质醇水平与抑郁程度及自杀意念呈正相关。

关键字：高强度高频重复经颅磁刺激；青少年；抑郁症；自杀意念；唾液皮质醇

重性精神障碍家庭照顾者焦虑抑郁情绪及护理负担的现状调查及其影响因素研究

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目的 本研究通过对重性精神障碍家庭照顾者的焦虑抑郁情绪和护理负担水平以及对精神疾病相关知识的掌握程度开展现况调查，分析该特定人群中出现焦虑抑郁情绪和护理负担的影响因素，为后续家庭干预措施的制定提供理论基础和应用指导。

方法 本研究共纳入 290 对重性精神障碍患者及其照顾者，采用广泛性焦虑障碍量表（GAD-7）、抑郁症筛查量表（PHQ-9）、Zarit 护理者负担量表（ZBI）、家庭调查问卷、家庭应对问卷以及疾病知识和应对技巧调查问卷等量表分别评估照顾者的焦虑、抑郁、护理负担、情绪表达水平、采取的应对策略以及对疾病知识的掌握程度。

结果 1.30.1%、26.3%及 45.8%照顾者分别检查出焦虑（GAD-7≥5）、抑郁（PHQ-9≥5）和护理负担（ZBI≥21）。2.多因素 logistic 回归分析结果显示：1）护理负担（OR=1.06）、未受过正规教育（OR=0.50）是照顾者出现焦虑情绪的危险因素；2）护理负担（OR=1.05）、对患者持批评态度（OR=1.09）、首次住院治疗（OR=3.33）、再次住院间隔时间超过 2 年以上（OR=3.55）是照顾者出现抑郁情绪的危险因素；3）对患者持批评（OR=1.12）或情绪过度参与（OR=1.23）态度、倾向于采取以情绪为主导的应对策略（OR=1.19）；以及长期照顾者（OR=4.12）均是患者出现护理负担加重的危险因素。3.照顾者对患者持有批评、情绪过度参与的态度与患者既往是否出现自杀行为密切相关（P 值≤0.001）；患者角度所感知到的家庭环境与患者的疾病相关因素（包括近 2 年内有无再次住院、既往是否出现自杀、自伤行为以及近 30 天内是否出现危机事件、近 1 周的病情严重程度等）均存在统计学差异（P<0.05）。4.照顾者有关家庭日常相处以及应对疾病相关危机事件等方面知识的掌握程度与其焦虑抑郁情绪、护理负担呈负相关（P<0.001）。

结论 1.重性精神障碍照顾者的焦虑抑郁情绪检出率高于一般人群；护理负担可作为预测其焦虑抑郁情绪的危险因素。2.照顾者出现焦虑抑郁情绪和护理负担的危险因素包括未接受过正规教育、长期照护者、持批评或情绪过度参与的态度对待患者、采取以情绪为

主导的应对策略、患者为首次住院治疗或再次住院治疗间隔超过 2 年以上。3.比起照顾者的情绪表达水平，从患者角度所感知的家庭环境对于预测患者疾病预后的效果不可忽略。

关键字：重性精神障碍；家庭照顾者；焦虑；抑郁；护理负担

喀什地区精神分裂症患者合并代谢综合征的现状调查及其认知功能的研究

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目的 研究喀什地区精神分裂症合并代谢综合征的患病率、影响因素及患者的认知功能特征和影响因素。

方法 入组符合 ICD-10 精神分裂症诊断标准的患者 1428 名，收集其人口学信息及临床资料，参考我国代谢综合征的诊断标准，将受试者分为高风险组、临界组、代谢综合征组，计算喀什地区精神分裂症患者代谢综合征的患病率，探索患者合并代谢综合征的影响因素；用 MoCA 量表评估患者的认知功能，阐明共病代谢综合征精神分裂症患者的认知功能特征及其影响因素。

结果 （1）喀什地区精神分裂症患者代谢综合征患病率为 28.5%；（2）合并不同代谢综合征风险的 3 个组别的精神分裂症患者，在年龄、病程、BMI 方面的差异具有统计学意义（P<0.05）；（3）合并代谢综合征的精神分裂症患者中，腹型肥胖的患病率最高（73.4%）；男性患者腹型肥胖、高血糖、高血压、低 HDL-C 的患病率高于女性（P<0.05）；（4）喀什地区精神分裂症患者共病代谢综合征可能受性别、年龄、受教育年限、病程、BMI 影响（P<0.05），经二元 logistic 回归分析，最终有统计学意义的变量为性别、年龄、BMI（P<0.05）；（5）精神分裂症患者 MoCA 得分低于正常，合并不同代谢综合征风险的 3 个组别在视空间与执行功能方面的得分差异有统计学意义（P<0.05），男性患者视觉感知能力更好，女性患者语言能力更好，其差异有统计学意义（P<0.05），不同性别患者整体认知功能的差别无统计学意义（P＞0.05）；（6）在合并代谢综合征的精神分裂症患者认知功能的相关分析中发现：年龄、病程、TG、舒张压、PANSS 各项评分及总分与 MoCA 各项及其总分呈负相关（P<0.05），受教育年限与之呈正相关（P<0.05），经多元线性回归分析，最终有统计学意义的变量为病程、受教育年限、TG、PANSS-N 评分、PANSS-G 评分及总分（P<0.05）。

结论 （1）喀什地区精神分裂症患者代谢综合征的患病率为 28.5%；（2）喀什地区精神分裂症患者共病代谢综合征的危险因素为男性、高龄、高 BMI；（3）喀什地区精神分裂症患者认知功能均受损，随着合并代谢综合征诊断项目数的增多，患者的认知功能明显减退，视空间与执行功能显著受损；（4）共病代谢综合征的精神分裂症患者整体认知功能的保护因素为受教育年限，危险因素为长病程、高 TG、阴性症状及一般精神病理症状明显。

关键字：精神分裂症；代谢综合征；患病率；影响因素；认知功能

求同存异促进精神科封闭式病房患者和谐相处探讨

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目的 探讨求同存异促进精神科封闭式病房患者和谐相处的作用。

方法 把某精神科封闭式病区的患者，随机分为干预组（39 人）及对照组（38 人）。后续新入科患者按抽签法随机分配入组。干预组接受心理干预，把求同存异贯彻病区日常活动中：1、树立求同存异理念，定期召开座谈会，号召求同存异，相互理解，相互包容，鼓励患者体验变化，分享感受；2、增强自主性，每个病室选举寝室长一名，负责协调解决病室内部矛盾及上报工作；3、增加归属感，商议各自病室的名称，比如“康复驿站”、“望柳居”或者“快乐家园”等；4、满足自我实现的需要，建立奖惩制度，对每周选举出来的优秀病室、先进个人、文明标兵及进步最大患者（医务人员及患者均参与投票），给以奖励。对照组按照病区常规方式管理。每周 1 次、连续 8 周对 2 组患者的感受（主要借鉴马斯洛需要层次理论，调查患者在安全需要、尊重的需要及归属和爱的需要是否得到满足；交往互动是否有影响）进行定性研究，并评价效果。干预组总计入组 105 人，对照组总计入组 96 人。

结果 1、在安全的需要、归属和爱的需要、尊重的需要、自我实现的需要方面，干预组患者主观体验较好。2、干预组患者交往互动受到求同存异影响，主观感受较积极。3、各病种患者中，酒依赖患者改善最突出，干预前酒依赖患者普遍对其它疾病诊断的患者存在歧视排斥；干预后，多数酒依赖患者认为大家都是治疗精神心理问题的，都应该被尊重，不应歧视别人。4、干预组患者从求同存异理念中受益，暴力事件减少，住院满意度提高明显，对照组患者也希望加入干预组。

结论 求同存异可以改善精神科封闭式病房患者的人际互动方式，提高其积极感受，减少暴力事件的发生，促进病区和谐。

关键字：求同存异； 精神科封闭式病房； 和谐相处

An Exploration of Transcultural Adaptation of Interpersonal Psychotherapy in China

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Objective In recent years, interpersonal psychotherapy (IPT), which originated from the Western cultural background, has attracted the attention of many countries, including China. However, due to its cultural sensitivity, adaptation of IPT to different cultural environment is necessary for the practical and effective application.

Methods Based on the course evaluation of an IPT training program, this paper discusses the cultural adaptation of IPT in Chinese context,focusing on the Chinese characteristics in the IPT Problem Areas (Interpersonal Disputes, Role Transition, Grief and Loss).85 Chinese occupational psychotherapists and psychiatrists,etc were systematically trained in IPT, and their perspectives on the cultural adaptation of IPT in Chinese settings were investigated and described.

Results The trainees had a positive attitude towards the acceptance of IPT by Chinese physicians and patients.There are many cultural customs with Chinese characteristics in the four IPT Problem Areas, involving funeral culture, collectivism, male chauvinism, confucianism, left-behind children, hierarchical relations and so on.

Conclusion IPT is still applicable in Chinese cultural environment, but Chinese traditional values and history have formed Chinese group characteristics of interpersonal relationships and role conflicts, therapists need to consider these in the practice of psychotherapy, and more work is needed for the targeted adjustment rules.

关键字：nterpersonal Psychotherapy，Transcultural Adaptation，China

前额叶 Alpha 节律在左右半球的不对称性与抑郁症严重程度的关系

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目的 通过对抑郁症患者前额叶 alpha 节律的对称性进行量化研究，考察神经电生理指标与抑郁症之间的关系，以及基线状态抑郁症患者前额叶 alpha 节律在左右半球的不对称程度，检验 FAA 指标与抑郁症严重程度的相关性。

方法 选取 60 例抑郁症患者，使用汉密尔顿抑郁量表和汉密尔顿焦虑量表评估病情的严重程度，使用抑郁自评量表来评估患者的整体病情。对所有研究对象予脑电图检查。数据采集结束后，提取 8-13 Hz 范围的 alpha 节律能量，提取 F3 和 F4 两个导联 Alpha 能量均值，计算出 FAA 的值。使用 SPSS 进行统计分析，对于服从正态分布的计量资料以（?±s）表示，计数资料以例数表示。正态计量资料使用 t 检验、方差分析。对于不服从正态分布的计量资料以中位数和四分位间距（M（p25，p75））表示，使用秩和检验进行差异性分析。相关性分析使用回归分析，P＜0.05 差异有统计学意义。

结果 1.患者左侧 alpha 波信号功率（F3）显著高于右侧 alpha 波信号功率（F4）。其中不同的婚姻状况、各个年龄组、病程组、不同的文化程度的患者以及有无家族史患者的 F3 均显著高于 F4 的值，女性患者的 F3 也显著高于 F4，但男性患者的 F3 和 F4 的值之间的差异无统计学意义。2.FAA 的值在不同的年龄、婚姻状况、发病病程、文化程度以及是否有家族史的患者中均无显著的差异性，男性患者的 FAA 的值明显高于女性。3.FAA 的值与 HAMD 的评分呈负相关的关系；轻中度抑郁组 FAA 的值显著高于重度抑郁 FAA 的值。4.FAA 与 HAMD 各类因子分数之间的关系如下：FAA 与焦虑/躯体化、认识障碍、阻滞、睡眠障碍、绝望感这 5 类因子的评分呈明显的相关性，与体重和日夜变化这两类因子的评分无明显的相关性。5.HAMA 与 HAMD 评分之间呈明显的正相关的关系。6.FAA 与 HAMA 的评分之间呈负相关的关系。

结论 ：我们的结果表明抑郁症的严重程度与前额叶 alpha 节律在左右半球的不对称性呈显著的正相关的关系，虽然这一机制还未得到阐明，但我们的研究表明抑郁症的严重程度与前额叶 alpha 节律的不对称性有相关性，这种不对称性可能会为抑郁症的病情评估提供一定的客观依据，进一步可能会为抑郁症的治疗疗效提供客观的评价指标，及时评估抗抑郁药物是否起效，对调整治疗药物、提前预测治疗效果提供重要参考。

关键字：抑郁症 脑电图 严重程度 alpha 不对称性

Brain Structural Alterations and Cognitive Dysfunction in Lung Cancer Patients without Brain Metastasis

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Objective To explore the relationship between cognitive function and brain structure in non-brain metastasis lung cancer (LC) and healthy controls (HC).

Methods 75 chemotherapy drug-na?ve LCs without brain metastasis and 29 HCs matched with age, sex and education were evaluated by cognitive assessment and structural MRI, including cortical thickness, surface area and subcortical structure volume, and evaluated the relationships between these parameters.

Results Compared with HCs, the volume of twelve subcortical structures showed smaller in advanced lung cancer patients (aLCs) ($p < 0.05$). The cortical thickness of one brain region and the surface area of five regions decreased in aLCs ($p < 0.05$). In early lung cancer patients (eLCs), the cortical thickness of three regions increased. Compared with eLCs, the aLCs showed a decrease in cortical thickness and surface area ($p < 0.05$). The function of visuospatial/executive and delayed-recall was impaired in aLCs, which became more obvious with the progress of the disease, and was positively correlated with several cerebral cortex thickness, surface area and subcortical structure volume ($p < 0.05$).

Conclusion Brain structural alterations and cognitive dysfunction can be found in aLC patients independent of metastasis. On the other hand, because all the patients did not receive any chemotherapy, these abnormalities identified in aLC, but not in eLC, were more likely the results of the disease rather than the chemotherapy.

关键字：Lung cancer; Staging; Cognitive impairment; Neuroimaging; Brain structure

自我厌恶对大学生非自杀性自伤行为的影响：生命意义感的中介效应

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目的 探索自我厌恶与非自杀性自伤行为（NSSI）的关系，以及孤独感、生命意义感和社会联结在两者关系间的中介作用。

方法 采用自我厌恶量表中文版(the Chinese version of self-disgust scale, SDS-C)，社会联结量表修订版(Social Connectedness Scale-Revised，SCS-R) 、生命意义感量表(Meaning in Life Questionnaire, MLQ)、孤独感量表（UCLA Loneliness Scale Version 3）和渥太华自伤量表（Ottawa Self-Injury Inventory，OSI）中文修订版对 657 名在校大学生及硕士研究生进行线上调查。采用 SPSS26.0 和 PROCESS4.1 进行数据处理。

结果 （1）大学生中 NSSI 的检出率是 15.98%。自我厌恶、社会联结、生命意义感和孤独感在有 NSSI 组和无 NSSI 组间有显著差异(p<0.001)：有 NSSI 组的自我厌恶、孤独感显著高于无 NSSI 组，而社会联结、生命意义感显著低于无 NSSI 组。（2）自我厌恶、孤独感、生命意义感、社会联结和大学生 NSSI 之间存在显著的两两相关。（3）路径（自我厌恶-NSSI）的总效应显著，自我厌恶对 NSSI 的直接预测效应显著。（4）自我厌恶会通过生命意义感的中介作用对 NSSI 产生显著的负向影响，具有遮掩效应。（5）孤独感和社会联结在自我厌恶与 NSSI 两者关系间的中介作用不显著。

结论 自我厌恶可以显著预测 NSSI，生命意义感是自我厌恶与 NSSI 之间的中介变量。本研究为深入了解非自杀性自伤行为的心理相关机制提供了新的视角，提示在大学生的心理健康服务中通过增加生命意义感或许可为有效管理 NSSI 提供实践依据。

关键字：自我厌恶；非自杀性自伤行为；孤独感；生命意义感；社会联结

机器人辅助导航的加速经颅磁刺激治疗抑郁症的临床疗效

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目的 本研究比较机器人辅助导航的加速经颅磁刺激（aTMS）治疗中重度抑郁症的安全性、耐受性及临床疗效，并进一步探索其对认知功能的影响，为临床治疗抑郁症提供新的方案参考。

方法 招募新乡医学院第二附属医院门诊及住院的中重度抑郁症患者 24 例，在经颅磁治疗前后进行量表评估、认知评估及功能性近红外光谱（fNIRS）检查，共有 16 例完成全部的治疗及相应的评估检查。所有患者使用基于面部特征识别的智能导航经颅磁机器定位于左侧背外侧前额叶（L-DLPFC）靶点进行治疗，每日治疗两次，两次间隔 4-6 小时，每次治疗持续 30 分钟，共计 3000 脉冲，连续治疗 10 天。在治疗前后完成近红外检查，记录言语流畅性任务（VFT）下的组词个数，并对任务过程中氧合血红蛋白（oxy-Hb）激活的变化进行统计分析，在治疗前、治疗 10 次后、治疗 20 次结束后采用汉密尔顿抑郁量表（HAMD-17）、汉密尔顿焦虑量表（HAMA）、贝克抑郁量表（BDI）、贝克焦虑量表（BAI）及蒙特利尔认知评估量表（MoCA）评估患者的抑郁、焦虑症状及认知功能，以 HAMD-17 量表的减分率作为疗效的主要结果指标。使用相应的统计方法比较患者治疗前后的症状改善及认知功能的变化。

结果 （1）对治疗前后患者量表评估的减分率进行分析，结果发现治疗后各量表减分率下降明显，有 68.75%的患者 HAMD 减分率超过 50%，有 37.5%的患者治疗后达到缓解水平。 （2）患者治疗前后在 VFT 任务中的语音流畅性任务（LFT）中的组词数差异无统计学意义（P=0.129）；而在语义流畅性任务（CFT）中，患者治疗前后的组词数差异有统计学意义（P=0.002）。在 LFT 任务下，治疗前后患者在 2 个通道（左侧 2 个，ch40，ch42）的[oxy-Hb]激活存在统计学差异（t=2.501-2.577，见图 2）。然而当 FDR 设置为 0.05 时，差异无统计学意义。

结论 基于面部特征识别的加速经颅磁刺激治疗中重重度抑郁症患者是安全有效且耐受良好的，对认知功能也有一定的改善作用，但仍需大样本的随机对照研究进一步验证本结果。

关键字：经颅磁刺激；抑郁症；功能性近红外光谱

Elevated Plasma Levels of Mature BDNF in Major Depressive Disorder Patients with Higher Suicidal Ideation.

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Objective Several evidences showed signaling through brain-derived neurotrophic factor (BDNF) and its receptor, tropomycin receptor kinase B (TrkB) as well as inflammation play a crucial part in the pathophysiology of depression. The purpose of our study was to evaluate plasma levels of BDNF-TrkB signaling, inflammatory factors in major depressive disorder (MDD) patients and assess their associations with clinical performance.

Methods This study recruited a total sample of 83 MDD patients and 93 healthy controls (CON). All of the participants were tested with Hamilton depression scale (HAMD), Beck Scale for suicide ideation, and the NEO-Five Factor Inventory scales. The plasma level of selected BDNF-TrkB signaling (mature BDNF: mBDNF, precursor BDNF: proBDNF, tyrosine kinase B: TrkB, tissue plasminogen activator: tPA) and selected inflammatory factors (IL-1??, IL-6, TNF-?? were measured using enzyme-linked immunosorbent assay (ELISA). Further, we performed correlation analysis to indicate the relationship between plasma level of the factors and clinical characteristics.

Results Higher level of mBDNF and lower Openness were observed in MDD patients with higher suicidal ideation than patients with lower suicidal ideation. ii) In MDD patients, mBDNF is positively correlated with sum score of Beck Scale for suicide ideation (BSS). iii) The levels of mBDNF, tPA, IL-1?? , IL-6 were significantly higher in all MDD subjects compared to healthy controls. While the levels of trkB, proBDNF were lower in MDD subjects.

Conclusion The limitations of our research may partly arise from the relatively small sample size and this study was cross-sectional, thereby limiting causal inference. Our study provides novel insights regarding the potential role of mBDNF in the neurobiology of the association of depression and suicidal ideation and the relationship among BDNF-TrkB signaling, inflammatory factors and clinical characteristics in MDD, especially.

关键字：BDNF-TrkB signaling, inflammatory factors, suicidal ideation, Beck Scale, major depressive disorder

抑郁障碍研究协作组

CRP 与特定抑郁症状有关：来自 NHANES 的 5 个独立样本的网络分析结果

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目的 抑郁症是一种异质性很强的常见精神疾病，不同的抑郁症状背后其生物机制可能有所不同。既往研究证据提示，抑郁症的植物神经系统症状，如疲乏、食欲、睡眠等症状，以及情感症状中的快感缺失，都与免疫-炎症系统密切相关。 然而，炎症与特定的抑郁症状之间的关系仍不清楚。

方法 本研究的数据来源于美国国家健康和营养调查研究（National Health and Nutrition Examination Survey, NHANES），纳入了同时评估了抑郁症状和 C-反应蛋白 (C-Reactive Protein, CRP)的 5 个数据集，为 2005-2006 年、2007-2008 年、2009-2010 年、2015-2016 年和 2017-2020 年的 NHANES 数据。NHANES 是美国具有全国代表性的社区样本，旨在调查受试者的营养状况和身心健康。 研究使用患者健康问卷（Patient Health Questionnaire-9, PHQ-9）来评估抑郁症状，并使用网络分析来评估 CRP 与抑郁症状的关系。

结果 在 5 个 NHANES 独立样本中，共纳入了 24932 名受试者。相关性分析发现，CRP 与所有抑郁症状密切相关 ($r = 0.02\text{-}0.08$, P 值均 < 0.01)，尤其是疲乏($r = 0.08$, $P < 0.001$)和食欲改变($r = 0.08$, $P < 0.001$)。在 5 个独立样本的网络分析中，均一致地发现疲乏与 CRP 密切相关。至少在 2 个样本的网络分析中，快感缺乏、睡眠问题和食欲变化与 CRP 相关，但这些抑郁症症状并非在所有五个样本中都与 CRP 相关。此外，本研究还发现，与其他症状相比，快感缺失、 疲乏、睡眠问题和食欲改变间的联系更为紧密。

结论 本研究提示炎症对抑郁症状的影响是特异的而非普遍的，并发现了 CRP 与疲乏稳定的联系，这为识别抑郁症的炎性亚型提供了理论依据，有利于进一步优化抑郁症个体化抗炎治疗策略；此外，本研究从炎症与抑郁症状网络的角度，发现了 CRP、疲乏、快感缺失、睡眠问题和食欲改变的紧密联系，进一步证实了抑郁症的病态行为（Sickness Behavior）理论假说。

关键字：抑郁症；炎症；CRP；疲乏；网络分析

The Effect of The Method of Emotional Regulation with Music on Emotional Self-care in Front-line Medical Staff

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Objective To investigate the effect of Emotional Regulation with Music on the emotional self-care of front-line medical staff during the COVID-19 pandemic

Methods 31 frontline medical staff from nine provinces in China were recruited as subjects from April 2020 to June 2021. The method of Emotional Regulation with Music (ER) developed from Guided Imagery and Music (GIM) was used as an intervention with the client by qualified music therapists trained in this method. Each client received four sessions of ER intervention online. The visual analogue scale (VAS) was used as a measuring tool to evaluate the subjects' emotional state at baseline and after the intervention, also the clients were asked to complete the relevant questionnaires. A t-test was used for statistical analysis to compare the differences in scale scores before and after the intervention.

Results A total of 31 frontline medical personnel, 28 females and 3 males, with a mean age of 34.52±8.18 years, were included. The results showed a statistically significant decrease in VAS scale scores (7.42±1.82) after the intervention using the ER method compared to the scores at baseline (5.52±2.13) (t=-5.33, p=0.000). The results of the questionnaire showed that 86% of the subjects indicated that they had learned the Emotional Regulation with Music and 77% indicated that the method was very effective in regulating their emotions. 92% of the subjects indicated that they were willing to continue using the method for emotion regulation in their lives.

Conclusion The method of ER can effectively improve emotional self-care in frontline medical staff. The subjects can be aware of and accept their current emotional state during the session of the therapy, choose music that can help them regulate their emotions in the company of the therapist, and can take care of their emotions and improve their mood state in the present moment. It can also help the subjects to make a song list for themselves for daily use and self-care, which is worth promoting among front-line medical staff.

关键字：Emotional Regulation with Music, Music Guided Imagery, Music therapy, Visual Analog Scale, mood state

An Exploratory Research of Supportive Music and Imagery for Depression

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Objective Supportive Music and Imagery (SMI) therapy is a psychotherapy method that uses Music and Imagery as the carrier to help patients focus on their own internal positive resources. It may be helpful to relieve the depressive symptoms of patients. The purpose of this study was to explore the effectiveness of SMI therapy in the treatment of depression.

Methods A total of 29 outpatients who met the diagnostic criteria of depression based on DSM-IV were treated with SMI therapy besides routine antidepressant treatment once a week for 3 months, with a total of 12 times of SMI therapy. DSM-IV, Hamilton Depression scale (HAMD-17), fatigue rating scale (FAI), Newfoundland Memorial University Happiness scale (MUNSH), 16-item Depression self-rating scale (QIDS-SR16) and CGIS score were evaluated at baseline. To compare the changes in mood, fatigue and happiness of patients before and after treatment, QIDS-SR16 was performed from the end of the first week to the 12th week, and FAI and HAMD17 were evaluated at the end of the 2nd, 4th, 6th, 8th, 10th and 12th weeks, and MUNSH was also evaluated at the 12th week.

Results Owning to only completed the baseline data or the first interview, 5 subjects were excluded, and the remaining 24 subjects were included in the analysis. The results of mixed effect ANOVA model showed that within 12 weeks, there were significant differences between the score of each follow-up time and baseline in HAMD17 ($P < 0.0001$), FAI ($P < 0.0001$), and QIDS-SR16 ($P < 0.0001$). The difference between the score of MUNSH at baseline and the 12th week was tested by paired t-test, and the result was statistically significant ($P < 0.05$). Among the 24 subjects included in the analysis, 20 subjects achieved early improvement at the beginning of the second weekend (HAMD-17 score reduction rate ≥ 20%), and the early improvement rate was 83.3%. At the end of the 12th weekend, 20 subjects respond to therapy (HAMD-17 score ≥ 50%), with a respond rate of 83.3%. At the end of the 12th week, 18 subjects were clinically remission (HAMD-17 score ≤ 7), and the remission rate was 75.0%.

Conclusion The depression, anxiety and fatigue symptom of the patients improved continuously within 12 weeks. The combination of SMI therapy has high early improvement rate and clinical remission rate in patients with depression. In the future study we can increase the control group, and further explore the efficacy of SMI in depression.

关键字：Supportive Music and Imagery，Music therapy, Depression, Positive resource

首发早发性和晚发性抑郁症患者静息态脑脑局部活动特征的研究

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目的 既往研究发现不同年龄段发病的抑郁症有

不同的临床特征，且发现 30 岁前和 30 岁后起病的成年抑郁症患者脑局部一致性（regional homogeneity，ReHo）特征存在差异，但发病年龄 18 岁以前的早发抑郁症（Early onset depression，EOD）较发病年龄在 45 岁以后晚发抑郁症（Later onset depression，LOD）的局部协调性不清楚。本研究旨在探讨首发早发性和晚发性抑郁症患者静息态脑局部一致性（regional homogeneity，ReHo）特征，为不同年龄段抑郁症发病研究脑影像学机制提供依据。

方法 招募来自南京医科大学附属脑科医院符合 DSM5 抑郁症诊断标准的首发患者。按照起病年龄，分为 18 岁以前的早发抑郁症 40 名，45 岁以后起病的晚发抑郁症抑郁症 50 名，同时招募 70 名年龄、性别、受教育年限匹配的健康对照。将 3 组受试进行 3.0T 静息态功能磁共振扫描，计算灰质体积（gray matter，GM）和 ReHo 值。为去除年龄的影响，将灰质总体积和年龄为协变量计算三组 ReHo 值差异，首先进行单因素方差分析，高斯随机场法（Gaussian random field，GRF）校正，其次在三组比较差异有统计学意义的基础上，使用 GRF 矫正方法进行 hoc t 检验，对每两组 ReHo 值进行两两比较。

结果 三组受试在左额上回、双侧颞上回、右枕中回、右海马旁回、左中央前回、左缘上回脑区 ReHo 值存在差异（单体素 $p<0.001$，连续体素值 $K\geq64$，GRF 校正后 $p<0.05$）。在方差分析基础上进行两两事后独立样本 t 检验，与 LOD 组相比，EOD 组右枕中回和左额上回 ReHo 值增高，双侧颞上回和右直回 ReHo 值下降（单体素 $p<0.001$，连续体素值 $K\geq22$，GRF 校正后 $p<0.05$）。

结论 首发 LOD 与 EOD 患者存在不同的静息态脑活动特征。右枕中回、左额上回、双侧颞上回和右直回的脑局部协调性下降可能和 LOD 与 EOD 的发病机制有关。

关键字：早发性抑郁症；晚发性抑郁症；静息态功能磁共振；局部一致性

Altered Interhemispheric Functional Connectivity in Patients with Obsessive-compulsive Disorder and Its Potential in Therapeutic Response Prediction and Diagnosis

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Objective The trajectory of voxel-mirrored homotopic connectivity (VMHC) values after medical treatment in obsessive-compulsive disorder (OCD) and its value in diagnosis remain unclear. This study aimed to investigate the pathophysiological mechanism of OCD, as well as biomarkers for diagnosis and prediction of pharmacological efficacy.

Methods Thirty-four drug-naive patients with OCD and 36 healthy controls (HCs) underwent magnetic resonance imaging. The patients were scanned again after a 4-week treatment with paroxetine. The acquired data were subjected to VMHC, support vector machine (SVM), support vector regression (SVR), and correlation analyses.

Results Compared with HCs, patients with OCD exhibited significantly lower VMHC values in the bilateral superior parietal lobule (SPL), postcentral gyrus (PoCG), and calcarine cortex (CC), and the VMHC values in the PoCG were positively correlated with cognitive function. After treatment, the patients showed increased VHMC values in the bilateral posterior cingulate cortex/precuneus (PCC/PCu) with the improvement of symptoms. SVM results indicated that the combined VMHC values in the SPL and PoCG could differentiate patients with OCD with an accuracy of 90%. SVR results showed that the VMHC values in the PoCG at baseline could aid to predict a reduction in the scores of OCD scales.

Conclusion This study revealed that SPL, PoCG, and CC participate in the pathophysiological mechanism of OCD while PoCG and PCC/PCu participate in the pharmacological mechanism. The VMHC values in the SPL and PoCG are potential biomarkers for diagnosis and those in the PoCG are a potential predictive biomarker of the treatment effects in OCD.

关键字：support vector machine; voxel-mirrored homotopic connectivity; dorsal attention network; sensorimotor network; visual network

抑郁障碍患者的脑电微状态改变及其与认知功能的关联

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目的 脑电（EEG）微状态分析是利用多通道 EEG 信号全局拓扑结构评估脑功能网络的方法，而异常的网络功能与某些精神障碍相关。因微状态具有丰富的时间信息，可为识别 EEG 特征提供强大的工具。已有研究显示抑郁障碍患者的静息态脑电微状态存在异常，然而其与抑郁障碍的认知功能关联较少被研究。本研究旨在探索抑郁障碍患者的脑电微状态改变及其与认知功能的关联。

方法 在本研究中，共纳入 24 名抑郁障碍患者（患者组）和 32 名健康人群（对照组）。通过可重复的成套神经心理状态测量（RBANS）采集神经认知数据，

并采用汉密尔顿抑郁量表（HAMD）、汉密尔顿焦虑量表（HAMA）评估被试者的临床特征。通过对静息态脑电拓扑结构被分为 4 个标准类型：A、B、C、D。两组人口学数据采用独立样本 t 检验和卡方检验，认知及微状态指标采用协方差分析（受教育程度为控制变量）。采用 Pearson 相关置换检验探索微状态指标与认知功能的相关性。

结果 1、人口学资料、临床特征、认知功能结果：患者组与对照组年龄、性别匹配无显著差异，受教育程度差异具有统计学意义，故将受教育程度纳为控制变量。神经认知结果无显著差异。 2、在微状态持续时间上，与对照组相比，患者组微状态 C 显著升高（F=6.02, P=0.017）,微状态 D 显著降低（F=19.2，P<0.001）；在微状态出现频率上，患者组微状态显著升高（F=6.2，P=0.016），微状态 D 显著降低（F=5.8，P=0.020）；在微状态覆盖范围上，患者组微状态 C 显著升高（F=10.8，P=0.002），微状态 D 显著降低（F=9.4，P=0.003）；在微状态转换概率上，患者组微状态 A to C 升高、A to D 降低（P=0.018；P=0.002），微状态 B to C 升高（P=0.005），微状态 C to A、C to B 升高（P=0.024；P=0.004），微状态 D to A 降低（P=0.003）。以上 P 值均经过 FDR 校正。 3、Pearson 相关分析置换检验结果显示，微状态 C to B 的转换概率与视觉空间结构呈正相关（r=0.41，P=0.049）。

结论 相较于健康人群，抑郁障碍患者在微状态 C 和微状态 D 的差异具有统计学意义，同时微状态 C to B 的转换概率与视觉空间结构成正相关，可能有助于客观评估相关认知功能。

关键字：抑郁障碍， 脑电微状态，认知

抑郁障碍疗效与心率变异性关联的前瞻性队列研究

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目的 研究抗抑郁药物五羟色胺再摄取抑制剂（SSRIs）治疗抑郁障碍的疗效与心率变异性（HRV）参数的相关性。

方法 本研究采用前瞻性队列研究，招募符合诊断标准的抑郁障碍患者 395 名，口服一线抗抑郁药物 SSRIs 治疗。分别在基线与治疗 1 个月后使用汉密尔顿抑郁量表（HAMD）评定抑郁的严重程度，并进行短程心率变异性检查，时域指标包括：①总的 R-R 间期标准差(SDNN)；②相邻 RR 间期的均方根(RMSSD)；频阈指标包括: ① 低频功率 (LF)；②高频功率(HF)；④ 低频功率/高频功率比率（LF/HF）。研究组为治疗有效组，以 HAMD 评分减分率≥50%；对照组为治疗无效组，以 HAMD 评分减分率＜50%。

结果 受试者完成研究 369 例，其中舍曲林 94 例、艾司西酞普兰 85 例、西酞普兰 33 例、氟西汀 101 例、帕罗西汀 35 例、氟伏沙明 21 例。研究组和对照组在年龄、性别、体质指数、每周运动时间比较无统计学差异治疗（P>0.05)。其中研究组 192 例（52%），对照组 177 例（48%）。研究组和对照组之间 SDNN，RMSSD 和 LF/HF 比值无统计学差异（P>0.05)，而 LF 和 HF 均有显著差异（p<0.001)。相关性分析显示：所有抑郁障碍治疗 HAMD 减分后有更高的的心率变异性。LF，HF，LF/HF 比率与 HAMD 评分呈负相关。

结论 研究显示：抑郁障碍的心率变异性与症状严重程度变化相关，提示心率变异性参数可能作为抑郁障碍的生物学诊断标志物。抗抑郁药物疗效不佳的患者有更低的心率变异性，较低的心率变异性可能作为抗抑郁药物治疗疗效欠佳的预测因素。

关键字：抑郁障碍、疗效、心率变异性、前瞻性队列研究

不同抑郁程度患者抑郁、焦虑水平及认知功能的相关分析

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目的 既往研究发现抑郁症与认知障碍之间存在密切的关系。一方面，抑郁症患者常出现认知障碍的症状，他们常会出现记忆力减退、注意力不集中、决策力下降等症状。另一方面，长期遭受压力的个体，可能会因为适应能力下降而导致认知障碍的出现，而这些认知障碍有可能会进一步引发抑郁症的发生。本研究旨在探讨不同抑郁程度患者其抑郁情绪与认知功能、睡眠、焦虑的关系。

方法 选择 2021 年 3 月到 2023 年 6 月北京某医院门诊收治的 820 例主诉有抑郁情绪的患者为研究对象，所有患者均接受患者健康问卷抑郁症状群量表（PHQ-9）、广泛性焦虑量表（GAD-7）、失眠严重指数问卷（ISI）和符号编码测验（SC）。将患者按抑郁评估结果分为三组：无抑郁组（PHQ-9 < 5 分，n = 201）、轻中度抑郁组(5 ≤ PHQ-9 < 14 分, n = 329)、重度抑郁组(PHQ-9≥15 分，n=290)。比较三组被试的抑郁、焦虑水平和睡眠质量，以及抑郁情绪与认知功能的关系。

结果 单因素方差分析发现，三组被试年龄差异显著，无抑郁组、轻中度抑郁组患者的年龄均高于重度抑郁组 (均 P＜0.05)。卡方检验发现，三组被试性别差异显著，重度抑郁组中女性较多，差异具有统计学意义(P＜0.01)。把年龄、性别作为协变量，进行单变量方差分析发现，重度抑郁组患者的抑郁、焦虑、失眠严重指数显著高于轻中度组和无抑郁组(均 P < 0.001)，轻中度组的抑郁、焦虑、失眠严重指数高于无抑郁组(均 P ＜0.001)；在数字符号编码测验上，重度抑郁组患者完成数和正确数显著低于轻中度抑郁组和无抑郁组 (P < 0.001)，轻中度抑郁组和无抑郁组差异不显著。另外，Spearman 相关分析也发现，抑郁情绪与焦虑、失眠呈显著正相关(均 P＜0.001)，与数字符号编码任务中的完成数、正确数呈显著负相关(均 P＜0.001)。

结论 抑郁症患者的抑郁水平与其焦虑、失眠和

认知功能密切相关。重度抑郁患者常伴发焦虑、失眠及认知功能的下降。抑郁程度越高，认知功能损伤越严重。

关键字：抑郁；认知功能；焦虑；失眠

针对瑜伽治疗重症抑郁症的有效性的一篇系统性综述和荟萃分析

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目的 瑜伽是一种结合了身体和精神锻炼的方法，根据文献报道，瑜伽对于重度抑郁症的辅助治疗是有效和可接受的。本研究旨在进一步探索瑜伽对重度抑郁症患者疗效的证据。

方法 对 PubMed, Embase, Cochrane Library, PsycINFO, SinoMed, CNKI，万方和 VIP 数据库等数据库以确定好的检索式进行了检索，检索的文章日期是从数据库建立到 2022 年 10 月 13 日。筛选出符合纳入标准的瑜伽治疗重度抑郁症患者的随机对照试验后，我们采用 RoB2.0 和 GRADE 质量评级对文献质量进行评价。抑郁症状的改善以贝克抑郁量表(BDI)、汉密尔顿抑郁评定量表(HAMD)或其他量表作为主要结局指标；焦虑症状的改善以汉密尔顿焦虑量表(HAMA)和状态-特质焦虑量表(STAI)作为次要结局指标。采用 95% CI 时的 RR 和 Cohen's d 作为效应大小估计，p 值小于 0.05 表示有统计学意义。除此之外，我们采用 Q 和 I2 评估异质性大小，并且根据研究来源地区（亚洲组和美洲组）、干预类型（瑜伽治疗组和瑜伽辅助药物治疗组）、干预持续时间（以治疗时间 8 周为分界点，小于八周为短程治疗组，大于八周为长程治疗组）、干预频率（以干预频率每周 4 次为分界点，干预频率少于每周 4 次为低频干预组，干预频率超过每周 4 次为高频干预组）进行了亚组分析以及敏感性分析去探讨异质性的来源。

结果 一共有 34 项 RCT 研究纳入研究，其中包括治疗组 1269 例患者和对照组 1072 例患者，48.4%为女性。与对照组相比，BDI-II 结果显示瑜伽对抑郁症状的改善有中等效果,HAMD 结果显示瑜伽对抑郁症状严重程度有中度改善，通过 STAI 的结果可以得出结论，瑜伽对改善焦虑水平的影响较小。以研究地区分组的亚组分析结果显示，来自亚洲的研究比来自美洲的研究的异质性更小且在改善抑郁症状方面有中度的积极效果；以干预类型分组的亚组分析结果显示，瑜伽辅助药物治疗组比瑜伽治疗组在改善抑郁症状方面效果更显著；以干预持续时间分组的亚组分析结果显示，短程治疗组比长程治疗组在改善抑郁症状方面效果更显著；以干预频率分组的亚组分析结果显示，高频干预组比低频干预组在改善抑郁症状方面效果更显著。 所纳入的文献中的瑜伽治疗组在治疗期间均无不良事件发生。

结论 瑜伽可以改善重度抑郁症患者的抑郁症状和焦虑，并且具有安全性和广泛的患者接受度。

关键字：重度抑郁症；抑郁；焦虑；瑜伽；系统综述

Effects of GABA A Receptor Gene Variation on Anxious Depression Mediated by Amygdala Subregion Network

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Objective This study aimed to use genetic imaging analysis to investigate the imaging feature of GABA A polymorphism, especially in the amygdala subregions network. We used an imaging genetic approach to investigate the polygenic effects of the GABA A receptor on the amygdala network in anxious depression (AD).

Methods 182 patients diagnosed with MDD and 64 healthy controls (HC) were recruited. We genotyped the GABA A receptor gene polymorphism and underwent resting state fMRI scan in all subjects. Correlation analysis was employed to explore the relationship between the multilocus genetic profile scores (MGPS) of GABA A receptor, amygdala subregion network functional connectivity and clinical feature in anxious depression patients. The mediation analysis was employed to evaluate the brain function between the GABA A receptor MGPS and the clinical feature in MDD patients.

Results Compared with NAD, the AD patients showed decreased effects in GABA A receptor MGPS. AD patients showed a negative correlation between MGPS and the FC of right CM and right MFG. Then exploring the correlation of abnormal brain function and clinical feature, we found that there was a negative correlation between the FC (right CM and right MFG) and the anxiety/somatic factors. More importantly, right CM and right MFG connectivity mediates the association between GABA A receptor MGPS and anxiety/somatic traits in MDD patients.

Conclusion Our findings suggest that the GABA A receptor multilocus genetic profile makes a considerable contribution to the amygdala network dysfunction and the anxiety/somatic factor in patients with anxious depression. The abnormal amygdala network mediated the susceptibility of GABA A receptors to clinical features in anxious depression patients.

关键字：Major Depressive Disorder (MDD); GABA A receptor; multilocus genetic profile scores (MGPS); Resting-state functional connectivity;

Altered Resting-state Brain Activity in Major Depressive Disorder Comorbid with Subclinical Hypothyroidism: A Regional Homogeneity Analysis

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Objective Major depressive disorder (MDD), a common mental disorder worldwide, frequently coexists with various physical illnesses, and recent studies have shown an increased prevalence of subclinical hypothyroidism (SHypo) among MDD patients. However, the neural mechanisms shared and unique to these disorders and the associated alterations in brain function remain largely unknown. This study investigated the potential brain function mechanisms underlying comorbid MDD and SHypo.

Methods Thirty MDD patients (non-comorbid group), 30 MDD patients comorbid with SHypo (comorbid group), 26 patients with SHypo, and 30 healthy controls were recruited for resting-state functional magnetic resonance imaging (rs-fMRI). We used regional homogeneity (ReHo) to examine differences in internal cerebral activity across the four groups.

Results Compared with the non-comorbid group, the comorbid group exhibited significantly higher ReHo values in the right orbital part of the middle frontal gyrus (ORBmid) and bilateral middle frontal gyrus; decreased ReHo values in the right middle temporal gyrus, right thalamus, and right superior temporal gyrus, and right insula. Within the comorbid group, serum TSH levels were negatively associated with the ReHo values of the right insula; the ReHo values of the right Insula were negatively associated with the retardation factor score; the ReHo values of the right ORBmid were positively correlated with the anxiety/somatization factor scores.

Conclusion These findings provide valuable clues for exploring the shared neural mechanisms between MDD and SHypo and have important implications for understanding the pathophysiological mechanisms of the comorbidity of the two disorders.

关键字：MDD, subclinical hypothyroidism, comorbidity, resting-state fMRI, regional homogeneity

C 反应蛋白、血清叶酸与急性期抑郁症患者自杀意念、行为的关系

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目的 本研究通过使用医院信息系统的电子健康记录数据，了解和探讨急性期抑郁障碍患者自杀意念、行为与 C 反应蛋白、血清叶酸水平间的关系，为预防自杀提供生物学参考指标。

方法 本研究为描述性、回顾性研究，利用基于医院信息系统(hospital information system, HIS)的电子健康记录(electronic health record，EHR)提取患者的临床资料，研 究 C 反应蛋白、血清叶酸与急性期抑郁障碍患者自杀意念、行为的关系。研究将纳入 2019 年 1 月 1 日至 2020 年 12 月 31 日在首都医科大学附属北京安定医院住院及急诊留观治疗的抑郁症患者。依据入组时是否伴有自杀意念、自杀，将其分为抑郁症伴自杀意念、自杀行为组及不伴自杀意念或行为组。比较两组人口学信息、疾病特征及入院后首次的 C 反应蛋白与血清叶酸水平，后将其纳入二元 logistic 回归分析，探索影响自杀意念、行为的独立影响因素。

结果 共纳入 1775 例，其中抑郁症伴自杀意念、自杀行为组 957 例（53.9%），两组 C 反应蛋白差异无统计学意义（$\chi2=0.517$，$P=0.472$）,血清叶酸差异有统计学意义（$\chi2=8.378$，$P<0.004$）。将年龄、性别、吸烟、饮酒史、目前有无工作、婚姻情况、文化程度、有无家族史、病程时长、发病年龄、本次发作精神病症状 CRP 有无异常、血清叶酸有无异常带入到二元 logistic 回归分析，结果显示饮酒（$P<0.05$，OR=1.935，95% CI=1.001-3.741）、未婚（$P<0.05$，OR=0.472，95% CI=0.272-0.820）、高的 C 反应蛋白(＞0.1mg/dL)（$P<0.001$，OR=2.632，95% CI=1.657-4.182）是影响抑郁症患者出现自杀意念、自杀行为的独立危险因素。

结论 C 反应蛋白影响抑郁症患者的自杀意念、行为，临床诊疗上应予以重视。未来需进一步探索抑郁症伴自杀意念、行为者生物学指标上不同，为临床医生提供更精准、复合的参考标准。

关键字：C 反应蛋白;血清叶酸;抑郁症患者自杀意念、行为

Effects of Fluoxetine and Es-ketamine on Depressive Behavior and Expression of Inflammation Related Genes in Mice with Chronic Various Stress

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Background and Objective The inflammatory response might be an important component of the pathogenesis of depression. We explored the effect of fluoxetine and esketamine on depression-, anxiety-like behavior and inflammation-related gene expression in chronic various stress (CVS) mice.

Materials and methods 32 C57BL/6J mice were randomly assigned to the four groups: Control, CVS+Sal, CVS+Flx, CVS+es-Ket. Mice in Control were treated by nothing as comparison. The mice in CVS+Sal, CVS+Flx, CVS+es-Ket were treated by CVS modeling for consecutive 21 days. And then, mice were injected with saline (10 μL/g), fluoxetine (20 mg/kg) or es-ketamine (15 mg/kg) for seven days respectively after CVS. Subsequently, all mice were subjected to open field test, novelty suppressed feeding test, tail suspension test, forced swimming test, and elevated plus maze test to observe the depression and anxiety-like behaviors. Then the mice were sacrificed and plasma were extracted for Elisa test, including IL-1β, IL-6, IL-8, IL-17A, IL-33, TNF-α, IL-4, IL-9, IL-10, IL-24, IL-

24, IL-37, IFN-β, CXCL12 and Arg-1.

Results Compared with the other three groups, CVS group exhibited significant depression- and anxiety-like behaviors, including decreased total open-field motor distance, prolonged feeding latency, immobility time in tail suspension test and forced swimming test. The time to enter the central area of the open field and elevated open arms were also decreased. Additionally, the level of IL-1β, IL-6, IL-8, IL-17A, TNFα, IL-4, IL-9, IL-24, IL-24, IL-37, IFN-β, CXCL12 were increased significantly, while IL-10, IL-33 decreased significantly, and Arg-1 levels showed a downward trend in CVS group. Furthermore, the depression- and anxiety-like behaviors in CVS mice can be reversed effectively by es-ketamine and fluoxetine, evidenced by increased the total distance of open field test, shortened the feeding latency, decreased the immobility time in tail suspension test and forced swimming decreased, the elevated time to enter the central area of the open field increased and elevated open arms in CVS+Flx and the CVS+es-Ket groups. In addition, es-ketamine and fluoxetine improved the level of inflammatory factors in CVS group. It's apparent that the level of IL-1β, IL-6, IL-8, IL-17A, TNF-α, IL-4, IL-9, IL-24, IL-24, IL-37, IFN-β, CXCL12 were significantly decreased, while IL-10, IL-33 were greatly increased and Arg-1 were relieved in plasm of CVS+Flx and CVS+es-Ket groups.

Conclusion Both es-ketamine and fluoxetine can alleviate depression- and anxiety-like behaviors in CVS mice by reducing the level of inflammatory factors and increasing the level of anti-inflammatory factors, it's worth noting that es-ketamine has a faster onset time.

关键字：es-ketamine; fluoxetine; chronic variable stress; inflammatory factors

首发焦虑性抑郁症静息态功能磁共振局部一致性研究

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目的 探究首发焦虑性抑郁症患者及非焦虑性抑郁症患者静息状态时的局部脑的活动差异，以期阐明焦虑性抑郁症的神经基础。

方法 在南京大学医学院附属鼓楼医院及南京医科大学附属脑科医院招募门诊就诊或住院的符合DSM-5 抑郁发作诊断标准的首发未经治疗的抑郁症患者 98 例，17 项汉密尔顿抑郁量表（HAMD17）总分≥17 分。定义 HAMD 焦虑躯体化因子分≥7 分为焦虑性抑郁症，HAMD 焦虑躯体化因子分<7 分非焦虑性抑郁症。将患者分为焦虑性抑郁症组（60 例），和非焦虑性抑郁组（38 例）。同时招募 60 名年龄、性别、教育年限均匹配的健康对照。所有受试入组时签署知情同意书，予 HAMD17 量表评估，评估当天进行 3.0T 静息态功能磁共振扫描，在 Matlab 平台上使用 Data Processing Assistant for Resting-State fMRI（DPARSF）软件对磁共振数据进行预处理并计算局部一致性（ReHo）值。统计分析由 Resting-State fMRI Data Analysis Toolkit（REST）软件完成，先对三组受试脑区 ReHo 值进行方差分析，在方差分析差异脑区的基础上再进行两两独立样本 t 检验，将两组患者差异的脑区与病程、HAMD 总分及因子分进行相关分析。

结果 三组受试 ReHo 值差异有统计学意义的脑区包括左侧颞下回（ITG）、左侧颞中回（MTG）、右侧 MTG、右侧颞上回（STG）及右侧小脑脚 2 区（单个体素 $p<0.001$，连续体素数 $K>26$，Alphasim 矫正后 $p<0.05$）。与非焦虑性抑郁组相比，焦虑性抑郁症组左侧 ITG、左侧 MTG 及右侧 STG 的 ReHo 值显著降低（单个体素 $p<0.001$，连续体素数 $K>3$，Alphasim 矫正后 $p<0.05$）；与健康对照组相比，焦虑性抑郁症组右侧小脑脚 2 区及右侧小脑 9 区 ReHo 值显著降低（单个体素 $p<0.001$，连续体素数 $K>3$，Alphasim 矫正后 $p<0.05$）。焦虑性抑郁症组左侧 ITG、左侧 MTG 及右侧 STG 的 ReHo 值与 HAMD-17 总分、HAMD 因子分、HAMA 总分及病程无显著相关性（$p>0.05$）。

结论 左侧 ITG、左侧 MTG 及右侧 STG 的 ReHo 值降低是焦虑性抑郁区别于非焦虑性抑郁症的特征功能改变，可能参与了抑郁症焦虑症状的神经基础。

关键字：抑郁症；焦虑性抑郁症；静息态功能磁共振；局部一致性

安非他酮对抑郁症患者快感缺失的疗效研究

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目的 了解安非他酮对抑郁症患者快感缺失的疗效，以及对快感缺失不同成分(动机与愉悦、表达)疗效的差异。

方法 本研究根据 ICD-10 诊断标准，应用 SHAPS 量表筛选出服药 8-12 周后仍存在快感缺失的门诊患者（SHAPS 分值≥3），随机分为对照组和研究组。对照组维持 SSRIs 类药治疗，研究组在 SSRIs 类药物的基础上联合安非他酮 300mg/天治疗。在基线期、4 周、8 周、12 周共 4 个时点使用 YMRS、HAMD-17、HAMA、CAINS、SHAPS 进行评估。一共有 62 例患者完成了为期 12 周的随访，其中 30 例对照组，32 例研究组。

结果 基线期，两组患者在性别、年龄、受教育年限、总病程、YMRS、HAMD-17、HAMA、CAINS 总分、CAINS 动机与愉悦、CAINS 表达、SHAPS 无统计学差异。随访 12 周，重复测量方差分析结果显示：CAINS 动机与愉悦上 Ftime=4.753，P=0.005，时间的主效应显著，Ftime*group=4.622，P=0.006，时间与组别的交互效应显著，基线期（F=0.648，P=0.424）、4 周

（F=0.027，P=0.869）、8 周（F=4.892，P=0.031）、12 周（F=4.915，P=0.030），提示提示从第 8 周开始两组间动机与愉悦改善程度开始出现差异，研究组改善明显。CAINS 表达上 Ftime=19.687，P<0.001，时间的主效应显著，Ftime*group=5.074，P=0.002，时间与组别的交互效应显著，基线期（F=2.894，P=0.094）、4 周（F=1.574，P=0.214）、8 周（F=1.729，P=0.193）、12 周（F=2.373，P=0.129），提示在 4 个评估时间点上两组间的表达缺损无统计学差异。在 CAINS 总分上，Ftime=9.470，P<0.001，时间的主效应显著，Ftime*group=5.806，P=0.002，时间与组别的交互效应显著，基线期（F=0.390，P=0.535）、4 周（F=0.249，P=0.620）、8 周（F=5.193，P=0.026）、12 周（F=5.827，P=0.019），提示从第 8 周开始两组间快感缺失改善程度开始出现差异，研究组改善明显。

结论 安非他酮可以改善抑郁症患者的快感缺失。对于动机与愉悦维度改善明显、但对于表达维度改善不明显。

关键字：抑郁症；快感缺失；CAINS

Major Depressive Disorder Is Associated with The Mitochondrial ND1 T3394C Mutation in Two Han Chinese Families

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Objective The purpose of this study was to investigate the possible relationship between mitochondrial ND1 T3394C mutation and Major depressive disorder (MDD).

Methods Clinical data were collected from two pedigrees, and detailed mitochondrial genomes were conducted for the two proband members. Resultant variants were evaluated for evolutionary conservation, allelic frequencies, and structural and functional consequences. Detailed mitochondrial whole genome analysis phylogenetic analysis and haplotype analysis were performed on probands.

Results In this study, we report the clinical, genetic and molecular characterization of two Chinese families with MDD. There were variable ages of onset and severity in depression among these families. These Chinese families exhibited extremely low penetrances of MDD. Sequence analyses of mitochondrial genomes from these pedigrees revealed homoplasmic T3394C (Y30H) mutation. The polymorphism is located at a highly conserved tyrosine at position 30 of ND1 and distinct mtDNA polymorphisms originating from haplogroups M9a3 and M9a.

Conclusion This observation of the T3394C mutation in two genetically unrelated individuals who suffer from depression strongly suggests that this mutation might play a role in the development of MDD. However, there was an absence of functionally significant mtDNA mutations in these two Chinese pedigrees carrying the T3394C mutation. It is therefore possible for nuclear modifier gene(s) or environmental factor(s) to play a role in the phenotypic expression of the MDD-associated T3394C mutation.

关键字：Major depressive disorder; Mitochondrial DNA; ND1; Mutation; Haplogroup; Chinese

糖尿病前期人群的抑郁症状与其糖尿病发病风险的前瞻性关联研究

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目的 探究我国糖尿病前期人群的抑郁症状与其糖尿病发病风险的关联。

方法 本研究的数据来源于中国健康与养老追踪调查 2011-2018 年随访数据。糖尿病前期的定义为糖化血红蛋白范围为 5.7%-6.4%，或空腹血糖水平范围为 5.6-6.9mmol/L。抑郁症状的定义是流调中心抑郁量表（Center for Epidemiologic Studies Depression，CES-D）得分 10 分及以上。糖尿病的定义为 2013、2015、2018 年研究对象自报被医生诊断为糖尿病或者正在服用降糖药物。采用 Cox 比例风险回归模型分析糖尿病前期患者的抑郁症状与其糖尿病发病风险的关联。

结果 共纳入 3956 名 45 岁以上的糖尿病前期患者，平均随访时间为 6.28 年，随访期间首次记录的糖尿病病例共 458 名。调整潜在混杂因素后，与无抑郁症状者相比，有抑郁症状的研究对象的糖尿病风险比（hazard ratio, HR）为 1.31（95%CI：1.07-1.59）。通过亚组分析发现，在女性、更年轻的研究对象、中等体力个体、血脂正常个体、血压正常个体中，抑郁症状与糖尿病的发病风险之间的关联更强。

结论 抑郁症状可增加糖尿病前期患者转化为的糖尿病风险。研究结果提示应重视糖尿病前期患者人群的抑郁症状，将为糖尿病的有效防治提供科学依据。

关键字：糖尿病前期，抑郁症状，糖尿病，队列研究

Evidence of N-linked Glycosylation in Microglia Participated in Depression Based on Pre-clinical Data

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Objective Neuroimmune plays an important role in depression in humans and depressive-like behaviors in mice. According to our previous work, N-linked glycosylation (NLG) might contribute to depressive mice and the neuroinflammation mechanism of major depression disorder (MDD). Additionally, microglia is the main executor of neuroimmune function in the central nervous system. Thus, targeting NLG in microglia of the chronic unpredictable mild stress (CUMS) mouse in this study might offer evidence supporting a potential strategy for MDD.

Methods The CUMS mouse model was established according to the protocol of PaulWillner (Neurobiology of Stress, 2017). According to our previous data, NLG-related genes (especially B4galt1) were found altered in depressive-like mice. Thus, tunicamycin (TU, the inhibitor of NLG), was injected with a candidate concentration as a therapeutic method for depressive-like mice. Immunofluorescence (IF) was used to identify the expression level of B4galt1. The cell counting data were double-blind.

Results (1) Our depressive behavior results showed that the TU injection reduced the immobility time of CUMS mice in the tail suspension test, a despairing degree for rodents. (2) The B4galt1 is expressed on microglia, and neurons, but not on the astrocyte. (3) In CUMS group, the expression level of B4galt1 was increased in microglia, not in neurons.

Conclusion These findings indicate that NLG is associated with MDD, and suggest that therapeutically targeting NLG might be an effective strategy for depressive mice.

关键字：major depression disorder, n-linked glycosylation, chronic unpredictable mild stress

反刍思维是伴非自杀性自伤抑郁症患者的危险因素

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目的 非自杀性自伤行为(Non-suicidal self-injury, NSSI)是严重危害公共健康危害的行为。有证据表明反刍思维可能与自非自杀性自伤行为呈正相关。对于两者关系的性质，尤其是在重度抑郁症患者中，仍然存在分歧。这项研究旨在确定反刍思维是否是非自杀性自伤的危险因素。

方法 以 2022 年 8 月～2022 年 11 月于南京医科大学附属脑科医院情感障碍科住院的 132 例重度抑郁障碍患者为研究对象，根据一系列临床评估，所有参与者被分为两组：伴非自杀性自伤的 MDD 组（n=70）和不伴非自杀性自伤的 MDD 组（n=62）。采用渥太华自伤问卷评估自伤行为，反刍思维量表评估反刍思维（症状反刍、强迫思考、反省深思）。采用二元 logistic 回归分析来评估反刍思维总分及因子分与非自杀性自伤之间的关系。

结果 伴非自杀性自伤的 MDD 组的患者的整体的反刍思维和症状反刍因子都显著高于不伴非自杀性自伤的 MDD 组患者（p=0.03；p=0.008）。此外，尽管没有统计学差异，但在强迫思考和反省深思两个因子中，伴非自杀性自伤的 MDD 组比不伴非自杀性自伤的 MDD 组呈现较高的分数。在控制了年龄、当前的抑郁和焦虑症状以及教育年限后，就因子分而言，具有较高症状反刍的患者更有可能报告非自杀性自伤 [OR（95%CI）=1.352（1.098 1.665），P=0.006]。此外，具有较高强迫冥想的 MDD 患者也更可能报告非自杀性自伤 [OR（95%CI）=1.686（1.164 2.441），P=0.005]。

结论 这些结果表明，反刍思维尤其是症状反刍和强迫冥想可能是非自杀性自伤的一个危险因素。未来的研究应该探索这种关联的潜在机制，以及可能减少非自杀性自伤特定反刍思维的干预措施。

关键字：重性抑郁障碍、反刍思维、非自杀性自伤、危险因素

重性抑郁障碍伴快感缺失症状的相关功能紊乱与自杀意念的关系：基于脑网络分析

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目的 一些流行病学研究和心理学模型提示，重性抑郁障碍伴有快感缺失症状与高自杀意念相关。本研究旨在探究重性抑郁障碍伴快感缺失症状患者异常的功能连接网络及其内部的拓扑特性与自杀意念的关系。

方法 选择 2021 年 1 月到 2023 年 3 月南京医科大学附属脑科医院心境障碍科住院诊断为重性抑郁障碍正处于抑郁发作的患者。共纳入 273 例重性抑郁障碍患者和150名健康对照者，进行静息态磁共振扫描。使用斯奈思-汉密尔顿快感量表将抑郁患者分为高快感缺失 144 人，低快感缺失 129 人。首先，以 AAL3 为模板计算全脑的功能连接值，基于网络的统计方法，计算与快感缺失相关的脑功能网络异常。然后，将差异网络进一步使用图论分析，探究与快感缺失症状相关脑功能网络内的拓扑结构异常。此外，我们使用贝克自杀意念量表对每例患者的自杀意念进行了量化。使用中介分析的统计方法评估了快感缺失症状评分是否可以中介快感缺失相关网络指标与自杀意念之间的关系。

结果 基于网络的统计分析结果显示，伴高快感缺失症状患者在部分额叶-边缘相关网络功能连接异常增加，包括额叶皮质、纹状体、前扣带回皮质和杏仁核等 19 个脑区作为网络节点。对此网络进一步图论分析表明，快感缺失相关的网络表现出明显的全局和局部拓扑结构紊乱，如：显著降低的 gamma 和 lambda 值，

伏隔核节点局部效率显著下降。此外，快感缺失症状评分可以中介快感缺失相关网络指标(网络平均功能连接值、gamma 和伏隔核节点局部效率)与自杀意念之间的关系。

结论 本研究发现，重性抑郁障碍伴快感缺失患者存在脑功能网络及其内部拓扑结构异常。更重要的是，重性抑郁障碍患者存在额叶-边缘相关网络紊乱会通过快感缺失症状导致自杀意念，揭示了快感缺失导致自杀意念的潜在神经机制。

关键字：重性抑郁障碍；快感缺失；自杀意念；基于网络的统计；图论

基于网络统计的抑郁症情绪处理早期阶段大脑功能连接的动态变化

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目的 抑郁症患者存在负性情绪偏向，但其情绪识别早期阶段大脑动态加工的神经机制仍不清楚。本研究旨在探究抑郁症患者负性面孔加工时皮层和皮层下脑区交互作用随时间和频段变化的动态特征，以期发现抑郁症情绪加工早期阶段异常的神经机制，寻找可以早期识别抑郁症的神经电生理标记。

方法 入组南京脑科医院抑郁症住院患者 108 例和 64 例相匹配的健康对照者，利用脑磁图技术（加拿大，CTF275）检测被试在识别负性情绪面孔时的脑磁活动。以 AAL90 为标准模板计算全脑功能连接。以 100ms 为时间窗长，步长 50ms，分别计算 400ms 内 alpha、beta 和 gamma 频段的脑区功能连接。用基于网络的统计方法计算两组之间的大脑功能连接差异。

结果 相对于健康人，抑郁症患者在识别负性面孔时，在 0-100ms, gamma 波段功能连接下降，主要分布在以角回、扣带回、额叶、楔叶为主的默认网络。在 150-250ms, beta 波段功能连接减弱，主要分布在情绪网络。在 200-300ms，alpha 波段功能连接下降，主要分布在枕上回为主的视觉区域。200-300ms alpha 波段的功能连接减弱与连线测试 A 分数呈正相关（r= 0.290,P= 0.035），150-250ms beta 波段的功能连接减弱与 HAMD-17 项分数呈负相关（r= -0.231, P= 0.016），与总病程呈正相关（r= 0.230, P= 0.016）。

结论 抑郁症患者情绪处理早期阶段的不同时间段内，脑区间的动态交互作用不同于健康人，主要表现在与默认网络、情绪网络和视觉网络相关的脑区交互间的功能连接异常下降，这种异常与疾病严重程度有关。提示抑郁症患者在情绪加工早期阶段便出现异常，这可能是抑郁症患者出现负性情绪偏向的早期神经机制之一，为抑郁症诊断的神经标记物提供基础。

关键字：抑郁症 负性情绪 脑磁图 功能连接

伴非自杀性自伤成年早期抑郁症患者磁共振脑白质研究

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目的 近年来，伴非自杀性自伤（non-suicidal self-injury, NSSI）抑郁症的研究受到了广泛重视。NSSI 被认为是预测自杀的因子之一，是一种常见的抑郁症伴随症状。伴 NSSI 抑郁症患者的治疗效果更差，自杀风险更高，更易复发且预后更差。但伴 NSSI 抑郁症的神经机制尚不明确。本研究旨在探讨在伴 NSSI 的抑郁症患者中的脑白质影像学特征。

方法 本研究招募了南京脑科医院精神科从 2020 年 7 月至 2022 年 10 月入院的 18-30 岁的抑郁症患者。根据是否伴有 NSSI，抑郁症患者被分成伴 NSSI 的抑郁症组（MDD/NSSI），和不伴 NSSI 的抑郁症组（sMDD）。一共纳入 54 名 MDD/NSSI 患者和 68 名 sMDD 患者及 66 名年龄、性别、受教育年限匹配的健康被试。对入组被试进行脑磁共振成像扫描，将采集的 DTI 数据预处理后，继续使用 PANDA 软件计算全脑白质 FA 值，并使用 SPSS 软件对结果进行统计分析。

结果 与 sMDD 组相比，MDD/NSSI 组左额枕下束、左钩束、左绦带白质 FA 值异常。与 HC 组相比，MDD/NSSI 组在小脑中角、右小脑上角、左小脑上角、右大脑角、右扣带回、左扣带回均存在异常。与 HC 组相比，sMDD 组在胼胝体、左小脑上角、右大脑角、左矢状层、左外囊、右海马扣带回、右界嵴、左额枕下束、左钩束均存在异常（p<0.05，bonferroni 校正）。

结论 伴 NSSI 的抑郁症与不伴 NSSI 的抑郁症之间在脑白质各向异性值上存在差异，提示 NSSI 可能导致特征性的脑白质结构改变。

关键字：非自杀性自伤；抑郁症；岛叶；白质各向异性；成年早期

心脑交互与抑郁症情绪面孔信息加工功能的关联研究

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背景 与环境背景不相称的情绪低落是抑郁症（Major depressive disorder，MDD）的核心症状，由负性认知框架介导，表现为大脑对情绪信息加工中晚期编码过程的异常。心脑交互（Heart-brain interaction，HBI）与个体情绪联系密切。MDD 患者负性情绪面孔信息加工异常，且在情绪信息加工过程中 HBI 模式也

存在异常。在健康者中，HBI 的电生理能量模式可调节大脑负性情绪面孔信息加工。尚未知 MDD 异常的负性情绪面孔信息加工是否与 HBI 有关。本部分基于《情绪面孔刺激任务》，对大脑情绪信息加工的事件相关电位晚期正成份（Late Positive Potentials, LPPs）以及心跳诱发电位（Heart-evoked potentials, HEPs）特征进行分析，探讨 MDD 患者 HBI 对情绪面孔信息加工功能的影响。

方法 选取符合 DSM-IV诊断标准的 MDD 患者 27 例以及 27 名健康对照者（HC）作为研究对象。记录被试者执行《情绪面孔刺激任务》时的心电与脑电数据；分析每次情绪面孔图片刺激前的 HEPs 与不同情绪面孔图片刺激后 LPPs 特征并进行溯源分析；结合临床特征，应用回归分析建立预测模型，探讨 HEPs 与 LPPs 之间的关系。

结果 MDD 组与 HC 组人口学资料比较差异无统计学意义（均 $p>0.05$）。MDD 组在情绪面孔刺激前右额顶叶（F2，F4，F6，FC2，FC4）的 HEPs 波幅低于 HC 组（均 $p<0.05$），正/中/负性情绪面孔刺激后 MDD 组左额叶及右顶枕叶 LPPs 平均波幅较 HC 组降低（均 $p<0.05$）；溯源分析显示 MDD 组异常的 HEPs 与前扣带回（Anterior cingulate cortex，ACC）激活度降低相关，负性情绪面孔刺激下异常的 LPPs 与 ACC 的激活度降低、右脑岛的激活度增高相关；MDD 组异常的 HEPs 波幅仅预测负性情绪面孔刺激下异常的 LPPs。

结论 MDD 患者 HBI 电生理能量模式异常，对负性情绪面孔信息晚期编码产生影响；ACC 及右脑岛功能异常是 MDD 患者异常 HBI 电生理能量模式影响大脑负性情绪面孔信息加工的时空特性的神经基础。

关键字：抑郁症；心脑交互；情绪识别；脑岛；前扣带回

抑郁症伴焦虑症状患者认知功能损害特点研究

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背景 ：伴有焦虑症状的抑郁症患者非常常见，一般症状更重预后不良，并且伴有广泛的认知功能的损害，但抑郁症伴焦虑症状对特定认知领域的影响尚存在争议。

方法 对 169 名抑郁症伴焦虑症状患者、77 名抑郁症不伴焦虑患者以及 108 名健康人进行四个维度的认知评估，评估的项目如下：连线测试 B（TMT-B ）、数字广度测试 （DSB） 、威斯康辛卡片分类测试（WCST）、语言流利性测试（VFT）衡量执行功能，连线测试 A（TMT-A）衡量注意力，Wechsler 记忆量表修订版 （WMS-R） 的逻辑记忆 （LM） 和图形记忆（FM）用来衡量记忆，数字符号替换测试（DSST）来衡量处理速度。所有抑郁伴焦虑和不伴焦虑组完成 17 项汉密尔顿抑郁量表（HAMD17）和汉密尔顿焦虑量表（HAMA）。抑郁伴焦虑被定义为 HAMA 总分>14 分。采用协方差分析和回归模型分析，以评估抑郁伴焦虑症状患者的认知功能的特定损害。

结果 抑郁伴焦虑和不伴焦虑组与健康对照相比，在认知的四个维度均发现有显著损害（p 均<0.05），在抑郁症伴焦虑组中，控制了年龄、性别和教育年限后发现，HAMA 总分对执行功能有贡献（R2 =0.221，p=0.037），HAMA 中的躯体性焦虑分对处理速度有贡献（R2 =0.327， p=0.045），控制了抑郁的严重程度之后，HAMA 总分对执行功能仍有贡献（R2 =0.221，p=0.036），HAMA 躯体性焦虑对处理速度也同样有贡献（R2 =0.352， p=0.018）；在抑郁伴焦虑组中 HAMD 总分对处理速度也是有贡献的（R2 =0.330， p=0.028），但是在单纯焦虑组中 HAMD 对处理速度没有贡献。

结论 我们的研究表明单纯抑郁症和抑郁症伴焦虑的患者在认知功能方面与健康人在认知的各个方面都是有显著差异的，但是抑郁症中的焦虑症状可能会引起执行功能的损害，躯体性焦虑可能会引起处理速度的损害，消除抑郁症的严重程度的影响后，依然成立。

关键字：抑郁伴焦虑 焦虑症状 认知功能 执行功能 处理速度

伴/不伴忧郁特征抑郁症喜悦表情刺激下眶额回时频能量差异研究

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背景 ：眶额叶皮层过度激活在重度抑郁症患者奖赏功能障碍中起着核心作用。伴忧郁特征亚型具有高度的异质性，病理生理机制主要与奖赏功能失调有关。然而，眶额叶皮层活动在伴忧郁特征亚型中的改变仍不清楚。 目的 研究在喜悦面孔刺激下，伴忧郁特征抑郁症患者眶额叶皮层活动的改变，及与忧郁特征维度的关系。

方法 纳入伴忧郁特征抑郁症患者 18 例、不伴忧郁特征抑郁症患者 21 例及健康志愿者 22 例，进行喜悦表情刺激下的脑磁图扫描。利用时间频率分析方法，通过聚类置换检验比较三组喜悦表情刺激后 0-500ms，频率段为 4-80HZ 下眶额叶皮层的时频能量。使用内源性汉密顿抑郁量表（Hamilton Endogenomorphy Scale）评估患者的忧郁特征维度，采用偏相关分析探索患者组眶额叶皮层时频能量与忧郁特征维度的关联。

结果 在刺激任务的中后期，alpha 和 beta 频段内，伴忧郁特征组眶额叶时频能量均显著高于不伴忧郁特征组和健康对照组，而不伴忧郁特征组与健康对照组之间无显著性差异。控制年龄、性别、教育水平后，患者组 beta 频段眶额叶皮层时频能量与忧郁特征维度总分呈正相关（$pr=0.355, p<0.05$），alpha 频段眶额叶皮层时频能量与忧郁特征维度无相关性（$pr=0.217, p>0.05$）。

结论 我们的研究结果表明，伴和不伴忧郁特征抑郁症患者喜悦表情刺激下的眶额回激活程度不同。眶额回 beta 频段时频能量增加可能是伴忧郁特征亚型独特的神经生物学特征。

关键字：伴忧郁特征；抑郁症；奖赏；眶额叶；脑磁图。

Sex Differences in Prevalence and Clinical Correlates of Suicide Attempts in First-episode and Drug-naive Patients with Anxious Depression in A Chinese Han Population: A Large-scale Cross-sectional Study

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Objective Depression and anxiety disorders have a high co-morbidity rate. Previous research has focused on risk factors for anxiety depression (AD). However, fewer studies have examined sex differences in the prevalence of suicide attempts among AD patients. This study aimed to explore sex differences in suicide attempts and risk factors in patients with AD.

Methods This study recruited 1380 first episode and drug-na?ve patients with AD. Sociodemographic and clinical characteristics were measured using a self-administered demographic questionnaire. In addition, the Hamilton Depression Scale (HAMD), Hamilton Anxiety Inventory (HAMA), and positive subscale of the Positive and Negative Syndrome Scale (PANSS) were used to assess patients' clinical symptoms. We also measured the patient's blood glucose, lipids, blood pressure, and thyroid axis hormone levels. Chi-square tests and t-tests were used to account for differences between groups. A two-way ANOVA was used to explore group differences in sex and suicide attempts (with or without suicide attempts). A binary logistic regression analysis assessed the risk factors for suicide attempts in male and female patients.

Results There were no sex differences in the prevalence of suicide attempts in patients with FEDN anxious depression (male: 22.9% vs. female: 25.0%, P = 0.428). Compared with male AD patients, female patients were older and had a higher age of onset (P < 0.0001, Bonferroni corrected P < 0.05/15 = 0.003). Two-way ANOVA analysis showed that suicide attempts had a significant effect on illness duration, HAMD score, HAMD score, PANSS positive score, TSH levels, TgAb levels, TC levels, HDL-C levels, and LDL-C levels (all P < 0.005). Furthermore, HAMA score and TPOAb were associated with the times of suicide attempts in both male and female patients with AD, while HAMD score was related to the times of suicide attempts in female AD only. In addition, binary logistic regression analysis showed that HAMA score, TSH levels, and TPOAb levels significantly predicted suicide attempts in both male and female patients with AD, while HAMD score significantly predicted suicide attempts in female patients with AD only.

Conclusion There were no sex differences in the prevalence of suicide attempts in FEDN patients with AD. The severity of anxiety and higher levels of TSH and TPOAb were risk factors for suicide attempts in both male and female patients with AD, whereas the severity of depression was only associated with suicide attempts in females.

关键字：Major depression disorder; anxiety; suicide; risk factors; sex differences

U-shaped Association between Triglyceride Glucose-body Mass Index and Suicide Attempts in Chinese Patients with First-episode Drug-na?ve Major Depressive Disorder

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Objective Triglyceride glucose-body mass index (TyG-BMI) has been suggested as an alternative indicator of insulin resistance (IR). However, the relationship between TyG-BMI and suicide attempts (SA) remains unclear. The aim of this study was to examine the association between TyG-BMI and SA in Chinese patients with first-episode drug-na?ve (FEDN) major depressive disorder (MDD).

Methods From September 2016 to December 2018, 1718 FEDN MDD patients aged 34.9 ± 12.4 years were enrolled in this cross-sectional study from the First Hospital of Shanxi Medical University (Taiyuan, Shanxi Province, China). A multivariable logistic regression analysis was used to estimate the association between TyG-BMI and the risk of SA. Threshold effects were examined by a two-piecewise linear regression model. Interaction and stratified analyses were performed based on sex, education, marital status, comorbid anxiety, and psychotic symptoms.

Results After adjusting for confounders, multivariate binary logistic regression analysis revealed that the association between TyG-BMI and SA was not significant (OR = 1.00, 95% CI: 1.00–1.01, P=0.10). However, smoothing plots showed a nonlinear relationship between TyG-BMI and SA, with the inflection point of TyG-BMI being 210. The effect sizes and the confidence intervals on the left and right sides of the inflection point were 0.99 (0.97-0.999, P= 0.03) and 1.01 (95%CI: 1.00 to 1.05, P< 0.001), respectively.

Conclusion A U-shaped relationship between TyG-BMI and SA in FEDN MDD patients was found, with the lowest risk of SA at a TyG-BMI of 210, indicating that both the lower and higher TyG-BMI levels may lead to an increased risk of SA.

关键字：Triglyceride glucose-body mass index, Suicide attempts, Insulin resistance, Major depressive disorder

基于代谢组学的抑郁障碍相关标志物探索：一项病例对照研究

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目的 抑郁障碍(Major Depressive Disorder, MDD)发病机制复杂。代谢组学（Metabolomics）可通过对机体内源性小分子代谢物及其涉及的代谢通路进行分析从而探究代谢物与机体生理病理变化之间的相互关系。本研究通过比较抑郁障碍患者与健康人的血清代谢产物及相关代谢途径的差异，结合差异代谢物的生物学功能，为抑郁障碍的发病机制提供新的理论基础及标记可能的生物标志物。

方法 （1）纳入符合 ICD-10 诊断标准的抑郁障碍患者和与之匹配的健康对照者各 80 名。（2）采用 Seriomics 一步法（MTBE-甲醇-水三相溶剂体系）提取受试者血清中极性亲水的代谢物组分和疏水的非极性代谢物组分（脂质），并采用超高效液相色谱-高分辨质谱法（UPLC-HRMS）非靶向代谢组学技术进行检测。（3）通过主成分分析、正交偏最小二乘法-判别分析（OPLS-DA）明确两组代谢物之间的差异。以 VIP> 1.0 且 P<0.05 为标准筛选差异代谢物。（4）应用 KEGG (Kyoto Encyclopedia of Genes and Genomes)数据库采用过表达分析方法进行通路富集分析，得到与差异代谢物相关的重要代谢途径。

结果 （1）本研究最终确定了 33 种差异代谢产物。与正常对照组相比，代谢产物羟基二十碳四烯酸、羟基十八碳二烯酸、L-谷氨酸等水平显著升高，代谢产物 N2 甲基鸟苷、血叶啉、牛磺鹅去氧胆酸、血清素等水平显著降低。进一步筛选显示，氨基酸中的血清素、L-谷氨酸和 L-天冬氨酸、不饱和脂肪酸中的花生四烯酸和甘油磷脂中的溶血磷脂酰胆碱与抑郁障碍显著相关。（2）具有显著差异的代谢途径主要涉及苯丙氨酸、酪氨酸和色氨酸的代谢、氨酰基 tRNA 的代谢、丙氨酸、天冬氨酸和谷氨酸的代谢、精氨酸的代谢、缬氨酸、亮氨酸和异亮氨酸降解代谢等。结合代谢途径的生物学效应，表明苯丙氨酸、酪氨酸和色氨酸代谢以及精氨酸代谢途径与抑郁障碍显著相关。

结论 抑郁障碍存在显著的代谢物和代谢通路异常。其中，苯丙氨酸、酪氨酸和色氨酸代谢以及精氨酸代谢通路中代谢物水平的改变可能是抑郁障碍的生物标志物。

关键字：抑郁障碍；生物标志物；代谢组学

基于真实世界证据探索伴自杀意念或行为的抑郁症患者的临床特征、治疗特点及疾病负担

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目的 利用真实世界数据探讨精神专科医院中伴自杀意念或行为的抑郁症患者的临床特征、治疗特点以及疾病负担。

方法 本研究为描述性、回顾性研究，利用基于 HIS 系统的电子健康记录提取患者的临床资料。研究纳入 2013 年 1 月 1 日至 2020 年 12 月 31 日在首都医科大学附属北京安定医院住院及急诊留观治疗的抑郁症患者。依据入组时是否伴有自杀意念和（或）自杀行为，将入组患者分为抑郁症伴自杀意念组，抑郁症伴自杀行为组及抑郁症阳性对照组。在数据库中提取并比较三组患者入院治疗过程中的治疗特点，一般人口学信息、临床资料、治疗情况及疾病负担，并在患者出院后 1 年的观察期内研究患者的复燃与复发的情况。

结果 研究发现伴自杀意念及行为的抑郁症患者在人口学特征（如年轻、女性、无业）和临床特征（如起病年龄早、伴有精神病性症状、存在起病诱因）等方面与抑郁症阳性对照组患者相比存在显著差异。在疾病负担方面，伴自杀意念或行为的抑郁症患者常需要多次住院，每次住院需要花费更多的费用，提示此类患者的疾病负担更重。在治疗方面，有超过 30%的患者需要经过 4 轮以上的治疗，超过 90%的患者单独或联合使用抗抑郁药，其中 SSRIs 抗抑郁药最常使用。无论在治疗初期还是在出院时，伴自杀意念或行为的抑郁症患者的治疗方案更复杂。其在治疗过程中合并 ECT 治疗的比例更高，随着治疗轮次的增加，合并使用抗精神病药及心境稳定剂的比例在逐步增加。在出院后半年内，伴自杀意念或行为的抑郁症患者更容易出现疾病复燃。

结论 伴自杀意念或行为的抑郁症患者具有独特的人口学及临床特征，其治疗方案更复杂、疾病负担更重且更容易出现疾病复燃。

关键字：抑郁症 自杀意念 自杀行为 临床特征 治疗特点 疾病负担

Links Among Genetic Variants and Hierarchical Brain Structural and Functional Networks for Antidepressant Treatment: A Multivariate Study

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Objective Antidepressant treatment effects are strongly heritable and have substantial effects on brain function and structure, but the underlying mechanisms are still poorly understood. In this research, we aimed to evaluate the factors of single nucleotide polymorphisms (SNPs) and hierarchical brain structural and functional networks that were associated with antidepressant treatment. Moreover, we further explored the correlations and mediation

pattern among “brain structure-brain function-gene” in major depressive disorder (MDD).

Methods We analysed 405 SNPs and rich club/feeder/local connections of hierarchical structural and functional networks with three-way parallel independent component analysis in 179 MDD patients. The group-discriminative independent components of the three modalities between responders and non-responders of antidepressant treatment were identified. Pearson correlations and mediation analysis were further utilized to investigate the associations among SNPs and connections of the structural and functional networks.

Results Notably, correlations with antidepressant treatment outcomes were found in structural, functional and SNP modalities simultaneously. The features of group-discriminative independent components included the shared feeder connections of hub regions with the inferior frontal orbital gyrus and amygdala in structural and functional modalities and genes enriched in circadian rhythmic processes and dopaminergic synapse pathways. The structural feeder network displayed close correlations with SNPs and the functional feeder network. Furthermore, the structural feeder network could mediate the association between SNPs and the functional feeder network, implying that genetic variants might influence brain function by affecting brain structure in MDD.

Conclusion These findings provide potential biomarkers for antidepressant therapy and provide a better grasp of the associations among SNPs and hierarchical structural and functional networks in MDD.

关键字：Antidepressant treatment, single-nucleotide polymorphism, diffusion tensor imaging, functional magnetic resonance imaging, multimodal fusion

抑郁症发展轨迹对自杀意念的影响研究

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目的 抑郁症患者的抑郁症状发展轨迹具有异质性及长期稳定性，不同的抑郁症状发展轨迹对自杀意念可产生不同程度的影响，有效识别抑郁症的发展轨迹是为受影响的个体提供及时有效治疗方法和干预措施的基础。

方法 本研究基于 DCC 队列（Depression Cohort of China）中抑郁症患者开展前瞻性队列研究，基线调查后（T1），于 4 周（T2）、8 周（T3）、12 周（T4）及 24 周（T5）开展随访，采用潜类别轨迹模型（Latent Class Trajectory Models， LCTM）识别抑郁症异质性发展轨迹。采用多项 Logistic 回归模型发现异质性轨迹的危险因素。以自杀意念为结局，采用生存分析方法探索抑郁症异质性发展轨迹对自杀意念的影响。

结果 研究共纳入抑郁症患者 904 人，经 LCTM 模型拟合总体样本可分为无应答组 171 人（18.92%），起效未缓解组 539 人（59.62%）及缓解组 194 人（21.46%）。无应答组与缓解组相比，有较高的基线抑郁症状评分（PHQ-9：AOR=1.12,95%CI=1.05-1.19）、躯体疼痛症状（SSI: AOR=1.05,95%CI=1.01-1.09）为无应答的危险因素，较好的心理弹性（CD-RISC：AOR=0.97,95%CI=0.96-0.99）为保护因素。起效未缓解组与缓解组相比，较高的基线抑郁症状评分（PHQ-9：AOR=1.10,95%CI=1.04-1.16）、人口学信息中未婚/离异丧偶、躯体疼痛症状（SSI 疼痛：AOR=1.05,95%CI=1.00-1.09）以及自杀意念（BSSI：AOR=1.05,95%CI=1.02-1.08）为起效未缓解组的危险因素。队列中基线无自杀意念的抑郁症患者 208 人，经 Cox 回归发现无应答组及起效未缓解组是缓解组自杀意念风险的 15.44 倍（95%CI=5.89-40.44）及 5.37 倍（95%CI=2.25-12.81）。抑郁症状是独立且唯一的风险因素。

结论 抑郁症病程发展可表现为治疗无应答、治疗起效但未缓解及治疗缓解三种类型，无应答及起效未缓解是抑郁症自杀意念发生的独立且唯一的风险因素。定期开展抑郁症状的随访监测，发现影响症状发展的危险因素，有针对性地开展预防措施，对抑郁症的预防及治疗具有重要意义。

关键字：抑郁症，发展轨迹，自杀意念，影响因素

罗伊适应模式心理护理对心境障碍抑郁发作患者生活质量及满意度的影响

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目的 为了探究在心境障碍抑郁发作患者的临床护理干预中，罗伊适应模式心理护理对患者生活质量及满意度的影响。

方法 此次纳入实验研究的对象均为 2021 年 4 月至 2022 年 4 月我院收入的心境障碍抑郁发作患者 90 例，按照患者的入组时间，采用数字标记方式，将其分成对照组（常规护理）与研究组（罗伊适应模式心理护理），分别收入患者 45 例，比较两组患者的生活质量各项评分、抑郁焦虑情况、满意度等指标。

结果 护理前，比较两组患者的生活质量评分，组间对比结果缺少差异性，P＞0.05；护理后，研究组精神健康、总体健康、社会功能、精力、生理职能、身体疼痛、情感职能、生理功能等内容评分结果均明显高于对照组，差异有统计学意义（P＜0.05）。护理前，比较两组患者 SDS 评分与 SAS 评分，组间对比结果缺少差异性，P＞0.05；护理后，研究组 SDS 评分为（33.14±1.19）分、SAS 评分为（31.11±1.57）分；对照组 SDS 评分为（44.28±3.37）分、SAS 评分为（42.38±3.52）分，干预组均明显低于对照组，差异有统计学意义（P＜0.05）。研究组护理满意度为 95.56%，对照组为 77.78%，研究组明显高于对照组，差异有统计学意义（P＜0.05）。

结论 对于心境障碍抑郁发作患者而言，有效的护理干预措施是非常重要的，罗伊适应模式心理护理是一种先进的护理干预措施，能够对患者的心理状态

做出有效干预，能够有效缓解患者的心理焦虑抑郁问题，使患者更好地面对生活，促进生活质量的不断提升，而且还会对护理服务工作更加满意，在临床护理中应推广使用范围。

关键字：心境障碍抑郁；罗伊适应模式；心理护理；生活质量；满意度

首发重性抑郁症患者肠道菌群组成及与胃肠道症状的相关性

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目的 在本研究中，我们旨在探索首发未治疗的 MDD 患者肠道菌群的特征及其与炎症标志物和胃肠道症状的相关性，为 MDD 的治疗提供理论依据。

方法 收集符合入排标准的 91 例首发未服药的 MDD 患者和 105 名健康对照者（Healthy Controls，HCs)。采用 16S rRNA 测序技术和生物信息学分析评估粪便菌群组成。采用酶联免疫吸附试验(Enzyme Linked Immunosorbent Assay，ELISA)检测外周血超敏 c 反应蛋白(hs-CRP)、白细胞介素-1β（IL-1β）、白细胞介素-6（IL-6）、白细胞介素-10（IL-10）和肿瘤坏死因子-α（TNF-α）; 采用胃肠症状评定量表(Gastrointestinal Symptom Rating Scale， GSRS)和汉密尔顿抑郁量表（Hamilton Depression Scale， HAMD）分别评估胃肠道症状和抑郁症状的严重程度。

结果 所有的 MDD 患者都伴有胃肠道症状，食欲下降、早饱感、恶心呕吐的发生率均高于 70%。与 HCs 相比，MDD 患者外周血中 hs-CRP 水平明显升高 ($P < 0.05$) ；肠道菌群分析显示两组受试者肠道菌群 α 多样性（Simpson 指数和 Pielous 均匀度指数）和 β 多样性存在明显差异($P < 0.05$) 。 LEfSe 分析发现，在属的水平上，MDD 组具有较高的地嗜皮菌属、异斯卡多维亚菌属、双歧杆菌属、布洛特菌属、钩丝菌属、红长菌属、马赛菌属、嗜血杆菌属、Candidatus_Xiphinematobacter 和 Chthoniobacter，较低的拟杆菌属、副拟杆菌属、SMB53、厌氧菌属、梭菌属、毛梭菌属、罗斯氏菌属、 粪杆菌属、瘤胃球菌属、小杆菌属、考拉杆菌属和萨特氏菌属。相关性分析发现罗斯氏菌属、萨特氏菌属、副拟杆菌属的相对丰度与 hs-CRP、HAMD-17、GSRS 总分及部分条目呈负相关 ($P < 0.05$)。

结论 MDD 患者肠道菌群紊乱，外周血 hs-CRP 升高。MDD 患者改变的肠道菌群与 hs-CRP、抑郁症状和胃肠道症状密切相关。

关键字：重性抑郁症; 胃肠道症状; 肠道菌群; hs-CRP

Gut Microbiota Characteristics and Its Immunoregulatory Role in Inflammatory Depression：joint Clinical and Animal Data

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Objective Previous studies have reported that inflammatory depression is a treatment-resistant depression subtype associated with specific symptoms and biological abnormalities and gut microbiota may be the source of low-grade inflammation. But the gut microbiota features and its roles of immunoregulation in this subtype of depression remains uncertain. we propose that TLR-4/NF-κB and NLRP3 inflammasome signalling pathway activated by disordered gut microbiota could contribute to intestinal and central inflammation in inflammatory depression.

Methods To test this hypothesis we performed studies in both human and mice. Gut microbiota composition in stool, inflammation factor and SCFAs in plasma, inflammatory and permeability marker in intestinal mucosa were analyzed in inflammatory depression patients. Then we performed fecal microbiota transplantation (FMT) and probiotic supplement to determine whether the behavioral phenotypes were linked with disturbed gut microbiota in inflammatory depression.

Results Compared to HCs, depressive patients have decreased SCFA-producing bacteria, higher hs-CRP and lower SCFAs in plasma, decreased intestinal barrier, enhanced inflammatory markers. Compared with non-inflammatory depression and HCs, the relative abundance of Bacteroides was significantly higher and Clostridium was lower in inflammatory depression patients. Further, we identify the SCFA-producing species and butanoate metabolism abnormal in inflammatory depression by shotgun metagenomic sequencing. After FMT, gut microbiota of inflammatory depression increased the inflammatory factors such as TLR-4, NLRP3 (intestinal mucosa), hs-CRP (plasma), TLR-4, NF-κB, NLRP3, Caspase-1, IL-1β and iba-1 (brain) and intestinal mucosal permeability in recipient mice with depressive and anxiety-like behaviors. Clostridium butyricum treatment can normalize the gut microbiota, repair “gut leak”, decrease the peripheral and central inflammatory factors and have an antidepressant-like effect in the mouse model of inflammatory depression.

Conclusion This study suggest that inflammatory depression had increased pro-inflammatory genera and decreased SCFAs producing genera. The gut microbiota-derived inflammatory processes are involved in pathology of inflammatory depression and TLR-4/NF-κB and NLRP3 inflammasome signalling pathway, at least in part, mediate this interaction.

关键字：Inflammatory depression, Gut microbiota, Immunoregulation, Intestinal mucosal permeability

Forebrain and Liver Differential MRNA Expression Profiling of Chronic Unpredictable Mild Stress Induced Mice Base on Transcriptome Sequencing

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Objective Based on the evidence from the World Health Organization, depression is one of the top five leading causes of global burden of disease, as well as an important cause of suicidal behavior. The prefrontal cortex and hippocampus are two major divisions of the forebrain. Dysfunction in both of them plays an important role in depression. Besides, as the largest internal organ in the human body, liver and depression are related in several ways, including inflammation and energy metabolism. Over the decades, depressive-like animal models provide chances to explore potential mechanism of this disease. In the current study, we aimed to compare the gene expression profile of both the central nervous system and peripheral immune-related organ in the chronic unpredictable mild stress (CUMS) mice with their controls, expecting to figure out the key molecular profiles and signaling pathways involved in potential pathogenesis of depression.

Methods In total, 40 male C57BL/6 mice aged 6-8 weeks were grouped into the CUMS group (n=25) and the control (CT) group (n=15), which were housed under standard condition, with five mice per cage. We conducted a 6-week CUMS model, with various mild stressors exposures including tail pinch (2 min), food deprivation (24 h), water deprivation (24 h), damp sawdust (24 h), cage tilting of 45° (24 h), noise (2 h), body restraint (3 h), ice-water swimming (5 min) and 45℃ housing (30 min). After all the stimulus, behavioral measurements were performed on both CUMS and CT mice, including the sucrose preference test (SPT), the forced- swimming test (FST), the tail suspension test (TST) and the open-field test (OFT). Then tissues of prefrontal cortex, hippocampus and liver of 6 mice from each group were dissected for tanscriptome sequencing and bioinformation analysis.

Results After the 6-weeks CUMS modeling, the weight of the CUMS mice showed a significant decreasing. The CUMS mice exhibited lower sucrose preference, more immobility time in both FST and TST, while the total distance in OFT of the two groups displayed no statistically significant difference. There were 64 genes up regulated and 88 down regulated genes in prefrontal cortex of CUMS mice compared to CT mice. The function of the up regulated genes mainly enriched in the domain of cholesterol metabolism. In comparison with the CT mice, there were 126 up regulated genes, which were enriched in steroid metabolic process, and 359 down regulated genes in CUMS mice. As for the tissue of liver, the CUMS mice showed 115 up regulated genes and

Conclusion Based on the combination of transcriptome sequencing, our results suggested that genes involved in cholesterol metabolism and immune response process are affected most significantly after CUMS in mice. These findings provide opportunities to further dissect the mechanism underlying metabolism and inflammation perceived threat in conditions of depression and revealing potential therapeutic targets for depression.

关键字：Depression, CUMS, transcriptome sequencing, metabolism

The Neural Correlates of The Recognition of Emotional Intensity Deficits in Major Depression: An ERP Study

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Objective Deficits in facial emotional intensity recognition have been associated with social cognition in patients with major depression. The study examined multiple event-related potential (ERP) components in patients with major depression and investigated the relationships between ERPs, social cognition, and clinical features.

Methods Thirty-one patients met DSM-IV diagnosis of depression and 31 healthy participants completed the emotion intensity recognition task (EIRT), while ERPs were recorded. Data on ERP components (P100, N170, P200, and P300) were analyzed.

Results The behavioral results showed that patients with major depression performed worse on EIRT, including all six categories of emotions (sadness, disgust, happiness, surprise, anger, and fear), compared to healthy participants. The ERP results showed that patients with major depression exhibited higher P100 amplitudes for sad and happy faces than healthy participants; P300 amplitudes induced by sad and surprise faces were also higher than in healthy participants, mainly in the central and temporal lobes. A positive correlation was found between sadness intensity scores and P100 amplitudes in patients with major depression.

Conclusion Patients with major depression are biased in their identification of facial expressions indicating emotional intensity. Specifically, they have emotional biases in the early and late stages of cognitive processing, mainly in the form of sensitivity to sad stimuli. It may lead to a persistent rumination of sadness that is detrimental to the remission of depression. Additionally, patients with major depression devote different amounts of cognitive resources for different intensities of sad faces during the preconscious stage of cognitive processing. The more intense their perception of sadness, the more cognitive resources they devote. Therefore, the assessment of the intensity of facial expressions is an important research topic, with clinical implications on social cognitive function in patients with major depression.

关键字：major depression, event-related potentials, emotional intensity recognition, social cognition, emotional tasks

Decreased Beta1 (12-15 Hertz) Power Modulates The Transfer of Suicidal Ideation To Suicide in Major Depressive Disorder

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Objective Suicide prevention for major depressive disorder (MDD) is a worldwide challenge, especially for suicide attempt (SA). This study aimed to verify and complement suicide attempts biomarkers of MDD with a recent suicide attempt sample.

Methods This study included 189 participants (60 healthy controls; 47 MDD patients with non-suicide (MDD-NSs); 40 MDD patients with suicide ideation (MDD-SIs); 42 MDD patients with SA (MDD-SAs)).MDD patients with an acute SA time was determined to be within one week since the last SA. SUICIDALITY Part in MINI was applied to evaluate suicidality. Based on previous studies, absolute powers in 14 frequency bands were extracted from subject's resting-state electroencephalography data and compared within four groups. The relationship among suicidality, the number of SA, and powers in significant frequency bands were investigated.

Results MDD-SIs had increased powers in delta, theta, alpha, and beta band on the right frontocentral sites compared to MDD-NSs, while MDD-SAs had decreased powers in delta, beta, and gamma bands on widely right frontocentral and parietooccipital sites compared to MDD-SIs. Beta 1 power was the lowest in MDD-SAs and was modulated by the number of SA. The correlation between suicidality and beta 1 power was negative in MDD-SAs and positive in MDD-SIs.

Conclusion Reduced Beta 1 (12 - 15 Hertz) power could be essential in promoting suicidal behavior in MDD. Research on recent suicide attempt samples contributes to a better understanding of suicide mechanisms and preventing suicidal behavior in MDD.

关键字：suicide attempt, suicide ideation, beta1 absolute power, electroencephalogram, major depressive disorder

天津市成年人群自杀意念危险因素调查

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目的 描述天津市成年人群终生自杀意念的发生率及其特征，并分析其危险因素，为自杀预防提供科学依据

方法 数据来源于天津市精神障碍流行病学调查。采用分层多阶段整群随机抽样，每户家庭随机抽取一位半年内居住满 3 个月的 18 岁及以上成年人作为调查对象。现场调查分两阶段：筛查阶段，采用一般健康问卷（GHQ-12）及 8 个精神障碍扫描问题作为筛查工具，根据筛查结果把调查对象划分为精神障碍低危、中危和高危 3 个等级，共 11748 名受访者完成筛查，使用健康相关生活质量问卷、匹兹堡睡眠问卷评估其生活质量、睡眠质量；诊断访谈阶段，在低危、中危、高危 3 组中分别抽取 10%、40%、100%共 4563 人进行 DSM-IV-TR 轴I障碍临床定式检查及哥伦比亚自杀意念的评估。最后对数据进行加权调整，并运用 SPSS. 23 对数据进行整理和分析。单因素分析时，自杀意念发生率在不同组间比较采用 $\chi 2$ 检验，多因素分析危险因素时采用 logistic 回归分析，$P<0.05$ 时差异有统计学意义

结果 1.完成两阶段调查的受访者共 4438 人（97.3%），503 人存在终生自杀意念，调整后终生自杀意念的发生率为 5.00%（95%CI: 4.36%～5.64%） 2.自杀意念 logistic 回归分析结果显示：女性（OR= 2.45，95%CI：1.80~3.33）、有宗教信仰（OR= 2.66，95%CI：1.72~4.09）、因躯体疾病住过院（OR=1.62，95%CI：1.19~2.20）、存在精神障碍诊断（OR=4.34，95%CI：3.17~5.93）、主观经济状况差（OR=1.89，95%CI：1.38~2.60）、GHQ≥4 分（OR=2.41，95%CI：1.73~3.36）、PSQI＞7 分（OR=1.80，95%CI：1.19~2.73）等因素为自杀意念的危险因素

结论 1.天津市成年人群终生自杀意念的发生率与我国其他地区的研究结果相近，但低于其他大部分国家和地区的研究结果 2.女性、有宗教信仰、因躯体疾病住过院、存在精神障碍诊断、主观经济状况差、GHQ≥4 分、PSQI＞7 分是天津市成年人群终生自杀意念的危险因素

关键字：自杀意念 危险因素 流行病学 天津市

Orbitofrontal Cortex-hippocampus Potentiation Mediates Relief for Depression: A Randomized Double-bl

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目的 It has been 15 years since the FDA approved repetitive transcranial magnetic stimulation (rTMS) targeting the dorsolateral prefrontal cortex (DLPFC) for clinical depression treatment. Yet, the underlying mechanisms for rTMS-induced depression relief are not fully elucidated.

方法 This study analyzes TMS-electroencephalogram (EEG) data from 64 healthy control (HC) subjects and 53 patients with major depressive disorder (MDD) before and after rTMS treatment.

结果 Prior to treatment, patients with MDD have lower activity in the DLPFC, the hippocampus (HPC), the orbitofrontal cortex (OFC), and DLPFC-OFC connectivity compared with HCs. Following active rTMS treatment, patients with MDD show a significant increase in the DLPFC, HPC, and OFC. Notably, the increase in HPC activity is associated explicitly with ameliorating depressive symptoms but not anxiety or sleep quality.

结论 The orbitofrontal-hippocampal pathway plays a crucial role in mediating depression relief following rTMS

关键字：depression; brain stimulation; orbital; hippocampus; circuit;

The Relationship between Theta Power, Theta Asymmetry and The Effect of Escitalopram in The Treatment of Depression

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Objective Only about one-third of depressed patients respond to initial antidepressants treatment. Therefore, it is crucial to find effective predictors of antidepressants. The purpose of our study was to learn the relationship between EEG theta power, theta asymmetry and the efficacy of escitalopram.

Methods The study included 34 patients with depression. Before and after each patient's course of treatment, EEG data was gathered. Both the Hamilton Anxiety Scale (HAMA) and the 17-item Hamilton Depression Scale (HAMD-17) were evaluated simultaneously. The natural logarithm of right frontal theta power minus left frontal theta power was used to calculate inter-electrode theta asymmetry (AT).

Results First, our study found no statistically significant difference between intra-electrode theta power and inter-electrode AT before and after treatment ($P \geq 0.05$). When we later looked at the data regarding treatment effects, the findings revealed that patients ($n = 9$) who did not respond to treatment had lower baseline theta power at C4 [6.190 (2.000, 12.990) vs 15.800 (7.255, 22.330), $z = -2.166$, $P = 0.030$]. The two groups had no difference in other electrodes ($P \geq 0.05$). The AT of C3/C4 in non-responders ($n = 9$) were lower [0.012 (0.795) vs 0.733 (0.539), $t = -3.224$, $P = 0.005$]. However, there was no difference in inter-electrode AT between the two groups in F3/F4 and F7/F8 ($P \geq 0.05$). We finally show that the theta power at C4 was negatively correlated with HAMD scores before treatment ($r = -0.346$, $P = 0.045$).

Conclusion Our findings determined that increased theta power and positive asymmetry in the right frontal-central area correlate with favorable escitalopram treatment, providing a basis for finding predictive markers for antidepressants.

关键字：depression; EEG; theta power; theta asymmetry; treatment effect

Role of Baseline Resting-state Functional Connectivity of The Nucleus Accumbens Subregions in Antidepressant Treatment in Major Depressive Disorder

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Objective The nucleus accumbens (NAc) plays a crucial role in the pathophysiology of major depressive disorder (MDD), and abnormal resting-state functional connectivity (rsFC) of NAc subregions has been found in MDD. However, it is unclear whether the altered rsFC of NAc subregions can predict efficiency of antidepressant treatment, and whether antidepressants can normalize the altered rsFC of NAc subregions in MDD.

Methods We collected resting-state functional magnetic resonance imaging (fMRI) data from 46 unmedicated MDD patients at baseline and after 12 weeks of escitalopram treatment. We also collected fMRI data from 58 healthy controls (HCs). The left and right NAc core-like and shell-like subregions were selected as seed regions for rsFC analyses. We examined group differences in rsFC of NAc subregions between the MDD and HCs cross-sectionally at baseline. We then longitudinally examined whether the altered rsFC at baseline was associated with treatment efficiency, indicated by change in depression severity after 12-week treatment. Lastly, we investigated whether antidepressant treatment normalized the altered rsFC of NAc subregions in MDD.

Results Compared with the HC group, decreased rsFC of NAc subregions with the middle cingulate cortex (MCC) was observed in MDD patients at baseline. In the MDD group, the rsFC of the NAc subregions with the MCC at baseline was negatively correlated with the reduction of depressive symptoms. In addition, the rsFC of the NAc subregions with the MCC was increased after 12-week antidepressant treatment in the MDD group.

Conclusion The present findings suggest that the functional alteration of the NAc subregions with the MCC in MDD patients may serve as a potential biomarker for antidepressant treatment efficiency, and the dysfunction of the frontal-striatal circuit may be a key target for MDD treatment.

关键字：major depressive disorder, antidepressant treatment, resting-state functional magnetic resonance imaging, nucleus accumbens, functional connectivity

首发未用药抑郁症患者精神病性症状与临床特点、脂质代谢的关系

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目的 本研究分析首发未用药重度抑郁障碍（MDD）患者的一般人口学资料及临床特征，探究不同起病年龄组 MDD 伴有精神病性症状(PD)的风险因素。

方法 在山西医科大学第一临床医学院精神科门诊招募首发未用药 MDD 患者，评估工具包括:一般情况调查表、既往躯体疾病与精神科疾病史、临床信息记录、以及汉密尔顿抑郁量表（HAMD）、汉密尔顿焦虑量表（HAMA）、阳性和阴性症状量表（PANSS）等。根据发病年龄分为早发组和晚发组，以再根据是否伴有精神病性症状分组，对组间人口学资料及临床特征进行比较；分层分析 MDD 伴有精神病性症状的风险因素。

结果 晚发组比早发组有更长的未治期(DUP)(5.69±4.158 vs 8.01±5.698, P＜0.001)、更多比例的 PD(14.6% vs 8.3%, P＜0.001)。与伴有精神病性症状（NPD）组相比，PD 组的受教育程度更低(P=0.004)、BMI 更高(24.33±1.926 vs 24.66±1.897，P=0.027)。无论在早发组还是晚发组，与 NPD 组相比，PD 组存在更多的自杀行为史(16.7% vs 51.5%, P＜0.001)、更多的共病重度焦虑比例(5.3% vs 71.3%, P＜0.001)、更高的 HAMD 评分(29.9±2.700 vs 33.87±2.630, P＜0.001)。Logistic 回归分析发现，共病重度焦虑、更高的 HAMD 评分是不同发病年龄组 MDD 患者 PD 的独立危险因素，而 TG 在 EAO 组 MDD 患者中是 PD 风险因素。

结论 MDD 早发组与晚发组伴有精神病性症状的影响因素可能不同，共病重度焦虑、更高的 HAMD 评分是不同发病年龄组 MDD 患者 PD 的独立危险因素，而 TG 在 EAO 组 MDD 患者中是 PD 风险因素。

关键字：抑郁障碍、伴有精神病性症状、早发、晚发、风险因素

首发未用药重度抑郁症患者外周血细胞因子与自杀意念相关性的研究

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目的 长期以来，人们认为异常的细胞因子水平与抑郁症和自杀有关。然而，不同的细胞因子与自杀之间的相关性仍有争议。本研究旨在探讨哪些细胞因子与首发未用药重度抑郁障碍患者的近一周自杀意念的风险存在关联。

方法 在 2021 年 1 月至 2022 年 7 月期间，从天津市安定医院招募 88 名中国汉族首发未用药的重度抑郁障碍患者。使用标准化问卷记录人口统计学特征，采用 Bio-plex 法测定 27 种细胞因子的浓度，贝克自杀意念量表用于评估最近一周的自杀意念，汉密尔顿抑郁评定量表和汉密尔顿焦虑评定量表用于评估抑郁和焦虑症状。单因素和多因素逻辑回归模型被用来评估细胞因子和自杀意念风险之间的关联并根据年龄、性别、婚姻状况、教育水平、吸烟状况和 BMI 进行了分层分析和交互分析。

结果 在 88 名首发未用药的重度抑郁障碍患者中，有 42 名参与者（47.7%）在最近一周有自杀意念。参与者的平均年龄是 30.1 岁（标准差 9.3，范围是 16-52 岁）。参与者中 31 人（35.2%）是男性，53 人（61.6%）是单身，37 人（44.6%）受过高等教育，64 人（72.7%）不吸烟。参与者的平均 BMI 为 23.5kg/㎡（标准差 5.5，范围 14.11-49.54）。单因素逻辑回归分析显示，白细胞介素-2 （IL-2）和血管内皮生长因子（VEGF）的水平与近一周自杀意念的风险有关联的趋势（IL-2：OR：1.276，95CI：0.994~1.637, P=0.056；VEGF：OR：1.004，95CI：1~1.008, P=0.060）。多因素逻辑回归分析显示，即使调整了性别、年龄、婚姻状况、教育、吸烟、BMI、HAMD 和 HAMA 评分，外周血 IL-2 水平升高仍与自杀意念风险增加相关。IL-2 水平每升高 1pg/ml，患者出现自杀意念的风险增加 32.7%（OR：1.327，95CI：1.009~1.746, P=0.043）。分层分析显示，自杀意念的风险与 IL-2 水平之间的关联与多因素逻辑回归分析中的关联是一致的。交互分析未发现明显交互作用（P for interaction＞0.05）。

结论 重度抑郁障碍患者的自杀意念风险与外周血 IL-2 的水平正相关，外周血 IL-2 水平升高，患者近一周出现自杀意念的风险显著增加。

关键字：白细胞介素-2，自杀意念，重度抑郁障碍，首发，未用药，分层分析

抑郁症快感缺失患者海马及其亚区灰质体积改变的磁共振研究

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目的 研究伴有和不伴有快感缺失的重度抑郁症患者海马及其亚区灰质体积的变化，分析抑郁症快感缺失症状和海马亚区结构改变的相关性，探索抑郁症快感缺失的相关病理机制。

方法 研究纳入首发或复发三个月未用药的重度抑郁症门诊患者 70 例，并根据抑郁症诊断标准以及 Snaith-Hamilton 快感量表评估结果将抑郁症患者分为伴有快感缺失特征组（n=30）和不伴有快感缺失特征组(n=40)。同期间纳入性别、年龄匹配的 43 名健康受试者为对照组。所有的参与者均接受临床病史的采集和头颅磁共振扫描，并采用 FreeSurfer 6.0 程序进行海马亚区分割，计算得到海马各亚区的灰质体积。我们通过方差分析比较三组临床特征和海马及其亚区体积的差异，并使用相关分析来探讨海马亚区体积与临床特征之间的关系。

结果 ANOVA 显示三组受试者主要在左侧海马头部，包括左侧 CA1 区、颗粒细胞层-分子层-齿状回区（GC-ML-DG）和分子层区（ML）的头部灰质体积上存在显著差异。随后，两两比较显示，与健康对照组相比，两组抑郁症患者左侧海马头部灰质体积均显著下降。同时，研究发现，与健康对照组相比，仅伴有快感缺失的抑郁症患者在左侧 CA1 区、GC-ML-DG 区和 ML 区头部的灰质体积存在显著的减小；不伴有快感缺失的抑郁症患者与健康对照组在海马各个亚区灰质体积上均无显著差异。在抑郁症患者中进行相关分析显示，海马亚区体积与临床特征之间无显著相关性。

结论 本研究以快感缺失为切入点，发现伴快感缺失的抑郁症患者表现出独特的海马亚区体积减小，主要包括左侧海马 CA1 区和齿状回的体积下降；推测抑郁症快感缺失症状可能与海马特殊亚区结构改变密切相关，为抑郁症快感缺失的神经病理机制提供新证据。

关键字：抑郁症，快感缺失，海马亚区，脑结构

Different Effects of Escitalopram Treatment on Resting-state Functional Connectivity of Large-scale Brain Networks in First-episode and Recurrent Major Depressive Disorder

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Objective Previous neuroimaging studies have revealed the effects of antidepressant treatment on large-scale brain networks, but whether it has different effects on first-episode and recurrent major depressive disorder (MDD) remains unclear.

Methods Resting-state functional magnetic resonance imaging data were collected from 25 first-episode drug na?ve MDD patients, 16 recurrent MDD patients, and 42 healthy controls separately at baseline and after 12-week follow-up. The patients with MDD were administrated with escitalopram treatment for 12 weeks. The large-scale brain networks were constructed by using the human Brainnetome Atlas.

Results Results showed that the decreased functional connectivity between subcortical network (SCN) and ventral attention network (VAN) in recurrent MDD patients increased after 12-week follow-up, and restored to normal. The functional connectivity within frontoparietal network (FPN) in recurrent MDD patients presented same change patterns. However, no significant changes were found in first-episode MDD patients. The functional connectivity in SCN and default mode network (DMN) were decreased in first-episode and recurrent MDD patients during the treatment. In all MDD patients, the change of functional connectivity within FPN was negatively correlated with the change of 16-item Quick Inventory of Depressive Symptomatology score, and the functional connectivity between SCN and VAN at baseline was negatively correlated with the reduction rate of 17-item Hamilton Depression Rating Scale score.

Conclusion In short, the functional connectivity between SCN and VAN, and within FPN may be biomarkers of antidepressant treatment, and it mainly have effects on recurrent MDD patients. The decreased functional connectivity in SCN and DMN may reminder the abnormal characteristics of MDD. These findings could deepen our understanding of the mechanism of antidepressants, and could provide a theoretical basis for realizing individualized precise treatment for MDD in future.

关键字：antidepressant; brain network; functional connectivity; major depressive disorder; restingstate fMRI

基于 GEO 数据库的抑郁症核心 mRNA 筛选及联合调控网络的构建

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目的 本研究旨在利用公共数据库中抑郁症表达谱芯片通过共表达网络分析对 mRNAs 的相互作用进行深入挖掘，筛选出核心 mRNAs，并进行初步的功能探索，为阐明抑郁症的调控机制提供研究思路。

方法 以 GEO（Gene Expression Omnibus）数据库中抑郁症相关基因表达谱芯片结果作为数据来源，经过数据标准化、差异性分析后筛选得到抑郁症和健康对照间差异表达的 mRNAs 作为候选位点。利用 R 软件“WGCNA”程序包进行候选 mRNAs 的共表达网络分析，得到核心 mRNAs 位点；利用“clusterProfiler”程序包中的“enrichGO”和“enrichKEGG”进行 GO 富集和 KEGG 通路分析。通过 miRDB 数据库预测可调控核心 mRNA 的 miRNA（microRNA）位点，形成 miRNA-mRNA 关系对。Cytoscape 3.4.0 进行网络的可视化。

结果 以 GSE98793 作为数据来源，共纳入抑郁症患者 64 例，健康对照 64 例。差异性分析共发现 11 个基因的 FDR 校正 P 值<0.05，48 个基因的 FDR 校正 P 值<0.1，其中 24 个基因在 MDD 组高表达，另 24 个在 MDD 组低表达。进一步扩大筛选范围，选择 P<0.05 的 5459 个基因开展 WGCNA 分析。样本聚类未识别异常样本。以 power=7 作为软阈值，WGCNA 共鉴定出 14 个基因模块，其中 magenta 模块与基因表达具有正相关关系（Cor=0.32,P=0.015）,purple 模块与基因表达具有负相关关系（Cor=-0.28,P=0.047）。Purple 模块共包括 51 个基因位点，6 个位点的关联性较强：HDGF, MPP1, FOXO3B, RHD, TPM1, ALAS2。Magenta 模块共包括 57 个基因位点，5 个基因位点关联较强：LOC339988, KLRD1, TARP, YME1L1, TRDV3。

结论 本研究利用 WGCNA 深入挖掘 GEO 数据库中的表达谱芯片数据，得到 9 个核心 mRNAs 位点，从分子功能、生物通路和转录调控的角度对核心 mRNAs 进行初步的功能探索，构建抑郁症核心 mRNA-miRNA 联合调控网络，为抑郁症调控机制的探索提供新的思路。

关键字：抑郁症，mRNA，microRNA，加权基因共表达网络

Association of Different Duration of Untreated Illness with Thyroid Function in First-episode and Drug Naive Major Depressive Disorder Patients with Comorbid Overweight Or Obesity

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Objective : Abnormal thyroid function and overweight or obesity are common comorbidities in patients with major depression disorder (MDD). Long-term duration of untreated illness (DUI) has been reported to lead to poorer outcomes in MDD patients. However, there are fewer studies on DUI, major depressive disorder comorbid with overweight or obesity , and thyroid function abnormalities. The objective of this study was to investigate the relationship between DUI and thyroid function in first-episode and drug na?ve (FEDN) MDD patients with comorbid overweight or obesity, which received little systemic investigation.

Methods This cross-sectional study recruited 1026 outpatients with FEND MDD. Enrolled patients were divided into two group according to the median DUI: < 0.001). Further linear regression analysis showed that DUI was associated with TSH elevation (B=1.003，P=0.000), and HAMD, TC, LDL-C played a partial mediating role（all P =0.000）.

Conclusion Our results show that the longer DUI of FEDN MDD patients not only has a more negative impact on depression itself, but also has a more negative impact on endocrine and metabolic functions, such as thyroid function and lipid metabolism.

关键字：Keywords: Major depressive disorder; Duration of untreated illness;thyroid abnormalities； overweight or obesity; first-episode and drug-naive

Serum-derived Exosomes of Patients with Depression with Increased MiR-96-5p Inhibits Neuronal Differentiation by Targeting RAC1

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Objective Exosomes are associated with neuronal differentiation in mental diseases such as depression. The study aimed to explore the effects of exosomes on neuronal differentiation and molecular mechanisms.

Methods We isolated the exosomes from the serum of patients with depression and healthy control. The characteristics were identified using transmission electron microscopy, nanoparticle tracking analysis, and western blot. All-trans retinoic acid-treated SH-SY5Y cells were used to establish the differentiation model. Exosomes from depression co-cultured with RA-treated cells, miR-96-5p mimic was transfected, and PMA was used to activate RAC1. Neuronal differentiation indexes were detected by a microscope, real-time PCR, western blot, and immunofluorescence assay. The targeting relationship was assessed by bioinformatic analysis and luciferase reporter assay.

Results The results showed that exosomes inhibited differentiation and neurite length, downregulated SYP, upregulated Nestin, and reduced SYP positive cells. MiR-96-5p was highly expressed in the exosomes of depression. Overexpression of miR-96-5p inhibited RA-induced neuronal differentiation. RAC1 is a miR-96-5p target. Activation of RAC1 reversed the effects on neuronal differentiation induced by miR-96-5p. Additionally, downregulation of miR-96-5p attenuated depression-like behaviors induced by CUMS, improved hippocampal neuron injury, and promoted hippocampal neuron differentiation.

Conclusion In conclusion, serum-derived exosomes from depression suppressed neuronal differentiation by the miR-96-5p/RAC1 axis, and miR-96-5p promoted depression. The findings suggested that regulating the secretion of exosomes and miR-96-5p expression may be a new approach for depression therapy.

关键字：exosome, miR-96-5p, RAC1, neuronal differentiation, SH-SY5Y, depression

抑郁症患者时间感知差异与认知功能之间关系

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目的 通过时间二分法探索抑郁症患者和健康人在时间感知上的差异，以及探索抑郁症患者时间感知差异与认知功能之间的关系。

方法 符合入排标准的 30 名抑郁症患者（抑郁症组）与 20 名健康对照者（对照组）通过时间二分法评估时间感知的改变，即研究对象根据训练阶段所感知到的“长”、“短”两种时距，从而对给定的时距（400ms-1600ms）做出“长”或“短”的判断，完成时间二分任务。采用汉密尔顿抑郁量表-17 项来评估抑郁症患者的抑郁程度，采用认知功能评价表(MCCB)评估所有受试者的认知功能。

结果 抑郁症组在 400ms 和 600ms 时距下判断为“长”的比例多于对照组（P＜0.05）；在 800ms、1000ms、

1200ms 与 1400ms 时，抑郁症组和对照组判断为“长”的比例没有显著性差异（P＞0.05）；但在 1600ms 的时距下，抑郁症组判断为“长”的比例少于对照组（P＜0.05）。抑郁症组的时间二分点小于对照组（P＜0.05）；抑郁症组的差别阈限与韦伯比率均大于对照组（P＜0.05）。抑郁症组的 MCCB 总分低于对照组（P＜0.05）。抑郁组的差别阈限与韦伯比率与 MCCB 总分均呈现负相关（P＜0.05）。

结论 与对照组相比，抑郁症组将短时距判断为长的比例增加，表明抑郁症患者可能高估了短时距；抑郁症患者的时间感知的敏感性可能也有所下降。抑郁症患者的时间感知能力可能受其认知的影响，认知得分越高的抑郁症患者的时间敏感性越高。

关键字：抑郁症、认知功能、时间知觉

Abnormalities of Somatomotor Network in Patients with Major Depressive Disorder and Their Siblings

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Objective Major depressive disorder (MDD) is a common and serious psychiatric disorder. Degree Centrality (DC), an index which can reflect its funcional connection in the brain network.has been widely used to explore etiology and pathophysiology of MDD. However, differences between patients with MDD and their siblings in DC values are largely unknown.

Methods This study obtained resting-state functional magnetic resonance imaging (MRI) data from 102 patients with MDD, 71 healthy controls and 35 siblings. First, by using ANOVA, we examined differences among three groups in DC values. Then, we defined the diffenent brain regions among the three groups as seed point, and calculate their functional connections (FC) with the whole brain.

Results As for DC and FC values, there were significant group differences in one-way ANOVA analyses, respectively. For DC values, Post hoc test showed that the differences among three group is in middle frontal gyrus (cluster size = 17 voxels, peak level PFWE-corr = 0.008; peak voxel MNI coordinate: x = -3, y = -27, z = 60, F = 5.77), and in right precentral(cluster size = 7 voxels, peak level PFWE-corr = 0.035; peak voxel MNI coordinate: x = 42, y = -9, z = 57, F = 15.87), As for FC values, there were significant group differences too. Post hoc test showed that compared with the patients with MDD, siblings showed higher DC values in right postcentral (cluster size = 3 voxels, peak level PFWE-corr = 0.039; peak voxel MNI coordinate: x = 39, y = -33, z = 63, F =15.79).

Conclusion The difference among patients with MDD,healthy controls and siblings in somatomoter network mainly, and may relate to the neural mechanisms of its disease.

关键字：Degree Centrality, Major depressive disorder, siblings, somatomoter network

A Clinical Prediction Models Based on Brain Fractional Anisotropy Distinguish Unipolar Depression From Bipolar Depression

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Objective To develop a clinical prediction model based on brain fractional anisotropy for distinguishing unipolar depression from bipolar depression.

Methods 239 patients (146 unipolar depression and 93 bipolar depression) who met the diagnostic criteria of DSM-5 were collected from Zhumadian Second People’s hospital and Beijing Huilongguan hospital, and randomly divided into training and validation sets in the ratio of 7:3. Multivariate analysis of variance (MANOVA) was used to compare the difference of FA between UD and BD in the training set, and logistic regression was used to build the model classifier. Then, the performance of the model was tested using the validation set.

Results In the training set, UD differed from BD in the integrity of multiple white matter fiber tracts of the brain. Compared to UD patients, BD patients had a younger age at first, a smaller proportion of smoking, higher white matter fiber integrity in the body of corpus callosum and right inferior cerebellar peduncle, and lower white matter fiber integrity in column and body of fornix and left medial lemniscus. Furthermore, based on these six differential variables, Nomograms and models were developed to distinguish UD from BD, with well-fitting calibration curves. Patients who had a nomogram score of less than 220 were considered to have a high probability of BD. Conversely, a diagnosis of UD is more likely. In addition, the values of the area under the curve are 0.756 and 0.657 in the training and validation cohorts, respectively, with sensitivity of 0.786 and 0.794, and specificity of 0.672 and 0.526 for the training and validation cohorts, respectively.

Conclusion A model based on brain fractional anisotropy can distinguish UD from BD, and provide a basis for clinical treatment options for both disorders.

关键字：unipolar depression, bipolar depression, white matter fiber, fractional anisotropy, prediction model

氟西汀联合舒肝解郁胶囊对抑郁症心率变异性的影响

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目的 研究氟西汀联合舒肝解郁胶囊对抑郁症心

率变异性(HRV)的影响。

方法 选择本院 2021 年 9 月到 2022 年 1 月 108 例抑郁症患者作为研究对象，按随机数字表法均分为对照组和研究组。对照组采取盐酸氟西汀胶囊治疗，研究组在对照组的基础上联合舒肝解郁胶囊治疗。比较两组的汉密尔顿抑郁量表(HAMD)，汉密尔顿焦虑量表(HAMA)，匹兹堡睡眠质量指数(PSQI)，HRV[正常窦性 R-R 间期的标准差(SDNN)、低频率值(LF)、高频率值(HF)、LF/HF 比值]，临床疗效，不良反应。

结果 结果 对照组治疗 6 周后的 HAMD、PSQI 显著高于研究组，差异均有统计学意义(P<0.05)；两组治疗 6 周后的 HAMA 比较，差异无统计学意义(P>0.05)。对照组治疗 6 周后的 SDNN、LF、HF、LF/HF 显著低于研究组，差异均有统计学意义(P<0.05)。对照组总有效率 81.48%，显著低于研究组总有效率 94.44%，差异有统计学意义(P<0.05)。对照组不良反应率 9.26%与研究组不良反应率 7.41%比较，差异无统计学意义(P>0.05)。

结论 氟西汀联合舒肝解郁胶囊治疗，可在不增加不良反应的基础上，显著降低抑郁程度，改善患者的睡眠质量和心率变异性。

关键字：氟西汀；舒肝解郁胶囊；抑郁症；HRV；疗效；不良反应

Bridge Symptoms between Parenting Styles and Proximal Psychological Risk Factors Associated with Adolescent Suicidal Thoughts: A Network Analysis

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Objective :Parenting styles and the associated proximal psychological factors are suggested to increase suicidal risks in adolescents. However, how the two factors interact and confer risks on the emergence of adolescent suicidal thoughts remains unclear. Herein, we used a network approach to investigate their interrelationship and explore whether the network properties predict adolescent suicidal thoughts.

Methods :Self-report questionnaires were completed by 1171 students aged 12-16. Network analyses were performed by Gaussian graphical models estimating the adolescent psychosocial network structure of parenting styles and psychological variables including depression, anxiety, affective lability, rumination, and resilience. Furthermore, we re-examined the network by adding a variable measuring active suicidal thoughts. Moreover, we conducted linear regressions to examine the predictive utility of bridge symptoms for adolescent suicidal thoughts.

Results :Resilience, Afraid, Rumination, Concentration, and affective lability (Anger) had the highest bridge strengths in the adolescent psychosocial network. Among the identified bridge symptoms, Resilience was negatively correlated with active suicidal thoughts (regularized edge weights = -0.181, bootstrapped 95% CIs: [-0.043, -0.155]), whereas affective lability (from Anxiety to Depression, Anger), Rumination, and Afraid were positively correlated with active suicidal thoughts, with edge weights (bootstrapped 95% CIs) ranging from 0.057 (0.001, 0.112) to 0.081(0.026, 0.136). Regression analysis showed that bridge strength was significantly correlated with active suicidal thoughts (R2 = 0.432, P = 0.001).

Conclusion :Negative parenting styles may drive and maintain suicidal thoughts by modifying the key proximal psychological variables. Our findings highlight the important role of bridge symptoms, which may serve as potential intervention targets for preventing adolescent suicide.

关键字：Parenting styles; Risk factors; Suicidal ideation; Adolescence; Network analysis

Common and Specific Patterns of Dynamic Functional Connectivity Variability of Thalamo-cortical Circuitry in Bipolar and Major Depressive Disorders

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Objectives : Evidence has indicated abnormalities of thalamo-cortical functional connectivity (FC) in bipolar disorder during a depressive episode (BDD) and major depressive disorder (MDD). However, the dynamic FC (dFC) within this system is poorly understood. This study aims to provide more precise thalamic subregions to explore the disrupted thalamo-cortical dFC patterns between BDD and MDD.

Methods A total of 250 subjects including 95 MDD patients, 58 BDD patients and 97 healthy controls (HCs) were recruited. We defined 16 seeds of the thalamus according to the the Human Brainnetome Atlas. To identify the dFC variability, a sliding-window dFC approach was applied with the Dynamic Brain Connectome (DynamicBC) toolbox. Correlation analysis was performed between altered dFC variability and clinical data. Further, classification analysis with a linear support vector machine model was conducted.

Results No significant differences are found in term of age, gender, education level, handedness, mean FD, and the variance of FD among the three groups. Compared with healthy controls (HCs), both patients revealed increased dFC variability between thalamus subregions with hippocampus (HIP), angular gyrus and caudate, and only BDD showed increased dFC variability of the thalamus with superior frontal gyrus (SFG), HIP, insula, middle cingulate gyrus and postcentral gyrus. Compared with MDD and HCs, only BDD exhibited enhanced dFC variability of the thalamus with SFG and superior temporal gyrus. Further,

the number of depressive episodes in MDD was significantly positively associated with altered dFC variability. Finally, the disrupted dFC variability could distinguish BDD from MDD with 83.44% classification accuracy.

Conclusions BDD and MDD shared common disrupted dFC variability in the thalamo-limbic and striatal-thalamic circuitries, whereas BDD exhibited more extensive and broader aberrant dFC variability, which may facilitate distinguish between these two mood disorders.

关键字：Bipolar disorder during a depressive episode; major depressive disorder; dynamic functional connectivity; thalamo-cortical circuitry; sliding-window

Two-week RTMS-induced Brain Activity Changes in Adolescents with Depression Measured by FMRI

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Objectives : Repetitive transcranial magnetic stimulation (rTMS) to the left dorsolateral prefrontal cortex (L-DLPFC) is commonly used clinically for the treatment of major depressive disorder (MDD). The neuroimaging biomarkers and mechanisms of rTMS are still not completely understood. This study aimed to explore the functional neuroimaging changes induced by rTMS on adolescents with MDD.

Methods A total of 10 sessions of rTMS was administrated to the L-DLPFC at 110% resting motor threshold and 10-Hz frequency in thirteen adolescents with MDD once a day for two weeks. Stimulus trains were 5 seconds with an inter-train intervals of 55 seconds, treatment session was lasted for 20 minutes and consisted of 1000 pulses. All of them were scanned with resting-state functional magnetic resonance imaging at baseline and after rTMS treatment. Patient's depression and anxiety severity were measured by using the Hamilton Depression Rating Scale (HAMD-24) and the 14-item Hamilton Anxiety Scale (HAMA) at baseline (pre-rTMS) and at the end of the two weeks of rTMS treatment (post-rTMS) prior to the MRI scan. The regional homogeneity (ReHo), amplitude of low frequency fluctuation (ALFF), and the subgenual anterior cingulate cortex (sgACC)-based functional connectivity (FC) were computed to be served as neuroimaging indicators. The correlation between changes in the sgACC-based FC and the improvement of depressive symptoms was also analyzed.

Results The two subgroups (pre-rTMS and post-rTMS) did not differ significantly in mean FD. After rTMS treatment, the total HAMD scores and HAMA scores were significantly reduced, and ReHo and ALFF were significantly increased in the L-DLPFC, left medial prefrontal cortex, bilateral medial orbital frontal cortex, and the left ACC. While ReHo and ALFF were decreased mainly in the left middle occipital gyrus, right middle cingulate cortex (MCC), bilateral calcarine, left cunus and left superior occipital gyrus. Further, the FCs between the left sgACC and the L-DLPFC, right IFGoper, left MCC, left precuneus, bilateral post-central gyrus, left supplementary motor area and left superior marginal gyrus were enhanced after rTMS treatment. Moreover, the changes of the left sgACC-left MCC FC were associated with improvement in depressive symptoms in the early improvers.

Conclusions This study showed that two-week rTMS intervention in adolescents with MDD is associated with changes in brain neuroimaging activities and sgACC-based FC, and change of sgACC-MCC FC is related with improvement in depressive symptoms in the early improvers. The findings may provide a basic neural biomarkers and substrates for rTMS clinical trials.

关键字：Repetitive transcranial magnetic stimulation, Adolescent, Major depressive disorder, Neuroimaging biomarkers

HTR2A Rs3125-负性生活事件交互作用与抑郁障碍自杀未遂的关联分析

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目的 越来越多的研究支持遗传和环境因素在抑郁障碍和自杀未遂中起到重要作用，但相关的基因和环境因素尚不明确。本研究将从 HTR2A、NOS1 基因多态性和幼年创伤史、负性生活事件的基因-基因/环境交互作用来探讨抑郁障碍自杀未遂的发病机制。

方法 我们于 2009 年 11 月-2017 年 5 月收集 852 例抑郁障碍患者，根据有无自杀未遂史分为自杀未遂组（SA 组，n=334）和无自杀未遂组（NSA 组，n=518），并招募健康对照 716 名，收集入组对象的人口学信息及临床特征，包括年龄、性别、婚姻、幼年创伤史、精神病家族史、负性生活事件、情绪低落、兴趣减退、精力缺乏、自责自罪、认知三联征、晨重晚轻等 19 个变量，并采用 Sequenom 质谱分析技术检测 HTR2A（rs1328683、rs17068986、rs3125）和 NOS1（rs1123425、rs2682826、rs3741476、rs527590、rs7959232）8 个标签单核苷酸多态性（（tagging single nucleotide polymorphisms，tagSNPs）。GMDR 软件用于分析基因-基因/环境因素的交互作用。

结果 比较 SA 组和 NSA 组患者之间人口学信息及临床特征发现，6 个变量（负性生活事件、精力缺乏、体重下降、自责自罪、认知三联征及晨重晚轻）在两组之间有统计学差异（P<0.05）；比较三组之间的 8 个 tagSNPs 发现：HTR2A rs17068986、rs3125 和 NOS1 rs527590、rs7959232 在三组之间有统计学差异（P<0.05），经 Bonferroni 法校正后未发现与抑郁障碍自杀未遂相关的 tagSNPs；logistic 回归分析发现，负性生活事件、自责自罪、认知三联征与抑郁障碍患者的自杀未遂有关联。将 rs17068986、rs3125、 rs527590、rs7959232、幼年创伤史、负性生活事件纳入 GMDR 软

件进行基因-基因/环境交互作用发现：rs3125 与负性生活事件构成的二阶模型为最优模型，测试精确度为0.5779.

结论 本研究提供了 HTR2A rs3125 与负性生活事件的联合导致抑郁障碍自杀未遂风险的依据，加深了我们对抑郁障碍自杀未遂发病机制的理解。

关键字：抑郁障碍，自杀未遂，HTR2A，NOS1，负性生活事件，基因-基因/环境交互作用

Exploring The Efficacy of Internet Interpersonal Social Rhythm Social Rhythm Therapy for Depression

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Objective The aim of this paper was to investigate the efficacy of internet interpersonal social rhythm (iIPSRT) for Major depressive disorder (MDD).

Methods In this 8-week, randomized, single-blind, controlled study, a total of 120 MDD patients were randomly assigned to the iIPSRT or internet general psychoeducation(iGP). The iIPSRT was conducted according to a manual developed specifically for this study. Subjects in two groups received 45 minutes of iIPSRT or iGP from Monday to Friday and lasted for eight weeks. Both groups were combined with antidepressant medication. The participants' depressive symptoms, anxiety symptoms, interpersonal relationships, social function and biological rhythms were assessed using 17-item Hamilton Depression Scale (HAMD-17), Hamilton Anxiety Scale (HAMA), Interpersonal Comprehensive Diagnostic Scale (ICDS), Sheehan Disability Scale (SDS), Morning and Evening Questionnaire (MEQ) at baseline and 8th week.

Results Compared with iGP, iIPSRT alleviated the HAMD total score, anxiety/somatization subscore, weight subscore, cognitive disturbance subscore, retardation subscore, sleep disturbance subscore in MDD patients (F = 190.94, p Bonferroni < 0.001; F = 83.13, p Bonferroni < 0.001; F = 4.15, p Bonferroni = 0.048; F = 65.42, p Bonferroni < 0.001; F = 53.15, p Bonferroni < 0.001; F = 67.76, p Bonferroni < 0.001, respectively). Furthermore, iIPSRT relieved HAMA total score, somatic anxiety subscore, psychogenic anxiety subscore(F = 142.97, p Bonferroni < 0.001; F = 111.06, p Bonferroni < 0.001; F = 128.04, p Bonferroni < 0.001), as well as ICDS total score, conversation subscore, making friends subscore, manners subscore , and work/school subscore, social life subscore, family life subscore, days underproductive subscore ((F = 17.38, p Bonferroni < 0.001; F = 14.61, p Bonferroni < 0.001; F = 10.97, p Bonferroni = 0.001; F = 11.74, p Bonferroni = 0.001; (F = 4.85, p Bonferroni = 0.031; F = 16.29, p Bonferroni < 0.001; F = 12.11, p Bonferroni = 0.001; F = 8.3, p Bonferroni = 0.005).

Conclusion This study demonstrated that iIPSRT helped MDD patients improve clinical symptoms including depressive symptoms, anxiety symptoms, interpersonal problem, and social function in MDD patients.

关键字：iIPSRT, MDD

Abnormal Voxel-mirrored Homotopic Connectivity in First-episode Major Depressive Disorder Using FMRI: A Machine Learning Approach

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Objective To explore the interhemispheric information synergy ability of the brain in major depressive disorder (MDD) patients by applying the voxel-mirrored homotopic connectivity (VMHC) method and further explore the potential clinical diagnostic value of VMHC metric by a machine learning approach.

Methods 52 healthy controls and 48 first-episode MDD patients were recruited in the study. We performed neuropsychological tests and resting-state fMRI scanning on all subjects. The VMHC values of the symmetrical interhemispheric voxels in the whole brain were calculated. The VMHC alterations were compared between two groups, and the relationship between VMHC value and clinical variables was analyzed. Then, abnormal brain regions were selected as features to conduct the classification model by using the support vector machine (SVM) approach.

Results Compared to the healthy controls, MDD patients exhibited decreased VMHC values in the bilateral middle frontal gyrus, fusiform gyrus, medial superior frontal gyrus and precentral gyrus. Furthermore, the VMHC values of the bilateral middle frontal gyrus and fusiform gyrus were all positively correlated with the total Hamilton Depression Scale (HAMD). Moreover, SVM analysis displayed that a combination of all clusters demonstrated the highest area under the curve (AUC) of 0.87 with an accuracy of 86.17%, sensitivity of 76.74%, and specificity of 94.12%, respectively.

Conclusion MDD patients had reduced functional connectivity in the bilateral middle frontal gyrus, fusiform

gyrus, medial superior frontal gyrus and precentral gyrus, which may be related to depressive symptoms. The abnormality in these brain regions could represent potential imaging markers to distinguish MDD patients from healthy controls.

关键字：major depressive disorder, resting-state fMRI, voxel-mirrored homotopic connectivity, support vector machine

视听整合持续操作测试对抑郁症患者认知功能障碍的测试初探

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目的 认知功能障碍也是抑郁症主要的临床表现之一。应用视听整合连续操作测试（IVA-CPT）评估抑郁症患者的认知功能障碍的特点；以及评估抑郁症患者心理健康状况与 IVA-CPT 各指标的相关性。

方法 采取病例对照研究。对就诊于深圳市康宁医院门诊的成年抑郁症患者 105 例，对照组 54 例，应用 IVA-CPT、马萨诸塞州综合医院认知及躯体功能量表(CPFQ)、9 项患者健康问卷量表（PHQ-9）、7 项广泛性焦虑障碍量表（GAD-7）、90 项症状清单（SCL-90）评估其认知功能和心理健康状况。

结果 （1）病例组 IVA-CPT 测试指标：综合注意商数，听觉注意商数，听觉警觉性，听觉集中性，听觉速度，视觉注意商数，视觉警觉性，视觉集中性，视觉速度，综合反应控制商数，听觉反应控制商数，听觉谨慎性，听觉一致性，视觉反应控制商数，视觉谨慎性及视觉一致性商数均低于对照组（P<0.001）；病例组 CPFQ 量表各因子分均高于对照组（P<0.001）；（2）抑郁症患者伴焦虑症状与不伴焦虑症状在 IVA-CPT 测验商数上无统计学差异（P>0.05）；在 CPFQ 量表上有统计学差异（P<0.05）；（3）IVA-CPT 测试指标与 HAMD、PHQ-9、CPFQ 呈显著负相关（P<0.01）；（4）抑郁症患者的心理健康状况 SCL-90 总分与 CPFQ 呈显著正相关（P<0.01）；与 IVA-CPT 呈负相关（P<0.05）；（5）Logistic 回归分析结果提示：CPFQ 总分、SCL-90 总分是促进抑郁症的 发生（OR=1.42，P=0.021；OR=1.15，P=0.007）；教育程度、综合注意商数、综合反应控制商数是阻碍抑郁症的发生（OR=0.08，P=0.038；OR=0.81，P=0.019；OR=0.93，P=0.039）。

结论 （1）通过 IVA-CPT，了解抑郁症患者的视听操作任务执行能力及注意缺陷。抑郁症患者主要表现在视听觉警觉性、集中性差、对刺激的反应速度较慢；视听觉对刺激反应的谨慎程度不够以及维持任务的能力欠佳；（2）本研究提示 IVA-CPT 对认知功能检测具有较好的效果，对抑郁症患者的认知功能缺陷有较好的辅助诊断价值；（3）认知功能受损及躯体症状严重、心理健康状况低、综合注意力减退、综合反应控制能力低是抑郁症的危险因素。

关键字：抑郁症，视听整合连续操作测试（IVA-CPT），认知功能损害，心理健康状况

Quantitative Proteomics Combine Independent PRM Analysis Revealed The Mitochondrial and Synaptic Mechanism of Norisoboldine for Its Antidepressant Effects

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Objective Major depressive disorder (MDD) is a common disease affecting 300 million people worldwide. The existing drugs are ineffective for approximately half of patients, so we tested Norisoboldine (NOR) as a novel antidepressant drug and performed proteomic analysis to study the mechanisms.

Methods Normal C57 mice and chronic social defeat stress (CSDS) mice were treated with various concentrations of NOR and the antidepressant effects were determined by tail suspension, sucrose preference and forced swimming tests. The experimental animals were divided into normal control (CON), CSDS, NOR treated (NOR) and imipramine treated (IMI) groups and the proteins of prefrontal cortex were extracted for quantitative proteomic analysis. The bioinformatics analysis was performed to determine GO enrichment of the relevant differential proteins and protein-protein interaction network.

Results We found that norisoboldine (NOR) showed an antidepressant efficacy in the chronic social defeat stress (CSDS) depression model in the tail suspension, forced swimming, and sucrose consumption tests. We utilized the drug-treated CSDS mice paradigm to segregate and gain differential protein cohorts of CSDS versus CON(CSDSCON), imipramine (IMI) -treated versus CSDS(IMICSDS), and NOR-treated versus CSDS(NORCSDS) from the prefrontal cortex. These proteomics data were first analyzed by ANOVA with p

关键字：Major Depressive Disorder, Norisoboldine, proteomics, prefrontal cortex, mitochondria, synapse

抑郁症亚型的脑功能网络差异及其与社会认知的关联研究

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目的 抑郁症（major depressive disorder，MDD）的临床表现和病因的异质性限制了我们对该疾病的深入理解，因此推动了对 MDD 亚型的研究。伴非典型特征的抑郁症（atypical depression，AD）是一种常见的 MDD 亚型，具有心境反应性、明显的体重增加或食欲增加、睡眠增加、灌铅样麻痹和人际拒绝敏感的特征。与此同时，社会认知障碍是导致 MDD 患者痛苦和预

后不良的因素之一。本研究的目标是探究 AD 亚型患者与不伴非典型特征抑郁症（non-atypical depression, non-AD）患者在脑功能影像方面是否存在差异，并探索其与社会认知的关联性，以深化对该亚型的理解，并为抑郁症的个体化诊疗提供参考。

方法 自 2019 年 8 月至 2022 年 9 月，满足招募标准并通过影像质量控制的 54 名 AD，100 名 non-AD，和 44 名健康对照被纳入研究。所有参与者在静息状态下接受了 3T 磁共振扫描，获取了 3D 结构像和功能像。经过预处理，我们构建了三组数据的全脑静息态功能网络，并进行了基于网络的统计分析（Network-based statistic，NBS）。此外，对具有显著差异的脑功能连接和社会认知进行了偏向关分析，以探究抑郁症患者社会认知受损的脑功能基础。

结果 全脑功能网络连接分析显示，在丘脑-小脑子网络中，AD 组、non-AD 组和健康对照组之间存在显著差异（p-FDR < 0.05）。该子网络包含了多个丘脑核团与小脑蚓部以及小脑半球亚区之间的功能连接。对该网络内的功能连接进行两两比较后发现，AD 组的小脑蚓 4/5 区与丘脑左腹外侧核以及左后外侧核之间的功能连接值显著低于其他两组（$p < 0.05$）。偏向关分析结果显示，该子网络内的功能连接与抑郁严重程度、非典型症状和社会认知显著相关（$p < 0.05$）。

结论 本研究发现丘脑-小脑子网络在 AD、non-AD 和健康对照组之间存在差异，并观察到其与社会认知之间的关联。研究结果提示，丘脑与小脑之间的协同功能改变可能参与了 MDD 及其亚型社会认知障碍的发生和发展。这些发现有助于进一步理解 AD 亚型和抑郁症社会认知障碍的病理生理学基础，并为抑郁症的脑影像学研究提供了新的视角。

关键字：抑郁症，亚型，非典型特征，社会认知，静息态功能磁共振成像

低频重复经颅磁刺激辅助治疗伴不同特征抑郁症的对照研究

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目的 探讨在原有抗抑郁药基础上联合右侧背外侧前额叶皮质（DLPFC）低频重复经颅磁刺激（rTMS）对伴不同特征抑郁症的疗效和安全性差异

方法 将 80 例符合 DSM-5 伴焦虑痛苦特征、伴忧郁特征或伴非典型特征相关诊断标准且经足量足疗程抗抑郁药治疗后仍应答不佳，即 17 项汉密尔顿抑郁量表（HAMD-17）总分减分率＜50%的抑郁症患者分成三组，在保持原有抗抑郁药治疗方案不变的前提下，各自联合右侧 DLPFC 低频 rTMS 连续治疗 6 周。分别在基线期和治疗后第 2、4、6 周末采用自杀意念自评量表(SIOSS)和 HAMD-17 评估疗效，?采用治疗中出现的副作用量表（TESS）评估安全性

结果 （1）从治疗第 2 周末起，伴焦虑痛苦特征组 HAMD-17 总分、SIOSS 总分较基线期均降低（P<0.01）。（2）从治疗第 4 周末起，伴忧郁特征组及伴非典型特征组 HAMD-17 总分、SIOSS 总分较各自基线期均降低（P<0.05 或 P<0.01）。（3）从治疗第 2 周末起，伴焦虑痛苦特征组 HAMD-17 总分、SIOSS 总分较伴忧郁特征组及伴非典型特征组均降低（P<0.05 或 P<0.01）。（4）三组间治疗期间出现的主要不良反应差异无统计学意义（P>0.05）

结论 抗抑郁药联合右侧 DLPFC 低频 rTMS 能在一定程度上安全有效地治疗伴不同特征的抑郁症状，特别是对伴焦虑痛苦特征的抑郁症患者起效时间更短且疗效更优

关键字：右侧背外侧前额叶皮质低频重复经颅磁刺激；伴不同特征的抑郁症；抗抑郁药治疗应答不佳

巴戟天寡糖通过调节 SIRT1/PGC-1α 线粒体生物合成通路改善 CUMS 高血压大鼠抑郁样行为和认知功能障碍

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目的 观察慢性不可预见性温和应激（CUMS）下高盐饮食高血压大鼠的行为学变化，基于线粒体能量代谢障碍假说探讨其病理机制及巴戟天寡糖的干预机理。

方法 采用盐敏感高血压（Dahl/SS）大鼠，使用 CUMS 联合 8%NaCl 高盐饮食制备高血压合并抑郁大鼠模型，随机分为高盐对照组、CUMS 组、巴戟天寡糖组、西酞普兰组，每组 6 只。在造模第 0、12 周进行模型评价，测量血压，采用糖水消耗实验、旷场实验评价抑郁样行为，新物体识别实验评价记忆能力，透射电镜观察大鼠海马区线粒体形态，ELISA 法检测检测海马组织内神经递质包括去甲肾上腺素（NE）、5-羟色氨酸（5-HT）的含量，Western-blot 检测 SIRT1/PGC-1α 线粒体生物合成通路相关蛋白表达。

结果 应激第 12 周，给药 6 周后，与高盐对照组相比，CUMS 组收缩压、舒张压上升（P<0.01），糖水偏爱率减少（P<0.01），旷场实验静止时间增加（P<0.05），新物体识别实验分辨指数下降（P<0.01）。与 CUMS 组相比，巴戟天寡糖组收缩压下降（P<0.05），巴戟天寡糖组和西酞普兰组糖水偏爱率增加（P<0.01），旷场实验静止时间增加（P<0.01），新物体识别实验分辨指数增加（P<0.01）。电镜下观察各组海马区神经元和突触内均可见不同程度的线粒体数目减少和形态异常，但 CUMS 组线粒体肿胀最严重，可见明显的内嵴溶解消失，基质疏松，空泡变性。检测海马组织发现与高盐对照组相比，CUMS 组 5-HT、NE 含量下降（P<0.05），SIRT1 含量明显下降（P<0.01）。和 CUMS 组相比，巴戟天寡糖组 5-HT（P<0.05）、NE（P<0.01）含量上升，SIRT1、PGC-1α 含量均上升（P<0.05），西酞普兰组 5-HT 含量上升（P<0.05），SIRT1 含量上升（P<0.05）。

结论 CUMS 可以使高血压大鼠出现明显的抑郁

样行为和认知功能下降，血压增长更快，加剧脑内神经元和突触内线粒体损伤，导致脑组织内 5-HT、NE 含量明显下降，而巴戟天寡糖可以减少慢性应激下高血压大鼠收缩压的增加，减少抑郁样行为，提升认知功能，这可能与其上调 SIRT1-PGC-1α 线粒体生物合成通路相关蛋白含量，保护神经元和突触内的线粒体，进而提升脑组织内 5-HT、NE 含量有关。进一步验证了抑郁症线粒体能量代谢障碍假说。

关键字：抑郁，高血压，巴戟天寡糖，线粒体能量代谢障碍，SIRT1-PGC-1α 通路

中国孕早期女性的抑郁症状与感知压力之间的关系

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目的 孕早期女性的抑郁症状较为常见，严重时将影响其自身、伴侣及子代的身心健康。本研究旨在探索中国孕早期女性的抑郁症状与感知压力之间的关系，从而为采取进一步的预防、干预措施提供参考依据。

方法 本研究采用方便取样的方法，对长沙市妇幼保健院 224 名孕早期女性（Total Pregnant Women, PW-T）采用爱丁堡产后抑郁量表（Edinburgh Postnatal Depression Scale, EPDS）和 10 项感知压力量表简体中文版（Simplified Chinese version of the 10-item Perceived Stress Scale, SCPSS-10）自评抑郁症状和感知压力。在本研究中，将 EPDS ≥ 10 分定义为伴抑郁症状孕妇（Pregnant Women with Depressive Symptoms, PW-DS）组，共 40 例；EPDS ≤ 9 分为健康孕妇（Healthy Pregnant Women, PW-HC）组，共 184 例。使用 Spearman 偏相关分析和二元逻辑回归分析探究抑郁症状与感知压力之间的关系。

结果 本研究中，17.9%孕早期女性有明显的抑郁症状。协方差分析结果显示，PW-DS 组 SCPSS-10 得分明显高于 PW-HC 组（F=72.709, P＜0.001）。Spearman 偏相关分析结果显示，PW-T 组中 EPDS 总分与 SCPSS-10 总分呈强相关（r=0.628；P＜0.001）。逻辑回归分析显示，受教育年限和 SCPSS-10 总分对抑郁症状有显著意义（Odds Ratio, OR = 0.797 和 1.549；P＜0.05）。

结论 中国孕早期女性抑郁症状的发生率较高，较低的受教育年限和较高的感知压力与抑郁风险增加有关，提示临床上应在孕早期女性中针对受教育年限较低者和感知压力较高者积极开展抑郁症状筛查和干预。同时，改善孕早期女性对压力的思考方式也可能有助于维护其围产期心理健康。

关键字：孕早期；女性；抑郁症状；感知压力

Adjunctive Duration-doubled Transcranial Direct Current Stimulation for The Treatment of Depressive Patients with Suicidal Ideation: Study Protocol for A Double-blind, Randomized, Sham-controlled Trial

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Objective The problem of suicide has become increasingly common in individuals with major depressive disorder (MDD). Transcranial direct current stimulation (tDCS) is an effective treatment for MDD with 2 milliamperes (mA) for at least thirty minutes per day for two weeks. This study aims to investigate the efficacy of daily duration-doubled tDCS as an adjunctive intervention for rapidly reducing suicidal ideation and improving depression in MDD patients.

Methods In this double-blind, randomized, sham-controlled study, 76 MDD patients with suicidal ideation are randomly assigned to either active (n=38) or sham (n=38) tDCS group. The anode and cathode are placed over the scalp areas corresponding to left and right dorsolateral prefrontal cortex (DLPFC), respectively, and each stimulation lasts for 60 minutes. The primary outcome is defined as change of Beck Scale for Suicide Ideation (BSI) after 5 and 10 sessions. The change of other clinical assessments, blood biomarkers related to suicidal ideation and depressive sumptoms are defined as secondary outcomes. Blood biomarkers related to suicidal ideation are collected at baseline and after 10 sessions.

Discussion This study suggest the adjunctive duration-doubled tDCS might be a novel method to rapidly reduce suicidal ideation and improve depressive symptom. The variation of biomarkers could be potential predictive models of suicide risk.

Trial registration The trial protocol is registered with ClinicalTrials.gov under protocol registration number NCT05555927. Registered on September 25, 2022.

关键字： Transcranial direct current stimulation (tDCS), Major depressive disorder (MDD), Suicidal ideation, Randomized controlled trial (RCT)

Higher Efficiency of Left Superor Frontal Gyrus

and The Symptom Features of Major Depressive Disorder

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Objective Major depressive disorder (MDD) patients with anhedonia tend to have a poor prognosis. The underlying imaging basis for anhedonia in MDD remains largely unknown. The relationship between nodal properties and anhedonia in MDD patients need to be further investigated. Herein, this study aims to explore differences of cerebral functional node characteristics in MDD patients with severe anhedonia (MDD-SA) and MDD patients with mild anhedonia (MDD-MA) before and after the antidepressant treatment.

Methods Ninety participants with current MDD were recruited in this study. 24-Item Hamilton Depression Scale(HAMD-24) and Snaith-Hamilton Pleasure Scale (SHAPS) were used to assess the severity of depression and anhedonia at baseline and the end of 6- months treatment. The MDD patients who scored above the 25th percentile on the SHAPS were assigned to an MDD-SA group (n=19), while those who scored below the 25th percentile were assigned to an MDD-MA group (n=18). All patients in the 2 groups received antidepressant treatment. Functional magnetic resonance imaging (fMRI) images of all the patients were collected at baseline and the end of 6-months treatment. Graph theory was applied to analyze the patients cerebral functional nodal characteristics, which were measured by efficiency (ei) and degree (ki).

Results Repeated measures 2-factor ANCOVA showed significant main effects on group on the ei and ki values of left superior frontal gyrus (LSFG) (P=0.003 and P=0.008, respectively), and on the ei and ki values of left medial orbital-frontal gyrus (LMOFG) (P=0.004 and P=0.008, respectively). Compared with the MDD-MA group, the significantly higher ei and ki values of the LSFG (P=0.015 and P=0.021, respectively), and the significantly higher ei and ki values of the LMOFG (P=0.015 and P=0.037, respectively) were observed in the MDD-SA group at baseline. Meanwhile, higher SHAPS scores could result in higher ei and ki values of LSFG (P=0.019 and P=0.026, respectively), and higher ei value of LMOFG (P=0.040) at baseline; higher SHAPS scores could result in higher ei values of LSFG (P=0.049) at the end of 6-months treatment. The multiple linear regression analysis revealed that sex were negatively correlated with the ei and ki values of LSFG (r= ?0.014, P=0.004; r=?1. 153, P=0.001, respectively).

Conclusion There are obvious differences in nodal properties between the MDD-SA and the MDD-MA patients, such as the high ei of LSFG in the MDD-SA patients, which may be associated with the severity of anhedonia. These nodal properties could be potential biomarkers for the prognosis of MDD. The increased ei and ki values in the LSFG of MDD- SA patients may underlie a compensatory mechanism or protective mechanism. The mechanism may be an important component of the pathological mechanism of MDD-SA. Sex of MDD may affect the nodal properties of LSFG at baseline and the end of 6-months treatment.

关键字：anhedonia; major depressive disorder; functional magnetic resonance imaging; nodal network

单、双相抑郁障碍患者效应连接的异同性研究

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目的 比较静息状态下单、双相抑郁障碍患者在默认网络、执行控制网络和突显网络内及网络间效应连接的异同性。

方法 纳入单相抑郁障碍患者 83 例，双相抑郁障碍患者 59 例及对照组 61 例，采集所有受试者的静息态 fMRI 数据及 T1 结构像数据。首先将静息态 fMRI 数据进行预处理，然后采用独立成分分析的方法得到组水平上的感兴趣脑区 11 个，最后提取感兴趣脑区的时间序列，采用基于频谱的动态因果模型分析方法，比较单、双相抑郁障碍患者在默认网络、执行控制网络和突显网络内及网络间效应连接共同的及差异性的异常特征。

结果 （1）人口学及临床资料的比较：三组之间在年龄、性别、受教育程度和平均帧位移上的差异无统计学意义（P＞0.05），但在汉密尔顿抑郁量表 17 项、汉密尔顿焦虑量表、杨氏躁狂量表总分上的差异有统计学意义（P＜0.001）。事后比较发现，单、双相抑郁障碍患者的汉密尔顿抑郁量表 17 项、汉密尔顿焦虑量表总分均高于对照组，但单、双相抑郁障碍患者之间的差异无统计学意义；双相抑郁障碍患者的杨氏躁狂量表总分显著高于单相抑郁障碍患者和对照组，但单相抑郁障碍患者与对照组之间的差异无统计学意义。（2）效应连接的比较：①与对照组相比，双相抑郁障碍患者在突显网络的网络内兴奋性效应升高（Pp=1.00）。单相抑郁障碍患者在执行控制网络、突显网络的网络内兴奋性效应升高（Pp 分别为 0.95 和 1.00），默认网络的网络内兴奋性效应降低（Pp=0.99），从执行控制网络到默认网络的网络间兴奋性效应升高（Pp=0.99），从突显网络到默认网络的网络间抑制性效应升高（Pp=1.00），从默认网络到突显网络的网络间兴奋性效应降低（Pp=1.00）。②与单相抑郁障碍患者相比，双相抑郁障碍患者在执行控制网络的网络内兴奋性效应降低（Pp=1.00），从突显网络到默认网络的网络间抑制性效应降低（Pp=0.99），从执行控制网络和默认网络到突显网络的网络间兴奋性效应升高（Pp 分别为 0.95

和 0.98）。

结论 突显网络的网络内兴奋性效应升高是单、双相抑郁障碍患者共同的异常特征，两患者组间效应连接的差异主要表现在网络间的效应连接上。这些结果的发现加深了我们对单、双相抑郁障碍患者内在神经机制的理解，为寻找两种疾病客观神经生物学标记提供了影像学证据。

关键字：抑郁症，双相抑郁，效应连接，核心脑网络，静息态，功能磁共振

Efficacy of Repetitive Transcranial Magnetic Stimulation and Agomelatine on Sleep Quality and Biomarkers of Adult Patients with Mild To Moderate Depressive Disorder

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Objective Mild to moderate depressive disorder (DD), which accounts for much larger patient population, has been largely neglected in previous studies exploring the sleep quality of DD patients; in addition, most of these patients had comorbid insomnia. Thus, this study aimed to explore the effect of repetitive transcranial magnetic stimulation (rTMS) and agomelatine on sleep quality of adult patients with mild to moderate DD.

Methods 100 participants were randomly divided into high-frequency rTMS group and sham rTMS group (n = 50 each). All patients were administered agomelatine simultaneously. Hamilton Depression Scale-17 Items (HAMD- 17), Pittsburgh Sleep Index (PSQI), and polysomnography were used to evaluate the efficacy. Serum norepi- nephrine (NE), 5-hydroxytryptamine, brain-derived neurotrophic factor (BDNF), and melatonin were also determined.

Results The HAMD-17 and PSQI scores in high-frequency rTMS group were lower than those in sham rTMS group at the 4th and 8th weekend after treatment ($P < 0.05$). Post-treatment total sleep time, sleep efficiency, and N3 percentage in high-frequency rTMS group were better than those in sham rTMS group ($P < 0.05$); while post- treatment sleep latency, awakening time, micro-awakening times, and N1 percentage were significantly less than those in sham rTMS group ($P < 0.01$). Post-treatment serum levels of NE and BDNF in high-frequency rTMS group were higher than those in sham rTMS group ($P < 0.05$).

Conclusion The combination of high-frequency rTMS and agomelatine is effective in the treatment of mild to moderate DD, which can improve the sleep quality and increase the levels of some neurotransmitters and neurotrophic factors.

关键字：Repetitive transcranial magnetic stimulation ，Agomelatine，Depressive disorder，Insomnia，Polysomnography

首发抑郁症影响因素的巢式病例对照研究

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目的 阈下抑郁症状是抑郁症发病的重要风险指标，被视为抑郁症前期。基于阈下抑郁症状人群探索首发抑郁症的影响因素，可为抑郁症的病因学和早期预防提供重要依据。

方法 2019 年 1 月-2020 年 12 月在深圳市南山区初级卫生保健机构中采用 PHQ-9 量表进行抑郁症状筛查，以 PHQ-9≥5 分人群归类为阈下抑郁症状并组成研究队列进行定期随访（每 6 月一次）。在队列 1 年随访期内，由社区初级保健机构转诊至精神专科进行诊断评估，以在精神专科门诊确诊的首发抑郁症患者为病例组，以未患抑郁症的研究对象为对照组。按照性别（相同）、 年龄（±3）进行 1:2 匹配，开展巢式病例对照研究。应用自主开发手机应用程序进行问卷调查，收集流行病学相关信息，应用二分类条件 Logistic 回归模型分析首发抑郁症的影响因素。

结果 本研究依托深圳市精神卫生资源，链接初级卫生保健机构与精神专科，纳入 34 家初级卫生保健机构开展阈下抑郁症状筛查，完成有效筛查 4288 例，筛查出有阈下抑郁症状者 3285 人，在一年随访期内，经转诊通道至精神科确诊并纳入病例组 192 人，匹配对照组 384 人。结果显示，越多的焦虑症状（AOR=1.13，95%CI=1.07-1.20）、失眠症状（AOR=1.06，95%CI=1.01-1.11）、应激性生活事件（AOR=1.16，95%CI=1.05-1.51）可增加抑郁症的发生风险。较高的主观幸福感（AOR=0.93， 95%CI=0.87-0.98）可降低发生抑郁症的风险，是抑郁症的保护因素。

结论 在阈下抑郁症状人群中，较多的焦虑症状、失眠症状、应激性生活事件均是首发抑郁症的危险因素；较高的幸福感是首发抑郁症的保护因素。 在阈下抑郁症状人群中，要着重对焦虑症状、失眠症状、应激性生活事件及主观幸福感进行评估，采取有针对性的措施减少焦虑症状、失眠症状，提升主观幸福感。

关键字：首发抑郁症；影响因素；应激性生活事件；主观幸福感；巢式病例对照研究

基于定量蛋白质组学探讨灵芝酸 A 抗抑郁的作用机制

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目的 灵芝酸 A（GA）是灵芝中主要的生物活性成分，本研究主要探讨 GA 在抑郁症治疗中的潜力及其可能的作用机制。

方法 ①将 C57BL/6J 小鼠随机分为对照组（CON）、慢性社会挫败应激诱导的抑郁模型组（CSDS）、灵芝酸 A 组（GA）和丙咪嗪组（IMI）。通过 CSDS 建立抑郁症模型，GA 组小鼠接受连续 5 天的 GA（2.5mg/kg）注射，IMI 组小鼠接受连续注射 5 天的 IMI（10mg/kg）注射。通过旷场实验、悬尾实验及强迫游泳实验评估小鼠行为学的变化，进而判断其抗抑郁效果。②从实验小鼠的前额叶皮层提取蛋白质，进行 LC-MS/MS 分析，以鉴定和定量蛋白质。③筛选出所有 ANOVA 分析中 p 值<0.05 的差异蛋白质进行后续分析，并进行 Kmeans 聚类分析。④使用生物信息学工具，进行蛋白质 GO 富集分析和 PPI 网络分析。⑤对于筛选出的关键蛋白质或通路，进行 PRM 验证。

结果 ①在 CSDS 模型中，小鼠经过连续 10 天的社会攻击后，表现出明显的抑郁样行为。然而，经过 GA 处理后，小鼠的抑郁症状明显改善，GA 的抗抑郁效果与阳性对照药物 IMI 相当。②CSDS 和 CON（CSDSCON）组、GA 和 CSDS（GACSDS）组、IMI 和 CSDS（IMICSDS）组中的蛋白质表达存在显著差异，分别得到 305、949、289 个差异蛋白。其中，GACSDS-CSDSCON 组、GACSDS-IMICSDS 组分别有 132、118 个共同差异蛋白。③通过 ANOVA 差异蛋白表达聚类分析，我们将差异蛋白分为多个簇。其中，簇 1、簇 3、簇 5 的蛋白表达变化与情绪变化一致，这些蛋白簇在 GO 分类分析中显示出富集在与线粒体代谢、神经突触的结构和功能、RNA 处理、以及蛋白质和肽的合成、运输和定位的蛋白质类别。④对 GACSDS-IMICSDS 组和 GACSDS-CSDSCON 组的共同差异蛋白进行 GO 分析和 PPI 分析，发现与线粒体和突触功能相关的蛋白质明显富集。⑤PRM 分析发现，与神经突触相关的蛋白质（Carmil1、Dcx、Tprkb、Erbb4、Fam3c、Rnf112、Atxn3、Ppp1r2）和与线粒体相关的蛋白质（Bnip1、Apoh、Acbd5、Tubgcp4、Nup37、Naa30、Mrpl42）的表达发生了明显变化。

结论 本研究初步揭示了灵芝酸 A 的潜在抗抑郁作用，其作用机制可能涉及神经突触以及线粒体相关功能。

关键字：灵芝酸 A，抑郁症，蛋白质组学，神经突出，线粒体

Association between Work Stress, Insomnia, and Depression Among Medical Staff During The Outbreak of COVID-19: A Moderating Mediating Model

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Objective The objective of the study was to investigate the relationship between work stress, insomnia, and depression among medical staff, and the moderating role of weekly working hours between work stress and insomnia.

Methods A cross-sectional survey was conducted among 1165 participants, 631 (54.2%) male and 534 (45.8%) female, with a mean age of 35.49±10.64, from February to April 2021 during the COVID-19 pandemic in Shenzhen, China. Work stress, insomnia, and depression were measured using the Self-Reported Work Stress Scale (SWSS), Insomnia Severity Index (ISI), and Patient Health Questionnaire 9 (PHQ-9), respectively. The significance of the mediating and moderating effect was calculated using a bootstrap approach with SPSS PROCESS macro.

Results Work stress was significantly associated with depression (β=0.45, $p < 0.001$). Insomnia partly mediated the relationship between work stress and depression (β=0.58, $p < 0.001$). Besides, weekly working hours moderated the relationship between work stress and insomnia. Medical staff who are prone to insomnia are more likely to have severe symptoms of depression when exposed to work stress, for those with longer working hours (＞40 hours/week) particularly.

Conclusion The findings found that insomnia played a mediating role in the association between work stress and depression, and moderated the role of weekly working hours on the path between work stress and insomnia. This finding necessitates the importance of developing skills, and interventions to improve medical staff's sleep and work reorganization, to enhance their emotional health.

关键字：Work stress, Weekly working hours, Insomnia, Depression

Selective Structural and Functional Indicators in Nonsuicidal Self-injury Adolescents with Major Depression Disorder

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Objective Nonsuicidal self-injury (NSSI) is one of the most frequent and persistent behavioral characteristics following adolescents with major depressive disorder (MDD). It is suggested that NSSI behavior is associated with the deficits of structural and functional characteristics of adolescents with MDD, which contribute to potentially poor recovery and even suicide behavior. There is a need to elucidate the behavior-specific neural mechanisms of NSSI in adolescent MDD to inform the development of relevant therapeutic targets based on these markers in intervention studies.

Methods To address this issue, we collected 119 first-episode drug-na?ve MDD patients and 43 healthy controls. Adolescents with MDD were divided into two groups based on whether they had NSSI behavior (81 for MDD with NSSI behavior and 38 for MDD with none-NSSI behavior). Combining psychophysics and magnetic resonance imaging (MRI), we quantified the differences

accounting for emotional symptoms (i.e., depression and anxiety), NSSI behavior as well as the structural and functional features between MMD patients and healthy controls.

Results We found that (1) structural MRI analyses showed that the gray matter volume of the middle frontal cortex (MFC) in MDD with none-NSSI behavior was significantly smaller than that in the healthy controls, and the gray matter volume of the superior frontal cortex (SFC) in MDD with NSSI was significantly smaller than that in the healthy controls. Correlation analysis showed that the gray matter volume of the SFC was significantly negatively correlated with the NSSI behavior (qualified by the NSSI Diary Card) in MDD adolescents. (2) at resting state, we compared groups in network coherence of subdivisions of the frontoparietal network (FPN), default mode network (DMN), and salience network (SN). Depressed adolescents with NSSI had lower coherence in the FPN (i.e., SFC and precuneous) compared to those without NSSI and healthy controls.

Conclusion Our findings demonstrated that the structural and functional deficits in the depressed adolescents with NSSI behavior, which were highly correlated with the their NSSI behavior. Therefore, this study strengthened our understanding of the pathogenesis of depressed adolescents with NSSI, which might contribute to tailoring a personalized method for treating the patients.

关键字：Major depressive disorder, Nonsuicidal self-injury, Gray matter volume, Functional Connectivity, Frontal cortex

Prevalence and Clinical Correlates of Suicide Attempts in First Episode, Never Treated Major Depressive Disorder Patients with Comorbid Autoimmune

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Objective Autoimmune thyroiditis (AIT) is closely associated with major depressive disorder (MDD). However, its association with suicide attempts (SA) in this population remains unexplored. The study aimed to assess the prevalence and correlates of SA in first-episode drug-na?ve (FEDN) MDD patients with AIT.

Methods We recruited 1718 FEDN MDD outpatients and assessed depressive, anxiety, and psychotic symptoms by the Hamilton Rating Scale for Depression (HAMD), the Hamilton Rating Scale for Anxiety, and the Positive and Negative Syndrome Subscale positive subscale, respectively. The serum levels of free triiodothyronine, free thyroxine, thyroid stimulating hormone (TSH), anti-thyroglobulin, thyroid peroxidases antibody (TPOAb), and several other metabolic parameters were assessed. Multiple logistic regression model was applied to identify the correlates of SA in AIT MDD patients. The Area Under the Curve (AUC) was used to test the performance of this model.

Results The prevalence of SA was higher in AIT patients than in non-AIT patients (34% vs 14%, p<0.001). The presence of AIT independently doubled the risk of SA (OR, 1.88, 95%CI, 1.42-2.50, p<0.001). Anxiety (OR, 3.09, 95%CI, 1.76-5.42, p<0.001), HAMD score (OR, 1.19, 95%CI, 1.09-1.31, p<0.001), TPOAb (OR, 1.002, 95%CI, 1.001-1.002, p<0.001), and TSH (OR, 1.20, 95%CI, 1.10-1.32, p<0.001) were independently associated with SA in MDD patients with AIT.

Conclusion The combination of the four variables well distinguished SA patients from non-SA patients (AUC value:0.80). Taken together, AIT was closely associated with SA. Regular thyroid examination may help detect SA in MDD patients.

关键字：Autoimmune thyroiditis; Major depressive disorder; Suicidal attempts; Anxiety

Clinical Correlates, Lipid Metabolic Parameters and Thyroid Hormones Are Associated with Abnormal Glucose Metabolism in First-episode and Drug-na?ve Major Depressive Disorder Patients with Suicide Attempts: A Large Cross-sectional Study

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Objective Those factors associated with glucose disturbances in major depressive disorder (MDD) patients with comorbid suicide attempts remains unclear. To the best of our knowledge, this is the first study with a large sample size to examine risk factors for glucose disturbances, including clinically relevant factors, lipid metabolic parameters, and thyroid hormone levels in first-episode drug-na?ve (FEDN) MDD patients with comorbid suicide attempts.

Methods A total of 1718 FEDN MDD patients were enrolled. The Hamilton Depression Scale (HAMD), Hamilton Anxiety Scale (HAMA), and Positive and Negative Syndrome Scale (PANSS) were used to assess the clinical symptoms of the patients. Fasting blood glucose, metabolic parameters and thyroid hormone levels were measured.

Results The prevalence of glucose disturbances was 24% in MDD patients with comorbid suicide attempts, which was 1.88 times higher than that in MDD patients without suicide attempts (11%). Among MDD patients with comorbid suicide attempters, those with comorbid glucose metabolism disorders had higher HAMA, HAMD and PANSS positive subscale scores, and higher levels of TC, TG, thyroid stimulating hormone (TSH), HDL-C, LDL-C, and thyroid peroxidases antibody (TPOAb) compared with those without glucose metabolism disorders. The combination of HAMA score, HAMD score, PANSS positive subscale score and TSH distinguished between patients with and without glucose disturbances.

Conclusion Our findings suggest a high prevalence of glucose disturbances in FEDN MDD patients with

comorbid suicide attempts. Several clinical correlates, lipid metabolism parameters, and thyroid hormone function are associated with glucose disturbances in MDD patients with comorbid suicide attempts.

关键字：major depressive disorder;cross-sectional study; glucose disorder

The Association of Clinical Correlates and Metabolic Parameters with Subclinical Hypothyroidism in First-episode and Drug-naive Patients with Major Depressive Disorder Comorbid with Glucose Disturbances: A Large Cross-sectional Study

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Objective The factors associated with subclinical hypothyroidism (SCH) in major depressive disorder (MDD) patients with comorbid glucose disturbances remains unclear. To the best of our knowledge, this is the first study with a large sample size to examine risk factors of SCH in first-episode drug-na?ve (FEDN) MDD patients with comorbid glucose disturbances, including clinically relevant factors, metabolic parameters, and thyroid hormone levels.

Methods A total of 1718 FEDN MDD patients were enrolled. The Hamilton Depression Scale (HAMD), Hamilton Anxiety Scale (HAMA), and Positive and Negative Syndrome Scale (PANSS) were used to assess the clinical symptoms of patients. Fasting blood glucose, metabolic parameters and thyroid hormone levels were measured.

Results The prevalence of SCH in MDD patients with comorbid glucose disturbances was 85.04%, which was 2.43 times higher than in MDD patients without glucose disturbances (56.94%). HAMD and HAMA scores, as well as TSH, TPOAb and PANSS positive symptoms scores were higher in patients with severe SCH compared to those with mild SCH in combination with glucose disturbances (all $p<0.001$). TgAb, TC, Systolic and Diastolic blood pressure were all higher in patients with severe SCH than in those with mild SCH. In addition, HAMD score, HAMA score, Psychotic positive score, Diastolic BP, and TC were independently associated with the TSH levels in MDD patients with comorbid glucose disturbances.

Conclusion Our results suggest a high prevalence of SCH in MDD patients with comorbid glucose disturbances. Several clinically relevant factors and metabolic parameters have an impact on SCH in MDD patients with comorbid glucose disturbances.

关键字：major drpressive disorder; subclinical hypothyroidism;cross-sectional study

Cognitive Function of MDD Links with GABA-related Pathways : A Comprehensive Analysis Based on GWAS Study

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Objective Cognitive dysfunction symptoms cannot be ignored during the treatment of Major Depressive Disorder (MDD) , but the pathogenesis of cognitive dysfunction in MDD is still unclear. Recently, a Genome Wide Association Study (GWAS)，aiming to figure out the the phenotypic and genetic relationship between cognitive function and MDD, which enrolled four large European cohorts in a total of 3510 MDD cases and 6057 controls identified a set of significantly interacting single nucleotide polymorphisms (SNPs) between MDD and cognitive domains of executive function, processing speed, and global cognition. In order to further explore whether GABAergic system participated in the pathogenesis of cognitive dysfunction in MDD, we conducted a further analysis based on this GWAS study.

Methods The risk genes base on the GWAS study were collected, and then genes of GABA-related pathways were confirmed via Pathcards database (https://pathcards.genecards.org/). Then, the construction of the PPI network analysis was performed by an online tool, the Search Tool for the Retrieval of Interacting Genes/Proteins (STRING; https://string-db.org/). The criteria of the PPI network included a confidence score ≥ 0.4 and a maximum number of interactions$\leq$5.The active interaction sources included text mining, experiments, databases, coexpression, neighborhood, gene fusion, and corecurrence.

Results 57 risk genes of MDD cognitive dysfunction symptoms and genes of 4 GABA-related pathways, GABA receptor signaling, Degradation of GABA, GABAB receptor activation, mBDNF and proBDNF regulation of GABA neurotransmission, were exhibited from the analysis. 20 risk genes were connected with those GABA-related pathways and 9 genes, ARFGEF1, CPXM1, CWC25, FOXO1, MYBL1, NKX2-3, SGK3, SYT4, and VCPIP1, were connected with all those 4 GABA-related pathways. Further studies are warranted to determine the molecular mechanisms.

Conclusion This study presented a genetic hint that GABA-related pathways linked with cognitive functions of MDD, which provided a further evidence for the involvement of GABAergic system in the pathogenesis and treatment of cognitive impairment in depression.

关键字：major depression, cognitive function, GWAS, PPI

Volume Changes of The Subcortical Limbic Structures in Major Depressive Disorder Patients with and without Anhedonia

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Objective Anhedonia is a core feature of major depressive disorder (MDD) and the limbic system has been indicated to be associated with anhedonia in MDD due to its crucial role within the reward circuit. However, the relationship between different regions of the limbic system and MDD, particularly anhedonic symptoms, remains unclear. Therefore, the purpose of this study was to investigate volume changes of various parts of the subcortical limbic (ScL) system in MDD with and without anhedonia.

Methods A total of 120 individuals, including 30 MDD patients with anhedonia, 43 MDD patients without anhedonia, and 47 healthy controls (HCs) were enrolled in this study. All subjects underwent structural magnetic resonance imaging scans. After that, ScL system segmentation was performed using the FreeSurfer pipeline ScLimbic. Analysis of covariance (ANCOVA) was performed to identify brain regions with significant volume differences among three groups, and then, post hoc tests were calculated for inter-group comparisons. Finally, correlations between volumes of different parts of the ScL and clinical characteristics in MDD patients were further analyzed.

Results The ANCOVA revealed significant volume differences of the ScL system among three groups in the bilateral fornix (Fx), and the right basal forebrain (BF). As compared with HCs, both groups of MDD patients showed decreased volume in the right Fx, meanwhile, MDD patients with anhedonia further exhibited volume reductions in the left Fx and right BF. However, no significant difference was found between MDD patients with and without anhedonia. No significant association was observed between subregion volumes of the ScL system and clinical features in MDD.

Conclusion The present findings demonstrated that the two groups of MDD patients exhibited segregated brain structural alterations in the ScL system and volume loss of the ScL system is fairly extensive in MDD patients with anhedonia.

关键字：Major depressive disorder, Anhedonia, Subcortical limbic system, Fornix, Basal forebrain

The Differential Orbitofrontal Activity and Connectivity between Atypical and Typical Major Depressive Disorder

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Objective Atypical major depressive disorder (MDD) is a distinct subtype of MDD, characterized by increased appetite and/or weight gain, oversleeping, leaden paralysis, and interpersonal rejection sensitivity. Delineating different neural circuits associated with atypical MDD and typical MDD would better inform clinical personalized interventions.

Methods Using resting-state functional magnetic resonance imaging (fMRI), we investigated both intra-regional and inter-regional synchronization in 55 patients with atypical MDD, 51 patients with typical MDD, and 49 healthy controls (HCs) with age, sex, and educational level matched in both MDD subtypes. The voxel-level regional homogeneity (ReHo) and functional connectivity (FC) analyses were conducted to characterize atypical and typical MDD. Support vector machine (SVM) approaches were applied to examine the validity of the findings in distinguishing the two types of MDD.

Results Increased ReHo values in the right lateral orbitofrontal cortex (OFC) and their corresponding FC between the right lateral OFC and right dorsolateral prefrontal cortex (dlPFC), and FC between the right striatum with left OFC were identified in atypical MDD patients compared to typical MDD patients and HCs. The ReHo in right lateral OFC and the significant FCs found above were significantly correlated with body mass index (BMI) across all MDD subjects. The connectivity of the right striatum and left OFC is positively correlated with the retardation scores in the atypical MDD group. Finally, using the ReHo of the right lateral OFC as a feature, we achieved 71.68% accuracy and 0.75 area under curve to differentiate atypical MDD from typical MDD.

Conclusion Our findings showed that atypical MDD might be associated with altered OFC activity and connectivity. Furthermore, our findings also highlight the key role of lateral OFC in atypical MDD, which may provide valuable information for future personalized interventions.

关键字：Atypical major depressive disorder; Weight change; Regional homogeneity; Functional connectivity; Reward circuits

Clinical Correlates of Autoimmune Thyroiditis and Non-autoimmune Hypothyroidism in Treatment-naive Patients with Major Depressive Disorder

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Objective Thyroid autoimmunity is a potentially critical factor that is often neglected in the association between subclinical hypothyroidism (SCH) and depressive disorders. This study aimed to investigate the clinical correlates of autoimmune thyroiditis (AIT) and non-autoimmune hypothyroidism (NAIH) in treatment-na?ve patients with major depressive disorder (MDD).

Methods Using a cross-sectional design, we recruited a total of 1718 outpatients with treatment-na?ve MDD. Demographic and relevant clinical information including duration of MDD, severity of depression and anxiety, psychotic symptoms, suicide attempts, thyroid function parameters, etc. were collected. According to thyroid function parameters, patients were classified as AIT, NAIH, latent Hashimoto's thyroiditis (LH) and euthyroidism (ET).

Results Patients with SCH (including AIT and NAIH) had older age at onset, and were more likely to have psychotic symptoms compared to those with ET. Multiple

linear regression analysis showed that SCH was associated with duration of MDD and HAMD scores. Logistic regression analysis showed that the odds of having more severe anxiety and metabolic syndrome were greater among patients with SCH compared to those with ET. The odds of having suicide attempts were greater among patients with AIT than among those with ET.

Conclusion Our findings suggested that AIT and NAIH were associated with duration of MDD, HAMD scores, severity of anxiety, and metabolic syndrome. However, only AIT in SCH was associated with suicide attempts.

关键字：Major depressive disorder Autoimmune thyroiditis Subclinical hypothyroidism Non-autoimmune hypothyroidism Suicide attempts

The Interactions between Childhood Adversities and Stressful Life Events Were Associated with Depressive Symptoms Among UK Biobank Participants

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Objective To examine the contributions of moderation and mediation by adult stressful life events (SLEs) to the association between childhood adversity and late-life depressive symptoms.

Methods We conducted a retrospective cohort study using data from adult participants in the UK Biobank baseline survey (2006-2010) and online follow-up mental health survey (2016-2017). Childhood adversities contained five dimensions, including physical neglect, emotional neglect, sexual abuse, physical abuse, and emotional abuse, which were assessed retrospectively through the online follow-up survey (2016). SLEs were assessed during the baseline survey (2006-2010). The outcome was the total score of the PHQ-9 scale in the online follow-up survey. Linear regression models were performed to explore the association of childhood adversities and SLE with depression symptoms and their moderation effects on depression. Mediation analyses were carried out to explore the mediating role of SLEs between childhood adversities and depressive symptoms.

Results A total of 150978 participants aged 38 to 72 years were included. Among the cohort, the average age was 55.91 (SD 7.74) years, 43.7% were male, and 89,395 (59.2%) and 63,894 (42.32%) reported childhood adversities and stressful life events, respectively. We found that childhood adversities significantly increased the effects of SLEs on depressive symptoms ($\beta = 0.0079$, $P = 3.25 \times 10$-22). The results of mediation analyses revealed that SLEs significantly mediated the association between childhood adversities and depressive symptoms by 3.98%.

Conclusion Our study identified important interactions between childhood adversities and adult SLEs on depressive symptoms and showed that the adult SLEs may modify the associations between childhood adversities and depressive symptoms. These findings may provide more reliable evidence for subsequent pathogenesis studies of depression.

关键字：depressive symptoms, childhood adversities, stressful life events

抑郁症患者情绪面孔处理网络效应连接的改变

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目的 重性抑郁障碍（major depressive disorder, MDD）患者存在情绪加工异常以及情绪面孔处理网络关键脑区（如前额叶、杏仁核及视觉皮层）的功能连接异常。但是，处理情绪面孔时这些关键脑区之间功能交互的方向性即效应连接是如何改变的，仍不清楚。本研究旨在探讨未服药 MDD 患者在情绪面孔加工过程中，腹内侧前额叶（vmPFC）、背外侧前额叶（dlPFC）、杏仁核及梭状回面孔区（FFA）之间效应连接的改变，为阐明 MDD 患者情绪面孔加工受损的神经机制以及发现潜在的用于 MDD 诊断的生物标志物提供进一步证据。

方法 纳入符合美国精神疾病诊断与统计手册第五版（DSM-V）抑郁发作诊断的患者 48 例，年龄、性别、受教育程度均匹配的健康被试 44 例。所有受试在核磁扫描过程中完成情绪面孔配对任务，同时记录反应时和准确率。采用能够揭示脑区之间因果关系的动态因果模型（dynamic causal modeling, DCM）研究 MDD 患者情绪面孔加工过程的异常。根据前人研究，选取个体化后的 vmPFC、双侧 dlPFC、双侧杏仁核和双侧 FFA 作为每个被试的感兴趣脑区，构建 DCM；通过参数经验贝叶斯比较 MDD 患者与健康对照之间的效应连接差异，并基于组间差异连接，通过留一交叉验证对疾病分类诊断进行预测。

结果 DCM 分析发现，与健康对照相比，MDD 患者存在以下异常：1）右侧 dlPFC、右侧杏仁核与右侧 FFA 脑区的自连接减弱，提示这些脑区自抑制减弱、兴奋性增强；2）右侧杏仁核到双侧 dlPFC、右侧 FFA 以及左侧杏仁核之间的效应连接增强，提示以右侧杏仁核为主的右侧情绪面孔处理网络存在异常的效应连接；3）左侧 dlPFC 到左侧 FFA 和 vmPFC 的效应连接减弱，左侧杏仁核到左侧 FFA 效应连接增强，提示左侧情绪面孔处理网络存在多样的效应连接异常模式。进一步，我们发现存在组间差异的上述连接可以有效预测 MDD 患者的诊断分类（$r=0.2$, $p=0.039$）。

结论 在情绪面孔加工过程中，抑郁症患者情绪面孔处理网络表现出复杂的异常模式，部分结果证实了既往研究结果，即证实了以右侧情绪面孔处理网络在 MDD 情绪面孔加工中的作用，同时也发现 MDD 患者左侧情绪面孔处理网络效应连接异常。这些研究发现有助于增进对 MDD 受损的神经机制的理解，也提示情绪面孔处理网络效应连接有潜力作为辅助 MDD 诊断的客观生物标志物。

关键字：抑郁症；情绪面孔加工；动态因果模型；效应连接；杏仁核

Clinical and Preclinical Evaluation of MiR-144-5p As A Key Target for Major Depressive Disorder

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Objective Neuronal abnormalities are closely associated with major depressive disorder (MDD). Available evidence suggests a role for microRNAs (miRNAs) in regulating the expression of genes involved in MDD. Hence, miRNAs that can be potential therapeutic targets need to be identified.

Methods A mouse model of chronic unpredictable stress (CUS) was used to evaluate the function of miRNAs in MDD. miR-144-5p was screened from the hippocampi of CUS mice based on sequencing results. Adenovirus-associated vector were used to overexpress or knockdown miR-144-5p in mice. BpV(pic) and LY294002 were used to determine the relationship between miR-144-5p target genes PTEN and TLR4 in neuronal impairment caused by miR-144-5p deficiency. Western blotting, immunofluorescence, ELISA immunosorbent assay, and Golgi staining were used to detect neuronal abnormalities. Serum samples from healthy individuals and patients with MDD were used to detect miR-144-5p levels in the serum and serum exosomes using qRT-PCR.

Results miR-144-5p expression was significantly decreased within the hippocampal dentate gyrus (DG) of CUS mice. Upregulation of miR-144-5p in the DG ameliorated depression-like behavior in CUS mice and attenuated neuronal abnormalities by directly targeting PTEN and TLR4 expression. Furthermore, miR-144-5p knockdown in normal mice led to depression-like behavior via inducing neuronal abnormalities, including abnormal neurogenesis, neuronal apoptosis, altered synaptic plasticity, and neuroinflammation. miR-144-5p deficiency-mediated neuronal impairment was mediated by PI3K/Akt/FoxO1 signaling. Furthermore, miR-144-5p levels were downregulated in the sera of patients with MDD and associated with depressive symptoms. Consistently, serum exosome-derived miR-144-5p levels were decreased in patients with MDD.

Conclusion miR-144-5p plays a vital role in regulating neuronal abnormalities in depression. Our findings provide translational evidence that miR-144-5p is a new potential therapeutic target for MDD.

关键字：miR-144-5p, Depression, Neuroinflammation, Neuronal destruction

Identification of 7 Mitochondria-related Genes As Diagnostic Biomarkers of MDD and Their Correlation with Immune Infiltration: New Insights From Bioinformatics Analysis

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Objective Major depressive disorder (MDD) is one of the most prevalent and debilitating psychiatric disorders. It becomes more recognized that mitochondrial dysfunction contributes to the pathophysiology of depression. However, little research has systematically investigated the mitochondria-related biomarkers for MDD diagnosis. This study aimed to develop a novel diagnostic gene signature in MDD based on mitochondria-related genes.

Methods We identified the differentially expressed mitochondrial-related genes (DeMRGs) by combing the gene expression data of the GEO database with mitochondria-related gene lists obtained from the MitoCarta3.0 database. Next, three kinds of machine-learning algorithms were used to screen characteristic DeMRGs. Then, we constructed a multivariable diagnostic model based on these characteristic genes and evaluated the diagnostic ability of this model. Subsequently, the immune landscape of infiltrated immune cells between MDD patients and controls was evaluated by CIBERSORT. Using consensus clustering analysis, we divided MDD patients into different clusters based on the characteristic DeMRGs expression patterns. Finally, the variations in immune cell infiltration between different clusters, and the correlation between characteristic DeMRGs and immune cell infiltration were analyzed.

Results Seven characteristic genes, including PMPCB, MRPS28, LYRM2, MGST1, COX20, PTPMT1, and STX17, were identified from the 31 DeMRGs. Based on the seven characteristic genes, we successfully constructed a diagnostic model which had relatively good diagnostic performance and potential application in the clinical diagnosis of MDD. In addition, our results also imply an intimate and comprehensive association between the characteristic DeMRGs and immune infiltrating cells.

Conclusion A novel mitochondria-related gene signature with a good diagnostic performance and a relationship with immune microenvironment were identified in major depressive disorder.

关键字：major depressive disorder, mitochondria-related genes, mitochondrial dysfunction, immune infiltration, bioinformatics analysis, machine-learning

Relevance between Age of Onset and Hospitalization Characteristics of Major Depressive Disorders: A 16 Years Retrospective Cohort Study.

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Objective Age of onset influences the prognosis of many diseases and even serves as potential driver. But in Major Depressive Disorder, there is no consensus regarding the effect of age of onset on the course.

Methods In this study, a total of 38,671 inpatients were surveyed over 16 years, and 6,113 inpatients were eventually included in the statistical analysis after applying rigorous data criteria.

Results In the subset of first hospitalization(n=4884), the differences in the length of stay between several age of onset groups were statistically significant(F=56.852, df1=3, df2=4880, P<0.001, ω2=0.033). Similarly, this difference was also significant in the subset of relapse hospitalization(n=1229, F=5.985, df1=3, df2=1225, P<0.001, ω2=0.012). The Bonferroni post hoc test suggested a longer length of stay in the adolescent onset group(P<0.001). In the adolescent-onset group, the proportion with 2 or more relapses within one year was higher than those without relapses(6.7% Vs 2.7%, X2=12.685, df=6, P < 0.001). Logistic regression suggests that patients with adolescent onset are at higher risk for 2 or more relapses within one year(B=0.881, OR=2.41, 95%CI 1.37-4.23, P=0.002).

Conclusion This is the first large sample size study to examine age at onset and risk of relapse at the individual level in a Chinese population. Our study found that adolescent onset is more susceptible to the chronicity of MDD. These findings will contribute to the accurate typing of MDD, as well as customized individualized prevention and treatment options.

关键字：Major depressive disorder, age of onset, first episode, relapse episodes, adolescent depression, elderly depression.

Correlation Analysis of Gut Microbiota and Short-chain Fatty Acid Characteristics in Major Depressive Disorder

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Objective Major depressive disorder (MDD) is a psychiatric disorder that has a serious impact on human physical and mental health. Previous studies have shown that imbalance of gut microbiota is closely related to the occurrence and development of MDD, and gut microbiota may cause MDD by influencing short-chain fatty acid (SCFA). Therefore, this study analyzed the gut microbiota and SCFA levels in patients with MDD to explore the relationship between them, aiming to provide a theoretical basis for the early identification, prevention and prognosis of MDD.

Methods In this study, eighty-two first-episode, drug-naive patients with MDD and ninety-one healthy subjects were recruited, and general demographic data of the subjects were collected. The Gastrointestinal Symptom Rating Scale (GSRS) was used to measure the severity of gastrointestinal symptom. We used 16S rRNA gene sequencing to detect the sequences of the intestinal flora of the two groups. The levels of SCFAs in plasma were measured by gas chromatography-mass spectrometry (GC-MS). We compared the differences in intestinal flora and SCFAs, between the two groups of subjects, and analyzed the correlation between the above indicators.

Results Patients with MDD differed from healthy controls significantly in education, total scores of HAMD-24, total scores of HAMA, score of GSRS and smoking. Further, there were significant differences between the two groups in frequency of drinking sugary drinks or eating desserts and defecation frequency(P<0.05). The fecal microbiome from MDD patients showed a significant decrease in α-diversity, as measured by Chao1, Faith's PD, Shannon, Simpson, Pielou's evenness and number of observed species. Meanwhile, there were differences in β-diversity between the two groups. LEfSe analysis identified 37 characteristic bacterial strains that were significantly different between the two groups (LDA > 3), of these, 15 enriched in patients with major depressive disorder. The genus Blautia, genus Bifidobacterium, genus Megamonas, genus Streptococcus were significantly enriched taxa in the patient group. The levels of propionic acid (P＜0.01) and butyric acid (P＜0.01) were found to be significantly decreased in depressed patients compared to controls, the level of isovaleric acid was not significantly different between the two groups (P = 0.645).Correlation analysis revealed positive correlations between genus Blautia and total scores of HAMD-24 and total scores of HAMA, but negative correlations with the level of propionic acid (P < 0.05). The levels of propionic acid and butyric acid were found that negative correlations with genus Bifidobacterium (P < 0.01).

Conclusion Patients with MDD had lower propionic acid and butyric acid level in peripheral blood, and changed in the composition of the intestinal flora compared to the healthy population. Dysbiosis could be a new therapeutic target and prognostic tool for the treatment of patients with MDD.

关键字：major depressive disorder; gut microbiota; short chain fatty acid; clinical features

时间相关语音特征在单双相抑郁患者中的差异性分析

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目的 探究单相抑郁和双相抑郁患者的时间相关语音特征是否存在差异，以及与抑郁症状水平间的相关性。

方法 研究纳入经 MINI 诊断的中重度抑郁发作（HAMD-17 总分＞17 分）的单相抑郁患者 74 例、双

相抑郁患者 85 例，全部受试者无影响发声及阅读的躯体疾病。研究在安静环境下，采集受试者朗读固定文字材料时的音频数据，分析受试者音频中朗读时长、说话时长以及停顿时长三个时间相关的语音特征。使用 T 检验、回归分析的方法进行统计分析。

结果 单相抑郁和双相抑郁组受试者的性别、年龄、文化程度分布，无组间差异（P＞0.05）。研究分析朗读时长、说话时长以及停顿时长三个时间相关语音特征，在两组受试者间未见统计学显著性差异（P=0.851、0.266、0.641），由于上述语音特征被认为与抑郁症状水平有关，研究分析发现，疾病类别与抑郁症状水平的交互效应对两组受试者朗读时长特征的影响具有统计学显著性（P=0.049），而对说话时长和停顿时长特征的影响并不显著（P=0.793、0.059）。研究进一步展开亚组分析的结果提示，单相抑郁组和双相抑郁患者组的朗读时长特征，在中度抑郁亚组（P=0.377）或重度抑郁亚组（P=0.783）中并不存在统计显著性组间差异。

结论 时间相关语音特征在中重度抑郁发作的单双相抑郁患者中，并未发现显著性差异。

关键字：单相抑郁 双相抑郁 语音特征

首复发抑郁障碍疗效相关静息态脑电功率谱分析

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目的 抑郁障碍发病率逐年上升，较高的复发率导致其治疗复杂化，增加了社会和经济负担。所以对首发抑郁障碍患者的疗效检测及预防复发显得尤为关键，研究发现首发抑郁障碍患者脑电图存在特征性静息态脑电功率谱，在治疗方面研究结果也不尽相同，由此推测首/复发抑郁障碍患者之间可能也存在差异特征，因此我们拟通过研究首/复发抑郁障碍患者及其在疗效方面的静息态脑电功率谱差异，为抑郁障碍的诊治及预防复发提供客观的神经电生理指标。

方法 本研究依据纳入及排除标准收集 2019 年 1 月-2021 年 1 月抑郁障碍住院患者 292 例，其中首次抑郁发作（First Depressive Episode , FDE）组 144 例，复发性抑郁障碍（Recurrent Depressive Disorder , RDD）组 148 例（抑郁发作次数≥2 次）。收集其治疗前一般人口学资料、16 导静息态脑电图、HAMD-24；治疗 2 周后 HAMD-24。用 MATLAB 软件对所有脑电资料进行预处理及功率谱计算，对 FDE 与 RDD 组各频段脑电功率谱进行统计分析比较，探索首/复发抑郁障碍患者脑电功率谱的差异特征；根据治疗前后量表减分将 FDE 患者分为治疗有效组（116 例）与未显效组（28 例）、RDD 分为治疗有效组（99 例）与未显效组（49 例），对两组中疗效相关亚组的各频段脑电功率谱进行差异比较，探索抑郁障碍患者疗效相关的脑电功率谱特征。人口学和临床资料采用单因素方差分析、卡方检验及独立样本 t 检验进行比较，使用 SPSS26.0 软件进行统计分析。

结果 首发和复发抑郁障碍患者脑电功率谱在 beta 频段 C4 电极点存在差异（p<0.010），在 delta、theta、alpha、gamma 无明显差异（p>0.010）。FDE 患者治疗有效组与未显效组脑电功率谱在 gamma 频段电极点 F3 、F4 、C3、O2、P3 、P4 、T6 、FP2、F7 处存在差异，在 delta、theta、beta、alpha 无明显差异。RDD 患者治疗有效组与未显效组脑电功率谱在 delta、theta、alpha、beta、gamma 频段均无明显差异。

结论 Beta 频段 C4 电极点处脑电功率谱差异可能反应首/复发抑郁障碍患者的差异。Gamma 频段的 F3、F4、C3、O2、P3、P4、T6、FP2、F7 电极点处脑电功率谱差异可能反应不同首发抑郁障碍患者的疗效。

关键字：首次抑郁发作；复发性抑郁障碍；疗效；脑电图；功率谱密度；回顾性分析

Volumetric Alterations of The Hippocampal Subfields in Major Depressive Disorder with and without Suicidal Ideation

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Objective Major depressive disorder (MDD) frequently co-occurs with suicidal ideation (SI). Prior research suggested that MDD patients who experienced suicidal attempts (SA) exhibited smaller hippocampal volume than those without SA. The hippocampus consists of several subfields that are histologically and functionally unique respectively. However, few studies have explored the link between suicide and volumetric changes of the hippocampal subfields in MDD.

Methods A total of 92 participants, including 24 MDD patients with SI (MDD-SI), 30 MDD patients without SI (MDD-nSI), and 38 healthy controls (HCs) were recruited in this study. High-resolution structural magnetic resonance images (MRI) were obtained and analyzed by using the automated hippocampal substructure module in Free Surfer 6.0. Analyses of variance (ANOVA) were performed to obtain hippocampal subfields with significant differences among three groups and then post hoc tests were calculated for inter-group comparisons. Correlation analyses were performed to investigate associations be-

tween hippocampal subfield volumes and clinical characteristics

Results The ANOVA revealed significant volumetric differences of the hippocampal subfields among three groups in the bilateral cornu ammonis (CA) 1 head, CA4, granule cell layer of the dentate gyrus (GC-ML-DG), molecular layer (ML), the right hippocampus-amygdala transition area (HATA), and the right subiculum (Sub) body. Relative to HCs, both groups of MDD showed decreased volumes in the CA1 head, CA4, GC-ML-DG head, ML head, and whole hippocampal head of the left hippocampus, the right HATA, and bilateral whole hippocampal body and whole hippocampus. Meanwhile, the MDD-SI group further exhibited diminished volume in the CA1 head, GC-ML-DG head, ML head, CA4 body, Sub body, and whole hippocampal head of the right hippocampus, as well as bilateral GC-ML-DG body and ML body. Additionally, the MDD-SI group also showed decreased volumes in the right GC-ML-DG body, ML body, and Sub body when comparing to MDD-nSI group. However, no significant association was observed between hippocampal subfield volumes and clinical features in MDD.

Conclusion The present findings suggested that SI in MDD might be attributed to subfield abnormalities in the subiculum and DG-dominant circuit of the right hippocampus.

关键字：Key Words: Major depressive disorder, Suicidal ideation, Hippocampus, Subfield

Reliability and Validity of The Chinese Brief Cognitive Test (C-BCT) in Patients with MDD

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Objective Cognitive impairment is a significant clinical feature of Major Depressive Disorder (MDD), and evaluating cognitive function can help with treatment prediction and prognosis. Subjective cognitive evaluation in MDD patients has been extensively researched, but the results often do not align with objective evaluation. Objective cognitive testing tools evaluate only a limited number of cognitive dimensions, and most cognitive batteries are either time-consuming or lack normative data in China. However, the Chinese Brief Cognitive Test (C-BCT) is a brief cognitive battery that has normative data in China and is less time-consuming. The purpose of this study is to explore and analyze the reliability and validity of the electronic version of the C-BCT for evaluating cognitive impairment in patients with Major Depressive Disorder.

Methods A total of 133 outpatients and inpatients who met the diagnostic criteria for Major Depressive Disorder in the DSM-5 were administered the C-BCT. The participants also completed the Chinese version of the MATRICS Consensus Cognitive Battery (MCCB), the 17-item Hamilton Depression Rating Scale (HAMD-17), and the Hamilton Anxiety Rating Scale (HAMA). Nineteen patients underwent a retest with the C-BCT after one week.

Results Analysis of the C-BCT items showed significant differences between each sub-test's high and low score groups (t=4.114-8.446, P<0.001). The homogeneity test indicated that the correlation coefficient (r) between each sub-test and the total score was greater than 0.4. The overall correlation between C-BCT and MCCB was strong (r=0.743, P<0.01).None of HAMD-17, HAMA, and the factors representing psychotic symptoms in BPRS were related to cognitive performance (P>0.05). The number of hospitalizations due to depression was negatively correlated with the total score and scores for the Trail Making Test, Digit Span Test, and Symbol Coding Test (r=-0.278, P=0.001; r=-0.216, P=0.013; r=-0.259, P=0.003; r=-0.240, P=0.005, respectively). The age of onset of current depression episode was negatively correlated with Digit Span Test (r=-0.219, P=0.011). Disease duration was negatively correlated with Digit Span Test (r=0.185, P=0.033).

Conclusion C-BCT has good reliability and validity for assessing the cognitive level of patients with depression. Patients with higher education levels perform better overall, with faster processing speed, attention, working memory, and executive function. Employed patients have better processing speed than unemployed patients. The severity of depression, as measured by HAMD-17, HAMA, and BPRS factors representing psychotic symptoms, is not related to cognitive performance. The longitudinal clinical features of patients' illnesses (longer disease duration, more previous hospitalizations, older age at onset of this episode, longer time from first episode to first treatment) all represent poor cognitive performance.

关键字：Major Depressive Disorder; Cognitive Impairment; C-BCT; Reliability and Validity Analysis

伏硫西汀在神经突密度正常的重性抑郁障碍患者中恢复 mGLUR5 可用性

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目的 临床前研究指出，代谢型谷氨酸受体 5（mGluR5）是重性抑郁障碍(MDD)的潜在治疗靶点。我们通过纵向[18F]FPEB-PET-NODDI 研究旨在探讨：(1) 伏硫西汀能否通过恢复 MDD 患者 mGLUR5 可用性来发挥抗抑郁作用。(2) 伏硫西汀恢复 mGluR5 可用性的效果是否依赖于正常神经突密度。

方法 我们从门诊随机招募了 25 名 MDD 患者和 21 名健康对照，其中 13 名患者完整接受了为期八周的伏硫西汀治疗并完成了随访。通过[18F]FPEB-PET 扫描和神经突取向分散和密度成像 (NODDI) 分别评估了基线与 8 周随访 mGluR5 可用性和神经突密度指数 (NDI)。我们使用 HAM-D 量表评估抑郁症状严重程度，并以 7 分作为划界将患者分为缓解者（n=6）和非缓解者（n=7）。

结果 在基线时，与健康对照组相比，MDD 患者大部分脑区 mGluR5 可用性降低。治疗后，在缓解者的前额叶和海马区域观察到 mGluR5 可用性显著增加，而在非缓解者中未观察到此现象。基线神经突密度指数（NDI）影响伏硫西汀治疗在背外侧前额叶(dlPFC)(P=0.022)、腹内侧前额叶(vmPFC)(P=0.024)和海马(P=0.021)中提高 mGluR5 可用性的效果。

结论 年轻成年 MDD 患者 mGluR5 可用性较低，伏硫西汀能够通过恢复 MDD 患者 mGLUR5 可用性来发挥抗抑郁作用，但治疗效果依赖于相对正常的神经突密度。

关键字：重性抑郁障碍; 代谢型谷氨酸受体 5; 神经突密度; 伏硫西汀

单次亚麻醉剂量氯胺酮/艾司氯胺酮静脉点滴快速治疗抑郁新技术研发与临床转化应用

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目的 为解决目前抗抑郁治疗这两大关键局限：①抗抑郁剂起效延迟，无法快速缓解抑郁伴发的急性自杀风险；②20%-30%患者属于难治性抑郁。我们团队开展了“单次亚麻醉剂量氯胺酮/艾司氯胺酮静脉点滴快速治疗抑郁新技术”研发与临床转化应用。

方法 我们从 2013 年起，历时 10 年，开展“单次亚麻醉剂量氯胺酮/艾司氯胺酮静脉点滴快速治疗抑郁新技术”研发与与临床转化应用项目。2013 年起我们团队启动了国内首个氯胺酮治疗抑郁障碍的临床研究，代表性论文 2016 年发表在 Psychological Medicine，精神科 I 区杂志，影响因子 5.8 分，被引次数：96 次(截止 2023 年 4 月)。我们的代表性论文被中华精神科杂志在学术动态专栏介绍、被 Nature Reviews 杂志（影响因子 57 分）引用，肯定了我们研究的创新性，评价我们是国际首次采用：单次氯胺酮合并常规抗抑郁剂治疗抑郁障碍的有效性研究，这标志着我国在氯胺酮快速治疗抑郁障碍临床研究方面达到国际先进水平。该成果于 2020 年获批专利一项，2018、2020 年在北京朝阳医院获批 2 个新技术临床准入批件，2019 年中国医学论坛报对我们首例新技术开展进行了报道。2020 年获得朝阳医院 2019 年度技术创新奖二等奖。2021 年获得 2020 年度北京医学科技奖三等奖。2022 年荣获 2022 年第三届首都医学创新与转化成国展示与科技评价活动（优秀项目组）三等奖！

结果 该新技术在临床转化应用中总计完成 39 例，其中 24 例氯胺酮、15 例艾司氯胺酮。本新技术快速起效、总体上治疗 4 小时有效率达到 70%；临床治愈率显著提高， 4 周内总体临床治愈率（以任何一个时点 MADRS≤10 分为临床治愈标准）达到 83%，远远高于目前 30%-40%的临床治愈率。

结论 “单次亚麻醉剂量氯胺酮/艾司氯胺酮静脉点滴快速治疗抑郁新技术”具有快速、显著地缓解严重抑郁障碍伴发的急性自杀风险，它能在治疗后 2 小时就快速缓解自杀风险，同时能快速、显著地提高难治性抑郁治愈率。具有值得期待的临床应用前景。

关键字：氯胺酮；艾司氯胺酮；抑郁障碍

Prevalence and Associated Factors of Obesity in Patients with Major Depressive Disorder at Different Age of Onset

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Objective Major depressive disorder (MDD) and obesity are two serious public health problems. Although there have been several research on both, there have few studies on differences in obesity among MDD patients at different ages of onset. The aim of this study was to assess prevalence and correlates of obesity in MDD patients at different ages of onset.

Methods A total of 1718 first-episode drug-naive MDD patients were recruited. MDD patients were divided into early adulthood onset (EAO, =45 years) subgroups according to their age of onset. We assessed patients' symptoms using the 17-item Hamilton Depression Rating Scale (HAMD-17), the Hamilton Anxiety Scale (HAMA), and Positive and Negative Syndrome Scale (PANSS) positive subscale. We evaluated baseline parameters such as: body mass index (BMI), systolic and diastolic blood, and the hematological biochemical parameters, with the aim to investigate whether the parameters could be associated with an increased risk of weight gain.

Results The percentage of overweight and obesity patients with MDD in EAO group was 54.4% and 4.1%, respectively, and the percentage of overweight and obesity patients with MDD in MAO group was 60.4% and 2.8%, respectively. MDD patients with MAO had a longer disease duration and higher HAMD score, HAMA score, PANSS positive subscale score, as well as thyroid stimulating hormone (TSH), anti-thyroglobulin (TgAb), fasting blood glucose (FBG), total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), systolic and diastolic blood pressures (SBP and DBP) levels. However, there was no significant difference in BMI between the two groups. In the EAO group, statistically significant differences were found among normal weight group, overweight group and obesity group in duration of illness, age of onset, TSH, TgAb, thyroid peroxidase antibody (TPOAb), free thyroxine (FT4), TC, triglycerides (TG), SBP and DBP. The TSH, TgTb and SBP were the risk factors for weight gain. In the MAO group, statistically significant differences were found among normal weight group, overweight group and obesity group in TSH and FBG. The two indicators were the risk factors for weight gain.

Conclusion There were no significant differences in the weight of MDD patients at different age of onset, while the risk factors for weight gain were different.

关键字：Major depressive disorder, Different age of onset, Obesity, Overweight

Association between Psychotic Symptoms and Abnormal Lipid Metabolism in Young, Drug-Na?ve Patients with First-Episode Major Depressive Disorder

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Objective Major depressive disorder (MDD) patients exhibit abnormalities in lipid metabolism, but the relationship between these abnormalities and the risk of psychotic symptoms remains uncertain. This study aimed to compare lipid metabolism disorders in young patients with psychotic major depressive disorder (PMD) and non-psychotic major depressive disorder (NPMD), explore risk factors for symptom onset, and provide important implications for therapeutic intervention.

Methods A total of 1047 outpatients with first-episode and drug-na?ve (FEDN) MDD, presenting abnormal lipid metabolism, were enrolled in this study. Sociodemographic information, clinical data, and lipid parameters were collected. The Hamilton Depression Rating Scale assessed depressive symptoms, while the positive symptom subscale of the Positive and Negative Syndrome Scale evaluated psychotic symptoms.

Results Compared to the NPMD group, the PMD group exhibited higher total cholesterol (TC) levels (5.73±1.12 mmol/L vs. 5.38±1.07 mmol/L, t=-3.150, P=0.002). Logistic regression analysis revealed a significant association between psychotic symptoms and TC levels in MDD patients with abnormal lipid metabolism (OR=1.330, 95% CI=1.055-1.678, P=0.016).

Conclusion This study demonstrates that PMD patients have elevated TC levels. Regular evaluation of blood lipid levels is crucial for preventing psychotic symptoms in young individuals with MDD. Furthermore, the findings highlight the potential of serological markers in assessing the risk of psychotic symptoms in early-stage MDD patients.

关键字：Psychotic Symptoms, lipid, young, major depressive disorder, first-episode and drug-na?ve

IL-1ra Treatment Prevents Chronic Social Defeat Stress-induced Depression-like Behaviors and Glutamatergic Dysfunction Via The Upregulation of CREB-BDNF

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Objective Proinflammatory cytokines IL-1β has been proposed to be a key mediator in the pathophysiology of mood-related disorders. However, the IL-1 receptor antagonist (IL-1ra) is a natural antagonist of IL-1 and plays a key role in the regulation of IL-1-mediated inflammation, the effects of IL-1ra in stress-induced depression has not been well elucidated.

Methods Chronic social defeat stress (CSDS) and lipopolysaccharide (LPS) were used to investigate the effects of IL-1ra. ELISA kit and qPCR were used to detect IL-1ra levels. Golgi staining and electrophysiological recordings were used to investigate glutamatergic neurotransmission in the hippocampus. Immunofluorescence and western blotting were used to analyze CREB-BDNF pathway and synaptic proteins.

Results Serum levels of IL-1ra increased significantly in two animal models of depression, and there was a significant correlation between serum IL-1ra levels and depression-like behaviors. Both CSDS and LPS induced the imbalance of IL-1ra and IL-1β in the hippocampus. Furthermore, chronic intracerebroventricular (i.c.v.) infusion of IL-1ra not only blocked CSDS-induced depression-like behaviors, but also alleviated CSDS-induced decrease in dendritic spine density and impairments in AMPARs-mediated neurotransmission. Finally, IL-1ra treatment produces antidepressant-like effects through the activation of CREB-BDNF in the hippocampus.

Conclusion Our study suggests that the imbalance of IL-1ra and IL-1β reduces the expression of the CREB-BDNF pathway in the hippocampus, which dysregulates AMPARs-mediated neurotransmission, ultimately leading to depression-like behaviors. IL-1ra could be a new potential candidate for the treatment of mood disorders.

关键字：CSDS; IL-1ra; lipopolysaccharide; AMPARs; glutamatergic dysfunction; CREB-BDNF

川金解郁汤对慢性应激诱导抑郁大鼠模型的神经保护作用

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目的 研究川金解郁汤对慢性不可预知性应激诱导的抑郁大鼠模型的神经保护作用。

方法 48 只成年雄性健康 SD 大鼠，随机选取对照组 12 只，其余大鼠建立 CUMS 抑郁模型。将建模成功后大鼠随机分成 3 组：CUMS 组、氟西汀组和川金解郁汤组；通过旷场实验、糖水偏爱实验，测定大鼠抑郁水平；RT-PCR 检测脑源性神经营养因子、酪氨酸蛋白激酶受体 B、环磷酸腺苷反应元件结合蛋白 mRNA 在海马齿状回的表达量，免疫荧光检测 BDNF 与神经元核心抗原的表达，Westernblotting 检测胶质纤维酸性蛋白水平。

结果 造模后，CUMS 组、氟西汀组、川金解郁

汤组的糖水消耗、糖水偏爱、垂直运动及水平运动结果明显低于对照组（P＜0.01）；干预后，CUMS 组以上指标低于对照组（P＜0.01），氟西汀组与川金解郁汤组以上指标均高于 CUMS 组（P＜0.01 或＜0.05），但低于对照组（P＜0.01 或＜0.05）。RT-PCR 结果显示，与对照组相比，CUMS 组、氟西汀组、川金解郁汤组的 BDNF、Trkb、CREB mRNA 均显著降低（P＜0.01）。与 CUMS 组相比，氟西汀组与川金解郁汤组的上述指标均显著升高（P＜0.01）。免疫荧光结果显示，与对照组相比，CUMS 组的 BDNF、NeuN 表达量都显著下降（P＜0.01）；与 CUMS 组相比，氟西汀组、川金解郁汤组以上指标升高（P＜0.01 或 P＜0.05），且川金解郁汤所有指标及氟西汀组 NeuN 表达量低于对照组（P＜0.01 或 P＜0.05）。大鼠海马齿状回 GFAP 蛋白结果显示，与对照组相比，CUMS 组的 GFAP 蛋白表达下降（P＜0.01）。与 CUMS 组相比，氟西汀组 GFAP 蛋白表达升高（P＜0.05）。

结论 川金解郁汤可改善大鼠抑郁行为学指标，提高海马齿状回 BDNF、TrkB、CREB 及 NeuN 表达。提示川金解郁汤可能通过 BDNF/TrkB/CREB 通路发挥神经保护作用改善 CUMS 大鼠的抑郁症状。

关键字：川金解郁汤；抑郁症；神经保护；BDNF；NeuN；GFAP；

Plasma Apo-E Mediated Suicidality and Corticospinal Tract Abnormalities in Patients with Major Depressive Disorder

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Objective This study aims to explore the link between Apo-E, brain white matter, and suicide in patients with major depressive disorder (MDD) to investigate the potential neuroimmune mechanisms of Apo-E that may lead to suicide.

Methods Thirty-nine patients with MDD (22 patients with suicidality) and 57 age, sex, and education-matched healthy controls (HCs) participated in this study, provided plasma Apo-E samples, and underwent diffusion tensor imaging (DTI) scans. Plasma Apo-E levels and white matter microstructure were analyzed among the MDD with suicidality, MDD without suicidality, and HC groups using analysis of variance (ANOVA) with post-hoc Bonferroni correction and tract-based spatial statistics (TBSS) with threshold-free cluster enhancement (TFCE) correction. Mediation analysis investigated the relationship between Apo-E, brain white matter, and suicidality in MDD.

Results The MDD with suicidality subgroup showed significantly higher total depressive and suicide scores, a longer disease course, and lower plasma Apo-E levels than the nonsuicide MDD subgroup. TBSS analyses revealed that the MDD nonsuicide subgroup showed significantly increased mean diffusivity (MD) in the left corticospinal tract and the body of the left corpus callosum, as well as significantly increased axial diffusivity (AD) in the left anterior corona radiata and the right posterior thalamic radiation, compared to the MDD with suicidality subgroup. The main finding was that the increased MD of the left corticospinal tract contributed to the elevated suicide score, with Apo-E mediating the effect.

Conclusion Apo-E's mediating role between the left corticospinal tract and the suicide factor reveals the neuroimmune mechanism of suicide in MDD.

关键字：Major depressive disorder, Apo-E, suicidality, tract-based spatial statistics, mediation analysis

老年性耳聋认知储备失调影响阈下抑郁的静息态脑电网络机制研究

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目的 采用静息态脑电 EEG 明确老年性耳聋认知储备失调对抑郁情绪影响的中枢网络机制。

方法 对老年性耳聋伴阈下抑郁患者（n=12）、老年性耳聋不伴抑郁症状患者（n=18）进行听力学评估（纯音测听）、认知功能评估（蒙特利尔认知评估量表 MoCA 量表）、抑郁症状评估（汉密顿抑郁量表 HAMD-24）、睡眠质量评估（PSQI）、静息态脑电 EEG，并分别进行静息态脑电 EEG 的分析，包括溯源分析、功能连接、聚类系数、特征路径长度。

结果 老年性耳聋伴阈下抑郁组的平均 HAMD-24 为 10.50±2.39 分，老年性耳聋不伴抑郁症状组的平均 HAMD-24 为 3.72±1.67 分（t=9.15，P=0.000）。老年性耳聋伴阈下抑郁组的 MoCA 为 19.05±3.94 分，老年性耳聋不伴抑郁症状组的 MoCA 为 22.50±2.57 分（t=-2.53，P=0.017）。老年性耳聋伴阈下抑郁组的 PSQI 为 12.58±3.06 分，老年性耳聋不伴抑郁症状组的 PSQI 为 8.83±3.71 分（t=2.90，P=0.007）。两组间的平均 HAMD-24、MoCA、PSQI 差异均具有统计学意义（P＜0.05），其中老年性耳聋不伴抑郁症状组的命名能力、延迟回忆能力明显高于老年性耳聋伴阈下抑郁组。相比起老年性耳聋不伴抑郁组，全脑溯源分析提示老年性耳聋伴阈下抑郁组的梭状回及枕叶明显激活。不同频段在不同皮层间也出现了异常激活：包括后扣带回及边缘叶（Delta 波）、海马旁回及边缘叶（Theta 波）、前扣带回及边缘叶（Alpha 波）、额上回及额叶（Beta 波）、颞下回及边缘叶（Gamma 波）。老年性耳聋伴阈下抑郁组患者不同频段均出现异常增多的功能连接，尤其是高频段（P＜0.05）。老年性耳聋伴阈下抑郁组的聚类系数、全局效率、局部效率异常增强，特征路径长度明显下降（P＜0.05）。

结论 老年性耳聋伴阈下抑郁患者的睡眠质量和认知功能均下降，脑功能连接及脑网络异常激活，更容易出现认知储备失调。

关键字：阈下抑郁；老年性耳聋；静息态脑电；认知储备失调

Effects of Gender and BMI Index on The Pharmacokinetics of Fluvoxamine: A Population Pharmacokinetic Model in Chinese Psychiatric Patients

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Objective To establish a population pharmacokinetic model of fluvoxamine in Chinese psychiatric patients, quantitatively investigate the covariates affecting the pharmacokinetics of fluvoxamine, and compare and analyze the plasma concentration with the treatment window of fluvoxamine through the simulation of blood drug concentration through covariates, so as to provide a reference for the individualized use of clinical fluvoxamine.

Methods Retrospectively collected the data of patients who received therapeutic drug monitoring for fluvoxamine from May 2020 to October 2022 in Brain Hospital Affiliated to Guangzhou Medical University, including demographic data, combined medication and liver and kidney function indicators. nonlinear mixed-effects modeling (NONMEM) was used to establish a population pharmacokinetic （PPK）model of fluvoxamine，using a goodness-of-fit plot, normalized prediction distribution error, and bootstrapping method (1000 times) to validate the model , and using simulation to quantify the effect of covariates on the pharmacokinetics of fluvoxamine

Results A first-order conditional estimation with interaction (FOCE I) was used to describe the PFK model of fluvoxamine，The PPK model included 583 fluvoxamine plasma concentration data from 131 patients, Final model founded that Gender and body mass index (BMI) were significant covariates in apparent clearance of fluvoxamine (CL/F). The final model is CL/F=71.7×[1+0.0466×(BMI-21.16)]×(1-0.203×SEX) (female: SEX=1, male: SEX=0). Fluvoxamine (CL/F) was positively correlated with BMI index, and fluvoxamine CL/F in women was significantly lower than that in men. The model-based simulation results showed that the recommended max dose of fluvoxamine may reach up to 200mg/d for patients with low BMI index (BMI=14), 300 mg/d for those with normal BMI index (BMI=21), and 400 mg/d for those with high BMI index (BMI: 30~42), respectively.

Conclusion A population pharmacokinetic model of fluvoxamine was successfully established for Chinese groups, and sex and BMI index were found to be covariates affecting the individual differences of patients with mental disorders in China, and the maximum dose was recommended for different BMI populations.

关键字：Fluvoxamine; Population pharmacokinetics; Therapeutic drug monitoring; Dosage selection

以创伤为中心的认知行为疗法（TF-CBT）对儿童青少年创伤后应激障碍疗效的荟萃分析

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目的 作为一种手册化心理治疗方法，目前已有一定数量的研究探究了以创伤为中心的认知行为疗法（Trauma-focused cognitive behavioral therapy ，TF-CBT）对于儿童青少年创伤后应激障碍（post-traumatic stress disorder ，PTSD）的疗效，但各个研究结果之间不一致性尚存。因此，本研究应用系统文献检索以及荟萃分析方法，通过与非积极对照措施相比较，进一步评价该疗法的疗效和依从性。

方法 从 Pubmed、Embase、Cochrane Library、PsycINFO、web of science 数据库中检索 2022 年 11 月 31 日之前关于 TF-CBT 治疗儿童青少年 PTSD 的相关随机对照试验。按照预先设定好的纳入排除标准进一步筛选符合标准的研究，随后对纳入研究进行质量评价并提取所需要的数据和信息, 通过 Review Manager 5.4 软件完成统计分析得出结果。最后，通过 Stata17.0 软件完成 Egger's 检验对主要结果的发表偏倚进行定量检测。

结果 本研究共纳入 14 篇随机对照试验，总计 2007 例受试者。结果显示，TF-CBT 对于儿童青少年 PTSD 的总体疗效显著优于非积极对照措施（SMD＝-0.95，95%CI＝[-1.24，-0.66]，P＜0.00001）。随后关于侵入、回避、警觉性增高这三个亚症状群以及抑郁和焦虑症状的疗效比较结果也同样支持 TF-CBT 的显著治疗优势（侵入：SMD＝-0.53，95%CI＝[-0.72，-0.34]，P＜0.00001。回避：SMD＝-0.53，95%CI＝[-0.70，-0.37]，P＜0.00001。警觉性增高：SMD＝-0.64，95%CI＝[-1.00，-0.28]，P=0.008。抑郁：SMD＝-0.45，95%CI＝[-0.61，-0.30]，P＜0.00001。焦虑：SMD＝-0.31，95%CI＝[-0.48，-0.15]，P=0.0001）。 关于依从性，TF-CBT 与所有非积极对照措施相比， 合并效应量结果未见统计学差异（RR＝1.08, 95%CI＝[0.81, 1.42] , P =0.60）。

结论 TF-CBT 可显著改善儿童青少年创伤后应激障碍患者的典型临床症状，并能在一定程度上缓解他们的抑郁和焦虑情绪。

关键字：认知行为疗法；儿童青少年；创伤后应激障碍；荟萃分析

抗抑郁药物疗效与胆固醇代谢及奖赏环路的相关性研究

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目的 验证 24S-OHC 与抑郁症状变化的关系；检验 24S-OHC 与前额叶皮质-缰核功能连接的关系；探索 24S-OHC、27-OHC 与奖赏环路功能连接的关系。

方法 纳入 2018 年 7 月至 2022 年 4 月就诊于北京安定医院门诊的抑郁症患者。抑郁症患者在入组前至少 14 天内未服用任何抗抑郁药物，并接受单一抗抑郁药艾司西酞普兰治疗 12 周，在治疗前后进行随访，采用 HAMD-17 量表评估抑郁症状，并采集血液样本。采用液相色谱-质谱联用的方法检测抑郁症患者治疗前后血浆 24S-OHC、27-OHC 水平。对部分患者采用静息态 fMRI 检查评估奖赏环路的功能连接状况。纳入与患者年龄和性别匹配的健康对照，采集外周血进行血浆羟基胆固醇水平检测和静息态 fMRI 检查。基于 SPSS24.0，分别采用 T 检验、卡方检验、非参数检验等方法分析抑郁症患者羟基胆固醇代谢和腹内侧前额叶皮质-缰核（vmPFC-Hb）功能连接与健康对照的差异及治疗前后的变化；基于 MATLAB R2018b 软件选取奖赏环路内部感兴趣功能连接；采用相关性分析方法，探索血浆羟基胆固醇水平、功能连接及抗抑郁疗效之间的相关性。

结果 本研究共纳入 96 例抑郁症患者和 96 例健康对照，在基线期均完成血样采集，其中 58 例抑郁症患者和 56 例健康对照完成基线 fMRI 扫描；在 12 周急性期治疗结束后，84 例患者完成了随访，其中 60 例患者检测了血浆羟基胆固醇水平，41 例患者完成了 fMRI 扫描。研究发现：（1）抑郁症患者治疗前后 24S-OHC 水平降低且与 HAMD-17 减分正相关，治疗有效组 24S-OHC 在治疗后显著降低，而 27-OHC 未发现与疗效的相关性；（2）抑郁症患者治疗前后 vmPFC-Hb 的功能连接变化与 HAMD-17 减分和 24S-OHC、27-OHC 变化没有显著的相关性；（3）抑郁症患者治疗前后腹内侧前额叶皮质-左侧丘脑（vmPFC-LT）的功能连接变化与 27-OHC 的变化显著负相关。

结论 抑郁症患者存在 24S-OHC 代谢异常及 vmPFC-LT、vmPFC-left Hb 功能改变。24S-OHC 与抗抑郁疗效有关，且患者症状的改善与 24S-OHC 的变化正相关；此外，治疗后患者 vmPFC-LT 功能连接与 27-OHC 的变化负相关。这说明，胆固醇代谢、奖赏环路均参与到抑郁症进程中，并存在一定的相互关系，但相关机制仍需要进一步探索。

关键字：抑郁症；胆固醇代谢；奖赏环路；功能连接

基于 rs-fMRI 和 P11 基因 DNA 甲基化的多维特征预测抑郁症抗抑郁药早期疗效

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目的 本研究结合机器学习的分析方法，建立基于静息态脑功能影像学和 P11 基因 DNA 甲基化的多维数据的特征模型，以预测抑郁症患者抗抑郁药治疗的早期疗效。

方法 纳入符合《精神障碍诊断与统计手册》第 4 版（DSM-IV）修订版诊断标准的抑郁症患者 98 例。根据抗抑郁药治疗 2 周后 HAMD-17 项量表评分的减分率是否≥50%，将患者分为有效组 51 例，无效组 47 例。在基线期，利用 Illumina HiSeq 平台检测外周血标本中 P11 基因 74 个 CpG 位点的甲基化水平；通过静息态功能磁共振（rs-fMRI）技术检测 116 个脑区的低频振幅（ALFF）、局部一致性（ReHo）和各脑区间静息态功能连接（FC）特征，利用最小绝对收缩和选择算子（LASSO）分析方法，对数据进行特征降维和特征选择。以筛选后的 P11 基因 DNA 甲基化指标、脑功能指标、临床特征的不同组合为特征，采用 4 种典型的机器学习方法建立径向核支持向量机（SVM）、随机森林（RF）、朴素贝叶斯（NB）和 logistic 回归（LR）的疗效预测模型。采用了留一交叉验证法，应用受试者工作特征曲线下面积（AUC）来评估预测模型的性能。

结果 基于 ALFF、ReHo、FC、P11 基因 DNA 甲基化和临床特征的多维特征组成的 SVM 模型表现最优，其预测准确率为 95.92%，AUC 为 0.9967，优于 RF、NB 和 LR 模型。基于 rs-fMRI、DNA 甲基化和临床特征的多维数据集的预测准确性，高于仅基于 rs-fMRI 和临床特征，或仅基于 DNA 甲基化和临床特征的预测准确性。

结论 结合脑功能影像、DNA 甲基化和临床特征的多维特征可以预测抑郁症抗抑郁药治疗的早期疗效。

关键字：P11 甲基化；功能磁共振；机器学习；抑郁症；疗效

性激素结合球蛋白与重度抑郁症之间的因果关系：双相孟德尔随机化研究

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目的 本研究运用两样本孟德尔随机化(mendelian randomization,MR)研究来探讨性激素结合球蛋白与重度抑郁症之间的因果关系。

方法 本研究使用了欧洲人群的全基因组关联分析（Genome-wide Association Study，GWAS）数据。我们使用了包含 214989 例女性性激素结合球蛋白样本，185221 例男性性激素结合球蛋白样本以及 500199 例重度抑郁症样本的数据，通过孟德尔随机化研究，使用了倒数方差加权法（inverse variance weighted, IVW）、Weighted median、Weighted mode 和 MR Egger 等方法来评估性激素结合球蛋白与重度抑郁症之间的双向因果关系。

结果 女性性激素结合球蛋白与重度抑郁症之间

存在因果关系，这种关系是正相关的。使用 Weighted median 方法，优势比（Odds Ratio，OR）为 1.056（95%CI：1.005-1.109，P=0.031）。使用 Weighted mode 方法，优势比为 1.067（95%CI：1.012-1.126，P=0.021）。这表明，女性性激素结合球蛋白水平越高，患有重度抑郁症的风险就越高。与此同时，男性性激素结合球蛋白对重度抑郁症的影响并不显著，P 值大于 0.05，无统计学意义。然而，重度抑郁症与男性性激素结合球蛋白之间存在因果关系，这种关系是负相关的。使用倒数方差加权法，优势比为 0.954（95%CI：0.916-0.993，P=0.023）。这表明，男性患有重度抑郁症，可能会导致性激素结合球蛋白的水平降低。

结论 女性性激素结合球蛋白与重度抑郁症发生风险呈正相关，这表明女性 SHBG 水平越高，重度抑郁症发生风险越高；而重度抑郁症与男性性激素结合球蛋白呈负相关，这表明重度抑郁症会导致男性 SHBG 水平降低。这为我们提供了新的思路，女性应加强性激素结合球蛋白的监测，以降低重度抑郁症的发生；同时对于男性重度抑郁症患者，我们建议监测性激素结合球蛋白，这可能对于预防和治疗男性重度抑郁症具有重要意义。我们的发现为进一步阐明性激素结合球蛋白与抑郁症之间的关系，为临床治疗提供了新的思考方向和潜在靶点。

关键字：性激素结合球蛋白；重度抑郁症；因果关系；孟德尔随机化；全基因组关联分析

首发和复发重度抑郁症患者脑干容积的改变

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目的 迄今为止，对首发抑郁和复发抑郁患者的脑干形态学变化的神经影像学研究有限。本研究旨在研究脑干区域的体积变化与发作次数和疾病持续时间的关系。

方法 共有 111 人接受了 T1 加权结构磁共振成像扫描，包括 36 名首发抑郁患者、25 名复发抑郁患者和 50 名健康对照组。使用贝叶斯分割算法来分析每个脑干区域的体积，包括延髓、脑桥、中脑和小脑上脚，以及整个脑干体积。运用方差分析比较三组之间脑区体积差异，并两两进行组间比较。随后相关分析以确定区域体积和临床特征之间的关联。

结果 方差分析显示，三组患者的脑干体积在脑桥、中脑、小脑上脚和整个脑干中存在明显差异（F=3.996~5.886，矫正后 P=0.015~0.028）。与健康对照相比，两组抑郁患者的脑桥和整个脑干的体积都减少了（P=0.002~0.034），然而，只有首发抑郁组显示中脑的体积明显减少（P=0.003）。特别的是，复发组与首发组（p=0.021）和健康对照（p=0.008）相比，小脑上脚体积明显减少。相关分析显示，小脑上脚体积与抑郁患者的发作次数（r=-0.36，p<0.01）和病程（r=-0.28，p=0.035）呈负相关。

结论 本研究结果提供了涉及抑郁症的脑干容积减少的病理生理学证据，特别是小脑上脚的容积减少可能代表抑郁复发的神经生物学标志。需要进一步的研究来证实我们的观察，加深我们对抑郁症复发的神经机制的理解。

关键字：重度抑郁症, 首发, 复发, 脑干, 小脑上脚

忧郁型抑郁症和焦虑型抑郁症的肠道菌群物种组成及代谢通路差异

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目的 探究忧郁型抑郁症和焦虑型抑郁症的肠道菌群组成特征及功能代谢的改变。

方法 选取 2017 年 2 月至 2019 年 7 月就诊于首都医科大学附属北京安定医院门诊及病房的抑郁症患者 215 例，从中筛选出符合忧郁组患者 23 例，焦虑组患者 43 例，同时符合忧郁型抑郁症和焦虑型抑郁症诊断（共病组）患者 45 例。采用 16S 测序及宏基因组测序方法，对不同抑郁亚型的肠道菌群多样性、物种组成及功能通路进行分析，并建立基于随机森林的分类方法识别肠道菌群作为不同抑郁亚型的生物标志物。临床数据均采用 SPSS Statistics 26.0 进行统计学分析，对年龄、病程、量表分值等计量资料采用方差分析或秩和检验，对性别等计数资料比较采用卡方检验。另外，使用 R 语言对肠道菌群进行分析，3 组比较采用 Kruskal–Wallis 检验，并使用 Benjamini - Hochberg 对 P 值进行校正，P 值（校正）＜0. 05 为差异有统计学意义。肠道菌群之间或肠道菌群与临床数据的相关性分析用 Pearson 相关分析(正态分布)或 Spearman 相关分析(非正态分布)。

结果 1、焦虑组与忧郁组在 Alpha 多样性指标的差异有统计学意义。2、3 组抑郁亚型的肠道菌群组成有明显差异，其中，焦虑组和忧郁组之间存在较多的差异菌群。忧郁组在毛螺菌科、草酸杆菌科、粪杆菌属、罗氏菌属、毛螺菌属、梭状链杆菌属、芽殖菌属、拟杆菌属、草酸杆菌属、霍尔德曼菌属、食蔗糖梭状链杆菌、伶俐粪球菌、普氏栖粪杆菌、挑剔真杆菌的丰度表达增加，而焦虑组中龋齿罗氏菌、口腔放线菌、变异链球菌的丰富上调。另外，相较于焦虑组，共病组在毛螺菌科、多尔氏菌属、芽殖菌属、伶俐粪球菌富集。3、在代谢通路上，焦虑组富集的通路较少，忧郁组在泛酸和辅酶 A 生物合成、聚酮糖单元生物合成等生物合成途径相对富集，而共病组在 ABC 转运蛋白、糖、多元醇、脂质转运系统富集。4、在功能模块层面，焦虑组中富集的功能模块较少，忧郁组在醋酸盐合成、甘油三酯降解及一氧化氮合成等功能模块富集，而共病组在谷氨酸降解等模块富集。

结论 不同抑郁亚型的肠道菌群组成和功能代谢方面存在明显差异。忧郁型抑郁症中产丁酸菌和孢子形成菌显著富集，焦虑组中口腔菌显著富集而丁酸菌明显减少，另外，共病组中肠道菌群的组成并非是忧郁

组与焦虑组的菌群总和，而具有自身的独特性。此外，肠道菌群还可能通过功能代谢来影响抑郁亚型。

关键字：忧郁型抑郁症、焦虑型抑郁症、肠道菌群、功能代谢

Does Baseline Functioning Predict Treatment Outcomes In First-episode, Drug-na?ve Patients With Major Depressive Disorder?

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Objective Major depressive disorder (MDD) is associated with worse functioning. We aims to examine the association between baseline functioning and treatment outcome and to highlight the predictors of treatment outcome in MDD with first-episode, drug-na?ve (FED) patients.

Methods Ninety FED patients were recruited consecutively and evaluated using the 17-item Hamilton Depression Rating Scale (HDRS-17), the 14-item Hamilton Anxiety Scale (HAMA-14), the Functioning Assessment Short Test (FAST) and the MATRICS Consensus Cognitive Battery (MCCB) both at baseline and week 8.

Results Eighty-four FED patients completed final assessments. Our findings showed FED remitters had significantly lower scores of baseline HDRS-17 compared with non-remitters [24.1(4.8) vs 28.9 (5.2), t = -4.34, p< 0.001]. Further, FED remitters had significantly lower scores in autonomy [2.5 (2.0) vs 3.7 (2.4), t = -2.48, p = 0.015], but higher T scores in CPT compared with FED non-remitters [45.0 (11.1) vs 39.0 (11.4), t = 2.41, p = 0.018]. We also found treatment outcomes associated significantly with total FAST and most MCCB domain scores, even after controlling for baseline HDRS-17, HAMA-14 and demographic variables (p's < 0.05). Additionally, Cognitive domain, BACS-SC, occupational domain, BVMT-R and MSCEI may predict treatment response, while baseline HDRS-17, CPT and autonomy domain may predict remission in FED patients (p's < 0.05).

Conclusions This study firstly demonstrated a significant association between functioning and treatment outcomes in FED patients. Further, better baseline cognitive functioning, occupational functioning, less severe depression and greater self-management in particular contribute to treatment outcomes of FED patients.

关键字：FED; FAST；MCCB; Treatment Response; Treatment Remission

The Up-to-down Dynamic Change Trajectory of Regional Gray Matter Volume after Electroconvulsive Therapy in Depression: A Systematic Review of Structural MRI Studies

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Objective : Neuroimaging research has indicated gray matter volume (GMV) changes in the cortical-subcortical regions after electroconvulsive therapy (ECT) in depression, with considerable inconsistency across different time points among studies. By synthesizing longitudinal structural MRI studies before and after an index ECT course, this review aimed to explore longitudinal regional GMV changes induced by ECT, the association of these changes with depressive symptomatology and ECT-related parameters, and pre-treatment neurobiomarker predictive of response to ECT in depression.

Methods After a systematic database research on PubMed, Embase, Web of Science and Cochrane Library, a systematic review was conducted to investigate the longitudinal (short-term, long-term and medium-term) GMV changes in the cortical-subcortical regions after an ECT-index series in patients with current depressive episodes by synthesizing longitudinal structural MRI (T1-weighted imaging) studies.

Results Thirty-four studies meeting the inclusion criteria were included in this review. Short-term GMV increases were observed in the ACC, temporal regions, bilateral hippocampi and amygdala, and striatum within 14 days after an index ECT course compared to pretreatment values in depression in overwhelming studies. Bidirectional (increase or no change) long-term GMV changes were observed over 2 weeks after an index ECT course in depression, together with inconclusive intermediate effects from 2 weeks to more than 2 weeks after an index ECT course. Across different time points after an index ECT course the regional GMV changes were not necessarily linked to the alterations/improvement of depressive symptoms in depression in most studies included. The ECT-induced GMV changes might be specifically observed in the stimulated hemisphere(s), with tending to not be significantly affected by the number of ECT sessions. The pretreatment small bilateral hippocampus and partial hippocampal subfields may be a predictive biomarker for antidepressant response to ECT in depression. Pretreatment ACC, bilateral hippocampus and partial hippocampal subfields, and amygdala may be predictive biomarkers for antidepressant response to ECT in depression.

Conclusions This review suggested up- and down dynamic neurobiological trajectory of regional GMV changes in the cortico-limbic regions mainly in ACC, temporal, hippocampus and amygdala regions and striatum over time after an index ECT course in patients with depression, with an inconclusive association between these GMV changes and the improvement of depressive symptoms after ECT sessions. The ECT-induced neurobiological effects may be ipsilateral to the stimulated side(s) in depression. The pretreatment small bilateral hippocampus and partial hippocampal subfields may be an early predictor of clinical response to ECT in depression.

关键字：Structural MRI, depression, ECT, gray matter volume, predictors

Neural Substrate of Anhedonia in Major Depressive Disorder.

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Objective As a core symptom of Major Depressive Disorder (MDD), anhedonia is closely associated with functional abnormalities in the brain reward system. However, existing findings on functional activation differences during reward anticipation, processing and learning between MDD patients and healthy controls (HCs) are inconsistent. Therefore, this study conducted a quantitative synthesis of past findings in this field.

Methods Whole-brain voxel-based fMRI meta-analyses were conducted to identify brain regions exhibiting different reward-based functional activations in MDD patients compared to HCs. A total of 18 studies were included, with 11 studies related to reward anticipation, and 8 studies related to reward processing and learning analysis respectively. Jack-knife sensitivity and subgroup analyses were performed to test robustness of findings. Overlapping analysis was conducted to reveal regions which showed group differences in activity across multiple reward functions.

Results During reward anticipation, MDD patients demonstrated higher activities in the right cuneus, and lower activities in the bilateral visual cortex and lateral prefrontal cortex (LPFC), and the right thalamus compared to HCs. During reward processing, MDD patients displayed higher activities in the left temporal cortex, and decreased activities in the right caudate nucleus/nucleus accumbens, LPFC and dorsomedial prefrontal cortex (DMPFC) than controls. During reward learning, MDD patients exhibited higher activities in the bilateral cerebellum and left visual cortex, and decreased activities in the bilateral dorsal LPFC, caudate, left putamen, right thalamus, parahippocampal gyrus and visual cortex. A subset of the significant results was replicated in jack-knife and subgroup analyses, such as the lower orbitofrontal cortex activities to reward anticipation, and the higher left temporal activities to reward processing, in MDD patients compared HCs. Overlapping analysis revealed lower right thalamus activities in MDD patients to both reward anticipation and learning, and lower right caudate activities in MDD patients to both reward processing and learning.

Conclusion Our findings suggest that across different reward functions, MDD patients exhibited lower activities in prefrontal, striatal and limbic circuitries, but higher activities in regions implicated in visual and semantic processing, compared to controls. The hypoactivation in the thalamus and caudate, which are important components of the frontostriatal circuitries, may be key neural substrates underlying MDD-related anhedonia across reward functions.

关键字：Major Depressive Disorder, fMRI, meta-analysis, anhedonia, reward

最后通牒博弈任务中抑郁症患者规范适应的神经基础

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目的 抑郁症是一种常见的精神障碍，患者表现出持续而严重的社会功能受损。社会认知是决定社会功能的重要因素。越来越多研究者开始关注抑郁症的社会认知障碍。社会规范是适用于人际交往的行为准则，人们可以识别违反社会规范的行为并针对性地做出行为反应，体现出社会规范适应性。从社会规范适应角度来研究抑郁症的社会认知，为抑郁症研究提供了新思路。

方法 本研究从北京安定医院纳入了 52 名抑郁症患者（男/女：14/38，平均年龄 28.29 岁），通过广告招募了 49 名健康对照（男/女：20/29，平均年龄 26.92 岁）。所有被试作为回应者在磁共振数据扫描的同时完成了单次、匿名的最后通牒博弈任务。行为学数据分析除比较接受率的组间差异外，本研究参考既往健康被试的行为建模研究，进行了模型构建和模型选择，基于最优模型比较组间学习率等模型参数的差异，并提取最优模型中每个被试的学习率和规范预期偏差参数（norm prediction error, norm PE；即本轮任务中实际得到的金钱比例和当前的公平规范的差值）用于后续分析。影像学数据分析采用参数分析方法，获得受 norm PE 调节的脑区，分析其与学习率的关联；进一步提取显著关联脑区的参数分析值，使用 SPSS 宏程序 PROCESS 进行中介分析，探索脑功能活动是否介导了被试类型和学习率的关系。

结果 行为学数据分析发现，抑郁症患者在最后通牒博弈中的决策行为存在异常，表现为抑郁症患者的接受率显著低于健康对照($p < 0.001$)。进一步计算建模分析发现，抑郁症患者公平规范学习率显著低于健康对照（89% 最大密度区间: [-0.10, -0.02]）。脑功能影像学分析发现，内侧前额叶皮层、双侧额中回、右侧顶下小叶、左侧额下回、左侧前脑岛的脑活动受 norm PE 调节的程度与学习率负相关；中介分析发现，内侧前额叶皮层、左侧额中回、右侧顶下小叶和左侧前脑岛受 norm PE 调节的程度在被试类型和被试学习率间起中介作用。

结论 本研究通过计算建模分析揭示了抑郁症患者存在规范适应不良（学习率降低），同时揭示了内侧前额叶皮层、左侧额中回、右侧顶下小叶和左侧前脑岛等受规范预期偏差调节的脑功能活动在抑郁症患者公平规范适应不良中所起的作用。这些研究发现加深了对抑郁症患者社会功能不良的理解，为发展抑郁症患者社会功能的干预和康复措施提供了理论基础。

关键字：规范适应，抑郁症，计算建模，最后通牒博弈，功能磁共振

累积生态风险对青少年抑郁症患者抑郁症状的影响：未来期望的中介作用

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目的 根据人类发展的生物生态学理论，青少年在发展过程中会受到家庭、学校、同伴等环境的影响，增加个体消极发展结果的特征被称为"生态风险因素"。研究发现环境中风险因素的累积效应，即风险因素累积越多会加重对个体的消极影响。青春期是发展的关键阶段，但同时也是抑郁症的高发阶段。因此本研究旨在探究累积生态风险对青少年抑郁症患者抑郁症状的影响，为暴露在多重风险环境中的青少年抑郁症患者的治疗及干预提供参考依据。

方法 纳入151名符合ICD-10诊断标准的抑郁障碍青少年（13~18 岁），以及 172 名健康对照青少年（13~18 岁）。采用以往研究中使用的累积生态风险问卷评估青少年抑郁障碍患者风险暴露；采用青少年未来期望量表评估青少年对特定事件在未来发生的可能性信念；使用抑郁自评量表评估抑郁症状。采用SPSS22.0进行统计分析，通过独立样本t检验、Pearson相关分析等方法探讨累积生态风险与抑郁症状的关系，采用 PROCESS 程序检验累积生态风险通过未来期望进而影响抑郁症状的中介效应。

结果 （1）临床青少年抑郁症患者累积生态风险暴露水平（115.66±23.89）显著高于健康对照青少年（98.68±24.96），p＜0. 001；临床青少年抑郁症患者的未来期望量表得分（43.52±14.77）显著低于健康对照青少年（51.65±16.37），p＜0.001；(2)累积生态风险与临床青少年抑郁症患者抑郁症状呈显著正相关（r=0.603，p＜0.01），与未来期望呈显著负相关（r=-0.478，p＜0.01）；未来期望与临床青少年抑郁症患者抑郁症状呈显著负相关（r=-0.578，p＜0.01）；（3）累积生态风险对临床青少年抑郁症患者抑郁症状有直接预测作用(β=0.423, p＜0.001）；青少年未来期望在累积生态风险对临床青少年抑郁症患者抑郁症状的影响中起中介作用，中介效应为 0.180，其 95% Bootstrap CI 为（0.109~0.261），占总效应的 29.85%。

结论 累积生态风险对青少年抑郁症患者抑郁水平具有预测作用，青少年未来期望在累积生态风险与青少年抑郁症患者抑郁症状间起部分中介作用。青少年抑郁症患者抑郁的治疗干预可通过提升积极未来期望从而减少抑郁症状。

关键字：累积生态风险；青少年；抑郁症；未来期望

青少年未来期望与抑郁症状的关系：多群组分析

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目的 调查青少年未来期望、心理弹性与抑郁症状之间的关系，探究青少年未来期望与抑郁症状间的中介作用机制及临床青少年抑郁障碍患者与健康青少年的机制差异。

方法 纳入 92 名符合 ICD-10 诊断标准的抑郁障碍青少年（13~18 岁），以及 98 名健康对照青少年（13~18 岁）。使用青少年未来期望量表、中文版简版心理弹性量表以及抑郁自评量表评估抑郁症状。通过组间比较、相关分析等方法，探讨青少年未来期望与抑郁症状的关系以及采用 AMOS 构建中介模型以阐释青少年未来期望影响心理弹性进而导致抑郁症状的机制，并采用多群组分析阐释临床青少年抑郁障碍患者与健康青少年在未来期望影响心理弹性进而导致抑郁症状机制中的差异。

结果 （1）临床抑郁障碍青少年的未来期望量表及心理弹性水平得分显著低于健康对照青少年，P＜0.001；（2）相关分析显示，未来期望与抑郁症状呈显著负相关，与心理弹性存在显著正相关，心理弹性与抑郁症状呈显著负相关，P＜0.001。进一步中介模型表明，青少年未来期望对抑郁症状有显著负向作用；心理弹性能够部分中介青少年未来期望与抑郁症状的关系，占总效应的 30.74%；进一步多群组分析发现，相比健康青少年，青少年未来期望对临床青少年抑郁障碍患者的心理弹性预测作用较强。

结论 未来期望对临床青少年抑郁障碍患者和健康青少年的抑郁症状具有预测作用；心理弹性在未来期望与抑郁之间起中介作用；相较于健康青少年，临床青少年抑郁症患者未来期望对心理弹性的正向预测作用更强。认知免疫可能是抑郁症患者低心理弹性维持低期望的机制。干预认知免疫过程可作为心理治疗的目的，帮助临床青少年抑郁障碍患者从积极体验中获益进而提高心理弹性缓解抑郁症状。

关键字：青少年；抑郁症状；未来期望；心理弹性；多群组结构方程模型

伴有认知缺陷抑郁症患者的自杀意念和行为：中文版哥伦比亚自杀严重程度评定量表的验证和应用

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目的 本研究旨在验证中文版哥伦比亚自杀严重程度评定量表（C-SSRS）的信度和效度，并分析重度抑郁症患者（MDD）的自杀意念及行为与认知缺陷之间的关系。

方法 一项单中心队列研究招募了 456 名抑郁症患者以及 108 名健康对照。所有抑郁症患者都在基线

时完成了量表评估及神经认知测试，并进行了 3 个月的随访。探讨了 C-SSRS 的可靠性、有效性和对未来 SA 的预测。验证性因素分析验证了其结构。430 名抑郁症患者通过聚类分析并与健康对照比较分为轻度认知受损组（N=390）和严重认知受损组（N=40）。二元逻辑回归被用于分析自杀评分与认知受损程度的关系。

结果 与其他自杀意念和行为评估量表相比，中国 C-SSRS 具有良好的收敛效度和区分效度，在识别自杀行为方面具有较高的敏感性和特异性。自杀意念（SI）分量表随时间变化敏感。意念强度子量表表现出很强的内部一致性（Cronbach's alpha= 0.884/0.821）。SI 严重程度评分是后续自杀行为的最强预测指标（OR：2.663，95%CI：1.063，6.671）。较高的一生中最差点 C-SSRS 总分（OR：1.033，95% CI：1.008，1.058）、SI 严重程度评分（OR：1.281，95% CI：1.002，1.637）和 SI 强度评分（OR：1.066，95% CI：1.011，1.123）与严重认知障碍显著相关。单个 C-SSRS 项目的持续时间和制止因素也与认知障碍有关。

结论 中文版 C-SSRS 是抑郁症患者自杀意念和行为可靠和有效的评估工具。MDD 患者的自杀意念与认知功能障碍有关。这些发现为抑郁症患者的自杀预防提供了参考。

关键字：哥伦比亚自杀严重程度评定量表，信效度，重度抑郁症，认知缺陷

伏硫西汀治疗抑郁症患者前后脑功能差异的研究

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目的 通过对比分析伏硫西汀治疗前后抑郁症患者的症状和动静态功能影 像学变化情况，以期为 MDD 患者的发病机制及抗抑郁药治疗的治疗机制提供影 像学参考依据。

方法 入组抑郁症患者 39 例，健康对照 24 例，收集一般人口学资料、汉密 尔顿抑郁量表 17 项（17-item Hamilton Depression Scale，HAMD-17）评分、重复性成套神经心理状态测验（ repeatable battery for the assessment of neuropsychological status，RBANS）评分、fMRI 等。抑郁症组予伏硫西汀单药治疗 12 周后再次收集 HAMD-17 评分、RBANS 评分和 fMRI 数据。首先计算全脑 的 fALFF 脑图，然后以 fALFF 存在有统计学差异的脑区作为感兴趣区（region of interest，ROI），进行 ROI 与全脑的静息态功能连接（resting-state functional connectivity，rsFC）和 ROI 与全脑的动态功能连接（dynamic functional connectivity， dFC）分析。此外研究还独立选择海马作为 ROI，分别进行了左右海马喙侧和尾 侧 4 个亚区与全脑的 dFC 分析，进一步探究海马及其亚区与 MDD 发病及药物 治疗机制的关系。

结果 1.抑郁症患者基线期与健康对照组比较，左小脑脚 1、左距状皮层、左颞上回、左/右内侧额上回、右楔前叶脑功能存在异常，经过伏硫西汀治疗 12 周后，HAMD-17 总分较基线期明显下降，左颞上回与额顶网络（左中央前回/中 央后回、右中央旁小叶、左楔前叶）的功能连接发生改变。 2. 抑郁症患者基线期与健康对照组比较，右喙侧海马与左额下回三角部 dFC 变异性减弱，异常脑区 dFC 值与 RBANS 总分及因子分、HAMD-17 总分均无显 著相关性。

结论 1.小脑、距状皮层（枕叶）、颞叶、额叶、楔前叶等脑区功能异常可 能是 MDD 发病的病理机制，伏硫西汀可能通过调整颞叶与额顶网络的功能连接来发挥抗抑郁作用。2. 右喙侧海马与左额下回三角部异常功能连接可能是独立于症状和病程的反 应 MDD 发病机制的神经影像学指标。

关键字：抑郁症；治疗；比率低频振幅；功能连接

Exploring Mechanisms of ZDXS001 Prescription Against Major Depressive Disorder Based on Network Pharmacology and Experimental Verification

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Objective To investigate the effect of ZDXS001 on depression-like behavior induced by chronic unpredictability mild stimulation (CUMS) in rats, and explore the anti-depressant mechanism of ZDXS001 formula, so as to provide theoretical basis for the disclosure of its pharmacological effects and clinical application.

Methods 1.CUMS group rats were treated with different antidepressants for 2 weeks after 42 days of modeling. Behavioral evaluation were conducted on the 7th, 42nd and 56th days. 2.This experiment analyzed its potential antidepressant molecular mechanism through network pharmacology and validated the potential pathway and target of ZDXS001 in the treatment of depression by using 4D-DIA proteomics technology. 3.The antidepressant pathway of ZDXS001 was verified by molecular biological techniques.

Results 1.After two weeks of treatment with ZDXS001 formula, the behavior experiments and body weight was improved ($P < 0.05$). 2.Network pharmacological results showed that 206 active compounds of ZDXS001 formula were screened from TCMSP and other databases; 3336 differentially expressed genes of depression were screened.The compound-target complex network showed that the most active compounds in ZDXS001 were kaempferol, quercetin, β-sitosterol and luteolin. Protein-protein interaction analysis on the STRING platform showed that the key target genes of ZDXS001 were CREB1, MAPK1, MAPK14, etc.The results of GO and KEGG analysis showed that the anti-depressant function of the active ingredient in ZDXS001 formula included the

response to lipopolysaccharide and extracellular stimulation, and the main pathways included MAPK pathway and IL-17.3.The results of hippocampal proteomics showed that compared with the model group, a total of 172 proteins in hippocampal rats in the ZDXS001 treatment group had significant changes, among which 61 proteins showed increased expression and 111 proteins showed decreased expression. Bioinformatics analysis of differential proteins showed that the functions of selected differential proteins were mainly in MAPK pathway and nerve regeneration.4.The effect of ZDXS001 on antidepressant was closely related to nerve regeneration through Nissl staining and immunofluorescence experiments.

Conclusion 1. CUMS can induce depression-like phenotype in rats, and ZDXS001 formula can play an antidepressant role. 2. ZDXS001 may play an antidepressant role by regulating MAPK signaling pathway to improve depression-like behavior.

关键字：ZDXS001 formulation; Depression; Network pharmacology; proteomics

伴或不伴焦虑症状的青少年抑郁症认知功能状况及其与自杀意念的相关性研究

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目的 探讨伴或不伴焦虑症状的青少年抑郁症患者的抑郁、焦虑、认知功能及自杀意念状况，同时了解认知功能与自杀意念之间的相关性，以期为青少年抑郁症的预防和治疗提供有价值的参考。

方法 选取 2022.7.-2023.2.就诊于兰州大学第二医院心理卫生科青少年抑郁症患者 60 例，年龄 12-18 岁之间。首先根据 HAMD-17 中焦虑躯体化因子是否≥7 分将患者分为焦虑性抑郁症组和非焦虑性抑郁症组，两组各 30 例。然后使用 HAMD-17、HAMA、BSI-CV、MoCA 对两组患者的焦虑症状、抑郁症状、自杀意念及认知功能进行量化评估。最后，将收集到的所有数据运用 t 检验、U 检验、Spearman 相关性分析等方法进行统计学分析，最终得出相关结论。

结果 最终入组患者共 60 例，两组各 30 例。研究发现，(1)焦虑性抑郁症组和非焦虑性抑郁症组的一般资料（年龄、性别、民族、户籍、优势手、是否为独生子女、年级及受教育年限）差异无统计学意义；两组间 HAMD-17（30.83±5.491vs21.40±5.165，t=5.771，P＜0.01）、HAMA（30.22±9.254vs18.55±7.626，t=4.469，P＜0.01）和BSI-CV的量化评分（22(19;30)vs18(0;23)，Z=2.905，P=0.004）差异均存在统计学意义（P＜0.05）；两组间 MoCA 评分（25(21;26)vs23(22;25)，Z=-0.895，P=0.371）差异无统计学意义。（2）对焦虑性抑郁症组各量表之间的相关性分析后发现：抑郁焦虑症状与自杀意念之间存在显著正相关，相关性中等偏强（rs=0.617/0.744，P=0.000）；认知功能与焦虑（rs=0.040，P=0.797）及抑郁症状（rs=0.038，P=0.811）之间不存在相关性；认知功能与自杀意念之间存在显著负相关，相关性中等（rs=-0.507，P=0.032）。

结论 （1）伴焦虑症状的青少年抑郁症比不伴有焦虑症状的青少年抑郁症的焦虑、抑郁症状更严重，自杀意念更强;（2）未得出有效证据证明伴焦虑症状的青少年抑郁症与不伴焦虑症状的青少年抑郁症之间认知功能存在差异;（3）青少年抑郁症患者的焦虑和抑郁症状与自杀意念呈正相关，当患者焦虑或抑郁症状越严重，其自杀意念越强；认知功能与自杀意念则呈负相关，当患者认知功能越低，则其自杀意念越强。

关键字：青少年，抑郁症，焦虑症，认知功能，自杀意念

抑郁症患者奖赏期待和奖惩反馈加工存在异常关联：一项事件相关电位研究

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目的 基于与奖赏期待及奖惩反馈相关脑电活动指标，探索抑郁障碍患者快感缺失症状的特征与神经相关性。

方法 在无锡市精神卫生中心招募符合DSM-5中重性抑郁症的诊断标准患者为研究组（MDD），在周边社区招募从无精神障碍病史及家族史的健康人群作为对照（HC），且均排除脑外伤、癫痫、严重躯体疾病、妊娠及哺乳期妇女等情形。采用汉密尔顿抑郁量表 HAMD 评定被试抑郁症状严重程度，采用时间性快感体验量表 TEPS 反映被试快感缺失感受的程度，使用 E-prime3.0 编制改良猜门范式，在被试完成该范式时同步记录其脑电活动，比较两组在不同条件下刺激前负波 SPN 与反馈相关负波 FRN 的差异。

结果 共有 35 名 MDD 和 31 名 HC 的数据通过质控，两组在年龄、性别构成、利手性等一般人口学资料上无统计学差异（均 p＞0.05），MDD 组 HAMD 总分高于 HC 组（均 p<0.05），而 TEPS 总分及因子分均低于 HC 组（均 p<0.05）。混合设计 ANOVA 显示，SPN 波幅的组别主效应显著（p=0.045），HC 组大于 MDD 组；输赢主效应显著（p=0.019），赢钱大于输钱；组别×输赢的交互作用均不显著；HC 组的 FRN 差异波（输减赢）波幅大于 MDD 组（p=0.015），混合设计 ANOVA 显示组别、输赢的主效应均显著（分别 p<0.001、p=0.033），且组别×输赢的交互作用显著（p=0.015），简单效应分析表明 HC 组输比赢的 FRN 波幅更大（p<0.001），且赢钱条件下 FRN 波幅 HC 组大于 MDD 组（p=0.015）。Pearson 相关分析显示，MDD 组 FRN 差异波波幅和 HAMD 总分呈正相关（r =0.392, p =0.020），输钱后 SPN 波幅和 TEPS 消费因子呈正相关（r =0.357, p =0.035）；HC 组的 SPN 与 FRN 间无明显相关性，而 MDD 组输钱后 SPN 波幅与输和赢条件下 FRN 波幅（分别 r =0.416, p =0.013; r =0.476, p =0.004）均显著正相关。

结论 本研究表明，MDD 患者存在对奖赏反馈敏感性降低以及对奖惩反馈期待均减弱，前者与抑郁严

重程度有关，但两者与量表评估的相关性并不明显；此外，在健康人群中无相关性的两种快感缺失相关脑电成分在患者组出现了正相关，提示罹患抑郁障碍可能使奖赏期待与奖惩反馈神经加工产生了异常“连接”，这为后续相关研究提供了新的线索。

关键字：抑郁症；快感缺失；事件相关电位；反馈相关负波；刺激前负波

Epidemiological Characteristics of Mood Disorders in Adolescents and The Effect of Sertraline on Their Metabolic Level

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Objective To explore the epidemiological characteristics of mood disorders in adolescents and analyze the effects of sertraline on adolescents' metabolic level.

Methods A total of 88 adolescents aged 11-18 who received treatment in Wuxi Mental Health Center from January 2018 to August 2021 were selected as the observation group, while 80 healthy students aged 14-18 were selected as the control group. Logistic regression analysis model was established to analyze the influencing factors of adolescents' mood disorders. Paired sample T test was used to analyze related metabolic indexes before and 24 weeks treatment with sertraline in the observation group, while partial correlation analysis was used to analyze the relationship between different doses of sertraline and changes in related metabolic indexes.

Results Logistic regression analysis model showed that single parent family, family history, childhood stress/surgery, online games were risk factors for emotional disorders in adolescents (P<0.05). The levels of WBC and PLT were significantly decreased, while the levels of TC, ALT, AST and PRL were significantly increased with the treatment of sertraline (P<0.05). Partial correlation analysis showed that the reduction rate of PLT increased with the increase of sertraline dosage (P<0.05), while the rise rate of ALT, AST and PRL increased with the increase of sertraline dose (P<0.05).

Conclusion Single parent family, family history, childhood stress/surgery, online games were risk factors for mood disorders in adolescents. Sertraline can significantly decrease WBC and PLT, and increase TC, ALT, AST and PRL levels.

关键字：Teenagers; Mood disorders; Epidemiology; Sertraline; Metabolic

合肥市抑郁症发病与季节气象要素变化的关联分析

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目的 抑郁症是全球常见的精神健康障碍，其发病与环境因素密切相关。然而，有关气象因素对抑郁症发病的影响尚未充分阐明。本研究旨在探讨安徽省合肥市的气象因素与抑郁症发病之间的关系。建立抑郁症发病的简易气象风险等级，为合肥市抑郁症的防治提供部分参考。

方法 ：收集于 2016 年 1 月 1 日～2019 年 12 月 31 日期间合肥市第四人民医院门诊就诊的合肥市本地抑郁症患者资料和同期气象要素资料，对其进行 Pearson 相关及多元线性回归模型分析，总结季节气象要素对抑郁症发病的影响。

结果 合肥市抑郁症门诊就诊人次在秋季偏多，以 10 月为全年最高值，就诊人次与气温日较差、日照时长、风速在每日和逐月变化上呈正相关，与降水量在每日变化上呈负相关，差异具有统计学意义（P＜0.05）；多元线性回归分析表明：月平均气温日较差越大、平均相对湿度越高，月就诊人次越多。抑郁症易发的气象条件是：大雨天气、气温日较差较大、风速较大、日照较长。

结论 合肥市抑郁症发病存在季节性特点，气温日较差、日照时长、风速、降水量影响抑郁症发病。这一研究结果有助于制定抑郁症的预防和治疗策略，优化医疗资源分配，并促进社会心理健康服务。

关键字：抑郁症；气象要素；季节性；相关性分析

抑郁症与老年人听力丧失的遗传相关性研究

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目的 抑郁症和老年听力丧失同为复杂性疾病，遗传因素在两者发病中起到重要作用。既往流行病学和临床观察性研究结果表明，抑郁症和老年人听力丧失之间共病率高，两者存在显著关联。然而，目前对两者的共同患病因素尚不完全清楚。本研究基于抑郁症和老年听力丧失的全基因组关联研究数据（GWAS），采用多种遗传相关分析方法探讨抑郁症与老年听力丧失之间的共同遗传基础。

方法 首先，本研究利用抑郁症（n=500，199）和老年人听力丧失（n=723，266）的 GWAS 数据，采用全基因组遗传相关分析方法（连锁不平衡回归分析[LDSC]和遗传协方差分析[GNOVA]）的方法，检验两者的全基因组遗传相关性。其次，本研究利用局部遗传相关分析方法（LAVA），探讨两者在基于连锁不平衡划分的遗传区域的遗传相关性。最后，本研究利用条件错误发现率（condFDR）和联合错误发现率（conjFDR）分析方法，鉴定与两者同时相关的遗传变异位点，并利用用 FUMA 数据库开展遗传变异位点的功能注释和通路富集分析。

结果 首先，全基因组遗传相关分析发现，抑郁症和老年人听力丧失存在显著遗传相关性。其次，局部遗

传相关分析结果表明，基因组中的 5 个遗传区域范围内，抑郁症和老年人听力丧失存在显著相关。最后，条件错误发现率分析结果发现，9 个与抑郁症显著关联的易感位点和 79 个老年人听力丧失显著关联的易感位点；联合错误发现率发现 7 个同时与抑郁症和老年人听力丧失显著关联的易感位点。基于 FUMA 数据库的功能注释结果表明，7 个两者共同的易感位点位于遗传表达调控区域，影响附近基因表达水平。通路富集分析结果表明，与两者同时关联的易感基因富集于“检测参与感觉的化学刺激"（detection of chemical stimulus involved in sensory perception）、"感觉知觉"（sensory perception）、"G 蛋白偶联受体活性"（G protein-coupled receptor activity）等多个通路，提示易感基因参与两种疾病的生物学通路。

结论 本研究鉴定出抑郁症和老年人听力丧失的遗传关联，为研究两者的遗传基础提供重要线索，并为未来研究针对这两种疾病的治疗策略提供科学基础。

关键字：抑郁症，老年人听力丧失，条件错误发现率，基因重叠，全基因组关联研究

嗅觉评估在抑郁障碍患者的临床应用研究

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目的 研究发现，嗅觉与抑郁之间存在联系，尤其随着气味识别能力的提高，抑郁患者的症状有所减轻。正常情况下，气味等嗅觉信息从嗅球传递到初级嗅觉皮层，包括内嗅皮质区等；再进一步投射到次级嗅觉皮层等。本文主要通过研究嗅觉识别、内嗅皮质体积与抑郁患者的关系，探讨嗅觉评估在识别抑郁患者的作用；同时，抑郁诊断我们主要基于临床表现；因此，我们寻求客观的检查手段为抑郁患者的诊断及治疗提供新思路。

方法 取 2022 年 01 月至 2023 年 04 月就诊于门诊符合入组标准的抑郁障碍患者 35 例（注：7≤患者汉密尔顿抑郁量表 17 项评分≤24；未曾服用过抗抑郁药物），与之相匹配的正常对照组 33 例。首先，需要收集入组人群的一般临床资料，再者给予应用宾夕法尼亚大学嗅觉识别测验（University of Pennsylvania Smell Identification Test, UPSIT）和头磁共振（Magnetic Resonance Imaging, MRI）影像中内嗅区皮质（Entorhinal Cortex, EC）体积（mm3）主观或客观评估嗅觉功能。应用 ITK-SNAP 3.8 软件在 sMRI 序列中冠状位手工逐层勾画双侧 EC 作为感兴趣区域，自动计算出相应的体积。分析嗅觉评估在两组的差别，以及嗅觉评估识别抑郁的效能。使用 SPSS 26.0 软件统计数据与分析。

结果 （1）正常对照组与抑郁障碍组的 UPSIT 评分均值分别为（19.61±5.83）和（16.17±7.74）（P<0.05），即正常对照组>抑郁障碍组。（2）正常对照组与抑郁障碍组的 EC 体积均值分别为（1709.42±421.72）和（1421.63±685.74）（P<0.05），即正常对照组>抑郁障碍组。？（3）两组间 UPSIT 评分与 EC 体积相关，且呈正相关（r=0.55；P<0.05），即 EC 体积随 UPSIT 评分升高而增加；（4）UPSIT 评分、EC 体积及 UPSIT 评分联合 EC 体积对区分曲线下面积分别为 0.645、0.669、0.665；敏感性与特异性分别为：93.9%与 42.9%、90.9%与 51.4%、87.9%与 57.1%。？

结论 （1）UPSIT、EC 在抑郁障碍患者中可出现相应的评分或体积的下降，抑郁患者的嗅觉功能有所降低。（2）EC 体积、UPSIT 联合 EC 体积可更好的用于抑郁障碍的诊断。

关键字：抑郁障碍、嗅觉功能、气味识别，内嗅皮质体积

电休克治疗联合药物对抑郁症患者复发以及认知功能的影响：一项为期 5 年的随访研究

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目的 探讨电休克疗法（ECT）合并药物与单纯药物对抑郁症患者复发以及认知功能的影响。

方法 选取 2018 年 1 月至 2018 年 12 月于安徽省精神卫生中心就诊的 324 名抑郁症患者为研究对象，于 2023 年 6 月结束随访，根据有无行电休克治疗分为研究组（n=117）和对照组（n=207），在 ECT 前和 ECT5 年后，两组患者均完成一般情况调差表、蒙特利尔认知评估量表（MoCA）、自杀意念量表（SSI）、匹兹堡睡眠质量指数（PSQI）、汉密尔顿抑郁量表（HAMD）以及汉密尔顿焦虑量表（HAMA）的评定，采用独立样本 t 检验进行 2 组间差异性检验。

结果 治疗前，两组 MoCA、SSI、PSQI、HAMD、HAMA 评分上无明显差异（均 P>0.05）。治疗后，研究组在 MoCA 总分、视觉空间与执行功能、注意功能、延迟记忆功能、定向功能等 4 个维度上得分均低于对照组，差异具有统计学意义（均 P＜0.05）；研究组在 HAMD、HAMA、SSI、PSQI 得分上均低于对照组，差异具有统计学意义（均 P＜0.05）；研究组认知障碍发生率（85.47%，100/117）高于对照组认知障碍发生率（51.69%，107/207）；研究组复发率（37.61%，44/117）低于对照组（72.95%，151/207）。

结论 与单独使用药物治疗相比，ECT 治疗抑郁患者疗效显著，降低抑郁症的复发率，对认知有一定损害。

关键字：抑郁症；电休克疗法；认知；复发

中国常见皮肤病患者中抑郁焦虑的未治疗情况调查分析：一项横断面研究

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目的 本研究旨在分析常见皮肤病患者的心理需求被忽视的现状和原因。

方法 研究通过在线平台发放电子问卷，收集了患者自我报告的人口学、临床和心理学资料，主要结果指标包括抑郁（9-item Patient Health Questionnaire,PHQ-9）与焦虑（Generalized Anxiety Disorder-7, GAD-7）。采取多因素回归分析寻求心理治疗行为的影响因素及未治疗原因。

结果 共调查 1010 名患者。273 名（27.0%）患者有心理干预的必要（PHQ-9≥10 分和或 GAD-7≥8 分，或已接受心理治疗），但没有接受心理治疗。在多因素回归模型中，收入（OR=0.80，95%CI：0.65-0.99）、皮肤病病程（OR=0.68，95%CI：0.49-0.95）和因为皮肤病出现的自杀意念（OR=2.10，95%CI：1.14-3.87）是寻求心理治疗的影响因素。895 名（88.6%）未接受心理治疗的皮肤病患者中，是否存在心理干预必要与未接受心理治疗的原因相关，包括不知道可以或在哪寻求心理帮助，担心心理治疗的副作用，皮肤病严重时未及时寻求心理治疗，以及目前未因皮肤病产生心理困扰。

结论 本研究调查了皮肤病患者对心理干预的需求现状以及需求未得到满足的原因。患者对皮肤病导致的心理问题存在困扰但缺乏应有的认知，心理健康服务往往没有得到充分利用。

关键字：抑郁，焦虑，皮肤病，心理治疗，网络调查

伴有自杀意念的抑郁症患者犬尿氨酸代谢的随访研究

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目的 在抑郁症患者和自杀未遂患者中都有犬尿氨酸代谢通路异常的报道，但是结论并不一致且缺乏随访数据。本研究旨在探讨伴有自杀意念的抑郁症患者犬尿氨酸代谢通路是否存在异常，及其与临床症状的动态关系。

方法 根据 DSM-5 诊断标准纳入 68 名抑郁症患者及 72 名年龄、性别平均水平匹配的健康对照，进行量表评估（汉密尔顿抑郁量表，HAMD；汉密尔顿焦虑量表，HAMA；贝克自杀意念量表，BSI）及空腹静脉血采集。对其中 41 名伴有自杀意念的抑郁症患者进行随访，在第 2 周、第 4 周末重复量表评估及空腹静脉血采集。使用超高效液相色谱-三重四极杆质谱联用仪测定血浆中犬尿氨酸代谢物的水平。对血液学指标对数转化后进行 Z-score 标准化，对不同代谢物的多重比较使用 FDR（False Discovery Rate）校正。采用独立样本 t 检验、Mann-Whitney U 检验进行组间比较；采用 Spearman 相关分析基线犬尿氨酸代谢物与量表评分之间的关系；采用线性混合效应模型分析随访过程中犬尿氨酸代谢物与量表评分的关系。

结果 抑郁症患者的外周吡啶甲酸（PIC）（0.39 ± 0.87 vs -0.23 ± 1.09，t = 3.68），3-羟基犬尿氨酸与犬尿氨酸的比值（3-HK/KYN）（0.38 ± 0.85 vs -0.09 ± 1.01，t = 2.94）以及 3-HK（0.31 ± 0.81 vs 0.14 ± 1.04，t = 2.77）低于健康对照（P < 0.05）。在伴或不伴自杀意念的抑郁症患者之间，未发现犬尿氨酸代谢物之间的差异。在抑郁症患者中，HAMD、HAMA 评分均与血浆 3-HK（HAMD: r = 0.37；HAMA: r = 0.30）和 3-HK/KYN（HAMD: r = 0.35；HAMA: r = 0.28）水平呈正相关（P < 0.05）。纳入年龄、性别因素后，对随访数据的量表评分与犬尿氨酸代谢物水平建立线性混合效应模型，结果显示 HAMA 评分在随访过程中对 3-HK/KYN 的影响具有统计学意义（B = 0.04，t = 2.46，P < 0.05）。

结论 抑郁症患者存在犬尿氨酸代谢通路异常，3-HK 与 3-HK/KYN 可能与抑郁症患者的抑郁、焦虑水平存在关联，并且在伴有自杀意念的抑郁症患者中，犬尿氨酸-3-单加氧酶的活性可能与焦虑水平存在关联。

关键字：抑郁症；犬尿氨酸；自杀；焦虑

伴有和不伴有躯体症状的抑郁症患者前扣带回亚区静息态功能连接的特异性改变

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目的 探讨躯体性抑郁症患者前扣带回亚区功能连接的特异性改变，进一步理解躯体性抑郁症发生的神经影像学基础。

方法 分析 38 例伴有躯体症状的抑郁症（Somatic Depression，SD）患者、33 例不伴有躯体症状的抑郁症(Non-Somatic Depression，NSD)患者和 30 例健康对照组(Healthy control，HC)。采用 24 项汉密尔顿抑郁评定量表(24-item Hamilton Depression Rating Scale，HAMD-24)评估抑郁症患者抑郁程度，采用抑郁和躯体症状量表（Depression and Somatic Symptoms Scale ，DSSS）评估抑郁症患者躯体症状严重程度。同时使用静息态功能磁共振分析前扣带回亚区（膝前区前扣带回 pgACC、膝下区前扣带回 sgACC、胼胝体上方前扣带回 supACC）的功能连接，通过相关分析评估有特异性改变的前扣带回亚区、躯体症状和抑郁症状之间可能的关联。

结果 伴有躯体症状的患者组（SD）HAMD 总分显著高于不伴有躯体症状的抑郁症组（NSD）($p<0.001$)。SD 患者组 DSSS 总分显著高于 NSD 患者组 ($p<0.001$)。三组间单因素方差分析，膝下区前扣带回(sgACC)与双侧豆状核、右侧膝前区前扣带回（pgACC）与左侧颞上回的功能连接（functional connectivity，FC）有显著性差异(AlphaSim 校正，体素水平 $p<0.001$，团块水平 $p<0.05$)。采用独立样本 T 检验：与 NSD 组相比，SD

组左侧 sgACC 与左侧海马 FC 增强，右侧 pgACC 与左侧颞上回 FC 增强 (AlphaSim 校正，体素水平 p <0.001，团块水平 p<0.05)；与 HC 组相比，SD 组右侧 sgACC 与右侧豆状核 FC 增强 (AlphaSim 校正，体素水平 p <0.001，团块水平 p<0.05)。关联分析发现 SD 患者组 HAMD 评分与左侧 sgACC 和左侧海马的 FC 值呈负相关（经 Bonferroni 校正，r=-0.618，p<0.05）、与右侧 sgACC 和右侧豆状核 FC 值呈负相关（经 Bonferroni 校正，r=-0.529，p<0.05）。

结论 与 NSD 组相比，SD 组存在特异性前扣带回亚区功能连接的改变，这些改变可能是躯体性抑郁发生的神经病理学基础。

关键字：抑郁症；躯体症状；静息态功能磁共振；前扣带回亚区；功能连接

The Short-term Effects of MECT on Adolescent Depression May Diminish over Time——an Observational Study

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Objective To address the short-term and long-term effects of MECT on adolescent depression, seek to determine the optimal number of MECT sessions and the relationship between the effects of MECT and family function.

Methods Sixty-six adolescent inpatients with major depressive disorder (MDD) who had received MECT were recruited. We assessed severity of illness with the Hamilton Depression Rating Scale-24 (HAMD-24) at T0 (before MECT), T1 (after MECT completion) and T2 (days or months after MECT completion). We further compared the scores (T0, T1, T2) and calculated the reduction rate of HAMD. We considered patients with a reduction rate of ≥50% as valid group, those between 25% and 50% as partially valid group, and those with <25% as invalid group. We compared the HAMD change values caused after each MECT compared to before each therapy in these 3 subgroups. Then, we further observed the trend of HAMD changes during the 0-9th MECT sessions. Additionally, we explored the correlation of FAD scores with MECT efficacy.

Results Upon immediate completion of MECT, 39 patients (59.1%) showed a notable response(reduction rate was ≥50%), termed 'short-term effects'. For those patients who underwent the T2 time point assessment, 'long-term effects' were seen in only 8 patients (21.1%). HAMD scores at T1 and T2 were both significantly reduced in comparison to T0 scores (non-parametric test, P < 0.01).ANOVA indicated there were no significant differences in HAMD scores at baseline and T2 among the three subgroups. However, at T1, the HAMD score of the effective group was significantly lower than that of the partially effective group and the ineffective group (F=43.89, p<0.001). We found that the three subgroups showed different trends in HAMD. The valid group maintained the relatively lowest HAMD score level after each MECT session. After the sixth session, the overall reduction rate of the effective group began to be ≥50% compared to the baseline(t=15.834, p<0.001), while the other two groups did not reach the effective standard from beginning to end. Pearson's correlation analysis revealed no substantial association between scores across the FAD's seven dimensions and variations in HAMD Scores (T0-T1, T0-T2). Nevertheless, a significant positive correlation was identified between the general functional dimension scores in the FAD and HAMD scores at T0 (r?=0?.41, p?

关键字：MECT; adolescent; observational study; family function; MDD

Research on The Mechanism of Insula-related Genetic Factors That Regulate Major Depressive Disorder

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Objective This study aimed to explore the differential expression of insula-related genes in peripheral blood of patients with Major Depressive Disorder (MDD), and to analyze the mechanism of insula-related genetic factors regulating MDD based on bioinformatics and molecular biology. This study provides new insights into important biological pathways in the occurrence and development of MDD.

Methods (1) The gene expression profile data of peripheral blood and insula tissue samples of MDD patients and healthy controls were collected from GEO database based on bioinformatics, and Differentially Expressed Genes (DEGs) were screened out, and receiver operating characteristic (ROC) curves were further constructed to analyze the accuracy of these genes in diagnosing MDD. (2) Peripheral blood samples of MDD patients who met the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders-5th Edition (DSM-5) were collected, and RT-qPCR experiments were performed to validate Hub genes. (3) C57 mice were randomly divided into three groups, including blank control group, Hub gene knockout group and Hub gene knockout+fluoxetine (10mg/kg) group, with 10 males in each group. The effects of Hub gene on depression-like behavior in mice were observed by open field experiment, tail suspension experiment and sugar water preference experiment, and the molecular mechanism of depression regulated by genetic factors related to insula was further studied by means of serum corticosterone level, RT-qPCR, Western blot and immunocytochemistry et al.

Results (1) In the GSE102556 and GSE182183 datasets, a total of 6 genes significantly expressed in the insula and blood in depression were screened: HIST1H4D, LRIT3, GYPC, ALOX15, SPATC1L, PLVAP, among which the Area Under Curve (AUC) of LRIT3 and HIST1H4D was greater than 0.9, showing good diagnostic accuracy. (2) RT-qPCR analysis showed that the expression level of LRIT3 in peripheral blood of MDD patients

was significantly lower than that of healthy controls (P<0.05). (3) Compared with the blank control group, the LRIT3 knockout mice showed significantly decreased movement distance in open field test, prolonged immobility time in tail suspension test, decreased sucrose preference and increased serum corticosterone level. Further studies showed that these effects were associated with regulation of the CGMP-PKG signaling pathway.

Conclusion (1) Insula-related genes are involved in the regulation of MDD. (2) Insula-related genes LRIT3 and HIST1H4D are differentially expressed in peripheral blood of MDD patients. The genes have the potential to become biological markers for the diagnosis of MDD in the future. (3) LRIT3 knockout could induce depression-like behavior in mice, which might be related to CGMP-PKG signaling pathway.

关键字：Major Depressive Disorder;Insula;bioinformatics;CGMP-PKG signaling pathway

Abnormal Changes of Dynamic Topological Characteristics in Patients with Major Depressive Disorder

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Objective Most studies have detected abnormalities of static topological characteristics in major depressive disorder (MDD). However, whether dynamic alternations in brain topology are influenced by MDD remains unknown. This study was aimed to explore abnormal changes of dynamic topological characteristics between patients with MDD and NCs.

Methods A sample of 830 MDD patients and 771 NCs was used from 16 sites. An approach was proposed to capture the dynamic topological characteristics with sliding-window and graph theory for a large data sample from the REST-meta-MDD project.

Results It was shown that patients with MDD were characterized by decreased nodal efficiency of the left orbitofrontal cortex. The temporal variability of topological characteristics was focused on the left opercular part of Inferior frontal gyrus, and the right part of middle frontal gyrus, inferior parietal gyrus, precuneus and thalamus.

Conclusion This study explored the dynamic brain topological aberrances in MDD, with nodal topological changes observed. Some of the brain regions were reported associated with emotion regulation, especially the cortex of frontal and parietal lobes and thalamus. The interesting findings has the high potential to help enhance the understanding on the neural mechanisms of MDD. The overall results highlight that altered temporal variability of topological characteristics, which provide novel insights into the role of topological network characteristics in patients with MDD.

关键字：Major depressive disorder, graph theory, dynamic topological characteristics, functional connectivity

Prevalence and Risk Factors of Osteoporosis in Chinese Inpatients with Major Depressive Disorder — A Cross-sectional Study Based on Quantitative CT

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Objective The relationship between major depression disorder (MDD) and osteoporosis remains controversial. We aimed to report the prevalence of osteoporosis in inpatients with MDD in China and explore the risk factors for osteoporosis in MDD patients.

Methods 306 inpatients with MDD and 604 healthy physical examination people were included in this study. The lumbar volumetric bone mineral density (vBMD) of the study subjects was measured by quantitative computed tomography (QCT). And vBMD <0.05). But there were no statistically significant differences in gender distribution, average disease duration, the proportion of smokers, diabetes, and hyperlipidemia between the two groups (p>0.05).

Conclusion The prevalence of osteoporosis in inpatients with MDD over the age of 40 in China was higher than that of healthy people; MDD may be a risk factor for osteoporosis; The decrease of BMD in patients with MDD is related to aging, low education level, and hypertension.

关键字：major depressive disorder, osteoporosis, quantitative computed tomography, prevalence

抗抑郁剂对抑郁症患者凝血功能的影响

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目的 探讨抑郁症患者在院发生下肢静脉血栓的发生率及相关危险因素，比较不同种类的抗抑郁剂对抑郁症患者凝血功能的影响。

方法 第一部分：回顾性研究：纳入东南大学附属中大医院心身医学科 2015-2020 年在院确诊下肢静脉血栓的抑郁症患者共 33 例，按年龄及性别随机匹配同一时间段内的未发生静脉血栓的抑郁症患者共 198 例，收集两组的临床资料，分析抑郁症患者发生静脉血栓的危险因素。第二部分：抑郁症患者静脉血栓形成发生率的 Meta 分析：检索 PubMed、Web of science、Cochrane Library、CNKI 和万方数据库，收集建库至今有关抑郁症患者合并下肢静脉血栓发生率的研究，采用 STATA 14.0 软件进行 Meta 分析。第三部分：前瞻性研究：选取符合纳入标准的 2021-10 至 2022-07 在东南大学附属中大医院心身医学科住院的抑郁症患者共 200 例，

根据入院后有无发现下肢静脉血栓形成分为血栓组和非血栓组，比较其两组间的差异；根据在院使用抗抑郁剂的种类分为 SSRIs 组，SNRIs 组，伏硫西汀组和联合用药组，分别比较各组治疗前后凝血相关指标的变化。

结果 第一部分：回顾性研究发现年龄与抑郁症患者下肢静脉血栓形成之间显著相关，静脉血栓发生率最高的年龄段在 71-80 岁。在凝血相关指标上，ATIII、FDP 和 DD 均高于非血栓组。第二部分：Meta 分析结果表明抑郁症患者在院诊断静脉血栓形成的发生率为 0.9%。第三部分：前瞻性研究发现年龄、性别、SRRS 得分、TT、FDP 和 DD 为抑郁症患者下肢静脉血栓形成的潜在危险因素。对不同种类的抗抑郁剂进行亚组分类后发现，SSRIs 组治疗前后发生变化的凝血相关指标数量最多，FIB, APTT, DD, ESR, TT, ATIII 和 FDP。SNRIs 组和联合用药组的 APTT, DD 和 ATIII 在治疗前后发生的变化有显著性差异。

结论 静脉血栓形成在抑郁症患者中的发生率显著高于普通人群。抑郁症与静脉血栓形成显著相关，高龄、运动迟滞以及血液中低 FDP 和高 DD 水平都可能会增加抑郁症患者静脉血栓形成的风险。使用不同种类的抗抑郁剂治疗后，SSRIs 类药物对患者凝血功能的影响最大，可能会增加静脉血栓形成的风险。

关键字：抑郁症；抗抑郁剂；静脉血栓形成；凝血功能；发生率

A Proteomic Molecular Mechanistic Study on The Improvement of Depression-like Behavior in CSDS Depressed Mice by Hernandezine

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Objective To investigate the protein expression changes and cellular molecular functional mechanisms of hernandezine (HER) during the improvement of depressive-like behavior in chronic social defeat stress (CSDS) mice.

Methods After CSDS modeling procedure, C57 mice were screened for depression with sucrose preference test(SPT). The experimental animals were divided into normal control (CON), CSDS, hernandezine treated (HER) and imipramine treated (IMI) groups, and the antidepressant effects were observed by tail suspension, sucrose preference and forced swimming tests after drug treatment. The proteins were extracted from the prefrontal cortex of the brain for quantitative proteomic analysis. The bioinformatics analysis were performed to determine GO enrichment of the relevant differential proteins and protein-protein interaction network.

Results A total of 6467 proteins were detected by quantitative proteomics, and differential protein groups derived from CSDS compared with CON (CSDS-CON), imipramine (IMI) treatment compared with CSDS (IMI-CSDS), and HER treatment compared with CSDS (HER-CSDS) were obtained, and these protein expression changes were first analyzed by analysis of variance (ANOVA, $P < 0.05$) to obtain protein clusters with consistent trends in change clusters, in which protein level trends in protein cluster 3 were similar to those of altered mood, and protein cluster 3 was found to be enriched in mitochondrial and synaptic-related functions and localization. Further GO enrichment of common proteins in HER-CSDS/IMI-CSDS group and HER-CSDS/CSDS-CON group supported the ANOVA results. We analyzed the common protein groups of HER-CSDS/IMI-CSDS and HER-CSDS/CSDS-CON using PPI and found enrichment of proteins related to mitochondrial and synaptic functions. Protein-protein interaction network analysis of differential proteins revealed that many differential proteins were primarily enriched in regulating synaptic and mitochondrial function. Hernandezine treatment altered synaptic and mitochondrial function-related protein synthesis, resulting in improved depression-like behavior, suggesting that synaptic and mitochondrial function-related proteins play an important role in the treatment of depression.

Conclusion Hernandezine ameliorates depression-like behavior in CSDS mice by regulating the expression levels of mitochondrial and synaptic-related proteins. In conclusion, the current proteomic studies of the prefrontal cortex provide a specific and common molecular basis for the therapeutic mechanism of hernandezine that underlies the pathophysiology and treatment of CSDS-induced depression.

关键字：Depression; Hernandezine; Proteomics

重性抑郁障碍患者自杀意念与解释偏向的相关研究

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目的 探讨重性抑郁障碍（Major Depressive Disorder，MDD）患者自杀意念与消极解释偏向的相关性。

方法 根据本研究的纳入及排除标准，于成都市第四人民医院睡眠医学中心纳入及招募 105 名受试者。使用一般人口学问卷收集受试者的基本信息，精神障碍诊断和统计手册第五版(DSM-5)用于诊断 MDD，抑郁症症状快速自评量表（QIDS-SR）评估受试者抑郁情绪，广泛性焦虑量表（GAD-7）评估受试者焦虑情绪，贝克自杀意念量表(BSI-CV)评估受试者自杀意念。自主改编的解释偏向测试软件评估受试者解释偏向，包括自我/他人即时消极解释偏向、自我/他人延时消极解释偏向 4 个部分。采用卡方检验、独立样本 t 检验或秩和检验、多元方差分析对一般人口学特征、临床症状、解释偏向等进行组间比较。使用多元线性回归分析 MDD 患者自杀意念与解释偏向的关系。

结果 1、本研究入组 MDD 患者 63 例，其中女性 45 例（71.40%），平均年龄 24.17±11.30 岁，受教育年限 12.52（6.00，15.00）年。正常对照组 42 名，其中女性 33 人（78.57%），平均年龄 26.48±4.46 岁，受教

育年限 15.00（12.00，16.00）年。与正常对照组相比，MDD 组受教育水平更低（p＜0.001），QIDS、GAD-7、自杀意念强度评分显著更高（p＜0.001）。两组年龄（p=0.212）、性别（p＝0.412）无统计学差异。 2、解释偏向结果采用多元方差分析，校正性别、年龄、受教育年限后，与正常对照组相比，MMD 组自我即时消极解释偏向（p=0.011）、自我延时消极解释偏向（p＜0.001）、他人延时消极解释偏向（p＜0.001）更偏向于消极。两组他人即时消极解释偏向无统计学差异。 3、多元线性回归分析控制了性别、年龄、教育年限等因素，发现自杀意念风险强度与自我延时消极解释偏向分数（β=0.378，p=0.002）、QIDS 分数（β=0.533，p＜0.001）呈正相关关系；自杀意念风险强度与年龄（β=-0.237，p=0.025）呈负相关关系。

结论 1、与正常组相比，MDD 患者存在显著的消极解释偏向，且 MDD 患者的自杀意念随自我延时消极解释偏向的分值升高而升高。2、自我延时消极解释偏向可能是介导 MDD 患者自杀意念的潜在机制之一。

关键字：抑郁 解释偏向 自杀意念

LHPP 介导的溶酶体酸化在抑郁症中的作用机制

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目的 抑郁症是以持续性的情绪低落、兴趣缺失和动机减退为主要临床症状的疾病，具有高复发率、高致残率、高自杀率的特征，已经成为危害我国人口健康的第一大精神疾病。抑郁症神经发生发病假说认为抑郁症患者脑中海马神经发生不足，海马体积萎缩是抑郁症发生的重要原因，促进神经发生是抗抑郁的重要治疗靶点。管腔酸化是指在质子泵的主要作用和其他转运体的共同作用下，通过逆电势梯度转运氢离子等阳离子，造成细胞或细胞器内腔产生一种酸性环境的过程。真核细胞中目前没有发现使用无机焦磷酸盐(PPi) 水解释放的能量直接驱动管腔酸化的现象。前期全基因组关联研究表明，LHPP 的无机焦磷酸酶功能在很大程度上可能与抑郁症有关。

方法 首先在遗传学层面：前期遗传学发现的信号位点位于 LHPP 基因内含子，故通过对编码区重测序找寻真正的致病位点。其次在分子生物学层面，从 LHPP 无机焦磷酸酶活性、表达分布及亚细胞定位情况和分子功能等三个方面来进行研究。在动物模型层面，建立三种 LHPP 基因缺陷动物模型——全身敲除小鼠、星形胶质细胞特异性敲除小鼠和重测序测得突变位点的点突变小鼠，探究 LHPP 与抑郁症发病、抑郁表型间的关系；

结果 本研究发现 LHPP 的功能和其在抑郁症发病中可能的作用机制。在遗传学层面，鉴别出三个影响 LHPP 无机焦磷酸酶活性的错义突变位点，是抑郁症的保护性位点。细胞学实验证实 LHPP 部分定位于星形胶质细胞的溶酶体膜上，与 V 型 ATP 酶的 ATP6V0D1 亚基相互作用，通过其焦磷酸水解酶活性水解焦磷酸促进质子跨膜转运。在氧化应激压力下 LHPP 基因敲除会损害溶酶体降解活性，影响了溶酶体对底物蛋白 CEBPβ 的降解过程，转录因子 CEBPβ 积累增多，导致其下游一组在体外和体内均能促进海马神经发生的趋化因子表达和释放增加。在动物模型层面，发现 LHPP 的缺失在 CUMS 压力下具有抗抑郁表型。

结论 LHPP 功能缺失可能会导致溶酶体 pH 稳态机制失调和降解功能障碍。从而使 LHPP 敲除组星形胶质细胞在压力下的转录因子 CEBPβ 高于对照组，并释放更多的趋化因子。释放增加的趋化因子具有促进神经发生的作用，进而产生抗抑郁表型。

关键字：LHPP；抑郁症；溶酶体；趋化因子；神经发生

SSRI 类抗抑郁药延迟起效机制及预测研究

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目的 SSRI 类抗抑郁药作为一线抗抑郁药物，其起效时间较慢一直是困扰临床工作者的一大难题，但对于相关机制目前尚未取得共识。“认知神经心理假说”在生物学假说的基础上纳入了更多与病因学相关的心理社会因素与药物疗效关联的证据，提出了可完整解释抗抑郁药物延迟起效的理论框架。本研究将基于首发重性抑郁障碍（MDD）的纵向队列研究，结合认知心理评估方法与静息态脑电技术，筛选可预测抗抑郁疗效的认知心理特征及脑电客观标记物，验证认知神经心理理论并构建多模态融合的临床预测模型。

方法 69 名首发未服药 MDD 患者与 36 名正常对照，均完成临床、负性加工偏向、社会环境信息的评估，采集静息态脑电并提取各脑区 alpha 偏侧化与前额叶 theta cordance 特征。使用 SSRI 抗抑郁药物（艾司西酞普兰或舍曲林）治疗 8 周后，再次完成临床症状与心理社会因素评估，并根据 8 周相对基线时汉密尔顿抑郁量表减分率，将 MDD 患者分为治疗应答组（MDD_R,39 人）或治疗无应答组（MDD_NR,30 人）。通过基线数据的组间比较与相关分析，筛选可预测抗抑郁药物应答的认知心理特征以及脑电客观标记物，并对认知神经心理理论进行验证。进一步建立多模态机器学习模型，检验其在预测 SSRI 类抗抑郁药疗效方面的临床应用价值。

结果 MDD 患者基线测量的社会支持水平、临床症状、负性加工偏向特征均与 HC 存在显著差异（p < 0.001），中央区 alpha 偏侧化差异显著（p < 0.05）。8 周药物治疗后，MDD 两组在临床症状与负性加工偏向特征方面均有改善（p < 0.05），并且 MDD_R 改善程度高于 MDD_NR（p < 0.05）。相关分析发现 MDD 群体在治疗前的负性认知加工偏向与顶区 alpha 偏侧化负相关显著（p < 0.05），神经质人格与中央区及中央

-顶叶联合区 alpha 偏侧化负相关显著（p< 0.05）。结合以上显著特征构建的多模态机器学习模型表现较优（正确率 75%，特异度 83%）。

结论 本研究支持了认知神经心理假说对 SSRI 类抗抑郁药物疗效机制的假说。基于机器学习方法构建的多模态临床预测模型可有效预测首发 MDD 患者 8 周 SSRI 类抗抑郁药物治疗疗效。（本研究得到国家自然科学基金 31671144 资助）

关键字：重性抑郁障碍；抗抑郁药物；脑电图；机器学习

美金刚干预对大鼠抑郁样行为的影响及可能机制

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目的 本研究通过观察经美金刚治疗后 CUMS 大鼠抑郁样行为的变化，评估美金刚的抗抑郁作用，并且使用蛋白质组学、免疫组化等研究方法，探究美金刚抗抑郁的可能机制，为美金刚临床治疗抑郁症提供理论依据。

方法 1.模型的建立及分组：①建立 CUMS 大鼠模型，采用旷场实验、蔗糖水偏好实验、强迫游泳实验、Y 迷宫实验综合分析评估对照组、CUMS＋生理盐水组、CUMS＋SSRIs 组及 CUMS+美金刚组大鼠的抑郁状态及认知功能；②对照组、CUMS＋生理盐水组、CUMS＋SSRIs 组及 CUMS+美金刚组分别进行对应的给药处理，动物行为学实验比较不同组大鼠的抑郁状态，探究美金刚的抗抑郁作用。2.实验指标检测①本实验主要采用糖水偏好实验以及强迫游泳实验进行抑郁状态的评定，以判断美金刚是否可以改善 CUMS 大鼠的抑郁状态。②谷氨酸检测：末次行为学结束后对全部大鼠进行快速心尖采血，检测对照组、CUMS＋生理盐水组、CUMS＋SSRIs 组及 CUMS+美金刚组大鼠的谷氨酸含量变化，验证谷氨酸功能失调在抑郁症发病中的作用；③免疫组织化学：经免疫组织化学染色后显微镜下观察海马区和皮质区星形胶质细胞形态变化，评估各组大鼠海马区神经细胞活化情况；④蛋白水平检测：Western Blot 定量检测对照组，CUMS＋生理盐水组，CUMS＋SSRIs 组及 CUMS+美金刚组，大鼠海马区和皮质区、mTOR 信号通路蛋白的表达情况。

结果 采用糖水偏好实验以及强迫游泳实验评估大鼠的抑郁样行为以及美金刚改善抑郁样行为的作用，结果显示：在糖水偏好实验中，经过 4 周 CUMS 造模后，CUMS＋生理盐水组较对照组蔗糖偏好百分比下降，具有统计学意义（p＜0.05），通过使用美金刚治疗后大鼠的蔗糖偏好百分比上升具有统计学意义（p＜0.05）；强迫游泳实验中 CUMS＋生理盐水组较对照组不动时间百分比上升有统计学差异（p＜0.05），经过美金刚治疗后不动时间百分比明显下降（p＜0.05）。使用 Western Blot 对大鼠海马区相关蛋白进行检测，发现 CUMS＋生理盐水组的 mTOR 及其通路蛋白表达水平下降（p＜0.05），美金刚治疗后这一变化得到了逆转（p＜0.05）。

结论 1.美金刚能改善 CUMS 大鼠的抑郁样行为。2.美金刚可能通过影响 mTOR 的表达水平，进而调节 PI3K/AKT 通路，改善大鼠的抑郁样行为。

关键字：抑郁样行为，美金刚，谷氨酸

Dissecting The Effect of Perceived Social Support on Problematic Smartphone Use in Adolescents with Depression

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Background Social support could protects individuals by buffering the negative effects of psychological and behavioral risk factors. However, results from some studies contradicted to the above understanding in effect of perceived social support (PSS) on problematic smartphone use (PSU). Therefore, this study dissected the effect of PSS on PSU by dividing PSS into three parts in adolescents with depression, and whether this effect was mediated by loneliness to find the reason of the contradiction.

Methods The data was from baseline data of the cohort study of Chinese Adolescent Depression Cohort (CADC) aged from 12 to 18 years old. Path analysis was adopted to examine the relationship between PSS and PSU, as well as the indirect effect of loneliness.

Results A total of 2343 adolescents with depression were included. PSS negatively predicted PSU through loneliness. But PSS directly and positively predicted PSU. PSS were divided into three aspects according to the source of it. PSS from family, friends and significant others negatively predicted PSU through loneliness. Family support directly and negatively predicted PSU. However, friends support and significant others support directly and positively predicted PSU.

Conclusion High family support decreased PSU, while high friends support and significant others support increased PSU. Friends support and significant others support had greater effect on PSU than family support. It explained why some studies, including this one got conclusion that was contrary to the general understanding. The findings suggested that we should develop the family support, such as promoting parent-child communication to decrease PSU. Given that friends support could increase PSU, we should guide adolescents with depression to handle friends support correctly, such as paying more attention to real-life interactions with friends rather than online interactions.

关键字：Depression; Adolescent; Perceived social support; Loneliness; Problematic smartphone use

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The Effect of TAAR1 Deficiency on Mitochondrial Function and Immune Inflammation in The MPFC

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Objective Trace amine-associated receptor 1 (TAAR1) is a G protein-coupled receptor expressed in vertebrate brain, which interacts with glutamate and monoaminergic neurotransmitters in the key brain regions such as medial prefrontal cortex (mPFC), represents a novel therapeutic target for mental disorders. Although it is known that TAAR1 has a coordinated control effect on monoaminergic system and plays a significant physiological role in the modulation of central nervous system function, the molecular and signal pathway investigations are to date very scarce. This study aims to explore the gene expression profile in the mPFC of TAAR1 knockout (KO) mice, and conduct bioinformatics analysis of differentially expressed genes (DEGs) to obtain specific biological processes and target genes related to TAAR1, so as to provide more ideas for the research of TAAR1 in mental diseases.

Methods In this study, we constructed TAAR1 knockout mice, evaluated the behavioral characteristics of mice including anxiety-like, depression-like, and cognitive behaviors, screened DEGs in mPFC using RNA sequencing (RNA-seq), and analyzed them using the Gene Ontology (GO) annotation and Kyoto Encyclopedia of Genes and Genomes (KEGG) annotations. In addition, several significant differential genes and alterations involved in immune inflammation were further identified.

Results The findings of this study revealed that TAAR1 knockout can damage the cognitive performance of mice but has no impact on their anxiety- and depressive-like behavior. As observed by principal component analysis, the RNA-seq gene expression profiles in the mPFC of WT and KO mice were different, with 592 genes showing significant differences, of which 516 genes were up-regulated and 76 genes were down-regulated. The GO enrichment analysis of DEGs highlighted functions involved in regulation of small molecule metabolic process, ATP biosynthesis and metabolism, glycolysis, mitochondrial depolarization and membrane potential, amine transport, synaptic signal release, memory and NMDA selective glutamate receptor complex. Furthermore, KEGG pathway enrichment analysis suggested that these DEGs were mainly related to oxidative phosphorylation, ribosome, and degenerative diseases of the central system, cancer and addiction. Additionally, the DEGs involved in mitochondrial function, immune inflammation, and synaptic signaling were identified using RT-PCR.

Conclusion The RNA-seq, combined with bioinformatics analysis, showed that knockout of TAAR1 gene in the mPFC of mice altered the expression of various genes involved in a wide spectrum of biological function, which may be involved in the regulation of cognitive function in mice.

关键字：TAAR1, cognitive function, mitochondria, immune inflammation

The Predictive Value of C-reactive Protein for Malignant Catatonia in Acutely Ill Psychiatric Disorders

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Objective Preliminary data have suggested that increased C-reactive protein (CRP) level is independently associated with catatonic features. Malignant catatonia (MC) is characterized by excitement, stupor, catalepsyor, fever and autonomic instability. MC is clinically similar to neuroleptic malignant syndrome (NMS), and both can lead to life-threatening medical conditions. This study examined the predictive value of high serum CRP in this “catatonia to NMS” conversion and explored other potential risk factors.

Methods Acutely admitted psychiatric patients were screened for the catatonia at a tertiary psychiatric hospital and the catatonic patients were followed through the acute phase. The Bush–Francis Catatonia Rating Scale (BFCRS) was used to assess the severity of catatonic symptoms, and diagnosis of catatonia was determined by the diagnostic and statistical manual of mental disorders, fifth edition (DSM-5). Baseline serum hs-CRP levels were determine with the enzyme-linked immunosorbent assay. Serum levels of creatine kinase (CK) was also determined. Typical (or atypical) MC and NMS were diagnosed based on criteria described in previous literature.

Results Fifty-one patients with catatonia were subsequently identified among 509 acutely admitted inpatients. Typical (5/51) or atypical (6/51) features of MC were present in the catatonic patients (21.6%) during acute phase treatment (2.2% for the whole sample). Six of them were exposed to antipsychotics and thereby diagnosed as typical NMS (2/51) and atypical NMS (4/51). Baseline higher serum hs-CRP levels significantly predicted subsequent features of MC. No NMS conversion was noted in the non-catatonic patients or catatonic patients with normal serum hs-CRP level. The primary trigger of MNS was the discontinuation of antipsychotics. All NMS cases responded to electroconvulsive therapy (ECT). Serum CK levels rose and fell in tandem with the severity of catatonic symptoms.

Conclusion MC is not uncommon in psychiatric patients during acute phase treatment, which warrants more clinical attention. Catatonic patients with a high level of serum hs-CRP are more likely to progress to MC or NMS (when exposed to antipsychotics).

关键字：C-reactive protein, malignant catatonia, neuroleptic malignant syndrome

双相躁狂患者初级和高级奖赏环路静息态功能连接的研究

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目的 越来越多的证据提示奖赏环路的功能异常可能在情感障碍的发病机制中发挥作用。奖赏能够分为初级奖赏和高级奖赏。初级奖赏常常直接与生存和繁殖有关，比如食物和性，而高级奖赏一般对于维持体内平衡不是必不可少的，它只有在较低级别的奖赏（包括金钱或权利）的学习中获得价值。初级奖赏和高级奖赏所涉及的脑区是不同的。先前有研究报道，精神分裂症患者在初级和高级奖赏相关的神经回路都出现异常，而在 BD 患者中，只有与高级奖赏相关的神经回路异常，有关于其在初级奖赏相关的神经回路的研究报道较少。因此本研究考察，双相躁狂患者在初级和高级奖赏环路静息态功能连接的异常模式。

方法 纳入 41 例双相躁狂患者与 39 名正常对照。使用 Young 躁狂量表，汉密尔顿焦虑量表，汉密尔顿抑郁量表评估患者症状严重程度；所有被试使用 GE HDXT 3.0 T 磁共振扫描仪完成数据采集，基于 MatLab2015b 平台，应用 DPARSF 软件对静息态 fMRI 数据进行预处理，用 REST 软件提取 HarvardOxford 模板中的眶额皮层、左右丘脑、尾状核、壳核、伏隔核、海马、杏仁核为感兴趣区，用 DPARSF 软件计算感兴趣的功能连接（FC），用 SPSS20.0 进行统计分析，比较组间差异，采用 Bonferroni 对多重比较进行校正，P<0.05 时对比组之间的差异有统计学意义。

结果 （1）与对照组相比，双相躁狂组在眶额皮质与左侧纹状体的 FC 值显著降低（P<0.05）；（2）与对照组相比，双相躁狂组在眶额叶皮质与右侧纹状体的 FC 值显著增加（P<0.05）；（3）与对照组相比，双相躁狂组在眶额皮层与右侧杏仁核的 FC 值显著增加（P<0.05）；（4）在双相躁狂组中，FC 值与 Young 躁狂量表的得分呈正相关（P<0.05）。

结论 双相躁狂患者高级奖赏环路功能连接可能存在异常，这种异常改变可能与患者的症状有关。

关键字：双相躁狂；奖赏环路；初级；高级

RTMS Ameliorates Depressive-like Behaviors and Regulates The Gut Microbiome and Medium- and Long-chain Fatty Acids in Mice Exposed To Chronic Unpredictable Mild Stress

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Objective Repetitive transcranial magnetic stimulation (rTMS) is a clinically useful therapy for depression. However, the effects of rTMS on the metabolism of fatty acids (FAs) and the composition of gut microbiota in depression are not well established.

Methods Mice received rTMS (15 Hz, 1.26T) for seven consecutive days after exposure to chronic unpredictable mild stress (CUMS). The subsequent depressive-like behaviors, the composition of gut microbiota of stool samples, as well as medium- and long-chain fatty acids (MLCFAs) in the plasma, prefrontal cortex (PFC) and hippocampus (HPC) were evaluated.

Results CUMS induced remarkable changes in gut microbiotas and fatty acids, specifically in community diversity of gut microbiotas and PUFAs in the brain. 15 Hz rTMS treatment alleviates depressive-like behaviors and partially normalized CUMS induced alterations of microbiotas and MLCFAs, especially the abundance of Cyanobacteria, Actinobacteriota, and levels of polyunsaturated fatty acids (PUFAs) in the hippocampus and PFC.

Conclusion These findings revealed that the modulation of gut microbiotas and PUFAs metabolism might partly contribute to the antidepressant effect of rTMS.

关键字：rTMS; CUMS; gut microbiota; medium- and long-chain fatty acids

Aberrant Single-subject Morphological Cortical Networks in First Episode Schizophrenia

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Objective Disruptions of morphological covariance networks at group level are widely reported in schizophrenia. However, schizophrenia-related alterations in individualized morphological networks are not well established. Here we separately used four cortical surface mesh-based indices (cortical thickness, CT; fractal dimension, FD; gyrification index, GI; sulcal depth, SD) to construct single-subject morphological brain networks for patients with first episode schizophrenia (FES) and healthy controls (HCs) from three sites.

Methods The study included a total of 203 patients with FES (95 M/108 F, average age = 24.7±5.6 years) and 131 normal controls (73 M/58 F, average age = 27.8±6.0 years). We constructed four types of single-subject morphological brain networks for each structural MRI image. Then we calculated network parameter and performed statistical analysis, including between-group differences in graph-based network parameters, interregional morphological similarities, relationships between MRI-based measures and clinical and neuropsychological variables.

Results Compared with the healthy controls, decreased interregional morphological similarities were found in all types of networks in the FES patients whereas increases were observed only in the FD and SD networks (P < 0.05, corrected). The altered connections were mainly involved in regions of visual, control, somatomotor, frontoparietal and default mode networks. Further graph-based analysis revealed that the global network organization was

intact while nodal centrality was altered in the patients as characterized by decreased nodal degree and efficiency in the left PGs Area V6A and increased nodal efficiency in left Area STGa for the CT networks, decreased nodal degree and efficiency in the left Posterior Insular Area 2 for the FD networks, and decreased nodal betweenness in the left Area 52 for the SD networks ($P < 0.05$, corrected). Interestingly, the altered morphological connections not only accounted for positive symptoms, negative symptoms and cognitive dysfunction of the patients but also exhibited high sensitivities and specificities for distinguishing the patients from controls.

Conclusion Altogether, our findings indicate that FES is accompanied by characteristic disruptions in different types of single-subject morphological brain networks, which provide novel insights into neurobiological mechanisms underlying schizophrenia and may serve as potential biomarkers for the disease.

关键字：brain network; cortical surface; morphology; structural MRI; first episode schizophrenia

Explainable Neural Networks for Diagnosing Bipolar Disorder and Identifying Critic Brain Regions Using Resting-state FMRI

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Objective Machine learning approaches such as neural networks (NN) have great potential in discovering correlations and differences between patients with bipolar disorder (BD) and healthy controls (HC). In this study, we aim to design a high-performance NN classifier to classify patients and HC.

Methods Resting-state functional magnetic resonance imaging (rs-fMRI) of 91 subjects was utilized, including 52 BD patients and 39 HC. A functional connectivity matrix was created using correlations between the mean time series of 400 brain regions generated by dictionary learning, and then was vectorized as input features for classification. Ten-fold cross-validation was performed to compare a three-layer NN with linear-SVM classifier and SVM with radial basis function (RBF-SVM). Finally, a leave-one-region-out strategy was introduced, which retrained the classifier with one brain region removed in turn, and the top two regions causing the most performance decrease were considered to contribute most to the classifier.

Results The proposed NN achieved a mean accuracy of 93.45±7.31%, with a sensitivity of 96.33±7.37% and specificity of 88.83±20.55%. The top two important brain regions for the classification performance were selected, with eight Talairach labels including bilateral regions of inferior frontal gyrus, middle frontal gyrus, superior frontal gyrus, lentiform nucleus, and right regions of middle temporal gyrus, superior temporal gyrus, extra-nuclear, sub-gyral.

Conclusion Neural networks model is significantly superior to classic machine learning classification models on BD diagnosis. The brain regions found by the leave-one-region-out method play a crucial part in diagnosing BD, indicating the great importance of these regions in BD classification.

关键字：Bipolar disorder, Neural Network, Dictionary Learning, Functional Connectivity, Resting-state fMRI

双相障碍抑郁发作共病边缘型人格患者的血浆皮质醇水平及甲状腺功能分析

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目的 研究双相障碍抑郁发作共病边缘型人格患者的血浆皮质醇水平及甲状腺功能水平，为临床工作提供决策参考。

方法 97 例住院双相障碍抑郁发作患者，符合DSM-5双相障碍目前为抑郁发作的诊断标准，用DSM-IV-TR 轴 II 障碍临床定式检查中边缘型人格障碍的诊断条目进行评定，分为共病边缘型人格组（42 例）和不共病边缘型人格组（55 例）。采用汉密尔顿抑郁量表、汉密尔顿焦虑量表、32 项轻躁狂症状清单评估，于入院次日清晨空腹采集静脉血，用全自动生化分析仪测定血浆皮质醇及甲状腺功能.

结果 43.30%双相障碍抑郁发作共病边缘型人格，女性、学生多见，发病年龄为 16.00±4.79 岁，小于不共病边缘型人格的25.95±11.49岁（$z=4.599$；$p<0.001$），双相II型患者中 80.95%共病边缘型人格，高于双相I型的 36.36%（2=19.185；$p<0.001$）。共病边缘型人格患者的 FT4 为 0.67±0.23ng/dl，低于不共病边缘型人格患者的 1.51±0.67ng/dl（$z=2.079$；$p=0.038$），共病边缘型人格患者的 COR 为 14.86±7.19ug/dl，低于不共病边缘型人格患者的 1.60±1.02ug/dl（$z=2.843$；$p=0.004$）。二项 Logistic 回归分析显示：年龄（OR=0.931）、有自伤自杀（OR=4.806）、血浆皮质醇水平（OR=0.909）、双相II型（OR=3.128）是双相障碍抑郁发作共病边缘型人格的相关因素。

结论 低血浆皮质醇水平与双相障碍抑郁发作共病边缘性人格相关，低 FT4 可能与自杀自伤关联更紧密，进一步影响边缘性人格的发生。

关键字：双相障碍；边缘型人格；血浆皮质醇；甲状腺激素；Logistic 回归

阿戈美拉汀片联合盐酸帕罗西汀对抑郁伴失眠患者 SOD、BDNF 水平的影响

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目的 探讨阿戈美拉汀片联合盐酸帕罗西汀对抑郁伴失眠患者超氧化物歧化酶（SOD）、脑源性神经营养因子（BDNF）水平的影响。

方法 选取宁夏精神卫生中心 2021 年 10 月到 2022 年 9 月期间诊断抑郁伴失眠的住院患者 120 例，分为对照组 60 例和实验组 60 例。在使用盐酸帕罗西汀进行常规抗抑郁治疗的基础上，实验组和对照组分别联合阿戈美拉汀、右佐匹克隆进行 8 周治疗。使用汉密顿抑郁量表（HAMD）评定患者抑郁程度；匹兹堡睡眠质量指数（PSQI）评定患者睡眠质量；酶联免疫吸附试验法检测褪黑素、SOD、BDNF 水平；电化学发光免疫法检测去甲肾上腺素（NE）、多巴胺（DA）、5-羟色胺（5-HT）水平。对比两组治疗后临床症状改善程度及各递质水平变化。

结果 治疗前，两组 HAMD 评分水平及 PSQI 评分水平对比，差异无统计学差异（P>0.05），治疗后，两组数值均有所下降，差异有统计学差异（P<0.05），且实验组较对照组的 HAMD、PSQI 水平降低更明显；治疗前，两组 SOD、BDNF、褪黑素水平对比，差异无统计学意义（P>0.05），治疗后，两组 SOD、BDNF、褪黑素水平均得到一定程度升高，升高程度则是观察组 SOD、BDNF、褪黑素水平高于对照组，差异有统计学差异（P<0.05）；治疗前，两组 NE、DA、5-TH 水平对比，差异无统计学差异（P>0.05），治疗后，两组 NE、DA、5-TH 水平均得到一定程度升高，升高程度则是观察组 NE、DA、5-TH 水平高于对照组差异具有统计学差异（P<0.05）。在 8 周的治疗过程中，两组均有患者出现不良反应，但症状有些自行消失，有些给予对症处理后好转，病例均未退组。两组总不良反应率差异无统计学差异（P>0.05）。

结论 盐酸帕罗西汀联合阿戈美拉汀片治疗抑郁伴失眠患者，可显著改善患者抑郁程度和睡眠质量，升高褪黑素水平，抑制氧化应激状态，上调 BDNF 水平，改善患者神经递质水平。本研究存在不足之处：未对其作用机制深入探究，结果可能具有一定的局限性。

关键字：抑郁伴失眠障碍；阿戈美拉汀片；超氧化物歧化酶；脑源性神经营养因子

Integrated Untargeted Fecal Metabolomics and Gut Microbiota Strategy for Screening Potential Biomarkers Associated with Schizophrenia

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Objective To develop early objective laboratory diagnostic biomarkers to screen different subtypes of patients, and to implement targeted prevention and precision medicine to reduce the risk of SZ and improve patients' quality of life.

Methods Untargeted metabolomics and 16S rDNA sequencing were used to analyze the differences in metabolites and gut microflora among 28 patients with two types of schizophrenia and 11 healthy subjects.

Results The metabolome and sequencing data could effectively discriminate among paranoid schizophrenia patients, undifferentiated schizophrenia patients and healthy controls. We obtained 65 metabolites and 76 microorganisms with significant changes, and fecal metabolite composition was significantly correlated with the differential genera (|r|>0.5), indicating that there was a regulatory relationship between the gut microbiota and the host metabolites. The gut microbiome, as an objective and measurable index, showed good diagnostic value for distinguishing schizophrenia patients from healthy people, especially with a combination of several differential microorganisms, which had the best diagnostic effect (AUC>0.9).

Conclusion Our results are conducive to understanding the complicated metabolic changes in SZ patients and providing valuable information for the clinical diagnosis of SZ.

关键字：schizophrenia; metabolomics; gut microbiome; disease diagnosis

Specific Associations in The Alpha Frequency between The Subcomponents of Rumination and The Subsystems of The Default Mode Network Among Bipolar I Disorder Patients

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Objective Depressive rumination in bipolar disorder is well documented. Recent neuroimaging studies highlight the role of the default mode network (DMN) in rumination in depressed and healthy individuals. However, few studies have evaluated DMN activity in bipolar disorder rumination. This study aimed to examine the associations between rumination and the activity of DMN subsystems in BD patients and determine whether brooding and reflection are related to separate subnetwork activities.

Methods Forty-four depressed bipolar I disorder (BD-I) patients and forty-six healthy controls (HC) underwent resting-state magnetoencephalography (MEG). Two core hubs of the DMN, the posterior cingulate cortex (PCC) and anterior medial prefrontal cortex (amPFC), together with the dorsal medial prefrontal cortex (dmPFC) and the medial temporal lobe (MTL) subsystems, were identified as the regions of interest. The power envelope method was used to determine the alpha band's cross-subsystem functional connectivity (FC). After comparing the rumination and DMN FC between the groups, Spearman partial correlation analysis was performed to evaluate the relationship between aberrant FC and rumination in BD-I patients.

Results BD-I patients demonstrated more global rumination, including higher subcomponent scores of

brooding and reflection. In addition, the alpha frequency FC of the PCC-dmPFC and dmPFC-MTL subsystems within the DMN was dramatically increased in the BD-I group. The former was strongly associated with reflection, whereas the latter was related to brooding.

Conclusion The findings suggest that the reflection and brooding components of rumination are selectively related to the alpha frequency FC of the PCC-dmPFC and dmPFC-MTL subsystems, respectively. These associations highlight the significance of DMN activities in rumination among BD-I patients and have implications for future rumination interventions.

关键字：Bipolar Disorder, Rumination, Default Mode Network, Magnetoencephalography, Functional Connectivity, Alpha Band

Association between Stereopsis Deficits and Cognitive Impairments in Patients with Bipolar Disorder

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Objective Cognitive and sensory deficits were considered a core feature of bipolar disorder (BD). However, no studies have investigated stereopsis integrity, cognition and their associations in BD patients. Thus, the aim of this study was to investigate stereopsis integrity, cognition and their associations in BD patients.

Methods 256 BD patients and 134 healthy controls (HCs) were included in this study. The stereoacuity and cognition were assessed using the Titmus Stereopsis Test and RBANS.

Results There were significant differences in all RBANS scores and lg seconds of arc between two groups (all, $P < 0.0001$). The percentage of BD with correct stereopsis detection was significantly reduced in 400, 200, 140, 100, 80, 60, 50, 40 seconds of arc compared with HCs (all, $P < 0.05$). Both of spearman correlation and stepwise multivariate regression analyses showed the negative correlation of log seconds of arc with the RBANS total score, subscores of immediate memory and attention (all, $P < 0.05$) rather than psychiatric symptoms' scores (all, P ? 0.05) in patients. The stereopsis, all RBANS scores and their combinations exhibited the AUC of 0.706, 0.866 and 0.871 in discriminating between two groups (sensitivity/specificity: 0.641/0.709, 0.809/0.796, and 0.845/0.778), respectively.

Conclusion Our results confirmed significant cognitive and stereopsis deficits as well as the stereopsis correlations with immediate memory and attention rather than psychiatric symptoms, which further suggested that stereopsis and cognition may share common neural circuits. Moreover, the stereovision combined with cognition may be considered an important marker of early screening and prediction of BD.

关键字：stereopsis; cognition; psychiatric symptoms; bipolar disorder; association

Association between Increased Serum TNF-α Levels and Immediate Memory Impairment in Patients with Major Depressive Disorder

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Objective Cognitive impairment of major depressive disorder (MDD) may arise from neuroinflammation mediated by cytokines. Thus, this study examined whether altered serum tumor necrosis factor alpha (TNF-α) levels were associated with different cognitive domains of MDD.

Methods 60 MDD patients and 60 healthy controls were recruited. Cognition and serum TNF-a were assessed using the Repetitive Battery for the Assessment of Neuropsychological Status (RBANS) and flow cytometry, respectively.

Results After adjusting for covariates, all RBANS scores were lower in MDD patients than in healthy controls ($P < 0.001$), and log10TNF-α levels were higher in MDD patients than in healthy controls ($P = 0.006$). Log10TNF-a levels were correlated with immediate memory scores in MDD patients after adjusting for confounding factors ($r = -0.35$, $P = 0.009$), but not in healthy controls ($r = -0.02$, $P = 0.90$). Further stepwise multivariate regression analysis showed the association of log10TNF-α with immediate memory scores in MDD patients ($\beta = -14.58$, $t = -4.14$, $P < 0.001$), but not in healthy controls ($\beta = -0.02$, $t = -0.14$, $P = 0.89$).

Conclusion Our data suggested that elevated serum TNF-α levels were implicated in the pathogenesis and immediate memory impairment of MDD.

关键字：TNF-α; major depressive disorder; immediate memory; association

Global Brain Connectivity in Adolescent Depression with Subthreshold Manic Symptoms and The Relations with Processing Speed

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Objective Bipolar disorder (BD) is a sevrious chornic multifactorial disorder that associated with dysfunctional resting-state brain function presenting with cognitive impairment. However, it is still not known whether the abnormal functional connectivity occurs and predict cognitive functioning before preceding full-blown episodes. .

Methods We analysis 149 adolescent depression from baseline data of the sBEAD cohort (Symptomatic trajectory and Biomarkers of Early Adolescent Depression, ID ChicTR2100049066), including 72 adolescent depression with subthreshold manic symptoms (SubMD) ,77 adolescent depression without subthreshold manic symptoms

(nSubMD) and 69 healthy adolescents (HCs). All of participants were scanned resting-state functional magnetic resonance imaging (rs-fMRI) and examined the processing speed domain of cognitive function. For each individual, voxel-based graph theory analysis of whole-brain functional network connectivity GBC map was calculated.

Results Compared to nSubMD, the SubMD group showed lower GBC values in the right medial superior frontal gyrus (SFGmed.R) and right supplymentary motor area(SMA.R),while SubMD group additionally showed higher GBC values in left postcental gyrus (PoCG.L), right precuneus (PCUN.R). Compared to HCs, the nSubMD group showed significantly higher GBC value both in right of medial superior frontal gyrus /supplymentary motor area and right of inferior temporal gyrus. While, in the SubMD group, we observed that lower GBC values in the right dorsolateral of superior frontal gyrus and left middle orbitofrontal gyrus and higher GBC values in right Inferior temporal gyrus and right Precuneus and left Postcental Gyrus, relatived to HCs group. Compared to HCs group, SubMD group showed lower TMT-A scores.YMRS scores were statistically significant higher in SubMD group compared tonSubMD group. Further, GBC values in SFGmed.R was positive correlated with and TMT-A scores.What's more, ROC analysis demonstrated that these aberrant hub-like regions and the Composite index of these regions may play roles in differentiating SubMD from nSubMD.

Conclusion Our results indicate that aberrant connectivity patterns in SFGmed.R, PoCG.L and PCUN.R hub-like regions, may be characteristic of early neurological damage in bipolar disorder. and global dysconnectivity across these regions could be a stable biomarker for identification the prodromal phrase of BD.

关键字：Adolescent Depression, Subthreshold Manic Symptom, Prodromal phrase of BD, Processing Speed.

精神障碍患者感染新型冠状病毒后对抗精神病药物血药浓度的影响

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目的 探究精神障碍患者感染新型冠状病毒（SARS-CoV-2）对抗精神病药物血药浓度的影响，并为精神卫生工作者提供针对感染 SARS-CoV-2 后精神障碍患者的抗精神病药物治疗策略和管理建议。

方法 收集并分析 2022 年 12 月 12 日至 2023 年 1 月 11 日在某三级医院住院期间感染新型冠状病毒的精神障碍患者的人口学资料，精神疾病相关临床资料，感染 SARS-CoV-2 后相关症状、体征及血液学指标，精神障碍患者在感染 SARS-CoV-2 前后的抗精神病药物的血药浓度。

结果 本研究共纳入 326 名 18-85 岁的精神障碍患者（精神分裂症、双相情感障碍、其他精神障碍）进行分析。对比患者在感染 SARS-CoV-2 前后抗精神病药物血药浓度的变化，其中氯氮平、阿立哌唑、喹硫平、奥氮平、利培酮、帕利哌酮血药浓度均在 SARS-CoV-2 感染后有不同程度的升高。Logistic 回归分析显示，感染 SARS-CoV-2 前的抗精神病药物血药浓度水平及抗精神病药物种类与血药浓度高于神经精神药理学与药物精神病学协会（AGNP）推荐范围有显著关联；感染 SARS-CoV-2 前抗精神病药物血药浓度水平、性别及抗精神病药物种类与患者是否进行主要抗精神病药物剂量调整有显著关联。

结论 本研究覆盖了多种抗精神病药物浓度与感染 SARS-CoV-2 之间的关系：氯氮平、阿立哌唑、喹硫平、奥氮平、利培酮、帕利哌酮这些临床中常用的抗精神病药物的血药浓度均在精神障碍患者感染 SARS-CoV-2 后有不同程度的升高，这对于精神障碍患者在感染 SARS-CoV-2 后的抗精神病药物的使用方面具有重要的指导作用。

关键字：精神障碍；新型冠状病毒；抗精神病药物；血药浓度

血清谷氨酸和神经营养因子水平与氯氮平疗效的关系

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目的 探讨血清谷氨酸和神经营养因子水平与氯氮平疗效的关系。

方法 44 例难治性精神分裂症病人逐渐减少原有抗精神病用量至停用，同时氯氮平从小剂量开始添加，根据病人病情，大约使用 4 周时间达到氯氮平稳定治疗量（300mg/d-600mg/d），后继续观察时间 12 周，以 PANSS 减分率≥20%为症状缓解。治疗过程中不合并应用其他抗精神病药物，但可根据实际情况合用小剂量苯二氮卓类药物及苯海索、普萘洛尔对症治疗。于氯氮平稳定治疗量时采用 PANSS 量表评估病情，同时采集空腹静脉血 5ml，经 3000r/min,4℃离心 10 分钟分离血清，置于-80℃冰箱保存备用，使用酶联免疫吸附测定（ELISA）分析样品的血清神经生长因子（NGF），脑源性神经营养因子(BDNF)、胶质细胞衍生的神经营养因子（GDNF）和血管内皮生长因子（VEGF）水平。

结果 缓解组 PANSS 评分、阳性症状评分、阴性症状评分和一般病理症状评分显著低于未缓解组，差异有统计学意义（t=2.74-5.21，P＜0.01）；缓解组血清谷氨酸和 BDNF 水平显著高于未缓解组，差异有统计学意义（t=13.48，P＜0.01；t=2.16，P＜0.05）。

结论 血清谷氨酸和 BDNF 水平与氯氮平疗效呈正相关。

关键字：精神分裂症；谷氨酸；BDNF；氯氮平

Circulating T-cell Subsets Discrepancy Between

Bipolar Disorder and Major Depressive Disorder During Mood Episodes: A Naturalistic, Retrospective Study of 1015 Cases

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Objective We aimed to investigate whether peripheral T-cell subsets could be a biomarker to distinguish major depressive disorder (MDD) and bipolar disorder (BD).

Methods Medical records of hospitalized patients in the Department of Psychiatry, the First Affiliated Hospital, Zhejiang University School of Medicine, from January 2015 to September 2020 with a discharge diagnosis of MDD or BD were reviewed. Patients who underwent peripheral blood examination of T-cell subtype proportions, including CD3+, CD4+, CD8+ T-cell, and natural killer cells, were enrolled. The Chi-square test, t-test, or one-way analysis of variance was used to analyze group differences. Demographic profiles and T-cell data were used to construct a random forest classifier-based diagnostic model.

Results Totally, 98 cases of BD mania, 459 cases of BD depression (BD-D), and 458 cases of MDD were included. There were significant differences in the proportions of CD3+, CD4+, CD8+ T-cell, and natural killer cells among the three groups. Compared with MDD, the BD-D group showed higher CD8+ but lower CD4+ T-cell and a significantly lower ratio of CD4+ and CD8+ proportions. The random forest model achieved an area under the curve of 0.77 (95% confidence interval: 0.71-0.83) to distinguish BD-D from MDD patients.

Conclusion These findings imply that BD and MDD patients may harbor different T-cell inflammatory patterns, which could be a potential diagnostic biomarker for mood disorders.

关键字：biomarker, bipolar disorder, inflammation, major depressive disorder, T cell

GLP-1RA 在精神分裂症患者抗精神病药源性肥胖中的应用

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目的 临床广泛应用的二代抗精神病药物在较好的改善患者精神症状的同时，也带来了不可小觑的代谢副反应。大量研究提示糖脂代谢异常是肥胖、糖尿病和其他代谢综合征的主要原因。胰高糖素样肽-1 受体激动剂（GLP-1RA）是近年来的新型降糖药，在调节血糖同时改善胰岛素抵抗、显著减少体脂，在改善糖脂代谢异常中起着重要作用。

方法 本研究纳入精神分裂症患者出现抗精神病药源性肥胖患者 60 例，随机分为两组，一组为实验组（20 例），在常规抗精神病药物治疗基础上加用临床广泛应用的 GLP-1RA，利拉鲁肽，按 0.6-1.2-1.8 模式逐渐加量至 1.8mg/d；另一组为空白对照，仅仅继续服用常规抗精神病药物。对基线，治疗 1 月，3 月分别进行一般资料的收集，PANSS 量表、副反应量表的评测，并留取实验组及对照组受试者外周血 15ml，用于代谢指标（空腹血糖，空腹胰岛素，甘油三酯，总胆固醇，低密度脂蛋白胆固醇，高密度脂蛋白胆固醇等）的检测。

结果 基线水平，实验组和对照组一般资料差异无统计学意义（p＞0.05）。治疗 1 月后，实验组血糖明显低于对照组，血脂差异无统计学意义；治疗 3 月后，实验组血糖，血脂等代谢指标均明显低于对照组。纵向比较，实验组治疗 1 月、3 月，BMI，代谢指标均明显下降，且 PANSS 量表以及副反应量表均无差异。

结论 GLP-1RA 短期应用可以降低精神分裂症患者抗精神病药源性肥胖时的体重，血糖和血脂，未增加不良反应。更长时间的随访有助于验证本研究的结论并为抗精神病药源性肥胖的治疗提供一定的依据。

关键字：GLP-1RA，精神分裂症，抗精神病药物，药源性肥胖，糖脂代谢

青春期慢性应激影响情感相关行为及少突胶质细胞——应激相关精神障碍的胶质发病假说

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目的 本研究探索青春期慢性应激经历对情感相关行为以及不同脑区的少突胶质细胞（OLs）及髓鞘的影响。

方法 实验一，探索慢性社交挫败应激（CSDS）对小鼠行为和 OLs 的短期影响。4 周龄雄性 C57BL/6J 小鼠随机分为应激组（CSDS 组，N＝12）与对照组（CTL 组，N＝12）。应激结束后，进行行为学试验评估小鼠的行为变化，取脑组织进行免疫组织化学及免疫荧光染色，检测不同脑区增殖及 Ols 标志物。实验二：探索 CSDS 对小鼠行为和 OLs 的长期影响，以及经历青春期 CSDS 的成年期小鼠再次经历阈下应激（Subthreshold stress, SS）的行为变化。4 周龄雄性 C57BL/6J 小鼠随机分为双重应激组（CSDS+SS 组，N＝12），单纯早年应激组（CSDS+CTL 组，N＝12），单纯成年后阈下应激组（CTL+SS 组，N＝8），空白对照组（CTL+CTL 组，N＝8）。CSDS+SS 组小鼠在接受连续 10 天的 CSDS 后，进行 3 周的恢复性饲养，随后接受阈下应激。CSDS+CTL 组小鼠和 CTL+SS 组小鼠分别只接受慢性社交挫败应激和阈下应激，空白对对照组小鼠不进行任何应激。在阈下应激结束 1 天后，对所有小鼠进行行为学试验，取脑组织进行免疫荧光染色检测 Ols 相关标志物。

结果 实验一：（1）CSDS 组小鼠在社交试验中表现出社交回避行为；（2）CSDS 组小鼠 mPFC 区 EdU 阳性增殖细胞、EdU 与 Olig2 双阳性 OLs、EdU 与 NG2 双阳性 OPC、EdU 与 APC 双阳性成熟 OLs 数量降低；（3）杏仁核脑区新生及已存在的 Ols 细胞无显著改变。实验二：（1）社交试验中，CSDS+SS 组小鼠与 CTL+SS

组小鼠相比，社交比下降。当靶为 C57 时，CSDS+SS 组小鼠与 CSDS+CTL 或 CTL+SS 组小鼠相比，接近行为减少；当靶为 CD-1 时，CSDS+SS 组小鼠与 CSDS+CTL 组相比，接近行为减少。（2）与 CTL+CTL 组相比，CSDS+CTL 组、CTL+SS 组和 CSDS+SS 组小鼠 mPFC 和 NAc 区新生及已存在的 OLs 数量无显著改变。

结论 青春期慢性社交挫败应激可使小鼠产生社交回避和恐惧行为，并增加个体对于应激的易感性。青春早慢性社交挫败应激短期内抑制少突胶质细胞系细胞的增殖与分化。

关键字：慢性社交挫败应激、青春期、应激相关障碍、少突胶质细胞、髓鞘

Strain-level Structure of Gut Microbiome Showed Potential Association with Cognitive Function in Major Depressive Disorder: A Pilot Study

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Objective : To explore the effect of gut microbiota on cognitive function in major depressive disorder (MDD) and its possible mechanisms

Methods We enrolled 57 patients with MDD and 30 healthy controls (HCs) and used 16S rRNA gene sequencing analysis and Shotgun metagenomic sequencing analysis to determine gut microbial composition.

Results The richness and diversity of gut microbiota in patients with MDD were the same as those in HCs, but there were differences in the abundance of Bifidobacterium and Blautia. Compared with HCs, two strains (bin_32 and bin_55) were significantly increased and one stain (bin_31) was significantly decreased in patients with MDD based on the strain-level meta-analysis. Time to complete the Stroop-C had significant negative correlations with bin_31 and bin_32. Bin_55 had significant negative correlations with time to complete the Stroop-C, time to complete the Stroop-CW, and repeated animal words in 60 s but significant positive correlations with correct answers in 120 s on the Stroop-CW.

Conclusions Finally, based on the strain-level analysis, we found that gut microbiota may be associated with the pathogenesis of MDD and may have potential effects on cognitive function.

关键字：Shotgun metagenomic sequencing, neurocognition, 16S rRNA gene sequencing analysis, strain, Stroop Color-Word Test

TRPV1 基因甲基化和依恋类型对抑郁症影响的研究

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目的 抑郁症（MDD）病因机制复杂，多种环境因素、遗传因素及二者相互作用在其中发挥重要作用。本研究旨在从表观遗传学角度探讨 TRPV1 基因甲基化和依恋类型与 MDD 的关系，以期为 MDD 病因机制研究提供理论基础。

方法 病例组纳入 16-65 岁，符合 DSM-IV 诊断标准抑郁症患者 80 例，性别不限；同时纳入健康对照 80 名，年龄、性别与病例组相匹配。采用 Illumina Infinium Methylation EPIC Bead Chip 850K 甲基化芯片进行基因甲基化检测。依恋类型采用成人依恋量表（AAS）进行评估，分为安全型、先占型、淡漠型、恐惧型 4 种。统计分析在 SPSS 26.0 软件中进行，采用独立样本 t 检验进行组间基因甲基化水平比较；采用二项 logistic 回归分析基因甲基化水平、依恋类型对 MDD 发病风险的影响；采用 logistic 回归和 ROC 曲线探索性分析基因甲基化水平、依恋类型对 MDD 发病风险的预测价值，以曲线下面积、敏感度、特异度为评价预测价值的指标。P<0.05 为差异具有统计学意义。

结果 两组在性别、年龄的分布上没有显著统计学差异（P 均＞0.05）。TRPV1 基因 11 个 cg 位点(cg26537098、cg26754159、cg00734682、cg18768260、cg20723599、cg23750361、cg11106060、cg09451903、cg00302076、 cg11157771、cg07760800)甲基化程度在病例组中显著高于对照组(P<0.001)，且均与 MDD 存在相关（P 均<0.05）；安全型依恋、先占型依恋、恐惧型依恋在两组间存在显著差异(P 均<0.05)，且与 MDD 存在强相关 (r=-0.341，P<0.01)；而冷漠型依恋在二者间差异不显著。多因素 logistic 回归分析结果示：不安全型依恋以及 TRPV1 基因 cg26537098、cg20723599、cg11106060 三个位点的高甲基化水平是 MDD 的独立危险因素（OR=1.62~7.25，P＜0.05），曲线下面积（AUC）为 0.838（95%CI：0.776~0.899，P＜0.001）。

结论 TRPV1 基因甲基化水平和依恋类型与 MDD 相关，能够增加 MDD 的发病风险，TRPV1 基因甲基化水平联合不安全依恋类型能够预测 MDD 的发病。

关键字：抑郁症，TRPV1 基因，DNA 甲基化，依恋类型

抑郁症患者嗅觉功能与竞争性干扰抑制的队列研究

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目的 探寻抑郁症嗅觉功能、竞争性干扰抑制功能治疗前后的变化，并初步探索嗅觉功能与竞争性干扰抑制功能、情绪严重程度之间的相关性。

方法 选取符合 ICD-10 诊断标准中抑郁症患者

48 例，选取 33 名性别、年龄、受教育程度与病例组相匹配的健康人群作为对照组，应用汉密尔顿抑郁量表（HAMD-17）、汉密尔顿焦虑量表（HAMA）、基于中国人群的嗅觉命名测验、情绪 Stroop 任务来评估抑郁、焦虑情绪的严重程度、嗅觉功能水平及情绪干扰下 Stroop 各项任务的平均反应时间，并通过平均反应时间/正确率(mean reaction time/accuracy rate ,ΔMRT）得到校正后的各项任务的平均反应时间。抑郁症组及健康对照组均分别于治疗前（基线）、治疗后 3 月(随访)完成 2 次以上所有项目的评估。采用 SPSS 17.0 软件对研究所得的数据进行统计分析，运用多重线性回归分析年龄、教育年限、HAMD-17、HAMA、ΔMRT 与嗅觉功能的相关性。

结果 抑郁症组相较于健康对照组嗅觉功能水平[7 (6,8) vs. 9 (8,9)]、嗅觉的自我评估[3 (3,4) vs. 4 (3,5)]均更差、竞争性干扰抑制各项任务的平均反应时间更长，但随着情绪状态的恢复（治疗后 3 月），嗅觉功能水平及自我评估均可得到恢复，但竞争性干扰抑制功能中的平均反应时间仍维持较健康对照组更长的反应时长。基线水平上多重线性回归分析显示年龄及、负性一致（NEG-C）的 ΔMRT 与抑郁症患者嗅觉功能缺陷有关，其回归模型具有统计学意义（F=11.89，P<0.001），因变量嗅觉测试总分变异的 31.7%可由年龄、ΔMRT（NEG-C）来解释（R 2=0.346，校正 R 2=0.317）。回归方程 Y(^)=10.676-0.063×年龄-0.002×ΔMRT（NEG-C）。

结论 抑郁症患者在接受治疗前其嗅觉功能的缺陷可能与年龄、负性一致的平均反应时间（毫秒）有关，未发现其与抑郁、焦虑情绪严重程度有明确相关性。而随着抑郁情绪的恢复，嗅觉功能缺陷亦能随之恢复，提示嗅觉功能可能是反应脑功能水平的一个状态指标。相较于情绪、嗅觉功能，竞争干扰性抑制功能尤其负性一致的平均反应时间恢复所需要的时间更长，提示可能与疾病的转归预后有关，当然，这一点需要更大的样本量及更长的随访时间来验证。

关键字：抑郁症；嗅觉功能；竞争性干扰抑制；反应时间

Discrimination of First-onset Patients with Bipolar Disorder Or Major Depressive Disorder by Screened Biochemical Parameters Modeling

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Objective There are theoretical hypotheses about different levels of oxidative stress damage in mood disorders. We screened out eight biochemical indicators based on oxidative stress, for further verification in first-onset patients with bipolar disorder (BD) or major depressive disorder (MDD).

Methods We extracted 224 first-onset patients (BD=93 and MDD=131) from the overall sample database of 4647 candidates. Eight clinical biochemical parameters were tested, including direct bilirubin (DBIL), indirect bilirubin (IDBIL), uric acid (UA), lactate dehydrogenase (LDH), thyroid stimulating hormone (TSH), free triiodothyronine (FT3), prealbumin and progesterone. The above parameters enter the hierarchical multiple linear regression model for analysis.

Results When compared to MDD, the BD group showed decreased prealbumin and elevated UA, LDH, and FT3 in males while decreased prealbumin and DBIL and elevated IDBIL, LDH, FT3 and progesterone in females (p's < .05). We observed the area under the curve (AUC) of the predictive model to distinguish between BD and MDD to be .894 among men and .897 among women.

Conclusion This result elucidates the validity of these biomarkers for identifying first-episode patients with BD or MDD. The discrimination was satisfactory, with good diagnostic accuracy for both gender subgroups.

关键字：bipolar disorder; major depressive disorder; biological markers; first onset

经历慢性负性应激的抑郁症患者中 HPA 轴功能和海马多模态脑影像学特征研究

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目的 筛查经历慢性负性应激的抑郁症在海马脑影像学、HPA 轴功能的特征。

方法 纳入经历慢性负性应激的抑郁症组 34 例，非经历慢性负性应激的抑郁症组 31 例，健康对照组 30 例。采集受试者的静息态磁共振影像，提取并处理海马结构像和功能像数据，对海马进行亚区分割，采用 ANCOVA 对经历慢性负性应激的抑郁症、非经历慢性负性应激的抑郁症、健康对照三组间海马及亚区体积、海马与全脑体素功能连接（FC）、海马亚区间功能连接（FC）的差异进行分析；采用酶联免疫吸附检测技术对血浆中的 ACTH、CORT 的表达水平进行检测，比较三组间的表达差异；并进行海马差异性结构和功能连接指标和 HPA 轴功能间的相关分析。

结果 （1）和非经历慢性负性应激的抑郁症组相比，经历慢性负性应激的抑郁症组中右侧海马颗粒细胞层-分子层-齿状回头部体积（P=0.03）和右侧海马角 CA3 区头部体积（P=0.02）增加；右侧额上回和双侧海马的功能连接值（P＜0.001）、右侧额下回三角部和双侧海马的功能连接值（P＜0.001）增强；前下托和海马角 CA1 区的功能连接值（P=0.003）降低。（2）ACTH（P＜0.0001）和 CORT（P=0.004）的表达水平在经历慢性负性应激的抑郁症组和非经历慢性负性应激的抑郁症组间存在统计学差异。（3）在非经历慢性负性应激的抑郁症组中，发现前下托和海马角 CA1 的功能连接值与 ACTH 呈正相关（r=0.43，P=0.03）。

结论 经历慢性负性应激的抑郁症在海马亚区结

构和功能连接、HPA 轴功能方面均和非经历慢性负性应激的抑郁症存在差异；由于慢性负性应激的作用可能造成 HPA 轴和海马功能间的关系变得更为复杂。经历慢性负性应激的抑郁症可能作为一种潜在的抑郁亚型有不同的发病机制。

关键字：抑郁症;慢性应激;海马;HPA 轴功能

慢性稳定期精神分裂症血清 IFN-γ，IL-6，BDNF 浓度水平与其阴性症状及认知功能相关性研究

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目的 探讨慢性稳定期精神分裂症患者血清 IFN-γ，IL-6，BDNF 水平及其与阴性症状及认知功能的相关性。

方法 纳入 2016 年 8 月至 2021 年 10 月就诊的慢性稳定期精神分裂症患者 75 例(患者组,男 48 例,女 27 例),健康对照 42 名(对照组,男 20 例,女 22 例)。血清 IFN-γ（TH1），IL-6（TH2），BDNF 水平采用酶联免疫吸附技术测定;使用 PANSS 评定患者相关临床症状。PANSS 中 N1，N3，N6，G7，G13 总分为情绪表达减少评分，N2，N4，G16 总分为动机缺乏评分，RBANS 评估认知功能。采用 SPSS 22.0 进行统计分析。两组比较采用独立样本 t 检验及非参数检验, 患者组 IFN-γ，IL-6，BDNF 与临床变量关系以（BMI，教育年限，年龄，抗精神病药物剂量，性别）作为协变量进行偏相关分析。

结果 患者组视觉空间结构评分，即刻记忆评分，语言评分，注意力评分，延迟记忆评分，认知总分评分均低于对照组（P 均＜0.05）。患者组和对照组血清 IL-6 水平[8.32（3.87，14.31）pg/ml vs 1.99（1.43，2.58）pg/ml，Z=-6.105，P=0.031]，TNF-a 水平[1.37（0.77，2.88）pg/ml vs 0.765（0.36，1.055）pg/ml，Z=-4.21，P=0.031]，BDNF 水平[(18555.57±8776.32)pg/ml vs (12473.22±3963.88)pg/ml，t=5.139，P＜0.001]。患者组阴性症状中的动机缺乏症状与视觉空间结构（r=0.301，P=0.011）存在正相关。患者组 IL-6 水平与其即刻记忆（r=0.245，P=0.041）、视觉空间结构（r=0.242，P=0.044），延迟记忆（r=0.258，P=0.031），认知总分（r=0.245，P=0.004）均存在正相关。慢性精神分裂症 TNF-a 水平与即刻记忆（r=0.271，P=0.023）正相关。

结论 慢性精神分裂症患者存在神经炎症，神经营养不足。其部分阴性症状可能影响其认知功能。TH1，TH2 相关细胞因子很可能参与慢性精神分裂症部分认知功能损害，且均参与即刻记忆的损害。

关键字：慢性稳定期精神分裂症; IFN-γ；IL-6；BDNF；阴性症状; 认知

高通量测序分析氟西汀对抑郁大鼠肠道菌群的影响

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目的 肠道菌群假说认为“肠道菌群—肠—脑”轴功能障碍是抑郁症的主要病理基础，其异常可能是抑郁症的直接诱因和潜在影响因素。氟西汀(FLX)是一种选择性 5-羟色胺再摄取抑制剂，为一线抗抑郁药物。本研究通过对细菌 16SrRNA 基因 V4 可变区测序来分析抑郁模型大鼠肠道菌群特征，评价 FLX 对肠道菌群结构的影响和调控。

方法 慢性不可预见性温和刺激（CUMS）结合孤养构建抑郁大鼠模型，FLX 进行干预，糖水偏好实验、行为学测试等评估建模及 FLX 抗抑郁情况。利用 Illumina MiSeq 技术对各实验组大鼠肠道微生物 16SrRNA 基因 V4 可变区进行测序，揭示肠道菌群的结构组成。Qiime 软件分析各实验组肠道微生物群落结构 α 和 β 多样性。

结果 与正常大鼠相比，抑郁模型大鼠肠道微生物群落丰富度未发生明显改变，微生物群落多样性显著减少。优势菌群中厚壁菌门相对丰度显著增加，拟杆菌门、变形菌门、放线菌门相对丰度减少。模型组肠道菌群 shannon 指数显著下降、simpson 指数下降。FLX 能够缓解大鼠的抑郁样行为，显著降低抑郁大鼠肠道微生物群落的 β 多样性。

结论 CUMS 结合孤养引起大鼠抑郁样行为的同时也影响了肠道菌群的结构，乳酸菌科 (杆菌类，厚壁菌门)的相对丰度增加是抑郁大鼠肠道微生物变化的特征标志，可能与机体自我保护机制有关。FLX 能够缓解大鼠的抑郁样行为，显著降低抑郁大鼠肠道微生物群落的 β 多样性。说明抗抑郁药物能够调节微生物-肠-脑轴的机制，与其抗抑郁作用具有相关性。

关键字：高通量测序；抑郁；肠道菌群；氟西汀

血浆 IFN-γ 水平与急性期精神分裂症患者临床症状的相关性研究

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目的 干扰素 γ（interferon-gamma, IFN-γ）是机体重要的细胞因子，能够调节人体免疫水平，具有抗病毒，抗肿瘤等作用。精神分裂症患者存在不同程度的免疫炎症改变，但目前关于 IFN-γ 与精神分裂症临床症状的关联研究较少，且无一致性结论。本研究旨在通过较大样本的临床研究，探索未用药精神分裂症患者临床症状与外周血 IFN-γ 水平的关联。

方法 本研究纳入了 137 名未用药的急性期精神分裂症患者（依据 DSM-5 诊断）和 67 名健康对照，采集所有参与者的空腹外周静脉血并使用 ELISA 方法（试剂盒来自于酶免公司）检测 IFN-γ 的浓度，同时对所有患者进行临床症状评估，使用阳性与阴性症状量表（Positive and Negative Syndrome Scale，PANSS），

分析时使用 PNASS 5 因子模型。结果：（1）精神分裂症患者的外周血 IFN-γ 浓度（317(239,440) ng/L）显著低于健康对照（941(739,2120) ng/L），差异具有统计学意义（秩和检验，p<0.001）；支持分析使用单变量协方差，控制性别，年龄和体重指数，结果显示两组间 IFN-γ 浓度存在统计学差异（p<0.001）。（2）在精神分裂症患者中，IFN-γ 浓度与阳性症状（p=0.026）和激越症状（p=0.042）负相关（偏相关；控制性别，年龄以体重指数），进一步的分析显示上述相关性仅在女性患者中存在（N=87）。

结论 急性期精神分裂症患者外周血 IFN-γ 浓度显著低于健康对照，IFN-γ 浓度越低，阳性症状和激越症状越严重，尤其在女性患者中。

关键字：IFN-γ；精神分裂症；急性期；阳性症状

血浆 NGAL 水平对未用药精神分裂症患者认知功能的影响

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目的 中性粒细胞明胶酶相关脂质运载蛋白（neutrophil gelatinase-associated lipocalin，NGAL）是人脂质运载蛋白家族成员，由中性粒细胞等多种组织细胞分泌，与机体的免疫应答等多种功能有关，目前研究发现外周血以及脑脊液 NGAL 浓度与阿尔茨海默病性痴呆患者的认知功能密切相关，但缺乏 NGAL 在精神分裂症认知功能中的研究，本研究旨在探索外周血中 NGAL 水平与未用药精神分裂症患者认知功能的关联。

方法 本研究纳入了 137 名未用药的精神分裂症患者和 67 名健康对照，对所有参与者进行中国版 MATRICS 认知成套测验（Measurements and Treatment Research to Improve Cognition in Schizophrenia (MATRICS) Consensus Cognitive Battery，MCCB）并将量表得分进行年龄，性别和受教育水平矫正，同时采集所有参与者的空腹外周静脉血并使用 ELISA 方法（试剂盒来自于酶免公司）检测 NGAL 的浓度。

结果 （1）在 MCCB 的九项认知测试中，精神分裂症患者的认知功能均显著低于健康对照，差异具有统计学意义（独立样本 t 检验，所有 p 值均< 0.001）。（2）精神分裂症患者的外周血 NGAL 浓度（13.16±8.06 ng/L）显著低于健康对照（16.32±6.66 ng/L），差异具有统计学意义（秩和检验，p<0.001）。（3）在精神分裂症患者中，NGAL 浓度与空间广度（p=0.018）和简易视觉空间记忆测验得分（p=0.005）正相关（多元线性回归，以认知得分为因变量，以 NGAL 浓度和体重指数为自变量）；而在健康对照中，NGAL 浓度与持续操作测验-相同配对得分负相关（p=0.047）。

结论 精神分裂症患者存在显著且广泛的认知功能损害，外周血 NGAL 浓度与认知功能的关联在患者和对照人群中展示出不同的作用模式，本研究是首次探索外周血 NGAL 与精神分裂症认知损害的关联研究，仍需要更多深入的研究来阐释两者的关联。

关键字：NGAL，精神分裂症，认知功能

Multimodal Neuromarkers in Depression Via Cognition-guided MRI Fusion

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Objective : Major depressive disorder (MDD) often results in cognitive impairments, which can have a significant impact on patients' quality of life. However, the mechanisms underlying cognitive deficits in MDD remains unclear.

Methods A total of 131 MDD patients and 145 healthy controls (HC) were included. Neurocognitive function was assessed using the Cambridge Automated Neuropsychological Test Battery (CANTAB), which includes five tests: Rapid Visual Information Processing (RVP), Delayed Matching to Sample (DMS), Pattern Recognition Memory (PRM), Intra/Extra-Dimensional Set Shift (IED), and Spatial Working Memory (SWM). Structural magnetic resonance imaging (MRI) and resting-state functional MRI data were collected. The severity of individual illnesses was evaluated using the Hamilton Depression Rating Scale (HAMD). Two years later, the Social Disability Screening Schedule (SDSS) was used to evaluate their social functioning. FSL and DPARSF were used to analyze the data, ALFF and GMV were extracted as representative neuroimaging features for fusion analysis. Multivariate canonical correlation analysis with reference and joint independent component analysis (MCCAR+jICA) techniques were used to guide the fusion of GMV and ALFF, using five cognitive scores (sustained attention, visual recognition memory, pattern recognition memory, executive function, and working memory as references. The aims of the study were as following: (1) identifying multimodal imaging biomarkers related to multiple cognitive domains in MDD; (2) comparing the similarity and differences of the identified multimodal brain networks across cognitive dimensions and determining the specific neural markers of a particular cognitive dimension, and verifying the stability of the MRI data fusion analysis results in a restricted age cohort; and (3) using the identified multimodal components between MDD and HC to identify predictive biomarkers of social functioning through a linear regression model.

Results This study identified a multimodal frontal-insular-parietal network associated with sustained attention, and the abnormal changes in this network were related to social functioning status of MDD in two-year fol-

low-up MDDs (N=131). Analysis of multimodal data fusion components guided by different cognitive dimensions found that ALFF function consistently decreased in the right temporal-parietal-hippocampal circuit, while structure features was more sensitive to differences between cognitive dimensions. Furthermore, the consistent ALFF functional changes across the five cognitive dimensions were closely related to the individuals' symptom severity.

Conclusion This study identified multiple multimodal neuroimaging biomarkers related to neurocognition, which may help develop new and more effective treatment strategies targeting cognitive impairments and social functioning in MDD patients.

关键字：depression, multimodal fusion, cognition, social function

首发精神分裂症患者和双相情感障碍患者血浆磷酸化 Tau181 与静息态脑功能活动的相关性研究

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目的 精神分裂症、双相情感障碍（BD）和抑郁障碍（MDD）与阿尔茨海默病（Alzheimer's disease, AD）的发生风险增加相关。而血浆 P-tau181 浓度和 Aβ42/Aβ40 比值在青年重型精神疾病患者中是否与 AD 具有相同的变化趋势有待进一步探讨。 低频震荡振幅分数（fALFF）已被用于研究各种神经退行性疾病，与对照组相比，AD 患者梭状回、双侧海马/海马旁区的 fALFF 增加。然而，作者尚未发现有研究探讨上述三种重型精神疾病中默认网络功能连接、fALFF 与血浆 AD 生物标志物之间的关系。

方法 我们从住院和门诊收集 95 例首发精神分裂症（FES）患者、107 例 BD 患者、77 例 MDD 患者和 187 例健康对照。我们分别研究了各组患者 AD 血浆生物标志物（Tau、P-tau181、Aβ40、Aβ42、Aβ42/Aβ40 ??ratio），并探讨了这些血浆生物标志物与默认网络功能连接以及基于全脑的 fALFF 之间的关系。我们还进行了组间比较，以探索与血浆生物标志物相关的神经影像生物标志物是否存在显著的组间差异。

结果 首发精神分裂症患者血浆 P-tau181 浓度在正常范围内，而 BD 和 MDD 患者血浆 P-tau181 浓度明显高于健康对照组。与对照组相比，精 FES 组和 BD 患者组 Aβ40 和 Aβ42 升高，Aβ42/Aβ40 比值降低（Table 1）。在 BD 受试者中，P-tau181 水平升高与 DMN 完整性（后扣带皮层与双侧顶下小叶静息态功能连接）下降有关，尤其是该网络的后部（图 1）。FES 组血浆 P-tau181 与舌回 fALFF 值及双侧舌回功能连接呈正相关（图 2）。在 MDD 和对照中，我们未发现血浆生物标志物与 DMN 完整性和 fALFF 值之间存在任何显著相关性。在 BD 组中，我们发现 PCC 和右顶下小叶之间的 rs-FC 与 TMT-B 时间呈负相关（表 2）。

结论 我们的研究结果表明，在 FES 和 BD 患者中，血浆 P-tau181 和静息态功能活动之间的关联脑区与 AD 受损的大脑区域高度重合，特别是默认模式网络的后部，以及视觉感知区域。我们的结果可能提示严重精神疾病患者大脑中存在神经元纤维缠结与 β 淀粉样变性。

关键字：精神分裂症，双相情感障碍，淀粉样变性，神经元纤维缠结，低频振荡振幅

Childhood Abuse Influences Clinical Features of Major Depressive Disorder by Modulating The Functional Network of The Right Amygdala Subregions

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Objective Childhood trauma and the amygdala play important roles in major depressive disorder (MDD) mechanisms. However, the neurobiological mechanism among them remains unclear. We aimed to explore the relationship among the amygdala subregion's abnormal functional connectivity (FC), clinical features, and childhood trauma in MDD.

Methods We obtained resting-state functional magnetic resonance imaging (fMRI) in 115 MDD patients and 91 well-matched healthy controls (HC). Amygdala subregions were defined according to the Human Brainnetome Atlas. The case vs. control difference in FCs was extracted. The mediation between the detected abnormal FCs and clinical features were analyzed.

Results Compared with HC subjects, only the right amygdala subregions, namely the right medial amygdala (mAmyg.R) and the right lateral amygdala (lAmyg.R), showed a significant decrease in whole-brain FC in MDD patients (PFDR<0.01). Only childhood abuse experiences were significantly associated with amygdala subregions connectivity and clinical features in MDD patients. Additionally, The FCs between the right medial amygdala and extensive frontal, temporal, and subcortical regions mediated between the early life abuses and disease onset or treatment outcome.

Conclusion The findings indicate that the abnormal connectivity of the right amygdala subregions is involved in MDD's pathogenesis and clinical characteristics.

关键字：major depressive disorder, childhood abuse, amygdala subregions, functional connectivity network, modulating role

Abnormal Spontaneous Activity of Regions Related To Mood Regulation Mediates The Effect

of Childhood Emotional Neglect on Major Depressive Disorder

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Objective Childhood emotional neglect (EN) is a risk factor for abnormal brain development, neurocognitive impairment, and subsequent major depressive disorder (MDD), while social support is a protective factor. However, the exact links among them remain unclear. This study aimed to investigate the mediating factors between EN and MDD and whether combining multi-indicator could help diagnose MDD.

Methods Regional homogeneity (ReHo) of spontaneous brain activity and clinical features were compared between 33 MDD patients and 36 healthy controls (HC). Mediation analysis was employed to explore whether social support or ReHo mediates the association between EN and MDD. The linear discriminant analysis model was constructed with EN, social support, and ReHo, and applied to distinguish MDD from HC in both primary and replication cohorts.

Results Compared with HC, MDD patients experienced severer EN and poorer social support, and exhibited lower ReHo in the left middle occipital gyrus and bilateral postcentral gyrus, and higher ReHo in right cerebellum crus1. EN could affect MDD directly and indirectly through ReHo in these discrepant brain regions and social support. Combining ReHo values of these four distinct brain regions, EN, and objective support could classify MDD patients from HC, and the 10-fold cross-validation accuracy within-study replication and in the independent cohort was 83.78%±1.49% and 82.72%±2.22%, respectively.

Conclusion These findings suggested that childhood EN, social support, and emotional-related regions' ReHo were associated with risks of MDD, providing new insights into the pathological mechanisms underlying MDD. Combining EN, objective support, and ReHo of spontaneous brain activity could help diagnose MDD.

关键字：depression; emotional neglect; social support; regional homogeneity (ReHo); mediation effect; diagnostic model

Variations of Plasma Oxidative Stress Levels in Male Patients with Chronic Schizophrenia: Correlations with Psychopathology and Matrix Metalloproteinase-9

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Objective Accumulating evidence has indicated that oxidative stress (OS) and matrix metalloproteinase-9 (MMP-9) may contribute to the mechanism of schizophrenia. In the present study, we aimed to evaluate the associations of OS parameters and MMP-9 levels with psychopathological symptoms in male chronic schizophrenia patients.

Methods Plasma hydrogen peroxide (H2O2), malondialdehyde (MDA), superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GSH-Px), serum matrix metalloproteinase-9 (MMP-9), and tissue inhibitors of metalloproteinases-1 (TIMP-1) levels were assayed in 80 male patients with chronic schizophrenia, composed of 31 treatment resistant schizophrenia (TRS) and 49 chronic stable schizophrenia patients, and 80 matched healthy controls. Schizophrenia symptoms were assessed by the Positive and Negative Syndrome Scale (PANSS).

Results Our results demonstrated that levels of antioxidant enzymes, SOD, GSH-Px, H2O2, and MDA were significantly decreased, whereas CAT and MMP-9 levels were increased in patients with schizophrenia, when compared with healthy controls. In schizophrenia patients, correlation analyses showed that H2O2 levels were significantly and positively correlated with PANSS positive scores, CAT and MDA levels were significant negatively correlated with PANSS negative scores and PANSS total scores, and MDA levels were significantly positively correlated with MMP-9 levels (all $P < 0.05$). However, we did not find that MMP-9 played an interaction role between OS parameters and PANSS total scores and subscales scores (all $P > 0.05$). Furthermore, plasma CAT activities were independent risk predictors for TRS.

Conclusion Our results showed that alterations of plasma OS parameters in male patients with chronic schizophrenia were associated with psychopathology and MMP-9. Moreover, CAT levels may have an independent predictive value for TRS.

关键字：Schizophrenia; redox dysregulation; antioxidant; neuroinflammation; matrix metalloproteinase-9

精神病性障碍早期视空间认知缺陷特征及皮层干预靶点

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目的 针对精神分裂症认知功能缺陷的难治性现状，课题组策略：一是前移治疗窗口早干预，选择早期患者为干预对象，包括精神病临床高危综合征（CHR）和首发精神分裂症（FES）；二是针对性选择与精神病发作密切关联的特定认知领域，基于相关病理性脑神经环路进行精准干预。本研究选择与精神病发作密切相关的视空间认知功能，基于其病理性神经环路、采用重复经颅磁刺激（rTMS）进行个体化精准干预研究。

方法 使用随机双盲安慰剂对照的研究设计，纳入 CHR 和 FES 患者作为干预对象，随机分为 rTMS 真刺激组和伪刺激组。基于视空间认知功能缺陷的病理性神经环路“顶叶-海马回路”，根据每个被试的海马-下顶叶的局部最大功能连接确定皮层干预靶点，采用 20Hz 高频 rTMS 干预左下顶叶、进行个体化精准干预 2 天 10 个疗程，并在干预前后采集神经影像学数据，明确 rTMS 对视空间认知功能的干预疗效、探索 rTMS 疗效的生物学机制。

结果 110 例患者随机分为 rTMS 真伪刺激两各组 55 例，两组患者在人口学及临床学特征方面匹配；真刺激组 52 例和伪刺激组 47 例患者完成了 rTMS 干预及干预前后的认知功能评估，结果显示 rTMS 精准干预左下顶叶对视空间认知功能的效应优于伪刺激对照组，时间和组别交互作用显著（$F=6.873$，$p=0.01$）；真刺激组 48 例和伪刺激组 38 例患者完成了 rTMS 干预、干预前后的认知功能评估及干预前后的神经影像扫描，使用多变量距离矩阵回归（MDMR）算法分析发现视空间认知功能与双侧角回脑区活动显著相关；分别以双侧角回为感兴趣种子点，进行与全脑体素的功能连接分析：右侧角回与左侧枕叶、右侧眶额、右侧额下回、右侧额上回之间的功能连接与认知分数存在显著负向关联；对上述四组功能连接在干预前后的变化值与认知变化值进行相关分析，真刺激组存在右侧角回与左侧枕叶的功能连接变化与认知变化之间存在显著负相关（$r=-0.31$, $p=0.04$），提示 rTMS 干预机制与降低右侧角回与左侧枕叶的功能连接有关。

结论 研究确定了能有效改善视空间认知缺陷的 rTMS 皮层干预靶点，具有临床转化价值和理论研究意义。

关键字：精神病性障碍早期，精神病临床高危综合征，首发精神分裂症，视空间认知功能，重复经颅磁刺激

Serum Neuropeptide Levels and Its Associations with Cognitive Impairment and Treatment-resistance in Male Patients with Schizophrenia

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Objective In this study, the hypothesis that the blood serum levels of the five serum neuropeptides in chronic stable schizophrenia patients (CSS), treatment-resistant schizophrenia patients (TRS) and healthy controls (HC) would be related to cognitive functions was investigated.

Methods In this study, three groups were assessed: 48 CSS and 29 TRS (case groups) who were hospitalised in the regional psychiatric hospitals (i.e. Lianyungang Fourth People's Hospital) and 53 HC (control group). All participants above were enrolled. the blood serum levels of α-MSH, β-Endorphin (BE), Neurotensin (NT), Oxytocin (OT), and Substance.P (S.P) were measured. Psychiatric symptoms in schizophrenia patients were assessed with the Positive and Negative Syndrome Scale (PANSS). The cognitive ability of SZ and HC was measured with the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) Chinese version.

Results TRS had significantly higher PANSS total and subscale scores than CSS patients (all $P<0.05$). SCZ performed worse than HC in total score and all subscales of the RBANS (all $P<0.05$). The levels of the above five serum neuropeptides were significantly higher in SCZ than in HC (all $P<0.05$). The levels of OT ($F=3.363$, $P=0.003$) and S.P ($F=2.753$, $P=0.011$) were significantly higher in CSS than in TRS patients. The α-MSH levels in TRS patients was significantly and negatively correlated with the language score of RBANS ($r=-0.398$, $P=0.032$). However, the BE levels ($r=0.294$, $P=0.043$) and NT levels ($r=0.288$, $P=0.047$) in CSS patients were significantly and positively correlated with the visuospatial/constructiona score of RBANS. Moreover, the NT levels were significantly and positively correlated with the BE levels ($r=0.870$, $P=0.000$) in the CSS patients, and the interaction effect of the NT and BE levels was positively associated with the visuospatial/constructiona score of RBANS ($r=0.299$, $P=0.039$).

Conclusion Our results that the lower cognitive levels and higher serum neuropeptides levels in male patients with chronic SCZ suggest that abnormally increased serum neuropeptide levels may be associated with the physiology of SCZ, and it may cause cognitive impairment and psychiatric symptoms, especially in patients with TRS.

关键字：Serum neuropeptide; Treatment-resistance; schizophrenia; Cognitive function;

精神分裂症患者眼动异常及其与认知功能障碍的关系

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目的 精神分裂症患者同时存在认知功能受损和眼动异常，但它们之间的联系目前仍未阐明。在本研究中，我们探索了认知功能与眼动之间的关系。

方法 本研究中共纳入精神分裂症被试 97 例、健康对照 82 例。所有被试均完成人口学资料的采集，同时还包括 2 个眼动任务测试（注视稳定性、李萨如平滑眼追踪），以及认知功能测试（使用 MCCB 工具测试，包括 7 个测试覆盖 5 个认知领域）。其中，眼动任务中注释稳定性测验包括简单模式和干扰模式，李萨如平滑眼追踪包括低速、高速和复杂背景 3 个模式。

结果 精神分裂症患者在信息处理速度、工作记忆、词语学习、视觉学习、问题解决和推理 5 个认知领域评分均较健康对照组显著下降（$p<0.001$）。同时，精神分裂症患者较健康对照在眼动测验中存在广泛的眼动异常（$p<0.05$）。在精神分裂症患者中，眼动异常与认知功能障碍的关系主要存在与视觉学习领域与注

释稳定性的干扰模式（包括注视点个数、注视时长、眼跳幅度、眼跳距离，其中注视时长为正相关，其余均为负相关）和李萨如平滑眼追踪 3 个模式的垂直位置差（均为负相关）。

结论 本研究中探索了精神分裂症患者的眼动测量视觉探索和认知功能之间的关系。患者在视觉领域的功能受损与眼动测量之间存在显著的联系，表明视觉学习功能受损越严重，患者在视觉探索任务中表现越差。

关键字：精神分裂症；认知功能；眼球运动；相关性。

Association between Body Mass Index and Suicide Attempts in Chinese Patients with First-episode Drug-na?ve Major Depressive Disorder

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Objective In patients with major depressive disorder (MDD), the relationship between body mass index (BMI) and risk of suicide attempts (SA) remains unclear, and findings are controversial. The aim of this study was to investigate the relationship between BMI and SA in a Chinese population with first-episode drug-na?ve (FEDN) MDD.

Methods A total of 1718 patients with FEDN MDD were enrolled in this cross-sectional study. Their socio-demographic characteristics as well as anthropometric data were collected. The 17-item Hamilton Rating Scale (HAMD-17) and Hamilton Anxiety Scale (HAMA) were used to assess the severity of depression and anxiety symptoms in all participants. Thyroid hormones, lipid profile, and fasting blood glucose (FBG) were measured. A history of suicide attempts was verified based on medical records and interviews with patients and their family members. Multiple logistic regression analysis was used to estimate the association between BMI and the risk of SA. Threshold effects were examined by a two-piecewise logistic regression model.

Results Multiple logistic regression analysis showed that BMI was independently and negatively correlated with SA (OR = 0.91, 95%CI: 0.85 to 0.98, P = 0.014) in patients with FEDN MDD after adjusting for covariates. Smoothing plots also revealed a non-linear (L-shaped) relationship between BMI and SA, and a two-piecewise logistic regression model was used to calculate the inflection point of BMI as 22.1 kg/m2. On the left of the inflection point, a negative association between BMI and SA was detected (OR = 0.54, 95%CI: 0.42 to 0.70, P< 0.001), while no significant association was observed on the right side of the inflection point (OR = 1.01, 95%CI: 0.93 to 1.10, P = 0.750).

Conclusion Our results suggest that lower BMI is associated with a higher risk of SA in Chinese patients with FEDN MDD, especially in those with BMI below 22.1 kg/m2.

关键字：Key words: association, suicide attempt, major depressive disorder, non-linear relationship

有自残行为和无自残行为的双相障碍患者认知功能的差异研究

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目的 研究表明双相情感障碍有自残行为和无自残行为的人在临床症状以及认知功能等多方面存在差异，但既往研究尚未有一致性结论。本研究采用他评与自评量表以及认知功能评估表 MCCB 来对两类患者进行症状及认知功能评

方法 250 名受试者（有自残行为的双相障碍患者 85 人，没有自残行为的双相患者 52 人和正常对照组 113 人）完成了一组关于病情严重的他评（HAMD、HAMA、BPRS 和 YMRS）和自评量表（PHQ-9，SHAPS，GAD-7，匹兹堡睡眠量表，失眠严重程度量表，大五人格量表，CTQ,人际关系量表，功能失调态度量表，MDQ，社会支持量表）以及认知功能的评估。采用 t 检验、非参数检验、方差分析等统计学方法来评估比较人口学资料、患者的症状严重程度和认知功能差异。

结果 与对照组相比，双相自残组在 PHQ-9、GAD-7、匹兹堡睡眠量表、失眠严重程度、CTQ、人际关系、功能失调态度、MDQ 评分较高（P<0.05)；在 SHAPS、大五人格、社会支持、部分认知功能（BACS SC、NAB Mazes、MSCEIT ME、CPT-IP）上评分明显较低（P<0.05）；在 HVLT、BVMT 上无明显差异（P>0.05)。与对照组相比，双相非自残组在 PHQ-9、GAD-7、匹兹堡睡眠、失眠严重程度、CTQ、人际关系、功能失调态度量表评分较高（P<0.05)；在 SHAPS、大五人格、部分认知功能（BACS SC、HVLT、NAB Mazes、BVMT、CPT-IP）上评分较低（P<0.05）；在社会支持、MSCEIT ME 上无明显差异（P>0.05)。与双相非自残组相比，双相自残组在 PHQ-9、GAD-7、人际关系、功能失调态度、HAMD、HAMA，认知功能 BVMT 上评分较高（P<0.05）；在 SHAPS、社会支持、YMRS 上评分较低（P<0.05）；在匹兹堡睡眠、失眠严重程度、大五人格、CTQ、MDQ、BPRS，认知功能（TMT-A、TMT-B、BACS SC、HVLT、NAB Mazes、BVMT、MSCEIT ME、CPT-IP）上无明显差异（P>0.05）。

结论 与对照组相比，双相障碍患者存在认知功能损害。有自残行为的双相障碍患者其快感缺失程度和抑郁程度比无自残行为的双相障碍患者要高，并且其认知功能的损害相较于无自残行为的双相障碍患者更严重。社会支持差的双相患者自残行为发生率高。

关键字：双相情感障碍；认知功能；自残行为

光照联合经颅磁刺激治疗抑郁症快速起效的探索性研究

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目的 抑郁症是一种发病率高、自杀率高的精神疾病，目前临床药物治疗起效慢、疗效有限。因此，本研究结合临床治疗的重大需求，针对无创神经调控如何产生协同效应的科学问题，探索光照联合经颅磁刺激（Transcranial magnetic stimulation, TMS）快速起效治疗抑郁症，以及在不同 TMS 靶点的疗效差异。

方法 采用随机单盲对照的研究设计，纳入100例抑郁症受试者，随机分为四组，包括药物组（对照组）、药物+光照组、药物+光照+TMS（前额叶）组、药物+光照+TMS（枕叶）组。临床治疗方案为：光照治疗采用 10000 Lux 强度的白光，每次 30 分钟；TMS 治疗在光照治疗前 20 分钟内，采用间歇性 θ 频段爆发式脉冲刺激模式，根据组别不同靶点分别为左侧背外侧前额叶和左侧枕叶，每次 1200 个脉冲；抗抑郁药物使用限制为选择性5-羟色胺再摄取抑制剂；干预疗程为5天，每天 1 次。主要结局指标为有效率，定义为汉密尔顿抑郁量表（Hamilton Depression Scale, HAMD）减分率≥50%。

结果 药物+光照+TMS（枕叶）组、药物+光照+TMS（前额叶）组、药物+光照组、药物组四组间的有效率具有统计学差异，分别为 66.7%、66.7%、40%、33.3%；缓解率具有统计学差异，分别为 45.8%、41.7%、8.0%、8.3%。通过协方差分析，四组干预后 HAMD 评分（F = 3.917, P = 0.011）、汉密尔顿焦虑量表躯体性焦虑因子分（F = 2.878, P = 0.040）、贝克自杀意念量表评分（F = 3.639, P = 0.016）、自杀意念强度因子分（F = 4.071, P = 0.009）、自杀风险因子分（F = 3.639, P = 0.016）、斯奈思—汉密尔顿快感量表总分（F = 3.293, P = 0.024）、交往/感觉因子分（F = 2.808, P = 0.044）、兴趣/饮食因子（F = 3.539, P = 0.018）分存在统计学差异。枕叶联合治疗组和前额叶联合治疗组在改善抑郁症状、自杀严重度、快感缺失症状方面均优于药物组，其中药物+光照+TMS（枕叶）组在改善焦虑上优于药物+光照组。

结论 研究发现枕叶联合治疗组和前额叶联合治疗组两种神经调控方式都能够在短期内快速起效，有效改善了快感缺失症状。

关键字：抑郁症；光照治疗；经颅磁刺激；快速起效

鱼油补充治疗对抑郁症患者骨转化标志物的影响：一项双盲随机对照研究

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目的 探讨首诊未用药抑郁症患者骨转化标志物的变化，并进一步探索鱼油辅助治疗对抑郁症患者骨转化标志物的影响。

方法 横断面研究中纳入 139 名首诊未用药抑郁症患者和 55 名健康对照。采用 Mann-Whitney U Test 对抑郁症组和对照组的骨转化标志物包括：β-胶原特殊序列（β-Cross Laps，CTX）、降钙素（thyrocalcitonin，hCT）、骨钙素（osteocalcin，OC）、甲状旁腺激素（parathyroid hormone，PTH）以及 I 型原胶原 N 端前肽（Type I procollagen N-terminal pre-peptide，PINP）进行比较。随访研究为 n-3 多不饱和脂肪酸（n-3 poly-unsaturated fatty acids, n-3 PUFAs）辅助文拉法辛治疗抑郁症的随机双盲安慰剂对照临床试验。横断面研究中有 72 名首诊未用药抑郁症患者参与临床试验，采用随机数字表法将受试者分为安慰剂组和鱼油组。分别在基线、治疗后 4 周以及治疗后 12 周进行随访评估。本研究为该临床试验的二次分析，采用广义估计方程（generalized estimating equation，GEE）来分析骨转化标志物在治疗前后的变化。

结果 首诊未用药抑郁症患者血清的 PINP 水平跟健康对照相比较显著升高（z=2.233，p=0.026）。分别在基线和治疗后12周对安慰剂组和鱼油组的骨转化指标进行组间比较，发现鱼油组和安慰剂组 CTX（Wald χ2=4.848，p=0.028）、OC（Wald χ2=6.178，p=0.013）和 PINP（Wald χ2=3.759，p=0.053）的组间差异具有统计学意义。分别在安慰剂组和鱼油组对不同随访时点的骨转化指标进行重复测量时间比较，发现 CTX（Wald χ2=7.188，p=0.007）的差异具有统计学意义。进一步进行简单效应分析后发现，治疗后 12 周的安慰剂组与鱼油组的 OC 及 PINP 水平存在统计学差异，鱼油组均高于安慰剂组（P＜0.05）；而在安慰剂组中，治疗后 12 周 CTX 和 OC 水平与基线相比较均降低（P＜0.05）。

结论 首诊未用药抑郁症患者骨形成标志物增加，文拉法辛抗抑郁治疗能同时降低抑郁症患者的骨吸收和骨形成标志物，而 n-3 PUFAs 辅助治疗能升高骨形成标志物。

关键字：抑郁障碍；n-3 多不饱和脂肪酸；骨转化标志物；骨形成；骨吸收。

Prediction of The Antipsychotic Efficacy by Polygenetic Risk Scores Based on Therapeutic-response Related Brain Indices

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Objective Polygenic risk scores (PRS) and some neuroimaging biomarkers have been proved related to schizophrenia. In this study, we aimed to predict the antipsychotic efficacy by combination of neuroimaging and genetic factors.

Methods A total of 2674 patients with schizophrenia were included, 2298 of which from CAPOC cohort were enrolled as discovery cohort, and the remained 376 patients were set as validation cohort (286 from CAPEC cohort and 87 from the Xinxiang cohort). We firstly conducted the GWAS with PANSS reduction rate as phenotype in the discovery cohort. Then the Mendelian randomization studies were conducted to detect therapeutic-response related brain indices, with 3144 brain imaging phenotypes (summary data from GWASs of brain imaging phenotypes in UK Biobank) as exposure and antipsychotic efficacy (summary data from the GWAS result in CAPOC cohort) as outcome. Next, the PRSs based on GWASs of therapeutic-response related brain indices were calculated. Finally, we compared the PRSs between treatment response (TR) group and Non-TR group.

Results Seven therapeutic-response related brain indices were found, including volume of grey matter in left supracalcarine cortex (ubm-a-118, P_FDR = 0.027), volume of grey matter in left cuneal cortex (ubm-a-88, P_FDR = 0.029), mean L3 in medial lemniscus (right) on FA skeleton (ubm-a-445, P_FDR = 0.037), volume of grey matter in right lateral occipital cortex, superior division (ubm-a-69, P_FDR = 0.037), functional connectivity of bilateral anterior cuneus and bilateral angular gyrus (ubm-a-2323, P_FDR = 0.037), volume of grey matter in right central opercular cortex (ubm-a-109, P_FDR = 0.042), and mean thickness of posteriorcingulate in the right hemisphere (ubm-a-3053, P_FDR = 0.046). In discovery cohort, the difference of PRS based on ubm-a-109 was significant between early-TR group and Non-early-TR group (P = 0.043). We also detected the differences of the PRSs in first-episode patients and recurrent patients separately. In first-episode patients, the PRS based on ubm-a-88 was significant between early-TR group and Non-early-TR group (P = 0.047), and the PRS based on ubm-a-445 was significant between TR group and Non-TR group (P = 0.046). In recurrent patients, the PRS based on ubm-a-109 was significant between early-TR group and Non-early-TR group (P = 0.011), which was in consistent with the result in whole sample, and the PRS based on ubm-a-3053 was significant between TR group and Non-TR group (P = 0.048). As for CAPEC cohort, the PRS based on ubm-a-109 was significant between early-TR group and Non-early-TR group (P = 0.032) in first-episode patients. As for Xinxiang cohort, the PRSs based on ubm-a-109 (P = 0.012) and ubm-a-445 (P = 0.037) were significant between TR group and Non-TR group.

Conclusion The potential clinical utility of these findings warrants further investigation of these effects in patients receiving single medication.

关键字：Antipsychotics; Therapeutic response; Mendelian randomization study; Central Opercular Cortex; Polygenic risk scores

What Somatization Symptoms in Patients with Digestive Disease Could Be Signs of The Risk of Anxiety and Depression

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Objective :Anxiety and depression symptoms are highly prevalent in patients with digestive diseases.Comorbidity emotional problem can exacerbate physical suffering and exert direct impacts on life quality of patients with physical disease.Solving these problems depends on the physician's awareness of anxiety and depression.Some symptoms of emotional problem are expressed through somatization which increase the difficulty to be diagnosed. The current study aimed to explore the interaction pattern between somatization and emotional problem from a symptom perspective, hoping to identify characteristic symptoms from anxiety and depression in patiens with digestive diseases and help physicians improve the ability to diagnose physical -mental Comorbidity.

Method This study investigated the interaction relationship between somatization and anxiety and depression in a sample of Chinese patients diagnosed with chronic digestive disease at Shiyan First Hospital in Hubei province (N = 960, 56.6% females; M age = 36.9, SD age = 9.7, range: 18-63) using network analysis. The Symptom Checklist-90 was used to assess somatization, anxiety, and depression. Graph Gaussian Model was utilized to estimate the regularized correlation network structure.

Results It revealed that anxiety symptoms “feeling so restless that couldn’t sit still” and “feeling that familiar things are strange or unreal” and depression symptoms “feeling of being trapped or caught” were central symptoms within their symptom communities.Somatization symptom “a lump in the throat” was the key symptom to activate anxiety or depression symptoms. Meanwhile, somatization symptoms “trouble getting in the breath” and “numbness or tingling in parts of the body” were important somatization symptoms correlated with central anxiety symptoms, and “heavy feelings in arms or legs” and “soreness of muscles” were highly connected with central depression symptoms.

Conclusion These findings provided a novel perspective on what somatization symptoms should be considered for the detection of anxiety or depression in digestive patients.

关键字：Digestive patients; Somatization; Anxiety; Depression; Network analysis

精神病临床高危与首发患者错误监控缺陷通过解体症状与临床自知力对社会功能的间接影响

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目的 社会功能对维持心理健康至关重要。社会

功能缺陷是独立于精神分裂症患者临床状态的长期显著特征，也是精神病临床高危被试转化的风险因素。错误监控在人们适应社会生活中起着关键作用，研究表明错误监控功能缺陷可能是孤独症患儿社会功能缺陷的基础。本研究旨在观察错误监控功能（由错误相关负波（ERN）的振幅大小表示）对精神病临床高危与首发临床队列的社会功能的直接（DE）和间接影响（IDE）。

方法 本研究招募 100 例临床队列被试（包括精神病临床高危与首发患者）和 49 例健康对照，记录他们在一项 Flanker-Go/NoGo 任务中的头皮脑电信号，检测 ERN 幅值。临床评估采用阳性和阴性综合征量表（PANSS）、自知力评估量表（SAI）和总体功能的社会和角色量表。使用 R 软件的“lavaan”包进行路径分析。

结果 与健康对照组相比较，临床队列组的 ERN 负向幅值显著减小（F1, 145=19.58, p<0.001，partial ?2 = 0.12, 95%CI: 0.04–0.22）。相关分析表明，ERN 幅值、PANSS 的解体症状因子、临床自知力总分、社会功能之间存在显著相关关系（p<0.05）。然而，路径分析结果显示 ERN 对当前社会功能的直接影响不显著（DE:?0.071, p=0.341），但通过 PANSS 的解体症状因子（IDE: -0.139, p=0.009）与临床自知力总分（IDE: -0.085, p=0.041）对社会功能有间接影响。

结论 本研究首次借助事件相关电位挖掘从精神病前驱期至精神病首发阶段社会功能缺陷的脑电生理机制，以期为早期改善患者社会功能、降低精神病高危群体的转化率提供靶向干预措施。研究表明错误监控功能与社会功能相关显著，但患者的解体症状与自知力水平在其中发挥着完全中介效应，提示针对错误监控功能的溯源脑区进行靶向干预，也许能改善患者的解体症状并提高患者的自知力，进而提高患者的社会功能。

关键字：错误相关负电位；临床自知力；解体症状；精神病临床高危；首发精神分裂症；社会功能

童年期创伤、BDNF 水平与首发精神分裂症认知功能、大脑皮层厚度的相关性研究

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目的 探究童年期创伤与首发精神分裂症患者的 BDNF 水平、认知功能、大脑皮层厚度之间的相关性

方法 本课题采用病例对照研究的方法。入组符合《美国精神障碍诊断与统计手册第 4 版》（DSM-IV）诊断标准的首发 SCZ 患者，采用童年期创伤问卷（CTQ）评估童年期创伤经历、阳性和阴性症状量表（PANSS）评估患者的精神病理症状；应用 MCCB 评估认知功能水平，并对符合条件的研究对象进行 MAGNETOM Prisma 3.0T 磁共振扫描测量大脑皮层厚度；采用酶联免疫吸附法测定血浆 BDNF 浓度。共有首发 SCZ 患者 124 例及性别、年龄与之匹配的健康对照 103 例完成认知功能评估和核磁共振成像扫描，纳入此研究分析。比较认知功能、大脑皮层厚度的组间差异，并采用偏相关分析探究首发 SCZ 患者的童年期创伤、BDNF 水平、差异脑区皮层厚度、认知功能之间的相关性，根据相关分析结果，采用中介效应模型探讨童年期创伤、大脑皮层厚度、认知功能之间的关系。

结果 2. 首发 SCZ 患者的 MCCB 总分及各个维度得分显著低于健康对照组（均 P<0.007）。与健康对照相比，首发 SCZ 患者的左右侧大脑皮层平均厚度及多个脑区的皮层厚度显著降低（均 P<0.00034）。首发 SCZ 患者皮层厚度异常与童年期创伤、认知功能存在相关性。经 Bonferroni 多重校正后只有情感忽视与右侧梭状回皮层厚度仍存在显著的负相关性（r=-0.29，P=0.001）。经校正后左侧梭状回皮层厚度（r=0.33，P=2.244×10-4）和言语学习和记忆、右侧枕颞侧沟皮层厚度（r=0.29，P=0.001）与加工速度以及右侧梭状回皮层厚度与言语学习和记忆（r=0.33，P=2.131×10-4）、加工速度（r=0.30，P=0.001）、MCCB 总分（r=0.30，P=0.001）仍存在显著的正相关性。BDNF 水平与首发 SCZ 患者的认知功能、大脑皮层厚度均没有相关性。中介效应分析表明，右侧梭状回皮层厚度在情感忽视和 MCCB 总分、言语学习和记忆中起到中介作用。

结论 年期创伤与首发 SCZ 患者的认知缺陷、大脑皮层厚度变薄有关，BDNF 水平与这两者均无显著的相关性。大脑皮层厚度能够影响首发 SCZ 患者的认知功能。右侧梭状回皮层厚度变薄在情感忽视和认知缺陷，尤其是言语学习和记忆受损中起到中介效应。

关键字：精神分裂症，童年期创伤，BDNF，认知功能，皮层厚度

基于加权基因共表达网络分析的抑郁症患者转录组学研究

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目的 抑郁症（Major Depressive Disorder, MDD）是全球致残的主要原因之一，然而 MDD 的病因机制尚不清楚。既往研究显示多种基因在共表达网络中的相互作用可能参与了 MDD 的病理生理过程。

方法 本研究纳入 137 例 MDD 患者，和年龄、性别、体重指数匹配的健康对照 131 例。检测外周静脉的血转录组学指标，使用加权基因共表达网络分析（weighted gene co-expression network analysis，WGCNA）识别与 MDD 疾病相关的模块，使用京都基因与基因组百科全书（Kyoto Encyclopedia of Genesand Genomes, KEGG）和基因本体论（Gene Ontology, GO）两个数据库对差异的模块进行功能富集，同时寻找关键（Hubgene, Hub）基因。差异指标经过 FDR 多重比较校正，q<0.05 表示差异具有统计学意义。

结果 经质控后纳入 10769 个基因进行分析。WGCNA 共识别出 3 个与 MDD 相关的模块，分别是黄色模块包含 1183 个基因（r=0.21, P=0.0006），绿色模块包含 858 个基因（r=-0.17, P=0.005），淡绿色模块包含 51 个基因（r=0.18, P=0.003）。经 GO 和 KEGG 富

集分析，黄色模块主要富集到 SAPK 信号通路、 PRR 信号通路、Toll 样受体信号通路、IL-6 产生过程、Notch 信号通路、NF-κB 信号通路、Th17 细胞分化、疱疹病毒感染等炎症免疫过程相关通路等。绿色模块主要富集到 RNA 代谢、线粒体基因表达、细胞呼吸等生物调控相关过程，以及帕金森病、亨廷顿病、非酒精性脂肪肝、糖尿病性心肌病等神经退行性疾病和代谢性疾病相关的通路。黄色模块识别出 3 个 Hub 基因，分别是 KPNB1、 KPNA4、PSEN1，绿色模块识别出 5 个 Hub 基因，分别是 RPS15A、RPS21、 RPL27A、RPL5 和 RPL7A。

结论 MDD 患者的炎症、免疫、神经发育与凋亡相关的基因在转录过程中存在异常表达，KPNB1、KPNA4、PSEN1、RPS15A、RPS21、 RPL27A、RPL5 和 RPL7A 是与 MDD 相关的 Hub 基因，可能参与 MDD 的发生发展。

关键字：抑郁症，转录组学，加权基因共表达网络分析

抗炎药治疗重度抑郁症的疗效和可接受性研究：一项系统综述和网络荟萃分析

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目的 虽然抗炎药物被认为具有潜在的抗抑郁作用，但仍缺乏比较不同抗炎药物抗抑郁作用的充分证据。近年来，抗炎药物的抗抑郁作用受到广泛关注，新的试验不断更新证据。我们使用最新证据进行网络荟萃分析（NMA），比较不同抗炎药物对重度抑郁症的影响。

方法 我们检索了 PubMed、Embase、Web of Science 、 Cochrane Review 、 Cochrane Trial 和 ClinialTrails.gov 数据库，并筛选符合条件的随机临床试验。研究纳入了包含 ω-3 脂肪酸、非甾体抗炎药（NSAIDs）、吡格列酮、米诺环素、N-乙酰半胱氨酸（NACs）、他汀类药物、皮质类固醇和单克隆抗体在内的抗炎药物。本荟萃分析的主要结果指标是疗效和可接受性，次要结果指标是缓解率和因副作用而退出试验的比率。我们计算了比值比（OR）和 95%置信区间（95%-CI）。本研究计划已在 PROSPERO（CRD42023422004）注册。

结果 共纳入 48 项研究。在疗效方面，抗炎药物（OR=2.04，95% CI：1.41-2.97，p=0.0002）与安慰剂相比表现出显著的抗抑郁作用。亚组分析显示，吡格列酮（OR=28.50，95% CI：3.16-257.44，p=0.003）、NACs（OR=1.97，95% CI：1.06-3.65，p=0.03）、皮质类固醇（OR=9.92，95% CI：1.08-91.47，p=0.04）和他汀类药物（OR=4.41，95% CI：1.33-14.60，p=0.02）优于安慰剂。根据累积排名曲线下面积（SUCRA）值，吡格列酮（SUCRA 值=93.3）是对 MDD 患者抑郁症状最有效的抗炎药物。在可接受性方面，抗炎药物与安慰剂相似（OR=0.91， 95% CI：0.74-1.11， p=0.35），NSAIDs（SUCRA 值=81.6）具有最佳可接受性。此外，在敏感性分析中，他汀类（OR=4.41，95% CI：1.33-14.60）表现出稳定的抗抑郁作用。

结论 抗炎药物表现出显著的抗抑郁作用和良好的可接受性。吡格列酮比其他药物更有效。NSAIDs 具有最佳的可接受性。然而，由于纳入研究数量和异质性的限制，上述结果必须谨慎解释。

关键字：抗炎药，重度抑郁症，网状荟萃分析

Cognitive Benefits and Side Effects of Buspirone: A Systematic Review and Meta-Analysis

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Objective Cognitive impairment is a common symptom of various diseases, yet effective treatment methods remain elusive. Buspirone, a 5-hydroxytryptamine 1A (5-HT1A) receptor agonist, is believed to have potential cognitive benefits. However, no studies have explored the potential benefits and overall effects of buspirone on different cognitive domains, as well as its potential side effects. To address this gap, we conducted a systematic review and meta-analysis to investigate the potential cognitive benefits of buspirone in different domains, while also examining the possibility of side effects.

Methods We searched the PubMed, Embase, Web of Science, Cochrane Review, Cochrane Trial and ClinialTrails.gov databases and screened for eligible randomized clinical trials. The primary outcome measures of this meta-analysis were cognitive benefits and side effects (adverse events), and the secondary outcome measures were acceptability and dropout rate due to side effects. We used effect size and 95% confidence interval (95% CI) to present the continue results and used odds ratio (OR) and 95% CI to present the binary results.

Results total of 16 studies were included. In terms of cognitive benefits, buspirone (g=0.20, 95%CI: 0.06-0.34) showed significant cognitive benefits compared to placebo. Subgroup analysis showed that visual learning and memory (g=0.49, 95%CI: 0.21-0.78), logical reasoning (g=0.42, 95%CI: 0.14-0.71), and attention (g=0.37, 95%CI: 0.13-0.61) were superior to placebo. Buspirone showed higher rate of dizziness (OR=4.66, 95%CI: 2.07-10.47) than placebo. Meanwhile, there was no significant difference in acceptability (OR=1.11, 95% CI: 0.75-1.64) and dropout rates due to adverse events (OR=1.65, 95% CI: 0.77–3.52) between buspirone and placebo.

Conclusion In summary, we found that buspirone demonstrated significant cognitive benefits compared to placebo, particularly in the domains of visual learning and memory, logical reasoning, and attention. However, buspirone can cause side effects such as dizziness, constipation, and gastric distress. Nevertheless, there was no difference in acceptability and dropout rate due to adverse events between buspirone and placebo.

关键字：Buspirone, cognitive benefits, side effects

Plasma Exosomal CircRNA-miRNA-mRNA Network Construction and Its Diagnostic Efficacy Identification in First-episode Schizophrenia

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Objective The exosomal of circRNA-miRNA-mRNA networks in first episode schizophrenia (FOS) have not reported yet. We constructed exosomal circRNA-miRNA-mRNA networks, and their diagnostic efficiency was examined in FOS.

Methods The expression level of exosomal circRNA, miRNA and mRNA derived from 10 FOS patients and 10 healthy controls (HC) was determined by high throughput sequencing. CircRNA-miRNA-mRNA networks was constructed based on differently expressed (DE)- circRNAs, miRNAs and mRNAs. Then 3 circRNA-miRNA-mRNA were selected for subsequent research. Expression level were validated using quantitative real-time (qRT)-PCR in 32 FOS and 31 HC. Finally, Receiver operating characteristic (ROC) analysis and correlations analysis were performed.

Results There were 26,194 DE-circRNA, 26 DE-miRNA, 2637 DE-mRNA in plasma exosome in FOS patients. Then the circRNA-miRNA-mRNA network consisting of 9 circRNA, 6 miRNA and 16 mRNA, were constructed. 3 network (chr15:93496587-93499879+ -- hsa-miR-20b-5p – ANKH, chr7:40037093-40087476+ -- hsa-miR-22-3p--C5orf24, chr19:17883266-17883550+ -- hsa-miR-502-3p -- B4GALT5) were selected for subsequent research. The expression level of 9 genes in validation data were consistent with results of the high-throughput sequencing. The AUC of the circRNA-miRNA-mRNA network was higher than circRNA, miRNA or mRNA alone in plasma exosome, and the AUC of mRNAs in plasma exosome was higher than mRNAs in peripheral blood. The expression level of chr15:93496587-93499879+, chr7:40037093-40087476+, hsa-miR-22-3p and B4GALT5 were correlated with the PANSS score.

Conclusion The exosomal circRNA-miRNA-mRNA in FOS were constructed, and they had the potential to be used as a biomarker for FOS.

关键字：schizophrenia; exosome; circRNA; miRNA; mRNA; ROC

抑郁症患者存在多个血常规炎性指标异常

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目的 大量证据表明，免疫异常和炎症可能在抑郁症的病理生理学中发挥重要作用。本研究以血常规中中性粒细胞与淋巴细胞比值（NLR）、单核细胞与淋巴细胞比值（MLR）、血小板与淋巴细胞比值（PLR）和全身免疫炎症指数（SII）为炎症标志物，探讨炎症与抑郁之间的关系。

方法 本研究纳入 239 例抑郁症患者和 241 例健康对照者的全血细胞分析数据，进行横断面研究。抑郁症患者进一步按照诊断名称被分为三个亚组：伴有精神病症状的重度抑郁发作组、不伴有精神病症状的重度抑郁发作组和中度抑郁发作组。我们分析了参与者的中性粒细胞（NEU）、淋巴细胞（LYM）、单核细胞（MON）和血小板（PLT）计数，计算并比较了 NLR、MLR、PLR 和 SII 在各组之间的差异，并探讨了抑郁与这些炎性指标之间的关系。

结果 PLT、MON、NEU、MLR 和 SII 在抑郁症患者和对照组之间存在显著差异。三个抑郁症患者组的 MON 和 MLR 均显著高于正常对照组。两个重度抑郁发作患者组的 SII 显著高于正常对照组，中度抑郁发作组中的 SII 相比正常对照组呈增加趋势，但不显著。抑郁症患者各个亚组之间无显著差异。

结论 MON、MLR 和 SII 升高可作为抑郁症炎症反应的标志。这些指标在三组不同程度、不同临床特征的抑郁症患者亚组之间没有差异，意味着其不受临床症状和疾病阶段影响，可能是抑郁症的生物学指标。

关键字：抑郁症；中性粒细胞与淋巴细胞比值；单核细胞与淋巴细胞比值；血小板与淋巴细胞比值；全身免疫炎症指数

Altered Static and Dynamic Functional Connectivity Strength in Adolescents with First-episode Major Depressive Disorder and Previous Suicide Attempts

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Objective A growing body of evidence showed that corticostriatolimic system dysfunctions were linked to suicide behaviors in individuals with major depressive disorder （MDD). However, the neurobiological mechanism that makes depressed youths more vulnerable to suicide is poorly understood. Therefore, this study aimed to investigate the functional connectivity pattern in depressed adolescents with prior suicide attempts.

Methods A total of 115 depressed adolescents with and without prior suicide attempts (SA) and 35 age-, education-, and gender-matched healthy controls underwent resting-state functional imaging (R-fMRI) scans. The dynamic FCS (dFCS) variability and static FCS (sFCS) metrics were measured.

Results We found that the dFCS variability of the major depressive disorder with suicide attempts (MDD-SA) group was higher than that of the major depressive disorder

without suicide attempts (MDD-NSA) group in the right caudate nucleus/pallidum, right anterior cingulate gyrus and left medial superior frontal gyrus, and the MDD-SA group showed higher sFCS values in the bilateral cuneus . dFCS variability of the left medial superior frontal gyrus and right anterior cingulate gyrus was significantly correlated with the SI intensity rating scores. Combining the altered dFCS and sFCS metrics could improve the classification performance for discriminating MDD-SA from MDD-NSA (area under the curve: 0.780).

Conclusion Our findings suggest that abnormal connectivity patterns in multiple brain regions involving cognition and emotion control, and self-referential processing are associated with the increasing risk of vulnerability to a suicide attempt in depressed adolescents. Furthermore, FCS could serve as a sensitive biomarker for revealing the neurobiological mechanisms underlying suicidal vulnerability.

关键字：major depressive disorder; suicide; adolescence; functional MRI; FCS.

Functional Near-Infrared Spectroscopy Analysis Based on Subtypes of Anhedonia in Patients with Major Depressive Disorder

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Objective The main objective of the present study was to assess differences in cerebral blood flow using functional near-infrared spectroscopy (fNIRS) between patients with Major Depressive Disorder (MDD) who exhibit varying levels of anhedonia compared with healthy individuals.

Methods A total of 122 MDD patients and 39 age- and gender-matched healthy controls (HC) were recruited in this study. We measured frontal haemodynamic responses to a verbal fluency task (VFT) using a 48-channel fNIRS imaging device, while levels of anhedonia and severity of depression were assessed by using the Dimensional Anhedonia Rating Scale (DARS) and the Hamilton Depression-17 (HAMD-17) separately. A latent profile analysis was performed to establish profile-dependant differences in subtypes of anhedonia based on the participants' responses to DARS in MDD group.

Results MDD patients were identified and classified as low-level (43%) and high-level (57%) of anhedonia. Compared to healthy controls, only MDD patients with high-level had bilaterally lower oxyhaemoglobin responses to the VFT tasks in the dorsolateral prefrontal cortex (DLPFC), orbitofrontal and frontopolar area. HAMD-17 total scores were associated with high-level of anhedonia in MDD patient compared to low-level.

Conclusion This study identified two distinct subtypes of anhedonia in individuals with MDD and showed that higher levels of anhedonia were associated with greater depression severity and impaired functioning of the prefrontal cortex. These findings suggest that interventions targeting anhedonia may be the most effective approach for clinicians seeking to improve MDD patients' outcomes.

关键字：fNIRS, Anhedonia, Major Depressive Disorder

Altered Wavelet-based Amplitude in Cortical-striatal-limbic Predicting Clinical Effects: An 8-week Follow-up in Unmedicated Patients with Schizophrenia

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Objective The current paper aimed to explore alternations of brain regional neural activity associated with the patients with schizophrenia after 8-week of treatment using wavelet-based amplitude of low frequency fluctuation (wavelet-based ALFF) and whether these treatment-associated brain regional activity can predict the clinical effects.

Methods 43 unmedicated schizophrenia patients and 53 healthy controls matched with age were included. Wavelet-based ALFF for schizophrenia patients at baseline and 8-week follow-up as well as healthy controls at baseline were measured. Correlation analysis and elastic net were used to detect the relationship between local neural activities and clinical characteristics.

Results Compared with healthy controls, wavelet-based ALFF values of right olfactory, bilateral caudate were increased, left middle frontal gyrus, left inferior frontal gyrus opercularis, right supramarginal, right inferior frontal triangularis/opercularis were decreased in patients at baseline. After treatment, wavelet-based ALFF in bilateral caudate, left putamen, right middle cingulum and right inferior frontal gyrus opercularis were increased, right precentral/postcentral was still decreased in patients. Compared with patients at baseline, wavelet-based ALFF values of left putamen in patients after treatment were increased. Correlation analyses showed bilateral caudate and right precentral/postcentral associated with social cognition. The wavelet-based ALFF values of combined with all abnormal regions at baseline could predict the score of attention/vigilance, working memory, verbal learning, visual learning, reasoning, and problem solving, social cognition, overall composite of cognition, and positive symptoms by elastic net.

Conclusion Altered wavelet-based amplitude in cortical-striatal-limbic might predict clinical effects after

8-week treatment in unmedicated patients with schizophrenia.

关键字：schizophrenia, wavelet-based, ALFF, cortical-striatal-limbic, clinical effect

广泛性焦虑障碍、创伤后应激障碍和社交焦虑障碍存在共有和疾病特有的形态相似性网络改变

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目的 广泛性焦虑障碍 (generalized anxiety disorder，GAD)、创伤后应激障碍 (posttraumatic stress disorder， PTSD) 和社交焦虑障碍 (social anxiety disorder ，SAD)之间高度共病，且症状存在重叠，这促进了对疾病共有的和特异性的神经生物学研究。形态相似性网络(morphometric similarity network，MSN)可以在个体水平分析大脑宏观结构和微观结构的形态特征。本研究旨在探究 GAD、PTSD 和 SAD 之间共有和疾病特有的 MSN。

方法 本研究采集 34 名 GAD 患者、63 名 PTSD 患者、36 名 SAD 患者和 52 名健康对照者（health controls，HC）的 T1 加权（T1-Weighted, T1w)成像数据，提取 308 个脑区域的 7 个形态特征为每个受试者构建 MSN。随后使用协方差分析和事后检验来比较 MSN 的组间差异。此外，我们还比较了区域 MSN 在 GAD、PTSD、SAD 和 HC 之间的差异。最后，我们分析了 MSN 与临床特征之间的关系。

结果 基于 T1w 影像学的形态特征，构建 308?308MSN 矩阵，并确定 GAD、PTSD、SAD 和 HC 中个体的 MSN。根据协方差分析，4 组被试的 MSN 在 5 条边上存在显著差异：左颞上回和右中央前回之间，左中央前回和右楔叶_part1/part2 之间，右额中回和右颞上回之间，以及左楔叶_part1 和右顶下小叶（FDR 矫正后，$p < 0.01$）。事后分析显示，与 SAD 和 HC 相比，GAD 和 PTSD 两组患者在左颞上回和右中央前回之间的形态相似性（morphometric similarity，MS）增加，在左中央前回和右楔叶_part1/part2 之间以及右额中回和右颞上回之间的 MS 减少。与 GAD、PTSD 和 HC 相比，SAD 组患者右额中回和右颞上回之间以及左楔叶和右顶下小叶之间的 MS 增加。此外，在区域 MSN 分析中，与 SAD 相比，GAD 在左中央前回的区域 MSN 增加。与 HC 和 SAD 相比，PTSD 中发现左中央前回区域 MSN 增加。在偏相关分析中，PTSD 组左颞上回和右中央前回之间的 MS 值与汉密尔顿焦虑评分呈轻度正相关。

结论 GAD、PTSD 和 SAD 之间的 MSN 存在共有和疾病特有的改变，这对疾病的鉴别诊断和特有的靶向干预具有重要意义。

关键字：广泛性焦虑障碍、创伤后应激障碍、社交焦虑障碍、形态相似性网络

Influencing Factors and Correlation Analysis of Cognitive Function and Cerebral Cortex Thickness in Patients with Schizophrenia

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Objective Cognitive impairment is one of the core characteristics of schizophrenia. Cortical thickness is a quantitative indicator of the density, cell structure, and arrangement of neuronal and glial cells, synaptic spines, and passing axons. Our research objective was to compare the differences of cognition and cortical thickness in patients with schizophrenia and healthy controls, and to explore their associations in the two groups.

Methods One hundred and sixty-seven patients who met the ICD-10 diagnostic criteria for schizophrenia and 72 age- and gender- matched healthy controls were enrolled in the study. The MATRICS Consensus Cognitive Battery (MCCB) in Chinese version was used to assess cognitive function of all subjects. Cerebral cortical thickness was measured by structural magnetic resonance imaging (sMRI). Group differences of cognitive function and cerebral cortical thickness as well as their relationships were explored.

Results Age, gender, and education years were matched between schizophrenia patients and healthy controls (Ps>0.05). The total score of MCCB in patients was significantly lower than that in the control group [(44.25±9.89) vs. (58.24±7.81), t=-10.19，P<0.001]. The scores of the seven cognitive dimensions in the patient group were significantly lower than those in the control group (Ps<0.001). Multiple linear regression analysis using the total MCCB score of the patient group as the dependent variable showed that education level (β=0.42, t=-5.70, P<0.001) was a significant influencing factor of cognitive function, while age, gender, chlorpromazine equivalents, age of onset or the course of disease was not significantly correlated with the MCCB total score (Ps>0.05). The average cerebral cortical thickness in the schizophrenia group was significantly lower than that in healthy controls [(2.51±0.09) mm vs. (2.58±0.08) mm, t=-5.19, P<0.001]. Multiple linear regression analysis using the average cortical thickness of the patients group as the dependent variable showed that the course of the disease (β=-0.46, t=-5.94, P<0.001) and chlorpromazine equivalent (β=-0.21, t=-2.67, P=0.008) were significant influencing factors, while age, gender, education level or the age of onset were not significantly correlated with the average thickness of the cerebral cortex (Ps>0.05). In patients with schizophrenia, the average cortical thickness was positively related to the total score of MCCB (r=0.21, P=0.026) and positively correlated with working memory (r=0.22, P=0.018), while these correlations were not significant in the control group (Ps>0.05).

Conclusion In patients with schizophrenia, education level was a protective factor for cognitive function, and the course of disease and chlorpromazine equivalents

were adverse influencing factors of cerebral cortical thickness. The decrease of average cerebral cortical thickness was associated with cognitive dysfunction in patients with schizophrenia.

关键字：schizophrenia; cerebral cortical thickness; cognitive function

青春期前后网络游戏对认知能力影响的差异

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目的 网络游戏是很常见的休闲娱乐方式，但长时间使用互联网和游戏导致网络成瘾或游戏障碍在儿童、青少年群体中发病率显著升高。探索网络游戏对儿童、青少年认知的影响也越来越重要。本研究旨在探索网络游戏对进入青春期与未进入青春期的儿童、青少年认知能力影响的差异。

方法 共有 2640 名 6-18 岁青少年通过线上招募参加本研究。本研究收集了参与者过去半年内每周参与网络游戏的时间、年龄、性别、家庭基本状况等信息。使用数字符号转换测试(DSST)和威斯康星卡片分类测试(WCST)来评估神经认知功能，采用语音情绪识别测试来评估社会认知功能,以及使用长处与困难问卷来测量参与者的心理健康状况。采用具有交互作用项的多元线性回归模型来探索网络游戏时长对认知功能的影响在进入青春期与未进入青春期的儿童、青少年之间的差异。

结果 研究发现网络游戏时长与青春期的儿童、青少年认知存在显著相关，同时对于是否进入青春期的孩子带来的影响是存在差异的。在分析网络游戏时长对于 DSST、语音情绪识别、同伴关系问题，以及亲社会行为方面的影响时，是否进入青春期与网络游戏时长之间均存在交互效应。具体分析显示，在进入青春期的孩子中网络游戏时长对各方面认知的影响：DSST($\beta = 0.080$，$P = 0.002$)；语音情绪识别($\beta = -0.047$，$P = 0.002$)；同伴关系问题($\beta = 0.025$， $P < 0.001$)和亲社会行为($\beta = 0.023$, $P < 0.001$)。对于未进入青春期的孩子网络游戏时长对于各方面认知的影响：DSST($\beta = -0.103$， $P = 0.109$)；语音情绪识别($\beta = -0.155$，$P < 0.001$)；同伴关系问题($\beta = 0.066$ ，$P < 0.001$)和亲社会行为($\beta = 0.079$，$P < 0.001$)。

结论 网络游戏对于儿童、青少年的多方面认知功能均存在显著影响，但对于不同阶段（是否进入青春期）的儿童、青少年带来的影响是存在差异的。结果表明对于未进入青春期的青少年，网络游戏对认知能力的消极影响程度大于进入青春期的青少年。本研究提示对于未进入青春期的儿童、青少年更应该加强网络游戏的管理，针对青少年的网络游戏问题需要根据是否进入青春期给出不同的指导建议。

关键字：青少年，神经认知，网络成瘾，游戏障碍

稳定期精神分裂症患者童年创伤与元认知功能间的关系

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目的 精神分裂症是一组表现有认知功能缺陷的精神疾病，包括神经认知功能、社会认知功能以及元认知功能的缺陷。患者早年经历创伤性事件较多，研究证据表明童年创伤经历对精神分裂症患者神经认知功能和社会认知功能均具有负性影响。元认知是指个体在进行信息加工的同时，能够理解自己和他人的心理状态并作出相应行为反应的一种能力。然而，关于精神分裂症患者童年创伤与元认知功能间的关系研究较少，有研究显示两者间呈现一种正性关联。本研究试图探讨稳定期精神分裂症患者童年创伤水平与元认知功能间的关系。

方法 选取安徽省精神卫生中心住院和门诊的稳定期精神分裂症患者 81 例。采用童年创伤问卷(childhood trauma questionnaire, CTQ)评估精神分裂症患者的童年创伤经历，包括情感虐待(EA)、躯体虐待(PA)、性虐待 (SA)、情感忽视 (EN)和躯体忽视(PN) 5 个分量表。通过印第安精神疾病访谈(the indiana Psychiatric illness interview，IPII)，采用修订版元认知量表(MAS—A)对精神分裂症患者元认知功能进行评估，包括自我反省（S）、理解他人（O）、去中心化（D）、控制（M）4 个因子。同时采用阳性和阴性症状量表（PANSS）对精神分裂症患者症状作评估。分析患者童年创伤水平与元认知功能间的关系。

结果 Spearman 相关分析显示，患者 CTQ 的躯体虐待分与 MAS-A 的理解他人分和去中心化分呈正相关（$r=0.219$、$P<0.05$，$r=0.234$、$P<0.05$），具有统计学意义。控制年龄、性别、受教育年限、病程和 PANSS 评分后，CTQ 的躯体虐待分与 MAS-A 的去中心化分间的相关性仍存在（$r=0.251$，$P=0.035$），与理解他人分间的相关性不再具有统计学意义，而与控制分呈负相关（$r=-0.266$，$P=0.025$），具有统计学意义。

结论 精神分裂症患者早年躯体虐待经历与元认知间的正性关联，与一些研究的结果一致，这种关联性可能反应了创伤-元认知-内省间的复杂性，以及可能其他重要的影响因素的作用，这一点值得进一步深入研究。

关键字：稳定期精神分裂症；童年创伤；元认知

精神疾病患者言语流畅性任务下前额叶激活特征的近红外光谱成像研究

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目的 应用功能性近红外光谱成像（fNIRS）探讨抑郁障碍（D）、焦虑障碍（AD）、双相情感障碍（BP）和精神分裂症（SCH）患者言语流畅性任务（VFT）下前额叶激活的特征。

方法 于四川大学华西医院门诊和住院部招募符合《精神障碍诊断与统计手册（第 5 版）》诊断标准的 39 例 SCH 患者、205 例 D 患者、212 例 AD 患者以及 77 例 SCH 患者，使用 fNIRS 监测他们在 VFT 任务下前额叶血流动力学变化，使用症状自评量表（SCL-90）评估患者的临床症状。比较不同病种的患者平均氧合血红蛋白（HbO）浓度差异及 VFT 任务开始后 2~7 秒 HbO 的斜率（初始斜率）的差异，使用偏相关分析平均 HbO 浓度和初始斜率与临床症状之间的相关性。结果均通过 FDR 校正，P＜0.05。

结果 在四组患者中，D 组在通道 4（Z=2.828，P=0.028），通道 6（Z=2.912，P=0.022）（主要位于额极区和眶额叶），AD 患者在通道 4（Z=3.154，P=0.010）、通道 5（Z=3.021，P=0.015）、通道 6（Z=2.980，P=0.017）（主要位于额极区和眶额叶）的平均 HbO 浓度与所有通道平均 HbO 浓度（Z=2.881，P=0.024）高于 SCH 患者。D 组与 BP 组（Z=2.691，P=0.039）在右侧额极区、额叶下回和眶额区 （通道 3）的初始斜率差异有统计学意义。对于 BP 患者，SCL-90 的敌对因子得分与通道 4（r=-0.505，P=0.004）、通道 6（r=-0.390，P=0.004）、通道 15（r=-0.546，P=0.002）、通道 16（r=-0.550，P=0.002）的平均 HbO 浓度（主要位于额极区和眶额叶、布洛卡区的岛盖部、上外额叶皮层）和所有通道的平均 HbO 浓度（r=-0.491，P=0.006）呈负相关。

结论 SCH 患者在额极区和眶额叶的激活较 D 和 AD 患者更低，D 患者在右侧额极区、额下回和眶额叶的初始激活斜率高于 BP 患者。在额极区和眶额叶、布洛卡区的岛盖部、上外额叶皮层的激活越少，BP 患者越易怒敌对。本实验为使用 fNIRS-VFT 范式来进一步鉴别诊断不同精神疾病做出了有益的贡献。

关键字：精神疾病；近红外光成像技术；言语流畅性

首发精神分裂症患者 IRS/CIRS-BCL2 机制及与认知功能障碍的相关性探索

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目的 脑白质对神经炎症敏感，可出现脱髓鞘和少突胶质细胞损伤凋亡等变化。免疫炎症反应系统和代偿性免疫调节反应系统（IRS/CIRS）是探索免疫失衡在精神分裂症（SCZ）病理生理机制中作用的新假说，其与 SCZ 脑白质变化和认知损伤的关系尚未阐明。本研究旨在首发精神分裂症患者（FEPS）中，探索 IRS/CIRS 表达特征及其与脑白质完整性（FA）的关系；进一步分析 IRS/CIRS 与抗凋亡分子 BCL2 的关系，探索 IRS/CIRS-凋亡（BCL2）及 microRNA 调控机制与认知功能损伤的关系。

方法 纳入 DSM-IV 诊断标准的首发 SCZ 患者（FEPS 组，n=133），及年龄和性别相匹配的健康对照（HCs 组，n=56）。ELISA 检测被试血浆中 16 种细胞因子的表达水平，计算 IRS/CIRS 值；DTI 计算白质 FA；ELISA 检测血浆中 BCL2 的表达水平，qPCR 检测全血 BCL2mRNA 及上游调控分子 miR-181b-5p 表达水平；分析它们的组间差异及与 IRS/CIRS 的相关性。中介模型探索 IRS/CIRS、BCL2mRNA 和 miR-181b-5p 的关系。MCCB 评估被试认知功能，探索 IRS/CIRS-凋亡机制与认知损伤的关系。

结果 FEPS 组 IRS/CIRS 显著高于 HCs 组（P<0.001），脑白质平均 FA 显著降低（P=0.032），二者负相关（P=0.029）；BCL2mRNA 和蛋白表达水平显著下调（P=0.002 和 0.023），与 IRS/CIRS 负相关（P=0.029 和 0.030）；miR-181b-5p 与 BCL2mRNA 表达水平负相关（P<0.001），与 IRS/CIRS 正相关（P=0.026）；miR-181b-5p 在 IRS/CIRS 对 BCL2mRNA 调控中起显著中介作用。FEPS 组工作记忆与 BCL2mRNA 表达水平正相关（P=0.001），与 miR-181b-5p 表达水平负相关（P=0.005），BCL2mRNA 在 miR-181b-5p 与工作记忆的负相关中起显著中介作用。

结论 FEPS 存在 IRS/CIRS 免疫失衡，与白质完整性下降相关，提示疾病早期白质可能受到失衡的免疫细胞因子影响。其机制可能是 IRS/CIRS-BCL2 代表的炎症-凋亡通路通过参与少突胶质细胞凋亡，促进白质完整性下降。miR-181b-5p 在其中起中介作用，与工作记忆降低相关。

关键字：精神分裂症，IRS/CIRS，白质，BCL2，miR-181b-5p，认知功能

DNMT1 SNPs (rs2114724 and Rs2228611) Associated with Positive Symptoms in Chinese Patients with Schizophrenia

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Objective Schizophrenia is a serious mental disorder with complex clinical manifestations, while its pathophysiological mechanism is not fully understood. Accumulated evidence suggested the alteration in epigenetic pathway was associated with clinical features and brain dysfunctions in schizophrenia. DNA methyltransferases (DNMTs), a key enzyme for DNA methylation, are related to the development of schizophrenia, whereas the current research evidence are not sufficient. The aim of study will explore the effects of gene polymorphisms of DNMTs on the susceptibility and symptoms of schizophrenia.

Methods The study was case-control study designed and employed the Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (DSM-5) as the diagnostic standard.134 hospitalized patients with schizophrenia in the Third People's Hospital of Zhongshan City

from January 2018 to April 2020 (Case group) as well as 64 healthy controls (Control group) from the same region were involved. Single nucleotide polymorphisms (SNPs) of DNMT1 genes (r s2114724 and rs 2228611) and DNMT3B genes (rs 2424932, rs 1569686, rs 6119954 and rs 2424908) were determined with Massarray. Linkage disequilibrium analysis and haplotype analysis were performed, and genotype and allele frequencies were compared. The severity of clinical symptoms was assessed by the Positive and Negative Syndrome Scale (PANSS). The correlation between DNMT1 genes (rs 2114724 and rs 2228611) and DNMT3B genes (rs2424932, rs1569686, rs6119954 and rs2424908) and clinical features was analyzed.

Results There were no significant differences in genotype, allele frequency and haplotype of DNMT1 genes (rs 2114724 and rs 2228611) and DNMT3B genes (rs 2424932, rs 1569686, rs 6119954 and rs 2424908) between the case and healthy control group. There were significant differences in the PANSS total positive symptom scores, P3 (Hallucinatory behavior), P6 (Suspicious/persecution), G7 (Motor retardation), and G15 (Preoccupation) in patients with different DNMT1 gene rs 2114724 and rs 2228611 genotypes. The linkage disequilibrium analysis of gene polymorphic loci revealed that rs 2114724-rs 2228611 was complete linkage disequilibrium, and rs 1569686-rs 2424908, rs 2424932-rs 1569696 and rs 2424932-rs 2424908 were strongly linkage disequilibrium.

Conclusion The polymorphisms alteration in genetic pathway may associated with development of specific clinical features in schizophrenia.

关键字：Schizophrenia; Single nucleotide polymorphism (SNP); DNA methyltransferases; Symptoms

Disrupted Functional Connectivity between Habenula and Inferior Frontal Gyrus Mediated The Relationship between Depressive Symptoms and Cognitive Impairment in Late-life Depression

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Objective Cognitive impairment is common and cause poor clinical outcomes in patients with LLD. Functional abnormalities of the habenula in patients with depression has been demonstrated by increasing studies, and habenula is involved in cognitive processing. However, whether patients with LLD exhibited disrupted habenular functional connectivity (FC), and whether the habenular FC mediates the relationship between depressive symptoms and cognitive impairment remains unclear.

Methods One hundred twenty-seven patients with LLD and 75 healthy controls were recruited. The static and dynamic FC between habenula and the whole brain was calculated, and its relationships with depressive symptoms and cognitive impairment were explored by correlation and mediation analyses.

Results In patients with LLD, the more severe depressive symptoms (higher GDS score and retardation score of HAMD) was a mediator of the cognitive impairment (verbal fluency and working memory). Compared with the controls, patients with LLD exhibited decreased static FC between right habenula and bilateral inferior frontal gyrus (IFG), and there was no significant difference in dynamic FC between the two groups. Additionally, the decreased static FC between right habenula and IFG was associated with more severe depressive symptoms and cognitive impairment (language, memory and visuospatial skills). Lastly, the static FC between right habenula and left IFG partially mediated the relationship between depressive symptoms and cognitive impairment (verbal fluency and working memory).

Conclusion Patients with LLD exhibited decreased static FC between the habenula and IFG, and this decreased static FC was involved in the underlying neural substrate connecting depressive symptoms and cognitive impairment.

关键字：Late-life depression; habenula; MRI; functional connectivity; cognitive impairment; working memory; verbal fluency

Effects of MC1R and BIN1 Gene Polymorphisms on Chinese Patients with Alzheimer's Disease and Mild Cognitive Impairment

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Objective Alzheimer’s disease (AD) and Mild cognitive impairment (MCI) are complex diseases influenced by genetic polymorphisms. The most recognized genetic polymorphism is currently the APOEε4 allele. In recent years, MCIR and BIN1 have been shown to be involved in the formation of pathological substances in neurodegenerative diseases. Therefore, the main objective of this study was to investigate whether MC1R and BIN1 polymorphic genes are associated with the development of AD and MCI and the synergistic role of these two genes in the disease with APOE.

Methods A total of 134 AD patients (57 males), 416

MCI patients (180 males) and 509 healthy controls (249 males) were collected. DNA was extracted using a Tiangen DNA isolation kit for genetic analysis. TaqMan SNP genotyping analysis and an ABI PRISM 7900 sequence detection system (Applied Biosystems) equipped with SDS2.1 software were used to analyze the selected SNPs of the genes.Statistical analysis was performed using SPSS 24,0 and State software.

Results We then analyzed the BIN1 rs7561528 gene polymorphisms and the results are shown in Table 3. It was found that there were differences in BIN1 genotype frequencies between the MCI and HC groups ($\chi2$=7.79, df=2, P=0.020), with higher GG genotype frequencies (81.60% VS. 73.74%) and lower AG genotype frequencies (17.16% VS. 24.44%) in the MCI group. Subsequently, our results stratifying APOEε4 carrier status showed that the GG genotype was higher in the MCI patient group compared to the HC group (87.50% VS. 65.38%), while both the AG genotype and AA genotype frequencies were lower than in the HC group (10.71% VS. 29.49%; 1.79% VS. 5.13%). The two groups differed in genotype distribution ($\chi2$=8.42, df=2, P=0.015). After correction for age and education, APOEε4+ was a risk factor for AD (OR=1.73, P=0.036) and BIN1 was a protective factor for the occurrence of AD (OR=0.22, P＜0.001). APOEε4+ remained a risk factor for AD in the AD patient group compared to the MCI patient group, and the risk was even elevated compared to the HC group (OR=2.21 VS. OR=1.73). The BIN1 rs7561528 G allele was a protective factor for AD compared to MCI (OR=0.26, P＜0.05). In MCI patients, there is synergy between MC1R AG genotype and APOEε4 (OR=0.41, 95%CI=0.18-0.95, P=0.037), BIN1 GG genotype and APOEε4 (OR=2.71, 95%CI=1.02-7.25, P=0.046).

Conclusion Our study investigated the association of MC1R and BIN1 polymorphic genes with MCI and AD susceptibility and their interactions with APOEε4 genes. The current findings suggest that carriers of the rs7561528 GG genotype of the BIN1 gene polymorphism are at significantly higher risk of MCI than the AG genotype. In addition, the AG genotype of MC1Rrs2228479 and the BIN1rs7561528 GG genotype both interacted with the APOEε4 allele in MCI patients. We also found that the APOEε4 allele was present as a risk factor in AD patients, while BIN1rs7561528 G allele was a protective allele for AD. The future should focus on exploring.

关键字：MCIR, BIN1, APOE, Alzheimer's disease, mild cognitive impairment, interaction

数字运动对精神分裂症神经认知功能的影响

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目的 精神分裂症是一种慢性的且严重的精神障碍，影响着全世界 2000 万人。精神分裂症认知症状严重影响患者的社会功能，但药物治疗疗效差。数字运动是一种同时存在认知刺激和身体刺激的新型运动形式。目前数字运动对精神分裂症神经认知功能的影响尚不清楚。故本研究的目的为探索数字运动对精神分裂症神经认知功能的影响。

方法 本研究共纳入 64 例精神分裂症患者，将他们随机分为干预组和对照组。干预组接受 8 周的数字运动干预和药物治疗，对照组接受 8 周药物治疗。采用 MCCB 认知成套测验评估神经认知功能，阳性和阴性症状量表评估临床症状。干预组和对照组两组患者分别在治疗第 0 周、第 4 周和第 8 周，采集 MCCB 数据；在治疗第 0 周和第 8 周，采集临床症状数据。干预组为期 8 周的数字运动的运动处方包含两个阶段，第 1 周为第一阶段适应期和第 2-8 周的第二阶段训练期。第一阶段适应期频率为 2 次/周，约 45 分钟/次，强度为低强度-中等强度，运动类型为有氧运动和抗阻运动，低难度系数，运动软件为健身环大冒险和舞力全开；第二阶段训练期频率为 3 次/周，约 60 分钟/次，运动强度为中等强度-高强度，运动的类型不变，中等难度系数，运动软件不变。本研究采用独立样本 T 检验、Mann-Whitney U 检验或 Kolmogorov-Smirnov 检验方法比较治疗前干预组和对照组基线认知功能、临床症状差异。采用双因素重复测量方差分析方法分析数字运动对精神分裂症神经认知功能、临床症状的影响。

结果 第一，本研究发现干预组和对照组的精神分裂症患者基线神经认知功能、临床症状无统计学差异（P>0.05）。第二，数字运动干预 4 周后两组精神分裂症患者神经认知功能仍无统计学差异（P>0.05）。第三，数字运动干预 8 周后干预组抑郁因子分(P=0.001)显著低于对照组，且干预组的言语记忆和学习能力（P=0.035）、推理及问题解决能力（P=0.009）和视觉记忆和学习能力（P=0.043）显著高于对照组。

结论 为期 8 周的数字运动能有效提升精神分裂症患者的言语记忆和学习能力、推理及问题解决能力、视觉记忆和学习能力三个维度的神经认知功能，同时能改善精神分裂症患者的情绪症状。本研究的结果为未来数字运动处方应用于临床精神分裂症神经认知症状的治疗提供证据支持。

关键字：精神分裂症；数字运动；运动处方；神经认知功能

The Medial Prefrontal Cortex CRHR1 in Excitatory Neurons Mediate Cognitive Deficits Induced by Early-life Stress in Adolescent Mice

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Objective Adolescence is a critical period for neurodevelopment and marks the onset of several psychiatric disorders. Recent evidence suggests that early-life stress, a critical risk factor for psychiatric disorders, may exert adverse effects via CRH-CRHR1 system and neuronal activity in medial prefrontal cortex (mPFC) in adolescent rodents. This study aims to examine whether and how the

two systems interact to mediate early-life stress-induced negative effects.

Methods Early-life stress (ELS) paradigm (limited nesting and bedding material) was established in male mice during postnatal day (PND) 2-9. At PND35, we examined the effects of ELS on PFC-dependent cognitive behaviors and neural activation (using immediate early gene c-fos immunostaining) in mPFC. We then blocked CRHR1 systematically or knocked down CRHR1 in mPFC to investigate the involvement of CRH-CRHR1 system in ELS-induced cognitive dysfunction and mPFC neuronal activity in adolescent mice. Finally, using DREADDs techniques, we specifically manipulated CamKIIa+ neuron (a marker of excitatory neuron) activity in mPFC to examine whether stress-induced cognitive deficits could be reversed.

Results (1) Early-life stress impaired temporal order memory (TOM) and spatial working memory in adolescent mice. (2) Immediate early gene c-fos immunostaining revealed that ELS mice had fewer CamkIIa+ and PV+ neurons activated during the TOM test. (3) Systemic administration of antalarmin, an antagonist of CRHR1, or mPFC CRHR1 knockdown restored ELS-induced cognitive deficits and PV+ and CamkIIa+ neuron dysfunction in adolescent mice. (4) Crhr1 mRNA is mainly expressed in the CamKIIa+ neurons (not inhibitory neurons) in mPFC. (5) Chemogenetic activation of CamKIIa+ neurons in mPFC successfully restored cognitive deficits induced by early-life stress.

Conclusion These findings suggest that mPFC CRHR1 and excitatory neuron activity mediates ELS-induced cognitive deficits in adolescent male mice. These neurobiological mechanisms provide novel perspectives for the early treatment and prevention of stress-related mental diseases such as depression.

关键字：early-life stress; medial prefrontal cortex; adolescence; CRHR1; excitatory neuron

The Relationship between Alterations in Plasma Metabolites and Treatment Responses in Antipsychotic-Na?ve Female Patients with Schizophrenia

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Objective The biological mechanisms underlying schizophrenia have not fully been investigated in female patients. This study aimed to explore the relationship between alterations in plasma metabolites and treatment responses amongst antipsychotic-na?ve female patients with schizophrenia.

Methods A total of 38 antipsychotic-na?ve female schizophrenia patients (ANS) and 19 healthy female controls (HC) were recruited. Plasma samples were obtained from all participants, and targeted metabolomics were measured with FIA-MS/MS and LC-MS/MS. The positive and negative syndrome scale (PANSS) was used to assess the severity of psychotic symptoms before and after eight weeks of treatment. Receiver operator characteristics (ROC) curves were used to predict diagnostic and therapeutic responses.

Results A total of 186 metabolites passed quality control procedures and were used in statistical analysis to identify potential biomarkers. Before treatment, the ANS patients had lower levels of γ -Aminobutyric Acid (GABA) ($P = 0.002$) and higher levels of Cholesteryl esters (CE) (20:3) ($P = 0.004$), Cholic Acid (CA) ($P = 0.004$) and Glycocholic Acid (GCA) ($P = 0.034$) compared to the HCs. These four differential metabonomic markers were synthesized into a combinatorial biomarker panel. This panel significantly distinguished ANS from HC (area under curve (AUC) = 0.891, $P < 0.001$). Moreover, this biomarker panel was able to effectively predict therapeutic responses (AUC = 0.774, $P = 0.025$).

Conclusion Our results suggest that plasma CE (20:3), CA, GCA, and GABA levels may be used as potential biomarkers for diagnosing and predicting antipsychotic efficacy amongst female schizophrenia patients.

关键字：Female; Schizophrenia; Metabolites; Antipsychotics-na?ve; Treatment response

An Epigenetic Clock To Assess The Differential Neurodevelopmental Trajectories and Prevalence of Three Major Psychiatric Disorders

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Objective Few studies have quantitatively described the common and distinct aspects of the neurodevelopmental trajectories of schizophrenia (SZ), bipolar disorder (BD) and major depressive disorder (MD). Therefore, there is an urgent need for a multiplatform epigenetic clock based specifically on human blood and brain tissues to assess deviations in neurodevelopmental trajectories in patients with three major psychiatric disorders.

Methods Based on 31 publicly available datasets measured on Illumina 27K (27K), Illumina 450K (450K), or Illumina EPIC (850K) array platforms from patients with SZ, BD or MD and unaffected controls, this study used a combination of elastic net and sure independence screening algorithms to develop a new epigenetic clock specific to human blood and brain tissues, then evaluated epigenetic age acceleration from blood and brain tissues of patients with three major psychiatric disorders.

Results The Blood?Brain Clock achieves high performance in predicting blood and brain DNAm age and estimates that the three major psychiatric disorders have differential trend variations of epigenetic age acceleration. Epigenetic age acceleration in both blood and brain tissues showed a decrease in SZ but an increase in BD and MD relative to controls. Blood precedes brain tissue in exhibiting distinguishable alterations in epigenetic age acceleration across three major psychiatric disorders. Moreover, most of the disease-associated differentially methylated DNAm probes that were shared across SZ, BD and MD displayed opposite alteration patterns between SZ and

BD/MD but similar patterns between BD and MD. BD and MD were also indistinguishable from each other but significantly distinguishable from SZ in neuropsychiatric disorder classification models constructed with random forest classifiers.

Conclusion The different trends identified in epigenetic age acceleration across three major psychiatric disorders in this study added substantial value to understanding offsets in their neurodevelopmental trajectories. These distinguishable alterations in epigenetic age acceleration observed in peripheral system prior to brain tissue facilitate early diagnosis of disorders and has the potential to evaluate the risk of various disorders.

关键字：Epigenetic clock, Neurodevelopment, Schizophrenia, Bipolar disorder, Major depressive disorder

Aβ25-35 损伤致 PC12 细胞自噬功能动态变化的研究

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目的 分别通过β淀粉样蛋白（amyloid beta-protein，Aβ）损伤 PC12 细胞建立阿尔茨海默病（Alzheimer's disease，AD）细胞模型，体外模拟 AD 病理过程，探讨 Aβ损伤 PC12 细胞后细胞自噬功能的变化，为研究 AD 细胞的自噬提供理论基础。

方法 大鼠肾上腺髓质嗜铬瘤分化细胞株 PC12 细胞经 Aβ25-35 损伤处理后，MTT 检测各组细胞活力；Annexin V?FITC/PI 双染色荧光显微镜及流式细胞仪检测各组细胞凋亡情况；DCFH?DA 探针荧光显微镜及流式细胞仪测定细胞内活性氧（reactive oxygen species，ROS）水平；免疫印迹法检测自噬相关蛋白、凋亡相关蛋白和 AD 相关蛋白的水平。

结果 与对照组相比，不同浓度的 Aβ25-35 作用 PC12 细胞 6、8、12、24、48 h 后，细胞活力呈剂量和时间依赖性下降，差异有统计学意义。Aβ25-35 损伤持续一定时间后细胞内 ROS 水平升高，两者损伤后细胞凋亡增加，抗凋亡蛋白 Bcl?2 表达量降低、凋亡蛋白 Cleaved?caspase?3 蛋白表达升高且 BACE1、PS1 蛋白表达异常增加。

结论 Aβ25-35 诱导的细胞自噬呈剂量和时间依赖性，可以作为 AD 早期阶段的研究指标；在一定的浓度范围内，Aβ25-35 诱导细胞自噬的同时不增加细胞毒性，不增加细胞凋亡，为干预 AD 发生发展的最佳阶段。

关键字：阿尔茨海默病；Aβ25-35；PC12 细胞；自噬

阿戈美拉汀对抑郁障碍快感缺失症状改善效果的随机对照研究

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目的 评价阿戈美拉汀治疗抑郁障碍的疗效及对快感缺失症状的改善效果。

方法 入组 2020 年 2 月至 2022 年 8 月山东省精神卫生中心门诊收治的 120 例抑郁障碍患者作为研究对象,以随机数字表法分为 2 组。研究组 58 例予以阿戈美拉汀（25mg/片）治疗，起始睡前口服 1 片，2 周后加量至 50mg/日；对照组 62 例予以艾司西酞普兰（10mg/片）治疗，起始早饭后口服半片，1 周内滴定至 10mg/日，根据治疗反应及患者耐受性进行剂量调整，最大剂量为 20mg/日。在基线、3 周末、6 周末使用汉密尔顿抑郁-17 项量表（HAMD-17）评估病情严重程度，使用斯奈思-汉密尔顿快感量表中文版（SHAPS）评估快感缺失症状严重程度。使用 SPSS 25.0 对数据录入分析。计数资料的率比较使用卡方检验。正态分布的计量资料采用（x±s)表示，两组间 HAMD-17、SHAPS 评分的比较使用独立样本 t 检验。

结果 共有 97 例患者完成随访，其中研究组 48 例，对照组 49 例，23 例患者测量基线数据后失访。两组患者一般资料匹配，有可比性。基线期，研究组 HAMD-17 评分为 27.44±2.10 分，SHAPS 评分为 37.96±3.20 分。对照组 HAMD-17 评分为 28.02±2.18 分，SHAPS 评分为 37.29±3.35 分。两组间 HAMD-17、SHAPS 评分差异无统计学意义（P＞0.05）。3 周末，研究组 HAMD-17 评分为 21.60±2.74 分，对照组为 21.33±2.59 分，两组间 HAMD-17 评分差异无统计学意义（P＞0.05）。研究组 SHAPS 评分为 29.46±3.17 分，对照组为 31.35±3.13 分，差异有统计学意义（P＜0.05）。两组内 HAMD-17 和 SHAPS 评分均较基线期有所降低，差异均有统计学意义（P＜0.05）。6 周末，研究组 HAMD-17 评分为 17.10±3.88 分，对照组为 16.22±3.69 分，两组间 HAMD-17 评分差异无统计学意义（P＞0.05）。研究组 SHAPS 评分为 24.92±2.55 分，对照组为 26.63±2.16 分，差异有统计学意义（P＜0.05）。两组内 HAMD-17 和 SHAPS 评分均较基线期有所降低，差异均有统计学意义（P＜0.05）。

结论 阿戈美拉汀与艾司西酞普兰治疗抑郁障碍患者的疗效相当，但阿戈美拉汀改善抑郁障碍患者快感缺失症状的效果优于艾司西酞普兰。

关键字：阿戈美拉汀；艾司西酞普兰；抑郁障碍；快感缺失

注射 Erastin 建立大鼠急性抑郁模型的行为学评价及铁死亡和炎症相关分子的检测

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目的 向海马内注射铁死亡诱导剂 Erastin 建立大鼠急性抑郁模型，检测 Erastin 对大鼠抑郁样行为的影响，检测海马铁死亡相关蛋白及炎症因子的表达改变。

方法 40只6周龄健康雄性Sprague-Dawley（SD）大鼠按照随机数字法分为PBS组、Erastin低剂量（EL）组、Erastin 中剂量（EM）组、Erastin 高剂量（EH）组、脂多糖（LPS）组共5组，每组8只大鼠。采用脑立体定位技术向各组大鼠海马注射相应药物后于第 4 天开始进行体重及行为学检测，行为学测试包括糖水偏好实验（SPT）、开放旷场试验（OFT）、强迫游泳实验（FST）和高架十字迷宫实验(EPM)，观察大鼠的抑郁及焦虑样行为。采用 Western Blot 技术和 RT-PCR 技术检测海马铁死亡相关蛋白，包括谷胱甘肽过氧化物酶 4（GPX4）、环氧化酶 2（COX2）、铁蛋白重链 1（FTH1）、长链酯酰辅酶 A 合成酶 4（ACSL4）、溶质载体家族 7 成员 11（SLC7A11），以及促炎因子，包括白介素 6（IL-6）、白介素 1β（IL-1β）和肿瘤坏死因子-α（TNF-α）的表达。采用 GraphPad Prism 8.0 软件进行统计分析及作图，多组间比较采用单因素方差分析，进一步两两比较使用 LSD 法。

结果 （1）体重及行为学检测结果：在注射药物前，各组大鼠体重和行为学检测结果的差异无统计学意义；与 PBS 组相比，注射 Erastin 后，EM（400 ng/μl）组大鼠表现出更明显的焦虑及抑郁样行为，包括体重减轻，糖水偏好率降低，强迫游泳不动时间及高架闭合臂时间增加，旷场中心区停留时间及高架开放臂时间减少。（2）铁死亡相关蛋白的表达：与 PBS 组相比，注射 Erastin 后大鼠海马中 FTH1、GPX4 和 SLC7A11 的 mRNA 水平和蛋白表达降低，COX2 和 ACSL4 的 mRNA 水平和蛋白表达升高。（3）促炎因子的表达：与 PBS 组相比，注射 Erastin 后大鼠海马组织中促炎因子 TNF-α、IL-1β 和 IL-6 的 mRNA 和蛋白质表达升高。

结论 本研究发现 Erastin 可诱导大鼠焦虑抑郁样行为，然而 Erastin 剂量过高或过低均不能很好地诱导大鼠抑郁样行为，因此本文中找到了 Erastin 的最佳剂量为 2?g，并发现了海马中铁死亡相关蛋白及神经炎症相关因子的变化。

关键字：抑郁症；Erastin；铁死亡；神经炎症

N-乙酰半胱氨酸对铜腙短期暴露导致的小鼠工作记忆和神经生物学变化的影响

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目的 为观察抗氧化剂 N-乙酰半胱氨酸（N-acetylcysteine，NAC）对 CPZ 暴露导致的动物行为和神经生物学改变的作用，并探讨其作用机制。NAC 已经用于精神分裂症的辅助治疗，我们假设该药可能通过抗氧化和抗炎机制减轻脑白质损伤，改善动物行为。

方法 行为学实验（顺序为旷场实验-社交行为实验-Y-迷宫实验），做酶联免疫吸附试验检测促炎细胞因子 IL-1β 和 TNF-α 的浓度，免疫组织化学及免疫荧光方法检测小鼠脑组织少突胶质细胞（GST-Pi 阳性细胞）、髓鞘碱性蛋白（myelin basic protein，MBP）及小胶质细胞(Iba-1 阳性细胞)的变化。

结果 1.1. CPZ 暴露 10 天损害小鼠的空间工作记忆，不影响小鼠的自发活动、探索能力及社交活动。不同剂量的 NAC 对 CPZ 引起的空间工作记忆损害有改善作用。 1.2. CPZ 暴露 10 天可引起脑组织和肝脏组织 T-SOD 降低及 MDA 升高，不同剂量的 NAC 可以缓解 CPZ 引起的这些变化。提示 NAC 通过抗氧化作用能缓解 CPZ 起的氧化应激损伤。 1.3. CPZ 暴露 10 天，小胶质细胞活化导致数目增多，脑内炎性细胞因子 IL-1β、TNF-α 含量增多，不同剂量的 NAC 可以缓解神经炎症反应。 1.4. CPZ 暴露 10 天，少突胶质细胞数目减少，不同剂量的 NAC 可以减轻 CPZ 引起的这种变化，NAC 有保护 OLs 的作用，但是各组之间 MBP 水平没有明显差别。

结论 CPZ 暴露可以通过氧化应激损伤和神经炎症引起少突胶质细胞的减少，从而影响大脑的高级神经活动，使动物的行为发生改变。NAC 可以减轻氧化应激损伤和神经炎症，进而保护 OLs，缓解动物行为学的异常。以上研究结果表明，CPZ 暴露 10 天的小鼠可能作为精神分裂症前驱期的动物模型，脑白质损伤可由氧化应激和神经炎症介导，可能是精神分裂症的发病机制之一，NAC 可以作为精神分裂症动物模型的保护性药物。

关键字：双环己酮草酰二腙，少突胶质细胞，N-乙酰半胱氨酸，氧化应激，神经炎症，精神分裂症

伴自杀意念青少年抑郁障碍患者认知功能损害特点及相关性研究

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目的 在青少年抑郁障碍患者的自杀风险因素中，自杀意念很常见，继而在自杀意念驱动下导致青少年抑郁障碍发生自杀风险也随之急剧升高，已严重影响青少年的成长发展及社会心理功能。本研究拟比较伴/不伴自杀意念的青少年抑郁障碍患者相关因素：抑郁、焦虑严重程度、认知障碍、冲动、快感缺乏及神经电生理检测来探讨伴自杀意念青少年抑郁障碍患者的认知功能损害特点。

方法 收集青少年抑郁障碍患者，同时招募与入组患者组相匹配的对照组（HC 组 21 例）。根据贝克自杀意念量表 (BSI-CV)将青少年抑郁障碍患者分成伴自杀意念 MDD 组(SI 组 40 例)和不伴自杀意念 MDD 组(NSI 组 36 例)；采用 HAMD-24、HAMA-14、SHAPS、BIS-II 分别评估三组的抑郁、焦虑严重程度、快感缺乏及冲动性。采用心理学范式情绪 Go/No-Go 任务及获得的 ERP 成分(N2、P3)来评估三组的认知功能。通过 SPSS26.0 进行统计分析。

结果 1.三组被试在一般资料上相匹配，具有可比性；2.三组被试两两比较：SI 组、NSI 组 HAMD-24 总分、认知障碍因子分、HAMA-14 总分、SHAPS、 BIS-II 得分明显高于 HC 组(均 $P<0.05$)，且 SI 组 HAMD-24 总分、认知障碍因子分、HAMA-14 总分、SHAPS、

BIS-II 得分高于 NSI 组(均 P<0.05)；3.在情绪 Go/No Go 任务中，在 Go 反应时:SI 组、NSI 组在三种情绪图片下反应时均长于HC组；4.在情绪Go/No Go任务中，相比于中性和正性面孔、SI 组在负性面孔会引起更大的 P3 波幅；5.SI 组负性情绪面孔下 No-Go P3 波幅与 HAMD-24 总分、认知障碍因子分、HAMA-14 总分、BIS-II 显著负相关(r=-0.325、-0.319、-0.391、-0.362，P <0.01)；6.Logistic 回归分析结果显示：抑郁、焦虑、认知障碍的严重程度及负性面孔下 No-Go P3 波幅偏低是青少年抑郁障碍患者自杀意念的危险因素。

结论 伴自杀意念青少年抑郁障碍患者的焦虑、抑郁更严重、且快感缺乏明显，易冲动，认知损害更明显。他们在负性情绪下抑制控制损害明显，且负性情绪下抑制控制损害与焦虑、抑郁、认知障碍严重程度、易冲动密切相关。抑郁、焦虑、认知障碍以及负性面孔下抑制控制缺陷明显是青少年抑郁障碍患者自杀意念的危险因素。

关键字：青少年；抑郁障碍； 自杀意念；抑制控制；冲动性；快感缺乏；

中西医结合治疗对社区抑郁障碍患者疗效、安全性及依从性的随机对照研究

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目的 本研究根据中药治疗、西药治疗和中西医结合治疗的有效性、安全性，以及患者对治疗的依从性，探讨中西医结合治疗社区抑郁障碍患者的有效方案。

方法 本研究研究对象来自于山东省 9 个地区 27 个区县级精神专科医院门诊就诊的抑郁障碍患者，符合 ICD-10 抑郁障碍诊断标准。共纳入 310 例社区抑郁障碍患者被随机分为西药组、中药组和中西医结合组，分别接受单用艾司西酞普兰或度洛西汀、单用舒肝解郁胶囊和联合使用舒肝解郁胶囊和艾司西酞普兰或度洛西汀，治疗 8 个月。第一阶段结束（8 周末）进行疗效判定，对第一阶段单药治疗效果不佳的患者采用中西医结合治疗（舒肝解郁胶囊联合艾司西酞普兰或度洛西汀），对第一阶段中西医结合治疗效果不佳的患者进行西药剂量优化并加强依从性管理，对第一阶段治疗有效的患者继续原治疗方案。在基线、4、8、12、16、24 及 32 周末使用蒙哥马利-阿斯伯格抑郁评定量表（MADRS）、汉密尔顿抑郁量表（HAMD）、汉密尔顿焦虑量表（HAMA），评估病情；通过 Morisky 服药依从性问卷（MMAS-8）、计算脱落率，评估依从性；使用副反应量表（TESS）、不良事件记录表评估安全性。

结果 1.三组第一阶段（8 周末）的治疗结局有显著差异（P<0.001）。其中，中西医结合组与西药组、中药组的疗效差异显著（P=0.002；P=0.001），中西医结合组的治愈率及有效率更高。2.中西医结合组 MADRS、HAMD 及 HAMA 量表总分在三阶段整体变化上，与西药组及中药组相比有显著差异（P<0.05），中西医结合组量表评分下降更快，更快趋近于 0。3.西药组中年龄大的患者较年龄小的患者 HAMD 减分率低（P<0.05），中西医结合组中年龄大的患者的 HAMD 减分率较西药组高（P<0.05）。4.中西医结合组与脱落率成负相关，首次发病、无诱因起病、病程、未婚、学历越低及接受治疗时间越长与患者脱落率成正相关。三组间不良反应发生率和 TESS 分值差异均不显著。

结论 1.中西医结合治疗社区抑郁障碍患者较单用西药后合并中药或者单用中药后合并西药的疗效好，可以较快控制疾病症状，更早的使病情平稳，具有更高的依从性，安全性好。2.本研究发现中西医结合治疗对老年抑郁障碍患者具有更好的疗效，说明在社区实施中西医结合治疗有独特的优势。

关键字：抑郁障碍；社区医疗；中西医结合治疗；舒肝解郁胶囊

伞型花内酯改善慢性应激大鼠抑郁样行为的机制研究

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目的 伞型花内酯（Umb）具有多种药理特性，如抗氧化、抗炎、抗糖尿病和抗肿瘤作用。然而，其潜在抗抑郁作用报道较少。本研究旨在探讨 Umb 对慢性应激大鼠模型抑郁样行为的改善作用机制。

方法 采用慢性应激建立大鼠抑郁症模型：75 只 SD 大鼠随机分为 5 组(n=15)：对照组、模型组(CUMS)、CUMS + Flu(20mg/kg)组、CUMS +Umb (20mg/kg) 组、CUMS + Umb (40mg/kg)组。除对照组大鼠外，其它大鼠均暴露于CUMS 3 周后，分别接受对应的药物治疗。从第四周开始，大鼠灌胃伞型花内酯或氟西汀，每天一次。最后一次给药 4h 后进行行为学测试。评价大鼠的行为学、生化指标、分子蛋白表达等。所有数据均以平均值±标准差表示。结果采用 SPSS17.0 (SPSSInc.，USA) 进行方差分析(ANOVA),并且使用 Tukey 法进行事后检验。P 值小于 0.05 为差异有统计学意义。

结果 Umb(20,40mg/kg)显著改善抑郁样行为，包括糖水偏好、悬尾不动时间(TST)和强迫游泳时间(FST)，同时显著降低细胞因子水平。机制方面，发现 Umb 显著升高海马 SIRT1 蛋白表达，显著抑制 HMGB1/NF-κB 通路蛋白表达。

结论 综上所述，Umb 能显著改善慢性应激大鼠抑郁样行为，其机制与调控 SIRT1 和 HMGB1/NF-κB 蛋白信号相关。

关键字：伞型花内酯，慢性不可预测的轻度应激(CUMS)，HMGB1/NF-κB，SIRT1

肠道菌群及其相关抗氧化物在精神分裂症中的作用研究

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目的 观察首发未用药 SCZ 患者和健康对照人群中肠道菌群分布和抗氧化物水平的差异；观察肠道菌群、抗氧化物与 SCZ 发病的关系；探讨 SCZ 患者中肠道菌群和抗氧化物的可能作用。

方法 入组对象为 2019 年 10 月至 2022 年 3 月我院精神医学科住院的首发未用药 SCZ 患者，并通过广告招募健康对照（HC）人群。入组当天完善受试者基本信息。使用阳性与阴性症状量表（PANSS）评估 SCZ 组精神症状的严重程度。使用汉化版的认知功能成套测验（MCCB）评估所有受试者的认知功能。在入组次日清晨收集所有受试者的空腹血液样本和粪便样本。SCZ 患者接受利培酮单药治疗 24 周后，于门诊随访，并评估 PANSS 和 MCCB 量表。

结果 与 HC 组相比，SCZ 组的信息处理速度、注意/警觉、工作记忆、词语学习、视觉学习和社会认知领域评分均显著低于 HC 组（P 均<0.05）。推理和问题 解决评分未见统计学差异（P>0.05）。 3. SCZ 组肠道菌群的改变和抗氧化物水平的变化：与 HC 组相比，SCZ 组的肠道菌群 α 多样性中的 shannon 指数和 simpson 指数显著降低（P 均<0.05）。SCZ 组梭状芽胞杆菌属、琥珀酸弧菌属的相对丰度显著升高，双歧杆菌属、小杆菌属、另枝菌属、厌氧肠球菌属、链球菌属的相对丰度均显著降低（P 均<0.05）。SCZ 组的 TBIL、IBIL 水平显著升高，SOD 显著降低（P 均<0.05）。基于差异肠道菌群和抗氧化物指标构建 SCZ 诊断模型：经过统计学筛选，以厌氧肠球菌属、链球菌属、IBIL 和 SOD 建立 SCZ 辅助诊断模型，准确率达 79%，敏感度 79%，特异度 80%，工作特征曲线（ROC）曲线下面积达 0.87。该模型效能优于单用肠道菌群或单用抗氧化物建立的诊断模型。

结论 首发未用药 SCZ 患者体内存在肠道菌群的失调和抗氧化物水平的改变；厌氧肠球菌属、链球菌属、IBIL 和 SOD 或许可以作为 SCZ 的诊断标记物；

关键字：精神分裂症；抗氧化物；肠道菌群；尿酸；胆红素；超氧化物歧化酶

肠道菌群及抗氧化物在精神分裂症症状中的作用研究

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目的 观察肠道菌群、抗氧化物与精神分裂症（SCZ）症状和疗效的关系； 探讨 SCZ 患者中肠道菌群和抗氧化物的可能作用。

方法 入组对象为 2019 年 10 月至 2022 年 3 月我院精神医学科住院的首发未用药 SCZ 患者，并通过广告招募健康对照（HC）人群。入组当天完善受试者基本信息。使用阳性与阴性症状量表（PANSS）评估 SCZ 组精神症状的严重程度。使用汉化版的认知功能成套测验（MCCB）评估所有受试者的认知功能。在入组次日清晨收集所有受试者的空腹血液样本和粪便样本。SCZ 患者接受利培酮单药治疗 24 周后，于门诊随访，并评估 PANSS 和 MCCB 量表。

结果 在 SCZ 组中，小杆菌属相对丰度与视觉学习领域正相关（r=0.234，P=0.021），琥珀酸弧菌属相对丰度与工作记忆领域负相关（r=-0.348，P=0.002），链球菌属与视觉学习领域正相关（r=0.203，P=0.046）。IBIL 与工作记忆领域负相关（r=-0.247，P=0.028）。 6. 琥珀酸弧菌属相对丰度和 IBIL 对认知功能中的工作记忆领域的预测具有统计学意义（b=-0.273，t=-3.831P<0.001； b=-0.192，t=-2.411，P=0.018），方程具有统计学意义（ P<0.001），决定系数（调整 R2 值）为 0.191，自变量之 间不具有多重共线性。基线时期 SCZ 患者的另枝菌属相对丰度和 24 周利培酮治疗后的 PANSS 阴性症状分（N24）负相关（r=-0.228，P=0.046）。基线时期 SCZ 患者的 UA 水平分别与治疗后的 N24 和 PANSS 总分（T24）正相（ r=0.258，P=0.024；r=0.288，P=0.011），基线时期 SCZ 患者的 TBIL 和 IBIL 水平分别与治疗后的 PANSS 阳性症状分（P24）正相关。基线时期 SCZ 患者的另枝菌属相对丰度和 UA 水平对治疗后患者的阴性症状的预测有统计学差异。

结论 在首发未用药 SCZ 患者中，琥珀酸弧菌属的相对丰度和 IBIL 水平可能是认知功能中工作记忆领域的危险因素；基线时期 SCZ 患者的另枝菌属的相对丰度可能是阴性症状疗效的保护因素，基线时期 SCZ 患者的的 UA 水平可能是阴性症状疗效的危险因素。

关键字：精神分裂症，疗效，肠道菌群，抗氧化物

重型抑郁障碍左侧颞极颞上回的结构-功能耦合与视觉记忆关联的破坏

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目的 脑功能连接模式受到结构连接的限制，结构-功能（SC-FC）耦合有助于衡量二者之间的关系。先前研究表明，SC-FC 耦合的改变与多种精神障碍有关，尤其是灰质网络能揭示与解剖组织改变相关的不同和稳定表型。然而，传统的 SC-FC 耦合指标只考虑全局和整体脑的相关性，忽略了区域特性。最近开发的区域特异性 SC-FC 耦合算法在精神障碍研究中显示出潜在应用价值。

方法 在本研究中，我们构建 115 例重型抑郁障碍（MDD）患者和 134 例健康对照者（HCs）之间的灰质结构连接和功能连接网络，并计算和比较 MDD 和 HC 间的区域特异性 SC-FC 耦合。采用计算机化的剑桥神经认知测试自动化电池（CANTAB）来评估被试的

神经认知功能，比较 MDD 和 HC 的组间差异。同时分析临床特征、神经认知功能和区域特异性 SC-FC 耦合之间的相关性。

结果 相对于 HCs，MDD 患者左侧眶部额下回（Frontal_Inf_Orb_L）和右侧枕下回（Occiptal_Inf_R）的 SC-FC 耦合显著增加，而左侧颞极颞上回（Temporal_Pole_Sup_L）和右侧颞极颞中回（Temporal_Pole_Mid_R）的 SC-FC 耦合显著降低。Temporal_Pole_Sup_L 的 SC-FC 耦合与 MDD 患者的 PRM 延迟任务的正确率呈正相关，但在 HCs 中没有呈现相关性。

结论 本研究表明，MDD 患者左侧颞极颞上回的 SC-FC 解耦以及左侧颞极颞上回的 SC-FC 耦合与神经认知功能之间的异常关联可能参与了 MDD 的病理生理过程。

关键字：重型抑郁障碍，结构-功能耦合，左侧颞极颞上回，视觉记忆

首发精神分裂症患者脑白质微结构与认知损害的关联研究

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目的 观察首发精神分裂症患者用药之前脑白质微结构和认知功能的损害情况。探讨首发精神分裂症患者脑白质微结构与认知功能损害的关联。

方法 入组对象为从 2019 年 10 月至 2022 年 10 月就诊于郑州大学第一附属医院精神科的首发未用药精神分裂症（SCZ）患者，以及通过广告招募的健康对照组。采用 MATRICS 成套认知功能量表（MCCB）评估所有入组对象的认知功能。使用美国 GE 公司的 Discovery 750 3.0T 磁共振扫描仪采集所有受试者的 DTI 序列。采用 PANDA 软件处理 DTI 数据，获取每个被试每条白质纤维束的部分各向异性（FA）、轴向扩散率（AD）以及径向扩散率（RD）指标。采用 SPSS 26.0 统计软件分析数据。计量资料组间比较采用独立样本 t 检验，相关性分析采用 Pearson 相关。DTI 参数差异性分析结果采用 FDR 方法进行多重检验校正。差异有统计学意义以双侧 P<0.05 来表示。

结果 研究最终纳入 54 例首发未用药 SCZ 患者和 70 例健康对照进行分析。患者组在认知功能七大领域评分均明显低于健康对照组，差异有统计学意义（均 P<0.05）。患者组胼胝体辐射线枕部 FA 值低于对照组，差异有统计学意义（P<0.05，FDR 校正）；右侧下纵束 AD 值、左侧上纵束 AD 值、左侧钩束 RD 值高于对照组，差异有统计学意义（P<0.05, FDR 校正）。患者组胼胝体辐射线枕部 FA 值和和社会认知正相关（r=0.275，P=0.044）；右侧下纵束 AD 值和信息处理速度、注意及警觉性、社会认知负相关（r=-0.369，P=0.006；r=-0.274，P=0.045；r=-0.337，P=0.013）；左侧上纵束 AD 值和信息处理速度、注意及警觉性、社会认知负相关（r=-0.352，P=0.009；r=-0.276，P=0.043；r=-0.426，P=0.001）；左侧钩束 RD 值和注意及警觉性、社会认知负相关（r=-0.412，P=0.002；r=-0.401，P=0.003）。

结论 首发未用药精神分裂症患者存在脑白质微结构改变。 精神分裂症患者 FA 值、AD 值、RD 值均与认知功能相关，异常的脑白质微结构可能参与了认知功能损害。

关键字：精神分裂症；脑白质微结构；认知损害

精神分裂症患者细胞色素 P450 酶 CYP2D6 基因多态性对阿立哌唑治疗效应的影响

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目的 为确保阿立哌唑在精神分裂症患者治疗中的有效运用，检测患者细胞色素 P450 酶 CYP2D6 基因多态性，分析其对阿立哌唑治疗效应的影响。

方法 选取我院的 300 例精神分裂症患者，均在 2018 年 8 月~2020 年 9 月入院，入选的患者均接受了 28 天的阿立哌唑治疗，期间不运用其他任何药物。采取 DP-TOF 飞行时间质谱检测系统，检测入选患者 CYP2D6 exon I C/T 188 位点（以下称为“此研究目标位点”）的基因多态性。对比不同基因型患者的血药浓度与剂量比、治疗有效率（分别在治疗后第 14 天、第 28 天统计）。

结果 在血药浓度两次统计中，血药浓度从高到低依次排列是：C/C＞C/T＞T/T（P＜0.05）。在治疗有效率上，第 14 天时各基因型患者对比不存在显著差异（P＞0.05），在第 28 天，治疗有效率从高到低依次排列是：C/T＞C/C＞T/T（P＜0.05）。

结论 在精神分裂症患者采用阿立哌唑治疗的过程中，细胞色素 P450 酶 CYP2D6 基因多态性会对该药物的效果产生影响，临床应当根据患者的不同基因型调整用药剂量或者用药方案。

关键字：精神分裂症；CYP2D6；基因多态性；阿立哌唑

腹侧被盖区 mTORC1 对抑郁和焦虑样行为的调控作用研究

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目的 抑郁症和焦虑症是常见的精神障碍，共病率高且严重影响患者的社会功能和生活质量。这两种疾病是神经精神科学领域研究的难点问题，虽然提出了单胺递质异常等假说，但仍不能确切地解释其发病机制，同时药物治疗也存在有效率低、起效慢和副作用多等问题。新冠疫情大流行期间抑郁症和焦虑症的发病率大大增加，使人们认识到疾病预防、诊断和治疗的

重要性，阐明抑郁症和焦虑症的发病机制、寻找新的有效靶点是迫在眉睫的任务。腹侧被盖区（VTA）是情绪调控的重要脑区，多巴胺神经元在其中发挥重要作用。我们的前期研究发现敲除多巴胺神经元中 mTOR 基因的转基因小鼠抑郁和焦虑样行为增加。mTOR 通过与不同蛋白形成复合物激活不同的下游信号通路，为进一步探究 mTOR 影响抑郁和焦虑样行为的机制，我们考察了 VTA 中 mTOR 复合物 1（mTORC1）对焦虑和抑郁行为的影响。

方法 Raptor 是 mTORC1 的重要组成蛋白，我们应用 Cre-loxp 系统和脑立体定位技术在 Raptorflox/flox 小鼠 VTA 注射 AAV-CAG-Cre-ZsGreen 特异性敲除 VTA 脑区的 raptor 基因，对照组小鼠注射 AAV-CAG-ZsGreen。病毒注射 3 周后对小鼠进行嗅尿实验（FUST）、悬尾实验（TST）、高架十字迷宫（EPM）和明暗箱实验（LDB）行为学检测，考察小鼠抑郁和焦虑样行为。行为学实验结束后用免疫荧光成像和 real-time RT-PCR 实验检测病毒表达和基因敲除水平。

结果 VTA 特异性敲除 Raptor 基因后，小鼠在 FUST 和 TST 实验中表现出抑郁样行为增加，在 EPM 和 LDB 实验中表现出焦虑样行为增加。Real-time RT-PCR 实验结果显示病毒注射可以有效降低 VTA 脑区 raptor 的 mRNA 表达水平。

结论 特异性敲除 VTA 的 raptor 基因可以增加小鼠抑郁和焦虑样行为，提示 VTA 的 mTORC1 具有调控情绪行为的作用。

关键字：mTORC1, 抑郁症，焦虑症，腹侧被盖区

载脂蛋白 E 基因参与抑郁症氧化应激可能机制的研究进展

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目的 通过对 APOE 基因、抑郁症与氧化应激相关机制的研究进行综述，为未来探究 APOE 基因通过氧化应激途径对抑郁症产生影响具体研究提供参考。

方法 载脂蛋白 E 是一种多态性蛋白，其合成受到载脂蛋白 E 基因调控。近年来，随着对载脂蛋白 E 基因与神经退行性疾病相关性的不断研究，关于载脂蛋白 E 基因与抑郁症存在关联的研究越来越多。氧化应激指机体自由基的积累和清除，它是抑郁症重要发病机制之一，这种氧化应激与 APOE 基因多态性也存在一定联系，本文将对 APOE 基因、抑郁症与氧化应激相关机制的研究进行综述。

结果 APOE-?4 等位基因的个体可能因为小胶质细胞的数量显著降低，从而导致 Aβ 蛋白的纤维沉积在线粒体，造成线粒体的损伤，产生大量的活性氧和活性氮，同时，在 APOE-?4 等位基因携带者的 CAT 和 GSH-Px 等抗氧化酶活性降低，活性氧和活性氮的清除下降，进而与细胞生物膜上相关的酶、膜受体上的多不饱和脂肪酸核酸和侧链以及磷脂等大分子物质脂质发生过氧化反应，形成脂质过氧化产物 MDA，且 APOE-?4 等位基因的个体蛋白质中缺少两个关键的半胱氨酸残基，脂质过氧化所产生的物质 4-HN 含量上升，脂质过氧化物进一步堆积，导致机体细胞膜渗透性、蛋白质发生改变，从而产生神经毒性，影响抑郁症的发生和发展，也可抑制海马神经前体细胞的增殖，对抑郁症患者的记忆和认知功能产生负性影响。

结论 APOE 基因可能通过氧化应激途径对抑郁症的发生、发展及认知功能产生影响。

关键字：载脂蛋白 E 基因；抑郁症；氧化应激

青少年精神分裂症患者的工作记忆弱损伤及 NAAc 的保护性角色

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目的 精神分裂症和衰老与认知缺陷有关，视觉和言语工作记忆表现的明显下降说明了这一点。作为一种非语言、非视觉和独特的工作记忆子系统，振动触觉工作记忆（vibrotactile working memory, vtWM）在加强信息处理、缓解和康复有视觉和听觉障碍的人方面起着关键作用。然而，在精神分裂症患者和老年人中，对 vtWM 的认知处理和能力的调查仍然很少。

方法 在这项研究中，我们进行了三个实验来比较四组人的 vtWM 表现：健康的青少年（Young）、健康的老年人（Old）、青少年精神分裂症患者（young patients with schizophrenia, SCZ-Young）、老年的精神分裂症患者（older patients with schizophrenia, SCZ-Old）。此外，使用磁共振波谱（1H-MRS）检验了青少年与老年精神分裂症患者中 N-乙酰天门冬氨酸化合物（N-acetylaspartate compounds, NAAc）的代谢物水平。

结果 结果显示，Old、SCZ-Young 和 SCZ-Old 的 vtWM 表现都明显受损。最关键的是，老年精神分裂症组的损伤最为严重，这体现在 SCZ-Old 组的小指表现和对最后一个项目的回忆更差。此外，排序任务显示，SCZ-Young 组的执行控制功能和 vtWM 的相对工作记忆能力退化程度低于 SCZ-Old 组。而 MRS 结果显示，SCZ-Young 组的前扣带皮层（anterior cingulate cortex, ACC）的 NAAc 水平明显高于 SCZ-Old 组。

结论 这些结果表明，老年精神分裂症患者在触觉和频率信息处理方面受到的损害比年轻患者和健康老年人更大。而且，年轻的精神分裂症患者在 vtWM 处理方面的恶化程度较小，特别是在较高的振动触觉工作记忆负荷下。因此，早期评估和干预可能对治疗精神分裂症的认知障碍及其预后结局有好处。

关键字：精神分裂症 衰老 振动触觉工作记忆 磁共振波谱 N-乙酰天门冬氨酸化合物

重复经颅磁刺激干预眶额皮层对精神分裂症阴性症状的疗效及电生理机制

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目的 精神分裂症的阴性症状缺乏有效的治疗手段。现有的重复经颅磁刺激（repetitive transcranial magnetic stimulation，rTMS）常选用背外侧前额叶皮层作为干预靶点来治疗阴性症状，但该方案的总体疗效有限且个体差异性大。影像学研究表明精神分裂症的眶额皮层出现结构和功能的异常，且与阴性症状密切相关。本研究旨在探索 rTMS 干预眶额皮层对首发精神分裂症的临床疗效，并采用经颅磁刺激诱发的脑电（TMS evoked potentials，TEPs）来探讨其潜在的电生理机制。

方法 本研究采用随机、双盲、伪刺激对照的实验设计。我们在哈尔滨市第一专科医院入组 100 例首发精神分裂症患者，将其随机分成真刺激组和伪刺激组。患者接受连续 20 天的低频 1Hz 重复经颅刺激治疗，干预靶点为右侧眶额皮层，干预强度为 110%的静息态运动阈值。我们在基线阶段及治疗结束后采集了患者的阳性和阴性症状量表（PANSS）及经颅磁刺激诱发的脑电信号。对于 TEPs 信号，我们采用半球间信号传播指数来量化被试大脑左、右半球同源位置处的半球间抑制效应。采用双因素混合设计的方差分析来比较 rTMS 干预前后临床症状和电生理指标的变化，采用皮尔逊相关分析来探索临床改善和电生理改变之间的关系。

结果 基线阶段，真刺激组和伪刺激组的人口统计学资料、临床症状等无差异。rTMS 治疗前后，PANSS 总分的时间效应显著，组别和时间的交互效应显著。进一步的后验分析表明，真刺激组患者的临床症状（尤其是阴性症状和一般精神病理症状）的改善显著优于伪刺激组。TEP 结果表明，患者的半球间信号传播指数具有区域特异性，仅在刺激靶点周围表现出明显的半球间抑制效应。半球间信号传播指数在基线阶段与阴性症状显著正相关。在 rTMS 真刺激组中，基线阶段的半球间信号传播指数与阴性症状的改善显著相关；治疗前后半球间信号传播指数的改变与阴性症状的改善显著相关；而在伪刺激组中不存在这种相关性。

结论 连续 20 天的 1Hz 低频 rTMS 干预眶额皮层可显著改善首发精神分裂症患者的阴性症状。半球间抑制效应的改善是 rTMS 治疗阴性症状的潜在机制。这些结果为精神分裂症的物理治疗及潜在的神经电生理机制提供了新的证据和循证支持。

关键字：首发精神分裂症；重复经颅磁刺激；经颅磁刺激诱发的脑电；半球间信号传播；眶额皮层

免疫衰老相关 T 细胞表型及白质异常在精神分裂症伴迟发性运动障碍患者中的关系研究

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目的 精神分裂症患者较普通人群寿命减少约 20-25 年，且年龄是迟发性运动障碍（tardive dyskinesia，TD）最重要的危险因素之一。过早或加速衰老、免疫功能障碍在伴有 TD 的精神分裂症患者的病理机制中发挥重要作用。T 细胞亚群相对比例失调是免疫衰老最重要的表型且与大脑结构异常密切相关。本研究旨在探索免疫衰老相关 T 细胞表型及白质异常在伴有 TD 的精神分裂症患者发病机制中的作用。

方法 本研究共纳入符合入组标准的精神分裂症患者共 108 例，其中 TD 患者 50 例，非 TD（NTD）患者 58 例，健康对照 (healthy control，HC) 58 例，收集一般人口学资料、临床资料（性别、年龄、教育程度、起病年龄、总病程、当前用药情况等），采用阳性与阴性症状量表（Positive and Negative Syndrome，PANSS）评估临床症状，采用异常不自主运动量表(Abnormal Involuntary Movement Scale，AIMS)评估 TD 的严重程度。用流式细胞术定量检测幼稚 (CD45RA+)、记忆 (CD45RO+)、凋亡 (CD95+) 标志物阳性的 CD4+ 和 CD8+ T 细胞百分比及 IFN-γ、IL-6、IL-1β 和 TNF-α 等细胞因子在衰老表型阳性 T 细胞中的表达情况。使用 MRI 成像分析，计算皮质下灰质体积及白质纤维束的分数各项异性（fractional anisotropy，FA）。使用 SPSS 进行单因素方差分析、皮尔逊相关分析、多元线性回归分析等进行组间比较及各指标相互关系的探讨，以性别、年龄、教育程度及颅内总体积（针对影像数据）等作为协变量。

结果 1）与 NTD 和 HC 相比，TD 患者中 CD8+CD45RO+CD95+ T 细胞亚群的数量较高，并且与外周-中枢交界组织脉络丛的体积相关。2）CD8+CD45RO+CD95+ T 细胞中的 INF-γ 表达量、穹窿/终纹的 FA 值和苍白球体积与口面型 TD 的严重程度相关，而额枕下束、扣带束和上纵束的 FA 值与四肢-躯干型 TD 的严重程度相关。

结论 免疫衰老相关 T 细胞表型与大脑结构异常的相互关联在 TD 的发病机制中发挥重要作用，且免疫衰老标志物及白质异常进一步佐证了口面型及四肢-躯干型 TD 的发病机制不同，为将来针对免疫衰老、白质异常的精准靶向治疗不同类型的 TD 提供了理论依据。

关键字：免疫衰老 白质 精神分裂症 迟发性运动障碍

亨廷顿舞蹈病 HTT 基因 CAG 三核苷酸重复次数在精神分裂症迟发性运动障碍患者的表达研究

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目的 伴有迟发性运动障碍（Tardive dyskinesia，TD）的精神分裂症临床表型与亨廷顿舞蹈病（Huntington's disease，HD）有诸多相似之处，包括运动过度、精神症状和认知功能下降等。先前的研究假设这两种疾病背景下的运动障碍可能源于相同的遗传倾向，即导致亨廷顿舞蹈病的 HTT 基因 CAG 三核苷酸重复扩增可能同样在 TD 病理机制中发挥重要作用，然而亨廷顿蛋白（huntingtin，HTT）基因胞嘧啶-腺嘌呤-鸟嘌呤（cytosine–adenine–guanine，CAG）三核苷酸重复序列的作用尚未在 TD 中得到充分探索，基于上述内容本研究探讨 HTT 基因 CAG 重复次数能否解释 HD 与 TD 之间的临床表型相似性。

方法 从 2021-2022 年共纳入符合入组标准的精神分裂症患者共 362 例，其中 TD 患者 165 例，非 TD（NTD）患者 197 例，收集一般人口学资料、临床资料（性别、年龄、教育程度、起病年龄、总病程、当前用药情况等），采用阳性与阴性症状量表（Positive and Negative Syndrome，PANSS）评估临床症状，采用异常不自主运动量表(Abnormal Involuntary Movement Scale, AIMS)评估 TD 的严重程度。通过聚合酶链反应（polymerase chain reaction，PCR）定量检测 2 组患者 HTT 基因的 CAG 重复长度。

结果 1）HTT 基因 CAG 重复长度在 TD 和 NTD 患者中没有差异 ($p = 0.752$)，2）CAG 重复长度与 PANSS 评分或 AIMS 评分不相关性均不显著（$ps > 0.05$）。

结论 我们的研究结果并不支持 HTT 基因的 CAG 重复序列扩增在 TD 机制中的发挥作用，需要更多神经生物学和遗传学研究来阐明 TD 和 HD 之间的相似性。

关键字：亨廷顿舞蹈病 迟发性运动障碍 CAG 重复次数

Inflammatory Disequilibrium and Lateral Ventricular Enlargement in Treatment-Resistant Schizophrenia

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Objective Treatment-resistant schizophrenia (TRS) patient respond poorly to antipsychotics. Inflammatory imbalance involving pro- and anti-inflammatory cytokines may play an important role in the mechanism of antipsychotic-medication response. This study aimed to investigate immune imbalance and how the latter relates to clinical manifestations in patients with TRS. The level of net inflammation was estimated by evaluating the immune-inflammatory response system and compensatory immune-regulatory reflex system (IRS/CIRS) in 52 patients with TRS, 47 with non-TRS, and 56 sex and age matched healthy controls.

Methods The immune biomarkers mainly included macrophagic M1, T helper, Th-1, Th-2, Th-17, and T regulatory cytokines and receptors. Plasma cytokine levels were measured using enzyme-linked immunosorbent assay. Psychopathology was assessed using the Positive and Negative Syndrome Scale (PANSS). Subcortical volumes were quantified using a 3-T Prisma Magnetic Resonance Imaging scanner.

Results The results showed that (1) patients with TRS were characterized by activated pro-inflammatory cytokines and relatively insufficient anti-inflammatory cytokines, with an elevated IRS/CIRS ratio indicating a new homeostatic immune setpoint; (2) IRS/CIRS ratio was positively correlated with larger lateral ventricle volume and higher PANSS score in patients with TRS.

Conclusion Our findings highlighted the inflammatory disequilibrium as a potential pathophysiological process of TRS.

关键字：Treatment-resistant schizophrenia; Cytokine imbalance; Inflammation/ Inflammatory imbalance; Lateral ventricle; Subcortical volume

Altered White Matter Structural Network Connectivity Associated with Cognitive Declines in Psychogenic Erectile Dysfunction

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Objective Psychogenic erectile dysfunction (pED) has been associated with cognitive declines. While increasing neuroimaging studies have demonstrated abnormalities of cerebral structural changes in pED, the association between altered white matter (WM) structural network and cognitive impairments remains unclear. Hence, this study aimed to explore the association between WM structural network connectivity and cognitive performance in patients with pED.

Methods Forty pED patients and 33 healthy controls (HCs) were recruited to perform cognitive assessments, and diffusion tensor imaging scans. We firstly constructed the WM structural network and applied the machine learning method to identify the important features. Then, we examined group differences in cognitive assessments, WM structural network connectivity within the identified features, and associations between altered WM structural network connectivity and cognitive scores in pED patients.

Results From 26896 features of DTI data, 24 important features were identified by K-Nearest Neighbor classification with a satisfactory accuracy (78%). Compared with HCs, we found that pED patients showed higher fractional anisotropy (FA) values between left transverse temporal sulcus and left supramarginal gyrus, and lower FA values between left suborbital sulcus and left para-hippocampal part of the medial occipito-temporal gyrus in pED patients. Furthermore, the increased FA between left transverse temporal sulcus and left supramarginal gyrus was observed to be negatively associated with impaired delayed memory.

Conclusion Overall, our findings provide new insights into WM network alterations associated with impaired cognitive functions in pED, which may unravel the potential neural mechanisms underlying the cognitive impairments of pED patients.

关键字：Diffusion tensor imaging, White matter, Psychogenic erectile dysfunction

精神分裂症患者局部自发脑活动改变与临床症状及认知功能的相关性研究

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目的 观察精神分裂症（Schizophrenia, SZ）患者的局部自发脑活动变化及其与临床症状和认知功能的相关性，探究用于疗效预测的生物标志物。

方法 本研究共纳入 104 例 SZ 患者和 86 例健康受试者（Healthy Control, HC）。SZ 组受试者在基线和第二代抗精神病药治疗 8 周末进行功能磁共振扫描，HC 组受试者在基线时扫描。使用低频振幅（Amplitude of Low-frequency Fluctuation, ALFF）、局部一致性（Regional Homogeneity, ReHo）和度中心性评估受试者局部自发脑功能活动。采用阳性与阴性症状量表（Positive and Negative Syndrome Scale, PANSS）和认知功能成套测验评估患者的临床症状及认知功能。比较 SZ 患者和 HC 的差异以及治疗前后的变化，探究与临床量表变化的相关性。根据 PANSS 减分率，将 SZ 组受试者分为 SZ 有效组和 SZ 无效组，比较两亚组治疗前后指标的变化，进一步探究是否与疗效相关。

结果 1. 和 HC 相比，SZ 患者 ALFF 和 ReHo 的变化存在重叠脑区，在颞下回、额下回、小脑增高，在梭状回和楔前叶降低。2. 和治疗前相比，治疗后 SZ 组患者的 ALFF 在右背外侧额上回增高，在双侧枕中回、左侧中央旁小叶、左侧舌回、右侧中央前回降低。ReHo 在右内侧额上回增高，在左侧枕中回和左侧中央后回降低。3. 在 SZ 两个亚组的分析中，仅在 SZ 有效组中发现右内侧额上回的 ReHo 值增加。4. SZ 组患者右背外侧额上回 ALFF 值的增加与焦虑抑郁因子评分的降低呈正相关（r=0.347, P=0.001），与连线测验评分的降低呈正相关（r=0.272, P=0.012）；右内侧额上回 ReHo 值的增加与阴性因子评分的降低呈负相关（r=-0.255, P=0.019）；左侧中央后回 ReHo 值的降低与符号编码评分的增加呈正相关（r=0.306, P=0.005）。

结论 1. SZ 患者许多脑区的功能活动和 HC 存在差异，表现出广泛的局部脑功能异常。2. 治疗过程中，SZ 患者部分脑区的局部自发脑功能活动发生变化，且右背外侧额上回、右内侧额上回、左侧中央后回的变化与阴性症状、焦虑抑郁症状或信息处理速度的改善相关。3. 右内侧额上回的局部自发脑活动变化可能可以评估症状改善程度，以预测疗效。

关键字：局部一致性；疗效；局部自发脑活动；静息态功能磁共振；精神分裂症

抑郁障碍患者临床特征与黑皮质素系统基因组关联分析

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目的 探讨抑郁障碍患者快感缺失、食欲变化特征及 BMI 值与黑皮质素系统因 POMC、CART、AgRP、NPY、MC3R、MC4R、PCSK1、PCSK2 候选基因的多态性位点相关性。

方法 选取 2016 年 01 月至 2022 年 11 月在昆明医科大学第二附属医院符合 ICD-10 抑郁障碍诊断标准的 1093 例抑郁障碍患者，收集一般资料并根据 ICD-10 诊断标准进行结构化访谈评估患者快感缺失及食欲变化特征。入组对象均抽取外周静脉血 5ml，采用微阵列 SNP 分型技术进行全基因组关联研究，筛选出黑皮质素系统 POMC、CART、AgRP、NPY、MC3R、MC4R、PCSK1、PCSK2 基因的全部单核苷酸多态性位点，进一步探讨抑郁障碍的快感缺失、食欲变化、BMI 值等临床表型与黑皮质素系统候选基因的相关性。

结果 1.本研究入组的 1093 例抑郁障碍患者中，男性抑郁障碍患者占 31.11%，女性占 69.89%，平均年龄 33.25±17.50 岁。2.存在快感缺失特征占 85.18%，存自杀观念的 585 例中 91.62%存在快感缺失特征；存快感缺失者 HAMD 总分、焦虑/躯体化、认知障碍、日夜变化、阻滞、 绝望感因子分在两组间存在统计学差异。食欲变化占 63.59%，正常占 36.41%；BMI 值提示正常占 60.93%。3.黑皮质素系统候选基因 114 个 SNP 位点与抑郁障碍患者的快感缺失特征存在相关性，其中存在 CART rs281126（A）等位基因变异的患者可能存在更高快感缺失特征风险；159 个 SNP 食欲变化存在相关性，其中 PCSK2 rs2206452、rs2424074、

rs1015776、rs2424066、rs1361510、rs1417559、rs1417560达到较显著水平（P<5.0x10-5），且均为抑郁障碍患者可能产生食欲变化的危险因素。有 114 个 SNP 位点与 BMI 值存在相关性。

结论 1.抑郁障碍患者存快感缺失特征比例较高，抑郁程度更重食欲减退更明显。2. 黑皮质素系统候选基因多态性位点与抑郁患者的临床特征存在相关性。3. 黑皮质素系统中部分基因的多态性位点的等位基因变异可能与更高快感缺失特征的风险，更高的食欲变化风险特征及 BMI 值变化相关且为抑郁障碍 患者出现该临床特征的危险因素。

关键字：抑郁障碍；快感缺失；食欲；BMI；黑皮质素系统；基因多态性

Identification of VIPR2 Rare and Common Variants in The Chinese Han Population with Schizophrenia

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Objective Schizophrenia is a severe and chronic psychiatric disorder with hereditary risk up to 80% as previous studies indicated. Several researches have demonstrated a significant association between schizophrenia and microduplications that overlap the vasoactive intestinal peptide receptor 2 gene (VIPR2).

Methods To further investigate potential causal VIPR2 gene variants, all exons and un-translated portions of the VIPR2 gene were sequenced using amplicon targeted resequencing in 1804 Chinese Han patients with schizophrenia and 996 healthy counterparts in the present study.

Results Nineteen rare non-synonymous mutations and 1 frameshift deletion was identified for schizophrenia, among which 5 variants have never been reported so far. Frequencies of rare non synonymous mutations were significantly different between the two groups. Specifically, the non synonymous mutation rs78564798 (Pallele = 0.006) as well as two rare variations in the VIPR2 gene's introns (rs372544903, Pallele = 0.026 and a novel mutation, chr7:159034078, GRCh38, Pallele = 0.048) were significantly associated with schizophrenia.

Conclusion Our findings add new evidence that the functional and probable causative variants of VIPR2 gene may play an important role in susceptibility to schizophrenia. Further studies on validations of VIPR2's function in the etiology of schizophrenia are warranted.

关键字：VIPR2 gene, schizophrenia, amplicon targeted resequencing, association study, causative variants

精神分裂症患者血浆 MMP9 水平升高与抗精神病药物治疗效果差和右侧颞上回白质体积下降相关

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目的 抗精神病药物治疗是精神分裂症（schizophrenia, SCZ）治疗的主要手段，然而有大约三分之一的 SCZ 患者抗精神病药物治疗无效或效果差。在临床治疗前期识别出这类患者将有助于进行个体化治疗以改善疗效。氧化还原失衡和免疫炎症失调与 SCZ 病因病理密切相关，并且会影响疾病的治疗效果。基质金属蛋白酶 9（matrix metalloproteinase 9, MMP9）是介导氧化应激和炎症之间相互作用的一个关键分子，因此 MMP9 可能是预测 SCZ 患者疗效的潜在生物标记物。此外，有研究发现 MMP9 的升高也与认知障碍和白质损伤相关。在本研究中我们探讨了 SCZ 患者血浆 MMP9 浓度与抗精神病药物反应、临床症状和大脑结构的关系。

方法 本研究共纳入 129 名健康对照和 124 名 SCZ 患者。SCZ 患者在经过 8 周的抗精神病治疗后，根据 PANSS 减分率是否≥50%，将其分为疗效好组（n=49）和疗效差组（n=75）。在健康对照组，我们采集了基线期血液样本；在 SCZ 患者组，进行了基线期和治疗 8 周这两个时间点的血液样本采集、PANSS 评估、MCCB 评估、磁共振数据采集。此外，我们采用 ELISA 的方法检测血液样本中 MMP9 的含量，并基于 Brainnetome 图谱的 246 个分区，从患者的磁共振图像中提取了区域白质体积。

结果 与健康对照组相比，疗效差组患者血浆 MMP9 水平在基线期明显升高，并与右侧颞上回白质体积和认知症状呈负相关；相反，疗效好组患者和健康对照组之间的血浆 MMP9 无差异，血浆 MMP9 与认知症状或白质体积也无相关性。此外，SCZ 患者基线期血浆 MMP9 水平与 PANSS 减分率呈负相关，二元 Logistic 回归结果也显示 SCZ 患者基线期 MMP9 水平是影响疗效的一个重要因素。

结论 血浆 MMP9 升高与 SCZ 患者抗精神病药物疗效差、白质缺损和认知障碍有关,可能是指导个性化治疗的潜在生物标志物。

关键字：基质金属蛋白酶 9；精神分裂症；抗精神病治疗；生物标志物；白质

稳定期精神分裂症患者元认知能力与快感体验能力的相关性分析

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目的 近年来，精神分裂症患者的元认知及相关的认知功能缺陷受到了广泛的关注，大量研究表明，精神分裂症患者存在广泛的元认知障碍，快感缺失作为精神分裂症的主要核心症状，与认知功能损伤的关系密切，目前关于精神分裂症患者快感缺失与元认知能力间的关系的研究较少。本研究旨在讨论精神分裂症患者元认知能力与快感体验能力之间的相关性。

方法 选择 2022 年 12 月-2023 年 6 月期间在安徽省精神卫生中心住院及门诊治疗的符合 ICD-10 诊断标准的稳定期精神分裂症患者作为研究对象（81 例）。通过印第安纳精神疾病访谈(IPII)，采用修订版元认知量表（MAS-A）对精神分裂症患者元认知能力进行评估，包括自我反省（S）、理解他人想法（O）、去中心化（D）、控制（M）四个因子。采用时间快感体验量表（TEPS)、躯体快感缺失量表（RPAS）以及社会快感缺失量表（RPAS）评估患者的快感体验能力，其中 TEPS 包括预期快感、完成快感两个分量表。采用 Pearson 相关分析、Spearman 相关性分析进行数据处理。

结果 D 分与 TEPS 总分及完成快感分(r=0.266、0.303，P<0．05)均呈正相关，具有统计学意义；MAS-A 总分与 TEPS 总分和完成快感分(r=0.238，P<0．05、r=0.254，P<0．05)均呈正相关，具有统计学意义。以性别分组分别进行相关性分析，结果显示在女性患者中，MAS-A 总分 、S 分、O 分、D 分、M 分(r=0.461、0.330、0.413、0.382、0.441，P<0．05)与 TEPS 总分呈正相关，均具有统计学意义。MAS-A 总分、S 分、O 分、D 分、M 分(r=0.531、0.421、0.480、0.444、0.451，P<0．05)与完成快感分也呈正相关，均具有统计学意义。而这些相关性在男性患者中均不存在。女性的 MAS-A 总分、S 分、O 分以及 M 分(r=-0.383、-0.382、-0.341、-0.379，P<0．05)与社会快感缺失量表分均呈负相关,这些相关性在男性患者中同样也不存在。

结论 稳定期精神分裂症患者元认知能力与快感体验能力正性相关，提示元认知的完整性可能会影响对时间快感、躯体以及社会快感的体验，且在女性患者中尤为明显，值得进一步研究讨论。

关键字：稳定期精神分裂症; 元认知; TEPS; RPAS; RSAS

稳定期精神分裂症患者元认知功能与依恋关系的相关性分析

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目的 精神分裂症是一组具有广泛认知损害的重性精神疾病。元认知作为认知活动的核心，是指个体在进行信息加工的同时，能够理解自己和他人的心理状态并做出相应行为反应的一种能力。研究显示精神分裂症患者存在广泛的元认知障碍，且这种元认知缺陷可能与童年创伤、不安全依恋有关。目前关于精神分裂症依恋关系与元认知功能之间的研究甚少，本研究旨在探讨稳定期精神分裂症患者依恋关系与元认知功能的相关性。

方法 选取在安徽省精神卫生中心住院和门诊治疗的符合 ICD-10 诊断标准的稳定期的精神分裂症患者作为研究对象，共纳入 80 名患者，根据性别分组，其中女性组 35 例、男性组 45 例；采用亲密关系体验-关系结构量表（Experiences in Close Relationships-Relationship Structures scale,ECR-RS）评估稳定期精神分裂症患者的多种依恋关系，包括依恋回避、依恋焦虑两个维度；分为母亲依恋（ECR-RS-1）、父亲依恋（ECR-RS-2）、恋人依恋（ECR-RS-3）、挚友依恋（ECR-RS-4）四个领域。采用印第安纳精神疾病访谈（the indiana Psychiatric illness interview,IPII）及修订版元认知评估量表（MAS-A）对患者元认知功能进行评估，包括自我反省（S）、理解他人（0）、去中心化（D）、控制（M）4 个因子。采用独立样本 T 检验比较男性组与女性组元认知功能及亲密关系体验-关系结构量表之间的差异，通过偏相关分析探讨稳定期精神分裂症患者依恋关系与元认知功能间的关系。

结果 独立样本 T 检验发现女性患者组的元认知总分及元认知 D 分高于男性患者组，差异具有统计学意义(t=-1.989,P=0.05;t=-3.62,P=0.001)，亲密关系体验-关系结构量表各项得分在两组间差异均无统计学意义。控制混杂因素对精神分裂症患者的依恋关系及元认知功能进行偏相关分析，结果显示恋人依恋（ECR-RS-3）领域的依恋回避与元认知的总分、元认知 D 分及元认知 M 分结果呈负相关(r=-0.266,P<0.05；r=-0.250,P<0.05；r=-0.292,P<0.05)。

结论 稳定期精神分裂症患者异性亲密关系越好，患者对自我和他人的认知理解能力及应对社会困境的功能可能就越好。

关键字：精神分裂症; 元认知; 亲密关系体验-关系结构量表（ECR-RS）

伴 NSSI 的首发抑郁症患者 rTMS 治疗临床疗效及其磁共振波谱分析研究

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目的 1.通过磁共振波谱技术探究伴有非自杀性自伤行为(NSSI)的抑郁症患者大脑内侧前额叶皮层 γ-氨基丁酸(GABA)与谷氨(GLU)的含量及其与抑郁症状及 NSSI 行为的关联性。2.探究伴有 NSSI 行为的抑郁症患者在重复经颅磁刺激治疗后，抑郁症状、NSSI 行为的变化、mPFC 的 GABA 与 GLU 含量的变化,以及抑郁症状、NSSI 行为变化与 GABA、GLU 含量变化的关联性。

方法 纳入了 103 例伴有 NSSI 行为的首发抑郁障碍患者，采用汉密尔顿抑郁量表、抑郁自评量表、非自杀性自伤行为与功能量表评定患者的抑郁症状以及 NSSI 行为的严重程度；之后进行 MRS 检查并对 MRS 数据进行采集与后处理，测得患者大脑 mPFC 内 GABA

及 GLU 的含量；分析患者的抑郁症状以及 NSSI 行为的严重程度与大脑 mPFC 内 GABA 及 GLU 含量的关联性。在此基础上将其中 35 名患者随机分为研究组和对照组进行为期 10 天的治疗，两组均给予常规抗抑郁药物治疗，前者在使用抗抑郁药治疗的同时联合使用 rTMS 疗法。在治疗后再次进行 HAMD、SDS、ANSSIQ 量表的评定并行 MRS 检查.

结果 治疗后，研究组患者 mPFC 内的 GABA 升高，GLU 含量降低，HAMD、SDS、ANSSIQ 得分均降低.对照组患者 mPFC 内的 GABA 与 GLU 含量在治疗前后无明显差异,HAMD、SDS、ANSSIQ 得分均降低.研究组患者 HAMD、SDS、ANSSIQ 得分低于对照组，mPFC 内的 GABA 含量高于对照组，GLU 含量低于对照组.研究组患者治疗前后 GABA 的变化量与 HAMD、SDS、ANSSIQ 三种量表的减分呈负相关关系,GLU 的变化量与 HAMD、SDS、ANSSIQ 三种量表的减分呈正相关关系.多重线性回归分析结果显示，在治疗前后量表评分变化量 dHAMD、dSDS、dANSSIQ 三个自变量中：dHAMD 对 dGABA 有负效应，对 dGLU 有正效应；dANSSIQ 对 dGLU 有正效应；dSDS 被剔除未进入回归方程。

结论 伴有 NSSI 行为的抑郁症患者大脑 mPFC 内 GABA 及 GLU 含量与其抑郁症状及 NSSI 行为的严重程度有关。低频 rTMS 治疗作用于右侧 DLPFC 可以用于伴有 NSSI 行为的抑郁症患者的治疗，在治疗后患者的抑郁症状减轻，且自伤意念减轻、自伤行为减少。这些改变可能与治疗期间大脑 mPFC 内 GABA 含量的升高和 GLU 含量的减少有关联性.

关键字：抑郁症；非自杀性自伤行为；γ-氨基丁酸（GABA）；谷氨酸；重复经颅磁刺激治疗

抗精神病药源性肥胖患者认知功能的进一步损害机制

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目的 第二代非典型抗精神病药物（AAPDS）是治疗精神分裂症和其他精神病的常用药物。抗精神病药物的应用会引起一些代谢不良反应，如肥胖、血脂异常、血糖异常和胰岛素抵抗等。其中最常见的副作用是体重增加，长期服用 AAPDS 会使至少 50%的患者体重增加至少 5kg，不良反应的发生，不仅会影响患者的身心健康，而且会在原有疾病造成的认知功能损害的基础上，引起认知功能的进一步累加，表现为学习、记忆功能等的下降，严重降低患者的依从性。

方法 纳入我院首发未用药精神分裂症患者组 70 例，健康对照组 50 例，两组基线人口学资料无明显差异。对首发精神分裂症患者组给予利培酮治疗，动态观察两组 BMI、炎症因子和认知的关系。

结果 研究发现首发未用药精神分裂症患者信息处理速度(SOP)、注意与警觉（AV）、工作记忆(WM)、视觉记忆(BVMT)、推理和问题解决(RPS)评分等都明显低于正常对照组，血清炎症因子 IL-1β 、IL-6 和 TNF-α 在治疗前明显高于健康对照组。治疗后半年随着体重的增加，炎症因子 IL-1β 、IL-6 和 TNF-α 水平升高。治疗半年后，体重增加组认知功能领域中信息处理速度(SOP)、工作记忆(WM)、视觉记忆(BVMT)、推理和问题解决(RPS)评分明显低于体重无明显增加组。

结论 首发精神分裂症患者存在多个认知功能领域的损害，同时提示精神分裂症存在免疫系统激活。而应用抗精神病药物后引起的药源性肥胖可能是一种慢性低度炎症。药源性肥胖导致增多的游离脂肪酸通过激活小胶质细胞的 NF-KB 通路和改变小胶质细胞的激活状态，产生更高水平的炎症因子。炎症因子通过正反馈，进一步激活 NF-KB 通路，引起神经炎症的级联放大，损伤海马突触可塑性和 LTP 的明显减弱，从而影响认知功能。促炎因子状态的改变和肥胖存在一定的相关性，随着体重的增加，炎症因子也发生一些动态变化，同时利培酮所致的体重增加可能对认知功能产生进一步的负面影响。

关键字：抗精神病药物；利培酮；药源性肥胖；认知；免疫；小胶质细胞

阿尔茨海默病性患者激越症状的发生与左侧杏仁核体积与有关

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目的 阿尔茨海默病（AD）伴发的精神行为症状(BPSD)给患者及家属带来了严重的疾病负担，其中激越症状是造成照料者痛苦的主要原因，也是导致送入医疗机构的主要原因。激越症状的出现可能和某些关键脑区的结构改变有关。因此，本研究通过分析 AD 患者脑结构的改变与激越症状的关系，探索影响激越症状的关键脑区。

方法 本研究以上海市精神卫生中心门诊或住院的 AD 患者为研究对象，收集基线期一般人口学资料，使用简易精神状态量表（MMSE）评估其认知功能，痴呆评定量表（CDR）评估其痴呆严重程度，神经精神问卷（NPI）评估其精神行为症状，进行 3D T1 结构像磁共振扫描并使用 Freesurfer 6.0 软件分割脑区。以 NPI 量表中激越/攻击性的分数是否≥1 分，分为激越组和非激越组，比较两组间关键脑区的结构变化。

结果 通过门诊及病房收集符合 ICD-10 诊断标准的 AD 患者 66 例，其中激越组 34 例，非激越组 32 例。两组间年龄、性别、受教育年限均无统计学差异。激越组的 MMSE 总分低于非激越组（11.35±7.04 vs15.35±7.03，p=0.012），NPI 总分（37.70±21.99 vs18.43±18.60，p<0.001）及 CDR 分数（2.28±0.69 vs1.73±0.73，p=0.001）均高于非激越组，差异存在统计学意义。激越组左侧杏仁核体积略高于非激越组（968.55±303.00 vs942.05±241.36，p=0.09），两组间右

侧杏仁核及双侧海马体积均无统计学差异。Logistic 多因素回归发现，左侧杏仁核体积较大（p=0.045）和 CDR 分数较高（p=0.007）是 AD 患者出现激越症状的主要危险因素。

结论 AD 患者出现激越症状可能与左侧杏仁核结构改变有关。

关键字：阿尔茨海默病 激越 杏仁核 脑结构

氧化三甲胺及其前体在精神分裂症伴发代谢综合征患者中的差异分析

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目的 分析长期住院精神分裂症伴随或不伴随代谢综合征患者血浆中氧化三甲胺及其前体代谢物的差异，为发现新的生物标志物提供依据。

方法 在本院病房中招募长期住院的精神分裂症患者，根据中华医学会 2020 年的代谢综合征诊断标准分为伴发代谢综合征组（M 组）和不伴发代谢综合征组（N 组）；再招募性别、年龄与精神分裂症患者匹配的健康对照组（H 组）。采用 UPLC-MS 的方法检测各组人群血浆中氧化三甲胺（TMAO）、三甲胺（TMA）、甜菜碱（TCJ）、肉碱（RJ）和胆碱（DJ）水平。

结果 本研究共纳入 210 名受试者，其中 M 组 79 人，N 组 71 人，H 组 60 人。三组受试者年龄、性别无统计学差异。相较于 N 组和 H 组，M 组受试者体重、BMI、腰围、血压、空腹血糖、甘油三酯水平和调节代谢紊乱药物使用百分比较高，而高密度脂蛋白水平较低；M 组与 N 组相比，病程、抗精神病药物使用种类无统计学差异。单因素方差分析发现，M 组和 N 组 TMAO 水平较 H 组升高（P 均< 0.001）；DJ 水平在三组之间无显著性差异；M 组和 N 组 TCJ 水平较 H 组降低（P < 0.001, = 0.001）；M 组和 N 组 RJ 水平均低于较 H 组（P 均< 0.001），但 M 组高于 N 组（P = 0.037）；N 组 TMA 水平低于 H 组和 M 组（P 均< 0.001）。男性 TMAO 水平较低，而 DJ、TCJ 和 TMA 水平较女性高（P 均< 0.05）。由于样本中男性比例较大，故男性 TMAO 及其前体代谢物的水平与总体趋势相近；女性各组间 TMAO 水平未见显著差异，M 组 DJ 水平显著增高（P 均< 0.05）。

结论 TMAO 水平在精神分裂症患者中升高，其中伴发代谢综合征患者中的水平更高，有潜力成为预测精神分裂症伴发代谢综合征的生物标志物。

关键字：精神分裂症；代谢综合征；氧化三甲胺；靶向代谢组

Association of Impaired Cortical Inhibition and Clinical Outcomes in Patients at Clinical High Risk for Psychosis

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Objective Cortical inhibition (CI) could be in-vivo measured using single-pulse or paired-pulse transcranial magnetic stimulation (TMS). Impaired CI has been observed in patients with schizophrenia and at clinical high-risk for psychosis (CHR). However, it remains unclear whether CI impairments could predict the clinical outcomes of CHR, i.e., the risk of converting to schizophrenia.

Methods We recruited 55 CHR patients, 35 patients with first-episode schizophrenia (FES), and 35 healthy controls (HC). 83.6% of CHR patients and 85.7% of FES patients were drug-naive. We measured the cortical inhibition function of the left primary motor cortex using TMS by three CI indexes, GABAA-mediated short-interval cortical inhibition (SICI), GABAB-mediated cortical silent period (CSP), and glutamate-mediated intra-cortical facilitation (ICF). We used MATRICS Consensus Cognitive Battery to test all subjects' neurocognitive performance. CHR patients were followed-up within 2 years and were divided into CHR converters (CHR-C) and CHR non-converters (CHR-NC) according to their clinical and functional assessments during the follow-up.

Results There was a significant between-group difference for CSP. CSP was longer in CHR-C (Bonferroni adjusted P = 0.047) and FES group (Bonferroni adjusted P = 0.033) than HC, while CSP was comparable between CHR-NC and HC (Bonferroni adjusted P = 0.455). In CHR, CSP was negatively related to their performances in verbal learning task (r = -0.282, P = 0.039), visuospatial memory task (r = -0.277, P = 0.042), and maze task (r = -0.379, P = 0.005). There was no significant between-group difference for either SICI or ICF.

Conclusion The prolonged CSP was selectively observed in CHR patients who later converted to schizophrenia, suggesting that impaired GABAB-mediated cortical inhibition could be related to the full-blown onset of schizophrenia and may be a potential biomarker for predicting the individual conversion risk.

关键字：cortical inhibition; cortical silent period; clinical high risk for psychosis; conversion; schizophrenia; neurocognition

Comparing The Efficacies of Transcranial Magnetic Stimulation Treatments by Different Targeting Methods in Major Depressive Disorder: A Network Meta-analysis

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Objective To compare the efficacies of three different transcranial magnetic stimulation (TMS) targeting methods, "5 cm" method, F3 method, and neuronavigational method, over the left dorsolateral prefrontal cortex (DLPFC) for patients with major depressive disorder (MDD) by performing a network meta-analysis (NMA).

Methods We included all randomized controlled trials (RCTs) comparing efficacies between active TMS treatment by any one or more of the three targeting methods and sham TMS treatment or between TMS treatments by any two or three of above targeting methods. Participants included were diagnosed with MDD with no limitation to age, gender or nationality. The primary outcomes are the reduction scores in the Hamilton Depression Rating Scale (HDRS) compared with baseline. We used the dropout rate and incidence of adverse events to represent the acceptability of TMS treatment as secondary outcomes. Standardized mean differences (SMD) were computed for continuous outcome data and summary odds ratios (ORs) were used for binary data. The surface under the cumulative ranking curve (SUCRA) was generated to rank the efficacies and acceptability of different targeting methods. We assessed heterogeneity by using the I2 statistic and used node-splitting method to access the local inconsistency. The risk of bias was assessed with the Cochrane risk of the bias assessment tool. We created funnel plots to explore possible small-study and publication biases.

Results Of 1228 references, 42 RCTs were included. The result of NMA of efficacy showed the comparison between efficacy of "5 cm" method and sham treatment was statistically significant. Same result also found in the comparison between neuronavigational method and sham treatment. The SUCRA showed, in terms of efficacy, neuronavigational method may be the most efficacious targeting method (86.4%), followed by the F3 method (56.1%), "5 cm" method (54.8%), and sham treatment (2.7%). In terms of dropout rate, the result of NMA showed no statistically significance among groups. In terms of incidence of adverse events, 23 trials which included in analysis mostly reported headache and discomfort at scalp. The result of NMA showed "5 cm" method had higher incidence of adverse events than sham treatment, other comparisons were not statistically significant. The SUCRA showed sham treatment may have the lowest incidence of adverse events. The results of the node splitting method showed good consistency. The funnel plots of efficacy and acceptability had good symmetry, indicating a higher quality of inclusion in the study and a lower possibility of publication bias.

Conclusion Neuronavigational method is probably the most efficacious targeting method comparing to traditional targeting methods. Few differences were found in acceptability between the different targeting methods and sham treatment. Patients may experience more adverse events during real stimulation, but most of them were not drop out.

关键字：Major Depressive Disorder, Transcranial Magnetic Stimulation, Left Dorsolateral Prefrontal Cortex, "5 cm" method, F3 method, neuro-navigational method

不同刺激电量 MECT 治疗精神障碍患者的疗效分析

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目的 探究不同刺激电量对 MECT 治疗精神障碍患者疗效的影响

方法 选取本院精神科于 2022 年 2 月至 2023 年 2 月收治的 75 例精神障碍患者作为研究对象，并按照刺激电量不同随机均分为 3 组（低电量组、中电量组、高电量组）。对比三组的治疗总有效率、不良反应发生率、精神状况、刺激电量影响因素等指标。

结果 治疗前，三组 CGI-S 评分无显著差异（P>0.05）。治疗后，三组 CGI-S 评分均明显降低。与低电量、中电量组相比，高电量组的 CGI-S 评分下降更显著（P<0.05）。低电量、中电量、高电量组治疗精神障碍的总有效率分别为 64.00%、76.00%、88.00%。与低电量组、中电量组相比，高电量组的治疗总有效率显著上升（P<0.05）；低电量、中电量、高电量组治疗精神障碍的不良反应总发生率分别为 4.00%、12.00%、28.00%。与低电量组、中电量组相比，高电量组主要在头疼、其他肌肉疼、短期记忆力下降等方面的不良反应显著增加（均 P<0.05）；治疗前，三组的 HAMD、PANSS、WAIS 及 WMS 评分比较，均无显著差异（均 P>0.05）。治疗后，与低电量、中电量组相比，高电量组患者的 HAMD、PANSS、BRMS、WMS 评分均呈显著下降趋势（均 P<0.05），WAIS 评分差异不显著（P>0.05）；男性、年龄较大、精神分裂症是所需电量高的预测因素。

结论 不同刺激电量 MECT 治疗精神障碍患者的疗效不同。增加刺激电量能够显著提升患者的临床疗效，改善患者抑郁、冲动、妄想等精神状况，但会增加短期不良反应，特别是疼痛、记忆力下降等临床表现的发生，因此在对患者采取 MECT 治疗时，应对刺激电量进行严格控制。

关键字：MECT 治疗；不同刺激电量；疗效；不良反应

睡眠时相延迟型强迫症患者的脑代谢磁共振波谱及反应抑制功能研究

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目的 本研究旨在探讨强迫症患者丘脑神经代谢物水平、反应抑制功能及睡眠时相延迟之间的关联性，进一步理解强迫症的发病机制。

方法 本研究应用磁共振波谱测量 41 名强迫症患者和 22 名健康对照的丘脑静息态和功能态神经递质水

平，检测前和检测中采用 Go-Nogo 任务进行反应抑制功能测量。所有参与者收集一般临床资料及七天的睡眠日记记录，应用多导睡眠脑电记录仪进行夜间睡眠监测(PSG)。采用匹兹堡睡眠质量指数量表(PSQI)评估主观睡眠质量；清晨型-夜晚型问卷(MEQ)评估睡眠时型；耶鲁布朗强迫症严重程度量表(Y-BOCS)评估强迫症状严重程度；汉密尔顿抑郁量表(HAMD)评估抑郁程度；汉密尔顿焦虑量表(HAMA)评估焦虑程度。

结果 与健康对照相比，强迫症患者丘脑静息态 N-乙酰天门冬氨酸(NAA)水平显著升高(p=0.021)；Go 任务正确率显著降低(p=0.017)；Nogo 任务错误率显著增加(p＜0.001)；Nogo 任务错误反应时显著延长(p=0.001)；快速动眼(REM)睡眠潜伏期显著延长(p=0.005)；PSQI 评分更高(p＜0.001)。研究发现强迫症患者中 48.78%(20/41)的患者存在 DSPD，伴有或不伴 DSPD 的强迫症患者丘脑静息态 NAA 水平均高于健康对照(p=0.047, p=0.049)，但组间差异无统计学意义(p=0.973)；伴有 DSPD 的强迫症患者丘脑功能态肌酸(Cr)水平高于不伴 DSPD 的患者 (p=0.038)，同时强迫思维(Obsession)评分更高(p=0.029)。与健康对照及不伴 DSPD 的强迫症患者相比，伴有 DSPD 的强迫症患者 Nogo 任务错误率显著增加(p<0.001, p<0.001)，Nogo 任务错误反应时更长(p=0.010, p=0.021)。伴有 DSPD 的强迫症 PSQI 评分显著高于健康对照和不伴 DSPD 的强迫症患者(p<0.001, p=0.008)。OCD 患者全样本分析发现强迫思维评分与 PSQI 存在正相关(r=0.358, p=0.022)，与 MEQ 评分存在负相关(r=-0.516, p=0.005)。回归分析显示，MEQ 评分

结论 强迫症患者丘脑神经代谢物异常及抑制功能损害与睡眠时相延迟有关。关键脑区的神经代谢物异常和更严重的反应抑制损伤可能构成强迫症睡眠时相延迟的神经生物学基础。

关键字：强迫症；睡眠时相；反应抑制；神经代谢物

Caspase-1 Affects Chronic Restraint Stress-induced Depression-like Behaviors by Modifying GABAergic Dysfunction in The Hippocampus

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Objective Major depression disorder (MDD) is one of the most common psychiatric disorders and one of the leading causes of disability in worldwide. Both inflammation and GABAergic dysfunction have been implicated in the pathophysiology of MDD. Caspase-1, a classic inflammatory caspase, regulates AMPARs-mediated glutamatergic neurotransmission. However, the role of caspase-1 in chronic stress-induced GABAergic dysfunction remains largely unknown.

Methods Depressive-like behaviors were induced by chronic restraint stress (CRS) in adult male mice. Genetic and pharmacological approaches were used to investigate the role of caspase-1-mediated neuroinflammation on the GABAergic neurotransmission in the hippocampus. Miniature inhibitory postsynaptic currents (mIPSCs) were recorded by whole-cell patch-clamp techniques. Surface protein was extracted by a biotin kit, and the expression of protein was detected by western blotting. Intrahippocampal microinjection of the adeno-associated virus was carried out using a stereotaxic instrument and followed by behavioral tests.

Results In this study, we found that serum and hippocampal caspase-1-IL-1β levels increased significantly in chronic restraint stress (CRS) mice, and a significant negative correlation occurred between levels of caspase-1 and depression-like behaviors. Furthermore, CRS significantly decreased GAD67 mRNA levels and GABAergic neurotransmission accompanied by the reduction of GABA concentration, reduced the amplitude and frequency of mIPSCs inhibitory postsynaptic currents (mIPSCs) and the decreased surface expression of GABAARs γ2 subunit in the hippocampus. Genetic deficiency of caspase-1 not only blocked CRS-induced depression-like behaviors, but also alleviated CRS-induced impairments in GABAergic neurotransmission. Finally, reexpression of caspase-1 in the hippocampus of Caspase-1-/- mice increased susceptibility to stress-induced anxiety- and depression-like behaviors through inhibiting GAD67 expression and GABAAR-mediated synaptic transmission.

Conclusion Our study suggests that CRS dysregulates GABAergic neurotransmission via increasing the levels of caspase-1-mediated neuroinflammation in the hippocampus, ultimately leading to depression-like behaviors. This work illustrates that targeting caspase-1 may provide potential therapeutic benefits to stress-related GABAergic dysfunction in the pathogenesis of MDD.

关键字：CRS; caspase-1; hippocampus; GAD67; GABAergic dysfunction; mIPSCs.

Changes of Structural Functional Connectivity Coupling and Its Correlations with Cognitive Function in Patients with Major Depressive Disorder

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Objective Previous neuroimaging studies have reported structural and functional brain abnormalities in major depressive disorder (MDD). In this study, we aimed to explore whether the coherence of structural-functional networks was affected by disease and investigate its correlation with clinical manifestations.

Methods The severity of symptoms and cognitive function of 121 MDD patients and 139 healthy controls were assessed using HAMD-17, HAMA-14 and the Cambridge cognitive function test (CANTAB), respectively. Imaging data, including diffusion tensor imaging (DTI),

T1 structural MRI, and resting-state functional MRI, were measured to constructed whole-brain networks. Spearman correlation coefficients were calculated as coupling coefficients. Double-weight median correlation was used to investigate the correlations between differences in brain networks and the clinical assessments.

Results The percentage of total correct response to DMS and the percentage of delayed correct response to PRM decreased in MDD patients compared with controls. Compared with the HC group, KLS-FC coupling between the parietal lobe and subcortical area, FA-FC coupling coefficient between the temporal lobe and parietal lobe, and FN-FC coupling coefficient in the frontal lobe decreased in the MDD group. Several correlations between brain network connectivity and clinical manifestations were identified

Conclusion The structural functional coupling ability in patients with depression was significantly lower than that in healthy subjects, and the abnormalities in structural-functional coupling were related to clinical characterization. These findings may help to deepen our understanding of the pathophysiological mechanisms of depression and provide new ideas for the diagnosis and treatment of depression.

关键字：Major depressive disorder; Nuclear magnetic resonance imaging; Structural functional coupling; Cognitive function.

Multimodal Neuroimaging Network Associated with Executive Function in Adolescent MDD Patients Via Cognition-guided MRI Fusion

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Objective Adolescents are a high-risk population for major depressive disorder (MDD). Previous studies have reported structural and functional brain abnormalities associated with cognitive dysfunction in MDD. Besides, the exposure to childhood maltreatment is also a potential factor for impaired cognition. This study aimed to identify the multimodal co-varying brain network related to executive function and their relationship with childhood maltreatment.

Methods A total of 24 MDD patients and 43 healthy controls (HCs) were included and completed the 17-item Hamilton Depression Scale (HAMD-17), 14-item Hamilton Rating Scale for Anxiety (HAMA-14), the Childhood Trauma Questionnaire (CTQ) and the Intra-Extra Dimensional Set Shift Task (IED). Multimodal neuroimaging data, including amplitude of low-frequency fluctuations (ALFF) from resting-state functional MRI (rs-fMRI) and gray matter volume (GMV) from structural MRI (sMRI) were combined together with executive using a supervised fusion method. The potential pairwise relationship between identified neuroimaging pattern, cognitive function and childhood maltreatment were analyzed using moderating effect model.

Results The MDD group showed more total errors than the HCs after controlling for age and education year. Their performance on IED task were related to score of HAMA and CTQ. We discovered an executive function-related brain pattern featured with lower ALFF and GMV loadings in MDD patients. The GMV loadings of identified brain network had a negative moderating effect on the relationship between CTQ score and poor performance in IED task.

Conclusion These findings may help to deepen our understanding of the pathophysiological mechanisms of cognitive dysfunction in adolescent depression, and provide new ideas for its accurate diagnosis and treatment.

关键字：adolescent MDD, executive function, magnetic resonance imaging, supervised multimodal fusion, moderating effect

童年逆境与成年精神分裂症患者攻击性

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目的 考察成人精神分裂症患者的童年创伤流行率并探讨生活逆境（童年创伤和欺凌）与患者的攻击性行为的关系。

方法 使用童年创伤问卷(Childhood Trauma Questionnaire-Short Form, CTQ-SF)、成人欺凌问卷(Bullying Scale for Adults, BSA)（中文版）及 Buss 和 Perry 攻击问卷（Buss-Perry Aggression Questionnaire, AQ-CV），招募首都医科大学附属安定医院门诊以及病房符合 DSM-5 诊断的成年精神分裂症患者 391 名，社会招募在性别、年龄以及受教育程度等人口学资料匹配的健康对照 410 名。

结果 1.童年创伤流行率：健康对照：16.59%；精神分裂症：53.20%。2.精神分裂症患者在童年创伤总分及各个维度、成人欺凌总分（13.87±13.61 VS 3.10±5.39，t=14.92，p＜0.001, 95%CI: 9.35~12.18）及各个维度分、攻击总分、躯体攻击、言语攻击、愤怒、敌意及指向自我攻击等维度的分数均高于健康对照，且差异具备统计学意义(p 值均小于 0.001，95%CI：0.27~13.42)；3.进一步分析精神分裂症个体的攻击性：在躯体性攻击维度，存在童年创伤的两组精神分裂症患者的攻击性无显著性差异(p=0.075，95%CI：-0.15~3.09)；在其他维度，存在童年创伤的精神分裂症个体的攻击性均高于不存在童年创伤的精神分裂症个体（p 值均小于 0.001，95%CI：0.57~15.96，其中言语攻击维度 p=0.001, 95%CI: 0.57~2.40）。4.将欺凌作为协变量，上述两组患者间的攻击性差异仍显著 (66.03±27.08 VS 55.14±20.53)，F(1,389)=18.07, p＜0.001；且欺凌对攻击性的独立贡献也是显著的 F(1,389)=10.79, p=0.001,

偏 η2=0.027，95%CI：3.16~12.58，R2adj=0.136。

结论 1.精神分裂症群体的攻击性较健康被试高，并且首次发现存在童年创伤精神分裂症个体的攻击性较不存在童年创伤精神分裂症个体的攻击性高；2.较健康对照，精神分裂症个体在成年后更容易遭受欺凌，并且对患者发病后的攻击行为具有独立的贡献。

关键字：童年创伤；欺凌；攻击性；精神分裂症；

难治性强迫障碍的脑代谢磁共振波谱及抑制功能研究

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目的 研究难治性强迫障碍抑制控制神经环路中抑制功能程度、各神经代谢物水平、症状亚型与睡眠-觉醒节律紊乱的相互关联，及与健康对照神经环路基础的异同，进一步理解强迫障碍及不同亚型的发病机制。

方法 对入组 26 例难治性强迫障碍患者和 27 例健康对照者进行一般资料收集和临床症状评估，并采用 3-Tesla Philips Ingenia 设备进行全脑磁共振成像和磁共振波谱单体素扫描。感兴趣区放置在前扣带回。记录扫描过程中 go-nogo 任务的反应时长和反应错误率。经质量筛选，有效的磁共振波谱数据共 90 例，其中包括难治性强迫障碍患者静息态波谱 23 例和功能态波谱 23 例，健康对照者静息态波谱 22 例和功能态波谱 22 例。最后对磁共振波谱进行定量分析，获取前扣带回各神经代谢物的绝对浓度值并进行统计学分析。

结果 难治性强迫障碍组与健康对照组在静息态和功能态磁共振波谱的谷氨酸、谷氨酰胺复合物、肌醇、胆碱、肌酸和 N-酰基天门冬氨酸+ N-酰基天门冬氨酸浓度未见统计学差异(P＞0.05)。将难治性强迫障碍患者根据临床症状分为强迫思维组(n=7)与强迫行为组(n=16)，在静息态磁共振波谱中，强迫思维组的前扣带回谷氨酸浓度显著低于强迫行为组(P＜0.05)。将难治性强迫障碍患者以是否伴有睡眠时相延迟进行分组，分为伴有睡眠时相延迟组(n=13)和不伴有睡眠时相延迟组(n=10)，在功能态磁共振波谱中，伴有睡眠时相延迟组的谷氨酸和谷氨酸酰胺复合物浓度高于不伴睡眠时相延迟组(P＜0.05)。从 go-nogo 任务结果来看，难治性强迫障碍组按键选择的错误率明显升高(P＜0.05)。在分组探索中发现，伴有睡眠时相延迟的强迫障碍患者错误率最高，其次是不伴睡眠延迟的强迫障碍患者，最后是健康对照。

结论 初步结果提示强迫思维、强迫行为或是否伴有睡眠时相延迟可能代表了与前扣带回谷氨酸浓度水平独特相关的强迫亚型，为强迫障碍的神经病理机制提供了新的证据和方向。本研究也从神经认知功能的角度验证了难治性强迫障碍患者存在抑制功能损害，伴有睡眠时相延迟的强迫障碍患者抑制功能受损严重。

关键字：难治性强迫障碍；抑制控制；谷氨酸；睡眠时相；功能态磁共振波谱

童年期创伤对成年抑郁症患者杏仁核及 BDNF 表达水平的影响

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目的 1．比较伴童年期创伤组、不伴童年期创伤组、健康对照组三组人群杏仁核的结构和功能，进一步揭示伴童年期创伤抑郁症中杏仁核可能参与的发病机制。 2．比较伴童年期创伤组、不伴童年期创伤组、健康对照组三组人群脑源性神经营养因子（Brain-Derived Neurotrophic Factor，BDNF）及其 mRNA 表达的差异，进一步揭示童年期创伤对成年抑郁症患者 BDNF 表达的影响。 3．结合环境因素、脑影像学、遗传学等综合因素，筛查相关特异性指标，探讨经历童年期创伤抑郁症可能的发病机制。

方法 本研究共纳入 94 例受试者，其中伴童年期创伤组 30 例，不伴童年期创伤组 34 例，健康对照组 30 例。采用汉密尔顿抑郁量表 17 项（Hamilton Depression Scale，HAMD-17）、童年期创伤问卷评估受试者抑郁症状严重程度及童年期创伤程度。应用 GE Signa 3.0 T 核磁共振成像系统，采集高分辨率 3D T1 像结构数据，用于杏仁核体积测定。采集静息态磁共振数据，用于杏仁核与其他脑区功能连接的分析。提取外周血浆及血细胞，用酶联免疫吸附测定法（Enzyme Linked Immunosorbent Assay，ELISA）检测外周 BDNF 水平，应用实时荧光定量聚合酶链式反应法（Quantitative Real-time Polymerase Chain Reaction，RT-qPCR）检测 BDNF mRNA 表达水平。

结果 1．三组受试者杏仁核体积及各亚区体积差异无统计学意义。2．三组受试者杏仁核与全脑功能连接分析后发现 5 个有显著差异的脑区，分别是右侧舌回、右侧额上回、右侧岛盖部额下回、右侧楔叶和右侧额中回。

结论 本研究结果显示杏仁核与右侧舌回、右侧额上回、右侧岛盖部额下回、右侧楔叶和右侧额中回的功能连接增强可能参与了抑郁症的发病。杏仁核与右侧舌回、右侧额中回的功能连接增强可能是伴童年期创伤抑郁症的发病机制之一，且杏仁核与右侧额中回、右侧舌回的功能连接能够部分中介童年期创伤和抑郁情绪之间的关系。伴童年期创伤抑郁症患者 BDNF mRNA 的表达水平和杏仁核与右侧舌回的功能连接存在相关性，但未发现 BDNF mRNA 表达水平和杏仁核与右侧舌叶的功能连接存在中介效应。

关键字：抑郁症 童年期创伤 核磁共振 杏仁核 脑源性神经营养因子

Identification of Key Biomarkers and Immune

Infiltration in Early-onset Schizophrenia by Comprehensive Bioinformatics Analysis

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Objective To identify the key biomarkers in early-onset schizophrenia (EOS) and explore their potential immune infiltration mechanism.

Methods The whole blood of 19 patients with early-onset SCZ (EOS) and 18 healthy controls (HC) were sequenced. Firstly, the differentially expressed genes (DEGs) between EOS patients and healthy controls were screened by "limma" R software package. Combined weighted gene coexpression network analysis (WGCNA) and LASSO algorithm to screen key genes. The expression abundance of 24 kinds of immune cells was predicted by ImmuCellAI website, and the correlation between potential biomarkers and different immune cells was further analyzed. Finally, the selected key immune genes were verified, including functional enrichment, ROC analysis and so on.

Results We finally screened seven differential immunity related genes: AKAP7, BARD1, CHCHD2, PXMP4, UNC5C, SLC35F3. Immune infiltration analysis showed that the proportion of B cells and CD4-naive cells increased significantly in EOS group. By analyzing the correlation between differential immune related genes and immune cells, we found that there was a strong correlation between AKAP7, BARD1 and B cells. Our results suggest that AKAP7 and BARD1 may serve as key biomarkers of EOS, and their underlying immune mechanisms may be involved in B-cell disorders.

Conclusion In this study, we screened out the potential immune biomarkers of EOS: AKAP7 and BARD1, we found that B-cell disorder may be involved in its occurrence and development.

关键字：early onset schizophrenia、bioinformatics analysis、biomarkers、immunoinfiltration.

肠道 Lachnoclostridium 菌属丰度及相关炎症指标与首发精神分裂症的关联研究

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目的 探讨肠道 Lachnoclostridium 菌属丰度及炎症指标与首发精神分裂症（SCZ）的关联。

方法 选取 2020-2022 年就诊于郑州大学第一附属医院精神医学科的首发未用药 SCZ 患者（SCZ 组）和同一时期的健康对照者（HC 组）各 87 例，在基线时测量 hsCRP、SOD.1 和 ESR 水平及肠道菌群中 Lachnoclostridium 菌属的丰度。用阳性和阴性症状量表（PANSS）评估 SCZ 患者的临床症状，认知功能成套测验（MCCB）评估 SCZ 组和 HC 组的认知功能。SCZ 组接受 24 周利培酮治疗后，复测上述指标。

结果 （1）基线时 SCZ 组的 SOD.1 水平低于 HC 组（t=-6.888，P＜0.001），Lachnoclostridium 丰度高于 HC 组（t=-2.654，P=0.009）；（2）在基线时的 87 名首发 SCZ 患者中，hsCRP 水平与 PANSS 评分的 G 评分正相关（r=0.222，P=0.039），SOD.1 水平与认知能力正相关（r=0.298，P=0.005），ESR 与 SoP.AGT、SC.AGT 负相关（r=-0.230 、 -0.313 ， P 均 ＜ 0.05 ），Lachnoclostridium 丰度与部分认知评分呈负相关；（3）在 24 周利培酮治疗后，首发 SCZ 患者的 SOD.1 水平显著升高（t=-2.071，P=0.045），ESR 显著降低（t=2.211，P=0.033），PANSS 评分显著降低，认知功能显著改善；（4）24 周随访数据的 39 名首发 SCZ 患者中，基线 Lachnoclostridium 丰度与基线及 24 周的认知功能呈负相关。24 周的 Lachnoclostridium 丰度与 PANSS 评分正相关；与认知功能呈负相关。基线时的 ESR 水平与认知功能正相关。24 周的治疗前后，ESR 的增加量（cESR）与 cSoP.AGT、cWM.AGT 负相关。（5）基线时 Lachnoclostridium 的丰度与 24 周的 ESR（r=0.453，P=0.004）正相关，与 24 周的 MCCB 总分（r=-0.344，P=0.032）负相关，基线 Lachnoclostridium 丰度对于 24 周的 MCCB 总分有预测价值。

结论 促炎菌属 Lachnoclostridium 及炎症指标随病情变化，在精神分裂症的发病及缓解中起了一定的作用。

关键字：精神分裂症；超敏 C 反应蛋白；超氧化物歧化酶 1；红细胞沉降率；Lachnoclostridium

肠道菌群相关的脂肪酸和维生素吸收与首发精神分裂症关联研究

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目的 探讨精神分裂症（SCZ）的微生物-肠-脑轴标记。

方法 采用 16s rRNA 测序技术检测人粪便样本、小鼠粪便样本和肠内容物的微生物组成。采用非靶向和靶向代谢组学检测人粪便样本、小鼠肠组织和脑组织代谢物水平。采用 PANSS 评估精神症状严重程度。

结果 （1）血清代谢组学分析发现，首发 SCZ 患者和健康对照之间的差异代谢物富集分析 TOP1 的是脂肪酸代谢、TOP2 是维生素的吸收和代谢，其中脂肪酸中的十八碳四烯酸和维生素中的叶酸与认知功能显著正相关（p<0.05）；（2）肠道菌群结果显示：首发 SCZ 患者多样性发生改变（p<0.05），首发 SCZ 患者布劳特

氏菌属（Blautia）、类芽胞杆菌属（Parabacteroides）降低，艰难梭菌（Clostridioides）升高和普氏梭杆菌（Flavonifractor）升高。菌群功能分析显示，这些差异菌主要与脂肪酸代谢、维生素的吸收相关；（3）将 SCZ 患者菌群和对照组菌群分别转移给抗生素处理过的 SCZ 组小鼠和 HC 组小鼠，发现 SCZ 菌群特征在小鼠肠内容物中得到复现。对 SCZ 组小鼠和 HC 小鼠肠组织差异代谢物进行富集分析发现，近端肠组织主要与脂肪酸的吸收有关（TOP5），远端肠组织主要与氨基酸的代谢有关（TOP5）。脑组织的结果也显示，SCZ 小鼠和对照小鼠脑组织前额叶皮质、海马、小脑、纹状体的差异代谢物主要与脂肪酸和维生素的吸收、代谢（TOP5）有关。

结论 SCZ 患者存在肠道菌群失调，肠道菌群可能是通过影响脂肪酸和微生物的吸收和代谢，进而影响大脑参与 SCZ 的发病。

关键字：精神分裂症；脂肪酸；维生素；肠道菌群；代谢组学

首发未用药精神分裂症患者的肠道真菌结构失调

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目的 精神分裂症患者体内存在菌群失调的现象，本研究的目的是探究首发精神分裂症患者体内真菌结构的改变以及真菌-细菌之间的关联网络。

方法 招募了 205 名首发精神分裂症患者和 125 名健康对照者，分别用 16S 和 18S rRNA 基因扩增子测序分析了他们肠道的细菌和真菌组成。采用 Spearman 检验和距离相关分析进行真菌-细菌的相关网络分析。我们还计算了相对网络连通性，它代表了网络中交互(边)和分类群(节点)中相关性显著的比例。

结果 与健康对照相比，精神分裂症患者真菌 α 多样性较低。此外，精神分裂症患者和健康对照之间存在 29 种不同的真菌标记物。与健康对照相比，精神分裂症患者的真菌与细菌的 α 多样性比值也显著降低（$p < 0.001$）。在风险预测模型中，我们观察到细菌和真菌联合标志物比单独的细菌标志物具有更高的准确性（AUC = 0.847 vs AUC = 0.739；$p = 0.043$）。健康对照的真菌-细菌相关网络比精神分裂症患者更密集，且相邻节点数量多($p < 0.05$)。此外，精神分裂症患者 Purpureocillium 丰度的增加与更严重的精神症状和更差的认知功能相关($p < 0.05$)。

结论 本研究表明，首发精神分裂症患者的真菌-细菌相关网络与健康对照相比被削弱和破坏，这可能与他们的临床表现有关。未来对真菌-细菌相关网络的研究将有助于我们进一步了解真菌群在精神分裂症病因学中的作用，并有助于发现新的干预方法。

关键字：精神分裂症；肠道菌群；真菌；细菌；Purpureocillium

精神分裂症与精神发育迟滞共病家系的全基因组 DNA 甲基化分析

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目的 精神分裂症和精神发育迟滞都被包括在神经发育障碍的连续谱中，DNA 甲基化的改变对于神经发育障碍的疾病发生过程至关重要。家系研究有助于消除遗传背景的差异对表观遗传学研究结果的影响，并有助于筛选与神经发育障碍真正相关的差异甲基化位置（DMPs）及区域（DMRs）。

方法 本研究招募了 4 个包含同卵双胞胎个体的家系。每个家系中的双胞胎个体均患有神经发育障碍（精神分裂症、精神发育迟滞或二者共病）。对每个家系的所有样本进行全基因组 DNA 甲基化分析，以期能确定家系中神经发育障碍患者和未受影响个体之间的 DMPs 和 DMRs，并其所注释的基因进行进一步的功能和通路富集分析。

结果 对 4 个家系进行综合分析，结果提示 2 个显著的 DMPs 均注释到基因 CYP2E1。在家系 1 中，有 1476 个 DMPs 注释到到 880 个基因，并且识别出 162 个与 153 个基因重叠的 DMRs。我们的研究结果表明，FYN，STAT3，RAC1 和 NR4A2 甲基化水平的改变与精神分裂症和精神发育迟滞的发生有关。富集分析结果提示神经发育和免疫系统可能参与精神分裂症和精神发育迟滞的发生。

结论 DNA 甲基化的改变可能通过影响神经发育和免疫系统，从而参与神经发育障碍的疾病发展。

关键字：精神分裂症；精神发育迟滞；家系研究；DNA 甲基化；神经发育障碍

不同部位间歇性 θ 脉冲式经颅磁刺激对精神分裂症阴性症状的疗效

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目的 1、评价间歇性θ脉冲式经颅磁刺激（intermitted Theta Burst Stimulation，iTBS）干预左侧或双侧前额叶背外侧（dorsalateral prefrontal cortex，DLPFC）治疗精神分裂症阴性症状的疗效及安全性； 2、探索iTBS干预对精神分裂症阴性症状的疗效是否存在性别差异。

方法 纳入90例以阴性症状为主的精神分裂症患者（PANSS 阴性症状量表分≥15 分，且 N1～N7 项目中至少有 1 项评分≥4 分）。按随机数字表法分为双侧DLPFC 真刺激组（A 组，30 例），左侧 DLPFC 真刺激/右侧 DLPFC 伪刺激组（B 组，30 例），或双侧 DLPFC 伪刺激组（C 组，30 例）。三组均在药物治疗方案不变的基础上使用 iTBS 干预，干预时间为 4 周（1 次/日，5 次/周，周末休息），共治疗 20 次。在基线及治疗第 4 周末，采用阳性与阴性症状量表（PANSS），阴性症状量表（SANS），临床疗效总评量表（CGI）及卡尔加里精神分裂症抑郁量表（CDSS）评定精神症状及其严重程度。以 SANS 减分及减分率为主要评估指标，锥体外系副反应量表（SAS）及不良事件为次要评估指标。

结果 1、三组基线 SANS 总分和 PANSS 阴性症状分差异均无统计学意义（p>0.05）。治疗第 4 周末，不同 rTMS 干预方案 SANS 总分减分及减分率差异均存在统计学意义（F=7.295，p=0.001；F=7.219，p=0.001）。双侧 DLPFC 真刺激组及左侧 DLPFC 真刺激组 SANS 总分减分及减分率均显著高于伪刺激组，左侧 DLPFC 真刺激组和双侧 DLPFC 真刺激组间 SANS 总分减分及减分率均无统计学差异。在干预过程中均无主观报告不良反应，三组干预前后 SAS 评分均无统计学差异。2、SANS 减分及减分率的组别和性别之间存在显著交互作用（p<0.05）。男性患者：双侧 DLPFC 真刺激组 SANS 减分显著高于左侧 DLPFC 真刺激组及伪刺激组，双侧 DLPFC 真刺激组 SANS 减分率显著高于伪刺激组；女性患者：仅左侧 DLPFC 真刺激组 SANS 减分及减分率均显著高于伪刺激组。

结论 应用 iTBS 干预左侧或双侧 DLPFC 治疗精神分裂症患者阴性症状安全有效，男性患者干预双侧 DLPFC、女性患者干预左侧 DLPFC 更能显著改善阴性症状。

关键字：精神分裂症 阴性症状 经颅磁刺激 前额叶背外侧

精神分裂症患者肠道菌群、细胞因子及静息态脑功能的关联性研究

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目的 探讨肠道菌群、细胞因子及静息态脑功能在精神分裂症发病中的作用以及三者间的关系，进一步明确精神分裂症发病机制，为建立疾病诊断的生物学指标及寻找治疗的新视角提供理论依据。

方法 纳入 31 例未用药精神分裂症患者(Schizophrenia ,SZ)，同期招募年龄、性别、受教育年限相匹配的 39 例健康对照(Health Control, HC)。所有参与者都进行粪便微生物宏基因组高通量测序分析、ELISA 法测定血清细胞因子（IL6、IL4、IL1β、IL2、IL17、IL23、IL10、IL12、TNFα 和 TGFβ1）水平和使用静息态功能核磁共振成像系统(resting-state Functional Magnetic Resonance Imaging, rs-fMRI)获取功能影像数据计算 fALFF、ReHo、基于种子点的功能连接以及网络拓扑特性。在 SZ 组将组间差异肠道菌种、细胞因子和 rs-fMRI 指标两两之间进行相关分析，显著相关的变量纳入中介模型进行中介分析。

结果 1.SZ 组和 HC 组之间 α 和 β 多样性存在差异。与 HC 相比，SZ 组有 21 个菌种相对丰度有差异。2.差异肠道菌种与右壳核 fALFF 值、右壳核及右内侧额上回功能连接、左侧缘上回的节点度中心度有相关性。3.外周抗炎细胞因子与抗炎肠道菌种呈正相关，与促炎肠道菌种呈负相关。外周抗炎细胞因子与右壳核 fALFF 值呈正相关，外周促炎细胞因子与内侧额上回功能连接呈正相关、与左侧缘上回节点特性呈负相关。4.中介分析发现，在 SZ 组，Bacteroides thetaiotaomicron 通过 IL1β 水平增加及 IL2、IL10 水平减少影响右壳核 fALFF 值变化；Alistipes finegoldii 通过 IL2 水平减少影响右壳核 fALFF 值变化；Veillonella parvula 通过 IL1β 水平增加影响右壳核 fALFF 值变化；Parabacteroides johnsonii 通过 IL10 水平减少影响右壳核-颞下回功能连接强度。

结论 1．SZ 患者肠道菌群多样性降低,促炎菌增加，而抗炎菌减少。2．SZ 患者富集的促炎菌与特定脑区自发活动、内在功能连接和网络拓扑特性相关。3. SZ 患者细胞因子与促炎或抗炎肠道菌种及特定脑区静息态脑功能相关。4. SZ 患者细胞因子在肠道菌群与静息态脑功能之间的关系中起到中介作用。

关键字：精神分裂症；肠道菌群；细胞因子；静息态功能磁共振成像

6759 例精神障碍患者抗核抗体检测分析

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目的 分析精神障碍患者中抗核抗体（ANA）阳性检出情况及其临床意义。

方法 选取 2020 年 6 月-2022 年 5 月期间就诊并执行抗核抗体谱检测（线性免疫印迹法）的精神障碍患者，结合临床资料回顾分析 ANA 检测结果。

结果 6759 例患者中 458 例 ANA 阳性（6.8%），女性患者阳性率高于男性（7.5% vs. 5.8%, P＜0.05）。458 例 ANA 阳性中，以抗 Ro52（2.4%）为多见，抗 SSB（1.1%）、抗 AMA M2（1.1%）次之；患者疾病分布，以精神分裂症（99 例，21.6%）、抑郁症（82 例，17.9%）、双相情感障碍（36 例，7.9%）为主。抗 Ro52、抗 SSA、抗 SSB 等干燥综合征相关抗体阳性的患者主要表现为精神分裂症 47 例（20.7%）、抑郁发作 42 例（18.5%）、焦虑障碍 19 例（8.4%）、双相情感障碍 16

例（7.0%）等；AMA-M2 阳性患者常见于精神分裂症（22.5%）、阿尔兹海默症（12.7%）、抑郁（11.3%）、双相情感障碍（9.9%）等；抗 PO、抗 Sm、抗 nRNP、抗 dsDNA 等系统性红斑狼疮相关 ANA 多见于抑郁（27.5%）和精神分裂症（19.6%）。32 例 ANA 阳性者患有自身免疫性疾病，包括 19 例系统性红斑狼疮、9 例自身免疫性脑炎、3 例干燥综合征（其中 1 例合并自身免疫性溶血性贫血）、1 例免疫性肠炎。

结论 ANA 在精神障碍患者中存在一定的阳性检出率，多见于精神分裂症和抑郁症；抗核抗体谱筛查在早期诊断精神障碍合并或继发于自身免疫病的患者中有重要价值。

关键字：抗核抗体；精神障碍；自身免疫病

氯氮平等抗精神病药物对精神分裂症等患者短程心率变异性的影响

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目的 探讨氯氮平、奥氮平等抗精神病药物对精神分裂症等患者短程心率变异性的影响。

方法 单用氯氮平、奥氮平、利培酮、阿立哌唑、齐拉西酮药物，氯氮平分别与利培酮、阿立哌唑、齐拉西酮合用治疗的患者（简称合用药组）共 6 组，用常规十二导心电图技术对各组治疗前、治疗后的2周末、4 周末的短程（5 分钟）心率变异性各参数进行检测分析。

结果 收集了 106 名患者，①平均心率:氯氮平组 2 周末起,合用药组 4 周末均增快(P< 0.05)。② 最高与最低心率的差值:氯氮平、奥氮平及合用药组 2 周末起，阿立哌唑 4 周末显著缩小(P< 0.01)。③ SDNN 值：氯氮平、奥氮平、合用药组 2 周末起呈降低趋势（P< 0.05）。阿立哌唑组 4 周末显著降低（P< 0.01）。④ RMSSD 值：氯氮平组 2 周末起，奥氮平、阿立哌唑组和合用药组于 4 周末降低（P< 0.05）。⑤ PNN50 值：氯氮平、阿立哌唑、齐拉西酮组 4 周末，合用药组 2 周末起均异常（P< 0.05）。

结论 服用氯氮平等药后，患者心率变异各指标呈降低等异常，说明氯氮平等抗精神病药物对自主神经功能、迷走神经活性降低等有损害，以氯氮平及合用药最明显，利培酮相对安全。

关键字：短程心率变异性；精神分裂症；氯氮平；抗精神病药；联合用药

团体心理治疗对精神分裂症患者认知功能影响的研究进展

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目的 精神分裂症是一种严重的精神障碍，且多伴随对认知功能的影响，目前临床中治疗阳性和阴性症状有良好的疗效，而对认知障碍的治疗收效甚微。大量来自基础和临床的研究证据表明团体心理治疗能显著改善精神分裂症患者的认知功能。因此，现就对团体心理治疗改善认知功能的潜在机制进行详细阐述，以期为今后深入研究和干预精神分裂症认知障碍提供参考。

方法 通过从精神分裂症认知障碍的发病机制、精神分裂症认知障碍的临床表现、精神分裂症认知障碍的治疗手段、团体心理治疗对精神分裂症认知功能的影响几个方面分别论述。

结果 精神分裂症是精神疾病中较为严重的类型，在发病后会表现出一系列行为、认知、思维、情感上的功能障碍，根据大数据统计显示该病症高发群体在青壮年时期，病因较为复杂，且与个人客观因素间存在着密切联系。当前我国正处于经济高速发展阶段，和 20 世纪末期相比生活节奏、工作压力、学习压力等均快速增加，而这也是导致精神分裂症发病率逐年升高的重要诱因。一旦发病不仅会对患者个人造成生理和心理上的影响，还会进一步对家庭、社会产生不同程度的危害。临床单纯以抗精神类药物治疗时虽然可以在一定程度上缓解临床症状，但如未采取有效的心理干预手段，则有较高概率引起患者抗拒治疗和复发的情况，甚至可能出现加剧异常情绪状态的可能，影响最终预后效果，也会给患者带来更多伤害。现阶段国内精神疾病的医疗技术正在逐渐提升和完善，并且临床医学对患者人文关怀的关注度也在随之提升，绝大多数医生开始转变自身的认知，开始摒弃单一药物治疗理念，更多地开始运用药物治疗和心理治疗结合的综合干预方案，根据患者病情实际情况采取针对性的措施，以确保其心理状态的保持和角色功能的恢复。心理治疗对精神分裂症稳定期患者的恢复有着积极、正面的促进作用，其主要是由于当患者病情稳定后，其认知功能逐步恢复正常，开始对自身疾病状态进行审视，基于原有对精神分裂症的不了解，从而出现自卑、恐惧、紧张等负面情绪，如外界存在不良刺激源，则会进一步增加病情复发的概率，甚至出现自残行为。

结论 团体心理治疗对提高精神分裂症患者的认知功能有积极影响，在改善患者的认知功能、精神状态、社会功能、自尊心理、自我和谐情况等方面均有明显的效果。但具体的作用机制还有待进一步深入研究。

关键字：神分裂症；团体心理治疗；认知功能；综述

基于 AMPK/mTOR 探讨奥氮平致小鼠肝脏原代细胞糖/脂代谢紊乱的机制研究

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目的 利用细胞实验模拟研究奥氮平所致的精神疾病患者超重/肥胖、糖脂代谢紊乱这些代谢性副作用的发病机理，进而探索以 AMPK/mTOR 相关通路作为靶标在治疗奥氮平所致的代谢副作用中的干预潜力。

方法 分离提取小鼠肝脏原代细胞，在体外分别以 0、10、25、50、100 μM/L 的奥氮平药物剂量处理细胞，在作用 24 h 之后，利用油红 O 染色方法检测细胞内脂质积累水平，通过 Western blot 方法检测关键分子 mTOR 和 AMPK 及其磷酸化 p-mTOR Ser2448、p-AMPK Thr 172 的蛋白表达水平。

结果 mTOR 及其磷酸化形式 p-mTOR 在 25nm-50nm 浓度的奥氮平处理下出现了明显的升高趋势，同时 p-AMPK 在 5-25nm 浓度奥氮平处理下出现了显著降低结果，而油红 O 染色结果也证实了奥氮平致脂质积累且呈现剂量依赖性，同时在 25nm 到 50nm 浓度处理时肝脏细胞脂肪积累较多。

结论 奥氮平可能通过增加脂肪酸合成相关蛋白 mTOR 及降低分解代谢相关的 AMPK 导致肝脏细胞脂质积累，AMPK 及 mTOR 在奥氮平诱导的肝脏细胞糖、脂代谢中起到关键的作用，这将为临床干预奥氮平致代谢综合征提供新的见解。

关键字：精神疾病；代谢性副作用；奥氮平

利用代谢组学分析鉴定可用于首发精神分裂症诊断和监测抗精神病药物单药治疗的潜在血浆生物标志物

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目的 精神分裂症（schizophrenia，SCZ）是一种病因复杂的严重精神障碍。目前临床上 SCZ 的诊断主要依赖于对患者临床症状的主观识别，缺乏可靠的分子诊断工具，容易发生误诊和漏诊。代谢组学是“组学”的最新领域，通过对生物样品中低分子量代谢物的全面研究发现有效的分子标记物，从而客观可靠地诊断 SCZ 和预测疗效。

方法 1.本研究共纳入 43 例首发未用药 SCZ 患者和 29 例健康对照（HC）。所有入组患者均接受利培酮或奥氮平单药治疗 4-6 周。在基线期、治疗后 4 周和 6 周后评定 PANSS 量表。使用液相色谱-质谱联用仪（LC-MS）对 HC 和首发 SCZ 患者在急性期用药前后的血浆样本进行全面的代谢组学分析。2.使用 SPSS 13.0、Progenesis QI 以及 MetaboAnalyst 5.0 进行统计分析。人口学资料和临床资料进行正态性检验，用 Mann-WhitneyU 检验分析非正态分布的数据；用 Student t 检验分析正态分布的数据；用 Chi-Squared 检验分析分类变等方法；所有多重比较的数据均经过了 FDR 矫正。

结果 1.10 种脂质代谢产物和 27 种可溶性小分子被鉴定为是与 SCZ 诊断和治疗相关的潜在生物标志物。这些代谢产物在 SCZ 中显著减少，治疗后脂质和硫酸盐显著增加；其中有 4 种代谢物与 PANSS 总分呈显著正相关。2.α-十八碳二烯酸、磷脂酰胆碱（PC）（16:0/18:1(11Z)）、1-甲基烟酰胺、磷脂酰乙醇胺（PE）（20:2(11Z, 14Z)/18:2(9Z, 12Z)，硫酸盐和 L-色氨酸组成的生物标志物组可以用来区分 SCZ 和 HC，该标记物组的 ROC 曲线下面积（AUC）是 0.972，说明该预测模型具有良好的判别能力。 3.C16 鞘氨醇、γ-亚麻酸、亚油酸、PC(16:0/18:1(11Z))、PE(20:2(11Z, 14Z)/18:2(9Z, 12Z))和硫酸盐的生物标志物组在区分 SCZ 药物治疗前后方面具有良好的分类性能（AUC=0.905）。

结论 SCZ 患者的脂质代谢、含硫生物分子的合成和硫酸化修饰、色氨酸代谢、抗炎和抗氧化系统以及不饱和脂肪酸的生物合成紊乱；这些代谢紊乱可通过抗精神病药物治疗部分恢复正常。本研究中确定的生物标志物组可以为 SCZ 的客观诊断和疗效预测提供线索。

关键字：代谢组学；精神分裂症；生物标志物；药物治疗

线粒体功能障碍与精神分裂症临床表征的相关性

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目的 精神分裂症（Schizophrenia，SZ）病理机制不明。线粒体功能障碍可能在 SZ 的发病过程中扮演重要角色。线粒体 DNA 拷贝数是衡量线粒体功能的重要指标。本研究旨在通过分析 SZ 患者基线期和治疗 8 周后的外周血线粒体 DNA 拷贝数变化及其与临床症状及疗效的关联，进而明确线粒体功能障碍在 SZ 发生发展中的作用。

方法 本研究通过新乡医学院第二附属医院伦理委员会的批准，所有入组人群已签署知情同意书。根据 DSM-IV 中 SZ 临床诊断标准纳入首发或复发未经系统治疗的 SZ 患者，收集基础资料，分别在基线期和治疗 8 周后使用精神分裂症认知功能成套测验（MATRICS Consensus Cognitive Battery，MCCB）和阳性与阴性症状量表（Positive and Negative Syndrome Scale，PANSS）评估患者的认知功能状况和临床精神症状，同时采集外周血样本。此外，纳入与 SZ 患者年龄、性别相匹配的健康人群，并收集基础信息和外周血样本。采用实时荧光定量 PCR 技术检测研究对象外周血白细胞线粒体 DNA 拷贝数。采用 GraphPad 8.0.2 软件和 SPSS 20.0 软件进行数据分析，运用配对的的 t 检验比较 SZ 患者与健康对照的外周血线粒体 DNA 拷贝数，运用偏相关分析比较分析 SZ 患者线粒体 DNA 拷贝数与其临床表征及疗效的相关性。

结果 1.与健康对照组相比，SZ 患者的外周血线粒体 DNA 拷贝数显著下降（$P<0.05$），治疗 8 周后 SZ 患者的线粒体 DNA 拷贝数又显著回升（$P<0.05$），该变化在男性患者中更明显。2.SZ 患者的基线期线粒体

DNA 拷贝数与认知功能（符号编码测验、空间广度测试、视觉记忆测验和神经认知总分）显著正相关（P<0.05），尤其以男性为主。3.SZ 患者的基线期线粒体 DNA 拷贝数与女性的认知功能的改善（连线测验、迷宫测验、范畴流畅测验、持续操作测验和神经认知总分）显著负相关（P<0.05）。

结论 1. 线粒体 DNA 拷贝数与患者认知功能存在相关性；2. 线粒体 DNA 拷贝数能有效预测女性患者认知功能的改善；3.线粒体功能障碍可能参与精神分裂症的发生发展。

关键字：精神分裂症；线粒体功能障碍；认知障碍

孕期母体免疫激活所致子代谷氨酸 NMDA 能系统和 GABA 能系统失衡的相关研究

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目的 孕早期注射聚肌胞苷酸（polyinsinic acid-polycytidylic acid, Poly I:C）构建母体免疫激活致子代精神分裂症大鼠模型，观察该模型引起的谷氨酸 NMDA 能系统和 GABA 能系统紊乱情况。

方法 选取孕 9.5 天 SD 大鼠尾静脉注射 10mg/kg Poly I:C (n=10)和等体积的 0.9%无菌生理盐水(n=10)。模型组和对照组子代在 21 日龄时离乳分笼，选取雄鼠作为研究对象，在成年期对大鼠进行 Y 迷宫等行为学检测。采用气相色谱-质谱连用分析方法（GC-MS）检测模型大鼠成年期脑脊液中神经递质浓度。采用蛋白质免疫印迹（Western Blot, WB）技术检测两组大鼠在成年期海马和额叶两个脑区中 NMDA 受体主要亚型的表达情况。采用 WB 技术检测两组大鼠在成年期海马脑区中精神分裂症的 GABA 能神经系统相关分子和易感基因的表达情况；采用免疫荧光技术检测两组大鼠在成年期海马脑区中 GABA 能神经系统关键分子 PV 的表达情况。 用均数±标准差来表示计量资料。采用独立样本 t 检验比较不相关的两组样本，采用非参数检验中的两独立样本检验分析两组非正态分布的样本数据，使用 SPSS26.0 软件对各组实验结果统计学分析，检验结果 P < 0.05 可认为有统计学差异，使用 GraphPad Prime9 进行绘图。

结果 1．大鼠脑组织中 GABA、5-HT 以及谷氨酰胺含量显著降低（P 均<0.05）。2．成年期大鼠的海马 NMDAR2A，额叶 NMDAR1、NMDAR2A、NMDAR2B 蛋白水平均增加。此外，PSD95 在额叶显著上调表达。NMDA 受体的高表达与在开放臂和新异臂的探索成负相关（P 均<0.05）。3．模型大鼠 GABA 的易感基因表达在海马区 NRG1-ErbB4 通路损伤，NRG1 以及下游 ErbB4 及其磷酸化蛋白的含量均显著降低（P 均<0.05）。4．GABA 合成的关键酶 GAD65 和 GAD67 的 mRNA 和蛋白水平无显著异常；囊泡运输的关键分子 VGAT 的检测提示递质的转运无异常。PV 免疫荧光染色发现模型组大鼠海马 DG 区域 PV 阳性细胞数显著降低（P 均<0.05）。

结论 孕早期母体免疫激活子代在成年期表现出明显的谷氨酸能系统功能亢进和 GABA 能系统缺陷，谷氨酸能系统功能亢进与认知损伤有关联。谷氨酸能系统和 GABA 能系统失衡可能是引起精神分裂症发生的重要病理基础。

关键字：NMDA；GABA；母体免疫激活；精神分裂症

Association of Intestinal Anti-inflammatory Drug Targets and Psychiatric Disorders Identified Through Mendelian Randomization Strategy

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Objective Psychiatric disorders pose a serious burden to global public health. However, the range of available drugs for psychiatric disorders is limited. The brain-gut axis connects inflammatory bowel disease and psychiatric disorders. There are also some comorbidities between inflammatory bowel disease (IBD) and psychiatric disorders. Thus, investigating the effect of intestinal anti-inflammatory drug targets on psychiatric disorders may provide new insights for the treatment or prevention of psychiatric disorders.

Methods We performed two-sample Mendelian randomization (MR) to assess the causal effects of intestinal anti-inflammatory drug targets on psychiatric disorders, and explore the mediating effect of gut microbiota. The colocalization analysis was used to enhance the evidence of MR. We used summary data from existing expression quantitative trait loci (eQTL) and protein QTL in brain and public genome-wide association studies of disease. The statistics on attention deficit hyperactivity disorder, autism spectrum disorder, bipolar disorder (BD), major depressive disorder, obsessive-compulsive disorder (OCD) and schizophrenia included 55,374; 46,351; 413,466; 500,199; 33,925; 130,644 individuals, respectively.

Results We found the causal evidence between expression of the TPMT in amygdala and the risk of BD (odds ratio [OR] = 0.93; 95% credible interval [CI], 0.89 to 0.97), and the result remained consistent when protein QTL and sigmoid colon eQTL as exposure. Colocalization analysis identified a shared genetic variant (rs11751561) between TPMT gene expression and BD with posterior probability of 61.6%. Interestingly, the causal effect was

masked by the increased gut microbiota abundance of genus roseburia (effect proportion = 10.05%). We also found higher expression of the ACAT1 was associated with lower risk of OCD (OR= 0.62; 95% CI, 0.48 to 0.81), but the posterior probability less than 0.1%.

Conclusion The findings indicate TPMT may be a protective gene for the risk of BD, which protective effect is masked by intestinal genus roseburia. These results provide new targets for the treatment of psychiatric disorders and suggested caution in the use of drugs. Extensive suggestive associations identified between the TPMT or ACAT1 expressed in the brain and different psychiatric disorders prompt that more attention should be paid to TPMT and ACAT1 in the future development of new drugs.

关键字：Anti-inflammatory; Drug target gene; Brain-gut axis; Mendelian Randomization; Colocalization analysis; Psychiatric disorder; Gut microbiota; Masking effect.

PDIA3 与精神分裂症的相关研究

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目的 精神分裂症(SZ)患者表现出明显的免疫异常，然而，探索其在 SZ 诊断中的临床应用的研究是有限的。在数据库 PGC3、Immport 发现 PDIA3 是一个之前未报到过的精神分裂症风险基因，本研究将从临床和动物层面研究 PDIA3 与精神分裂症的联系。

方法 1.入组汉族 18-55 岁的受试者，采集 SZ 血浆样本，采用阳性和阴性综合征量表（PANSS）和 MATRICS 公认认知成套测验（MCCB）评估 SZ 患者基线和 8 周临床症状，并采集结构磁共振数据，同时收集健康对照（HC）血浆样本，最终分析共纳入 89 例 SZ 和 57 例 HC。 2.采用 ELISA 方法检测血浆 PDIA3 水平，分析 SZ 患者与 HC 血浆 PDIA3 水平有无差异，以及治疗后情况，采用偏相关分析，对血浆 PDIA3 与 PANSS、MCCB、MRI 进行相关性分析，所有抗精神病药物剂量转换为氯丙嗪当量，以年龄、教育年限、病程和氯丙嗪当量为协变量，使用 FDR 方法对影像数据进行多重比较校正。 3.C57BL/6J 正常小鼠，随机分为对照组和干预组，分别腹腔注射 DMSO 或 20mg/kg PDIA3 抑制剂 LOC14，之后进行行为学检测、在体电生理检测以及新鲜取材检测 PDIA3 表达变化。 4.采用统计软件 SPSS 26.0，独立样本 t 检验、配对 t 检验以及偏相关方法进行统计分析，P＜0.05 代表差异具有统计学意义。

结果 1.SZ 患者治疗 8 周后血浆 PDIA3 水平与基线期相比显著降低，与正常人群无差异。 2.PDIA3 含量与符号编码得分正相关，PDIA3 含量变化量与符号编码得分变化量存在负相关，即治疗 8 周后 PDIA3 变化量越大而认知症状改善越差，即治疗用药使 SZ 认知症状改善不明显，也是目前临床治疗效果不理想的原因之一，男性 8 周后 PDIA3 水平与扣带回和杏仁核脑区白质密度正相关。 与对照组相比，干预组小鼠在高架十字迷宫中进入开放臂的次数和距离均减少；在新物体识别实验中接触新物体的次数和时间均减少，存在焦虑以及记忆、认知功能受损，干预组小鼠功率谱具有更高水平，脑组织 PDIA3 表达降低，证明 LOC14 药物起效。

结论 PDIA3 参与精神分裂症的病理机制，PDIA3 低表达是导致正常小鼠焦虑和认知障碍的重要原因

关键字：精神分裂症、风险基因、PDIA3、PANSS、MCCB、

塞来昔布辅助治疗对精神分裂症患者精神病理学、代谢和炎症的影响

于洪岩 史晗 杨勇锋 王秀娟 陈祎 康宁 刘青 张露文 邵明龙 宋盟 张燕 李文强 吕路线 苏玺* 刘须振
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目的 探讨塞来昔布辅助治疗精神分裂症（SZ）的有效性和安全性，促进其临床应用。

方法 本研究进行一项为期六周的随机、双盲、安慰剂对照研究；研究纳入 100 例首发 SZ 患者，随机分为安慰剂组和塞来昔布辅助治疗组，在基线和 6 周进行精神病症状、糖脂代谢指标、心血管指标、炎症细胞因子以及不良反应的评估。

结果 塞来昔布辅助治疗组 SZ 患者的 PANSS 阳性评分、体重、BMI 指数、腰围、总胆固醇、甘油三酯均显著低于安慰剂组。安慰剂组患者，基线期肿瘤坏死因子-α（TNF-α）和白介素 4（IL-4）水平分别与 6 周时的体重和血糖水平呈负相关，6 周时干扰素-γ（IFN-γ）水平与低密度脂蛋白水平呈负相关；塞来昔布辅助治疗组该相关性消失。基线期 TNF-α 水平和 IL-4 水平分别与 PANSS 阴性评分和 PANSS 总分正相关。此外，基线期 IL-4 水平与 6 周 PANSS 总分及阴性症状呈正相关，与 PANSS 变化率呈负相关，基线期 TNF-α 水平与 PANSS 变化率呈正相关；而类似相关性在塞来昔布辅助治疗组均无发现。塞来昔布辅助治疗没有严重的心血管不良反应。

结论 塞来昔布辅助治疗可改善 SZ 阳性症状，并改善药物治疗诱导的代谢风险，是安全有效的 SCZ 辅助治疗药物。炎症状态与 SZ 病理和疗效相关，塞来昔布通过改善炎症状态发挥作用。此外，基线 IL-4 水平可能是预后不良的一个指标。

关键字：精神分裂症；塞来昔布；代谢；炎症

Autophagy Flux, Cognitive Deficits and Depressive Symptoms in Parkinson's Disease

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Objective Depressive symptoms are common in

Parkinson's disease (PD). The relationships between autophagy with PD or depression have been documented. However, no studies explored the role of autophagy markers associated with depressive symptoms in PD. Our study aimed to investigate the relationships between autophagy flux, cognitive impairments and depressive symptoms in PD patients.

Methods A total of 163 PD patients aged 50-80 years were recruited. The autophagy markers (LC3-I, LC3-IIand P62) and glycolipid parameters were measured. Depressive symptoms, cognitive impairments, and motor function were assessed using the Hamilton Depression Rating Scale-17 (HAMD-17), the Montreal Cognitive Assessment (MoCA), and the Movement Disorders Society Unified Parkinson's Rating Scale Part III (MDS-UPDRS-III), respectively.

Results There were no significant differences between depressed and non-depressed PD patients for LC3-I, LC3-II, LC3-II/LC3-I and P62. After controlling confounding variables, LC3-II/LC3-Ishowed an independent relationship with depressive symptoms in PD patients (Beta = 10.082, t = 2.483, p = 0.014). Moreover, in depressive PD patients, P62 was associated with MoCA score (Beta = -0.002, t = -2.380, p = 0.020); Further, P62 was related to naming ability; in addition, P62 was an independent contributor to delayed recall (Beta = -0.001, t = -2.452, p = 0.017).

Conclusion LC3-II/LC3-I was related to depressive symptoms in PD patients. In depressive PD patients, P62 was associated with cognitive function, especially naming ability and delayed recall.

关键字：Parkinson’s disease, Depressive symptom, Cognition, LC3, P62

Altered Brain Regional Homogeneity Is Associated with Cognitive Dysfunction in First-episode Drug-naive Major Depressive Disorder: A Resting-state FMRI Study

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Objective Our study aimed to explore the abnormal spontaneous brain activity by regional homogeneity (ReHo) and their association with cognitive function to understand the neuropathology of MDD.

Methods ReHo was used to investigate brain activities of 60 patients with first-episode drug-naive MDD and 60 healthy controls (HCs). Partial correlation analysis was conducted on altered ReHo values and the severity of symptoms and cognitive deficits. Moreover, support vector machine analysis was used to evaluate the accuracy of abnormal ReHo values in distinguishing patients with MDD from HCs.

Results Compared with HCs, patients with MDD showed significantly increased ReHo values in the right cerebellum crus2 and right thalamus and decreased ReHo values in the right angular gyrus (AG) and right precuneus (PCUN). The ReHo value in right cerebellum crus2 and right AG were positively associated with working memory and visual learning, respectively. Furthermore, the combination of ReHo values in the right cerebellum crus2 and right PCUN discriminated the patients with MDD from HCs with specificity, sensitivity, and accuracy of 0.9688, 0.6250, and 0.90, respectively.

Conclusion Our study revealed the pathophysiology mechanism of cognitive deficits in MDD may be related to abnormal spontaneous brain activity. What’s more, the combination of ReHo values in the right cerebellum crus2 and right PCUN can be used to discriminate patients with MDD from HCs effectively.

关键字：major depressive disorder, cognitive dysfunction, regional homogeneity, support vector machine

Altered Sensorimotor Network Function in Treatment-Na?ve Patients with First-Episode Major Depressive Disorder

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Objective Major depressive disorder (MDD) is an incapacitating psychiatric condition typified by recurring episodes of negative emotional and cognitive deficits, and its etiology remains uncertain.

Methods In this study, we enrolled 60 patients with drug-naive first-episode MDD and 60 healthy controls to investigate the potential neurobiological mechanisms underlying the clinical features of MDD. Specifically, we utilized the Measurement and Treatment Research to Improve Cognition in Schizophrenia Consensus Cognitive Battery to assess cognitive function and fractional amplitude of low-frequency fluctuation (fALFF) and measure spontaneous brain activity in resting-state functional magnetic resonance imaging. We then compared the differences in fALFF values between the two groups to identify the potential biomarkers of MDD.

Results Compared with those of healthy controls, patients with MDD showed significantly decreased fALFF values in the somatosensory–motor network (SMN), including the right precentral gyrus/postcentral gyrus, right superior parietal lobule (SPL), and left supplementary motor area (SMA), and increased fALFF values in the right medial prefrontal cortex. Furthermore, correlation analysis suggested that the verbal learning deficits in patients with MDD are related to abnormal brain activity in the left SMA at rest. Lastly, support vector machine analysis showed that the fALFF values of the right SPL and left SMA exhibited high accuracy in differentiating MDD patients from healthy controls.

Conclusion Our findings suggested that reduced local activity in the SMN is a potential neurobiological basis of the clinical features of MDD and a potential biomarker for diagnosing and treating this disorder.

关键字：major depressive disorder, cognitive dys-

function, fractional amplitude of low-frequency fluctuation, support vector machine, somatosensory-motor network

肠道真菌失调与慢性精神分裂症严重程度相关

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目的 精神分裂症（SCZ）是一种慢性重型精神疾病，常引起社会功能衰退，预后不良。但病因尚未阐明，课题组前期研究发现肠道真菌失调与 SCZ 发病相关。本研究探讨真菌菌群改变和代谢紊乱与慢性 SCZ 发病的关系。

方法 选择符合 DSM-V 诊断标准且反复发作大于三次、病程大于五年的精神分裂症患者 110 例作为患者组，另选取同期体检健康的 85 例健康对照者作为对照组。通过内源转录间隔区（ITS）检测患者组和对照组肠道真菌菌群组成，采用阳性和阴性症状量表（PANSS）评定患者精神症状严重程度，使用 Spearman 相关性分析研究真菌菌群改变与精神症状之间的关系。

结果 本研究发现慢性 SCZ 患者肠道真菌菌群组成改变，属于 Ascomycota 的物种显著升高，属于 Basidiomycota 的物种显著降低，α 多样性指数显示 SCZ 患者物种多样性指数 ace 指数、Shannon 指数和系统发育多样性（PD）指数显著低于对照组。β 多样性分析显示通过菌群组成能够显著区分患者组和对照组，PERMANOVA 分析显示组间差异大于组内差异，提示通过微生物进行分组有意义。相关性分析显示：Metschnikowiaceae 科与 SCZ 患者 PANSS 评分显著正相关；Candida 属与 PANSS 兴奋性因子负相关，与 PANSS 抑郁性因子正相关；lodderomyces 属与阴性症状负相关；种水平上 Clavispora_lusitaniae 与 PANSS 无组织因子分负相关；Lodderomyces_elongisporus 与 PANSS 阴性症状分负相关；Picha_fermenants 与 PANSS 总分，一般病理分和阴性症状因子分显著正相关。

结论 慢性精神分裂症患者肠道存在真菌菌群失调，且相关真菌菌群落水平与精神症状显著相关。

关键字：精神分裂症；肠道菌群；真菌

早期自噬对母婴分离后大鼠认知功能的影响

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目的 探讨早期自噬对母婴分离诱导的类精神分裂症样模型大鼠认知功能的影响，以及羟氯喹对大鼠认知功能的作用和机制。

方法 实验采用雄性 Wistar 大鼠，在 PND9 母婴分离 24h 制作类精神分裂症样模型[1]。实验分组为 CON 组、MS 组、MS+CQ 组、CON+CQ 组。分别于 PND10 取材，采用 HE 染色、免疫荧光染色、锇铀铅染色投射电镜、蛋白印迹分析等方法检测母婴分离后 PND10 天自噬相关蛋白的表达。在 PND60 天使用旷场实验、新物体实验、三箱社交实验、巴恩斯迷宫实验、前脉冲抑制实验等验证母婴分离后模型构建成功与否，以及认知功能检测。

结果 研究结果表明：母婴分离后幼鼠海马组织电镜下自噬泡增加、自噬相关蛋白 LC3II 表达增加、P62 蛋白表达下降、LC3 免疫荧光染色发现母婴分离幼鼠分离 24 小时后海马 CA1 区神经元自噬相关蛋白 LC3 蛋白表达较正常组增加。但是在使用 2mg/kg 羟氯喹在 PND9 预处理后，显著抑制了 LC3I 到 LC3II 的转化、增加了 P62 的表达含量，降低了 Beclin-1 的表达，抑制自噬的发生。在成年期巴恩斯迷宫与新物体识别实验中，MS+CQ 组的认知功能明显高于 MS 组认知功能，MS+CQ 组在旷场实验中的焦虑行为也有明显改善，不自主运动无明显差异。前脉冲抑制与三箱社交实验无明显差异。

结论 母婴分离 24h 后过度 CA1 区发生过度自噬激活，抑制早期自噬激活可以改善母婴分离后成年期的认知功能障碍。羟氯喹早期预处理抑制自噬可以对精神分裂症认知功能具有保护作用。

关键字：母婴分离、自噬、羟氯喹

Interplay of Genetic Factors, Circulating Metabolites, and Gut Microbiota Underlying The Influence of Personality on Ulcerative Colitis Predisposition

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Objective The relationship between personality and gastrointestinal diseases has been attracting attention in recent years. High negative affectivity and social inhibition personality has been related to subsequent disease exacerbation and depression symptoms in ulcerative colitis (UC). However, the influence of individual personality traits on susceptibility, progression, and prognosis of UC has not been touched, and the underlying molecular mechanism is unclear.

Methods Here in this study, Cohort 1 enrolled 81 patients with active UC and 61 healthy people. Their gut microbiota were analyzed using 16S rRNA sequencing, and their serum samples were measured by non-targeted metabolomics. Cohort 2 recruited 378 healthy people, with their genomic DNA measured by Illumina Zhonghua-8 gene chips. A multi-level genome-wide association study was performed on cohort 2. Big Five personality questionnaire was adopted to evaluate the personality characteristics for all subjects.

Results Compared with healthy people, patients with active UC have higher agreeableness and lower openness. In patients with UC, the scores of agreeableness, conscientiousness, and extraversion are negatively correlated with depression and anxiety levels, while neuroticism is positively correlated with depression and anxiety levels.

Openness was associated with lower disease activity but unrelated with depression and anxiety. The five personality types had their specific gut microbiota composition, metabolome, and related genes. In patients with UC, Aggregatibacter was associated with lower openness. Lactococcus was related to higher agreeableness. Patients with UC and higher neuroticism harbored less Prevotellaceae. Patients with more active UC and higher conscientiousness harbored less Odoribacter. Openness was associated with lower hypoxanthine, taurine, andsphosine-1-phosphate levels. Agreeableness was negatively correlated with the levels of decanoyl-L-carnitine, diphenhydramine, glycochenodeoxycholate, and taurine. Neuroticism is positively related to D-quinovose levels and negatively related to L-kynurenine levels, and involved dysfunction of tryptophan metabolism, suggesting its relationship with UC associated mood disorders. In healthy people, genes such as NMNAT2, WT1, YY1, OR51E2, SLC25A29, and SGOL2 were significantly associated with more than two types of personality traits. Three genes, namely BCAS3, ZNF333, and MTUS2, were associated with both agreeableness and openness, indicating their role in the relationship between personality and UC.

Conclusion In summary, personality traits play an inescapable but not well studied role in UC development. A set of specific genetic factors, bacteria and circulating metabolites may build a bridge between them. This study suggests a possibility of including personality characteristics in the early screening of UC.

关键字：Big Five, personality, ulcerative colitis, GWAS, metabolome, gut microbiota

精神分裂谱系患者前瞻记忆的认知加工缺陷研究

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目的 前瞻记忆（PM）缺陷是精神分裂症患者的常见认知损害，与患者的临床和功能结局密切相关，但既往使用基于临床场景的工具（生态效度良好）无法揭示其认知加工过程。本研究拟在匹配生态效度的基础上，通过线索非聚焦眼动追踪范式考察精神分裂症谱系障碍患者 PM 受损的认知加工过程，并探讨其与基础神经认知功能缺陷的关系。

方法 （1）实验 1 中，纳入符合 DSM-5 精神分裂症谱系障碍诊断标准的患者（SSD）和健康对照，通过生态效度良好的中文版剑桥前瞻性记忆测试进行筛选，使两组在社会人口学资料和基于事件的 PM 分数上匹配，纳入 SSD 和健康对照各 32 例，通过眼动追踪实验对比两组的 PM 正确率和策略监控能力（干扰词注视次数），并采用中文版 MCCB 评估被试的神经认知功能，阳性与阴性症状量表（PANSS）评估患者症状严重程度。（2）实验 2 中，再纳入 31 例 SSD 患者扩大样本量，分析 SSD 患者眼动 PM 正确率、策略监控能力与 MCCB 各维度认知功能和临床症状之间的关系。

结果 （1）实验 1 中，SSD 患者在实验室 PM 正确率、策略监控和 MCCB 多个维度上显著差于健康对照（均为 P<0.05）；通过协方差分析控制了策略监控和 MCCB 总分后，PM 正确率在两组间差异消失（F(1,60)=1.748, P=0.191）。（2）实验 2 中，在 SSD 患者组相关性分析显示，其 PM 正确率与工作记忆（r=0.27，P=0.31）、注意力/警觉（r=0.398，P=0.01）和 PANSS 总分（r=-0.33，P=0.009）呈显著相关性。SSD 组干扰词注视次数与视觉学习（r=0.33，P=0.008）及 PANSS 总分（r=-0.32，P=0.01）呈显著相关。回归分析显示 PANSS 总分（β=-0.007，P=0.049）和视觉学习（β=0.011，P=0.04）是策略监控能力的预测变量（R?=0.143）。

结论 （1）本研究首次通过眼动追踪实验室范式证实，PM 缺陷是 SSD 患者的原发性认知缺陷，策略监控是其关键认知加工缺陷环节。（2）相比于基于临床的 PM 评估（生态效度良好），眼动追踪能更为敏感的揭示 SSD 患者的 PM 认知加工过程。精神症状总体严重度和视觉学习能力是独立预测 SSD 患者策略监控能力的变量。

关键字：精神分裂症；前瞻性记忆；策略监控；眼动追踪

经颅交流电刺激对精神分裂症患者幻听的疗效：一项随机、双盲、对照临床试验

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目的 经颅交流电刺激(tACS , transcranial alternating current stimulation)是一种非侵入性脑刺激手段。其原理是通过给定交流电从头皮传递到作用的神经元。tACS 被认为是通过同步脑波震荡进而诱导长期的突触的可塑性进而调节大脑的认知功能。十多年来，它已被用于不同的领域，如中风、帕金森病和脑损伤等神经系统疾病，然而目前它在精神病学临床研究中应用较少。本研究旨在通过一项随机、双盲、对照的临床试验，来探索经颅交流电刺激对用药精神分裂症患者幻听等临床症状的疗效作用。

方法 本研究纳入了 50 名精神分裂症患者（依据 DSM-5 诊断），将他们随机分配到两组，对照组每天接受 20 分钟的假刺激、tACS 组接受 40 赫兹 2 毫安的 tACS 治疗，每周五天，连续四周。在基线、第 2 周、第 4 周和第 6 周对患者进行临床症状评估，使用精神症状评定量表（PSYRATS）评定幻听症状的改善，作为主要测量结果。阳性和阴性综合征量表（PANSS）被用作次要测量结果。

结果 （1）PANSS 量表显示在两组之间没有明显差异，无统计学意义。（2）对 PSYRAT 量表上的幻听

得分分析显示两组之间有不同趋势，tACS 组相对于对照组对幻听症状有更好的治疗效果。

结论 虽然 tACS 组的幻听评分相对对照组而言只有很小的改善，但这种改善是有意义的。仍需要更大的样本量和更深入的研究来进一步探讨 tACS 在治疗精神分裂症幻听症状的疗效。

关键字：经颅交流电刺激，精神分裂症，幻听

正念干预对于康复期精神分裂症患者面孔情绪识别和生活质量的作用研究

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目的 （1）观察正念干预后康复期精神分裂症患者正念水平、面孔情绪识别和生活质量的变化；（2）探讨康复期精神分裂症患者正念水平、面孔情绪识别和生活质量的关联及正念干预的影响。

方法 以河南省郑州市某精神专科医院封闭病区符合纳入标准的 70 名康复期精神分裂症患者为研究被试，收集患者的一般情况，并根据性别和年龄进行分层随机分组形成实验组（35 人）和对照组（35 人）。在常规护理和药物治疗的基础上，实验组接受 8 周的正念干预，而对照组接受 8 周的工娱治疗。最终完成实验的有 62 名(实验组 32 人、对照组 30 人)。在干预前后使用正念五因素量表（FFMQ）、精神分裂症生活质量量表中文版（SQLS）、和行为学实验分别评估患者正念水平、生活质量水平和面孔情绪识别能力。采用 SPSS 21.0 软件，使用卡方检验、t 检验、非参数检验等统计方法处理和分析数据，同时，借助 PROCESS3.0 插件进行 Bootstrap 法调节效应分析。

结果 （1）实验组和对照组在年龄、性别、病程、受教育程度上无显著差异（p>0.05），具有可比性。（2）干预前，实验组和对照组在 FFMQ 总分及观察、描述、有觉知地行动、不判断、不反应五个子维度、SQLS 总分及心理社会、精力动机、症状副反应三个子维度上无显著差异，而干预后两组在以上维度差异均显著。（3）实验组干预前后各维度差异明显，而对照组干预前后各维度变化不明显。（4）干预前后实验组变量相关分析发现，干预前，正念水平、生活质量、面孔情绪识别之间显著相关，正念水平和生活质量得分呈显著负相关，与面孔情绪识别正确率呈显著正相关，生活质量得分与面孔情绪识别正确率之间呈显著负相关。干预后，正念水平和面孔情绪识别呈显著正相关，而生活质量与正念水平、面孔情绪识别无明显相关关系。（5）干预前对实验组数据进行回归分析显示：正念水平在面孔情绪识别和生活质量之间起调节作用，而干预后这种作用不显著。

结论 （1）正念干预可以有效提升康复期精神分裂症患者的正念水平和面孔情绪识别能力，改善患者的生活质量，有利于精神分裂症患者康复。（2）康复期精神分裂症患者正念水平、面孔情绪识别和生活质量之间存在显著正相关关系，并且正念干预后这些相关关系发生变化。

关键字：精神分裂症；正念训练；面孔情绪识别；生活质量

SSRIs Compared To TCAs Improve Social Perception in Major Depressive Disorders: A Pilot, Open-label, 12-week Study

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Objective To investigate whether selective serotonin reuptake inhibitors (SSRIs) or tricyclic antidepressants (TCAs) can improve social cognitive impairment in major depressive disorder (MDD) patients.

Methods Sixty patients who met the Diagnostic and Statistical Manual of Mental Disorders-5 diagnostic criteria for MDD were allocated to a selective serotonin reuptake inhibitor (SSRI) treatment group (SSRITG, n=30) or a tricyclic antidepressant (TCA) treatment group (TCATG, n=30). Thirty healthy individuals were recruited to serve as the controls. The Emotion Intensity Recognition Task (EIRT) and the Interpersonal Perception Task-15 (IPT-15) were measured at baseline and then after 4 and 12 weeks of treatment with SSRIs or TCAs.

Results Both SSRIs and TCAs decreased the Hamilton Depression Scale scores. At baseline, the total scores and five factor scores of the IPT-15 and the total scores and six factor scores of the EIRT were significantly lower in the SSRITG and TCATG groups than those of the controls. A repeated measures analysis of variance revealed a significant main effect of time period (baseline, 4 weeks, and 12 weeks) for the IPT-15 scores and EIRT scores and significant interactions for time period × group (SSRITG and TCATG). A multivariate analysis of variance showed no significant differences between the SSRITG and TCATG on IPT-15scores and EIRT scores at 4 weeks, but there were significant differences between these two groups at 12 weeks.

Conclusions MDD patients have impairments in social cognitive function, which might be improved by SSRIs.

关键字：major depressive disorder; social cognition; Interpersonal Perception Task-15; Emotion Intensity RecognitionTask

青春早期慢性社交挫败应激对 C57BL/6J 小鼠行为及补体 C3/C3a 水平的影响

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目的 青春期经历负性事件的个体罹患情感障碍、创伤后应激障等精神障碍的风险显著增高，但其潜在机制仍有待阐明。我们通过构建青春期慢性应激动物

模型探究青春期负性经历对个体社交及情感相关行为的影响及潜在的生物学机制。

方法 4 周龄的 C57 小鼠连续 10 天的社交挫败应激，应激结束后通过蔗糖偏好实验、旷场实验、社交互动实验和强迫游泳实验评估小鼠的社交及情感相关行为改变，采用酶联免疫吸附试验检测小鼠循环和中枢的补体表达水平，免疫荧光实验检测小鼠中枢小胶质细胞变化。

结果 在蔗糖偏好实验中，应激组蔗糖偏好水平显著降低（$p<0.05$）。在旷场实验中，应激组小鼠的总路程（$p<0.05$），中央区路程（$p<0.05$），中央区路程/总路程比值（$p<0.05$）均显著降低。在社交互动实验中，对照组与陌生 CD1 小鼠的接近时间显著高于新奇物体（空笼子）的接近时间（$p<0.001$），相反，应激组与 CD1 小鼠接近时间显著低于新奇物体（空笼子）的接近时间（$p<0.05$），应激组在角落区的时间（$p<0.001$）、逃跑行为（$p<0.001$）显著增高。在强迫游泳实验中，应激组和对照组在后 4min 中的不动时间无统计学差异。酶联免疫吸附实验表明应激结束后应激组循环补体蛋白 C3 以及 C3a 水平无统计学差异，前额叶补体蛋白 C3a 水平显著降低（$p<0.05$）。免疫荧光实验表明应激组前额叶小胶质细胞(IBA1+CD45-)的数量显著增加($P<0.05$)。

结论 青春早期慢性社交挫败应激导致的抑郁焦虑样行为改变以及前额叶补体蛋白 C3a 和小胶质细胞的变化可能是精神障碍易感性的机制之一。

关键字：抑郁障碍、生命早年应激、补体 C3/C3a、小胶质细胞、慢性社交挫败

反复睡眠剥夺伴短暂休息对大鼠疲劳样行 为和 TGF-β1 表达的影响

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目的 慢性疲劳综合征 (chronic fatigue syndrome/CFS) 是一种病因不明，以慢性疲劳为主要特征，涉及多系统功能障碍的综合征。抑炎因子转化生长因子 β1 (transforming growing factor β1/TGF-β1) 可能与 CFS 病理机制相关。本研究利用反复睡眠剥夺伴短暂休息诱导的疲劳动物模型，探讨 TGF-β1 在疲劳综合征发病中的作用。

方法 我们使用了 22 只 6 周龄雄性 SD 大鼠，随机分为对照组和疲劳组。造模前 1 天进行基线负重游泳实验。在进行 10 天的反复睡眠剥夺伴短暂休息的疲劳负载造模后，两组大鼠进行尾静脉采血 (负载结束后第 1 天、第 4 天) 和行为学检测 (负载结束后第 1、2、4 天行旷场实验和负重游泳实验，负载结束后第 3 天行 Y 迷宫实验) 。在负载结束后第 5 天处死，取脑组织用于检测 TGF-β1。

结果 (1) 与正常对照组相比，反复睡眠剥夺伴短暂休息 10 天造成大鼠体重显著降低；(2) 疲劳组大鼠在造模期间休息时的总睡眠时间呈波动式变化，于第 3 天和第 9 天达到高峰；(3) 疲劳负载前和结束后第 1 天，两组负重游泳时间无显著差异，疲劳组大鼠负载结束后第 2 天、第 4 天负重游泳时间与正常对照组相比显著增加；(4) 旷场实验结果显示与正常对照组相比，负载结束后第 1 天疲劳组大鼠中央区距离/总距离比值显著增加，负载结束后第 4 天疲劳组大鼠中央区距离/总距离、进入中央区时间显著增加；(5) Y 迷宫实验结果显示与正常对照组相比，疲劳组大鼠自发转换率显著降低，总入臂次数无显著差异；(6) 负载结束后第 1 天和第 4 天，疲劳组大鼠外周血 TGF-β1 水平与对照组无显著差异；(7) 疲劳组大鼠前额叶 TGF-β1 表达显著高于对照组，纹状体 TGF-β1 表达无显著差异。

结论 上述结果表明，反复睡眠剥夺伴短暂休息的疲劳模型可诱导大鼠出现以认知功能损害为主要表现的疲劳样行为改变，其前额叶抑炎细胞因子 TGF-β1 表达增加可能与精神疲劳的病理机制密切相关。

关键字：慢性疲劳综合征，精神疲劳，细胞因子，TGF-β1

脑脊液梅毒抗体 TRUST 与化学发光检测对神经梅毒的临床诊断价值

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目的 探讨脑脊液梅毒（TP）抗体甲苯胺红不加热试验（TRUST）及化学发光法检测 TP-IgG 对神经梅毒的诊断价值。

方法 选取广州医科大学附属脑科医院 2020 年 6 月至 2022 年 5 月两年间收治的 145 例有神经系统症状的梅毒患者，分析脑脊液与血清 TRUST、TP-IgG 结果，比较评估对神经梅毒的诊断效能。

结果 145 例梅毒患者，确诊神经梅毒 64 例，非神经梅毒 63 例，但神经系统症状不能确定梅毒感染引起的患者（随访组）18 例。26 例（40.6%）神经梅毒患者脑脊液白细胞≥10×106/L，55 例（85.9%）总蛋白量＞500mg/L，异常比例均高于非神经梅毒患者（$P<0.001$）；非神经梅毒组中白细胞升高、总蛋白升高者各为 7.9%、30.2%。56 例（87.5%）神经梅毒确诊者脑脊液 TRUST 阳性（滴度中位数为 1:2）。非神经梅毒组患者脑脊液的 TRUST（3 例，4.7%）与 TP-IgG（38 例，60.3%）阳性率均要明显低于神经梅毒组（$P<0.05$）。18 例随访患者脑脊液 TRUST 均为阴性，但 TP-IgG 均为阳性，常规无异常。145 例患者脑脊液 TP-IgG 水平与其自身 TRUST 滴度呈正相关（$r=0.669$, $P<0.001$）。神经梅毒确诊者血清 TRUST 与 TP-IgG 均为阳性，血清 TRUST 滴度、TP-IgG 中位数分别为 1:32、23.8±2.8，均要高于脑脊液抗体水平（$Z=-8.46$,$P<0.01$；$Z=-3.31$,$P=0.01$），尤以 TRUST 滴度升高显著，几乎 16 倍于脑脊液。确诊患者脑脊液 TRUST 治疗前后滴度明显降低（4.3±4.5 vs. 2.8±3.5；$Z=-2.11$，$P=0.035$）,而脑脊液 TP-IgG 治疗前后水平则无统计学差异（$Z=-0.87$,$P=0.061$）。脑脊液 TRUST 诊断的灵敏度与特异性

分别为 88.9%、95.2%，阳性预测值为 94.9%，阴性预测值为 95.2%；TP-IgG 灵敏度高达 100%，但特异性仅有 39.7%，阳性预测值为 62.7%，阴性预测值为 100%；两项指标联合检测敏感性与特异性分别为 88.9%、97.1%。

结论 脑脊液 TRUST 检测对神经梅毒诊断敏感性不足，可作为疗效监测的指标，联合 TRUST 及化学发光法检测 TP-IgG 未能提高神经梅毒的诊断率，但是脑脊液 TP-IgG 阴性可排除神经梅毒诊断。

关键字：脑脊液；神经梅毒；TRUST；梅毒抗体

萝卜硫素治疗孤独症的有效性与血浆磷脂代谢机制的研究

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目的 本研究旨在探索萝卜硫素治疗孤独症谱系障碍（Autism Spectrum Disorder，ASD）的分子机制，寻找与疗效相关的生物学标志物并构建疗效预测模型，以指导萝卜硫素在 ASD 中的临床应用。

方法 本研究基于课题组前期12周的萝卜硫素治疗 ASD 的随机、双盲、安慰剂对照试验。采用《OSU 孤独症评定量表—DSM-IV》（OSU Autism Rating Scale—DSM-IV，OARS-4）量表在基线、治疗第 4、8 和 12 周时评估萝卜硫素组和安慰剂组的 ASD 临床症状变化，利用广义线性混合模型比较 OARS-4 量表得分在组别和时间上的差异。在基线和治疗终点时采集患者血浆样本，利用超高效液相色谱—高分辨质谱法进行非靶向代谢组学的检测。将得到的血浆代谢物相对定量标准化数值使用方差分析-成分分析法筛选两组的差异代谢物，并进行代谢通路富集分析。通过 Spearman 相关分析，寻找与萝卜硫素治疗疗效显著相关的差异代谢物，再将萝卜硫素治疗有效组和无效组中这些代谢物进行 Fisher 判别分析，以筛选出具有疗效预测的生物标志物。

结果 本研究共采集了 40 名 ASD 儿童血浆样本进行代谢组学研究。12 周药物干预后，萝卜硫素组的临床症状得到显著改善（$P<0.05$），并有 201 种代谢物与安慰剂组存在显著差异，主要显著富集于甘油磷脂代谢和初级胆汁酸的生物合成通路（$P<0.01$）。牛磺酸、磷脂酰丝氨酸和溶血磷脂酰丝氨酸与 ASD 患者症状变化呈显著正相关（$P<0.05$），而溶血磷脂酰乙醇胺、鞘磷脂类和甘油三酯类代谢物与症状变化呈显著负相关（$P<0.05$）。其中，鞘磷脂 SM（d35:1）和牛磺酸进入了 Fisher 判别分析模型（$P<0.01$），该模型预测萝卜硫素疗效的正确率为 84.6%。

结论 萝卜硫素治疗 ASD 疗效的分子机制可能与细胞膜磷脂代谢有关，鞘磷脂 SM（d35:1）和牛磺酸可成为萝卜硫素治疗 ASD 疗效预测的生物标志物。

关键字：孤独症谱系障碍；萝卜硫素；非靶向代谢组学；生物标志物

中国华南地区某精神专科医院碳青霉烯耐药肺炎克雷伯菌感染的危险因素及流行病学分析

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目的 研究碳青霉烯耐药的肺炎克雷伯菌(CRKP)感染在中国华南地区某精神疾病专科医院的危险因素和流行病学特征。

方法 选取 2021 年 7 月至 2022 年 6 月一年间内感染肺炎克雷伯菌的住院患者共 107 例，并按照对碳青霉烯类抗生素的耐药性分为耐药组（CRKP）和敏感组（CSKP）。对 CRKP 和 CSKP 组患者进行单因素统计学分析和多因素 logistic 回归分析。同时，本研究还从临床分离菌株的抗生素耐药性、标本来源以及碳青霉烯耐药基因型分布等方面对 CRKP 在该医院的流行病学特征进行分析。

结果 CRKP 感染的独立危险因素为抗真菌药物暴露(OR:11.750, 95%CI: 1.236-111.706)，消化道疾病(OR:5.208, 95% CI: 1.774-15.294)，精神疾病(OR:4.233, 95%CI: 1.353-13.242)。107 例肺炎克雷伯菌感染的临床病例中共分离出肺炎克雷伯菌 119 株，其中 57 株（47.9%）为 CRKP 菌。41 株(71.9%)来自呼吸道标本，其次是尿液 13 株(22.8%)和血液 3 株(5.3%)。按照科室来源依次为：ICU 21 株(36.8%)，神经内科 18 株(31.6%)，精神科 14 株(24.6%)，神经外科 4 株(7.0%)。而不同科室 CRKP 检出率依次为：ICU 72.4%(21/29)，神经内科 64.3%(18/28)，精神科 34.2%(14/41)，神经外科 19.1%(4/21)。CRKP 菌对碳青霉烯类、氨基糖苷类、氟喹诺酮类、β-内酰胺/β-内酰胺酶抑制剂、头孢菌素类等抗生素均表现出较高的耐药率(≥98.2%)。采用胶体金免疫层析法检测其中 39 株 CRKP 菌株的耐碳青霉烯基因，发现 38 株(97.4%)表达 blaKPC，1 株(2.6%)为 blaNDM，未检出 blaIMP、blaVIM、blaOXA-48 等基因。

结论 本研究发现抗真菌药物暴露、消化道疾病和精神疾病是 CRKP 感染的重要独立危险因素。本研究中 CRKP 菌株主要来源于呼吸道标本，提示要多关注 CRKP 呼吸道感染风险。重症监护室，神经内科及精神科等是该医院 CRKP 感染的主要来源，针对这些科室患者的 CRKP 感染风险要引起重视。该精神专科医院碳青霉烯酶耐药基因主要是 blaKPC，在经验性用药选择时可以优先选择针对 A 类碳青霉烯酶的抗生素如头孢他啶-阿维巴坦、替加环素等药物。

关键字：精神科；耐碳青霉烯类肺炎克雷伯菌；流行病学；危险因素

一例以精神症状为早期表现的家族性致死性失眠症病例报道及文献回顾

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目的 报道 1 例早期被诊断为精神疾病的家族性致死性失眠症（Fatal Familial Insomnia, FFI）患者的临床表现、辅助检查结果以及诊治经过，旨在提高本病的早期识别，减少临床误诊漏诊。

方法 总结 1 例来自浙江无阳性家族史患者的临床资料，对患者行脑电、影像学检查及脑脊液检测，应用 Sanger 法进行朊蛋白基因（PRNP）测定。

结果 本例患者为 28 岁男性，无阳性家族史，以睡眠行为紊乱、认知功能下降伴片段性幻视幻听为主要表现，多次头颅 MRI 和脑电图检查未见明显异常，先后考虑诊断为分离转换性障碍、精神分裂症，经奥氮平等药物治疗后，症状无明显改善。后脑脊液检测发现 T-tau 含量及 T-tau/P-tau 比值显著增高；PET-CT 提示大脑皮质糖代谢减低，额叶最为明显。最后通过基因检测显示 PRNP D178N / 129M 基因突变，确诊为 FFI。

结论 部分罕见疾病的早期症状缺乏特异性，准确诊断存在挑战性。临床遇到快速进展性认知功能下降的患者，即使年纪较轻或没有家族史，仍需考虑朊蛋白病可能，对于朊蛋白病患者的早期识别，脑脊液 tau 蛋白检测有重要意义，很多研究认为脑脊液总 tau 蛋白大于 1300pg/ml 是诊断散发性 Creutzfeldt-Jakob disease (sCJD)的临界值。而在遗传性朊蛋白病中，tau 蛋白虽然升高不似散发性 CJD 那么明显，但也有诊断意义。最新研究显示当脑脊液 T-tau 含量超过 284pg/ml 时，其诊断 FFI 的敏感性和特异性可分别达 78%和 80%。因此，对可疑的朊蛋白病患者，及时进行脑脊液 tau 蛋白检测有助于早期识别，完善 PET-CT 和基因检测，有助于疾病的早期诊断。

关键字：睡眠障碍，器质性精神障碍，朊蛋白病，家族致死性失眠

Ift172 Deficiency Causes Autism-like Behaviors in Mice Through Attenuating BDNF Expression

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Objective Dysfunctional primary cilia are commonly associated with neurodevelopmental disorders collectively termed neurociliopathies, including Bardet-Biedl syndrome (BBS) and intellectual disability. Intraflagellar transport (IFT) is a critical process for flagellar elongation that actively transports either structural axonemal proteins or functional ingredients along the outer microtubules of the primary cilia. Ift172 is a gene encoding a member of IFT complex B that facilitates anterograde cargo flow together with kinesin, which is critical for the regulation of anterograde-to-retrograde ITF transition at the tip of flagella. Our previous study reported that Ift172 regulated a range of fundamental biological processes, highlighting the pivotal roles of the primary cilium in cell physiology and brain development. However, the effects and internal mechanisms of Ift172 on neuropsychiatric behaviors are still unrevealed. Our current study aims to generate an Ift172 KO mouse model, evaluate its behavioral phenotypes, and explore the intrinsic mechanisms based on the abnormal functions of the primary cilia.

Methods CRISPR/Ca9-mediated genome-editing technique was utilized to generate an Ift172 KO mouse model (Ift172+/-). A series of behavior tests were performed to identify the behavioral phenotype of Ift172+/- mice. Transcriptome analysis was utilized to unveil differentially expressed genes between WT and Ift172+/- mice. Sparsely virus label and electron microscopy were performed to observe structure and density changes in the spines and synapses of pyramidal neurons. Patch-clamp recording and local field potentials (LFPs) were detected in the miniature inhibitory postsynaptic currents (mIPSC) of hippocampal CA1 pyramidal neurons and sharp wave ripples (SWRs) in CA1 layers, respectively. BDNF mimetic compound 7,8-dihydroxyflavone (7,8-DHF) was administrated to rescue the related abnormal behaviors. Luciferase reporter assay and chromatin immunoprecipitation-PCR (ChiP-PCR) were employed to reveal the molecular mechanism by which Ift172 regulates the expression of BDNF.

Results Ift172+/- mice display repetitive grooming, mild anxiety-like behavior, and excessive and spontaneous memory impairment, especially abnormal social interaction as well as deficits in discriminating social novelty; the RNA-seq data suggest that the absence of Ift172 could impair synaptic functions in brains; the deletion of Ift172 leads to BDNF deficiency and structural defects in the dendrites and spines of pyramidal neurons; a significant decrease in mIPCs amplitude and frequency, and an increase in SWR incidence and oscillatory amplitude in Ift172+/- mice compared to WT age-matched controls; the specific BDNF mimetic compounds can lead to the re **Conclusion** Ift172 deficiency results in autism-like behaviors in mice. The mechanism investigation reveals that Ift172 interrupts the activation process of Gli3 as a transcription factor of BDNF on primary cilia.

关键字：IFT172; autism-like behaviors; BDNF; Gli3; primary cilia

抑郁症患者快感缺失与脑影像特征的相关性研究

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目的 探讨抑郁症患者和健康对照在静息状态下颅脑功能磁共振的分数低频振幅（fALFF）和局部一致性（ReHo）的差异，以及差异脑区特征值与快感缺失严重程度之间的关联。

方法 对 66 例抑郁症患者和 31 例健康对照行 3.0T 静息态功能磁共振（fMRI）扫描，并使用蒙哥马利抑郁量表（MADRS）和时间性快感体验量表（TEPS）

对被试进行评估。比较两组间 fALFF 及 ReHo 值差异，将差异脑区的 fALFF 及 ReHo 值与临床量表得分作 Pearson 相关性分析。

结果 相比于对照组，抑郁症组在双侧中扣带回及旁扣带回的 fALFF 值降低（体素水平 p<0.001，且 FWEp<0.05）；抑郁症组在左侧距状裂周围皮层/右侧舌回的 ReHo 值降低（体素水平 p<0.001，且 FWEp<0.05）。全脑功能活动存在差异的脑区与快感缺失严重程度的关联分析显示，抑郁症组期待型 TEPS 得分(r=0.407，P=0.001，Bonferrnoi 法校正后 P=0.006)及消费型 TEPS 得分(r=0.361，P=0.003，Bonferrnoi 法校正后 P =0.018)与双侧中扣带回及旁扣带回的 fALFF 值均呈正相关；抑郁症组 ReHo 值与快感量表得分之间未发现相关性。

结论 抑郁症患者在双侧中扣带回及旁扣带回、左侧距状裂周围皮层/右侧舌回处存在功能受损，且双侧中扣带回及旁扣带回具有成为抑郁症患者快感缺失的神经影像学标志物的潜质。

关键字：抑郁症；快感缺失；分数低频振幅

基于基于生成对抗网络 FCN-GAN 数据增强的自闭症核磁共振影像分类

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目的 本研究旨在深度学习算法的基础上，提出一个新型生成模型 FCN-GAN。利用生成模型来进行数据增强的方法，来生成具更多高价值和高质量的自闭症患者功能连接矩阵图像。从而能有效地扩展了原始数据集的图像数量，为后续分类任务提供更多的训练样本。

方法 我们在在 Conditional-GAN（CGAN）和变分自编码器（VAE）的基础上，将 CGAN 和 VAE 相结合提出了一种新型的生成模型 FCN-GAN。生成器模型由 4 个 2D 全卷积层组成，每层之间都添加了一个批正则化层和 ReLU 层来激活，最后一层由 Sigmoid 函数来激活。而判别器模型的架构与 VAE 网络相似，由 4 个 2D 反卷积层组成。先使用混合高斯模型（GMM）直接对高维数据的似然进行建模，使用期望最大化（EM）算法从训练数据中学习高斯分布的参数。生成器再从得到的多元高斯分布中抽取，并且鉴别器和生成器都以可用的标签为条件，此外我们还使用二维卷积和反卷积来捕捉功能连接矩阵的空间结构。最后我们以公开数据集 ABIDE 为训练数据，它整合了全球多个实验室或研究中心的自闭症患者脑影像。

结果 在实验中，我们使用了 CNN 和 SVM 作为分类器来验证数据增强的效果，通过准确率、ROC 曲线和 AUC 等指标来评估它们的分类准确度。实验结果显示，在经过 FCN-GAN 数据增强后，SVM 的分类准确度由没有进行数据增强时的 60.82%，上升到增强后的 70.14%，CNN 的分类准确度由没有进行数据增强时的 61.40%，上升到增强后的 71.86%。这一提升不仅在统计上是显著的，而且在参数优化后分类器的收敛速度也更快。

结论 本章研究通过提出 FCN-GAN 模型，并进行了详尽的实验评估，展示了该生成模型在医学影像数据增强方面的潜力和优势。通过生成有价值、高质量的功能连接矩阵图像，并与现有数据集混合，FCN-GAN 成功地提高了 CNN 和 SVM 的分类准确度。这一研究为医学影像领域的数据增强方法提供了新的思路和启示，有助于提升下游分类器的性能和应用的可行性。

关键字：自闭症、数据增强、fMRI、深度学习

Streptococcus Salivarius 定植引起小鼠精神分裂样行为的机制研究

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目的 精神分裂症是一种病因不明的精神疾病，涉及认知、思维、情感、行为等多方面精神活动的显著异常。虽然精神分裂症的发病机制尚未阐明，但已有大量证据表明肠道微生物群可以通过微生物群-肠-脑轴轴参与精神分裂症的发病。本课题组前期对精神分裂症患者的肠道菌群和健康人群的肠道菌群进行宏基因组测序，发现对精神分裂症患者的肠道菌群富含 Streptococcus salivarius 菌，但是该菌是否在精神分裂症的病理生理过程中发挥作用还不清楚。因此本研究，通过评估细菌定植对小鼠精神分裂样行为的影响，从而揭示 S. salivarius 菌诱发精神分裂样行为的潜在机制。

方法 本研究采用 6 周龄的雄性 C57BL/6J 小鼠，经过连续 10 天的混合抗生素清楚肠道菌群后，分别给小鼠连续 14 天灌胃细菌培养液对照组（Ctrl, 200 ul）、S. salivarius 菌体（SS cell body，108 cfu）和 S. salivarius 培养上清液（SS supernatant，200 ul），然后评估小鼠行为学变化，包括旷场、高架十字迷宫、三箱社交、条件恐惧、前脉冲抑制和强迫游泳实验。

结果 在旷场实验中，S. salivarius 菌体组在中央区域的停留时间较对照组显著减低，S. salivarius 培养上清液组在中央区域的停留时间较对照组无变化。在前脉冲抑制实验中，S. salivarius 菌体组和 S. salivarius 培养上清液组均较对照组显著显著增高。其他行为学实验，包括高架十字迷宫、三箱社交、条件恐惧等，三组之间均无显著差异。

结论 本研究利用 S. salivarius 细菌定植的小鼠行为学模型，发现精神分裂症患者肠道中富集的 S. salivarius 菌可有助于小鼠表达两种与精神分裂症相关的行为（焦虑样升高和感觉门控受损）。

关键字：精神分裂症；肠道微生物；S. salivarius 菌

肠道菌群代谢物短链脂肪酸与精神分裂症的关系研究

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目的 微生物-肠-脑轴是精神分裂症的发病和机制的研究热点。肠道菌群可通过免疫、内分泌、神经和体液等途径，在免疫系统失调和微生物-肠-脑双向通讯中起着重要作用。短链脂肪酸(SCFAs)是肠道细菌发酵膳食纤维产生的主要代谢产物。基于肠道菌群和SCFAs 在宿主免疫应答中的关键作用，我们提出肠道菌群紊乱诱导的 SCFAs 水平上调可能与精神分裂症的病理机制有关。本研究通过比较精神分裂症患者和健康对照的血清及肠道 SCFAs 水平和肠道微生物组，探讨肠道菌群及其重要代谢产物短链脂肪酸在精神分裂症发病中可能的作用。

方法 本研究共纳入 146 名精神分裂症患者和 144 名健康对照，并采集了所有受试者的年龄、性别、受教育程度、BMI 等人口统计学资料。使用串联四极杆质谱（GC-QqQ-MS）和气相色谱-质谱联合法（GC-MS）检测血清和粪便中的 SCFAs 水平；采用鸟枪法宏基因组测序技术分析肠道微生物的多样性及差异，探讨细菌来源的 SCFAs 与精神分裂症的关系。

结果 本研究共纳入 146 名精神分裂症患者和 144 名健康对照。人口统计学资料表明，两组人群在年龄、性别、BMI、受教育程度、吸烟饮酒情况上均无统计学差异。首先，我们检测了血清中的 SCFAs 水平，发现精神分裂症患者血清中乙酸、丙酸和丁酸水平及其总和均显著高于健康对照组（P <0.001）。为探究患者血清中 SCFAs 的来源，我们检测了粪便 SCFAs。结果表明病例组粪便中的 SCFAs 水平也显著高于健康对照组（P<0.0001）。为筛选导致 SCFAs 升高的细菌，我们检测了粪便宏基因组，结果表明病例组的 α-多样性显著升高（P<0.001），β-多样性与健康对照组差异显著；在种水平上，Phocaeicola vulgatus, Lachnoapira pectinoschiza 显著升高；对两组差异菌分别和 SCFAs 做相关性分析结果表明，SCZ 患者肠道中 29 种细菌和至少一种 SCFAs 水平相关（FDR<0.05），SCZ 患者肠道中 25 种细菌和至少一种 SCFAs 水平相关（FDR <0.05），其中 Hungatella_hathewayi 在两组中均与粪便丁酸水平呈显著正相关。

结论 SCFAs 是精神分裂症肠道菌群失调的重要介质，这为进一步揭示 SCFAs 在精神分裂症发病机制中的作用提供依据，同时为探索精神分裂症的潜在治疗靶点提供了新的思路。

关键字：肠道菌群；短链脂肪酸；精神分裂症

基于多组学的心理韧性肠-脑轴机制的探索性研究

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目的 心理韧性水平差异导致个体抵抗逆境能力的不同。本研究旨在应用多组学技术手段，探究在受到相同水平心理应激下的模式动物小鼠中心理韧性差异，并分析脑肠轴在此过程中的作用。

方法 通过悬尾、强迫游泳和糖水偏好实验，评估小鼠在慢性社交挫败后的抑郁行为，并将其分为抑郁敏感组和抑郁抵抗组。收集抑郁敏感、抑郁抵抗以及对照组小鼠的血浆、肠内容物、海马、纹状体和前额叶皮质等样本。对小鼠肠内容物中的微生物群落进行宏基因组测序，分析不同组小鼠肠道微生物的组成和功能差异。同时对肠内容物中的微生物群落进行宏转录组测序，分析小鼠肠菌的基因表达模式，以进一步确定与抑郁状态相关的特征基因。此外，对小鼠的肠内容物、血浆、海马、纹状体和前额叶皮质样本进行代谢组学检测，研究不同组间的代谢物组成和通路富集情况的差异，筛选与抑郁表型相关的特征代谢物。

结果 宏基因组分析显示，抑郁抵抗组中的 Limosilactobacillus reuteri 和 Akkermansia muciniphila 等菌群相对丰度显著高于抑郁敏感组，这些菌群与抗炎作用相关。血浆和前额叶皮质等脑区的代谢组学分析揭示了抑郁抵抗小鼠和抑郁敏感小鼠在代谢产物水平上的差异，尤其是在氨基酸代谢、脂质代谢和短链脂肪酸等与菌群相关的代谢方面。通过多组学联合分析，筛选出与特征菌群相关的代谢产物，为未来抑郁症治疗提供了新的靶点。

结论 综合分析多组学数据发现，抑郁抵抗小鼠相对于抑郁敏感小鼠呈现出益生菌相对丰度增高、神经递质合成和信号传导增强、较低的炎症反应以及能量代谢水平增高。

关键字：心理韧性；抑郁症；肠-脑轴；多组学

青春期小鼠高脂饮食诱发抑郁样行为的机制研究

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目的 抑郁症是一种严重限制心理社会功能并降低生活质量的常见精神疾病，也是一种代谢性疾病。青少年期的肥胖以及其成年后的肥胖与抑郁症的高患病率密切相关，但目前肥胖诱发抑郁症的机制尚不清楚。本研究通过评估高脂饮食和压力对小鼠抑郁样行为的影响，从而揭示青少年肥胖诱发抑郁样行为的潜在机制。

方法 采用 3 周龄雄性 C57 小鼠，高脂组(HF)给予 60 kcal% Fat，对照组(LF)给 10 kcal% Fat 持续 5 周模拟青少年肥胖，随后继续食用高脂饲料到 13 周。分别评估脂肪和肌肉含量，血浆中 TC、TG 和 Glu 水平，

口服葡萄糖耐量和胰岛素耐量实验评估肥胖。慢性社会挫败应激(CSDS)模型分为 LF 组，LD 组(LF+CSDS)，HF1 组，HD 组(HF+CSDS)；慢性束缚应激 (CRS)模型分为 LF2 组，LR 组(LF+CRS)，HF2 组，HR 组(HF+CRS)。结肠内容物和血浆进行非靶向代谢组学和靶向氧化脂质代谢组学的分析；前额叶皮质和海马进行靶向氧化脂质代谢组学的分析。qRT-PCR 分析前额叶皮质和海马花生四烯酸代谢途径相关酶和炎症因子 mRNA 水平的表达。

结果 高脂饮食 5 周后，HF 组体重和脂肪含量显著增高，血浆 TC 和 Glu 显著升高，HF 组葡萄糖耐量减退和胰岛素抵抗；CSDS 后的 LD 组和 HD 组出现社交回避。HF 组糖水偏爱下降和强迫游泳不动时间增加，表明压力可以诱导正常小鼠的抑郁样行为。LD 组和 HD 组均出现社交性受损，但 HD 组出现社交新颖性受损。CRS 模型中，观察到了相似的结果。血浆和脑组织靶向代谢组学分析发现，HF 组的多不饱和脂肪酸(PUFA)代谢紊乱，特别是花生四烯酸(AA)及相关其代谢物在 HF 组显著升高。相关性分析发现 AA、LA 和 γ?LA 水平与 SPT 呈负相关，与 FST 呈正相关。qRT-PCR 发现 HF 组前额叶皮质和海马中花生四烯酸代谢途径相关酶(Alox5、Ptgs1、Ptgs2 和 Ltb4r2)表达异常，炎症因子 IL-6、IL-1β、CCL-2 和 IL-10 显著升高。免疫荧光分析发现，HF 组前额叶皮质和海马中小胶质细胞数量增多，分支变短，小胶质细胞数量也高于 LF 组，但与 HD 组相比没有统计学差异。

结论 青春期小鼠高脂饮食诱导外周和中枢神经系统的 PUFA 代谢紊乱引起代谢性神经炎症，从而导致青春期肥胖小鼠出现抑郁样行为。这为儿童青少年肥胖诱发抑郁症的研究和治疗提供了新的方向。

关键字：青春期；高脂饮食；抑郁样行为；PUFA

肠道菌群及血清细胞因子与轻度脑外伤所致脑白质高信号及认知损害相关

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目的 轻度脑外伤常导致长期认知损害，增加痴呆、精神障碍等疾病的发病风险，然而其机制未明。肠道菌群被报道与脑微血管稳态和认知功能相关。当前轻度脑外伤诊断主要依据格拉斯哥昏迷量表，指标具有主观性、易引入偏倚。本研究旨在探究轻度脑外伤导致的菌种水平的肠道菌群紊乱及血清细胞因子变化及其与脑白质高信号及认知损害的关联，并评估基于肠道菌群、细胞因子及脑白质高信号的客观指标对轻度脑外伤的诊断及远期认知功能的预测价值。

方法 轻度脑外伤患者和健康对照均通过核磁共振检测脑白质高信号（全脑及额叶皮层）；采用韦克斯勒成人智力量表的连线测试 A 和数字符号编码任务评估受试者认知水平；通过宏基因组测序在菌种水平解析肠道菌群组成；使用 Luminex 多重磁珠法检测血清细胞因子水平；使用随机森林模型筛选和构建可用于轻度脑外伤诊断和认知功能预测的客观指标模型。

结果 轻度脑外伤患者相比于健康对照在全脑和额叶皮层白质高信号均增高，认知水平降低；且全脑和额叶皮层白质高信号与认知功能存在负相关。两组受试者肠道菌群组成存在显著差异，轻度脑外伤患者相比于健康对照 15 个菌种丰度升高（其中包括 5 个梭菌菌种），8 个菌种丰度降低。个别组间差异菌种丰度及基因功能与脑白质高信号及认知功能相关。我们也发现了肠道菌群，血清细胞因子，脑白质高信号及认知功能之间的复杂关联网络。一个包含 4 个肠道菌种、2 个细胞因子和全脑白质高信号的联合诊断模型可提高轻度脑外伤的诊断效能至 94.1%。一个包含 9 个肠道菌种、1 个细胞因子和全脑及额叶皮层白质高信号的预测模型可推断患病一年后的认知功能，效能达 82.5%。

结论 肠道菌群及血清细胞因子与轻度脑外伤所致脑白质高信号及认知损害相关。整合肠道菌群、血清细胞因子及脑白质高信号的客观指标模型可提高轻度脑外伤及远期认知功能的诊断和预测效能。我们的结果提示肠道菌群有望作为轻度脑外伤相关认知障碍等并发症的治疗和干预靶点。

关键字：肠道菌群；细胞因子；轻度脑外伤；认知损害

外周淋巴细胞计数与双相躁狂患者精神病性症状之间的关系

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目的 双相障碍（bipolar disorder，BD）是一种严重的高致残性精神疾病，是一种发作性心境障碍，其特点是（轻）躁狂和抑郁发作交替出现。BD 被认为是一种多系统疾病，不仅影响患者的情绪和行为，还影响免疫系统。BD 患者的炎症水平升高，且 BD 会加剧患者外周淋巴细胞的凋亡。深入研究 BD 免疫系统功能异常被认为是发现生物标志物的关键，这些生物标志物可以预测疾病进展，甚至有助于治疗选择。相较于其他生物标记物，全血细胞计数（CBC）生物标记物在实验室条件下更容易获得。白细胞计数（WBC）是一种非特异性的炎症标记物，白细胞亚型包括淋巴细胞和 BD 之间的联系在先前研究中得到证实。研究发现双相躁狂患者的炎症水平高于健康对照，而约 68%的双相躁狂患者出现了精神病性症状。因此，本研究将考察伴精神病性症状双相躁狂（BMP）与不伴精神病性症状双相躁狂（BMN）患者在 CBC 计数指标上的差异。

方法 本研究纳入 18-65 岁双相障碍躁狂发作患者 160 例，其中有 80 例患者出现了精神病性症状。BMP 和 BMN 患者在性别、年龄、受教育年限、病程上无显著差异，所有患者均为复发。研究中采集患者的外周血，进行 CBC 检测，获得白细胞、中性粒细胞、淋巴细胞、单核细胞和血小板计数，以及中性粒/淋巴细胞比值（NLR）、单核/淋巴细胞比值（MLR）、血小

板/淋巴细胞比值（PLR）等指标。另外，使用住院患者风险评估表对患者的肇事风险与自杀风险进行评估。以性别和年龄为协变量，对两组患者的 CBC 指标、肇事风险和自杀风险进行差异性检验。

结果 （1）相较于 BMN 患者，近一周 BMP 患者的自杀意念更强；（2）在 CBC 指标上，BMN 患者的淋巴细胞计数高于 BMP 患者。

结论 （1）在症状层面，精神病性症状会增加双相躁狂患者的自杀风险；（2）在 CBC 指标上，精神病性症状的出现伴随着淋巴细胞计数的减少，即精神病性症状与双相躁狂患者的外周免疫有关。

关键字：双相躁狂；精神病性症状；全血细胞计数；淋巴细胞计数

Ghrelin 通过生长激素信号通路调节斑马鱼多动样行为的研究

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目的 注意缺陷/多动障碍(ADHD)是一种儿童和青少年常见的、与遗传高度相关的神经发育障碍疾病。GHRELIN 是已知最强的生长激素促分泌素之一，我们前期研究对 248 例 ADHD 和 208 例健康对照组人群进行测序分析发现 GHRELIN 基因 rs696217 SNP 位点的纯合突变与 ADHD 发病具有显著相关性，ghrelin 敲除的斑马鱼（ghrelinΔ/Δ 斑马鱼）表现出多动、冲动、学习与记忆能力减退的 ADHD 样表型，并伴随多巴胺水平降低及多巴胺能神经元发育障碍等病理学改变。然而，生长激素通路是否参 ghrelin 缺陷所致多动样行为尚不清楚

方法 利用 RNA-seq 对 ghrelinΔ/Δ 斑马鱼进行全脑转录组测序，并使用实时荧光定量 PCR（qRT-PCR）验证生长激素通路相关基因的表达水平。ghrelinΔ/Δ 和野生型斑马成鱼各自随机分成人重组生长激素（rhGH）治疗组和对照组，使用腹腔注射技术进行给药，并通过 viewpoint 行为记录分析多动、冲动等行为变化

结果 我们对 ghrelinΔ/Δ 和野生型斑马鱼成鱼进行全脑转录组分析，发现 ghrelinΔ/Δ 斑马鱼 gh 信号通路相关基因的转录表达显著降低, qRT-PCR 同样发现 ghrelinΔ/Δ 幼鱼和成鱼大脑内 stat5b，map2k2b，adcy1a，gh1，atf2，itpr1b，itpr2 等 gh 信号通路相关基因表达显著降低，验证了全脑转录组分析的结果。我们以腹腔给药的方式将 rhGH 注射至 ghrelinΔ/Δ 和野生型斑马鱼成鱼体内，行为学分析发现：ghrelinΔ/Δ 斑马鱼过度活跃和对外界光刺激反应敏感的表型能够被 rhGH 挽救。

结论 前期研究中发现了人 GHRELIN 基因突变导致 ADHD，本研究对 ghrelin 缺陷斑马鱼大脑进行转录组分析后发现 GH 相关信号通路下调，利用 rhGH 治疗后 ghrelin 缺陷斑马鱼多动症样表型被部分挽救，进一步明确其机制为临床实验提供理论基础，探寻了 rhGH 作为 ADHD 治疗或辅助用药的可能性。

关键字：ADHD ,ghrelin，斑马鱼，转录组分析，人重组生长激素

基于磁共振成像的 HIV 感染人群感染新型冠状病毒后神经影像学研究

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目的 新冠病毒感染者会发生大脑结构、功能改变，由于 HIV 感染导致机体免疫功能缺陷，HIV 感染者合并新冠感染后的大脑结构、功能等均可能与普通人群存在差异。目前，尚不清楚新冠病毒对 HIV 感染人群大脑的影响。本研究旨在通过多模态磁共振成像的方法，研究 HIV 感染人群感染新冠后脑结构和功能的神经影像学改变，并据此分析新冠病毒在 HIV 感染人群的神经机制。

方法 我们对 66 名 HIV 感染者在感染新冠病毒前后（新冠病毒感染诊断时间超过 2 个月）分别进行了基线和感染后共 2 次磁共振成像。所有被试的磁共振数据均采集于同一台飞利浦磁共振成像系统，所采集的数据模态主要包括:结构磁共振成像（sMRI）、静息态功能磁共振成像（rs-fMRI）。采用 MATLAB R2013b 软件的 spm12 工具包进行数据处理，分析新冠病毒感染后组较新冠病毒感染前组差异具有统计学意义的脑区。分析方法包括基于体素形态学分析、基于体素的分析、局部脑活动。

结果 在比较两组时，我们发现 HIV 感染者在感染新冠病毒后组较新冠病毒感染前组，（1）右侧海马、左侧海马旁回局部一致性（ReHo）显著降低（P 校正<0.05），双侧枕中回 ReHo 显著升高（P 校正<0.05）；（2）左侧丘脑、右侧背外侧额上回分数低频振幅（fALFF）降低（P 未校正<0.05），右侧颞上回、左侧中央前回、右侧中央后回 fALFF 升高（P 未校正<0.05）；（3）左侧杏仁核灰质体积增加（P 未校正<0.05）。

结论 这些主要的边缘区脑成像结果可能是新冠病毒通过嗅觉途径逆行性扩散、神经炎症事件或嗅觉缺失导致的感觉输入丧失的体内标志。这种有害影响是否可以部分逆转，或者这些影响是否会长期存在，仍有待进一步的随访研究。

关键字：磁共振成像；新型冠状病毒；人类免疫缺陷病毒（HIV）；

The Role and Mechanism of LncRNA in Genetic Risk of Schizophrenia

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Objective Adult schizophrenia patients and healthy

controls and prenatal brain tissue

Methods We first performed transcriptomic analysis using RNA-seq data from adult brain tissues, and analyzed lncRNA by weighted correlation network analysis (WGCNA), looking for co-expressed gene modules and hub genes of the modules. Secondly, we carried out the expression quantitative trait locus (eQTL) analysis. The results of eQTL analysis from prenatal and adult brain tissue samples provide the largest genome-wide human lncRNA eQTL map, comprehensively describing eQTL regulatory regions at different developmental stages. Thirdly, using integrative analytic methods such as transcriptome-wide association analysis, colocalization analysis, and Mendelian randomization (MR), we combined the GWAS results and eQTL data of schizophrenia to identify lncRNAs whose genetically regulated expression change are associated with schizophrenia. Combining results from different analyses, we revealed lncRNAs that may play an important role in schizophrenia. Finally, we used the database (LncRNADisease V2.0) to identify the mRNA targets of risk lncRNAs.

Results Transcriptome analysis showed that many differentially expressed lncRNAs (such as LINC01224, RP11-168O16.1, RP11-57A19.2, etc.) were down-regulated in schizophrenia cases compared with controls, which is consistent with the results observed in mRNA studies. All lncRNAs expressed in adult human brain tissue can be clustered into 6 co-expressed gene modules, among which, the MEturquoise module is significantly associated with schizophrenia, suggesting that the hub gene MAP4K3.DT of this module may be involved in the occurrence of schizophrenia and has a key role. The results of eQTL analysis from prenatal and adult brain tissue samples provide the largest genome-wide human lncRNA eQTL map, comprehensively describing eQTL regulatory regions at different developmental stages. Finally, combining results from integrated analyses, we revealed lncRNAs that may play an important role in schizophrenia, including LINC01068*, LINC02050, LINC01038, LINC02571, LINC01224, LINC02249, etc.

Conclusion Our study identified potential causal lncRNAs associated with the genetic risk of schizophrenia and explored the possible pathogenic mechanisms of candidate lncRNAs in the development of schizophrenia. Provide new evidence for studying the genetic risk and pathogenesis of schizophrenia and nominate potential diagnostic molecular markers and possible therapeutic targets for the prevention and treatment of schizophrenia.

关键字：Schizophrenia, LncRNA, GWAS, Integrated analysis

母体免疫激活致子代精神分裂症大鼠青春期海马体突触异常及其行为学异常的相关研究

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目的 妊娠期母体免疫活化会增加其成年子代罹患精神分裂症的风险。通过在孕早期给予孕鼠聚肌胞苷酸（Poly（I:C））, 致其免疫活化，建立母体免疫激活致子代精神分裂症大鼠模型，观察该模型在疾病发生发展中脑内突触相关蛋白表达水平、行为学、脑内星形胶质细胞和小胶质细胞数量和形态的变化，并分析其突触缺损情况及其行为学异常的关系。

方法 将成功受孕雌鼠随机分为 Poly (I:C)模型组和生理盐水对照组， 在其子代青春期进行 PPI、潜伏抑制、条件恐惧学习测试的行为学测定，并通过免疫印记技术检测海马区突触相关蛋白的表达水平，采用免疫组织化学技术检测海马 Iba1 和 GFAP 的表达，采用高尔基染色观察神经元的形态。最后使用 SPSS20.0 软件对各组实验结果统计学分析。

结果 与对照组相比，在母体免疫激活致子代精神分裂症模型组大鼠青春期海马体中，神经元树突棘密度显著下降； PPI、潜伏抑制、恐惧记忆行为出现缺陷；磷酸化 Cofilin 和磷酸化 LIMK1 的表达显著下调；神经元骨架蛋白 NFM、NFH 和 NFL 的 mRNA 和蛋白在海马区的表达显著上调；Iba1 阳性的小胶质细胞数量显著增加（P<0.01），但 GFAP 阳性星形胶质细胞的数量在两组之间不具有统计学差异（P>0.05）。

结论 母体免疫激活致子代精神分裂症模型大鼠在青春期出现类精神分裂症样行为变化，且其海马体中神经元树突棘密度显著下降。

关键字：精神分裂症；母体免疫激活；突触异常

Genome-Wide Association Study Implicates Lipid Pathway Dysfunction in Antipsychotic Induced Weight Gain: Multi-Ancestry Validation

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Objective Antipsychotic-induced weight gain (AIWG) is a common side effect of antipsychotic medication and may contribute to diabetes and coronary heart disease. This study aims to identify genetic predictors of AIWG to enable safer use of antipsychotics.

Methods We conducted a two-stage genome-wide association study in Han Chinese patients with schizophrenia, including a discovery cohort of 1,936 patients, a validation cohort of 534 patients, and an additional 630 multi-ancestry patients from the CATIE study for external validation. Fine-mapping and functional annotation were applied to identify the potentially causal gene for AIWG, and drug repositioning was performed based on the identified genes. To develop a predicted model for AIWG, we first developed and validated polygenic risk scores (PRSs) for the acute phase of AIWG. Further, we applied Mendelian randomization (MR) analysis to investigate the relationship between AIWG and antipsychotic-induced lipid

changes. Subsequently, demographic information, antipsychotic type, and significant factors in the PRS and MR analysis were selected to construct a comprehensive prediction model.

Results Our results identified two novel genome-wide significant loci associated with AIWG: rs10422861 in PEPD (P=1.373×10-9) and rs3824417 in PTPRD (P=3.348×10-9) in Chinese Han samples. The association of rs10422861 was validated in European samples. Fine-mapping and functional annotation revealed that PEPD and PTPRD are potentially causal genes for AIWG, with their proteins being prospective therapeutic targets. Colocalization analysis suggested that AIWG and type 2 diabetes (T2D) share a causal variant in PEPD. PRSs for AIWG and type 2 diabetes (T2D) significantly predicted AIWG in multi-ancestry samples. Furthermore, MR revealed a risky causal effect of genetically predicted antipsychotic-induced changes in low-density lipoprotein cholesterol (P=7.58×10?4) and triglycerides (P=2.06×10?3) on AIWG, which had not been previously reported. Our model, incorporating antipsychotic-induced lipid changes, PRSs, demographic information, and antipsychotic type, significantly predicted weight gain after 3-month antipsychotic treatment (AUC=0.76, P=2.26×10?10).

Conclusion Our results highlight that the mechanism of AIWG involves lipid pathway dysfunction and may share a genetic basis with T2D through PEPD. This study provides new insights into the pathogenesis of AIWG and contributes to personalized treatment of schizophrenia.

关键字：antipsychotic-induced weight gain, antipsychotic-induced lipid change, lipid pathway dysfunction, Peptidase D (PEPD), Receptor-type protein tyrosine phosphatase, receptor type D (PTPRD), genome-wide association study, Mendelian Randomization, polygenic risk score, metabolic side effect

Exploring The Antidepressant Mechanism of Paroxetine Based on Network Pharmacology and Molecular Docking：A New Perspective

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Objective To explore the antidepressant mechanism of Paroxetine from a new perspective of network pharmacology and molecular docking.

Methods PubChem and Swiss Target Prediction databases were searched to identify the potential targets of paroxetine;The related targets of depression were searched in DisGeNET and GeneCards databases;The intersection targets of drugs and diseases were obtained by using the Bioinformation online platform;The STRING database and cytoscape3.9.1 software were used to construct the PPI network and screen the core targets;The DAVID database was used for GO functional enrichment analysis and KEGG pathway enrichment analysis, and the Bioinformation platform was used for visual analysis. Finally, AutoDock tools 1.5.6 was used for molecular docking and Pymol was used for visualization.

Results 102 potential targets of Paroxetine, 1777 depression related targets and 39 intersection targets were obtained through database retrieval. By screening, a total of 10 core targets were obtained, including DRD2, MTOR, EGFR, MAOB, SLC6A4, PIK3CA, HTR2A, DRD1, HTR1A, and GSK3b; GO functional enrichment analysis (P<0.05) yielded 165 entries for biological processes (BP), 41 entries for cell composition (CC), and 46 entries for molecular function (MF); The main BP includes protein phosphorylation, chemical synaptic transmission, peptide serine phosphorylation, and regulation of vesicular exocytosis; The main CC includes synapses, postsynaptic membranes, intact components of plasma membranes, plasma membranes, etc; The main MF includes protein serine/Threonine/Tyrosine kinase activity, ATP binding, Neurotransmitter receptor activity, g-protein coupled 5-HT receptor activity, etc; KEGG pathway enrichment analysis (P<0.05) screened 86 signaling pathways, including Calcium signaling pathway, Serotonin ergic synaptic signaling pathway, endothelial growth factor Receptor tyrosine kinase inhibitory resistance signaling pathway, ErbB signaling pathway, etc; Macromolecular docking results showed that Paroxetine had good binding ability with core targets such as DRD2 and MTOR.

Conclusion Paroxetine exerts antidepressant effect through multiple targets and pathways, providing a theoretical basis for further scientific research and clinical application.

关键字：Paroxetine; Depression disorder; Network pharmacology; Macromolecular docking

精神分裂症患者外周血补体 C4 与记忆功能的相关性研究

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目的 本研究主要探讨外周血补体 C4 水平与精神分裂症患者记忆功能的相关性。

方法 本研究招募了 55 名处于急性发作期的首发或复发未用药精神分裂症住院患者，病程小于 5 年。分别在患者入院时（基线）、入院抗精神病药物治疗 4 周以及治疗 8 周时（随访期），使用阳性和阴性症状量表（PANSS）评估精神症状严重程度，韦氏记忆量表（WMS-RC）评定患者记忆功能情况，抽取清晨空腹静脉血，采用酶联免疫吸附测定（ELISA）法测定外周血浆补体 C4。

结果 1. 记忆商、长时记忆、短时记忆经抗精神病治疗后显著改善（P＜0.001）；瞬时记忆在治疗前后评分差异不显著（P＞0.05）。 2.抗精神病治疗后外周血补体 C4 呈递减趋势（P＝0.041）。 3.基线期受教育时长与记忆商、短时记忆、瞬时记忆呈正相关（P＜0.05），基线期 PANSS 总分及各因子分与记忆商、短时记忆呈负相关（P＜0.05）；治疗 4 周后 PANSS 总分与记忆商、长时记忆、短时记忆呈负相关（P＜0.05）；治疗 8 周后

PANSS 总分与短时记忆呈负相关（P < 0.05）；年龄、BMI、病程、服药量及外周血补体 C4 水平均与记忆商及各子测试无相关性（P > 0.05）。 4.治疗 4 周后外周血补体 C4 下降水平与治疗 4 周后记忆功能不存在相关性（P > 0.05）；治疗 8 周后外周血补体 C4 下降水平与治疗 8 周后记忆商、短时记忆正相关（P < 0.05）。 5.治疗 8 周后记忆商、短时记忆与外周血补体下降水平和临床症状的多元逐步线性回归分析显示：治疗 8 周后记忆商水平与外周血补体 C4 下降水平呈正相关关系（B = 0.041，t = 2.170，P = 0.044），治疗 8 周后短时记忆水平与补体C4下降水平呈正相关关系（B = 0.024，t = 2.246，P = 0.038）。

结论 1、抗精神病治疗期间外周血补体 C4 水平的降低程度与治疗后记忆商、短时记忆水平存在正相关关系，提示补体 C4 可能影响精神分裂症患者的记忆功能； 2、精神分裂症精神病性症状影响患者的记忆功能，随着症状的缓解，记忆功能得到部分改善；言语工作记忆在全病程中无明显变化，可能是精神分裂症认知功能的稳定标志； 3、抗精神病药物剂量与外周血补体 C4 水平变化相关，提示补体 C4 可能是抗精神病药的作用靶点之一。

关键字：精神分裂症；补体 C4；记忆功能；认知功能；WMS-RC

Advances in Blood Biomarkers of Bipolar Disorder and Major Depressive Disorder

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Bipolar disorder (BD) and major depressive disorder (MDD) are two common mood disorders in China at present. BD often recurs in the form of alternating or irregular episodes of depression, mania or hypomania or their mixture. MDD is characterized by sustained low mood, decreased volitional activity and sometimes somatic symptoms. Mood disorders not only induce abnormal mood swing and decreased social function, but also are accompanied by high risk of suicide and self-injury. In recent years, studies have shown that blood biomarkers change abnormally in BD and MDD. By reading a large number of domestic and foreign literatures, the author concluded that three indicators, i.e., inflammatory markers, blood lipids and hormones, were abnormal during the onset of BD and MDD: in inflammatory markers, the cytokines in plasma changed, the lymphocytes were activated, the neutrophil count changed, the platelet count and proportion of inflammation cells also changed, and so on. In blood lipids, high density lipoprotein (HDL) fell, triacylglycerol increased and cholesterol decreased, etc. In hormones, hypothalamic-pituitary-thyroid axis, hypothalamic-pituitary-adrenal axis and sex hormones change abnormally. The changes in the level of the above blood biomarkers work on the brain and trigger mental disorders. They can act as the state indicators of BD and MDD, in the hope of providing a new idea and entry point for the research of the pathogenesis of BD and MDD.

关键字：Keywords: bipolar disorder; major depressive disorder; inflammatory markers; blood lipid; hormone

精神分裂症患者记忆力水平与 NLR、MLR 和 PLR 的相关性分析

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目的 本实验旨在探讨研究精神分裂症患者经药物治疗后外周血中性粒细胞/淋巴细胞、单核细胞/淋巴细胞、血小板/淋巴细胞比值变化，以及以上炎症指标与精神分裂症患者记忆水平的相关性

方法 本研究于 2022.6.5-2023.6.1 在汕头大学精神卫生中心招募21名首发或复发处于精神分裂症急性发病期的住院患者，入院前至少 1 月未服用相关抗精神病药物，分别于入院第二天、入院治疗第八周，清晨采集空腹外周静脉血，进行血常规分析，并于相同时间点对患者进行阳性和阴性症状量表（PANSS）和韦氏记忆量表（WMS-RC）评定。

结果 患者经过 8 周治疗后，PANSS 总分，阳性，阴性，一般病理得分均较前明显改善（P<0.01）；记忆总分，记忆商、长时记忆，短时记忆，瞬时记忆与 NLR, MLR，PLR 不具有显著相关性。炎症标志物改变与 PANSS 得分改变具有相关性（P<0.05）。

结论 精神分裂症患者经药物治疗后精神病性症状改善明显，其中以阳性症状为甚，伴随着记忆力等认知功能改善。NLR PLR MLR 与患者记忆力改变无明显关系，与精神病性症状恢复存在相关关系，提示其可能成为预测精神疾病病情相关的炎症因子指标。

关键字：精神分裂症 记忆功能 NLR、MLR PLR

探究无创 40 Hz 蓝光改善重复睡眠剥夺伴短暂间歇休息诱导的大鼠疲劳样行为

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目的 本研究利用重复睡眠剥夺伴短暂间歇休息诱导的疲劳动物模型，探索光疗抗疲劳作用及其机制。

方法 我们将24只雄性SD大鼠随机分为对照组、疲劳组和光疗组，在 7 天适应期内的第五天进行尾静脉采血作为基线数据。之后疲劳组和光疗组大鼠进行 14 天的重复睡眠剥夺伴短暂休息的造模，光疗组大鼠在造模期间每天给予 1 小时 40Hz 蓝光照射。造模期间每天记录动物体重、体温、睡眠时间的生理变化，模型结束后对所有大鼠进行行为学检测(负载结束当天进行高架十字迷宫和自发活动测试，负载结束第二天进行 Y 迷宫测试)，负载结束第二天再次进行尾静脉采血，

负载结束第三天取脑做后续指标检测。

结果 1）与正常对照组相比，反复睡眠剥夺伴间歇短暂休息 14 天造成疲劳组(p<0.001)与光疗组(p=0.001)大鼠体重显著降低；疲劳组与光疗组体重无统计学差异，但光疗组大鼠体重增速有高于疲劳组的趋势；2）疲劳组与光疗组大鼠在疲劳负载期间的总睡眠时间呈波动式，于第 8 天和第 12 天达到高峰；3）疲劳负载期间疲劳组大鼠白天平均体温显著低于对照组(p<0.001)和光疗组(p<0.001)；光疗组大鼠白天平均体温显著低于对照组(p<0.001)；在疲劳负载结束后第 1 天，疲劳组大鼠体温显著低于对照组(p<0.005)和光疗组(p<0.001)，光疗组与对照组大鼠无统计学差异；4）自发活动实验结果显示三组在总的移动距离与平均速度、中央区移动距离与平均速度、边缘区移动距离与平均速度上无统计学差异；5）Y 迷宫实验结果显示，三组动物总入臂次数、正确入臂次数与自发交替率无统计学差异；6）高架十字迷宫结果显示，三组动物在开臂时间与开臂次数方面无明显差异；疲劳组(p<0.005)闭臂次数显著高于对照组，光疗组(p<0.001)闭臂时间显著低于对照组。

结论 重复睡眠剥夺伴短暂休息会破坏大鼠的生理稳态，无创 40Hz 蓝光可以在一定程度上改善其影响。

关键字：慢性疲劳综合征；蓝光治疗

Deregulatory MiRNA-BDNF Network Inferred From Dynamic Expression Changes in Schizophrenia

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Objective : Brain-derived neurotrophic factor (BDNF) is one of the promising risk genes for schizophrenia (SZ), a disease with prominent dysregulation of miRNA networks. Here, we present a study of miRNA-BDNF co-expression changes in peripheral blood of SZ patients.

Methods The expression levels of the BDNF mRNA and three validated binding miRNAs— miR-124-3p, miR-132-3p, and miR-206—were quantified in the blood of 48 healthy controls and 32 SZ patients before and after 12 weeks of treatment. The co-expression patterns were evaluated in the three groups.

Results The expression levels of BDNF were significantly downregulated in SZ patients compared to the controls. After the treatment, the expression levels of BDNF were upregulated, while the expression levels of the three miRNAs were downregulated. Co-expression analyses showed positive correlations of this network in the SZ patients, while weak negative correlations were observed in the healthy controls. After the 12-week treatment, the overall correlation between BDNF and the three miRNAs reached the levels comparable to the healthy controls.

Conclusion Our findings suggest the involvement of the miRNA-BDNF network in the onset and treatment of SZ.

关键字：schizophrenia, BDNF, single nucleotide polymorphism, rs6265, methylation

DNA Methylation in Patients with Major Depressive Disorder: A Matching Case-control Study

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Objective This study aimed to compare the patterns of DNA methylation between patients with major depressive disorder (MDD) and healthy individuals.

Methods Seventeen patients (18-65 years) fulfiling the ICD-10 diagnostic criteria for MDD and 17 healthy age- and gender-matched control participants were recruited. Participation was voluntary and signed informed consent was obtained. McNemar test and Wilcoxon symbol level were applied to test the difference of clinical parameters between two groups. Illumina Infinium Methylation EPIC 850K Bead Chip was used to detect the DNA Methylation of participants. The pooled t test was performed to screen the significant differently methylated sites between the case group and the control group. Gene-Ontology (GO) functional and Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway enrichment analyses were applied to analyze the classifications and signaling pathways of differentially methylated genes.

Results A total of total of 317 differentially methylated sites were screened according to the screening criteria compared with health controls, including 181 significantly hypermethylated sites, such as cg00082729, cg00191853 and cg00325917; and 145 significantly hypomethylated sites, such as cg00307203, cg00366190 and cg00475988. GO and KEGG pathway enrichment analysis showed that differently methylated genes significantly enriched in mitochondrial dysfunction related classifications and signaling pathways.

Conclusion DNA methylation changes may be important for the pathogenesis and biomarker exploration of c major depressive disorder.

关键字：Major depressive disorder, DNA methylation, matched case-control study

分心刺激条件下的眼动特征：重性抑郁障碍客观标志物的探索研究

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目的 尽管已经有许多研究关注重性抑郁障碍（Major Depressive Disorder, MDD）的诊断和治疗，但

其客观评估仍然面临挑战。眼动追踪技术可以准确测量眼球运动和注意力分配，但其在 MDD 研究中的应用相对有限。分心刺激条件下的任务能够提供 MDD 患者的认知功能特点，但其能够提供的结果指标相对较少。因此，有必要进一步探索分心刺激条件下的眼动特征作为 MDD 的客观标志物的潜力。所以本研究的目（1）比较 MDD 与健康对照（Healthy Control, HC）在分心刺激条件下眼动特征指标的差异，探索眼动追踪作为 MDD 客观标志物的潜力；（2）通过研究眼动特征指标与 MDD 症状之间的关联，为 MDD 的早期检测提供更可靠和客观的依据；（3）通过建立预测模型，评价眼动特征在 MDD 诊断中的价值。

方法 本研究纳入 28 名 MDD 患者及 61 名 HC，采用分心刺激条件下的眼动追踪任务评估 MDD 患者及 HC 的眼动特征，采用汉密尔顿抑郁量表和汉密尔顿焦虑量表评估 MDD 患者临床症状，使用 R 语言（R4.1.3）对两组被试的眼动特征指标进行成组检验，对 MDD 组眼动特征指标和临床量表得分进行 Pearson 相关分析，使用逻辑回归模型和决策树模型绘制 ROC 曲线，计算曲线下面积。

结果 两组年龄、性别差异无统计学意义（P>0.05）。MDD 组的反应时(T=2.776, P=0.008)较 HC 组长，轨迹偏离角度(W=1221.000, P=0.001)和瞳孔直径(T=5.012, P<0.001)较 HC 组大，眼跳幅度(T=-3.002, P=0.004)较 HC 组小，差异有统计学意义；在眼跳峰值速度及眼跳潜伏期上，两组差异无统计学意义（P>0.05）。在 MDD 组，反应时(r=0.485, P=0.010)、眼跳潜伏期(r=0.400, P=0.039)与汉密尔顿抑郁量表总分有统计学相关，其他各项眼动特征指标与临床量表得分无统计学相关（P>0.05）。根据逻辑回归模型和决策树模型绘制的 ROC 曲线下面积分别为 0.81 和 0.91。

结论 MDD 组与 HC 组在分心刺激条件下的眼动特征具有显著差异，MDD 组的眼动特征与 MDD 核心症状之间存在明显关联，且眼动特征可以较准确的预测 MDD 诊断，有作为快速客观的 MDD 筛查工具的价值。本研究为 MDD 研究领域带来了新的视角和方法，为搭建 MDD 辅助诊断工具奠定了重要的理论基础。

关键字：重性抑郁障碍；眼动追踪；分心刺激；客观标志物；辅助诊断

黄芪多糖通过抑制皮质酮对 N2a 神经细胞诱导的凋亡促进突触分化

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目的 越来越多证据表明，中枢神经的微环境变化及神经细胞凋亡参与了抑郁症的病理生理学调控。黄芪多糖（Astragalus polysaccharide，APS）为中药黄芪的多糖成分，具有抗炎、抑制细胞凋亡等作用。本研究通过高浓度皮质酮（Corticosterone，CORT）模拟抑郁样大脑的微环境，对 Na 神经细胞诱导凋亡，抑制突触分化；通过 APS 干预，进一步探讨 APS 对 N2a 神经细胞的保护作用，是否通过抑制细胞凋亡，促进突触分化。

方法 建立细胞模型：Control 组、CORT 组，APS 组，CORT+APS 组。采用免疫荧光分析观察四个处理组 N2a 细胞突触分化的状态；采用流式细胞系统 Annexin V-PI 检测及活性氧 ROS 检测分析各组细胞的凋亡情况；采用实时荧光定量 PCR (qRT-PCR)、western blot (WB)对神经突触分化标志性因子 Synapsin1、Synapsin2、PSD95 等及 JNK/c-Jun 凋亡相关通路进行检测，炎症 APS 在 N2a 细胞抑制凋亡，促进神经突触分化中的作用。

结果 免疫荧光可见，在高浓度 CORT 处理下，N2a 细胞突触分化状态显著受到抑制，细胞呈圆梭形，突触数量明显减少；加入 APS 干预后，可明显逆转 CORT 对 N2a 细胞的分化抑制，改善突触生长。流式细胞检测显示，CORT 对 N2a 细胞的早期凋亡及晚期凋亡都有显著的促进作用，且 ROS 水平也高于其他三组；CORT+APS 组早期及晚期凋亡均重新被下调，ROS 水平也显著回落。qRT-PCR 及 WB 实验结果同样显示了 CORT 对 Na 细胞促进凋亡，抑制分化的影响，APS 的干预可提升突触分化标志性因子 Synapsin1、Synapsin2、PSD95 等的表达水平，并抑制 JNK/c-Jun 通路，减少细胞凋亡。

结论 APS 可显著抑制高浓度 CORT 环境下的 N2a 神经细胞的凋亡水平，并改善神经突触的分化。其作用可能是通过抑制 JNK/c-Jun 通路，减少神经细胞对微环境的应激。

关键字：黄芪多糖、抑郁、凋亡、突触分化

RORα 通过诱导 DNA 损伤和凋亡参与酒依赖所致认知损害的机制研究

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目的 阐明 RORα-DNA 损伤-凋亡轴在酒依赖所致认知损害中的作用，为发展 RORα 抑制剂等治疗酒依赖认知损害的新药提供理论基础和实验证据

方法 （1） 利用酒依赖小鼠模型和原代细胞，验证 RORα 对酒精的响应，并检测 DNA 损伤、海马神经元凋亡及认知损害情况。 选取 7~8 周龄 C57BL/6 小鼠 24 只，分为对照组和酒依赖组，每组 12 只。采用双瓶选择的方式造酒依赖小鼠模型，具体如下：1. 适应期：第 1 周为适应期，实验组用 3%酒精单瓶饮用 2 d，5%酒精单瓶饮用 2 d，之后采用 8%的酒精单瓶饮用 3 d。对照组自由饮水。2. 双瓶选择期：第 2 周到第 9 周，酒依赖组采用 8%的酒精和水双瓶自由选择，对照组采用两瓶水自由饮用。每隔 3 d 测试一次酒精和水的饮用量，此步骤共进行 8 周。3. 行为学测试期：在第 9 周时进行旷场、Y 迷宫、新物体识别、高架和水迷宫等行为学测试，检测小鼠的认知损害情况。 造模结束后取材，并通过 Real-time PCR、Western blot 和免疫荧光等技术检测小鼠海马中 RORα 的表达，及

DNA 损伤的标志物 γH2AX 和 PARP，凋亡的标志物 BCL2，BAX 及 cleaved-Caspase3 的表达。通过尼氏染色和 TUNEL 染色判断酒依赖小鼠的海马神经元的凋亡及损伤情况。 分离小鼠的原代海马神经元细胞，分别用 0mM 和 200mM 的酒精处理细胞 24 h，通过 Real-time PCR、Western blot 和免疫荧光等技术检测小鼠海马中 RORα 的表达，及 DNA 损伤的标志物 γH2AX 和 PARP，凋亡的标志物 BCL2，BAX 及 cleaved-Caspase3 的表达。通过尼氏染色和 TUNEL 判断海马神经元细胞的凋亡及损伤情况。

结果 DNA 损伤、海马神经元凋亡及认知损害

结论 酒精激活 RORα 表达，进而诱导 DNA 损伤和凋亡，并最终导致认知功能损害

关键字：酒依赖、认知、DNA 损伤

双相障碍研究协作组

认知功能矫正对稳定期 BD 患者血清 BDNF/TrKB 水平的影响

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目的 BD 患者认知功能干预研究较少，本研究主要通过比较认知功能矫正（FR）与常规治疗(treatment as usual, TAU)对稳定期双相障碍患者血清 BDNF 和 TrKB 水平的影响，探讨 FR 对 BD 患者干预的生物机制

方法 采用随机对照研究方法，通过计算机随机分组，将稳定期 BD 患者以 1：1 的比例随机分配到 FR 组（n=39）和 TAU 组（n=42）进行为期 12 周的干预。所有研究对象在基线和 12 周均采用 HDRS-17 及 YMRS 问卷评估患。同时，在基线和 12 周分别采集稳定期 BD 患者的血样（10 毫升），以检测血清 BDNF 及 TrKB 水平及其变化。

结果 （1）两组之间基线人口学变量及情绪稳定剂和联合非典型抗精神病药物使用比例方面均未发现显著差异（均 p>0.05）。（2）在基线水平，FR 组与 TAU 组组内相关变量 HDRS-17（5.1±2.9 /5.4±3.5，t=0.01，p=0.99）、YMRS（2.3±1.9 /2.6±2.0，t=1.48，p=0.14）得分、BDNF（14.4±1.3 ng/ml /14.5±1.4 ng/ml，t=-0.60，p=0.55）和 TrKB（4.1±0.7 ng/ml /4.2±0.6 ng/ml，t=-0.84，p=0.41）血清水平之间均未发现显著差异。（3）经过 12 周的干预，两组组内相关变量 HDRS17（F=8.62，df=1，p=0.004）、YMRS（F=5.31，df=1，p=0.024）得分、BDNF（F=298.51，df=1，p<0.001）和 TrKB（F=306.92，df=1，p<0.001）血清水平改善均存在显著差异。（4）当分析两组相关变量与时间（从基线到第 12 周）的交互作用时，FR 组的血清 BDNF 和 TrKB 水平改善程度显著优于 TAU 组（F=5.88，df=1，p=0.018/F=6.47，df=1，p=0.013），并且在控制混杂变量（年龄和病程）后仍具有显著效应。而 HDRS-17 及 YMRS 未发现显著差异。（5）在第 12 周，两组组内上述相关变量均未发现显著差异（均 p>0.05）。

结论 FR 干预可以更有效地改善稳定期 BD 患者血清 BDNF 和 TrKB 水平，但对情绪症状的改善效果并不明显。FR 可能通过改善血清中 BDNF 和 TrKB 水平来提高稳定期 BD 患者的认知功能。

关键字：双相情感障碍；认知功能矫正；血清脑源性神经营养因子；酪氨酸激酶受体 B 水平

基于网络分析方法识别抑郁症的核心残留症状及其与预后的相关性分析:一项基于中国抑郁症队列的研究

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目的 大多数抑郁症（MDD）患者在急性期治疗后会得到症状好转或痊愈，但仍有很大一部分患者存在残留症状，残留症状往往提示较差的预后。识别 MDD 的核心残留症状，有助于早期干预，改善预后。既往很多研究已经对残留抑郁症状进行了量化和研究，并探索了每种残留症状与长期预后的关系。然而，大多数研究只是将每个症状项目在测量量表中的得分相加，或是计算个体残留症状在各种治疗后出现的频率。这些研究很少探讨残留症状之间的相互作用，以确定与其他症状相关性最大的核心残留症状。本研究拟基于网络分析，识别 MDD 的核心残留症状并评估其与患者远期预后的关系。

方法 数据来自两个多中心抑郁症前瞻性队列，随访计划相同，基线随访至 6 个月末。两个队列的纳入和排除标准相同。研究对象年龄在 18 到 65 岁之间，经过 MINI5.0 诊断为首发或者复发的抑郁症患者，且汉密尔顿抑郁量表(HAMD-17)得分≥14 分。缓解的定义为 QIDS-SR16 总分不超过 5 分。队列随访过程中，所有患者在急性期（12 周内）均给予艾司西酞普兰或度洛西汀治疗，并在随访期间继续接受抗抑郁药治疗。本研究共纳入 1487 名抑郁症患者，在第 12 周和第 6 个月随访人数分别为 808(478 例)和 708(521 例)。用 QIDS-SR16 量表评估残留症状，使用席汉残疾量表（SDS）和生活质量满意度问卷(Q-LES-Q-SF)评估社会功能及生活满意度等。在基线、第 12 周和第 6 个月分别进行评估。

结果 共纳入 521 例患者，其中男性 170 例(32.63%)，女性 351 例(67.37%)，平均年龄 36.0 岁。由网络分析的中心性测量确定，注意力集中/决策困难是 MDD 的核心残余症状，与社会功能、家庭负担呈正相关(r=0.35, P<0.01)，与生活满意度呈负相关(r=-0.29, P<0.01)。家族史与核心残留症状相关(OR=2.610[1.242-5.485])。

结论 注意力集中/决策困难是 MDD 的核心残留症状，与预后不佳相关，建议临床医生关注上述症状，能够早期识别并给予相应的干预，以进一步提高预后。

关键字：抑郁症；残留症状；网络分析

抗抑郁药治疗单相和双相抑郁障碍患者的 12 个月自然观察研究：对纵向抑郁负担的影响

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目的 探讨使用抗抑郁药治疗单相和双相抑郁障碍对疾病纵向抑郁负担的影响。

方法 被试来源于一项全国多中心的自然观察项目：心境障碍转归的随访研究（CAFE-BD）。纳入 2012 年 1 月至 2013 年 12 月于国内六家精神专科医院和三家综合医院门诊及病房连续招募的单相抑郁组 164 例，其中抗抑郁药组（ADs 组）123 例、非抗抑郁药组（非 ADs 组）41 例；双相抑郁组 110 例，其中抗抑郁药组（ADs 组）74 例、非抗抑郁药组（非 ADs 组）36 例。经 MINI 中文版诊断，分别采用心境障碍评估表（ADE）进行基线筛查、临床监测表（CMF）进行随访监测和结局评估。所有被试每间隔 2 个月接受定期随访。比较 ADs 组和非 ADs 组在随访中期（6 个月）和终点（12 个月）的抑郁负担，以及纵向抑郁负担变化。

结果 1）双相患者的随访抗抑郁药使用率低于单相抑郁患者（67.27%比 75%）；自中期到随访结束，双相组和单相抑郁组单独使用抗抑郁药治疗的比率保持稳定。2）基线时，ADs 组的个体抑郁症状数量（NUM-D）显著低于非 ADs 组（6.36±2.51 vs 7.36±1.78，P<0.05），两组间个体抑郁总分（SUM-D）没有差异；在中期访视（6 个月）和终点（12 个月）时，两组间的 NUM-D 和 SUM-D 得分均无明显差异。3）从基线到随访中期或终点，抑郁症状有明显的下降趋势（所有 P<0.001）。ADs 组中，SUM-D 从基线的 8.89 下降到 6 个月时的 0.99，终点时为 1.99；而 NUM-D 从 6.36 下降到 0.54，最后为 1.16。非 ADs 组也表现出类似的抑郁负担下降趋势（均为 P<0.001），SUM-D 从基线的 9.62 下降到 6 个月时的 0.53，并以 1.19 结束；而 NUM-D 则为 7.36、0.19 和 0.53。此外，多元回归分析显示，基线变量与结果指标之间没有明显的关联，包括随访终点的 SUM-D 和 NUM-D。

结论 在为期 12 个月的真实世界研究中，无论是否使用抗抑郁药治疗，单相和双相抑郁障碍患者的抑郁负担均有类似的下降趋势。提示双相障碍患者联合抗抑郁剂未增加额外获益，在其长期维持治疗中应谨慎使用抗抑郁剂。

关键字：双相障碍，抑郁障碍，抑郁负担，抗抑郁药

Omega-3 不饱和脂肪酸配方改善抑郁症患者认知损害的临床随机双盲对照试验

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目的 比较 Omega-3 不饱和脂肪酸中 20 碳五烯酸（Eicosapentaenoic Acid，EPA）和 22 碳六烯酸（docosahexaenoic acid，DHA）的不同配比对抑郁症及其认知损害的辅助治疗效果。

方法 纳入重度抑郁症患者 43 名（26.23±9.83 岁，61%女性，受教育年限 13.88±3.54 年），随机分配到三个治疗组：分别是改善认知组（DHA：EPA=2：1）、改善抑郁组（DHA：EPA=2：3）以及安慰剂组（大豆油），为期 12 周。在基线、第 6 和 12 周末通过汉密尔顿抑郁量表 24 项（Hamilton Depression Scale,HAMD-24）、贝克抑郁量表（Beck Depression Inventory，BDI）等评

估患者抑郁程度，通过标准化的精神分裂症认知功能成套测验——共识版（MATRICS Consensus Cognitive Battery，MCCB）、托尼非语文智力测验第三版（TONI-3）及伦敦塔测验（Tower of London, ToL）等评估患者6个维度的认知功能。

结果 经治疗后，HAMD 等量表在改善抑郁组（EPA:DHA =3:2）与安慰剂组的组间差异有统计学意义（p=0.016），认知功能评估中，连线测验在改善认知组(EPA:DHA=1:2)与安慰剂组的组间差异有统计学意义（p=0.013），对于情绪智商测验，改善认知组和改善抑郁组与安慰剂组的组间差异均有统计学意义（p=0.012 vs. p=0.029），对于社会认知维度，改善认知组和改善抑郁组与安慰剂的组间差异也均有统计学意义（p=0.01 vs. p=0.039），空间广度和范畴流畅性测试在时间和组间的交互效应有统计学差异（F=2.798，P＜0.032 andF=3.351，P＜0.014），其他认知测试和认知维度的时间、组间和交互效应均无明显统计学差异。

结论 EPA 为主的多不饱和脂肪酸主要改善抑郁症患者的抑郁症状，对认知功能也有一定改善作用，而以 DHA 为主的多不饱和脂肪酸则主要改善抑郁症患者的认知功能。

关键字：重度抑郁障碍 Omega-3 不饱和脂肪酸 认知功能 疗效 配方

Efficacy of Lycium Barbarum Polysaccharide on Cytokine Response in Youths with Subthreshold Depression

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Objective Our recent double-blinded Randomized Placebo-controlled Trial (RCT) discovered significant efficacy of a traditional Chinese medicine substance, namely the Lycium barbarum polysaccharide (LBP), on reducing depressive symptoms among adolescents with subthreshold depression. Here, we further investigated whether the antidepressant property of LBP was associated with its anti-inflammatory effect on adolescents with subthreshold depression.

Methods In this 6-week RCT, we measured common cytokine levels from participants' peripheral blood samples, both at baseline and at the end of the 6-week intervention with either LBP (intervention group, N=14) or placebo (control group, N=10). Comparative analysis was performed on the alteration of cytokine levels between different groups. Network-based analysis was applied to evaluate the systemic immune responses to the interventions.

Results The intervention and control groups were matched on demographic and clinical characteristics. As expected, the LBP group exhibited a greater reduction in IL-17A compared to the placebo group (t = -2.25, P = 0.04) after the 6-week interventions. Moreover, network-level analysis showed that LBP reduced the correlations and connectivity among cytokines (Z = 3.34, P < 0.01), which was in turn associated with improvement of depressive symptoms.

Conclusion Our findings demonstrated that 6-week repeated LBP administrations downregulated immune responses in adolescents with StD, which could be a key mechanistic pathway underpinning the antidepressant effect of LBP.

关键字：Lycium Barbarum Polysaccharide；depression；youth

不同亚型抑郁症能量代谢蛋白差异表达及机制研究

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目的 抑郁症是一种异质性疾病，患者间的症状模式、病程轨迹和治疗反应差异极大，DSM-5 描述的、"纯"亚型患者数最多的三种临床亚型包括忧郁型抑郁症、非典型抑郁症和焦虑型抑郁症。目前，能量代谢相关蛋白被公认可能与抑郁症临床异质性相关，不同亚型抑郁症之间能量相关蛋白是否差异表达，以及是否与中枢差异表达有关呢？

方法 纳入忧郁型抑郁症（n = 44）、非典型抑郁症（n＝37）、焦虑型抑郁症（n＝44）患者及健康对照（n = 33），采用定制蛋白芯片技术、酶联免疫吸附技术检测能量代谢关键蛋白包括瘦素（Leptin）、组织蛋白酶 B（Cathepsin B）、脑源性神经营养因子（BDNF）及鸢尾素（Irisin）的表达；并采用 6 周龄 C57BL/6 小鼠构建慢性不可预知温和应激（CUMS）抑郁小鼠模型，测定小鼠行为学并采用免疫印迹实验检测前额叶、海马、下丘脑、皮层及肝脏中抑郁及能量代谢相关蛋白包括糖原合成酶激酶-3（Gsk3β）、orthodenticle 同源框 2（Otx2）、PPAR-γ 共激活因子-1α（Pgc1α）、Bdnf、Leptin、Irisin 和 Cathepsin B 的表达水平。

结果 焦虑型抑郁症患者的基线 Leptin（adj.P.Val = 0.027）表达水平显著高于忧郁型；12 周未治愈的非典型抑郁症患者的基线 Cathepsin B（adj.P.Val = 0.032）、BDNF（adj.P.Val = 0.042）、Leptin（adj.P.Val = 0.042）表达水平显著高于忧郁型抑郁症患者；Irisin 与忧郁型抑郁症（P＜0.001）和焦虑型抑郁症（P＜0.001）的性别相关，也与健康对照的性别（P＜0.001）、BMI（P＜0.001）相关；而 Leptin 与焦虑型抑郁症患者的性别（8，P＜0.001）相关。抑郁模型小鼠海马的 Leptin（P＝0.044）、Irisin（P = 0.004）、皮层的 Leptin（P = 0.011）和肝脏的 Otx2（P = 0.021）表达水平显著升高。

结论 本研究发现不同亚型抑郁症患者基线能量代谢相关蛋白表达差异显著，可能与海马、皮层等脑区

的免疫、能量相关蛋白的差异表达有关,为不同亚型抑郁症之间的能量代谢异质性的中枢调控提供了新实验基础，并为抑郁症临床异质性的生物学提供新证据。

关键字：忧郁型抑郁症；非典型抑郁症；焦虑型抑郁症；能量代谢；蛋白差异表达

Diversity of Oxidative Stress Markers in Drug-free Patients with Melancholic, Atypical and Anxious Depression: Does Inflammation Predict Individual Responses To Treatment?

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Objective Recent studies have suggested that oxidative stress (OxS) and dysregulated neuroinflammatory pathways are involved in the pathophysiology of major depressive disorder (MDD), and the diversity of OxS may contribute to the heterogeneity among MDD patients. Here, we aimed to assess the differences in OxS markers of MDD patients and healthy controls (HCs), study if inflammation engagement act as a moderator of the heterogeneity on the severity of depressive symptoms, and explore whether baseline OxS protein levels could prodict prognosis.

Methods The sample consisted of participants (aged 18-55 years) from a previously reported multicentre randomised controlled trial with a parallel-group design registered with ClinicalTrials.gov (NCT03219008), including melancholic (n=30), atypical (n=27) and anxious (n=32) depression patients and HCs (n?=?34). Subtypes of MDD were classified according to QIDS-16 SR and HAMD-17. Blood OxS marker levels of superoxide dismutase (SOD), catalase (CAT) and malondialdehyde (MDA) were assessed using enzyme linked immunosorbent assay, and hsCRP were assessed by antibody array analysis.

Results The levels of CAT (p?

关键字：major depressive disorder (MDD）; clinical subtypes; heterogeneity； oxidative stress； inflammation;

改良电休克疗法治疗单相抑郁和双相抑郁的远期结局及其相关因素研究

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目的 探讨改良电休克疗法（MECT）治疗双相抑郁和单相抑郁的远期结局及其相关因素。

方法 采用回顾性研究的方法，收集安徽省精神卫生中心 2020 年 1 月 1 日至 2020 年 12 月 31 日接受无抽搐电休克治疗（MECT）的 66 例双相抑郁和 285 例单相抑郁住院患者的病历资料，收集患者的一般资料(包括年龄、性别)、出院诊断、发病年龄、病程持续时间、治疗前后的汉密尔顿抑郁量表评分、治疗次数、最疗效等数据，对其全部资料输入 SPSS.26 进行统计分析，检验统计差异有无显著性。

结果 ⑴66 位接受电休克治疗的双相抑郁患者中，有 64 位患者临床症状好转或临床症状部分好转，治疗有效率为 96.97%。285 位接受电休克治疗的单相抑郁患者中，有 276 位患者临床症状好转或部分好转，治疗有效率分别为 96.84%。单相抑郁与双相抑郁患者治疗有效率无明显差异（z=-0.053,p>0.05）。⑵351 位患者中共有 99 位患者出现包括近记忆下降、肌肉酸痛、发热、头部不适等症状的不良反应，发生率为 28.21%，其中最常出现的不良反应为近记忆下降，有 81 人，其次为头部不适 8 人，另有 3 人出现了发热。副反应的发生率与发病年龄、病程病程、治疗次数呈正性相关。⑶285 位单相抑郁患者中，初次发病患者 209 人，其他次发病（两次及以上）患者 76 人，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）无明显差异（z=-0.845,p>0.05）；66 位双相抑郁患者中，初次发病患者 32 人，其他次发病患者 34 人，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）无明显差异（z=-1.482,p>0.05）（4）对于治疗后未完全好转的的患者，其汉密尔顿抑郁量表在治疗前后的差异有统计学意义（Z=-2.207，p<0.05）。（5）对于临床治疗有效的患者，不同性别之间的治疗次数有差异，发作次数与治疗次数呈正相关。

结论 ⑴改良电休克疗法对治疗单双相抑郁有效。⑵近记忆下降是改良电休克疗法的主要不良反应，但其大多是可逆的，电休克治疗时还可能出现发热等多种不良反应，因此我们应该思考如何降低副反应发生率。⑶对于临床治疗有效的患者，不同性别之间的治疗次数有差异。（4）无抽搐电休克治疗可以缓解单双相抑郁症状。

关键字：双相抑郁；单相抑郁；无抽搐电休克治疗；疗效；不良反应

改良电休克疗法治疗对双相情感障碍治疗的近期结局对照研究

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目的 探讨改良电休克治疗对双相情感障碍治疗的近期结局及相关因素。

方法 整群抽取 2020.1.1-2020.12.31 在安徽省精神卫生中心接受改良电休克治疗的双相情感障碍患者 163 例患者作为研究组，抽取同期住院并行改良电休克治疗神分裂症患者 308 例对照组，收集患者的一般资料(包括年龄、性别)、出院诊断、发病年龄、病程持续时间、治疗前后的汉密尔顿焦虑量表、汉密尔顿抑郁量表和杨氏躁狂症状量表的评分、治疗次数、最终疗效，精神分裂症患者治疗前后查阴性症状及阳性症状评估量表等数据，对其全部资料输入 SPSS.22 进行统计分析，检验统计差异有无显著性。

结果 ⑴163 位双相情感障碍接受电休克治疗的患者中，其中 157 位患者临床症状好转或临床症状部分好转，总治疗有效率为 96.32%，双相抑郁与双相躁狂患者治疗有效率无明显差异（x?=0.131,p>0.05）；接受改良电休克治疗的 308 位精神分裂症患者中有 292 位好转，总治疗有效率为 94.81%；精神分裂症与双相情感障碍的有效率有差异（Z=-1.959，p=0.05），双相情感障碍患者治疗效果更好。⑵共有 23 位患者出现包括近记忆下降、肌肉酸痛、发热、头部不适等症状的不良反应，发生率为 14.11%，其中最常出现的不良反应为近记忆下降，有 20 人，其次为肌肉酸痛和发热。⑶65 位双相抑郁患者中，初次发病患者 31 人，其他次发病（两次及以上）患者 34 人，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）无明显差异（Z=-1.845，p>0.05）。⑷92 位双相躁狂患者中，初次发病患者 32 人，其他次发病患者 60 人，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）无明显差异（Z=-0.402，p>0.05））。⑸对于治疗后未完全好转的的患者，其焦虑及躁狂在治疗前后的差异有统计学意义（Z1=-2.197，p<0.05，Z2=-2.521，p<0.05），其抑郁症状在治疗前后的差异无统计学意义（Z=-1.892，p>0.05）。（5）对于治疗有效的患者，不同性别之间的疗效无差异，发病越早，病程越长，症状好转所需要的治疗次数越多。

结论 ⑴改良电休克疗法治疗双相情感障碍的疗效确切。⑵近记忆下降及肌肉酸痛是改良电休克疗法的主要不良反应为，如何改善患者的不良反应显得十分重要。⑶改良电休克治疗可以改善双相情感障碍患者的临床症状，

关键字：：改良电休克；双相情感障碍；精神分裂症；疗效；不良反应

Reliability and Validity of The Chinese Version of Biological Rhythms Interview of Assessment in Neuropsychiatry in Patients with Bipolar Disorder

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Objective To evaluate the reliability and validity of the Chinese version of the Biological Rhythms Interview of Assessment in Neuropsychiatry (BRIAN-C) in patients with bipolar disorder.

Methods A total of 232 participants, including 110 bipolar disorders and 122 controls, were recruited. The Cronbach′s alpha, Spearman correlation analysis and intra-class correlation coefficient (ICC) were used to evaluate the reliability, the confirmatory factor analysis to analyze the construct validity, and the predictive validity of BRIAN-C was analyzed based on the receiver operation characteristic (ROC) curve of subjects with clinical diagnosis.

Results The Cronbach′s α of BRIAN-C was 0.929. The Cronbach's alpha of the subscales of sleep, activity, social rhythms, eating pattern were 0.826, 0.862, 0.785 and 0.845 respectively. The test?retest reliability over two weeks interval was 0.720 (P?0.001), and the ICC was 0.768 (95%CI: 0.591－0.875). The confirmatory factor analysis showed that the model fitting of BRIAN-C was $\chi 2$ =215.339 (P?0.001). The score of BRIAN-C was significantly correlated with the score of QIDS-SR16, GAD-7 and SF-6 (P?0.001). The area under ROC curve was 0.954 (95% CI: 0.930 to 0.977, ?0.001) for BRIAN-C identifying bipolar disorder, with a cut-off value of 28, sensitivity of 0.864 and specificity of 0.91.

Conclusion The result show that the BRIAN-C has good construct validity and internal consistency. This suggests that the BRIAN-C can be used to assess biological rhythms in the China population, especially for patients with mood disorder.

关键字：bipolar disorder; biological rhythm; BRIAN-C; reliability and validity; cut-off

双相抑郁发作的昼夜节律与临床特征的相关性研究

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目的 动态监测双相抑郁发作患者的血浆褪黑素、皮质醇水平，完善多导睡眠监测图，分析双相抑郁发作患者的昼夜节律特征，研究双相抑郁发作的临床特征包括时型、自杀意念和自杀倾向、认知功能和睡眠特点，探讨昼夜节律障碍和临床特征对诊断双相抑郁发作的价值。

方法 纳入符合入组标准的双相抑郁发作组 16 例、单相抑郁障碍组 12 例、双相抑郁缓解组 11 例和健康对照组 15 例，共计 54 例。采用清晨型和夜晚型量表（Morningness/Eveningness Questionnaire, MEQ）评估患者时型特征。使用贝克自杀意念量表评估患者自杀意念和自杀倾向,匹兹堡睡眠质量指数量表评估患者主

观睡眠情况，采用高效液相色谱-串联质谱法检测四组研究对象 8 时、12 时、16 时和 20 时的血浆褪黑素、皮质醇水平，并测定多导睡眠监测图。使用 SPSS 26.0 统计软件进行数据分析。

结果 相较于单相抑郁障碍组、双相缓解组和健康对照组，双相抑郁发作组的 MEQ 评分更低、更倾向于夜晚型、自杀意念和自杀倾向更高、认知功能测评中的即刻记忆评分更低、使用更多的睡眠药物。双相抑郁发作组血浆褪黑素水平 8 时低于单相抑郁障碍组，20 时高于单相抑郁障碍组。双相抑郁发作组 8 时、12 时和 20 时的血浆皮质醇水平高于单相抑郁障碍组。夜晚型与更严重的焦虑和抑郁症状评分、更高的自杀意念和自杀倾向评分、使用更多药物、12 时和 20 时更高的血浆皮质醇水平相关，夜晚型是双相抑郁的危险因素。

结论 双相抑郁发作患者存在血浆褪黑素和皮质醇失调，双相抑郁发作患者较单相抑郁患者的时型更倾向于夜晚型，夜晚型与更严重的焦虑抑郁症状、更高的自杀意念和自杀风险、使用更多的睡眠药物、夜间皮质醇水平升高及认知功能受损有关，双相抑郁发作患者存在昼夜节律紊乱，昼夜节律紊乱可能有助于双相抑郁发作的诊断。

关键字：双相抑郁, 昼夜节律, 褪黑素, 皮质醇, 时型, 认知功能

2 型糖尿病共病抑郁障碍及其认知功能损害与血管生长因子的相关研究

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目的 研究 2 型糖尿病患者共病抑郁障碍及其认知功能损害与血清生长因子 VEGF、bFGF、ANG1、ANG2 的相关关系，进一步探究血管生长因子在 2 型糖尿病患者共病抑郁障碍患者认知功能损害中的作用。

方法 纳入符合入组标准的健康对照（HC）组 32 例，抑郁障碍（MDD）组 46 例，2 型糖尿病（T2DM）组 49 例，2 型糖尿病共病抑郁障碍组（共病组）42 例，共计 169 例。采用采用重复性成套神经心理状态测验（RBANS）评估认知功能；采用汉密尔顿抑郁量表-17（HAMD-17）和汉密尔顿焦虑量表 （HAMA）分别评估上述四组的抑郁和焦虑水平；采用酶联免疫吸附测定（ELISA）法测定血清血管生长因子包括血管内皮细胞生长因子（VEGF）、碱性成纤维细胞生长因子(bFGF)、血管生成素 1（ANG1）、血管生成素 2（ANG2）水平。并将血清 VEGF、bFGF、ANG1、ANG2 水平与 RBANS 评分进行进一步比较。

结果 与 HC 组和 T2DM 组相比，共病组 RBANS 总分、即刻记忆、延迟记忆、注意力、语言及视觉空间评分均降低（p 均＜0.05）；与 MDD 组相比，共病组视觉空间评分降低（p＜0.05）。共病组血清 VEGF 水平显著高于 HC 组；血清 bFGF 水平高于 HC 组和 MDD 组（p＜0.05）。ROC 曲线分析：与 HC 组相比，血清 VEGF、bFGF、ANG1、ANG2 对诊断 T2DM 共病 MDD 有统计学意义（p＜0.05）。血清 VEGF 水平与 RBANS 总分、延迟记忆及语言评分之间呈负相关，与即刻记忆之间可能存在负相关趋势。与 HC 组相比，血清 VEGF、bFGF、ANG1、ANG2 水平升高是共病发生的危险因素。

结论 血管生长因子 VEGF、bFGF、ANG1、ANG2 可能参与了 2 型糖尿病共病抑郁障碍疾病及其认知障碍的发病机制。并有望成为未来 2 型糖尿病共病抑郁障碍疾病诊断及其认知障碍评估的有效指标。

关键字：2 型糖尿病，抑郁障碍，共病，认知功能损害，血管生长因子

Identification and Validation of The Prognostic Biomarkers Associated with Immune Microenvironment between Hepatocellular Carcinoma and Major Depression Episode

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Objective Hepatocellular carcinoma (HCC) is highly aggressive and metastatic. Major Depression episode (MDE) is one of the most prevalent mental disorders wordwide. This article aimed to explore the shared genetic features and potential molecular mechanisms.

Methods Gene microarray expression data for MDE were downloaded from the Gene Expression Omnibus (GEO) databases. Targerts genes for MDE were screened based on differential expression analysis and weighted gene co-expression network analysis (WGCNA), followed by Gene Ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) analysis. The mRNA expression profiles and clinicopathological data were obtained in The Cancer Genome Atlas Liver Hepatocellular Carcinoma (TCGA-LIHC). Gene Set Enrichment Analyses (GSEA) was performed to further understand the molecular mechanism of HCC. Then, we combined HCC patients with Kaplan-Meier (KM) curves for survival analysis based on clinical information including age, gender and clinical stage. Meanwhile, univariate Cox and least absolute shrinkage and selection operator (LASSO) analysis were further performed in the TCGA-LIHC training cohort. The assessment of model was performed by survival analysis and receiver operating characteristic curve (ROC). In addition, the abundance was assessed by immune correlation analysis to evaluate the abundance of immune infiltrating cells. Finally, the expression levels of the hub genes-related to immune were assessed by RT-qPCR.

Results A total of 34 up-regulated genes and 44 down-regulated genes were selected for subsequent analyses by differential analysis. Four hub module (greenyellow, pink, black and tan) had a high correlation with MDE. After taking the intersection, a total of 19 targets genes as potential biomarkers for MDE. The 10 genes associated with HCC prognosis were obtained by lasso-cox analysis. Then the KM curves of the genes were demonstrated a

prime diagnostic value in different clinical subgroup conditions. A good prognostic value for models by using ROC curve. The 9 MDE-related genes between HCC and control were obtained. The present transcriptomic data analysis revealed a principal role for amino acid metabolism in both MDE and HCC. The RT-qPCR results showed that these three hub genes GPSM2, ALDH3A1 and NIN were highly associated with the immune environment.

Conclusion Our study revealed the hub genes associated with the immune microenvironment that are most closely related to the pathological progression of HCC and MDE, which may help in clinical decision making for individul treatment.

关键字：Biomarkers ；Hepatocellular Carcinoma；Major Depression

Search for Serum Biomarkers in Patients with Bipolar Disorder and Major Depressive Disorder Using Metabolome Analysis

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Objective Bipolar disorder (BD) and major depressive disorder (MDD) are two common psychiatric disorders. Due to the overlapping clinical symptoms and the lack of objective diagnostic biomarkers, bipolar disorder (BD) is easily misdiagnosed as major depressive disorder (MDD), which in turn affects treatment decisions and prognosis. In this study, an NMR metabolomics approach was applied to analyze serum metabolic phenotypes in BD, MDD, and healthy controls to initially explore biomarkers that may help differentiate BD and MDD and to further understand the pathophysiology of both diseases.

Methods Nuclear magnetic resonance spectroscopy was performed to assess serum metabolic profiles in depressed patients with BD (n=59), patients with MDD (n=14), and healthy controls (n=10). Data were analyzed using partial least squares discriminant analysis, orthogonal partial least squares discriminant analysis, and t-tests. Different metabolites (VIP>1 and $p<0.05$) were identified and further analyzed using Metabo Analyst 5.0 to identify relevant metabolic pathways.

Results The metabolic phenotypes of the BD and MDD groups were significantly different from those of the healthy controls. Then we analyzed and compared the BD group and the MDD group with the HC group respectively to further identify the metabolites changes and analyze their changing trends.With the HC group as reference and VIP >1 and $p<0.05$, nine metabolites differentially expressed in the BD group were identified. The metabolic pathways involved mainly include: glycolysis/gluconeogenesis, glycerolipid metabolism, synthesis and degradation of ketone bodies, butanoate metabolism, pantothenate and COA, pyruvate metabolism, and galactose metabolism.With the HC group as a reference and VIP >1 and $p<0.05$, eight metabolites differentially expressed in the MDD group were identified. The metabolic pathways involved mainly include: pyruvate metabolism, glycolysis/gluconeogenesis, glyoxylate and dicarboxylate metabolism, glycine, serine and threonine metabolism, synthesis and degradation of ketone bodies, glycerolipid metabolism, butanoate metabolism, citrate cycle,and glycerophospholipid metabolism.

Conclusion In summary, this study used an NMR metabolomics platform to explore the metabolic phenotypic differences between BD and MDD, and found that the metabolic phenotypes of BD and MDD were significantly different from those of healthy controls, that glycerolipid metabolism was significantly involved in BD and MDD, that pyruvate metabolism was significantly involved in MDD, that pyruvate, choline, and acetate may be potential biomarkers for MDD to distinguish from BD, pantothenic acid may be a potential biomarker for BD to distinguish from MDD.

关键字：Bipolar Disorder（BD） major depressive disorder(MDD) Metabolomics biomarker

Identification of Hub Genes Related To Oxidative Stress in Peripheral Blood Mononuclear Cells for The Diagnosis of Bipolar Disorder

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Objective The aim of this study is to investigate the association between bipolar disorder(BD) and oxidative stress, screening the hub genes involved in the oxidative stress pathway.

Methods Gene microarray data GSE5392 were downloaded from the Gene Expression Omnibus (GEO). Hub genes for BD were mined based on differential expression analysis, weighted gene co-expression network analysis (WGCNA) and Protein-Protein Interaction (PPI) Network, followed by Gene Ontology (GO), Kyoto Encyclopedia of Genes and Genomes (KEGG) and Gene Set Enrichment Analysis (GSEA) of the hub genes related to oxidative stress. The receiver operating characteristic curve (ROC) were performed both on GSE5388 and GSE5389 datasets to evaluate the accuracy of the hub genes in diagnosing BD. In addition, we identificated these hub genes through the peripheral blood mononuclear cell (PBMC) between BD patients and healthy controls (HCs)

Results A total of 69 up-regulated genes and 411 down-regulated genes were selected for subsequent analyses. Twenty two co-expression modules were obatained via WGCNA; of which, one hub module (sienna3) had the highest correlation with BD. A total of 44 intersecting genes were acquired by differential analysis and oxidative stress-related genes. Three hub genes were subsequently confirmed by PPI Network and WGCNA analysis as potential biomarkers for BD. Functional enrichment pathway analysis revealed that these three hub genes were involved in neuronal signal transduction, oxidative phosphorylation and metabolism obstacle pathway. The ClueGo assay, a Cytoscape plugin, revealed that most targets were related

to regulation of neuronal synaptic plasticity. By using ROC curve analysis demonstrated a prime diagnostic value of the three hub genes. The RT-qPCR results showed that these three hub genes were significantly different in BD patients' PBMCs compared with HCs.

Conclusion These three hub genes we identified are directly or indirectly related to oxidative stress in BD. Based on limited preliminary data and our findings revealed the important role of oxidative stress in BD. However, the molecular mechanism of these three hub genes associated with oxidative stress are involved in the progression of BD pathogenesis is still poorly understood, it is still need to further study.

关键字：Bipolar Disorder；Gene; Oxidative Stress; peripheral blood mononuclear cell (PBMC)

双相障碍患者的认知功能损伤与脑电微状态的关联

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目的 脑电（EEG）微状态是对脑电地形图拓扑结构的分析，而双相障碍的认知功能损伤与微状态异常之间的关系知之甚少。本研究旨在探究双相障碍患者的脑电微状态异常，及其与认知功能损伤的关联。

方法 在本研究中，共纳入29名双相障碍患者（患者组）和 32 名健康人群（对照组）。通过可重复的成套神经心理状态测量（RBANS）采集神经认知数据。脑电微状态分为4个标准类型：A、B、C、D。组间比较采用协方差分析（控制变量为年龄、性别、受教育程度）。组内相关采用 Pearson 相关置换检验。

结果 1、人口学资料、临床特征、认知功能结果：患者组与对照组年龄、性别匹配无显著差异，受教育程度差异具有统计学意义。神经认知显示患者组在即刻记忆、语言、延迟记忆和 RBANS 总分呈现显著下降（P<0.05）。 2、在微状态持续时间上，患者组微状态A、B、C、D 显著升高（BPD vs CON：115.6 ± 12.1 vs 73.2 ± 7.4；119.7 ± 17.8 vs 69.3 ± 6.4；107.8 ± 18.8 vs 72.8 ± 10.2；114.2 ± 19.6 vs 85.5 ± 10.2；All P<0.001）；在微状态出现频率上，患者组微状态 A、B、C、D 都显著降低（BPD vs CON：2.3 ± 0.4 vs 3.5 ± 0.4；2.4 ± 0.3 vs 3.2 ± 0.3；2.1 ± 0.4 vs 3.4 ± 0.4；2.2 ± 0.3 vs 3.5 ± 0.4；All P<0.001）；在微状态覆盖范围上，患者组微状态 B 显著升高（P<0.001），微状态 D 显著降低（P=0.017）；在微状态转换概率上，患者组微状态 A to B 升高、A to D 降低（P=0.003；P=0.027），微状态 B to A、B to D 升高（P=0.038；P=0.027），微状态 C to D 降低（P<0.001），微状态 D to A、D to C 降低（P=0.005；P<0.001）。以上 P 值经过 FDR 校正。 3、Pearson 相关分析置换检验显示，微状态 B 覆盖范围、转换概率 C to D 与 RBANS 语言得分相关（r=-0.44，P=0.019；r=0.421，P=0.023）。

结论 相较于健康人群，患者微状态指标在持续时间延长、出现频率降低，提示患者可能需要更长时间完成认知过程。

关键字：双相障碍，认知，微状态

单双相抑郁症患者情绪处理早期阶段皮层下通路信息加工异常模式

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目的 既往研究发现抑郁症和双相情感障碍在抑郁状态时存在负性情绪偏向，而在情绪处理无意识阶段情绪处理机制仍待进一步探究，这有助于进一步了解单双相情感障碍患者的发病机制。

方法 本实验共入组 40 例健康对照者（Healthy Control, HC），抑郁症（Major Depressive Disorder）患者 38 例，Bipolar Disorder 患者 36 例。所有入组受试者均通过脑磁图技术记录在情绪面孔任务中的脑活动。脑磁图数据基于 fieldtrip 平台进行处理，进行滤波、去除伪迹、溯源等处理，选取在识别负性情绪面孔时，右侧丘脑、初级视觉皮层、枕下回、梭状回、眶额回、杏仁核为感兴趣脑区。选取滑动感兴趣时间窗 0-80ms，0-130ms，0-180ms，0-230ms，通过动态因果模型方法计算感兴趣脑区之间的效能连接，并运用 Parametric Empirical Bayes（PEB）对效能连接进行贝叶斯统计。

结果 本研究结果发现负性情绪识别早期 0-230ms，三组在右侧枕中回到右侧丘脑、枕下回到梭状回的效能连接存在差异，而在随后的两组比较中发现抑郁症患者在情绪处理早期与正常人无明显差异，而双相情感障碍患者在情绪处理早期表现为右侧枕中回到丘脑的效能连接增强，枕下回到梭状回的效能连接减弱。与抑郁症患者相比，双相情感障碍患者表现为右侧梭状回到杏仁核的功能连接增强。

结论 本研究未发现抑郁症患者在负性情绪处理早期期间皮层下信息交互存在明显异常。双相情感障碍患者在处理负性情绪面孔时，早期视觉皮层到丘脑的感觉通路信息加工增强，而与面孔加工密切相关的梭状回到杏仁核的效能连接较抑郁症患者增强提示双相情感障碍患者对负性信息加工从情绪早期阶段便可能与抑郁症患者存在异常。

关键字：抑郁症 双相情感障碍 情绪处理 动态因果模型

Variations in Olfactory Function Among Bipolar Disorder Patients with Different Episodes and Subtypes

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Objective Most studies on olfactory function in individuals with bipolar disorder (BD) have not distinguished between the different subtypes or between the acute phase (mania or depression) and euthymic state. In this study, we compared olfactory function among BD patients with different subtypes and episodes to explore the potential use of olfactory function as a biomarker for the early identification of BD.

Methods The study sample consisted of 117 BD patients who were hospitalized between April 2019 and June 2019, and 47 healthy volunteers as controls. The BD patients were divided into a bipolar I disorder (BD I) (n = 86) and bipolar II disorder (BD II) group (n = 31) according to the different subtypes, and divided into depressive BD (n = 36), manic BD (n = 44), or euthymic BD (n = 37) groups according to the types of episodes they experienced. We assessed olfactory sensitivity (OS) and olfactory identification (OI) via the Sniffin' Sticks test and used the Hamilton Depression Rating Scale (HAMD) and Young Manic Rating Scale (YMRS) to evaluate BD characteristics among all subjects.

Results Compared with controls, the participants with BD showed decreased OS and OI. We found statistically significant differences in OS and OI between the BD I group and controls, as well as differences in OS between the BD I and BD II group. Least-significant difference multiple comparisons revealed statistically significant differences in OS between the depressive BD group, manic BD group and controls and also between the manic BD and euthymic BD group. OI was positively correlated with the YMRS score in the BD I group and OS was negatively correlated with the HAMD score in the BD II group.

Conclusion This may be the first study to compare olfactory function in patients with BD I versus BD II via pairwise comparisons. Our findings suggest that OS may have potential as a biomarker for distinguishing the different subtypes of BD and as a state-related biomarker for differentiating the acute phase from the euthymic state of BD. However, further prospective research is warranted.

关键字：bipolar disorder, olfactory function, olfactory sensitivity, olfactory identification, Sniffin' Sticks test

Comparison of Olfactory Function in Patients with Unipolar and Bipolar Depression and Its Correlation with Mood Symptoms and Brain-derived Neurotrophic Factors

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Objective The primary aim of the present investigation was to explore olfactory performance between patients with bipolar depression and unipolar depression. Previous studies have not tracked and compared olfactory function between the patients with bipolar depression in depressive and remission stage. The correlation between serum Brain-derived neurotrophic factor (BDNF) levels and olfactory function has not been previously reported in patients with bipolar depression. In this study, we aim to advance a new indicator for efficacy evaluation of patients with bipolar depression.

Methods A total of 35 bipolar depression patients and 31 unipolar depression patients who were hospitalized or out-patient treated in the psychiatric hospital were enrolled in this study. We also collected 41 healthy volunteers as controls. The olfactory sensitivity (OS) and olfactory identification (OI) of each study group were detected by Sniffin' Sticks test. At the same time, our study investigated serum BDNF levels in all subjects. In addition, we also followed up the bipolar depression patients to remission, and compared their olfactory function and serum BDNF levels between the depressive and remission stage. The emotional state was assessed by Hamilton Rating Scale for Depression (HAMD),Young Mania Rating Scale (YMRS),Hamilton Anxiety Scale (HAMA) and the social function was assessed by Global Assessment Function (GAF). The olfactory function between the depressive and remission stage was compared, and the correlation between olfactory dysfunction and serum BDNF in patients with bipolar depression was analyzed.

Results 1. The OS was significantly lower in the bipolar depression group than in the controls, while there was no statistically significant difference in OS between the bipolar depression group and the unipolar depression group. 2. There was no statistically significant difference in OI among the three groups. 3. There was a positive correlation between OI and HAMA and a negative correlation between OS and HAMD desperation factor in bipolar depression group. 4. There was no significant difference in serum BDNF among the three groups 5. In the bipolar depression group and the unipolar group, there was no correlation between OS or OI and serum BDNF levels. 6. In the bipolar depression group, the OS in remission stage was significantly higher than that in depressive episode.

Conclusion Olfactory sensitivity was decreased in patients with bipolar depression compared with controls, but there was no significant difference in olfactory function between bipolar depression and unipolar depression. In patients with bipolar depression, olfactory function was associated with some specific mood symptoms.Given the olfactory sensitivity of patients in depressive episode was significantly increased after remission, the olfactory sensitivity was expected to be a new indicator for efficacy evaluation of patients with bipolar depression.

关键字：Bipolar depression; Unipolar depression; Bipolar disorder; Major depressive disorder(MDD); Olfactory sensitivity; Olfactory identification; Brain-derived neurotrophic factor（BDNF）

Comparison of Olfactory Function, Cognitive Function and Serum Tumor Necrosis Factor-α between Bipolar and Schizophrenic Patients in The Remission Stage

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Objective Olfactory function, serum tumor necrosis factor-α (TNF-α) and cognitive function were compared between bipolar disorder (BD) and schizophrenia (SP) patients in the remission stage combined with correlation analysis, with the aim of identifying new indicators for the auxiliary diagnosis of these psychiatric illnesses.

Methods A total of 46 euthymic BD patients, 42 clinically stable SP patients and 42 healthy controls (HC) were included in this study. Olfactory sensitivity (OS) and olfactory identification (OI) were assessed using Sniffin' Sticks test, and serum TNF-α levels were measured by ELISA. Clinical symptoms were evaluated with the Hamilton Rating Scale for Depression, Young Mania Rating Scale, Hamilton anxiety scale, and the Positive and Negative Syndrome Scale (PANSS). Social function was evaluated with the Global Assessment Function (GAF) scale. Cognitive function was evaluated using the Trail Making Test-A (TMT-A) and Digit Cancellation Test (DCT).

Results OI and cognitive function scores and serum TNF-α levels were significantly lower in the BD and SP patients compared with the HC subjects. There was no significant difference between the BD and SP groups, and there were no significant differences in OS among the three groups. OI score was positively correlated with years of education in both the BD and SP groups. OI score in the SP group was negatively correlated with age and PANSS score, and positively correlated with GAF score. In the BD group, OS was positively correlated with DCT II and DCT III. In the SP group, OS and OI scores were positively correlated with DCT III, and negatively correlated with TMT-A time. Furthermore, there was a positive correlation between TNF-α and DCT II in the BD group. There was no significant linear correlation between olfactory function and TNF-α in the BD or SP group.

Conclusion OI may be a trait marker for BD and SP. Some cognitive functions may be correlated not only with TNF-α in BD patients in remission, but also with olfactory function in BD and SP patients in remission.

关键字：Bipolar disorder, Schizophrenia, Remission stage, Olfactory sensitivity, Olfactory identification, Cognitive function, Tumor necrosis factor-α

Significant Improvements in The Olfactory Sensitivity of Bipolar I Disorder Patients During Euthymia Versus Manic Episodes: A Longitudinal Study

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Objective Olfactory function and serum tumor necrosis factor-α (TNF-α) were compared between healthy control group and manic or euthymic patients of bipolar I disorder (BD I). The correlation between olfactory function and symptom rating scale score or serum TNF-α level in those patients with bipolar disorder was analyzed.

Methods 44 patients with manic BD Iand 32 healthy controls were collected, and 25 of the patients were successfully followed up to the remission period. Symptoms were assessed with Young Manic Rating Scale (YMRS), social function was evaluated with Global Assessment Function (GAF), olfactory sensitivity (OS) and olfactory identification (OI) were measured with Sniffin' Sticks test, and serum TNF-α was measured during manic episode and remission periods. The olfactory function and TNF-α levels were compared between manic episode or remission period and healthy controls, and those were compared between manic and remission period longitudinally. The correlation between olfactory function and clinical symptoms or serum TNF-α level was analyzed.

Results 1. The OS (P=0.025) and OI (P<0.001) in patients with manic BD I were worse than those in healthy controls. In the patients with manic BD I, there was a positive correlation between OS and GAF score (P=0.039) and also a positive correlation between OS and OI (P=0.011). 2. There was no statistical difference in OS between patients with euthymic BD I and healthy controls, but OI was worse than that in healthy controls (P<0.001). 3. The OS in patients with BD I in remission period was better than that in manic episode (P<0.001) and there was no statistical difference on the OS between euthymic BD I patients and healthy controls. The change of OS was positively correlated with the decrease of YMRS score (P=0.026), and negatively correlated with the course of disease (P=0.002). 4. The levels of serum TNF-α in patients with BD I were lower than that in healthy controls during manic episode (P<0.001), and they had no significant correlation with olfactory function.

Conclusion 1. Compared with healthy controls, the OS and OI of patients with manic BD I were simultaneously impaired and there was a positive correlation between OS and GAF score in patients with manic BD I. 2. The impairment of OS in patients with manic BD I can be improved when they are in remission period, and the degree of recovery in remission period is positively correlated with the improvement of manic symptoms. The difference of OS between patients with euthymic BD I and healthy controls was not statistically significant, suggesting that OS is expected to become a new index for the efficacy and prognosis of manic BD I. 3. In patients with manic BD I, OI is still significantly impaired even manic symptoms are relieved, suggesting that OI may be used as a characteristic index of patients with manic BD I.

关键字：Bipolar I disorder, olfactory sensitivity, olfactory identification, tumor necrosis factor-α

Mapping The Global, Regional, and National Burden of Bipolar Disorder From 1990 To 2019: A Trend Analysis Revisiting The Global Burden of Disease Study 2019

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Objective Bipolar disorder (BD) is a severe psychiatric disorder that is costly to health systems worldwide. It has a complex etiology, and data regarding its burden and epidemiological trends are scarce. This study aimed to provide an overview of trends in BD burden at global, regional, and national levels from 1990 to 2019 and associations with age, period, and birth cohort.

Methods Revisiting the Global Burden of Disease Study (GBD) 2019, this study performed a trend analysis on the number, age-standardized rate (per 100,000), estimated annual percentage change (EAPC) of BD incidence, prevalence, and years lived with disability (YLDs) at global, regional, and national levels and across social development index (SDI) quintiles. Furthermore, age-period-cohort modeling was used to estimate the independent effects of age, period, and cohort on BD incidence, prevalence, and YLD rates.

Results Globally, the BD-related total cases of prevalence, incidence, and YLD all signi?cantly increased from 1990 to 2019. Regionally, the WHO Region of the Americas accounted for the highest estimated YLD number and rate, and had the highest age-standardised rate of prevalence in 1990 (816.8 per 100 000 population [95% UI 704.4-934.5]) and 2019 (845.1 per 100 000 population [721.8-947.3]), with the highest prevalence EAPC of 0.123 (95% CI 0.114-0.131). By SDI quintiles, all five SDI regions saw an increase in estimated incident cases. Nationally, New Zealand reported the highest age-standardised rate of incidence, prevalence, and YLDs in 1990 and 2019. The most prominent age effect on BD incidence rate was in those aged 15-19 years old. Decreased period risk on BD incidence, prevalence, and YLD rates was observed overall and in females, but not in males. The BD incidence, prevalence, and YLD rate showed an unfavorable trend in the younger cohorts born after 1990, with the males reporting a higher cohort risk than females.

Conclusion This study reveals a remarkable increase in BD incident cases, prevalent cases, and YLDs numbers from 1990 to 2019 globally. The overall trend of BD burden presents regional and national variations and differs by age, sex, period, and birth cohort. These findings inform appropriate public health policies and actions toward alleviating the extant burden of BD and preventing new-onset cases.

关键字：bipolar disorder; burden; prevalence; incidence; trend analysis

What Is The Relationship between Depression with Atypical Features and Bipolar Disorder: A Functional MRI and Deep Learning Study in IDoT-AFD

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Objective Depression with atypical features (AFD) is regarded as a bridge between major depressive disorder (MDD) and bipolar disorder (BD) or even a variant of BD-II. Features of functional connectivity about AFD are still unclear with different dysfunction of default mode network (DMN) or/and frontoparietal network (FPN) being frequently reported between MDD and BD. We hypothesize that AFD and BD shared common impairments of functional connectivity compared to depressed patients without atypical features (NAFD), and the relevant functional connectivity could help predict the risk of conversion to BD. This study aimed to explore brain connectivity features of AFD and build the risk warning model of conversion to BD.

Methods The Study of Individualized Diagnosis and Treatment for Depression with Atypical Features (iDoT-AFD) is a multicenter, prospective study consisting of a 12-week randomized controlled trial (RCT) and a continued follow-up until 4 years or switching to BD. Patients with AFD, patients with NAFD, patients with BD were recruited and scheduled clinical assessment and multimodal magnetic resonance imaging (MRI) scan. Brain functional connectivity networks were constructed based on Anatomical Automatic Labeling (AAL) from resting-state functional MRI, and clinical and brain functional features were compared among groups. Then the encoder is used to obtain the features toward analyzing disorder relationships and predicting the risk of conversion to BD.

Results AFD and BD shared common impairments of functional connectivity compared to NAFD in left angular gyrus belonging to DMN, and bilateral inferior parietal lobule, left opercular part of inferior frontal gyrus belonging to FPN, with the extent BD>AFD. When projecting brain functional features into two-dimensional space, AFD is between NAFD and BD, and tends to be BD. The risk warning model of conversion to BD was constructed, which was able to predict the rough time of AFD converting to BD. Up to now, 4 patients with AFD have developed hypomania and the time converting to BD could preliminarily verify the prediction model.

Conclusion AFD and BD shared common characteristics and dysfunction of brain network connectivity, indicating the high risk of AFD converting to BD. The risk warning model of conversion to BD has been constructed and preliminarily verified. *Correspondence: pdhsh@126.com; wangqian2@shanghaitech.edu.cn. Co-first authors: Rubai Zhou and Mengjun Liu contributed equally to this work.

关键字：Depression with Atypical Features; Brain Network; Functional Connectivity; Risk Warning Model of Conversion to Bipolar Disorder

青少年双相抑郁非自杀性自伤相关因素研究

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目的 研究和分析影响青少年双相抑郁患者出现

非自杀性自伤（NSSI）行为的相关因素。

方法 随机选取 157 例 2021 年 1 月-2023 年 6 月接受治疗的青少年双相抑郁患者，回顾性分析患者社会人口学资料，根据患者是否存在 NSSI 行为将其分为 NSSI 组与非 NSSI 组，比较两组组患者社会人口学资料并分析青少年双相抑郁非自杀性自伤的相关影响因素。

结果 存在 NSSI 行为者占 29.94%，不存在 NSSI 行为者占 70.06%。NSSI 组与非 NSSI 组患者年龄、文化程度、民族、有无宗教信仰、居住地、是否独生子女占比差异无统计学意义（P>0.05），两组性别、BMI、是否连续病程、父亲文化程度、母亲文化程度、留守经历、病程、家庭暴力、家庭外暴力及家庭功能不全占比差异均有统计学意义（P<0.05）。针对 NSSI 组与非 NSSI 组存在统计学意义的单因素作为自变量，以患者是否有 NSSI 作为因变量并实施多因素 Logistic 回归分析，结果表明患者性别、父亲文化程度、母亲文化程度、病程、家庭暴力、家庭外暴力及家庭功能不全为青少年双相抑郁出现非自杀性自伤行为的影响因素（P<0.05）。

结论 青少年双相抑郁患者出现 NSSI 行为的影响因素包括性别、父亲文化程度、母亲文化程度、病程、家庭暴力、家庭外暴力及家庭功能不全，应根据相关因素早期采取干预措施以降低 NSSI 发生风险，维护患者生命安全与身心健康。

关键字：青少年双相抑郁；非自杀性自伤；相关影响因素；生命安全；身心健康

The Associated Factors of Predominant Polarity in Bipolar Disorders Among Chinese Psychiatric Inpatients

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Objective To identify the associated sociodemographic, clinical, and biochemical factors with Predominant Polarity (PP) of bipolar disorders in Chinese psychiatric inpatients.

Methods Psychiatric inpatients with bipolar disorders selected from "China Mental Disorders Cohort Study" were included in our study. They were divided into three groups according to the number of previous manic and depressive episodes: manic predominant polarity (MPP), depressive predominant polarity (DPP), and indeterminate predominant polarity (IPP). Multi-categorical logistic regression was performed to examine factors associated with predominant polarity, including gender, age, educational level, working status, somatic comorbidities, number of hospitalizations, suicide attempts, family history, and biochemical factors such as red blood cells count, white blood cells count, neutrophil/lymphocyte ratio (NLR), lymphocyte/monocyte ratio (MLR), and platelet/lymphocyte ratio (PLR).

Results Out of 463 patients included in this study, 272 (62.63%) fulfilled criteria for MPP, 64 (13.61%) for DPP, and 114 (23.76%) for IPP. Compared with patients in the IPP group, after controlling for current episode status, the number of hospitalizations and NLR in the DPP group were lower (p=0.025, OR=0.82, 95% CI: 0.68-0.98; p=0.023, OR=0.62, 95% CI: 0.41- 0.94); patients in the MPP group were less likely to have mixed episodes (p=0.011, OR=0.49, 95% CI: 0.28-0.85) and suicide attempts (p=0.013, OR=0.35, 95% CI: 0.16-0.81), however had greater number of hospitalizations (p=0.004,?OR=1.12, 95% CI:1.04-1.22).

Conclusion The results indicate that the classification of PP is helpful. Clinical and biochemical differences exist among different PP groups.?PP in bipolar disorders conveys clinically important information that aids a clinician in decision-making.

关键字：Bipolar Disorders, Predominant Polarity, Associated Factors

基于血浆神经递质相关代谢物的双相障碍诊断标志物研究

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目的 双相障碍（BD）是一类临床表现复杂、高复发率、高致残率的精神障碍，神经递质功能障碍是其主要的发病机制假说，但临床上尚缺乏可用于早期诊断的生物标志物。本研究的目的是建立基于血浆神经递质代谢组学的 BD 诊断模型，探讨外周血神经递质作为 BD 生物标志物的可能性及模型诊断效能。

方法 本研究于 2019 年 3 月至 2022 年 6 月在中南大学湘雅二医院精神科门诊共纳入了 152 名 BD 受试者，同时期在邻近的大学及社区招募了人口学特征匹配的 65 名健康对照受试者。使用超高效液相色谱-电喷雾电离质谱串联质谱（UPLS-MS/MS）方法进行了 14 种血浆神经递质及相关代谢物的定量检测。对两组受试者的外周血神经递质代谢物通过主成分分析法（PCA）分析并进行基于正交信号校正的偏最小二乘判别分析（OPLS-DA）模型拟合。使用交叉验证、置换检验、外部测试集验证对模型的拟合效果及判别能力进行检验。受试者工作特征曲线（ROC）和 ROC 曲线下面积（AUC）用于确定分类性能。最后，鉴别关键差异代谢物以优化诊断模型并进行检验。

结果 138 名 BD 和 59 名 HC（队列 1）用于模型构建和交叉验证，14 名 BD 和 6 名 HC（队列 2）用于模型的外部检验。成功构建 BD 与 HC 的 PCA 和 OPLS-DA 模型。在 OPLS-DA 模型中，两组完全分离，七折交叉验证法示 R2Y（cum）=0.582，Q2（cum）=0.527，提示模型具有较好的可靠性和预测度。置换检验 Q2=-0.113，检验图回归线斜率为正，强烈表明原始模型有效。原始模型（队列 1）的 AUC=0.976，敏感性为 94.93%，特异性为 84.75%，外部验证（队列 2）AUC=0.976，敏

感性为 100%，特异性为 83.33%。使用 VIP 联合 P 值的方法，共筛选出 5 种关键生物标志物：5-HIAA、VMA、TRP、GLN、DA（VIPpred>1，P＜0.001，均为含量下调），由以上关键标志物建立的模型仍能高效分类 BD 与 HC（AUC=95.96%，敏感性为 94.2%，特异性为 79.66%）。

结论 本研究成功建立基于神经递质代谢组学的 BD 诊断模型，提示外周血神经递质及相关代谢物具有作为 BD 诊断标志物的潜力和应用前景，可为进一步深入研究提供参考。

关键字：双相障碍；神经递质；代谢组学；生物标志物；基于正交信号校正的偏最小二乘判别分析

首治双相障碍患者治疗前后的外周血神经递质代谢组学研究

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目的 探讨精神药物治疗对双相障碍（BD）血浆神经递质代谢组的影响及临床意义。

方法 首次诊断为 BD 的受试者将接受心境稳定剂治疗，于治疗前、治疗后 1 个月、治疗后 3 个月、治疗后 6 个月随访时采集血液标本，用于血浆神经递质及相关代谢物的测量。使用线性混合效应模型（LMM）对重复测量的症状学指标、外周血神经递质相关代谢物含量进行治疗前后的比较。治疗前后及与健康人外周血神经递质相关代谢物建立主成分分析法（PCA）模型和基于正交信号校正的偏最小二乘判别分析（OPLS-DA）模型进行代谢轮廓分析。

结果 72 名 BD 受试者接受以心境稳定剂为主要治疗的纵向随访，其 HAMD、HAMA、YRMS 量表得分在治疗前、治疗 1 个月、3 个月、6 个月四个时间点之间存在显著差异（p<0.05），整体呈下降趋势；在所有受试者中成功检测到14种神经递质或相关代谢产物，除 GABA 水平外，其余 13 种代谢物含量在治疗前、治疗后 1 个月、3 个月、6 个月时间点存在显著差异（p＜0.05）。经过相关分析并校正人口学及临床特征后，治疗 1 个月和 3 个月时，HAMA 量表减分值与 KA 含量的增量均呈显著负相关（β=-0.224，p=0.047；β=-0.289，p=0.024），其余临床时点临床症状较基线变化值均未显示出与任何代谢物的含量改变的显著相关。进一步的多元统计分析显示，5 组样本在 OPLS-DA 得分图上呈分离趋势，BD 治疗前后的 4 个亚组样本点随治疗时间的变化空间位置呈连续性、同方向改变，先接近健康人组样本点，后逐渐远离健康人样本点。治疗后 6 月与 HC、治疗后 3 月与治疗前、治疗后 6 月与治疗前较好的区分，但对于短期治疗的 BD 患者与 HC 间的代谢差异不能良好的分辨，说明其代谢轮廓较为相似。

结论 心境稳定剂治疗可引起 BD 外周血神经递质代谢物含量及整体代谢轮廓的改变，治疗后患者的临床症状得到显著改善，但其外周神经递质代谢组仍与健康人显著不同。外周血神经递质及相关代谢物具有作为 BD 治疗标志物的潜力和应用前景，可为进一步深入研究提供参考。

关键字：双相障碍；代谢组学；心境稳定剂；生物标志物

单双相障碍患者静息态 γ 震荡脑磁图频谱能量的改变

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目的 双相障碍是一种严重影响患者生活质量的疾病，表现为抑郁和躁狂或轻躁狂的反复发作。抑郁状态占据多数双相患者的多数病程时间，且多数双相患者以抑郁发作为首次表现，极易被误诊，导致病情迁延。早期鉴别单双相显得尤为重要。γ 震荡与注意、情绪等高级认知有关，既往研究提示 γ 频段在情绪面孔刺激任务中可区分单双相障碍，但 γ 震荡在静息状态下可否早期识别双相障碍仍待进一步研究。

方法 本实验共招募 210 例受试者，所有入组受试者均采集 5 分钟睁眼静息态脑磁图（MEG）活动。共纳入 58 例健康人（HC），抑郁状态 88 例，抑郁症 88 例（MDD），双相障碍 64 例(BD)，其中有 26 例双相障碍经过 5 年左右的随访，转为双相障碍（Converted to Bipolar disorder, ctBD），38 例患者入组时即为双相障碍（Raw Bipolar Disorder, rBD）。脑磁图数据基于 fieldtrip 平台进行处理，提取静息态 γ 能量（31-80Hz）进行频谱分析，运用 Cluster-based permutations 的非参数统计方法进行三组间及 post-hoc 两组间的统计分析（P<0.05，two-tailed, α=0.5）。

结果 研究发现 HC、MDD、BD 三组之间，有统计学差异的结果主要在左侧前额叶（背外侧前额叶、额下回、眶额部）、扣带回、左侧岛盖部、左侧小脑半球及蚓部、左侧枕叶（枕下回、枕中回、枕上回）、左侧颞叶（颞下回、颞中回）。两两比较的结果发现 BD 组 γ 能量较 HC 组减弱，有统计学差异的结果主要集中在顶枕叶、小脑半球及蚓部、初级运动皮层和感觉运动皮层，其中 rBD 组的 γ 能量较 HC 组减弱主要集中在小脑、梭状回脑区，而 ctBD 组的 γ 能量减弱较 HC 组无统计学意义。 rBD 组与 MDD 组相比 γ 能量减弱，差异具有统计学意义的结果主要集中在前额叶（额下回）、枕颞叶、顶叶、小脑等脑区；ctBD 组与 MDD 对照组相比，γ 能量减弱接近于有统计学差异（P=0.07）。MDD 组在 γ 频段与 HC 组相比，无明显统计学差异。

结论 本实验结果提示双相障碍组 γ 能量均较健康对照组和抑郁症组减弱，而 MDD 组、ctBD 组、rBD 组 γ 震荡能量呈逐渐下降趋势，提示 γ 能量可能是早期识别双相障碍的电生理标记物，减弱的 γ 震荡可能与双相障碍临床认知功能损害更严重有关，但仍需结合临床认知测试结果进一步分析验证。

关键字：双相障碍，早期识别，脑磁图，gamma 振荡

心脑交互与抑郁症大脑自发 Theta 活动的关联研究

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背景 ：静息状态下，心脏规律运动（心动周期）为大脑提供血流灌注，可诱发大脑 Theta（3-8 Hz）频段自发活动，参与机体对环境变化的应答。抑郁症（Major depressive disorder，MDD）大脑静息状态下 Theta 频段活动异常，且与心脑交互（Heart-brain interaction，HBI）的关系未明。本部分通过测量心动周期与大脑瞬时 Theta 频谱爆发之间的时间同步性，为心脑交互生物物理模式提供神经影像学证据；并进一步探讨其在 MDD 中的特征。

方法 选取符合 DSM-IV诊断标准的 MDD 患者 90 例以及 44 名 HC 者作为研究对象。进行 8 分钟的静息态脑电扫描的同时记录心电信号。应用 HEPlab 软件，根据 ECG 的 R 波及 T 波得出心脏收缩期（RT）与心脏舒张期（TR）的时间序列；采用隐马尔可夫模型（HMM）检测脑电 Theta 突发的时间序列；计算大脑 Theta 爆发时间序列与心脏收缩期以及舒张期时间序列的 Jaccard 系数，用于反映大脑神经元 Theta 爆发活动与心脏收缩期及舒张期活动的同步性；舒张期与收缩期 Jaccard 系数的差值记录为差值 Jaccard 系数，用于反映大脑神经元 Theta 爆发活动与心动周期活动的平衡性；应用独立样本 t 检验比较组间差异，配对 t 检验比较个体心动周期不同阶段的差异；Pearson 相关探索大脑 Theta 爆发与临床症状之间的关系。

结果 MDD 组与 HC 组的人口学资料比较差异无统计学意义（均 $p > 0.05$）。两组收缩期 Jaccard 系数均低于舒张期 Jaccard 系数（$p < 0.000$）; MDD 组收缩期与舒张期 Jaccard 系数均低于 HC 组，但差异无统计学意义（$p > 0.05$）；MDD 组差值 Jaccard 系数在右额顶叶电极（F4，F6，FC2，FC4）较 HC 组明显降低（$p < 0.05$），且异常的差值 Jaccard 系数与 HAMD-24 绝望因子成正相关（F4：$r = 0.321$，$p < 0.05$；F6：$r = 0.425$，$p < 0.05$）。

结论 心脏舒张期大脑自发 Theta 爆发活动比心收缩期更多。MDD 患者 HBI 生物物理模式的时间动力调节异常，大脑 Theta 爆发事件较 HC 者减少，与心脏运动的同步性减弱；MDD 患者大脑 Theta 爆发发生在收缩期的概率要比 HC 者增多；MDD 患者 HBI 生物物理模式的时间动力调节异常与绝望症状有关。

关键字：抑郁症；心脑交互；Theta 爆发；Jaccard 系数；生物物理模式

Altered Structure-function Coupling Along with Functional Hierarchy in Major Depressive Disorder

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Objective : Altered structural and functional networks have been extensively investigated in major depressive disorder (MDD). However, the results of relationships between structure and function were heterogeneous and unclear. While structure and function are closely aligned in the unimodal cortex (i.e., primary sensory and motor regions), they are disassociated in the transmodal cortex (i.e., default mode networks). , exploring structure-function coupling should consider its spatial variations across the whole brain. We aimed to explore altered structure-function coupling from a hierarchical perspective along with the macroscale functional gradient.

Methods A total of 258 patients with MDD and 99 healthy controls (HC) were enrolled at Nanjing Brain Hospital. They underwent baseline resting-state functional magnetic resonance imaging (rsfMRI) and diffusion tensor imaging. The structure-function coupling (SFC) at the regional level was assessed by calculating the Spearman rank correlation between regional connectivity profiles of structural and functional networks. We compared the regional coupling between HC and patients with MDD using the independent two-sample t-test or the Mann-Whitney test, depending on data normality. False discovery rate correction was applied for multiple comparison corrections. To evaluate how altered SFC varies across functional hierarchical networks, we categorized regions with significant differences into their corresponding functional networks and evaluated increased or decreased patterns along the principal gradient axis. The regional principal gradient value was calculated based on 217 healthy individuals from Human Connectome Project using the BrainSpace toolbox. The gradient value denoted the position of the region in the principal gradient axis.

Results We found 31 regions with significant differences between MDD and HC, spanning eight functional networks. The eight functional networks were ranked according to the increasing gradient values. The 31 significant regions were categorized into their corresponding networks. We identified two overall abnormal patterns in SFC: the increased patterns for low-level unimodal networks and decreased patterns for high-level transmodal networks in MDD. Notably, DMN was a unique network that had both increased and decreased abnormality.

Conclusions and discussions: Our findings suggested that the MDD-induced SFC impairments exhibited diverge patterns along with the functional hierarchical axis.

The higher SFC observed in the primary sensory and visual areas suggested a higher consistency between structure and function, indicating that functional communications are more likely to rely on the state of local white-matter pathways in MDD. The decreased coupling also suggested that functional communication was untethered by structural constraints in limbic systems and frontoparietal regions.

关键字：Resting-state functional magnetic resonance imaging; Diffusion Tensor Imaging; Structure-function coupling; functional gradient; Major depressive disorder

伴非自杀性自伤成年早期抑郁症岛叶亚区磁共振功能连接研究

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目的 非自杀性自伤（non-suicidal self-injury，NSSI）被认为是预测自杀的因子之一，是一种常见的抑郁症伴随症状。伴 NSSI 的 MDD 患者（MDD/NSSI）在疼痛处理过程中存在异常，其中岛叶异常在疼痛的发病机制中具有重要作用，但机制尚不清楚。本研究旨在探讨在伴 NSSI 的抑郁症中岛叶与其它脑区的功能连接特征。

方法 本研究根据是否伴有 NSSI，抑郁症患者被分成伴 NSSI 的抑郁症组（MDD/NSSI），和不伴 NSSI 的抑郁症组（sMDD）。一共纳入 54 名 MDD/NSSI 患者和 68 名 sMDD 患者及 66 名年龄、性别、受教育年限匹配的健康被试。对入组被试进行脑静息态功能磁共振成像扫描，并以每个感兴趣区的坐标为中心定义了六个 6mm 半径的种子点，包括：左腹侧前岛叶，右腹侧前岛叶，左背侧前岛叶，右背侧前岛叶，左后岛叶和右后岛叶。在 DPABI 软件中分别计算各岛叶亚区对全脑其它脑区的功能连接（functional connectivity）。用 REST 软件进行统计分析，首先将三组被试进行方差分析，并使用 GRF 方法进行多重比较校正，单个体素 $p<0.001$，连续体素≥50；然后进行 hoc T 检验，对三组进行两两比较，单个体素 $p<0.001$，连续体素≥50，将 GRF 多重比较校正后 $p<0.05$ 的区域定义为有统计学显著差异的脑区。

结果 与 sMDD 组相比，MDD/NSSI 组左腹侧前岛叶与全脑功能连接未见显著差异；右腹侧前岛叶与颞中回、左三角部额下回间功能连接减弱，与右内侧额上回之间的连接增强；左背侧前岛叶与左海马旁回之间的功能连接增强，与颞中回、左颞上回、左背外侧额上回、右楔前叶之间的功能连接减弱；右背侧前岛叶与左颞中回、右颞中回、右楔前叶连接减弱；左后岛叶与右楔叶、左楔前叶、左内侧和旁扣带脑回连接减弱；右后岛叶与左颞下回连接增强，与右颞中回、左颞中回、左额中回、左中央旁小叶连接减弱。

结论 伴 NSSI 的抑郁症与不伴 NSSI 的抑郁症之间，岛叶各亚区与其它脑区之间的功能连接上存在差异，结果集中在额叶及颞中回等脑区，提示岛叶在 NSSI 的发病机制中存在着重要作用。

关键字：非自杀性自伤；抑郁症；岛叶；磁共振；功能连接；成年早期

单双相情感障碍患者静息态 alpha 波脑磁频谱能量的改变

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目的 目前临床上早期识别双相情感障碍仍具有较大挑战，部分双相情感障碍患者以抑郁症状为首发临床表现，起病初期两者临床症状相似，导致临床治疗效果欠佳和治疗延误。因此，早期识别双相情感障碍显得尤为重要。既往神经电生理研究提示 alpha 可能是抑郁症特征性改变，但目前关于 alpha 波可否早期识别双相情感障碍仍不清楚。

方法 本实验共招募 210 例受试者，采集所有被试记录 5 分钟的睁眼静息态脑磁图（MEG）活动。本研究纳入 58 例健康对照组（HC），抑郁症患者为 88 例（Major Depressive Disorder, MDD），双相情感障碍患者为 64 例(Bipolar Disorder, BD)，其中有 26 例双相情感障碍患者经过 5 年左右的随访，转为双相情感障碍患者（Converted to Bipolar disorder, ctBD），38 例入组时即为双相情感障碍（Raw Bipolar Disorder, rBD）。脑磁图数据基于 fieldtrip 平台进行处理，提取静息态 alpha 能量（8-12Hz）进行频谱分析，运用 Cluster-based permutations 的非参数统计方法进行统计分析（clusterapha=0.01，alpha=0.5）。

结果 通过对溯源结果进行分析，发现 HC、MDD、BD 三组之间，差异具有显著性统计学的结果主要集中在前额叶（背外侧前额叶、眶额回），扣带回，小脑（蚓状体，小脑半球），边缘结构（海马、海马旁回），皮层下结构（苍白球、壳核、丘脑），感觉运动皮层（初级运动皮层，感觉运动皮层）等多个脑区。两两比较的结果中发现 HC 与 MDD 在 alpha 频段的能量差异无明显统计学差异，BD 的 alpha 波能量显著高于 HC 和 MDD 组，能量差异主要集中在前额叶-边缘-皮层下-小脑等多个脑区。进一步研究发现 MDD，ctBD, rBD 的前额叶-边缘-皮层下-小脑环路等脑区的 alpha 波能量逐渐增强，其中 MDD 和 rBD 两组间的 alpha 波能量具有统计学显著差异。

结论 双相情感障碍患者前额叶-边缘-皮层下-小脑环路的 alpha 静息态能量较健康对照组和抑郁症组增强，在 rBD 患者组中更为明显，提示经历过躁狂或者轻躁狂发作的患者脑损害更明显。本实验结果提示双相情感障碍特征性的 alpha 波改变，但仍需结合临床特征和量表等结果进一步分析。

关键字：双相情感障碍 抑郁症 脑磁图 α 振荡

心脑交互与抑郁症抑制控制功能的关联研究

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背景 ：灵活的心脑交互（Heart-brain interaction，HBI）是成功目标导向性行为的前提。抑郁症（Major depressive disorder，MDD）患者抑制控制功能损伤，属于目标导向行为障碍，与 HBI 的关系尚未明确。研究显示，前额叶-边缘系统神经环路损伤是 MDD 抑制控制功能损伤的神经基础。本部分基于前额叶-边缘系统神经环路，探讨 MDD 患者 HBI 与抑制控制功能的关系。

方法 入组 MDD 患者 20 例和 18 例 HC。采集 8 分钟静息态和执行红绿灯 Go/no-go 任务时的心电与脑电数据、静息状态下的功能核磁共振 T1 项。选定前额叶脑区、ACC、双侧脑岛做为感兴趣脑区（ROI），分析任务下 ROI 间的功能连接以及静息状态与任务下的心率变异性（HRV）；应用独立样本 t 检验比较 MDD 组与 HC 组之间的静息状态、任务状态 HRV 时域指标 RR 间期的平均值标准差（SDANN）、相邻心跳间期差值均方的平方根（RMSSD）以及脑区功能连接的差异，应用 Pearson 相关分析异常的脑区功能连接、HRV 及 HAMD-17 分值之间的相关关系。

结果 静息状态下 MDD 组 SDANN （$t = 3.034$，$p = 0.004$）与 RMSSD 均低于 HC 组（$t=2.712, p=0.010$），且在 Go/no-go 任务下，两个 HRV 指标在健康组与 MDD 组之间的比较差异更明显（SDANN：$t = 3.932$，$p < 0.001$；RMSSD：$t = 3.965$，$p < 0.001$）；与 HC 组相比，MDD 组左侧额中回与左侧额上回、左侧额中回与右侧额上回、左侧额中回与 ACC 功能连接异常（均 $p < 0.05$）；且 HC 组 HRV 中 RMSSD 与左侧额中回与 ACC 功能连接呈正相关（$r = 0.605$，$p = 0.008$），MDD 组 HRV 中 RMSSD 与左侧额中回与右脑岛功能连接呈负相关（r=?0.577，$p = 0.008$）；MDD 组 HAMD-17 总分与任务状态下的 SDANN（r=?0.555，$p = 0.011$）、RMSSD（r=?0.555，$p = 0.011$）及静息状态下的 RMSSD（r=?0.497，$p = 0.026$）呈负相关。

结论 MDD 患者 HBI 神经传递模式异常，与抑制控制功能损伤有关；ACC 及右脑岛与左侧额中回功能连接是 MDD 患者异常 HBI 神经传递模式与大脑抑制控制功能时空特性具有关联关系的神经基础。

关键字：抑郁症；心脑交互；抑制功能；心率变异性；脑岛

首发早发性和晚发性抑郁症患者静息态脑灰质体积的研究

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目的 既往研究发现不同年龄段发病的抑郁症有不同的临床特征，且发现 30 岁前和 30 岁后起病的成年抑郁症患者灰质体积（gray matter，GM）存在差异，但发病年龄 18 岁以前的早发抑郁症（Early onset depression，EOD）较发病年龄在 45 岁以后晚发抑郁症（Later onset depression，LOD）GM 的不清楚。本研究旨在探讨首发早发性和晚发性抑郁症患者 GMV 特征，为不同年龄段抑郁症发病研究脑影像学机制提供依据。

方法 招募来自南京医科大学附属脑科医院符合 DSM5 抑郁症诊断标准的首发患者。按照起病年龄，分为 18 岁以前的早发抑郁症 40 名，45 岁以后起病的晚发抑郁症抑郁症 50 名，同时招募 70 名年龄、性别、受教育年限匹配的健康对照。将 3 组受试进行 3.0T 静息态功能磁共振扫描，计算 GMV。为去除年龄的影响，将灰质总体积和年龄为协变量计算三组值差异，首先进行单因素方差分析，高斯随机场法（Gaussian random field，GRF）校正，其次在三组比较差异有统计学意义的基础上，使用 GRF 矫正方法进行 hoc t 检验，对每两组 ReHo 值进行两两比较。

结果 三组受试在右杏仁核/右颞中回/右颞上回/右额下回（MNI 坐标 24, 2，-21，K=4027）、左梭状回(MNI 坐标-26，-34,- 18，K=367）、右舌回/右梭状回（MNI 坐标 17，-45,- 3，K=496）GMV 值存在差异（单体素 $p<0.001$，连续体素值 $K\geq228$，GRF 校正后 $p<0.05$）。在方差分析基础上进行两两事后独立样本 t 检验，与 LOD 组相比，EOD 组右颞上回/右额下回、右颞中回、双侧梭状回 GMV 值增高（单体素 $p<0.001$，连续体素值 $K\geq4$，GRF 校正后 $p<0.05$）。

结论 首发 LOD 与 EOD 患者脑结构灰质体积损害存在差异，EOD 较 LOD 组在右颞上回/右额下回、右颞中回、双侧梭状回体积降低更少，提示不同发病年龄的抑郁症患者右颞上回/右额下回、右颞中回、双侧梭状回灰质体积损害不同，可能有不同的发病机制。

关键字：早发性抑郁症；晚发性抑郁症；静息态功能磁共振；灰质体积

Altered Beta Band Spatial-temporal Interactions During Negative Emotional Processing in Major Depressive Disorder: An MEG Study

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Background : The mood-concordance bias is a key feature of major depressive disorder (MDD), but the spatiotemporal neural activity associated with emotional processing in MDD remains unclear. Understanding the dysregulated connectivity patterns during emotional processing and their relationship with clinical symptoms could provide insights into MDD neuropathology.

Methods We enrolled 108 MDD patients and 64 healthy controls (HCs) who performed an emotion recognition task during magnetoencephalography recording. Network-based statistics (NBS) was used to analyze whole-brain functional connectivity (FC) across different frequency ranges during distinct temporal periods. The relationship between the aberrant FC and affective symptoms was explored.

Results MDD patients exhibited decreased FC strength in the beta band (13-30 Hz) compared to HCs. During the early stage of emotional processing (0-100ms), reduced FC was observed between the left parahippocampal gyrus and the left cuneus. In the late stage (250-400ms), aberrant FC was primarily found in the cortex-limbic-striatum systems. Moreover, the FC strength between the right fusiform gyrus and left thalamus, and between the left calcarine fissure and left inferior temporal gyrus were negatively associated with Hamilton Depression Rating Scale (HAMD) scores.

Conclusion MDD patients exhibited abnormal temporal-spatial neural interactions in the beta band, ranging from early sensory to later cognitive processing stages. These aberrant interactions involve the cortex-limbic-striatum circuit. Notably, aberrant FC in may serve as a potential biomarker for assessing depression severity.

关键字：Major depressive disorder; Emotional processing; Functional connectivity; Neural oscillations; Magnetoencephalography

悲伤面孔刺激下抑郁症脑磁图多尺度时空特性研究

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目的 抑郁症患者在情绪刺激处理时呈现负性情绪偏向和情绪调节异常。为了探究这种损伤的神经机制和客观的生物学指标，既往影像学研究已通过对多种模态数据和特征的分析得到了一些成果。然而，基于脑磁图数据的悲伤面孔刺激的多尺度层面的相关研究目前尚不充分。本文利用脑磁图兼具时间、空间分辨率的优势，探索与负性情绪偏向及情绪调节异常存在关联的神经活动模式。

方法 借助多元经验模式分解将排序向量熵扩展到跨被试对齐的多尺度层面，计算不同固有模态函数下大脑复杂度随时间的动态变化过程。进一步采用相位-幅值跨频域耦合的方法比较不同脑区在不同模态函数下的交互情况。跨被试时间尺度对齐不能直接比较组间大脑固有时间尺度的异常，因而采用自相关窗口来量化内在神经时间尺度。自相关窗口测量信号中的重复模式，使我们能够测量不同时间点之间的神经活动模式的相关程度。

结果 在 0-50ms 的左侧丘脑和 100-200ms 的左侧眶额皮层、左侧杏仁核发现抑郁症患者脑区内复杂度显著上升，而 0-50ms 的右侧杏仁核抑郁症患者表现出复杂度显著降低，进一步通过相位-幅值跨频域耦合的方法发现 100-200ms 左侧眶额皮层对左侧杏仁核的调控显著减弱。为了计算内在神经时间尺度，选取五种不同自相关窗口的计算方式（自相关函数分别衰减到50%、40%、30%、20%、10%对应的滞后值）。利用聚类置换检验发现这五种尺度下都存在显著差异簇，簇内通道主要分布在额区、顶区、中央区，并且在这五种尺度下的显著簇内，相比于健康被试，抑郁症患者均表现出了异常增加的内在神经时间尺度。

结论 抑郁症患者在处理悲伤面孔刺激时脑区内复杂度增加，处理时间显著延长，同时脑区间交互性减弱，这种情绪处理功能异常导致了严重的负性情绪偏向。

关键字：抑郁症；脑磁图；悲伤面孔刺激；多尺度

抗抑郁药物作用下抑郁症患者大脑结构层级变化研究

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背景 ：研究显示选择性 5-羟色胺再摄取抑制剂（Selective Serotonin Reuptake Inhibitor，SSRI）可以帮助缓解重度抑郁症患者（Major Depressive Disorder，MDD）的抑郁症状，但是与症状缓解相关的大脑层级结构变化仍需进一步研究。

方法 本研究共招募 39 例健康被试（healthy controls，HCs）和 57 例经过 SSRI 治疗 12 周后达到缓解的 MDD 患者。MDD 患者在治疗前（pre-treatment）和治疗后 12 周（post-treatment）均进行了弥散张量成像（diffusion tensor imaging，DTI）扫描，所有健康被试在招募时也同样进行了 DTI 扫描。每个被试的大脑依据 Schaefer 模板进行脑区的划分，并进行纤维束追踪，将纤维束追踪结果与脑区划分结果进行结合，从而构建每个被试的大脑结构网络。组水平的梯度通过将流形算法分别应用到三组（治疗前组，治疗后组，健康组）的组平均结构连接网络上。然后将健康组的大脑梯度作为模板，计算每个患者治疗前后所有数据点距模板

中心的欧式距离，并将该距离定义为流形偏心率（Manifold Eccentricity，ME）。为了找到对 SSRI 治疗缓解具有显著贡献的脑区，我们采用偏最小二乘法（Partial Least Squares，PLS）回归方法来分析 ME 和 SSRI 治疗前后汉密尔顿抑郁量表（Hamilton Rating Scale for Depression，HAMD）缓解率之间的关系。

结果 在全局脑结构梯度来看，治疗前后大脑梯度从视觉层面看无显著的变化。PLS 回归算法得到了两个隐藏因子（latent components，LCs），可以用于描绘 ME 和 HAMD 缓解率之间的关系，其中，LC1（p=0.001，占 ME 和 HAMD 缓解率之间协方差的 67%），LC2（p=0.001，占协方差的 24%）。主梯度的 non-focal 脑区对 LC1 具有显著贡献，而主梯度的 focal 脑区对 LC2 有显著贡献。LC1 对预测 HAMD 因子-阻滞缓解较为敏感，而 LC2 对预测认知障碍缓解较为敏感。LC1 和 LC2 模式均主要分布于默认模式网络、额顶叶控制网络和躯体运动网络。

结论 我们从脑结构梯度的角度探索 SSRI 治疗后抑郁症患者大脑的神经生物学机制，为 SSRI 治疗后大脑变化提供了新视角。

关键字：抑郁症治疗 大脑梯度 偏最小二乘法 隐藏因子

双相伴快感缺失患者静息态低频振幅特征及其性别差异

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目的 功能神经影像学研究证明，奖赏环路的神经功能异常与单相抑郁的快感缺失症状密切相关。然而，双相障碍抑郁发作的患者伴快感缺失症状是否也存在类似的功能损伤尚不清楚。另外，临床前的研究表明，快感缺失症状的行为表现和神经机制具有性别差异。因此，本研究旨在探讨双相伴快感缺失症状患者的脑低频振幅（amplitude of low frequency fluctuation，ALFF）的性别差异。

方法 这项横断面研究招募自 2015 年到 2021 年南京医科大学附属脑科医院的重性抑郁障碍住院患者，符合美国精神障碍诊断与统计学手册第 4 版诊断标准。共纳入 263 名 18-50 岁之间的双相抑郁发作期患者，被分为高快感缺失组（n=174；男/女=77/97）和低快感缺失组（n=89；男/女=26/63），同时招募 213(男/女=93/120)名年龄、性别和教育程度匹配的健康对照。所有被试进行 3.0T 静息状态的功能磁共振扫描，计算全脑 ALFF 值。首先，将抑郁组与健康对照组的脑区 ALFF 值进行双样本 t 检验。随后，在差异脑区的基础上，通过双因素方差分析探索抑郁患者的两个不同因素（快感缺失症状和性别差异）的影响。

结果 本研究结果显示：与健康对照、低快感缺失症状的患者相比，伴高快感缺失的双相抑郁患者在双侧海马和右侧脑岛 ALFF 值增加（$p<0.05$，GRF 矫正）。快感缺失症状和性别在右脑岛和右海马有交互作用（$p<0.05$，GRF 矫正）。调节模型结果显示，只有男性患者中，快感缺失症状与上述脑区 ALFF 值相关，而在女性中这种相关性不存在。

结论 本研究结果表明，双相抑郁伴快感缺失症状的患者存在边缘奖赏环路相关脑区异常。伴快感缺失症状的双相男性患者在右侧脑岛和海马的脑局部神经活动具有更大的改变，提示功能偏侧化，且男性双相抑郁患者伴快感缺失症状是一种更为独特的亚型。

关键字：双相抑郁；快感缺失；功能磁共振；低频振幅；性别差异

抑郁症伴快感缺失症状患者性别差异的静息态低频振幅特征

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目的 既往临床前和临床的研究都发现抑郁症快感缺失症状存在性别差异，然而其背后的神经机制尚不明确。本研究利用低频振幅（amplitude of low frequency fluctuation，ALFF）指标，旨在探讨抑郁症伴快感缺失症状患者的脑局部神经活动特征是否存在性别差异。

方法 这项横断面研究招募自 2015 年到 2021 年南京医科大学附属脑科医院的重性抑郁障碍住院患者，符合美国精神障碍诊断与统计学手册第 4 版诊断标准。共纳入 414 名 18-50 岁之间的抑郁症患者，被分为高快感缺失组（n=281；男/女=136/145）和低快感缺失组（n=133；男/女=38/95）。同时招募 213 名(男/女=93/120)年龄、性别和教育程度匹配的健康对照。所有被试进行 3.0T 静息状态的功能磁共振扫描，计算全脑 ALFF 值。首先，将抑郁组与健康对照组的脑区 ALFF 值进行双样本 t 检验。随后，在差异脑区的基础上，通过双因素方差分析探索抑郁患者的两个不同因素（快感缺失症状和性别差异）的影响。除此之外，本研究对基线时伴有高快感缺失症状的患者进行了随访，其中 43 名患者在抑郁缓解期完成了第二次功能磁共振扫描，用配对 t 检验比较基线期和缓解期快感缺乏相关脑区 ALFF 值。

结果 本研究结果显示：与健康对照、低快感缺失症状的患者相比，伴高快感缺失症状患者在右侧梭状回、左侧海马、左侧额下回眶部、左侧颞下回的脑区 ALFF 值升高（$p<0.05$，GRF 矫正）。快感缺失症状和性别在双侧脑岛、右侧海马、左侧后扣带回、左侧壳核有交互作用（$p<0.05$，GRF 矫正）。调节模型结果显示，只有女性患者中，快感缺失症状与上述脑区 ALFF 值相关，而在男性中这种相关性不存在。此外，基线时伴高快感缺失症状的抑郁患者异常升高的 ALFF 值在

缓解期降低。

结论 本研究结果表明抑郁症伴快感缺失症状患者大脑功能活动模式在性别上存在差异，这可能对干预抑郁症患者的快感缺失症状具有临床意义。并且，快感缺失症状相关脑区异常 ALFF 值会随着抑郁症状的改善而趋向正常这一特征，或许提示快感缺失症状是抑郁症的状态性指标。在抑郁症研究中，将生理性别作为一个变量进行考虑，对于发现和开发对男性和女性都有效的药物疗法至关重要。

关键字：抑郁症；快感缺失；功能磁共振；低频振幅；性别差异

抑郁障碍患者 RORArs72752802 基因多态性与静息态脑功能磁共振成像的关联研究

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目的 探讨 RORA 基因多态性与抑郁障碍的交互作用对患者静息态脑功能的影响，为探究抑郁障碍患者静息态脑功能异常的遗传学基础。

方法 共收集到 297 例被试，其中抑郁障碍患者 187 例，110 名年龄和性别匹配的正常对照纳入研究。以上所有被试均完成静息态磁共振扫描，分析全脑低频振幅（amplitude of low frequency fluctuations，ALFF）值。采集被试静脉血，对 RORArs72752802 进行分型。运用 HAMD-24 评估患者疾病严重程度，探讨疾病主效应、基因型主效应和两者的交互效应下 ALFF 值差异，将差异脑区 ALFF 值与临床症状群严重程度进行相关分析。

结果 全脑低频振幅的全因子分析结果显示额中回存在显著的疾病和基因交互效应。研究发现右侧额中回 ALff 值在四组间方差分析中存在显出差异，最小显著差数分析表明，右侧额中回的 Alff 值在四组中程“U 型曲线”。具体的简单效应分析显示，携带 C 风险等位基因的抑郁障碍患者 ALFF 值显著高于携带风险等位基因的健康对照，而携带风险等位基因的健康对照 ALFF 值显著低于不携带的健康对照。疾病主效应分析结果显示患者组在眶部额上回、回直肌、左侧额中回以及中央后回的 ALFF 值显著大于对照组，而在楔前叶的 ALFF 值显著小于对照组。基因主效应分析结果显示携带 C 风险基因的受试者在颞上回的 ALFF 值显著大于非携带者。交互效应显著脑区的 ALFF 与疾病严重程度的相关性分析提取存在疾病和基因型交互作用显著的两个额中回脑区的 ALFF 值与患者疾病严重程度进行相关分析。相关性分析结果显示携带 C 风险等位基因的患者组中额中回 1 的 ALFF 值与疾病严重显著正相关（r=0.35，p< 0.0001）,而非携带风险等位基因的患者额中回 ALFF 值与疾病严重显著负相关（r=-0.28，p= 0.029）。额中回 2 的 ALFF 值与患者疾病严重程度相关性不显著。

结论 RORArs72752802 基因多态性与抑郁症的交互作用可能导致额中回局部自发神经活动存在异常，这种异常可能是部分症状群潜在的神经病理机制之一。

关键字：抑郁障碍 RORA 基因 静息态脑功能 低频振幅

右额下回岛盖部 beta 事件相关去同步化与抗抑郁早期疗效相关性的脑磁图研究

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目的 抑郁症患者存在认知功能受损，且认知功能损害对抑郁症的疗效及转归存在影响。反应抑制是执行功能的重要组成部分，且最近的研究表明，反应抑制缺陷也可能是抗抑郁药物治疗反应不良的基础。反应抑制是由右额下回发起的，由 beta 振荡实现，当大脑皮质层某区域收到动作指令或想象运动等刺激时，因被激活，此时该区域代谢加快，进行信息加工导致特定频段的脑电信号的振幅减低，这种电生理现象称为事件相关去同步化。本研究通过探讨抑制控制网络关键脑区右额下回岛盖部 beta 频段的 ERD，寻找抗抑郁治疗早期疗效相关的生物学指标。

方法 随机入组 46 例抑郁症患者及 25 例健康对照，基线期以及治疗 2 周后 ，所有被试完成 HAMD17 评分。在完成 Go/No-Go 实验范式下采集脑磁图数据。对原始数据进行预处理和源重建，脑区信号基于 AAL（Automated Anatomical Labeling）模板从源重建后的体素信号计算得到。提取 200-500ms 感兴趣脑区的 beta(13～30Hz)频段信号，ERD 通过时间-频率图除以基线状态来描述，计算基线期右额下回岛盖部 beta 频段的 ERD，以抗抑郁治疗 2 周后 HAMD17 总分减分率是否 50%为标准划分为早期疗效有效组和无效组。患者组和对照组两组间 ERD 的比较采用 ANOVA 分析，并和 HAMD17 两周减分率进行 Logistic 回归分析。

结果 与对照组相比，抑郁症组基线右额下回岛盖部 beta 频段的 ERD 减少。且与早期治疗有效组相比，无效组右额下回岛盖部事件相关去同步化程度更差（P<0.001）。右额下回岛盖部(r=-0.397, P=0.006) beta 频段 ERD 与 2 周后 HAMD17 减分率呈负相关。

结论 右额下回岛盖部 beta 频段的 ERD 降低与抗抑郁早期疗效不佳相关，该区域 beta 频段的活动强度可能是抑郁症早期疗效预测的生物学指标。

关键字：抑郁症 ；beta 能量 ； 疗效预测； 脑磁图；事件相关去同步化

基于脑磁图时空信息的深度学习模型在抑郁症识别中的应用研究

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目的 抑郁症是最常见的一种精神疾病，其核心特征是负性情绪偏向。我们希望借助深度学习，基于在负性情绪面孔刺激下的全通道脑磁图信号进行抑郁症识别，不仅能训练出高性能的分类模型，有助于进行客观的个体诊断，还能挖掘抑郁症患者的脑磁图信号中的异常时空信息，观察个体间的时空特征差异，有助于讨论抑郁症在脑磁图信号上的客观标记。

方法 我们招募了重度抑郁症患者和健康对照各43 名，基于他们在负性情绪面孔识别任务下的脑磁图信号设计并训练了一种结合了时空注意力机制的卷积神经网络模型，能使模型自适应地在时间维度和空间维度上分配注意力权重，让模型关注对抑郁症识别更为重要的时空区域，在提高分类性能的同时通过观察注意力权重分布图，获得抑郁症个体的关键时空区域。

结果 最终的模型在五折交叉验证下的平均分类准确率可达 86%。我们发现模型的注意力权重主要集中在情绪处理的早期阶段（刺激后 0～250 毫秒）的枕叶、颞叶区域，且在部分个体结果中发现前额叶区域也在早期阶段具有高权重。

结论 本文提出了一种具有高性能的时空注意力神经网络模型，证明了该方法应用于抑郁症识别的有效性。根据注意力权重的分布，发现了枕叶、颞叶、前额叶区域对脑磁图信号的抑郁症识别具有重要作用，提示这些空间区域可能与负性情绪处理密切相关，并在时间维度上展示出情绪处理早期阶段的显著重要性，这些结果与过往研究结论具有一定的一致性。本文还能从个体角度寻找抑郁症个体间的时空权重分布差异，为研究抑郁症患者的脑磁图个性化异常提供价值，并为抑郁症的个性化诊断与治疗提供方向。

关键字：脑磁图 抑郁症 深度学习 时空注意力机制

Altered Brain Region-specific Spectral Fingerprints in Depressive Disorder

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Background :Depression and rhythmic neural oscillations in the brain are closely related, but the underlying neuronal mechanisms are largely unknown. Previous MEG studies have mainly relied on the average power spectrum to study activity, but this approach ignores the temporal variation of the considered frequencies . Therefore, we investigated whether the spectral activity in these brain regions is specific , explored the changes in neural oscillatory activity from the region-specific spectrum in depressed patients.

Methods Resting-state magnetoencephalography (MEG) data were collected from 22 patients with depressive disorder(DP) , and 22 healthy controls (HC). Continuous resting state MEG data were preprocessed and segmented into trials of 1-s length. Complex Fourier spectra were computed for each trial separately and projected into source space . The data were spatially normalized, dividing each voxel's power by the mean power of all trials and voxels.. In the first-level analysis, power matrices were clustered into ten distinct spectral clusters per participant and brain region using k-means and GMM algorithms. In the second-level analysis, first-level individual clusters were again subjected to k-means clustering and GMMs to establish region-specific spectral clusters consistent at the group level.Second-level GM training models were created for all brain areas with data from half of the sample (group-level). Area-specific first-level GM test data from the remaining sample (subject-level) were then tested against each area-specific GM training model. The fit of each test set to each GM training model (determined through negative log-likelihood) was ranked. This was repeated 120 times, and the position of the correct area was averaged across iterations.

Results We analyzed resting-state MEG data and obtained specific spectra for 90 brain regions according to the AAL atlas, which in general consists of more than one spectrum for a single brain region. We give the corresponding durations of these frequency spectral patterns. The spectral characteristics differed between DP and HC individuals, and we performed a cross-group classification, drawing samples from HC as the training group and from DP as the test group. This analysis resulted in a mean rank of 8.1 (range = 2.03-26.34), which was higher than the mean rank within the HC group (mean rank=2.56, range = 1.03-21.18).

Conclusions Our findings show that the brain exhibits a characteristic and stable pattern of ongoing oscillatory activity. Whereas brain oscillations are altered in psychiatric disorders, this approach can be used to identify (region-specific) abnormalities associated with mental illness and further facilitate early diagnosis.

关键字： Resting-state magnetoencephalography; Spectral fingerprints; Depressive disorder;

双相抑郁发作患者睡眠时型偏向对冲动性的影响：一项探索性研究

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目的 双相情感障碍抑郁发作期间常伴有睡眠时

型的紊乱与冲动性的增强，然而，目前尚不清楚两者之间的关联性。本研究旨在探索双相抑郁患者睡眠时型对冲动性的影响。

方法 共招募双相抑郁发作患者99例及年龄和性别相匹配的健康对照 113 例。通过清晨夜晚型量表评估所有被试的睡眠时型偏向，Barratt 冲动量表评估其多维度冲动性。对双相抑郁发作患者，采用 17 项汉密尔顿抑郁量表（HAMD-17）评估其抑郁严重程度。采用协方差分析，评估双相抑郁发作患者与健康对照组间及双相抑郁发作患者不同维度冲动性差异。采用回归模型进行多变量分析，以评估睡眠时型对双相抑郁发作患者的冲动性的影响。

结果 双相抑郁发作患者在冲动性总分及运动冲动性、认知冲动性及无计划冲动性均显著高于健康对照（均 $p < 0.05$）。在控制年龄、性别及教育年限后，在双相抑郁组中，睡眠时型对冲动性总分（$R2 = 0.125$, $p = 0.001$）、认知性冲动（$R2 = 0.096$, $p = 0.025$）及无计划冲动（$R2 = 0.201$, $p < 0.001$）均有贡献。此外，在此基础上，控制了抑郁严重程度后，睡眠时型对冲动性总分（$R2 = 0.143$, $p = 0.001$）、认知性冲动（$R2 = 0.100$, $p = 0.025$）及无计划冲动（$R2 = 0.203$, $p < 0.001$）仍然存在显著贡献。

结论 我们的研究结果表明，双相抑郁发作患者各维度冲动性明显增强。睡眠时型的偏向性可能会影响双相抑郁患者的冲动性，偏向于较晚的睡眠时型对患者的认知冲动性及无计划冲动性均有贡献。值得注意的是，尽管控制了抑郁的严重程度，睡眠时型仍然对认知冲动性及无计划冲动性存在贡献。

关键字：双相抑郁发作 睡眠时型 认知冲动性 无计划冲动性

异常的自发神经元活动稳定性区分单双相抑郁发作

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目的 双相抑郁发作常被误诊为抑郁症，这可能会导致不恰当的治疗。 本研究旨在探索单双相抑郁发作期异同的自发神经元活动稳定性变化。

方法 招募于南京脑科医院住院治疗的双相抑郁发作患者 75 例，单相抑郁发作患者 157 例及年龄、性别相匹配的健康对照 132 例。以上所有被试均完成静息态磁共振扫描。采用滑动时间窗的方法，分析全脑低频振幅的动态波动性（dALFF）变化。以年龄、性别及教育年限作为协变量进行协方差分析及两两事后 T 检验，比较双相抑郁、单相抑郁及健康对照间的 dALFF。

结果 与健康对照相比，双相抑郁发作患者在左侧前运动皮层、右侧外侧颞叶和右侧早期听觉皮层表现出升高的 dALFF（$p < 0.05$），单相抑郁发作在左侧前运动皮层、左侧旁中央小叶和双侧内侧前额叶皮层、右侧眶额皮层、右侧背外侧前额叶皮层、右后扣带皮层表现 dALFF 降低（$p < 0.05$）和右侧外侧颞叶皮层表现 dALFF 升高（$p < 0.05$）。此外，与单相抑郁发作相比，双相抑郁发作在左侧前运动皮层、左侧旁中央小叶、双侧内侧前额叶皮层、双侧眶额皮层、右侧背外侧前额叶皮层、右侧后扣带皮层和右侧外侧颞叶皮层表现出升高的 dALFF（$p < 0.05$）。此外，基于差异脑区 dALFF 的 ROC 分析获得了 72.7%的曲线下面积（AUC）。

结论 我们的研究显示了双相抑郁发作与单相抑郁发作在 SMN、DMN 和 CEN 关键区域的共同的及特异的时间动态性异常。两种疾病之间差异的时间动力学异常模式有可能区分单双相抑郁发作。

关键字：双相抑郁发作 单相抑郁 自发神经元活动 动态低频振幅

盐城市双相障碍住院患者药物使用现状调查

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目的 为了解江苏省盐城市第四人民医院住院的双相障碍（bipolar disorder，BD）患者药物使用现状，同时评价其药物治疗是否符合《中国双相障碍防治指南（第二版）》（以下简称指南）的推荐，同时评估其副反应发生情况，以促进双相障碍治疗的规范化、合理化。

方法 本研究对 2016 年 1 月至 2019 年 12 月住院的所有 BD 患者进行回顾性调查分析，对人口学、药物使用、药物副反应方面、双相 I 型和 II 型患者抑郁发作期抗抑郁药是否使用及其不良反应数据汇总描述，认定符合指南首选推荐和次选推荐者为符合组、用药方案不符合指南首选推荐和次选推荐者为不符合组。使用 SPSS19.0 进行统计分析。

结果 最终纳入了 704 名 BD 患者，双相障碍的药物治疗以联合用药为主，单一用药仅占 7.24%（55/704）。躁狂发作药物治疗符合率 84.50%，双相障碍抑郁发作的治疗方案符合率 11.11%，其中双相 I 型障碍抑郁发作期药物治疗符合率 6.78%，双相 II 型障碍抑郁发作期药物治疗符合率 22.73%，双相 I 型障碍和双相 II 型障碍的抗抑郁药物使用无明显差异（$P>0.05$）。根据患者用药是否符合指南治疗推荐，进一步分析副反应情况，与指南符合组相比，不符合组在躁狂发作的心血管副反应发生高，差异存在统计学意义（$P<0.05$）；而在抑郁发作中血象异常现象存在统计学差异（$P<0.05$）。

结论 双相障碍躁狂发作期药物使用指南符合率比较高，未发现不良反应在各推荐方案中有明显差异。双相障碍抑郁发作期的药物使用指南符合率低，不良反应发生率高，且抗抑郁药物的使用在双相 I 型和 II 型患者抑郁发作期无差异。

关键字：双相障碍，住院患者，药物治疗，治疗指南

双相抑郁患者认知执行功能损害及其风险因素研究

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目的 认知障碍是双相情感障碍患者的主要症状群之一，也是其核心特征，被认为是其内表型。不论是疾病的发作期，还是缓解期都存在稳定和持久的认知功能损害。执行功能损害是其认知损害最重要的维度之一。我们假设双相情感障碍患者抑郁发作期存在广泛的认知执行功能及工作记忆损害，并研究其临床相关风险因素。

方法 共招募 250 名受试者，进行临床信息采集和神经认知评估，包括威斯康辛卡片分类测试（WCST）、连线测试-A（TMT-A）、连线测试-B（TMT-B）、数字符号转换测试（DSST）、言语流畅度测试（VFT）、数字广度测试?（DST）和画钟测验（CDT），排除不符合入组标准的受试者，最终纳入健康对照组 131 例、BD（双相抑郁）组 193 例受试者，统计社会人口学信息、临床资料、心理评估和神经认知评估结果的组间差异，并对其相关性进行统计分析，在相关分析的基础上进行线性回归分析。

结果 与对照组相比，BD 组患者 WCST 中试验总数（TA）、总错误数（TE）、持续性应答数（PR）、持续性错误数（PE）、非持续性错误数（NPE）因子分（p< 0.01）均表现较差，BD 组患者在连线测试-A（TMT-A），连线测试-B（TMT-B），数字符号替换测试（DSST），画钟测验（CDT）和数字向后的数字广度测试（DB）中评分较低（p< 0.01），表明其执行功能、工作记忆等方面存在广泛的缺陷。相关分析的结果表明认知执行功能损害和工作记忆受损的相关影响因素主要是年龄和受教育程度（p< 0.001），这也是其风险因素。

结论 双相情感障碍患者抑郁发作期存在显著的认知执行功能及工作记忆损害，在处理速度、注意力等维度损害同样显著，其年龄和受教育程度不仅是其相关因素也是风险因素。

关键字：双相情感障碍，缓解期，执行功能，工作记忆

双相抑郁患者认知功能损害的 beta 神经振荡研究

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目的 认知功能损害是双相情感障碍患者的主要症状群之一，其主要维度包括执行功能，处理速度，注意力和记忆力。不论是其疾病的发作期，还是缓解期都存在稳定和持久的认知功能损害，目前，双相抑郁患者的认知功能损害的神经病理学机制尚未完全阐明。我们采用静息态脑磁图（MEG）来研究双相情感障碍患者的认知功能损害的神经电生理基础。我们假设双相情感障碍患者抑郁发作期存在广泛的认知功能多维度损害，额叶区域的 beta 神经振荡代偿性增高，并与其认知执行功能损害密切相关。

方法 共招募 120 名受试者，排除不符合入组标准，临床信息采集，神经认知评估不完整及未能完成静息态 MEG 数据采集的受试者，最终纳入健康对照组 52 例、双相情感障碍（BD）组 55 例受试者，统计社会人口学信息、临床资料、临床心理评估和认知功能数据的组间差异，并对其相关性进行统计分析。对 MEG 采集的静息态数据进行时频分析各组的信道水平能量密度，进行非参数聚类检验，对认知功能评分各因子和神经振荡进行相关分析，并将信道水平有统计学差异的 beta 能量密度进行源水平分析。

结果 BD 组患者威斯康星卡片分类测试（WCST）结果与健康对照组相比，试验总数（TA）、总错误数（TE）、持续性应答数（PR）、持续性错误数（PE）、非持续性错误数（NPE）五个因子分（p< 0.001）都表现较低。与对照组相比，BD 组连线测试-A（TMT-A）（p< 0.0001），连线测试-B（TMT-B）（p= 0.003）， 数字符号替换测试（DSST）（p< 0.0001），言语流畅性测验（VFT）（p= 0.006），画钟测验（CDT）（p= 0.001），数字向前的数字广度测试（DB）（p< 0.0001）表现较差。与对照相比，BD 组额中央 beta 能量显著增加（t= 4.13, p< 0.0001），对照组相比，源重建的水平记过表明 BD 组在 beta 频段 t 检验统计学差异显著增高（t= 2.639，p< 0.01）有差异的区域主要包括：额下回、楔前叶、缘上回、中央前回、中央后回、辅助运动区等。

结论 双相情感障碍抑郁发作期患者存在显著而广泛的的神经认知功能损害，其维度包括执行功能、工作记忆、处理速度、注意力、记忆力，静息态额下回、楔前叶等区域的 beta 频段神经振荡代偿性增高可能是其认知损害的神经病理学基础。

关键字：双相情感障碍，认知功能，脑磁图，beta 振荡

Does Rumination Mediate The Relationship between Sleep Quality and Depression in Both Patients with Major Depressive Episode and Healthy People: An Exploratory Study

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Background : Although majority of previous studies have demonstrated that rumination or its sub-factors mediate the relationship between sleep disorders and depressive symptoms, they focused on healthy individual instead of patients diagnosed with major depressive episode.

Objective The current study aims to exploratively examine the potential mediating role of symptom rumination, brooding, and reflective pondering in the relationship between sleep quality and depressive symptoms in both patients with major depressive episodes (MDE) and healthy subjects.

Methods A total eighty-three patients and one hundred heathy individuals were enrolled for the study. Eight patients were excluded due to the change in diagnosis after discharge, and three patients dropped out during the data collection. The sample size was determined through an internal pilot study, which suggesting a minimum of 82/247/374 patients and 85/81/76 participants were required to achieve a statistical power of 0.8 for each factor. Participants completed self-reported questionnaire including the Beck Depression Inventory (BDI), the Pittsburgh Sleep Quality Index (PSQI), the Ruminative Response Scale (RRS). Independent sample t-tests and the analysis of covariance (ANCOVA) were conducted to examine the differences in demographic characters and questionnaires scores between two groups correspondingly. Simple mediation analyses were performed using PROCESS Version 4.2, with the PSQI score as the independent variable and BDI score as the dependent variable.

Results Significant differences were observed in education (14.53±2.20/ 15.31±1.44, $t = -3.919$, $p < 0.001$), BDI (19.84±2.48/ 20.96±2.49, $t = -2.929$, $p = 0.004$) for demographical data. Compared to healthy controls, depressive group exhibited significantly higher scores on all questionnaire ($p<0.001$). In the MDE group, symptom rumination (indirect effect/standard error/95% confidential interval, 0.33/ 0.16/ [0.051, 0.668]) were identified as significant mediators in the association between sleep quality and depression, but not the brooding (0.12/ 0.10/ [- 0.044, 0.334]) and reflective pondering (0.0003/ 0.07/ [-0.127, 0.158]). However, in healthy group, symptom rumination (0.50/ 0.17/ [0.146, 0.799]), brooding (0.50/ 0.13/ [0.211, 0.720]), and reflective pondering (0.25/ 0.11/ [0.046, 0.491]) significantly mediate the relationship between sleep quality and depressive symptoms.

Conclusions Our results are consistent with previous studies indicating rumination mediates the relationship between sleep quality and depression in healthy individual. Nonetheless, in the patient group, only symptom rumination emerged as a significant mediator. One possible explanation for this discrepancy is the low statistical power, which might which might have hindered the detection of significant mediating effects.

关键字：Major depressive disorders, sleep disorders, rumination, brooding, reflection.

反应抑制相关的神经振荡模式是区分单相和双相抑郁症的可靠早期识别标志物

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目的 反应抑制损害是导致双相抑郁和单相抑郁冲动的关键认知因素。然而，在心境障碍中，反应抑制损害背后的神经机制尚不清楚。在这里，我们利用脑磁图的高时间分辨率，探讨与反应抑制损害相关的神经环路改变在双相抑郁和单相抑郁中的共性和差异，以及振荡特征是否可以作为双相抑郁的早期生物标志物。

方法 39 例双相抑郁患者、36 例单相抑郁患者、29 例最初被严格诊断为单相抑郁并在随访中转变为双相抑郁的患者和 36 名健康对照完成了 GO/NO-GO 任务下的脑磁图扫描。对脑磁图数据进行了时频分析和连通性分析。此外，我们使用振荡特征作为输入进行机器学习(线性判别分析、Logistic 回归、线性支持向量机、核支持向量机和朴素贝叶斯)，以探索在临床早期识别双相和单相抑郁的可能性。

结果 与健康对照组相比，心境障碍患者的右额下回到前辅助运动区的连接强度降低，右额下回的激活延迟。在患者中，双相患者的 beta 能量低于单相患者，峰值频率高于单相患者。运动冲动性评分与右额下回 beta 激活能量和潜伏期、右额下回与前辅助运动区的功能连接强度有关。这些大脑功能改变特征使双相和单相之间的分类准确率达到约 80%。

结论 前额叶控制网络效率低下是心境障碍反应抑制损害的共同机制，而右额下回的异常活动在双相中更为明显。我们的研究结果表明，反应抑制期间的神经反应可以作为双相早期诊断的生物标志物。

关键字：脑磁图；双相情感障碍；抑郁症；早期识别；格兰杰因果模型

State-trait Anxiety and Perceived Stress As Mediators of Relationship between Sleep Quality and Depressive Symptoms in Patients with Major Depressive Episode and Healthy Individuals

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Background Patients diagnosed with major depressive episode (MDE) exhibit higher levels of anxiety symptoms and perceived stress. Previous research has identified sleep disorders as a risk factor for MDE. In light of the strong correlation between state-trait anxiety, perceived stress, sleep disruption, and depressive symptoms,

it is essential to investigate the potential psychological mechanism involved.

Objective The current study aims to examine whether state-trait anxiety and perceived stress mediate the correlation between sleep quality and depressive symptoms in both patients with MDE and healthy subjects, respectively.

Methods A total eighty-three patients and one hundred heathy individuals were enrolled for the study. Eight patients were excluded due to the change in diagnosis after discharge, and three patients dropped out during the data collection. The sample size was determined through an internal pilot study, which suggesting a minimum of sixty patients and ninety-six healthy subjects were required to achieve a statistical power of 0.8. Participants completed self-reported questionnaire including the Beck Depression Inventory (BDI), the Pittsburgh Sleep Quality Index (PSQI), the State-Trait Anxiety (STAI), and the Perceived Stress Scale (PSS). Independent sample t-tests and the analysis of covariance (ANCOVA) were conducted to examine the differences in demographic characters and questionnaires scores between two groups correspondingly. Simple mediation analyses were performed using PROCESS Version 4.2, with the PSQI score as the independent variable and BDI score as the dependent variable. Additionally, education year, body mass index (BMI), and medication load index (MLI) were involved in the model as covariances.

Results Significant differences were observed in education (14.53±2.20/ 15.31±1.44, t = -3.919, p < 0.001), BDI (19.84±2.48/ 20.96±2.49, t = -2.929, p = 0.004) for demographical data. Compared to healthy controls, depressive group exhibited significantly higher scores on all questionnaire (p<0.001). State anxiety (indirect effect/standard error/95% confidential interval, 0.50/ 0.21/ [0.113, 0.941]), trait anxiety (0.56/ 0.20/ [0.200,0.962]), and perceived stress (0.71/ 0.26/ [0.149, 0.401[) were identified as significant mediators in the association between sleep quality and depression for the MDE group. Similarly, in healthy group, state anxiety (0.59/ 0.23/ [0.138, 1.030]), trait anxiety (0.42/ 0.22/ [0.007, 0.842]), and perceived stress (0.49/ 0.12/ [0.241, 0.709]) significantly mediate the relationship between sleep quality and depressive symptoms.

Conclusions Findings from our mediation analyses confirm the mediating roles of state-trait anxiety and perceived stress in relationship between sleep quality and depressive symptoms. moreover, these influences were observed in both patient with MDE and healthy individuals.

关键字：Major depressive disorders, sleep disorders, state anxiety, trait anxiety, perceived stress.

基于 LDA 模型的双相情感障碍患者自杀风险预测研究

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目的 自杀是全球十大死亡原因之一，目前每年有超过 70 万人死于自杀。其中，双相情感障碍(BD) 是自杀行为发生率最高的情感障碍疾病，BD 患者的自杀风险是一般人群的 20-30 倍。在双相情感障碍患者中普遍存在的自杀问题及其造成的严重负担使我们迫切需要开发不依赖患者自我报告的客观自杀风险标志物，旨在构建更好的智能模型来预测 BD 患者的自杀风险。

方法 本研究招募了 123 例 BD 患者（其中 61 例有自杀未遂史(SAs)，62 例无自杀未遂史(NSAs)），并招募了 68 例健康人作为健康对照组(HEs)。在本研究中，我们利用 LDA 模型将静息状态下的功能连接(RSFC) 分解为多个高连接和低连接模式，以探索 BD 患者中与自杀风险相关的静息态功能连接异常模式。LDA 模型的优势在于其能够量化体现每个样本个体的独特特征，故根据模型对于患者在多个不同潜在因子维度上个体异质性的量化结果，对潜在因子与自杀风险间的相关关系进行分析，检验自杀相关因子的自杀风险预测能力。

结果 建模分析得出了三个具有可分离的全脑高/低 RSFC 模式的因子。SAs 与 NSAs 因子分布的显著差异反映了其中一个以默认模式网络高连通性为特征的因子及其相应的异常 RSFC 模式与高自杀风险相关，而另一个以突显网络及中央执行网络内的高连通性为特征的因子与相对低的自杀风险相关。随后将受试者们在这两个自杀相关因子维度上的表达情况与护士用自杀风险综合评定量表(NGASR) 进行相关分析，证实了以默认模式网络高连通性为特征的因子具有较强的自杀风险预测潜力(r = 0.4180, p < 0.0001)。

结论 本研究提供了一个能够反映自杀相关脑网络异常连接模式的自杀相关风险因子，并挖掘了自杀风险相关脑机制，有望为临床决策和对自杀高危个体的及时筛查和干预提供支持。

关键字：自杀风险，双相情感障碍，功能磁共振成像，LDA 模型

Bidirectional Mendelian Randomisation Analysis of The Relationship between Psychiatric Disorders and Frailty

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Objective In observational studies, frailty has been strongly associated with mental illness. However, whether the observed associations reflect a causal relationship needs to be clarified. We conducted two-way Mendelian randomization (MR) study to assess the causal relationship

between frailty, as measured by the frailty index (FI), and ten common psychiatric disorders(Schizophrenia, SCZ; Major Depressive Disorder, MDD; Bipolar Disorder, BD; Insomnia, ISN; Obsessive Compulsive Disorder, OCD; Anxiety Disorders, AD; Autism Spectrum Disorder, ASD; Anorexia Nervosa, AN; Mental and behavioral disorders due to opioids, MBDO; Mental and behavioral disorders due to use of other stimulants, including caffeine, MBDS).

Methods Mendelian randomization (MR) was developed on the premise of three assumptions. First, SNPs designated as instrumental variables (IVs) should be extremely connected to exposure. Second, SNPs selected as IVs are required to be independent of confounders. Third, rather than being directly correlated, IVs and RS (outcome) only have a relationship through reproductive variables (exposure).Individuals of European ancestry such as FI (N=175,226) , SCZ (N=320,404), MDD(N=480,359), BD(N=337,199), ISN(N=462,341), OCD(N=33,925), AD(N=463,010), ASD(N=46,351), AN(N=14,477), MBDO(N=215,650), and MBDS (N=215,570) were extracted. Independent genetic variants associated with each phenotype at the genome-wide significance level were used as instruments. Two-sample MR analyses were performed mainly using inverse variance weighting followed by various sensitivity and validation analyses.

Results Genetically predicted increases in SCZ(β = 0.0191, 95% confidence interval [CI] 0.0052–0.0330) and MDD(β = 0.1671, 95% CI 0.1087–0.2255) risk were significantly associated with higher FI. No causal links were identified between genetically predicted BD, ISN, OCD, AD， ASD，AN， MBDO，MBDS risk, and FI. Unfortunately, 10 common psychiatric disorders with FI in the gene for causality prediction were not found in the reverse direction analysis. Additionally, genetic predictions of causal associations of ten common psychiatric disorders with FI were not found in the reverse direction analysis. In sensitivity and validation analyses, the results of the study confirmed stabilization.

Conclusion Our study strengthens the evidence for a causal relationship between two severe psychiatric disorders(SCZ and MDD) and frailty. Further understanding of the pathological mechanisms underlying this association will be crucial to optimize care in psychiatric patients.

关键字：psychiatric disorders, frailty, Mendelian randomisation, causality

真实世界边缘型人格障碍 9 年药物治疗状况及其相关因素研究

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目的 开展真实世界BPD住院患者药物治疗状况及其相关因素的回顾性研究，为药物治疗边缘型人格障碍（borderline personality disorder, BPD）提供新参考。

方法 从电子病例中调取 2013 年~2022 年入院 BPD 住院患者人口学和病史资料，描述性分析患者出院时精神科药物治疗情况，采用无序多分类 Logistic 回归分析精神科药物不同联用处方的相关因素。

结果 入组患者 270 例，出院时均保留至少一种精神科药物，96.3%为联合用药。抗精神病药（93.3%）和心境稳定剂（73.3%）列前两位，联用也最多（26.7%），抗抑郁药（55.6%）列第三，镇静催眠药或抗焦虑药（35.9%）最少。不同联用处方的独立相关因素有：共病心境障碍，住院前自杀/自伤史，住院天数。与无共病者比较，共病双相情感障碍/躁狂发作和持续性心境障碍/未特定的心境障碍者均更可能使用抗精神病药和心境稳定剂二药联用（各有 OR 值=0.073， 0.068；OR 值的 95%CI=0.008~0.686， 0.007~0.670）；共病抑郁发作/复发性抑郁障碍者更可能使用除抗精神病药和心境稳定剂二药联用以外的其他组合（各有 OR 值=10.109，5.157， 6.985 ； OR 值的 95%CI=2.655~38.495 ，1.200~22.173，1.421~34.347）。与无自杀/自伤史者比较，有自杀/自伤史者均更可能使用抗精神病药和心境稳定剂为基础的三或四种药物联用（各有 OR 值=4.846，3.250；OR 值的 95%CI=1.758~13.361，1.203~8.779），而使用锐器或锐器合并其他方式自杀/自伤者还更可能使用其他药物组合或单药治疗（OR 值=6.129，OR 值的 95%CI=1.529~24.574）。住院天数多者更可能使用抗精神病药和心境稳定剂为基础的三或四种药物联用，和其他组合或单药治疗（各有 OR 值=1.015，1.019；OR 值的 95%CI=1.005~1.025，1.007~1.031）。以上均有 $P<0.05$。

结论 以更高的药物处方率验证真实世界BPD药物治疗比大多数临床指南推荐更加普遍的既往研究结论，进一步确认常用药物种类和首次着眼于不同联用处方的相关因素，与既往研究结果差异原因可能有研究对象是跨较长时段内入院的住院患者，以及中西方不同的社会文化因素所致不同的共病。

关键字：边缘型人格障碍，回顾性观察研究，药物治疗，共病。

自杀未遂抑郁障碍患者临床特征相关研究

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目的 根据世界卫生组织数据统计显示，全球每年死于自杀的人数平均超过 80 万人次，抑郁障碍已经位居世界疾病负担的第二名，接近四分之一抑郁障碍患者死于自杀。探讨抑郁障碍患者自杀的相关因素是预防自杀工作的关键，本研究旨在分析抑郁障碍住院患者临床样本资料，探究自杀未遂患者外周血特征，以期为早期识别、干预抑郁障碍患者自杀行为提供部分依据。

方法 收集南京脑科医院精神科诊断为抑郁障碍的住院患者 998 例，根据汉密尔顿抑郁量表第三项自杀条目评估患者本次抑郁发作的自杀意念，根据得分

将患者分为三组，其中 0 分被评定为无自杀意念组(NSI 组，n=347 人)；1～3 分意为过去 1 周内有不同程度的自杀意念，但无自杀未遂史，设为自杀意念组(SI 组，n=584 人)；4 分被评定为自杀未遂组(SA 组，n=67 人)。比较三组间一般资料及外周血临床资料的差异。

结果 三组间在年龄（$\chi 2$=7.05，P=0.001）、抑郁量表得分（F=92.55，P=0.001），抑郁量表得分（F=92.55，P=0.001）、白细胞计数(F=7.46，P=0.001)及免疫球蛋白 G (F=4.37，P=0.010)指标存在差异，事后检验提示 SA 组年龄、甲状腺激素水平、免疫球蛋白 G 水平均低于 NSI、SI 组，SA 白细胞计数水平高于 NSI、SI 组，SI 组汉密尔顿抑郁量表得分高于 NSI、SA 组。

结论 住院自杀未遂抑郁障碍患者年龄偏小可能与其冲动性相关，此外，自杀未遂患者白细胞水平略偏高，免疫球蛋白 G 水平略偏低，可能与其免疫水平相关。

关键字：抑郁障碍，自杀未遂，自杀意念，免疫球蛋白

Patterns of Mood Stabilizers Prescriptions in Psychiatric Patients in China: A National Survey

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Objective To investigate the patterns and correlates of mood stabilizers among recently discharged inpatients with bipolar disorder in China.

Methods The study included discharged patients from 41 tertiary psychiatric hospitals in 29 provinces between March 19–30, 2019. A total of 439 inpatients with schizophrenia were included. Socio-demographic and clinical data were retrieved from medical records upon discharge.

Results The utilization rates of the top three mood stabilizers in patients with bipolar disorders were: lithium carbonate (23.0 %, 101/439), magnesium valproate (22.8 %, 100/439), sodium valproate (22.8%, 100/439). 13.4% patients with bipolar disorder were treated with more than two kinds of mood stabilizers.There were significant differences between groups taking mood stabilizers and those not taking mood stabilizers in terms of educational background, involuntary admission, restrained during hospitalization, agitation, and use of antipsychotics or antidepressants. Interestingly, there were 16.9 % (74/439) patients with bipolar disorders not taking mood stabilizers, mightily due to 81.1 % (60/74) of these patients were taking antipsychotics. 77.9 % (342/439) patients with bipolar disorder treated with mood stabilizers and antipsychotics, 13.7 % (60/439) patients only treated with antipsychotics and 5.2 % (23/439) patients only treated with mood stabilizers. 3.2 % (14/439) patients with bipolar disorder did not prescribe with mood stabilizers or antipsychotics neither.The binary logistic regression shown that patients with bipolar disorders who were treated in East, Central or West China, taking less antidepressants or more antipsychotics were significantly correlated factors on mood stabilizers prescription

Conclusion Mood stabilizers in China is common on inpatients settings. The proportion of mood stabilizers in China is higher than in many other countries, despite limited data to support the efficacy of many combinations.

关键字：bipolar disorder；mood stabilizers；China

首诊未用药精神分裂症及双相情感障碍患者低骨量及骨质疏松的风险比较

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目的 越来越多的数据表明精神分裂症（SCZ）和双相情感障碍（BD）具有显著的代谢风险，但很少有研究关注骨代谢。本研究的目的是联合评估比较 SCZ、BD 患者低骨量和骨质疏松症的患病率及其相关影响因素。

方法 采用双能 X 射线吸收法测定首诊未用药的 SCZ 患者（n=56）、BD 患者（n=130）和 108 名健康志愿者的腰椎（L1–L4）和左髋（Neck/Troch/Ward's）骨密度（BMD）。此外，我们还测定了各组的骨转换标志物（BTMs），包括I型前胶原 N 末端前肽（PINP）、骨钙素（OC）和I型胶原 C 末端交联末端肽（CTX-I）。同时，收集了受试者的人口统计学和临床特征。

结果 本研究发现，与健康对照组相比，SCZ 和 BD 患者的 BMD 在多个部位显著较低，低骨量和骨质疏松症的发生率显著较高。在主要观察区域全腰椎（F=18.368，p＜0.001）和全左髋（F=14.790，p＜001）SCZ 和 BD 患者的 BMD 均显著低于健康对照组，SCZ 组低于 BD 组。SCZ 组和 BD 组 OC（H=11.421，p＝0.003）水平显著高于健康对照组。二元回归分析显示呗诊断为 SCZ 或 BD 是低骨量和骨质疏松症的独立危险因素。此外，性别、年龄和 BTM 也会影响低骨量和骨质疏松症的发生。

结论 本文的研究结果有助于我们理解 SCZ 和 BD 的骨代谢风险增加。

关键字：双相情感障碍，精神分裂症，骨密度，骨转换生化指标，骨质疏松

IHMT 与 MT 技术检测双相障碍大脑白质髓鞘微结构改变的对比评价研究

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目的 非均匀磁化传递（inhomogeneous magnetization transfer, IHMT）是磁化传递（magnetization transfer, MT）技术的延伸。 IHMT 技术根据组织偶极级弛豫时间（T1D）的不同，采用选择性饱和滤波技术将组织中唯一具有长 T1D 的髓磷脂结构进行成像，从而实现高选择性高特异性的髓鞘成像。本研究旨在对比探究二者在双相障碍（bipolar disorder, BD）患者大脑白质髓鞘微结构改变中的应用价值。

方法 纳入根据美国《精神障碍诊断与统计手册（第五版）》诊断标准诊断的 BD 患者 31 例（男 8 例，女 23 例；年龄 26.6±7.8 岁）以及健康志愿者 42 例（男 12 例，女 30 例；年龄 29.5±8.1 岁）。采用 3.0 T 磁共振扫描仪（Discovery MR750, GE, USA）采集各个被试的大脑 3D T1 结构像及 IHMT 序列图像，排除颅脑外伤史及大脑肿瘤、血管畸形等器质性病变者，经过后处理得到各个被试大脑白质纤维束的 2 个 IHMT 参数，即定量 IHMT（quantitative IHMT, qIHMT）及 IHMT 比率（IHMT ratio, IHMTR）值，以及 2 个 MT 参数，即定量 MT（qMT）及 MT 比率（MTR）值。采用双样本 t 检验比较两组被试之间 IHMT 及 MT 参数值的差异，并采用受试者工作特征曲线（ROC）分析评估这些参数在鉴别两组被试白质髓鞘中的显著性水平。

结果 双样本 t 检验结果显示：BD 组胼胝体膝部及体部、左侧内囊前肢、左侧前放射冠及扣带回的 IHMT 参数值比健康对照组明显降低（FDR 校正，$p<0.05$）；BD 组扣带回的 MT 参数比健康对照组明显降低（FDR 校正，$p<0.05$）。ROC 曲线分析结果显示：qIHMT 的曲线下面积（AUC）为 0.866，对应的敏感度及特异度分别为 100%和 67.7%；IHMTR 的 AUC 为 0.899，对应的敏感度及特异度分别为 85.7%和 87.1%；qMT 的 AUC 为 0.746，对应的敏感度及特异度分别为 100%和 41.9%；MTR 的 AUC 为 0.773，对应的敏感度及特异度分别为 95.2%和 51.6%。

结论 BD 患者脑内白质区域髓鞘微结构存在 IHMT 和 MT 成像可检测到的显著异常。与 MT 相比，IHMT 参数检测的白质髓鞘微结构变化范围更广，特异性更高。

关键字：磁化传递，双相障碍，白质，髓鞘，磁共振成像

Correlation between Elevated Serum Interleukin-1β，interleukin-16 Levels and Psychiatric Symptoms in Patients with Schizophrenia at Different Stages

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Background There is increasing evidence that immune dysfunction plays an important role in the pathogenesis of schizophrenia. Meso Scale Discovery (MSD) is bioanalytical method, which can detect serum inflammatory factors in patients.The present study was aimed to explore the correlation between the levels of serum inflammatory factors and psychiatric symptoms in patients with schizophrenia at different stages and investigate a wide panel of inflammatory factors as independent factors for the pathogenesis of schizophrenia.

Methods We recruited 116 participants, including patients with first-episode schizophrenia (FEG, n=40), recurrence patients (REG, n=40) with relapse-episode schizophrenia, and a control group (healthy people, HP, n=36). Patients are diagnosed according to the DSM -V. The plasma levels of IFN-γ, IL-10, IL-1β, IL-2, IL-6, TNF-α, CRP, VEGF, IL-15, and IL-16 were tested by the MSD technique. Patient-related data was collected, including sociodemographic data, positive and negative symptom scale (PANSS), and brief psychiatric rating scale (BPRS) and subscale scores.

Results There were significant differences in serum IL-1β (F=2.37, P=0.014) and IL-16 (F=4.40, P<0.001) levels among the three groups. The level of serum IL-1β in the first-episode group was significantly higher than in the recurrence group (F=0.87, P=0.021) and control group (F=2.03, P=0.013), but there was no significant difference between the recurrence group and control group (F=1.65, P=0.806). The serum IL-16 levels in the first-episode group (F=1.18, P<0.001) and the recurrence group (F=0.83, P<0.001) were significantly higher than in the control group, and there was no significant difference between the first-episode group and the recurrence group (F=1.65, P=0.61). Serum IL-1β was negatively correlated with the general psychopathological score (GPS) of PANSS (R=-0.353, P=0.026). In the recurrence group, serum IL-16 was positively correlated with the negative score (NEG) of the PANSS scale (R=0.335, P=0.035) and negatively correlated with the composite score (COM) (R=-0.329, P=0.038). In the study, IL-16 levels were an independent variable of the onset of schizophrenia both in the first-episode (OR=1.034, P=0.002) and recurrence groups (OR=1.049, P=0.003). ROC curve analysis showed that the areas under IL-16(FEG) and IL-16(REG) curves were 0.883 (95%CI:0.794-0.942) and 0.887 (95%CI:0.801-0.950).

Conclusions Serum IL-1β and IL-16 levels were different between patients with schizophrenia and healthy people. Serum IL-1β levels in first-episode schizophrenia and serum IL-16 levels in relapsing schizophrenia were correlated with the parts of psychiatric symptoms. The IL-16 level may be an independent factor associating with the onset of schizophrenia.

关键字：Schizophrenia, Interleukin-1β, Interleukin-16, Meso Scale Discovery, psychiatric symptoms

奖赏环路静息态功能连接特征在鉴别转相前双相障碍与单相抑郁中的价值

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目的 回顾性比较单相抑郁症(UD)和躁狂发作前双相抑郁(tBD)奖赏环路中的静息态功能连接，探究双相障碍(BD)早期识别的奖赏环路静息态功能连接特征。

方法 66 名抑郁症患者入组，他们在基线之前从未经历过躁狂/轻躁发作，根据随访中是否存在躁狂/轻躁狂，将所有患者回顾性分为两组(33 例 tBD 和 33 例 UD)。同时，还招募了 40 名匹配的健康对照(HC)。受试者在基线接受静息状态 fMRI 扫描获得影像数据，计算各组奖赏环路兴趣脑区间的静息态功能连接，用患者组间存在差异的 rsFC 值鉴别 tBD 与 UD 中的准确性，进行了 receiver operating characteristics (ROC)分析，利用 SPSS 软件可以得到曲线下的面积(AUC)，同时，计算敏感性、特异性和优势比三个统计量，以评估诊断效率。。

结果 tBD 组左腹侧被盖区(VTA)和左腹侧纹状体(VS)之间的 rsFC 较 UD 组降低，根据 ROC 分析，预测诊断 tBD 具有较好的准确性。两组患者奖赏回路内 rsFC 无显著差异。

结论 研究结果表明，在躁狂/轻躁发作前的双相障碍的早期抑郁阶段，双相情感障碍在静息状态时 VTA-VS 功能同步性的奖赏回路上已经与单极抑郁有所不同，可能是早期鉴别的影像标记。

关键字：双相障碍、抑郁症、奖赏环路、静息态功能连接、

Associations between Resting-state Functional Network Centrality and Cognitive Impairment in Unmedicated, Euthymic Bipolar Patients

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Objective Cognitive impairment is prevalent in bipolar disorder (BD), and has negative impacts on functional impairments and quality of life, despite euthymic states in most individuals. The underlying neurobiological basis of cognitive impairment in BD is still unclear.

Methods To further explore potential connectivity abnormalities and their associations with cognitive impairment, we conducted a degree centrality（DC）analysis and DC (seed)-based functional connectivity (FC) approach in unmedicated, euthymic individuals with BD. Our study included 34 euthymic BD patients and 35 healthy controls (HC) matched for age, gender and education years.

Results We found extensive DC changes in brain activity, with lower DC values in the left medial frontal gyrus, inferior frontal gyrus, and middle frontal gyrus, and increased DC values in the left insula, bilateral precentral gyrus, and right medial frontal gyrus in BD patients compared to HC. Furthermore, we observed positive or negative correlations between DC values of the inferior frontal gyrus, insula_L, precentral gyrus (L), precentral gyrus (R), and medial frontal gyrus and multiple-domain cognitive assessment scores. Additionally, we identified intra-network and internetwork functional connectivity alterations in the default mode network (DMN), fronto-parietal network (FPN), and fronto-insular network (FRN) in euthymic BD patients compared to HC.

Conclusion Our findings highlight abnormal neuronal networks involving multiple frontal brain regions and thalamus, which may contribute to cognitive deficits in individuals with euthymic BD. These findings may serve as potential hallmarks of BD, contributing to a better understanding of the neural mechanism of cognitive impairment during euthymia.

关键字：bipolar disorder;Resting-state functional magnetic resonance imaging;Degree centrality

Metabolites Alterations in The Medial Prefrontal Cortex Following 6 Months of Medication Treatment in Bipolar Disorder Patients：A 1H MRS Study

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Objective Medial prefrontal cortex (mPFC) plays a key role in the regulation of mood and aberrant structure or function in mPFC have been identified in bipolar disorder (BD). Although MRS studies on neuro-metabolism of mPFC have been performed extensively, no study has evaluated longitudinal clinical outcomes between acute and euthymic states of BD patients with both mania and depression associated with 1H-MRS metabolic changes. This study aimed to longitudinally assess brain metabolites difference of mPFC between acute- and euthymic-episode of BD depression and mania with 6-month medication treatment.

Methods Fifty-three BD patient (32 in depressive episode and 21 in manic episode) and 34 HC, matched for age and gender, were enrolled in this study. After 6 months of treatment, 40 (22 from depression group, 18 from mania group) out of 53 completed the follow-up scan. All subjects were submitted to a 3-Tesla brain 1H-MRS scan at baseline and month 6.

Results Both depressed and manic patients showed significant decreased NAA/PCr+Cr ratios (mean = 0.96 vs. 1.10, p = 0.004; mean = 0.95 vs. 1.10, p = 0.006) in baseline, Compared with HCs. In 6-month follow-up, manic group showed significant decline in Gln/Cr+PCr (t=2.45, P=0.03) compared with acute-episode. No significant alterations was found in depressed group between baseline and follow-up.

Conclusion Acute-episode of BD mania and depression is associated with decreased NAA/Cr+PCr ratio. Gln/Cr+PCr ratio may be a key identification between manic episode and depressive episode of BD. Taken together, this study implicates NAA and Gln abnormalities in mPFC are a prominent feature of dynamic evolution of BD.

关键字：Bipolar disorder; proton magnetic resonance spectroscopy; Medial prefrontal cortex; depression; mania; euthymia; N- acetyl aspartate; Glutamine;

单双相抑郁障碍不同的代谢组学特征

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目的 抑郁症（MDD）和双相情感障碍（BD）是最常见的情绪障碍。两者病因不同，但在抑郁发作期临床表现相似，容易误诊。因此开发两者的特异性生物标志物对于 MDD 和 BD 的正确诊断和治疗是非常重要的。然而，对于代谢组学特征是否能区分重度抑郁症（MDD）、双相抑郁症（BP-D）知之甚少。因此，本研究探讨抑郁症及双相抑郁、双相躁狂的代谢组组特征，以及这些特征是否可以用于两者的鉴别诊断。

方法 纳入健康对照组（HC；n = 48）、MDD（n = 46）、BP-D（n = 48），并收集所有受试者的一般情况、临床特征（汉密尔顿抑郁量表、汉密尔顿焦虑量表、病程），采集血清标本，使用非靶向代谢组学技术对代谢组特征进行分析，计算各组间差异代谢物，并结合回归树和随机森林回归方法，寻找 3 组间差异特征，建立随机森林分类模型，探讨代谢组学特征在单双相抑郁障碍中的鉴别诊断效能。

结果 各组间一般资料无统计学差异，MDD、BP-D 患者的代谢物组成发生了明显的变化。相对于 HC, MDD 和 BP-D 患者中常见的代谢紊乱通路包括甘油磷脂的代谢、初级胆汁酸的生物合成、亚油酸代谢、鞘磷脂代谢和花生四烯酸的代谢等，两者具有差异的代谢物设涉及的通路是甘油磷脂的代谢、初级胆汁酸的生物合成. 此外，我们确定了一个由 10 个代谢物（包括磷脂酰乙醇胺、溶血磷脂酰胆碱、硫酸基化脂醇酯、胆固醇代谢、胆红素代谢、磷酰胆碱、牛黄胆酸等）组成的特征，可以区分 MDD 患者和 BP-D 或 HC 患者，曲线下面积（AUC）值从 0.797 到 0.958。

结论 我们的结果为通过非靶向代谢组技术鉴定的代谢组学特征对 MDD、BP-D 进行鉴别性诊断提供了临床依据。

关键字：抑郁症 双相情感障碍 非靶向代谢组

Study on Exosomes for Identifying Bipolar Affective Disorder in Early Stage, A Study Protocol of Cross-sectional and Validity Trial

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Objective Bipolar disorder (BD) is a chronic and recurrent mental illness characterized by depressive episodes and manic or hypomanic episodes, leading to severe functional impairment and cognitive damage. Unfortunately, it is difficult to accurately distinguish between major depressive disorder (MDD) and BD in the early stages, resulting in misdiagnosis and mistreatment. According to statistics, only 20% of BD patients initiated with depressive symptoms receive a correct diagnosis within the first year of onset, with an average delay of 5-10 years from first episode to final diagnosis. BD patients are often treated with antidepressant medication systematically due to being diagnosed with MDD in absence of mood stabilisers, affecting the disease course and clinical outcomes. The current study aims to explore the role of plasma exosomes as biomarker to distinguish BD from MDD in early stage.

Methods The study includes two stages: the first stage is a case-control study, comparing the concentrations of plasma exosome metabolites (microRNA and related proteins) among three groups (BD patients, MDD patients, and healthy controls (HC), n=30 per group) to identify target microRNA and proteins with significant differences. The "latent class analysis (LCA)" on target microRNA and proteins will be performed on all samples to observe whether it can effectively distinguish BD, MDD, and HC. Then, based on the LCA analysis results, "receiver operating characteristic (ROC)" analysis will be conducted to further determine the optimal concentration for each indicator and ultimately determine the target biomarkers. The second stage is a clinical validation study in which subjects, who come from an on-going trial and with a first episode of depressive symptoms and were followed up for five years at least, are divided into two groups (MDD group and BD group, n=20 respectively) based on whether they have hypomanic/manic episodes currently or previously, according to the DSM-5 diagnosed with SCID-5. All target biomarkers will be test in plasma samples reserved at the initial stage to detect whether the diagnosis indicated by the biomarkers is consistent with diagnosis by DSM-5. As well as the accuracy of predicting diagnosis, the correlation between specific biomarkers and treatment response, clinical outcome, and adverse responses will also be observed.

Results unavailable for a study protocol.

Conclusion Exosomes can freely pass through the blood-brain barrier and serve as a good medium for connecting the peripheral system and the central nervous system. Improving the early diagnosis of BD would help develop appropriate clinical intervention strategy, improve the quality of disease management, and significantly reduce the burden of disease. At the same time, this study is also hope to provide a theoretical basis for exploring the pathogenesis of bipolar disorder.

关键字：Exosome, Bipolar affective disorder, early diagnosis, microRNA

双相情感障碍患者的情绪识别特征及其相关影响因素

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目的 探索双相情感障碍患者的情绪识别特征及其与临床变量的相关性。

方法 稳定期双相情感障碍患者（BD）180 例，稳定期精神分裂症患者（SCH）60 例，按照年龄、性别及教育年限相匹配的健康对照（HC）100 例。所有被试均完成 MCCB、MoCA 及中文版 Bell-Lysaker 情绪识别任务（BLERT）的评估，BD 组完成 HAMD-17、YMRS，SCH 组完成 PANSS，HC 组完成 SCL-90 等工具的评估。

结果 1、BLERT 总分、正性、负性及中性情绪在 BD 组、SCH 组与 HC 组间差异有统计学意义（F=55.71，P<0.01；F=30.50，P<0.01；F=44.67，P<0.01；F=24.09，P<0.01），SCH 低于 BD 低于 HC 组。2、BLERT 总分在 BD 与 HC 最佳划界分为 15 分（敏感性为 0.85，特异性为 0.45），以 15 分为临界，BD 组中 82（45.6%）例患者存在情绪识别缺陷，其中男性 45.7%，女性 54.3%；双相I型 27.8%，双相II型 72.2%；阳性家族史 17.5%；未婚 28.4%，已婚 55.6%，离异 14.8%，再婚 1.2%；年龄 40.8±13.9；教育年限 13.4±3.1。3、BD 组 BLERT 总分与年龄（r=-0.52）、教育年限（r=0.31)存在一定的相关性，与 MCCB 中的信息处理速度（r=0.39）、词语学习能力（r=0.38）、视觉学习能力（r=0.42）（P 均<0.001）存在相关性；与 MoCA 总分（r=0.49）存在较高正相关性，其中视空间执行（r=0.32），命名（r=0.33），语言顺畅（r=0.31），抽象思维（r=0.28），延迟记忆（r=0.37）（P 均<0.001）相关显著。4、多元线性逐步回归分析显示调整后 R2 为 0.48（F=26.89，P<0.001），回归方程：BLERT 总分=0.77-0.103*年龄+0.322*教育年限+0.094*视觉学习+2.822*MoCA 命名。

结论 1、双相情感障碍患者情绪识别能力全面受损，无论是正性情绪、负性情绪及中性情绪等情绪维度均低于健康人群，但均高于精神分裂症患者。2、情绪识别能力存在缺陷的双相情感障碍患者具有一定的临床特征，以女性、双相II型、已婚占比较高，而教育程度及年龄适中。3、双相情感障碍患者情绪识别能力与年龄、教育年限及神经认知功能多个维度存在相关性。

关键字：双相情感障碍 情绪识别 影响因素

首诊抑郁症和双相抑郁的认知障碍差异及与 CcfmtDNA 的相关性研究

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目的 抑郁症与双相抑郁的临床症状高度重叠，在鉴别上有一定难度，比较其认知功能差异可能成为区分两种疾病的一种手段。本研究旨在比较抑郁症、双相抑郁患者及正常对照之间认知功能的差异，并探索血浆循环游离线粒体 DNA（circulating cell-free mitochondrial DNA，ccfmtDNA）与抑郁症、双相抑郁患者认知功能的关系。

方法 本研究为横断面研究，分别招募首诊未服药抑郁症患者 87 人、首诊未服药双相抑郁患者 78 人和健康对照 70 人。使用 HAMD-17、YMRS 评估受试者的临床症状，RBANS 量表、Stroop 色词测验评估受试者的认知功能，并检测其中部分受试者的血浆 ccfmtDNA 水平。统计分析在 SPSS25 中进行。

结果 抑郁症和双相抑郁患者在即刻记忆、延迟记忆、言语功能、注意力、视觉广度、执行功能等多个维度上均存在缺陷，抑郁症患者的视觉广度较双相抑郁患者损害得更严重（p=0.008）。抑郁症组的血浆 ccfmtDNA 水平显著高于双相抑郁组（p=0.028），两组均显著高于健康对照组（p＜0.05）。在抑郁症组中，血浆 ccfmtDNA 水平与言语功能呈负相关（r=-0.227，p=0.034）。

结论 抑郁症和双相抑郁患者普遍存在多维度的认知功能障碍，血浆 ccfmtDNA 水平与抑郁症患者的部分认知功能缺陷具有相关性。

关键字：抑郁症；双相抑郁；认知功能；ccfmtDNA

行为成瘾中的内在脑网络功能障碍：静息状态功能连接的荟萃分析

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目的 研究人员试图通过静息状态功能连接（rsFC）来识别行为成瘾（BA）中的网络功能障碍。本研究旨在识别 BA 中大规模网络的异常模式。

方法 从多个数据库中检索了基于全脑种子的 rs-FC 研究，比较了 BA 个体和健康对照组（HC）。采用多层次核密度分析来识别 BA 与每个先前网络的超连接或低连接相关的大脑网络。

结果 56 篇基于种子的 rs-FC 出版物（1755 例 BA 患者和 1828 名 HC 患者）纳入 meta 分析。本研究显示，BA 个体表现出(1)额顶叶网络（FN）内的低连通性和腹侧注意网络（VAN）内的低连通性；(2)FN 与 VAN 区域之间的低连通性，VAN 与 FN 与默认模式网络（DMN）之间的低连通性，DMN 与 FN 区域之间的超连通性；(3)奖励系统与感觉运动网络（SS）、DMN 和 VAN 区域之间的低连通性；(4)FN 与 SS 区域之间的低连通性，VAN 与 SS 区域之间的超连通性。

结论 网络内及网络间的功能紊乱，可能揭示了由于无法控制的行为可能导致突显信息的处理偏倚，难以区分自我产生的世界刺激和外部世界刺激，情绪感知和调节的缺陷，以及奖赏处理的功能失调。这些发现激发了 BA 的一个不间断的大规模脑网络模型，其中大规模网络之间的不间断的功能协调可能是 BA 的核心特征的基础。

关键字：行为成瘾；荟萃分析；静息状态的功能连接；多层次的核密度分析；大规模的网络

Sex-differential Cognitive Performance on MCCB of Youth with BD-II Depression

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Objective Cognitive impairment is a core feature of bipolar disorder (BD) and hinders recovery. However, the sex-specific effect on cognitive impairment at the BD subtype level remains unclear. This study aimed to investigate the sex differentials in cognitive impairment in BD subtype II (BD-II).

Methods The cross-sectional study recruited 125 unmediated young adults with BD-II depression and 140 healthy controls (HCs) matched for age, sex, and education. The Measurement and Treatment Research to Improve Cognition in Schizophrenia (MATRICS) Consensus Cognitive Battery (MCCB) in Chinese version was used to assess cognitive functions. Hamilton Depression Rating Scale (24-HDRS) and Young Mania Rating Scale (YMRS) were used to measure mood state. Multivariate analysis of covariance (MANCOVA) was conducted.

Results The MCCB composite and its seven cognitive domains performed worse in BD-II depression patients than in HCs (all $p < 0.001$). MANCOVA revealed significant sex-by-group interactions on attention/vigilance ($F = 6.224$, $df = 1$, $p = 0.013$), verbal learning ($F = 9.847$, $df = 1$, $p = 0.002$), visual learning ($F = 4.242$, $df = 1$, $p = 0.040$), and composite ($F = 8.819$, $df = 1$, $p = 0.003$), when age and education were controlled. Post hoc analyses suggested that males performed worse in the above-mentioned MCCB tests than females in BD-II depression.

Conclusion Our study demonstrated generalized cognitive deficits in unmedicated patients with BD-II depression. Male patients performed more severe cognitive impairment on attention/vigilance, verbal learning, and visual learning compared to female patients.

关键字：BD-II depression; Sex differences; MCCB; Cognitive deficits; Youth

苏州市青少年心理健康状况现状分析

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目的 了解苏州市青少年心理健康状况并分析其影响因素，为提高青少年心理健康水平提供科学依据和理论指导。

方法 采用整群分层随机抽样的方法，于 2019 年 6 月至 12 月对苏州市某城区的 18 所中学进行调查，采用一般情况调查表、患者健康问卷抑郁量表(PHQ-9)、广泛性焦虑量表(GAD-7) 、匹兹堡睡眠质量指数量表（PSQI）调查其心理状况水平及其影响因素。

结果 本次研究的 10176 名青少年睡眠质量平均得分 4.99 分，焦虑情绪平均得分 5.15 分，抑郁情绪平均得分 5.30 分，睡眠问题检出率 19.4%，抑郁情绪检出率 18.0%。多因素 logistic 回归分析显示，消极应对方式（OR=1.061，P＜0.001）、父母关系差（OR=2.644，P＜0.001）、学校欺凌（OR=1.446，P＜0.001）、焦虑情绪（OR=1.153，P＜0.001）、高中年级（OR=1.807，P＜0.001）、女性（OR=1.217，P＜0.001）是青少年睡眠问题的危险因素。父母关系差（OR=2.103，P＜0.001）、学校欺凌（OR=1.731，P＜0.001）、焦虑情绪（OR=1.502，P＜0.001）、睡眠问题（OR=1.305，P＜0.001）、女性（OR=1.193，P＜0.05）、是青少年抑郁情绪的危险因素。

结论 青少年心理状况问题存在，消极应对方式、父母关系差、学校欺凌、焦虑情绪、女性是青少年心理健康状况的危险因素，应针对危险因素进行干预，提高青少年心理健康水平。

关键字：青少年 心理健康 影响因素 预防

不同性别双相障碍患者临床特征和认知功能差异性研究

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目的 探讨不同性别双相情感障碍患者人口学特征和疾病临床特征的差异性，探讨不同性别双相情感障碍患者认知功能的差异性。

方法 （1）本研究纳入首次确诊的双相情感障碍患者 168 例，根据性别不同分为分为男性组（n=107）和女性组（n=61），同时纳入 75 例健康对照者。采集所有入组受试者的一般人口学信息，采集所有入组患者的临床疾病特征信息，在患者病情平稳 2 周后采用持续注意测验（Continuous Attention Test, CPT）、数字广度测验（Digital Span Test, DST）、威斯康星卡片分类测验（Wsiconsin card sorting test ,WCST）检测所有入组患者的认知功能，测查健康对照者的认知功能，比较三组间认知功能的差异性，分析影响认知功能的相关临床因素。

结果 （1）男性患者首次发病类型无差异，躁狂/轻躁狂发作例数与抑郁发作例数基本一致（50.70%vs.49.30%），而女性患者首次发病类型多为抑郁发作、躁狂发作/轻躁狂发作相对较少（62.70%vs.32,8%）；（2）男性组患者中，伴有精神病性症状的患者首次发病类型多为抑郁发作、躁狂/轻躁狂发作较少（65.60% vs.44.00%）；躁狂首发患者持续注意测验评分、数字广度评分、WCST 完成分类数等指标均高于首发抑郁组的患者（均 P<0.05）。（3）女性组患者中，躁狂首发的患者 CPT 评分、DST 评分均高于首发抑郁组的患者（均 P<0.05），前者的 WCST 总应答数、错误应答数均低于后者（均 P<0.05）；（4）男性组和女性组相比，男性患者的 WCST 总应答数、完成第一个分类所需应答数等均明显高于女性患者（均 P<0.05）；（5）男性组、女性组发病类型比较均提示躁

狂首发患者的 CPT、WCST 的概念形成能力等优于抑郁首发患者，同时较对照组差（均 P<0.05）；（6）男性组、女性组患者认知功能损害均与起病年龄呈负相关（均 P<0.05）。

结论 （1）男性和女性双相障碍均存在一定程度的认知功能损害；（2）男性双相障碍患者的认知功能相较于女性患者在抽象概括能力等方面较差，首次发病类型为躁狂/轻躁狂发作的患者认知功能受损程度轻于抑郁首发患者；（3）男性和和女性双相障碍认知功能损害均受首次起病年龄等多种因素影响，影响因素不完全一致。

关键字：双相障碍，性别，临床特征，首发症状，认知功能损害

双相情感障碍患者共病 2 型糖尿病的患病率及危险因素

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目的 双相情感障碍以反复发作的抑郁和躁狂症为特征，影响全球高达 2%的人口。有证据表明双相障碍患者有更高的 2 型糖尿病（T2DM）发病率，但报告发病率差异很大。目前也尚不清楚糖尿病的高发病率是由精神药物、不健康的生活方式、遗传风险因素、或共同的病理生理机制等，还是这些因素的组合引起的。因此本研究分析探讨双相障碍患者共病 T2DM 的患病率及其相关风险因素。

方法 本研究采用横断面研究的方法利用电子病历系统收集 2016 年 1 月 1 日—2020 年 12 月 31 日于天津市安定医院住院的双相情感障碍患者相关资料，包括社会人口学信息、临床特征资料及空腹血液检查结果，研究数据均来源于末次住院资料。所有患者均符合 ICD-10 双相情感障碍诊断标准，糖尿病的诊断根据美国糖尿病协会的标准。对分类变量采用卡方检验，连续变量进行正态分布检验后采用独立样本 T 检验或非参数检验比较伴或不伴 T2DM 双相障碍患者的组间差异。最后采用二元 logistic 回归分析双相障碍患者共病 T2DM 的危险因素。

结果 研究共计纳入 1106 例患者，共病 T2DM 121 人。T2DM 组首次发病年龄较大（F=19.24，p<0.001），病程较长（F=52.84，p<0.001），TG（Z=-4.894，P<0.001）和 LDL（Z=-2.374，P=0.018）显著高于非 T2DM 组，HDL（Z=-2.532，P=0.012）低于非 T2DM 组。两组间情绪稳定剂的使用有显著性差异（P=0.003），丙戊酸盐在 T2DM 组（P=0.003）中更常用。相比之下，奥氮平（P=0.005）在非 T2 型糖尿病组中使用更频繁。两组间 TSH、T3 和 T4 以及苯二氮卓类药物的使用无差异。进一步二元 logistic 回归分析显示，首次发病时年龄、总病程，TG、HDL、丙戊酸盐、奥氮平是影响共病糖尿病的危险因素。

结论 双相障碍患者的 2 型糖尿病患病率较高。首次发病年龄较大，总病程较长，使用丙戊酸盐，奥氮平，高 TG，低 HDL 是影响糖尿病发病的危险因素。本研究为横断面研究，存在一定局限性，未来可以进行纵向研究，并长期随访，来进一步阐明双相障碍患者伴发 T2DM 之间的关系。

关键字：双相情感障碍；2 型糖尿病；患病率；临床特征

Sleep Deprivation Alleviates Depression-like Behaviors in Mice Via Inhibiting Immune and Inflammatory Pathways in The Anterior Cingulate Cortex and Improving Neuroplasticity

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Objective Sleep deprivation (SD) has been suggested to have a rapid antidepressant effect. There is substantial evidence that neuroinflammation and neuroplasticity play critical roles in the pathophysiology and treatment of depression. Here, we investigated whether SD attenuates depression-like behaviors by inhibiting the activation of neuroinflammation and improving neuroplasticity in depression.

Methods Adult male C57BL/6J mice were subjected to chronic restraint stress (CRS) for 6 weeks, and 6 hours of SD were administrated. Behavioral tests were performed to measure depression-like behaviors. RNA-sequencing and bioinformatic analysis were performed in the anterior cingulate cortex (ACC). The differentially expressed genes were confirmed by quantitative real-time polymerase chain reaction (RT-qPCR). Neuroinflammation and neuroplasticity were measured by western blotting and immunofluorescence staining.

Results Behavioral tests demonstrated that SD swiftly attenuated the depression-like behaviors induced by CRS. RNA-sequencing identified the upregulated immune and inflammatory pathways after CRS exposure were downregulated by SD. Furthermore, SD reversed the immune and inflammation-related mRNA, levels of pro-inflammatory factors, and the activation of microglia in ACC. Additionally, the impaired neuroplasticity elicited by CRS in the prefrontal cortex (PFC) and ACC were improved by SD.

Conclusion Our study revealed the rapid antidepressant effect of SD on CRS mice through the reduction of the neuroinflammatory response in ACC via regulating microglia and key genes that play important roles in MAPK, NFκB and PI3K signaling pathways, as well as the improvement of neuroplasticity in PFC and ACC, providing a rationale for the clinical application of SD as a rapid antidepressant therapy.

关键字：Major depressive disorder; Sleep deprivation; Anterior cingulate cortex; Neuroinflammation; Neuroplasticity

Sex Differences in Prevalence and Association between Cognitive Symptoms and Suicidal Ideation in Patients with Recurrent Major Depressive Disorder: Findings From The NSSD Study in China

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Objective To investigate the potential role of sex differences in suicidal ideation (SI) and cognitive symptoms among major depressive disorder (MDD) patients with recurrent depression, which is crucial for tailoring effective interventions and improving patient outcomes.

Methods Data were derived from the National Survey on Symptomatology of Depression (NSSD), a survey designed to investigate the extent of depressive symptoms experienced by patients under current major depressive episodes in 32 Chinese psychiatric settings. Demographics, SI, and cognitive symptoms of 1222 patients with recurrent MDD were compared and a logistic regression model was used to evaluate the association between cognitive symptoms and SI between the genders in the present analysis.

Results Compared to male patients with recurrent depression, female patients exhibited older age, a lower proportion of individuals with postgraduate and above-level education, reduced employment rates, lower rates of tobacco and alcohol use, and a shorter total duration of depression and current episode (all $P < 0.05$). Significant sex differences were observed in the frequency of cognitive symptoms, with male patients exhibiting a higher prevalence of memory loss, decrease in verbal, indecisiveness, and poor interpersonal relationships, while female patients showed a higher prevalence of impaired social and professional functions (all $P < 0.05$). However, there was no significant difference in the prevalence of suicidal ideation between male and female patients. The correlation analysis indicated that all cognitive symptoms were associated with SI in both male and female patients (all $P < 0.01$). The logistic regression analysis revealed that in male patients, indecisiveness and impaired interpersonal relationships were associated with SI. In female patients, in addition to the above-mentioned variables, reduced verbal output, poor concentration, and impaired social and professional functions were also associated with SI.

Conclusion The identification of distinct demographic and clinical symptomatology characteristics in male and female patients with recurrent depression provides valuable insights for clinical practice. Importantly, our findings demonstrate that cognitive symptoms are more strongly associated with SI in female patients. This knowledge has significant implications for guiding clinical practice, as it highlights the need for tailored assessment and intervention approaches that address gender-specific cognitive symptoms and their impact on suicidal ideation. Such targeted strategies can enhance the effectiveness of clinical management and improve patient outcomes in the treatment of recurrent depression.

关键字：Major depressive disorder, Recurrent depression, Sex differences, Suicidal ideation, Cognitive symptoms

Evaluating The Clinical Efficacy and Acceptability of A Structured Group Psychoeducation Program - Optimal Health Program for Bipolar Disorder: A Mixed-Methods Study

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Background and Objective Psychoeducation, a cost-effective, guideline-endorsed treatment strategy, is challenging to implement in the Chinese setting due to cultural barriers. The Optimal Health Program (OHP) was designed to overcome these obstacles, offering a culturally-adapted, nurse-led, structured group psychoeducation initiative for patients with bipolar disorder. This study examines OHP's clinical efficacy and acceptability.

Method This parallel-group, observer-blind controlled trial involved participants aged 18 and above with remitted bipolar disorder from two inpatient regions. Participants were randomly allocated to the OHP (two weekly sessions over two weeks) or treatment as usual (TAU). Primary outcomes included relapse rate, medication adherence, and qualitative participant experiences. Secondary outcomes analyzed emotional management and social adaptability. Semi-structured interviews were conducted post-intervention and at a three-month follow-up.

Result Between September 2021 and January 2023, we enrolled 133 participants, assigning them to either the OHP (n=68) or TAU (n=65). Males represented 51.1% of the cohort, with a mean participant age of 31.4±8.3 years. The OHP group demonstrated higher medication adherence compared to the TAU group (χ?=1.57, p=0.001). No significant differences in relapse rate were observed between the groups after three months (p=0.087). A pre-planned moderator analysis revealed a significant benefit of psychoeducation in participants experiencing their initial bipolar episodes (HR 0.38, 95% CI 0.17–0.76, p=0.038). Semi-structured interviews with four nurse leaders and 21 participants indicated that the OHP was feasible, well-accepted, and facilitated insights into personal routines and bipolar disorder relapse prevention.

Conclusion The OHP group psychoeducation for bipolar disorder is effective and well-received by patients. It positively impacts self-management behaviours and appears particularly suited for early intervention.

关键字：Psychoeducation; Bipolar Disorder; Optimal Health Program; Relapse；Acceptability

青少年及成年早期双相障碍患者自伤行为的危险因素及临床特征

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目的 探讨青少年及成年早期双相障碍(BD) 患者出现自伤行为的危险因素及临床特征。

方法 于 2021 年 11 月至 2022 年 11 月在南京脑科医院精神科住院治疗的青少年及成年早期 BD 患者，共 104 例患者入组。依据伴发非自杀性自伤行为与否将受试者分为自伤组和非自伤组，自伤组为 69 例，非自伤组为 35 例。采用自制问卷、童年期创伤量表、家庭环境量表、认知情绪调节问卷、大五人格问卷、青少年自我伤害问卷、BECK 自杀意念量表收集相关资料。采用 SPSS 22.0 对资料进行统计分析。

结果 （1）研究对象的年龄为 17.46±2.627（14-25）岁，其中女性患者 78 例（75%），男性患者 26 例（25%）。（2）自伤组家人或朋友自伤史检出率为 42%，明显高于非自伤组（20%）。自伤组中女性患者 57 例（82.6%），非自伤组中女性 21 例（60%）。（3）儿童期创伤量表、家庭环境量表、知情绪调节问卷、大五人格问卷、BECK 自杀意念量表评分在两组的差异有统计学意义（$p<0.05$），Logistics 回归分析显示，性别、儿童期情感忽视、家庭环境低亲密度和低娱乐性有统计学意义($p<0.01$)。（4）在 104 名入组患者中，自伤检出率为 66.3%。15 种自伤方式中，用玻璃、小刀等划伤自己的皮肤（75.36%）是最常用的自伤方式，其次是用手打墙或玻璃等较硬的东西（72.46%）。（5）童年不良经历中情感虐待、躯体虐待；认知情绪调节问卷中的自我责难、接受、沉思、理性分析；大五人格问卷中的灾难化、神经质，与患者自伤行为严重程度呈正相关。家庭环境亲密度、组织性、大五人格问卷中的顺同性、外向性与患者自伤行为严重程度呈负相关。（6）自伤组与非自伤组自杀意念和自杀风险存在显著差异（$p<0.001$）。

结论 青少年和成年早期 BD 患者自伤行为发生率高，女性、情感忽视、家庭低亲密度、低娱乐性是青少年和成年早期 BD 患者自伤的危险因素，提示不良环境和经历会影响该年龄段 BD 患者病程发展，并与自伤行为的严重程度存在相关性。青少年和成年早期 BD 患者伴发自伤行为有更高的自杀风险，未来临床上需对该年龄段 BD 患者的自伤行为高度重视。

关键字：双相障碍；青少年和成年早期；自伤行为；自杀

家庭治疗联合药物干预对于双相抑郁患者的疗效分析

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目的 研究合并家庭治疗与常规药物治疗对双相抑郁疗效的对比分析。

方法 选取 2022 年 1 月至 2022 年 12 月在临沂市精神卫生中心住院治疗的 60 名双相抑郁患者，采用随机数字表分组法，分为实验组（药物治疗联合家庭治疗）及对照组（常规药物治疗），每组各 30 人。实验组患者在常规药物治疗的基础上合并家庭治疗，每周一次,对照组患者入院后根据病情选择常规药物治疗方案。两组患者入院后在第 0 周、4 周、8 周，给予 HAMD、HAMA、TESS 量表分别进行评估，以治疗结束时 HAMD 的评分为最终评定标准，应用 SPSS 软件包进行统计学处理，并进行分析。

结果 实验组和对照组分别有 29 人和 28 人完成研究，治疗前实验组 HAMD 评分 (24.33±3.22)分,对照组评分(25.07±2.99)分，两组患者在 4 周、8 周 HAMD、HAMA 量表评分逐渐降低，治疗结束时 HAMD 评分实验组 (11.32±2.81)分,对照组(13.77±3.33)分，均较治疗前下降。治疗后实验组 HAMD 评分低于对照组；在治愈率及显效率方面，实验组显著高于对照组, 差异均有统计学意义(均 $P<0.05$)。两组在 TESS 评分上无明显差别。

结论 通过合并家庭治疗，双相抑郁患者治疗效果优于通过常规药物方案治疗双相抑郁患者。双相障碍患者的焦虑和抑郁情绪,及其他心理问题大多也源自于家庭环境和不良的家庭功能。家庭功能的优良直接与患者的焦虑、抑郁等心理问题显著相关。良好的家庭功能也有利于满足患者的情感需求和沟通需要，在传统药物治疗的基础上合并家庭治疗可以更早地改善双相抑郁患者的临床症状、显著提高双相抑郁患者的治愈率及有效率，具有一定的临床推广价值。

关键字：家庭治疗 双相障碍 抑郁症

Gender Differences of Suicide Attempts in First-episode and Drug-naive Major Depressive Disorder Patients with Comorbid Metabolic Syndrome

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Objective Patients with major depressive disorder (MDD) have a high rate of metabolic syndrome (MetS), which may contribute to worse disease progression. One of the most serious progressions in MDD is suicide attempts (SAs). Previous studies have found gender differences in MetS and SAs among MDD patients respectively. Therefore, we aimed to explore gender differences of SAs in first-episode and drug-na?ve (FEDN) MDD patients with comorbid MetS.

Methods 1718 outpatients with FEDN MDD were

recruited. Depression, anxiety and psychotic symptoms were evaluated using the Hamilton Depression Scale (HAMD), Hamilton Anxiety Scale (HAMA) and Positive and Negative Syndrome Scale (PANSS) positive subscale, respectively. Blood sugar, blood fat, blood pressure and body mass index (BMI) were measured to evaluate MetS.

Results 34.4% patients with FEDN MDD were diagnosed as MetS and those subjects with or without MetS differed in the distribution of SAs and gender. In MetS subgroup, 29.5% and 29.7% of male and female subjects had SAs respectively, without significant differences. Suicide attempters had higher HAMD, HAMA, and PANSS positive subscale scores than non-suicide attempters in both male and female population. However, compared with non-suicide attempters, suicide attempters had higher level of blood pressure in female subjects, while there are no differences in any clinical variables in male subjects. Likewise, the influencing factors for SAs differed by gender. The HAMA scores and BMI were variables associated with SAs in male patients while HAMA scores, marital status and systolic blood pressure (SBP) were associated with SAs in female patients.

Conclusion In FEDN MDD patients with comorbid MetS, there were no gender differences in SAs. However, clinical characteristics and influencing factors of SAs differed in different gender groups, such as marital status and systolic blood pressure were associated with SAs in female subjects while only BMI was associated with SA in male subjects.

关键字：major depressive disorder; metabolic syndrome; suicide attempts; gender difference.

伏硫西汀联合经颅直流电刺激对首发抑郁症患者认知功能及血清炎症因子的影响

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目的 研究伏硫西汀联合以左背外侧前额叶为刺激靶点的经颅直流电刺激（tCDS）对首发抑郁症患者认知功能及血清炎症因子的影响。

方法 筛选淄博市精神卫生中心 2023 年 7 月-2024 年 7 月期间门诊及住院的收治的 70 例首发抑郁症患者作为研究对象，采用随机数字表法发分为研究组（n=35）和对照组（n=35）。研究组采用 tCDS(2mA 的经颅直流电刺激)联合伏硫西汀 10mg/d 治疗,对照组采用参数设置一定的伪刺激联合伏硫西汀 10mg/d 治疗，比较两组在治疗前、治疗 2 周后以重复性成套神经心理状态测验（RBANS）评价患者认知功能，汉密尔顿抑郁量表（HAMD）评价患者抑郁程度，以及测定白介素-2（IL-2）、肿瘤坏死因子-α（TNF-α）水平。

结果 两组治疗后 RBANS 中有关认知功能的评分均高于治疗前，且研究组高于对照组，差异有统计学意义（P＜0.05）；两组治疗后 HAMD 评分均低于治疗前，且研究组低于对照组，差异有统计学意义（P＜0.05）；两组治疗后 IL-2、TNF-α 水平均低于治疗前，且研究组低于对照组，差异有统计学意义（P＜0.05）。

结论 伏硫西汀联合以左背外侧前额叶为刺激靶点的经颅直流电刺激能显著改善首发抑郁症患者抑郁症状，同时能够有效提高认知功能，且降低首发抑郁症患者炎症因子水平。

关键字：伏硫西汀；经颅直流电刺激（tCDS）；首发抑郁症；认知功能；炎症因子

基于语音标记物的抑郁和躁狂情绪状态分类方法

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目的 抑郁和躁狂情绪状态发病率逐年上升，给社会带来沉重负担。然而目前并没有明显的标记物来区分这两种状态。为了解决这个问题，研究中提出一种基于语音标记物的抑郁和躁狂情绪状态分类方法。

方法 研究中使用来自 81 位受试者的 1287 条语音，其中，406 条抑郁状态，192 条躁狂状态，689 条缓解状态。利用 Python 工具包 PyAnalysisAudio 对每条语音提取特征，使用方差检验三组特征的差异性。使用循环神经网络门控制单元 GRU，随机森林 RF，支持向量机 SVM 和梯度提升树 GBRT 四种机器学习方法采用 10-折交叉验证训练分类模型。

结果 在提取的 34 个特征中，33 个特征在三组类别中存在显著差异（P<0.05）。在所有的分类模型中，门控制单元 GRU 性能表现最佳，其准确度为 0.842，抑郁状态敏感度，特异度分别为 0.811,0.901；躁狂状态敏感度，特异度分别为 0.818,0.911；缓解期敏感度，特异度分别为 0.907,0.951。随机森林表现次之，准确度为 0.830，抑郁状态敏感度，特异度分别为 0.780,0.912；躁狂状态敏感度，特异度分别为 0.837,0.858；缓解期敏感度，特异度分别为 0.873,0.974。支持向量机准确度为 0.823，抑郁状态敏感度，特异度分别为 0.787,0.890；躁狂状态敏感度，特异度分别为 0.769,0.895；缓解期敏感度，特异度分别为 0.915,0.950。梯度提升树表现最差，准确度为 0.814，抑郁状态敏感度，特异度分别为 0.787,0.892；躁狂状态敏感度，特异度分别为 0.769,0.895；缓解期敏感度，特异度分别为 0.915,0.950。

结论 语音可作为抑郁情绪和躁狂情绪分类的生物标记物，虽然研究中使用的样本为小样本，但这说明使用机器学习模型训练语音作为分类器来区分抑郁和躁狂是可行的。

关键字：语音分类；机器学习；情绪状态；抑郁；

躁狂

Prevalence of Insulin Resistance and Its Associated Factors in Drug-na?ve Patients with Bipolar Disorder Among Han Chinese Population

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Objective Metabolic syndrome (Mets) is commonly seen in bipolar disorder. As the key component and early biological index of Mets, insulin resistance (IR) among BD has received more and more attention. However, little is known about the prevalence of IR and its associated factors in drug-na?ve patients with bipolar disorder (BD), especially among Han Chinese population.

Methods A cross-sectional study was conducted on 125 patients with bipolar disorder (BP) and 85 healthy controls (HC). HOMA-IR was calculated and IR was defined as HOMA-IR greater than the 75th percentile value for health controls (2.35). Clinical characteristics of BD were collected through semi-structural interview performed by trained interviewers with background of psychiatric education.

Results Among the measured anthropocentric variables including BMI, waist circumference, abdomen circumference, hipline, and hip-waist ratio, waist circumference was found to be the most closely related to IR (HR=1.070, 95%CI=1.031-1.110, P<0.001). Male was another factor that was associated with IR (HR-2.281, 95%CI=1.107-4.702, P=0.025). After adjusted for gender and waist circumference, the risk of IR was significantly higher in bipolar disorder than in healthy controls (HR=2.66, 95%CI=1.364-5.214, P=0.004). No significant association was found between IR and any of the observed physical and mental comorbidities (all P>0.05). when the number of depressive or (hypo)manic episode was treated as a binary categorical variable with 3 as the cut-off point, both of them were significantly associated with IR (HR=0.267, 95%CI=0.085-0.840, P=0.024;HR=0.165, 95%CI=0.028-0.974, P=0.047). Hypersomnia was the only symptomatic features that was significantly associated with IR (OR=0.316, 95%CI=0.124-0.803, P=0.016).

Conclusion Bipolar disorder increases two to three fold risk of IR, both circumference and male are the risk factors of IR but number of mood episode and hypersomnia act as protective factor.

关键字：bipolar disorder; insulin resistance; metabolic syndrome; waist circumference; clinical characteristics

Study on The Correlation between Suicidal Ideation and ABI3BP Gene、DPYSL2 Gene Methylation in Pediatric Bipolar Disorder with Depressive Episode

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Objective Patients with bipolar disorder have a higher risk of suicide than the general population. This study aims to explore the correlation between suicide and gene methylation, as screened by genome-wide scanning, in children and adolescents with bipolar disorder.

Methods A total of 45 children and adolescents with bipolar disorder were divided into a suicidal ideation group (n = 41) and a non-suicidal ideation group (n = 4), as well as a low-risk group (n = 12) and a middle-high-risk group (n = 33). A pre-experiment was conducted on a suicidal ideation group (n = 6) and a non-suicidal ideation group (n = 4). Their blood was scanned using an Illumina HD 850K microarray, and the level of methylation was analyzed. Differential methylation sites among the sample groups were screened from the original data, and genes related to suicide were identified. The methylation of the ABI3BP gene and DPYSL2 gene was then detected by pyrophosphate sequencing and statistically analyzed.

Results There was a significant difference in age between the low-risk group and the middle-high-risk group. The results of GO analysis between the suicidal ideation group and the non-suicidal ideation group showed that the differential methylation sites were mainly involved in the interferon-γ-mediated signal pathway, with the main signal pathways being the inflammatory bowel disease (IBD) pathway, type 1 diabetes mellitus (T1DM) pathway, etc. There was a significant difference in the methylation of ABI3BP, HLA-DQB1, HLA-DRB1, AUTS2, SP3, NINJ2, DPYSL2, and other genes between the suicidal ideation group and the non-suicidal ideation group. There was also a statistically significant difference in gene methylation levels between these two groups. However, there was no significant difference in the degree of methylation of the ABI3BP gene and DPYSL2 gene between the low-risk group and the middle-high-risk group.

Conclusion These results suggest that suicidal ideation is correlated with methylation levels of differentially methylated genes in pediatric bipolar disorder. However, the severity of suicide risk in pediatric bipolar disorder patients may not be correlated with the degree of methylation of the ABI3BP and DPYSL2 genes. Further validation is still needed.

关键字：Pediatric; bipolar disorder; gene methylation; suicide.

心境障碍患者外周血中白细胞计数及其比率的横断面研究

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目的 白细胞计数、中性粒细胞-淋巴细胞比率(neutrophil-lymphocyte ratio,NLR)、血小板-淋巴细胞比

率(platelet-lymphocyte ratio,PLR)和单核细胞-淋巴细胞比率(monocyte-lymphocyte ratio,MLR)能够敏感地反映全身炎性反应，且具有易获取、可重复性以及成本低廉等优势。本研究旨在比较双相障碍和抑郁障碍以及双相障碍不同阶段（躁狂发作、抑郁发作）之间的炎性反应。

方法 选取 2022 年 6 月至 2023 年 5 月青岛市精神卫生中心收治的 198 名汉族患者（抑郁障碍 103 名，双相抑郁 43 名，双相躁狂 52 名）。根据血液分析结果得出白细胞计数、中性粒细胞绝对值、淋巴细胞绝对值、血小板计数、单核细胞绝对值数据，并计算 NLR、PLR 和 MLR。采用 SPSS 26.0 进行统计分析，Kruskal Wallis 检验以评估不同组之间的 NLR、PLR 和 MLR 的差异。

结果 （1）双相组和抑郁组在实验室检查结果和炎症比率方面均无统计学差异（P>0.05）。（2）双相抑郁组、双相躁狂组和抑郁组相比，三组 NLR、MLR 总体分布存在着统计差异（P<0.05）。其中，与双相抑郁组相比，双相躁狂组的白细胞计数(H=4.9, P=0.028)、中性粒细胞绝对值(H=14.9, P=0.001)、单核细胞绝对值(H=5.1, P=0.026)计数均显著升高；双相躁狂组的NLR(H=12.8, P=0.001)和 MLR(H=7.1, P=0.009)显著高于双相抑郁组。抑郁组的 NLR 和 MLR 显著低于双相躁狂组（分别为 H=5.3, P=0.013 和 H=6.0, P=0.015）。双相抑郁组和抑郁组差异没有统计学意义（P>0.05）。

结论 与以往对其他炎症介质的研究一致，本研究发现双相障碍躁狂发作时中性粒细胞-淋巴细胞和单核细胞-淋巴细胞比值较高，表明炎症变化在躁狂急性发作期尤为明显。

关键字：心境障碍；抑郁障碍；双相障碍；中性粒细胞-淋巴细胞比率；单核细胞-淋巴细胞比率

Clinical Application of Electronic Measurement Based Care for Major Depressive Disorder in China

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Objective Electronic measurement based care (EMBC) may help to improve treatment adjustments and outcomes for major depressive disorder (MDD).

Methods This study enrolled 240 Outpatients at reproductive age from 2017 to 2020 in China. They were randomly assigned to standard treatment (n=121) or electronic measurement-based care (n=119). The EMBC group was adequately treated with escitalopram, using measurement-based intervention strategy. The treatment as usual (TAU) group was left to the clinician's discretion to determine the treatment strategy based on the patient's condition. Hamilton Depression Rating Scale (HAMD) was assessed at baseline and follow-up levels within 24 weeks, and patients' depressive symptoms were observed and followed up for 16 weeks.

Results The clinical remission rate was higher in the EMBC group than in the TAU group at the 12th week (P=0.025). The HAMD score of the two groups decreased significantly at each time point (P<0.05) while it showed difference between the two groups at the 12th week only (P<0.05). The clinical remission rate yielded no difference at the end point (P=0.344), and the HAMD score did not differ significantly between the two groups.

Conclusion It is suggested that the EMBC strategy may achieve better outcomes early in the treatment of MDD and significantly improve the quality of life for patients in both the short and long terms.

关键字：major depressive disorder; application

Prospecting The Intricate Role of Intestinal Microbe and Microbial Metabolite Biomarkers in Schizophrenia

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Objective The brain-gut axis has gained increasing attention due to its contribution to the etiology of various central nervous system disorders. In particular, impaired intestinal microflora and intestinal metabolite dysbiosis have been implicated in schizophrenia.

Methods In this study, we used a 16S ribosomal RNA (16S rRNA) gene sequence–based approach and an untargeted liquid chromatography-mass spectrometry-based metabolic profiling approach to measure the gut microbiome and microbial metabolites from 44 healthy controls, 41 acute patients, and 39 remission patients, to evaluate whether microbial dysbiosis and microbial metabolite biomarkers were linked with the severity of schizophrenic symptoms.

Results Here, we identified 20 dominant disturbances in the gut microbial composition of patients compared with healthy controls, with 3 orders, 4 families, 9 genera, and 4 species. Several unique bacterial taxa associated with schizophrenia severity. Compared with healthy controls, 145 unusual microflora metabolites were detected in the acute and remission groups, which were mainly involved in environmental information processing, metabolism, organismal systems, and human diseases in the Kyoto encyclopedia of genes and genomes pathway. The Sankey diagram showed that 4 abnormal intestinal and 4 anomalous intestinal microbial metabolites were associated with psychiatric clinical symptoms.

Conclusion These findings suggest a possible interactive influence of the gut microbiota and their metabolites on the pathophysiology of schizophrenia.

关键字：Schizophrenia; gut-brain axis; microbiome; metabonomics; liquid chromatography-mass spectrometry

The Effectiveness of Interpersonal Psychotherapy - Adolescent Skills Training for Adolescents with Depression : A Systematic Review and

Meta-Analysis

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Objective Interpersonal Psychotherapy-Adolescent Skills Training (IPT-AST) is a standardized depression prevention program for adolescents conducted in campus settings. The purpose of this review is to examine the randomized controlled trials of IPT-AST for the prevention of adolescent depression in the past 20 years.

Methods A systematic search of relevant electronic databases (PubMed, WOS, Embase, PsycINFO, the Cochrane Library, CNKI and WANFANG DATA) and study reference lists was conducted. Any study investigating the effectiveness of IPT-AST in 12- to 20-year-olds with depressive symptoms was eligible. Synthesis was via narrative summary and meta-analysis.

Results A total of 6 studies met the inclusion criteria. Meta-analysis results showed a remarkable improvement in patients' depressive symptoms after IPT-AST intervention (WMD = -5.05 , 95% CI = -8.11 to -1.98 , $p < 0.05$, I2 = 77%). Six month follow-up data showed that the intervention outcomes of IPT-AST remained significant (WMD = -3.09 , 95% CI: -5.23 to -0.94 , $p < 0.05$, I2 = 57%).

Conclusion This meta-analysis showed that IPT-AST was effective in adolescents with depressive symptoms at post-prevention and at 6-month follow-up. However, these conclusions are cautious, as they are based on a small number of studies and the presence of author duplication. Future studies should use multi-center, large-sample randomized controlled trials to evaluate the efficacy of IPT-AST for preventing depression in adolescents.

关键字：Interpersonal psychotherapy-adolescent skills training, depression,adolescents, systematic review, meta-analysis.

How Long Can A Single Episode of Delirium Mania Last? A Case of Long-term and Refractory Delirium Mania

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Objective Delirium mania, a type of disorder where delirium and mania occur at the same time, has been repeatedly reported to have a relatively short-term (from days to weeks) duration. To provide more information about this potentially life-threatening condition, we studied a case with long-term delirium mania and hospitalization.

Methods We described a patient with bipolar disorder who presented with a long-term episode of delirium mania lasting for ten months and discussed the case in the context of a selective review of the clinical literature describing the clinical features and treatment of delirium mania.

Results The patient was a 37-year-old male with a 13-year history of recurrent bipolar disorder and poor drug compliance. At the beginning of the current manic episode, he presented unstable mood, euphoria, hyperactivity, pressured speech, and decreased need for sleep. He was initially hospitalized and treated with antipsychotics, mood stabilizers, and electroconvulsive therapy. However, his symptoms fluctuated, with periods of delirium and disorganization interspersed with periods of mania, which included disorganized behavior, incomprehensible speech, and urinary and fecal incontinence on day 11 after admission. Then he was diagnosed with delirium mania, and the medication treatment strategies were adjusted multiple times, with some initial improvement followed by a relapse of mania. He developed pneumonia at one point, which delayed treatment. As a result, he again continued to experience consistently altered consciousness, extreme euphoria, and disorganized speech patterns even after recovery from pneumonia. After ten months of delirium mania, his condition gradually improved and eventually recovered through the treatment regime of risperidone, clozapine, lithium, and sodium valproate, but he continued to exhibit disorganized and hypomanic thought patterns. He remained stable during nine-year follow-ups on his outpatient treatment regimen without recurrence of any mood episodes after discharge.

Conclusion Delirium mania is a relatively rare clinical condition not described in the Diagnostic and Statistical Manual of Mental Disorders (DSM), and there is no consensus on its clinical characteristics and treatment. However, it can potentially develop into a fatal form of acute psychosis, highlighting the necessity for proper diagnosis and treatment strategies. In this case, the long-term illness duration and hospitalization illustrate the challenges of managing severe and refractory delirium mania, with mixed psychopathology of mania, delirium, and catatonic features.

关键字：Delirium, Mania, Refractory

Prevalence and Correlates of Subclinical Hypothyroidism in Young First-episode Drug-naive Major Depression Patients with High BMI

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Objective Both subclinical hypothyroidism (SCH) and overweight or obesity are prevalent in major depressive disorder (MDD), with inconsistent results due to differences in inclusion criteria in previous studies. Few previous studies have compared the prevalence and influencing factors of SCH in MDD patients accompanied by overweight or obesity between those who are not. The aim of our study was to examine the prevalence of SCH and associated risk factors among young Chinese first-episode drug-na?ve (FEND) MDD patients with overweight or obesity and exclude the impact of age and medication.

Methods This study recruited a total of 1289 young FEDN MDD outpatients and their demographic data, clinical information, thyroid function and biochemical parameters were collected. They were also assessed on the Hamilton Depression Inventory (HAMD), Hamilton Anxiety Inventory (HAMA), and Positive and Negative Symptom Scales (PANSS).

Results The incidence of SCH in young FEDN MDD patients with overweight or obesity was 65.78%, which was 1.59 times higher than that in patients without high BMI (28.6%). Patients with SCH had longer duration of illness, higher HAMA, HAMD, and PANSS positive symptom scores, stronger suicide attempts, higher blood pressure (BP), higher fasting blood glucose, total cholesterol (TC) levels and low-density lipoprotein (LDL) levels, and lower high-density lipoprotein (HDL) levels than those without SCH. Additionally, logistic regression showed that the HAMD score, fasting blood glucose, TC levels, HDL-C levels, systolic and diastolic BP were significantly associated with SCH. Furthermore, the combination of TC levels and systolic BP could differentiate patients with SCH from those without SCH.

Conclusion Our results suggested a high incidence of SCH in young MDD patients with high BMI. The severity of depression and several metabolic parameters contribute to the incidence of SCH in young MDD patients with high BMI.

关键字：Depression, subclinical hypothyroidism, BMI

双相抑郁障碍患者抑制控制能力特点：来自反向眼跳任务的证据

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目的 使用眼跳任务深入探究双相抑郁障碍患者抑制控制能力的特点。

方法 选取 36 例符合 DSM-5 双相障碍目前为重性抑郁发作诊断标准的双相抑郁障碍患者及36例健康对照。收集一般人口学资料，采用汉密顿抑郁量表（HAMD-17）、汉密顿焦虑量表（HAMA）评估患者抑郁、焦虑程度。采用反向眼跳范式通过评估受试者在朝向和反向眼跳任务下的错误率、潜伏期、反向眼跳成本等指标，反应个体抑制控制能力。分析双相抑郁症患者抑制控制能力的损伤与临床特征之间的关联。

结果 （1）双相抑郁组和健康对照组在性别、年龄、受教育年限以及 BMI 指数等方面无统计学差异（P>0.05）。（2）在朝向眼跳任务中，双相抑郁组的眼跳潜伏期显著高于健康对照组[(266.62±52.18) vs. (233.70±32.79)，P<0.01]；在反向眼跳任务中，双相抑郁组眼跳错误率、潜伏期显著高于健康对照组[(0.23±0.21) vs. (0.028±0.034)；(431.83±92.68) vs. (353.94±49.55)；P<0.01]。另外，双相抑郁组的反向眼跳成本显著高于健康对照组[(165.22±86.76) vs. (120.24±56.48)，P<0.05]。（3）相关分析显示，双相抑郁组反向潜伏期（r=0.483，P<0.01）、反向眼跳成本（r=0.728，p<0.001）与抑郁量表得分呈正相关。

结论 本研究提示双相抑郁障碍患者抑制控制能力受损，表现为反向眼跳错误率高、潜伏期长，反向眼跳成本高。患者抑制能力损伤与较重的抑郁症状相关。

关键字：双相抑郁；抑制控制；反向眼跳范式

The Limbic Network Is A Trigger for Triple Network Model in Pediatric Bipolar Disorder : Salience Network Is The Bridge

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Objective Pediatric Bipolar Disorder (PBD) is characterized by dysfunctional connectivity among distributed brain regions. Previous studies have proved that the core pathological alteration in BD is a damage of the limbic network. Based on the triple network model, i.e., the salience network drives the switching between default mode and central executive networks, we supposed that the limbic network, as a trigger, leads to phasic (and often recurrent) reconfigurations of the triple network model, and salience network is responsible for bridging between the limbic network and triple network model.

Methods Previous connectome studies based on functional magnetic resonance imaging (fMRI) have focused primarily on undirected functional connectivity for

the dysbalanced between networks. In this study, we combined Dynamic Causal Modeling (DCM) and Parametric Empirical Bayes (PEB) to investigate directed effective connectivity (EC) of a large-scale network with 12 regions of interest from four distributed functional brain networks (default mode, executive control, salience, and limbic networks, i.e., DMN, CEN, SN, LN), based on the 84 individuals with pediatric bipolar disorders (Mage = 16.21).

Results The results of the Bayesian Model Average (BMA) revealed an asymmetric effective connectivity (thresholded at posterior probability >95%), such that the regions in the LN exerted an excitatory influence on the SN and DMN, whereas exerted an inhibitory influence on the CEN. And most regions of SN were positively influenced by the regions from the other three networks. Moreover, using a procedure referred to as Bayesian Model Reduction (BMR), a set of candidate models defined was necessitated to evaluate the best explanation for the commonalities across subjects. The model, which was the best explanation for the commonalities across subjects, had a one-way direction from LN towards SN, the within-network and internetwork connections among SN, CEN, and DMN were open.

Conclusion This work confirms that changes in LN, as a trigger, may then lead to phasic reconfigurations of intrinsic brain activity (DMN, CEN, SN). And SN is responsible for bridging between the limbic network and the triple network model.

关键字：Pediatric Bipolar Disorder, limbic network, triple network model, Dynamic Causal Modeling, Parametric Empirical Bayes

双相障碍患者儿童期虐待和自杀意念与自尊和抑郁水平的关系

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目的 目前鲜有关注双相障碍患者儿童期虐待、自尊和抑郁对自杀意念影响机制的研究。本研究将探讨双相障碍患者的儿童期虐待、自尊、抑郁和自杀意念间的相关性，及自尊和抑郁在儿童期虐待和自杀意念间的中介作用。

方法 选取广州市两所医院精神科门诊 292 例双相障碍患者，采用儿童期创伤问卷（CTQ）、贝克自杀意念量表（BSI）、自尊量表（SES）、汉密尔顿抑郁量表-17 项（HAMD-17）和杨氏躁狂量表（YMRS）进行调查。以 t 检验、方差分析、Mann-Whitney U 检验和 Kruskal-Wallis H 检验比较不同人口学和疾病资料在各变量的得分；用 Pearson 相关或 Spearman 相关分析变量间的相关性；使用 SPSS 25.0 结合 Hayes 编制的 PROCESS 宏程序中的模型 6 检验中介效应。

结果 BSI 得分与 CTQ、HAMD-17 得分正向关联（r=0.37、0.53），与 SES 得分负向关联（r=-0.50）；CTQ 得分与 SES 得分负向关联（r=-0.29），与 HAMD-17 得分正向关联（r=0.30）；SES 得分与 HAMD-17 得分负向关联（r=-0.45）；SES 得分和 HAMD-17 得分分别在 CTQ 和 BSI 得分之间起中介作用（95%CI：0.01~0.08、0.01~0.10）和链式中介作用（95%CI：0.02~0.06）。

结论 双相障碍患者的儿童期虐待经历可能会提高其自杀意念，并且通过自尊水平和抑郁症状间接作用于自杀意念；以自尊和抑郁为靶点进行干预是可能是缓解伴有儿童期虐待的双相障碍患者自杀意念的有效手段。

关键字：自杀意念；儿童期虐待；自尊；抑郁；双相障碍

Prevalence and Risk Factors of Abnormal Lipid Metabolism in Chinese First-episode, Untreated Major Depressive Disorder Patients with Comorbid Thyroid Dysfunction

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Objective Both abnormal lipid metabolism and thyroid dysfunction are common in patients with major depressive disorder (MDD). Previous studies have found that lipid metabolism level are closely associated with thyroid function in healthy individuals. This study aimed to further investigate the prevalence and associated risk factors of abnormal lipid metabolism in MDD patients with comorbid thyroid dysfunction.

Methods A total of 1718 first-episode drug-na?ve (FEND) MDD patients were recruited for this study. Clinical symptoms were assessed by the Hamilton Depression Rating Scale (HAMD), Hamilton Anxiety Rating Scale (HAMA), and Positive and Negative Syndrome Scale (PANSS). Biochemical parameters were measured by laboratory tests, including glucose, lipid metabolism parameters and thyroid function parameters. The diagnosis of abnormal lipid metabolism was based on the criteria of Guidelines for Prevention and Treatment of dyslipidemia in Adults in China (revised version 2016).

Results The prevalence of abnormal lipid metabolism was higher in MDD patients with thyroid dysfunction than in MDD patients without thyroid dysfunction. Among MDD patients with comorbid thyroid dysfunction, those with abnormal lipid metabolism had higher levels of glucose, thyroid stimulating hormone (TSH), free thyroxine (FT4), anti-thyroglobulin (TgAb) levels, and higher HAMD, HAMA and PANSS-positive subscale scores, suicide attempt rates, and blood pressure compared with those with normal lipid metabolism. Furthermore, the combination of HAMD score, TSH and FT4 levels distinguished between patients with and without dyslipidemia.

Conclusion Our results suggest a high prevalence of abnormal lipid metabolism in MDD patients with thyroid dysfunction. The severity of depression, TSH, and FT4 levels are independent risk factors for abnormal lipid metabolism in MDD patients with thyroid dysfunction.

关键字：MDD, lipid metabolism, dyslipidemia, thyroid dysfunction

The Role of Inflammation in Predicting Anhedonia and Fatigue in Patients with Major Depression Disorder: An Observational Study

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Objective Anhedonia and fatigue are core symptoms in patients with major depressive disorder (MDD) , which impair quality of life and lead to poor treatment outcomes. Immune dysregulation is thought to be their underlying mechanism. However, peripheral immune biomarkers in MDD patients with fatigue and anhedonia are not commonly described. This study was designed to investigate whether peripheral immune factors could be used as predictive biomarkers of anhedonia and fatigue in patients with MDD. And further explored their impact on antidepressant efficacy.

Methods Adult outpatients with major depressive disorder at the Shanghai Mental Health Center were the subject of this cohort study between 2019 and 2020. A SHAPS score of 5 or above was seen as being related with anhedonia. The HAMD-17 questionnaire was used to examine depressed symptoms, and the reduction rate of it was used to evaluate the effect of treatment. Patients' anhedonia symptoms were assessed using the SHAPS questionnaire, and their level of fatigue was assessed using the MFI. Peripheral blood samples at baseline will be used for inflammatory cytokines testing. The relationship between levels of inflammatory markers and these two symptoms was analyzed using Spearman's test and independent sample t test. A binary logistic regression will be used to analyze whether inflammation factors could be a predictor of anhedonia and fatigue in MDD patients.

Results A total of 50 patients with depression were included in the study, 27 of whom were considered to have anhedonia and 24 of whom were considered to have fatigue. Spearman Mann-Whitney test found that IFN-γ, IL-1β, IP-10, IL-18, TNF-α differed among patients with or without anhedonia, while IFN-γ, IL-1β, IP-10, TNF-α, TNF-β were higher in patients with fatigue than in patients without fatigue. Binary logistic regression analysis showed that IFN-γ showed significant value for predicting anhedonia while TNF-α and TNF-β were valuable in predicting fatigue.

Conclusion Our findings imply that inflammatory factors may be a rapid and easy way to recognize anhedonia and fatigue in depressive patients. In predicting anhedonia in depression, a predictive model based on IFN-γ protein concentrations performed well. Meanwhile, a prognostic model based on TNF-α and TNF-β protein concentrations of scores showed considerable accuracy in predicting fatigue in depression. These findings will offer further proof of the involvement of growth factors in neuroinflammation in the early detection of symptoms in depression. More research is required to fully understand how inflammatory variables contribute to these symptoms in depressed people.

关键字：major depressive disorder; depressive symptoms; anhedonia; fatigue; inflammation;

富马酸喹硫平联用碳酸锂对双相障碍躁狂发作患者的临床疗效以及相关炎症因子的影响

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目的 观察并探讨富马酸喹硫平联用碳酸锂对双相障碍躁狂发作患者的临床疗效以及认知功能的影响。

方法 选取我院 2020 年 2 月到 2023 年 1 月 100 名诊断为双相障碍患者作为研究对象进行临床试验。通过随机数表法将患者随机分为观察组（50 例）和对照组（50 例），对照组患者给予碳酸锂治疗，观察组患者在对照组治疗的基础上给予富马酸喹硫治疗，均持续治疗 4 周比较两组临床疗效、Bech-Rafaelsen 躁狂评估量表(BRMS)评分、阳性与阴性症状量表（PANSS）评分、肿瘤坏死因子-α(TNF-α)、白介素-4(IL-4)、白介素-10(IL-10)等相关炎症因子浓度及治疗总有效率和不良反应。

结果 观察组患者的治疗总有效率为 93.32%，明显高于对照组的 71.63%，差异有统计学意义(P<0.05)；两组患者治疗前 BRMS、PANSS、TNF-α、IL-4、IL-10 相关数值差异均无统计学意义(P>0.05)；治疗后，观察组和对照组患者的 BRMS[(8.43±2.09)分 vs(14.74±3.29)分]、PANSS[(37.77±4.52)分 vs(50.08±4.99)分]、TNF-α[(105.5±20.3)ng/Lvs(137.96±22.73)ng/L] 、IL-4[(74.88±10.26)ng/Lvs(96.05±12.95)ng/L]比较，观察组明显低于对照组，差异均有统计学意义(P<0.05),观察组和对照组的 IL-10[(278.3±39.43)pg/mLvs(249.26±40.87)pg/mL],观察组明显高于对照组，两组患者的不良反应发生率比较差异无统计学意义(P>0.05)。

结论 富马酸喹硫平联用碳酸锂治疗双相障碍躁狂发作安全有效，且能提高患者的认知功能，降低炎症水平，值得临床推广应用。

关键字：双相障碍；躁狂症状；碳酸锂；富马酸喹硫平；临床疗效；炎症因子

The Effect of Emotional Dysregulation and Impulsivity on Suicidality in Patients with Bipolar Disorder

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Objective Bipolar disorder (BD) has the highest risk of suicide among psychiatric disorders，which patients have approximately 10-30 times higher suicide risk than the population. This study was to explore if emotional dysregulation dimensions and impulsive traits differ among patients with BD who had different suicidal behaviors.

Methods This study enrolled 65 patients (45 women, 20 men) with BD and education and agematched 50 (34 women, 16 men) healthy volunteers.The patient group is divided into 3 subgroups according to have suicide attempt history, have suicidal ideation without attempt, and have neither suicide attempt nor ideation. Barratt Impulsivity Scale (BIS-11), The Difficulties in Emotion Regulation Scale (DERS), The Beck Scale for Suicidal Ideation, and Suicide Behaviors Questionnaire scales were applied to the participants.

Results Patients with BD (n=65) had significantly higher scores for emotion dysregulation($p<0.001$) and impulsivity($p<0.001$) than the healthy controls . The scores of DERS, BIS-11, Suicidal ideation, and Suicide behavior scores showed a significant positive correlation. DERS Total and BIS Total scores of BD patients with suicide attempts were significantly higher than BD patients with suicidal ideation and BD patients with neither attempt nor ideation.BD patients with suicide attempt had higher emotion dysregulation problems and higher impulsivity scores than BD patients with suicidal ideation and BD patients with neither attempt not ideation.

Conclusion The results of our study showed that patients with BD had significantly higher emotion dysregulation problems and higher impulsivity scores than health control group. Clinicians should focus on assessing the emotional dysregulation and impulsivity of patients with BD to develop appropriate suicide prevention treatment strategies.

关键字：Bipolar disorder,suicide

双相障碍治疗前后外周血免疫图谱变化的研究

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目的 本研究旨在通过单细胞转录组测序来初步探索双相障碍药物治疗前后的外周血免疫图谱的差异及其可能机制。

方法 本研究招募首诊未服药双相抑郁发作4例，每天均接受喹硫平和丙戊酸盐联合治疗，在基线和药物治疗 1 月后采集外周血并分离单个核细胞进行单细胞转录组测序。随后，根据不同免疫细胞的转录本特征对各类细胞亚型降维、聚类和命名后，通过基因表达差异、差异基因功能富集和细胞通讯分析等方法比较不同细胞亚群在治疗前后的基因表达、功能以及细胞间通讯的差异。

结果 双相障碍药物治疗前后的外周血单细胞测序共鉴定了 10 种主要细胞类型，各免疫细胞类型的细胞数量比例在治疗前后没有显著差异，但细胞功能和细胞间通讯发生了改变：①在 B 淋巴细胞亚聚类中，治疗后患者与核糖体蛋白合成相关的基因 RPL13P12、RPS26 和 RPL9P9，线粒体 ATP 合成相关的基因 MTATP6P1 和 MTCO1P12 和 B 细胞活化相关的基因 IGHA1、IGHA2 和 IGHG3 的表达下降；②在 T 淋巴细胞和 NK 细胞亚聚类中，治疗后 CD4+和 CD8+ T 细胞中包括核糖体蛋白和炎症在内的基因均下调，在 NK 细胞中参与细胞因子介导的信号通路的基因（CCL3、CCL4、IFR1、IFNGR1、CXCR3R1、CXCR4 和 IL18RAP）的表达在治疗后上调；③与治疗前相比，治疗后患者免疫细胞的细胞间通讯显著下降，在治疗后参与炎症和免疫应答的 25 条特殊活动通路中，有 9 条的传入和传出信号减弱，包括 MCH-I、MCH-II、CD99、ITGB2、ADGRE5、SELPLG、LCK、APP 和 CD22。

结论 （1）双相患者在丙戊酸盐联合喹硫平治疗后整体免疫细胞之间的通讯显著减少，多种免疫应答和炎症途径被减弱；（2）药物治疗可能通过抑制 B 和 T 淋巴细胞的核糖体蛋白功能和线粒体活化来缓解炎症反应，而治疗后上调的 NK 介导的免疫可能与异常促炎细胞的清除相关。

关键字：双相障碍；单细胞测序；免疫图谱

Distinct Alterations of White Matter Microstructure in Bipolar Disorder with and with No Psychosis

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Objectives The mixture of affective disturbance and psychosis in bipolar disorder (BD) considerably complicates the clarification of its etiology and the development of its targeted treatments. The present study aims to investigate whether white matter microstructures are similar or distinct in BD with psychosis (BDP) and BD with no psychosis (BDNP).

Methods Diffusion-weighted images were acquired from participants with BDP (n = 38), BDNP (n = 52), and healthy controls (HCs) (n = 70). We compared the indices of fractional anisotropy (FA), mean diffusivity (MD), radial diffusivity (RD) and axial diffusivity (AD) indexing white matter microstructures among BDP, BDNP and HCs groups, and between BDP and BDNP using tract-based spatial statistics (TBSS).

Results Analysis of variance showed significant differences in FA and RD values of the right anterior thalamic radiation (ATR), left corticospinal tract (CST) and the forceps minor of the corpus callosum (FMI), as well as in MD values of the right ATR and FMI among three groups (TFCE-FWE corrected $p < 0.05$). Post hoc analyses found that compared to HCs, BDP group showed lower FA value in the FMI, while BDNP group showed lower FA and

MD values in the right ATR, as well as higher FA and lower RD values in the left CST. Meanwhile BDP group showed lower FA and higher RD values in the FMI compared to BDNP group ($p < 0.05$).

Conclusions These findings suggest divergent contributions from the psychotic features specific to BDP and the affective disturbance common to BD regardless of psychosis to white matter abnormalities. In particular BDP may involve prominent inter-hemispheric white matter dysconnectivity of bilateral prefrontal regions, which may be specifically associated with psychotic features, while BDNP may present intra-hemispheric alterations of white matter microstructure of the right ATR and left CST. This study suggests that dysconnectivity between bilateral prefrontal regions may be a neuroanatomical characteristic of psychosis in BD, which provides substrates for further exploring specific mechanisms that target psychotic domains of BD.

关键字：bipolar disorder; diffusion-weighted MRI; psychosis; white matter

Preventive Interventions for Individuals at Risk of Developing Bipolar Disorder: A Systematic Review and Meta-analysis

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Objective This systematic review and meta-analysis aimed to explore whether early interventions can reduce affective symptoms and have long-term benefits among individuals at risk of bipolar disorder (BD).

Methods The PubMed, Embase, and Web of Science databases were searched. The primary outcome was continuous symptom scores before and after treatment. Random effects meta-analyses were conducted for each outcome arm studied and pooled mean difference estimates were calculated.

Results The search identified 10 controlled studies involving 425 participants and 8 single-arm studies involving 90 participants. For controlled trials, meta-analysis showed that the interventions led to greater reduction in clinical global score than placebo (standardized mean differences (SMD) = -0.96, 95% CI:-1.32, -0.60), and supported a long-term longitudinal effect for pharmacotherapy (SMD = -0.42, 95% CI: ?0.79, -0.05). For single-arm trials, both pharmacotherapy and psychotherapy showed efficacy for depressive symptoms, while pharmacotherapy only showed efficacy for hypomania symptoms (effect size (ES) = -9.16, 95% CI:-11.29, -7.04). Discontinuation of pharmacotherapy due to adverse effects did not show a difference.

Conclusion Based on the limited available data, early interventions show efficacy for individuals at risk of BD. Psychological therapy might be more beneficial for depressive symptoms and have long-term benefits for hypomania. Pharmacotherapy may be appropriate in situations of severe hypomanic symptoms and the poor functioning. Large, well-designed, double-blind -controlled trials are needed to make solid conclusions about the efficacy of early interventions.

关键字：bipolar disorder, early interventions, pharmacotherapy, meta-analysis

Differences in Electrical Cortical Responses between Unipolar Depression and Bipolar Depression under An Emotional Picture Task: Time Domain and Time Frequency Analysis

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Objective Patients with bipolar disorder during a depressive episode can be difficult to distinguish from patients with major depressive disorder (MDD) as both involve symptoms of abnormal emotional function. This study aimed to use electroencephalography (EEG) to explore the differences in neural activity during emotional scene perception between MDD patients and bipolar patients during a depressive episode.

Methods EEG data were collected from 32 patients with unipolar depression, 32 patients with bipolar depression, and 27 healthy controls in the inpatient department of the First Hospital of Shanxi Medical University during the viewing of mood pictures. The data were pre-processed to compare the differences in late positive potential (LPP) wave amplitude and neural oscillations during the processing of emotional stimuli between unipolar depression, bipolar depression, and healthy controls using EEG analysis techniques such as the event-related potential (ERP) and event-related spectral perturbations (ERSP).

Results The results showed that emotional pictures evoked higher LPP wave amplitudes than neutral pictures in both the disease and healthy control groups. The LPP waveform amplitude was lower in the unipolar depression group than in the healthy control group. Theta frequency bands with significant peak time windows were then selected for time-frequency analysis. We found that the theta-ERS induced by the mood picture paradigm was most pronounced in the occipital region, and the theta-ERS in the bipolar depression group was smaller than that in the unipolar depression group and the healthy control group.

Conclusion Our findings suggest that altered cortical neural oscillatory activity may be a feature of cognitive decline in patients with bipolar depression , and that theta-ERS may serve as a biomarker for distinguishing unipolar from bipolar depression.

关键字：unipolar depression, bipolar depression, emotion, event-related potential, late-positive potential, event related spectral perturbations, theta.

事件相关电位多指标联合用于单双相抑郁障碍

鉴别的临床价值

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目的 以抑郁为首发症状的双相情感障碍初次就诊时常被误诊为单相抑郁障碍，给患者治疗及预后带来严重的不良后果。目前仍缺乏鉴别单相抑郁障碍和双相抑郁障碍的客观指标。越来越多研究发现作为客观评价认知功能的事件相关电位，通过评估检测患者神经电生理指标有望作为单相抑郁障碍和相双相抑郁障碍鉴别的标志物。本研究旨在探讨事件相关电位多指标联合用于单双相抑郁障碍鉴别诊断的临床价值。

方法 采用 2017 年至 2021 年期间 264 名住院患者的事件相关电位数据进行机器学习区分单相抑郁障碍和双相抑郁障碍的回顾性研究。首先使用参数检验分析事件相关电位中各单项指标的波幅及潜伏期在单相抑郁障碍和双相抑郁障碍患者间的差异指标，再以事件相关电位中各指标的波幅及潜伏期为分类特征，通过随机森林（Random Forest，RF）方法建立模型对两种疾病进行区分，最后采用交叉验证法验证模型的分类性能，以此建立能够区分单相抑郁障碍和双相抑郁障碍的预测模型。

结果 单相抑郁障碍和双相抑郁障碍两组间性别、年龄、婚姻及学历无显著统计学差异(均 P>0.05)。在数据测试集中，随机森林模型的准确率、灵敏度和特异度分别为 80%、89.8%和 79.6%。验证模型结果：贡献最大的前十位特征依次为 N1 潜伏期、P3a 潜伏期、P3b 波幅、S2-P50 波幅、CNV B 波幅、P3b 潜伏期、S1-P50 波幅、CNVB 潜伏期、P2 潜伏期、N2 潜伏期。

结论 1. 相较于单相抑郁障碍，双相抑郁障碍患者 P300 潜伏期更短、B 潜伏期更长，S1-P50 波幅、S2-P50 波幅、B 波幅更高；2.使用随机森林算法建立的事件相关电位多项指标联合预测模型有望用于区分单相抑郁障碍和双相抑郁障碍。

关键字：单相抑郁障碍；双相抑郁障碍；事件相关电位；多指标联合；随机森林

基于路径分析探讨循环气质、童年期创伤和社会支持对双相情感障碍患者药物依从性的影响

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目的 探讨循环气质、童年期创伤和社会支持与双相情感障碍患者药物依从性变量间的作用通路。

方法 选取 2021 年 1 月至 2022 年 1 月间首都医科大学附属北京安定医院门诊就诊的 BD 共计 211 例，分为药物依从性差和依从性好两组，评估两组患者基本信息、循环气、社会支持、童年期创伤情况，运用 Spearson 相关分析和路径分析的方法确定各变量之间的关系。

结果 （1）循环气质对药物从性有负向直接效应（β=-0.163，P<0.001）；社会支持对药物依从性有正向直接效应（β=0.038，P=0.013）；童年期创伤对药物依从性无直接效应。(2)社会支持对循环气质有负向直接效应（β=-0.091，P=0.001），社会支持也可通过降低循环气质间接改善药物依从性。(3)童年期创伤对社会支持有负向直接效应（β=-0.133，P=0.008），对循环气质有正向直接效应（β=0.071，P<0.001），童年期创伤可通过提高循环气质降低药物依从性；也可通过减少社会支持进一步降低药物依从性。

结论 情感气质和社会支持是影响 BD 药物依从性的关键因素，两者介导了童年期创伤对药物依从性的影响，针对内在气质采取的干预方案更加有助于改善 BD 患者药物依从性。

关键字：双相情感障碍，药物依从性，童年期创伤，社会支持，路径分析

伴混合特征抑郁症和双相情感障碍患者脑局部一致性和功能连接模式分析

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目的 探讨不伴有混合特征抑郁症（MDDnoMF）、伴混合特征抑郁症（MMF）、伴混合特征双相情感障碍（BMF）、不伴有混合特征双相情感障碍（BDnoMF）患者脑区的局部一致性（ReHo）特征，寻找伴混合特征抑郁症和双相情感障碍的脑功能活动和脑功能连接的神经影像学模式。

方法 共纳入 MDDnoMF 组 29 例、MMF 组 24 例、BMF 组 26 例、BDnoMF 组 29 例、HC 组 42 名。采集所有受试者的静息态功能像和结构像脑影像数据，应用基于 MATLAB 的 DPABI 软件获得受试者全脑的局部一致性（ReHo）值，先采用协方差分析和 LSD 或者 Games-Howell 事后检验方法进行组间比较；然后以差异脑区为种子点，计算其与去全脑的功能连接结果。

结果 5 组的左侧梭状回和左侧楔前叶脑区 ReHo 值的差异有统计学意义（P<0.05），其中 MMF 组、BMF 组和 BDnoMF 组患者左侧梭状回 ReHo 值较 HC 组降低，MDDnoMF 组、MMF 组、BMF 组、BDnoMF 组左侧楔前叶的 ReHo 值较 HC 组升高（P<0.05）；MMF 组左侧梭状回 ReHo 值较 MDDnoMF 组降低（P=0.001）；BMF 组左侧梭状回 ReHo 值较 MDDnoMF、BDnoMF 组降低（P<0.05）。5 组左侧梭状回与小脑蚓部、左侧脑岛、右侧壳核和左侧内侧额上回的功能连接差异有

统计学意义，左侧的楔前叶与右侧背外侧额上回功能连接差异有统计学意义（P <0.05）。

结论 MMF 和 BMF 患者在左侧梭状回和楔前叶存在局部功能活动同步性异常，并且与多个脑区之间存在异常功能连接模式。与 MDDnoMF 或 BDnoMF 患者比较，MMF 和 BMF 患者存在特异性神经影像特征，同时也拥有相似的神经影像发病机制。

关键字：抑郁症；双相情感障碍；混合特征；局部一致性；功能连接

Early Identification of Bipolar From Unipolar Depression before Manic Episode: A Resting-State Functional Magnetic Resonance Imaging Study

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Objective Misdiagnosis of bipolar disorder (BD) as unipolar depressive disorder (UD) may result in ineffective therapies and increased healthcare expenses, particularly in the early stages of the condition. The purpose of this study was to evaluate the fractional amplitude of low-frequency fluctuations (fALFF) for depressed patients who converted into BD (cBD) from UD and examine its utility to differentiate patients with cBD from UD using machine learning.

Methods 120 subjects (24 cBD, 48 UD, and 48 healthy controls, HC) were scanned by resting-state functional magnetic resonance imaging (rs-fMRI). The fractional amplitude of low-frequency fluctuations was used to evaluate the brain function of all subjects. The differences in fALFF among the three groups were calculated. In addition, pattern classification analysis was carried out using a support-vector machine (SVM) approach.

Results Using the machine learning (ML) technique, the fALFF effectively identified the cBD from the UD with 87.5% accuracy. Decreased fALFF in the middle temporal gyrus (MTG), left cerebellum posterior lobe, cuneus, and right middle occipital gyrus (MOG) at the early stages of disease may suggest a higher likelihood of a possible hypomanic or manic episode in the follow-up observation.

Conclusion The fALFF might be a possible candidate measure for distinguishing cBD from UD. The findings of this study, if replicated in larger samples and received further pragmatic evaluation in regular clinical practice, could have potential clinical applications.

关键字：bipolar depression; unipolar depression; fractional amplitude of low-frequency fluctuations; diagnostic accuracy; pattern classification; machine learning.

血清周期蛋白 1/2 及环磷腺苷反应元件联合蛋白水平 在单、双相抑郁鉴别诊断的应用

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目的 了解 BPD 与 UPD 患者血清周期蛋白 1、周期蛋白 2 及磷酸化环磷腺苷反应元件联合蛋白水平变化，明确联合检测在 BPD 与 UPD 鉴别诊断中的应用价值。

方法 根据美国《精神疾病诊断与统计手册》第 5 版诊断标准，纳入 40 例单相抑郁患者、30 例双相抑郁患者，同时纳入 30 例健康志愿者。分别收集三组的基本人口学资料、17 项汉密尔顿抑郁量表及心境情感障碍问卷的分数。运用酶联免疫检测法检测三组血清 PER1、PER2、p-CREB 水平，两两分析组间血清 PER1、PER2、p-CREB 水平差异；研究 BPD 与 UPD 患者一般人口学资料、HAMD-17 分数和血清 PER1、PER2、p-CREB 水平的相关性；判断血清 PER1、PER2、p-CREB 水平区间范围单独检测及联合检测诊断的灵敏度、特异度、约登指数和 ROC 曲线；P＜0.05 表示差异具有统计学意义。

结果 （1）BPD 组血清 PER1 水平显著高于 UPD 组和正常对照组，UPD 组血清 PER1 水平显著低于正常对照组，差异具有统计学意义。（2）BPD 和 UPD 组血清 PER2 水平显著高于正常对照组，UPD 组低于 BPD 组，差异有统计学意义。（3）BPD 组血清 p-CREB 水平显著高于 UPD 组和正常对照组，差异有统计学意义。（4）UPD 组和 BPD 组血清 PER1、PER2、p-CREB 水平与 HAMD-17 评分均无相关性；与年龄有相关性。（5）联合检测血清 PER1 和 p-CREB 水平在鉴别诊断 UPD 和 BPD 中，敏感度为 0.933，特异度为 0.950，约登指数为 0.883，ROC 曲线下面积为 0.9858；联合检测血清 PER1、PER2、p-CREB 水平在鉴别诊断 UPD 与 BPD 中，敏感度为 1.000，特异度为 0.897，约登指数为 0.897，ROC 曲线下面积为 0.9906。

结论 血清 PER1、PER2 和 p-CREB 水平在单、双相抑郁发作患者中存在显著差异，单相抑郁发作患者组血清 PER1 水平下降，血清 PER2 水平升高，双相抑郁发作患者组血清 PER1、PER2 及 p-CREB 水平均升高，可作为鉴别诊断单、双相抑郁发作的生物标记物。联合检测血清 PER1 和 p-CREB 水平，或者联合检测血清 PER1、PER2、p-CREB 水平在鉴别诊断单、双相抑郁发作中具有较高的敏感度和特异度，可为早期正确鉴别单、双相抑郁提供重要参考。

关键字：单相抑郁发作；双相抑郁发作；生物节律；周期蛋白 1；周期蛋白 2；环磷腺苷反应元件蛋白；鉴别诊断

焦虑程度对抑郁症患者非自杀性自伤频率的影响：情绪调节的中介作用

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目的 探讨抑郁发作患者的情绪调节策略在焦虑程度与非自杀性自伤（NSSI）频率中的中介作用。

方法 选取从 2022 年 10 月-2023 年 06 月在南京脑科医院精神科住院的 252 例抑郁发作患者为研究对象，采用自残功能性评估量表（FASM）、焦虑自评量表（SAS）、情绪调节量表（ERQ）、自编人口学问卷对患者的自伤频率、焦虑状态以及情绪调节策略的使用进行调查。采用 Spearman 相关分析抑郁发作患者焦虑、情绪调节与 NSSI 频率之间的相关性，采用 PROCESS3.0 统计学软件进行中介效应检验。

结果 抑郁发作患者的 NSSI 检出率为 47.6%(120/252)。NSSI 组中认知重建调节策略得分为 23.25(28.00,32.00) 分，表达抑制策略得分为 18.00(21.00,25.00)分，SAS 得分 60.00(54.00,67.00)分。NSSI 组患者的焦虑状态与 NSSI 频率呈正相关（r=0.358;P<0.001)；认知重评策略与 NSSI 频率呈负相关（r=-0.397;P<0.001），表达抑制策略与 NSSI 频率呈正相关（r=0.411;P<0.001)。中介结果显示，情绪调节策略在焦虑状态与 NSSI 频率间存在部分中介作用，中介效应占比 21.74-33.33%。

结论 抑郁发作患者的情绪调节策略在焦虑程度与非自杀性自伤（NSSI）频率中起到中介作用，提示应重视抑郁发作患者的焦虑状态以及对认知重评进行干预，以减少 NSSI 的发生。

关键字：抑郁；非自杀性自伤；焦虑程度；情绪调节策略；中介效应

使用多基因风险评分在 9 万人样本中寻找抑郁症与双相情感障碍的 EEG 差异

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目的 双相情感障碍的抑郁发作与重度抑郁症的抑郁发作有着惊人的相似性，对双相障碍的准确、及时的识别提出了相当大的挑战，导致了相当高的误诊率。且目前没有公认的生物标记物。先前的调查表明，多达三分之二的双相情感障碍患者最初被错误诊断。此外，对于超过三分之一的患者来说，准确的诊断往往要延迟十年或更长时间。在这些病例中，缺乏情绪稳定干预会增加躁狂发作和自杀倾向的风险，从而使后续治疗复杂化，并给受影响个体的社会和家庭带来重大负担。我们的目的是尝试使用 EEG 的多基因风险评分（Polygenic risk score；PRS）在 9 万人的大样本中寻找抑郁症与双相情感障碍 EEG 的差异，探寻 EEG 能否成为双相情感障碍的潜在生物标记物。

方法 使用 UK Biobank 数据库的基因表型数据和 Smit 等人计算的大型 EEG GWAS 数据在没有表型文件的情况下进行非回归 PRS 计算，得到六个 EEG 波段（alphaCz、betaCz、thetaCz、deltaCz、alphaOcc、peakOcc）各 11 组 PRS 值，共 66 组。PRS 计算使用 PRSices 软件在 Linux 环境中进行。然后计算 UK Biobank 数据库中抑郁症与双相情感障碍患者之间 EEG PRS 的差异情况。最后为了明确差异方向计算了 11 组 PRS 值的均值差。

结果 在 9 万人的样本中（包含 Smith 等人确认的可能的抑郁症与双相情感障碍），EEG alphaCz 波段 PRS 的差异明显，alphaCz 波段 11 组 PRS 值差异均为显著。在均值差结果中显示双相障碍患者 alphaCz 波段 11 组 PRS 值均低于抑郁症患者。在 5 万人的样本中（仅包含 ICD 10 确诊的抑郁症与双相情感障碍），alphaCz 波段 PRS 的差异不显著，但在六个波段中 alphaCz 仍然是最具有潜力的。

结论 EEG alphaCz 波段可能是分辨抑郁症与双相情感障碍的生物标记物。抑郁症患者 EEG alphaCz PRS 高于双相情感障碍患者。这与之前的研究结果类似，alpha 波段与人脑静息状态相关，抑郁症患者 alpha 频段较高。

关键字：双相情感障碍，重度抑郁症，多基因风险评分，EEG

PHQ-9 与 HAMD-17 量表的评估内容比较

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目的 汉密尔顿抑郁量表（the Hamilton Rating Scale for Depression，HAMD-17）几十年来一直被用于评估抑郁症的严重程度。多项研究报道了该量表的缺陷，并认为它不适合临床评估。抑郁症筛查量表（the Patient Health Questionnaire-9，PHQ-9）因其简单易用而被建议作为 HAMD-17 量表的有效替代方案。本部分研究探讨 PHQ-9 量表是否可以替代 HAMD-17 量表以更好地评估抑郁症的严重程度。

方法 研究纳入 1741 名患有抑郁症的参与者。Cronbach's alpha、组内相关系数 （intraclass correlation coefficient，ICC）和加权 Kappa 分析用于确定量表的可靠性。效度分析采用 Pearson 相关分析和因子分析。项目反应理论（item response theory，IRT）被用来分析 HAMD-17 量表和 PHQ-9 量表题目的心理特征。

结果 信度分析表明，HAMD-17 和 PHQ-9 量表的 Cronbach's alpha 分别为 0.829 和 0.893，两个量表的 ICC 为 0.744。抑郁症严重程度评估一致性的 Kappa 得分为 0.248。效度分析表明 PHQ-9 量表是单因子结构，总分与 HAMD-17 量表强相关（r=0.724，P<0.001）。IRT 分析表明，PHQ-9 和 HAMD-17 量表题目的区分度范围分别为 1.45-2.80 和-0.02 - 1.73。通过对两个量表的题目进行匹配比较，发现 PHQ-9 量表的题目在各

维度的区分度均大于 HAMD-17 量表，说明 PHQ-9 的题目能够更好地区分严重程度不同的抑郁症患者。与 HAMD-17 量表相比，PHQ-9 量表提供了更多关于大多数受试者的信息，量表的测量精度令人满意。

结论 PHQ-9 量表在信度、效度和区分抑郁严重程度方面令人满意。它是一种简单、快速、有效和可靠的工具，可替代 HAMD-17 量表来评估抑郁症的严重程度。

关键字：抑郁症；量表评估；PHQ-9; HAMD-17

Autotaxin/LPA 轴通过影响突触可塑性介导抑郁的发生

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目的 Autotaxin (ATX)是一种分泌酶，可以将细胞外的溶血磷脂酰胆碱转化为溶血磷脂酸（Lysophosphatidic acid, LPA），是 LPA 生成过程中最重要的酶之一， 而 LPA 是一种具有多种生物学特性的强效生物活性脂质介质，它通过 6 个 LPA 相关 G 蛋白偶联受体（LPA1-LPA6）发挥各种生理病理功能[1, 2]，包括神经祖细胞功能、髓鞘形成、突触传递、脑内免疫应答等，有临床研究显示重度抑郁症患者血清和脑脊液中 Autotaxin 和 LPA 都下降[3, 4]，鉴于 LPA 在脑内的关键作用，弄清抑郁症患者 Autotaxin 和 LPA 下降的作用尤为重要，本研究针对以上科学疑问作出了进一步研究，明确抑郁症患者 Autotaxin 和 LPA 下降的作用机制。

方法 在抑郁症患者血清和动物抑郁症模型血清、脑组织中通过 Elisa 和 WB、免疫荧光的方式明确抑郁后 Autotaxin 和 LPA 含量的变化，再通过注射 autotaxin 腺病毒的方式明确补充 Autotaxin 对慢性不可预知温和应激模型（CUMS，Chronic Unpredictable Mild Stress）小鼠行为学的影响，在 HT22 细胞添加 LPA 和动物侧脑室注射 LPA，提取蛋白通过 western-blot 验证脑源性神经营养因子 BDNF 的变化，再在此基础上通过 Western-blot 明确 LPA 影响 BDNF 变化的具体机制，最后通过在动物和细胞水平通过同时增加 LPA 和 LPA 受体抑制剂及信号通路抑制剂再次证明抑郁症患者脑内降低的 Autotaxin 和 LPA 是如何影响 BDNF 变化的。

结果 1. 抑郁症患者血清及抑郁模型动物海马组织中 autotaxin 和 LPA 是下降的；2. 在抑郁模型动物体内补充 autotaxin 可以有效缓解抑郁样行为；3. LPA 可以影响 BDNF 的表达；4. LPA 是通过 LPA 受体（LPAR）进一步影响 Erk/CREB 信号通路蛋白的变化，最终导致 BDNF 的变化。

结论 抑郁症患者脑内下降的 autotaxin 和 LPA 是通过 LPAR/ERK/CREB 信号通路影响 BDNF 变大，从而导致抑郁发生发展的，补充 autotaxin 可以有效缓解这一变化。

关键字：抑郁症、autotaxin、LPA

体感运动训练对双相抑郁患者认知功能和脑源性神经营养因子的作用

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目的 为寻求无创、易接受和有效的认知功能增强技术，本研究通过对双相抑郁患者进行体感运动训练干预，探索体感运动训练对双相抑郁患者认知功能和脑源性神经营养因子（Brain derived neurotrophic factor，BDNF）的影响效果。

方法 对符合纳入标准的 54 例双相抑郁患者，通过区组随机法分为实验组（n=27）和对照组（n=27）。实验组在常规治疗基础上接受为期 2 周、每周 4 次的体感运动训练，对照组仅进行常规治疗基础上保持原有日常活动。以 MCCB 评分作为主要指标，外周血 BDNF 水平、HAMD、YRMS、HAMA 作为次要指标，分别在治疗前、治疗 2 周结束时对患者抽取空腹血 3-5ml、评价各项指标，采用 SPSS25.0 软件进行统计分析。

结果 去除中止以及脱落病例 6 例，本研究最终纳入符合标准的病例 48 例，实验组 24 例，对照组 24 例。 1、MCCB 评分比较：组内比较：对照组患者治疗前后仅在符号编码、视觉记忆测验评分有显著改善（$P < 0.05$），实验组患者治疗前后 MCCB 总分及各测验得分均有显著改善，差异有统计学意义（$P < 0.05$）；组间比较：实验组 MCCB 总分、各测验得分治疗前后差值均高于对照组，差异有统计学意义（$P < 0.05$）。 2、量表评估：两组 HAMD 评分、YRMS 评分、HAMA 评分与治疗前相比较均下降，差异有统计学意义（$P < 0.05$）；治疗前后差值无明显差别，差异无统计学意义（$P > 0.05$）。 3、外周血 BDNF：经 2 周体感游戏训练后实验组治疗前后血 BDNF 水平差值高于对照组，差异有统计学意义（$P < 0.05$）。 4、相关性分析：实验组外周血 BDNF 水平与 MCCB 总分整体呈正相关（$r= 0.743$， $P = 0.001$）；对照组外周血 BDNF 水平与 MCCB 总分无明显相关性（$P > 0.05$）。

结论 1、体感运动训练联合常规治疗能够进一步改善双相情感障碍抑郁相患者的认知功能，提高患者的处理速度、注意/警觉、工作记忆、言语学习和记忆、视觉学习和记忆、推理与问题解决能力、社会认知。2、体感运动训练可以提高双相情感障碍抑郁相患者外周血 BDNF 水平。 3、体感运动训练可能是通过增加外周血 BDNF 水平改善 BD 患者认知功能。

关键字：体感运动训练；双相抑郁；认知功能；脑源性神经营养因子

伴有睡眠过多的心境障碍与发作性睡病患者睡眠进程的差异性研究

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目的 探讨伴有睡眠过多症状的心境障碍患者与发作性睡病患者睡眠进程相关数值的差异，为鉴别诊断发作性睡病提供数值依据。

方法 研究对象选取 2012-2021 年在江苏省某三甲精神专科医院就诊，经门诊、住院确诊的发作性睡病患者 10 名和以睡眠过多为主要临床表现的心境障碍患者 13 名，发作性睡病组患者男性 6 例，女性 4 例，年龄 14-64 岁，平均（48.67±15.7）岁，心境障碍组患者男性 8 例，女性 5 例，年龄 17-57 岁，平均（33.2±11.3）岁。采用 Compumedics E Series EEG/PSG 多导睡眠脑电记录仪，观察两组患者睡眠各阶段时长、占比差异。

结果 在总记录时间（Total Recording Time，TRT）（t=6.971，p<0.001）、总睡眠时间（Total Sleeping Time，TST）（t=2.461，p=0.008）、睡眠 S1 阶段（S1）时间（t=7.85，p<0.001）、慢波睡眠（Slow Wave Sleep，SWS）时间（t=13.01，p<0.001）、快速眼球运动睡眠（Rapid Eye Movements，REM）时间（t=4.743，p<0.001）、睡眠 S1 阶段时间百分比（S1%）（t=5.389，p<0.001）、慢波睡眠百分比（SWS%）（t=7.51，p<0.001）和快速眼球运动睡眠时间百分比（REM%）（t=3.287，p<0.001）的比较中，发作性睡病组均低于心境障碍组；在睡眠 S2 阶段时间（S2）（t=2.624，p=0.005）、睡眠 S2 阶段时间百分比（S2%）（t=3.781，p<0.001）和非快速眼球运动睡眠（Non Rapid Eye Movements，NREM）时间（t=3.849，p<0.001）的比较中，发作性睡病组均高于心境障碍组，以上差异均具有统计学意义。

结论 发作性睡病患者与伴有睡眠过多症状的心境障碍患者在多导睡眠监测的相关数值比较中存在特征性差异，使用多导睡眠监测可有效辨别两种疾病。

关键字：心境障碍；发作性睡病

双相障碍患者心境发作与中缝核回声改变的相关性研究

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目的 分析双相障碍患者中脑中缝核回声改变（中断、消失）与心境发作（抑郁、躁狂、轻躁狂）次数、非自杀性自伤、自杀未遂之间的相关性，为评估自杀自伤风险及预后提供数据支持。

方法 对象选取 2018-2020 年在江苏省某三甲精神专科医院住院的双相障碍患者 73 名，其中中缝核回声异常者 43 名，自杀未遂者 19 名，非自杀性自伤患者 14 名，年龄 14-63 岁，平均年龄 37.73。采用 PHILIPS EPIQ 7 彩超诊断仪进行经颅 TCS 探查，观察中缝核回声异常与心境发作次数、非自杀性自伤、自杀未遂行为之间的相关性并对入组患者进行为期 3 年的随访（连续就诊患者 61 名，12 名脱落），观察系统治疗下的心境发作次数的变化。

结果 双相障碍患者中缝核回声改变发生率达 58.9%，远高于抑郁障碍组（入组 109 名，阳性 8 名）中缝核回声改变发生率的 7.3%；中缝核回声改变与系统治疗后心境发作次数相关（r=0.634）；非自杀性自伤组，自杀未遂组中缝核回声改变发生率高于对照组（t=5.22，p<0.01）。

结论 双相障碍患者中缝核回声改变发生率较抑郁障碍高，伴有自杀自伤行为患者中缝核回声改变发生率更高，经过系统治疗后心境发作次数较中缝核回声未改变患者多。综上，中缝核回声改变可能是双相障碍患者发生自杀自伤行为的一个高风险指标；提示病情控制困难。

关键字：心境障碍；中缝核回声改变

抑郁症与双相情感障碍患者昼夜节律通路差异基因研究

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目的 本研究旨在发现昼夜节律通路基因的多态性在 MDD 和 BD 之间的差异，为两者的鉴别提供遗传学依据。

方法 本研究纳入 70 名 5 年随访间一直诊断为 MDD 的患者（简称 MDD 组）和 68 名诊断为 BD 的患者（简称 BD 组），选取昼夜节律通路基因单核苷酸多态性（single nucleotide polymorphisms，SNPs）进行基因检测，采用 UNPHASED 3.1.7 软件包分析每个 SNP 的基因型频率、等位基因频率和单倍型在 MDD 和 BD 间的差异。

结果 本研究基因型频率分析发现两组患者中的 PER1rs2253820（OR=2.386，P=0.022）、PER1rs2735611（OR=2.357，P=0.020）、PER3rs12566042（OR=0.351，P=0.004）、PER3rs17031614（OR=0.389，P=0.010）、PER3rs79372391（OR=0.389，P=0.010）基因型频率的差异有统计学意义，单倍型分析发现 CLOCK 位点 rs12505266、rs2272073、rs3817444、rs11133389 和 rs12505265 构成的单倍型中，T-C-C-T-G 单倍型在两组患者中的差异有统计学意义（OR=0.108，P=0.027）。

结论 通过本文的研究，发现了昼夜节律基因多态性在 MDD 和 BD 间的差异，对临床诊断具有一定的指导意义。

关键字：双相情感障碍，抑郁症，昼夜节律通路，基因多态性

Eight Weeks of Bright Light Therapy Increases Myelin Density in The Posterior Thalamic Radiation in Young Adults with Subthreshold Depression: A Inhomogeneous Magnetization Transfer MRI Study

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Objective Subthreshold depression (SD) is a significant risk indicator of major depressive episodes. The inhomogeneous magnetization transfer (ihMT) technique has not been used to probe myelin abnormalities and its response to bright light therapy (BLT) in SD.

Methods A total of 104 college students with SD and 91 age- and sex-matched healthy controls (HCs) were included. All participants underwent ihMT imaging, and pseudo-quantitative ihMT (qihMT), and ihMT ratio (ihMTR) were obtained. The qihMT and ihMTR values of 50 white matter (WM) fibers were compared between SD and HCs. Thirty-one SD participants underwent eight weeks of BLT, after which we observed the effect of treatment on WM fibers with abnormal qihMT and ihMTR values at baseline in SD. Also, the psychological variables were compared before and after BLT in SD.

Results Compared to HCs, SD showed decreased qihMT values in the bilateral posterior thalamic radiation (PTR) (including optic radiation), right sagittal stratum (including inferior longitudinal fasciculus and inferior fronto-occipital fasciculus), and right uncinate fasciculus, and decreased ihMTR values in the left PTR (include optic radiation) at baseline (all, $p \leq 0.001$). After eight weeks of treatment, qihMT values of all the above fiber tracts increased by BLT in SD patients, with no significant differences than HCs, and qihMT values of the right PTR increased in SD compared to baseline ($p < 0.05$).

Conclusion These findings suggest the macromolecular disruption of myelin in the PTR, sagittal stratum, and uncinate fasciculus in the early stages of depression. Furthermore, the myelin impairments in the PTR could be reversed by BLT, thus suggesting they might be used as the potential neural target for BLT in SD.

关键字：subthreshold depression; bright light therapy; inhomogeneous magnetization transfer; posterior thalamic radiation

Effects of Bright Light Therapy on Cingulate Cortex Dynamic Functional Connectivity in Young Adults with Subthreshold Depression: A Double-blind Randomized Controlled Trial

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Objective Subthreshold depression is a strong risk factor for the onset of major depressive disorder and is associated with an increased burden of disease and suicide risk. Bright light therapy (BLT) is one of the effective interventions for subthreshold depression, but its neural mechanism is still unclear. The goal of this double-blind, randomized, placebo-controlled clinical trial was to assess the correlation between BLT and the dynamic functional connectivity (dFC) changes in the cingulate cortex in subthreshold depression.

Methods Participants with subthreshold depression were randomly assigned to either the BLT group (N = 38) or the placebo group (N = 39). The primary outcome was Hamilton Depression Rating Scale (HDRS), and secondary outcomes were Centre for Epidemiologic Studies Depression Scale (CESD) and Hamilton Anxiety Scale (HAMA), which were assessed before and after 8 weeks. The participants also underwent resting-state functional magnetic resonance imaging before and after 8 weeks. The subgenual, pregenual and the supracallosal anterior cingulate cortex (subACC, preACC, supACC), middle cingulate cortex (MCC) and posterior cingulate cortex (PCC) seed-based whole-brain dFC analysis was conducted. Furthermore, a multivariate regression model was adopted to predict HDRS and CESD scores changes after BLT.

Results BLT group showed decreased CESD score ($t = 3.195$, $p = 0.002$) and HDRS score ($t = 3.232$, $p = 0.002$) from pre-treatment to post-treatment compared to the placebo group. Also, compared to baseline, BLT group showed increased dFC of the right supACC-right temporal pole (TP), left MCC-right insula, and left supACC-pons, and decreased dFC of the right supACC- right middle frontal gyrus after intervention. Changes in dFC of the right supACC-right TP showed positive correlation with changes in CESD score (significant: $r = 0.522$, $p = 0.003$) and HDRS score (marginally significant: $r = 0.346$, $p = 0.061$) before and after BLT. Moreover, combining the baseline dFC variability of the cingulate cortex could predict HDRS changes in BLT.

Conclusion These results suggested that BLT alleviates depressive symptoms and changes the cingulate cortex dFC variability in subthreshold depression, which raises the possibility that pre-treatment dFC variability of the cingulate cortex could be used as a biomarker for improved BLT treatment in subthreshold depression.

关键字：Bright light therapy, cingulate cortex, dynamic functional connectivity, subthreshold depression

基于独立成分分析双相障碍II型抑郁发作患者脑功能网络连接与炎性细胞因子的相关性研究

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目的 研究双相障碍II型抑郁发作患者的默认网络和边缘系统功能连接和炎性细胞因子表达水平及两者的相关性。

方法 纳入33例双相障碍II型抑郁发作患者和46名健康对照进行静息态磁共振数据采集，图像预处理后采用独立成分分析方法从影像数据中提取默认网络和边缘系统，比较患者组和对照组的静息态脑网络间功能连接差异；检测患者组和对照组的血清炎性细胞因子白介素-6（interleukin, IL-6）、IL-8、IL-10、肿瘤坏死因子-α（tumor necrosis factor-α，TNF-α）和趋化因子C-C配体4（C-C motif chemokine 4, CCL4）水平，探讨差异脑区的功能连接与炎性细胞因子表达水平之间

的相关性。

结果 患者组默认网络的右侧内侧前额叶、左侧额上回功能连接减弱，边缘系统的左侧小脑IV、V小叶和小脑后叶扁桃体功能连接增强，均 $p<0.05$。患者组血清炎性细胞因子 IL-10、CCL4 表达水平高于对照组（$p<0.05$）。患者组小脑IV、V小叶功能连接与血清 IL-10 水平呈正相关（$r=0.432$，$p=0.031$）；小脑后叶扁桃体功能连接与血清 IL-10 水平呈正相关（$r=0.429$，$p=0.032$），与血清 CCL4 水平呈正相关（$r=0.402$，$p=0.046$）。

结论 静息态下双相障碍II型抑郁发作患者默认网络和边缘系统功能连接异常，血清炎性细胞因子表达水平升高且与边缘系统功能连接存在相关。

关键字：双相障碍 炎性细胞因子 独立成分分析

Meta-analysis of Cortical Thickness Reduction in Adult Schizophrenia

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Objective Schizophrenia (SCZ) is a severe psychiatric disease characterized by cognitive impairment, auditory hallucination, delusions, abnormal behavioral disorders, and poor long-term prognosis leading to adverse effects on the life quality and social function of patients with SCZ1-4. SCZ affects approximately 1% of the general population in the world, places a tremendous burden on sufferers, families, and society, and remains a debilitatingly progressive and incurable disease5. It is recognized globally as the most significant reason for a chronic psychiatric disability. However, the specific pathophysiology and neuroanatomical biomarkers of SCZ remain elusive. Structural magnetic resonance imaging is a non-invasive neuroimaging technique widely used to research brain structural abnormalities in SCZ, significantly improving our understanding of the neurobiological characteristics of Schizophrenia6,7. Cortical thickness is one of the critical indicators of brain structure, mainly measured by surface-based morphometry (SBM), reflects the size, density, and arrangement of neurons, neuroglia, and nerve fibers8 and changes with typical development, aging, and specific pathologies9. Thus, there is an increasing number of exploratory studies on cortical thickness in SCZ patients. Although significant progress has been made in understanding the neurobiological characteristics of SCZ, previous studies have reported inconsistent alterations in cortical thickness in SCZ patients. These inconsistencies may be due to differences between studies in the sample characteristics (such as age, sexuality, and ethnicity), flexible analyses and statistical methods, illness duration and stage, and medication situation. Thus, a quantitative assessment of cortical thickness abnormalities using neuroimaging meta-analysis is needed to overcome such divergence in the SCZ literature.

Methods This meta-analysis of whole-brain study explored cortical thickness alteration in adult SCZ patients compared with healthy controls (HCs) by using the Seed-based d Mapping with Permutation of Subject Images (SDM-PSI) software.

Results A total of 25 studies (33 datasets) comprising 2008 SCZ patients and 2004 HCs were included by a systematic literature search. Overall, adult patients with SCZ displayed cortical thickness decrease in the right inferior frontal gyrus (IFG), and bilateral insula.

Conclusion The SBM meta-analysis suggested that SCZ patients showed aberrant cortical thickness mainly in the inferior frontal gyrus, insula suggesting that deficits in those regions might underlie the SCZ.

关键字：Schizophrenia; Cortical Thickness; SDM-PSI

伴忧郁特征抑郁症患者纹状体亚区功能连接与其认知功能障碍的相关性研究

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目的 忧郁特征型抑郁症是普遍公认的重度抑郁症的亚型之一，其特征是精神运动困难、快感缺乏、体重减轻、不适当的内疚感和早醒。越来越多的研究表明，纹状体结构的改变可能与忧郁特征型抑郁症的神经生理病理有关。然而目前尚无研究探讨伴忧郁特征抑郁症患者的纹状体 12 亚区的全脑功能连接的改变。本次研究目的是揭示纹状体12亚区的功能连接异常的模式，以及其与伴忧郁特征抑郁症患者的认知功能障碍的关联。

方法 纳入 81 例伴忧郁特征抑郁症患者和 88 名健康对照进行静息态磁共振数据采集，图像预处理后，选取纹状体 12 个种子区，计算纹状体 12 亚区与全脑的功能连接，比较病例组和对照组的静息态下脑区之间功能连接差异。通过 MATRICS 共识认知成套测验(MCCB)，比较病例组和对照组的认知功能。最后进行相关性分析，探讨差异脑区的功能连接与 MCCB 认知表现之间的相关性。

结果 与健康对照组相比，伴忧郁特征抑郁症患者的右侧纹状体背侧尾状核 - 腹侧壳核亚区和左侧顶上小叶功能连接降低 [$t=-4.52$，体素 $P<0.001$, 团块 $P<0.004$ (0.05/12)，GRF 校正]。此外，信息处理速度、工作记忆、词语学习、视觉学习、社会认知、综合分数表现得分均低于对照组(均 $P<0.05$)。相关性分析显示，右侧纹状体背侧尾状核 - 腹侧壳核亚区和左侧顶上小叶差异脑区值与社会认知($r=0.308$, $P=0.021$)、视觉学习($r=0.402$, $P=0.002$)和综合分数($r=0.417$, $P=0.001$)均存在正相关。

结论 本研究发现伴忧郁特征抑郁症患者右侧纹状体背侧尾状核 - 腹侧壳核亚区存在功能连接异常，并提示右侧纹状体背侧尾状核 - 腹侧壳核亚区和左

侧顶上小叶功能连接异常可能是伴忧郁特征抑郁症患者认知功能障碍的神经生物学基础。

关键字：忧郁特征； 认知功能； 纹状体

Systematic Review and Meta-analysis: Multimodal Functional and Anatomical Neural Alterations in Autism Spectrum Disorder

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Objective This meta-analysis aimed to explore the most robust findings across numerous existing resting-state functional imaging and voxel-based morphometry (VBM) studies on the functional and structural brain alterations in patients with autism spectrum disorder (ASD).

Methods A whole-brain voxel-wise meta-analysis was conducted to compare the differences in the intrinsic functional activity and gray matter volume (GMV) between patients with ASD and typically developing individuals (TDs) using Seed-based d Mapping software.

Results A total of 23 functional imaging studies (786 ASD, 710 TDs) and 52 VBM studies (1728 ASD, 1747 TDs) were included. Compared with TDs, patients with ASD displayed resting-state functional decreases in the left insula (extending to left superior temporal gyrus [STG]), bilateral anterior cingulate cortex/medial prefrontal cortex (ACC/mPFC), left angular gyrus and right inferior temporal gyrus, as well as increases in the right supplementary motor area and precuneus. For VBM meta-analysis, patients with ASD displayed decreased GMV in the ACC/mPFC and left cerebellum, and increased GMV in the left middle temporal gyrus (extending to the left insula and STG), bilateral olfactory cortex, and right precentral gyrus. Further, patients with ASD displayed decreased resting-state functional activity and increased GMV in the left insula after overlapping the functional and structural differences.

Conclusion The present multimodal meta-analysis demonstrated that ASD exhibited similar alterations in both function and structure of the insula and ACC/mPFC, and functional or structural alterations in the default mode network (DMN), primary motor and sensory regions. These findings contribute to further understanding of the pathophysiology of ASD.

关键字：Meta-analysis; autism spectrum disorder; resting-state functional imaging; voxel-based morphometry; gray matter volume

Gut Microbiota-brain- Inflammation Relationships in Unmedicated Bipolar Disorder II: A Prospective Study

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Objective The dysregulation of gut microbiota and immune are increasingly reported in bipolar disorder (BD), but the relationships of the gut microbiota-brain-immune remains unknown.

Methods 65 Patients with unmedicated BD II depression and 58 healthy controls (HCs) were prospectively enrolled. Fecal samples, blood samples and resting-state functional magnetic resonance imaging (rs-fMRI) were acquired from all subjects. 16S amplicon sequencing was used to assess gut diversity and enterotypes. Serum was assayed for levels of inflammatory cytokines (interleukin [IL]-6, IL-8, IL-10). The amplitude of low-frequency fluctuation (ALFF) was measured, and abnormal ALFF masks were subsequently set as regions of interest (ROIs) to calculate the whole-brain functional connectivity (FC) and dynamic functional connectivity (dFC). Then, the partial correlation coefficients among the abnormal neuroimaging measures, gut microbiota and inflammatory cytokines levels were performed. Additionally, the support vector machine (SVM) classifiers were carried out to distinguish patients with BD II from HCs.

Results Patients with BD II exhibited decreased ALFF values in the left cerebellum Crus II, as well as decreased FC between the left cerebellum Crus II and the right inferior parietal lobule (IPL), and decreased dFC between the left cerebellum Crus II and right cerebellum and right superior frontal gyrus compared to HCs. Moreover, higher IL-6, IL-8, IL-10 levels, and 14 species increased and 5 species decreased were identified in patients compared to HCs. Correlation analysis showed that genus Parabacteroides was positively correlated with IL-10 level, as well as negatively correlated with ALFF values in the left cerebellum Crus II in patients with BD II. IL-8 level was negatively correlated with FC of the left cerebellum Crus II to the right IPL in patients with BD II. In terms of the classification of BD from HCs, it reached optimized area under curve (AUC) at 0.852 when combining abnormal gut microbiota, inflammatory cytokines and neuroimaging measures.

Conclusion Our findings may enable a better understanding of the gut microbiota-brain- inflammation relationships in BD II.

关键字：Bipolar disorder; gut microbiota; functional MRI; inflammation

眼动追踪技术在情感障碍研究中的典型范式及研究进展

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目的 情感障碍主要指抑郁障碍及双相情感障碍，常发病在成年早期，可损害患者的社会功能，造成巨大社会经济负担，但目前其发病机制仍不明确，临床诊疗仍缺乏客观的评估手段。眼动追踪技术是一项针对眼

球的一系列自发性、控制性及目的性运动的客观评估手段，可量化评估的范围包括瞳孔的动态变化、眼睛注视的位置和时间、运动轨迹等，为探索情感障碍患者的认知功能及情绪感知处理过程提供了可视化手段。本文拟围绕近十年情感障碍研究的眼动范式、眼动异常及潜在机制展开综述。

方法 以“眼动追踪”、“抑郁障碍”、“双相情感障碍”、"eye-tracking" 、“depression” "depressive disorder" 、“bipolar disorder”等为关键词在万方、Pubmed 等数据库检索总结目前有关眼动追踪技术与情感障碍相关的研究。

结果 常用的眼动追踪范式包括自由观看任务、点探针任务、视觉参与-脱离任务、社会压力下的演讲任务、视觉搜索任务、平滑眼球追踪运动、眼跳与反眼跳任务。抑郁患者存在消极刺激的注意增加及脱离困难，任务中的更长的图像注视时间提示其可能有认知损害。老年抑郁患者存在抑制能力缺陷，或可预测老年患者自杀的风险。缓解期抑郁症患者对积极刺激的注意有所恢复但仍难以脱离消极刺激；对威胁、愤怒刺激的注意偏向会增加抑郁症发病风险。双相障碍患者普遍对威胁刺激注意增加；双相躁狂患者则表现出对积极刺激注意增加；此外，平滑眼球追踪运动可以鉴别双相障碍患者是否伴随精神症状。眼动的异常与适应功能不良、情绪调节策略使用不足、认知资源分配异常等相关。

结论 眼动追踪技术可以量化评估情感障碍患者的注意力倾向、认知功能、视觉追踪能力、抑制能力等方面的异常，既能体现情感障碍的神经生理变化，也可以作为疾病严重程度的评估指标，辅助临床的诊断与治疗，有望成为情感障碍机制研究及临床诊治的有效工具。然而，目前情感障碍相关眼动的机制仍不明确，仍缺少针对更细化的情感障碍分型的眼动差异研究，未来仍需进一步拓展眼动追踪技术的应用。

关键字：情感障碍；抑郁障碍；双相情感障碍；眼动；眼动范式；

外周全血细胞计数与情感障碍患者自杀风险和肇事风险之间的关系

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目的 情感障碍是一种常见的精神疾病，它会导致疾病发生率和死亡率的增加，与自杀存在密切关系。在《国际疾病分类》第 10 版（ICD-10）中，抑郁症和双相情感障碍都隶属于情感障碍。目前它们的病因均尚未明确，两种疾病的病理生理学机制一直备受研究者关注，其中就包括炎症。白细胞计数（WBC）是一种非特异性的炎症标记物，中性粒/淋巴细胞比值（NLR）、单核/淋巴细胞比值（MLR）、血小板/淋巴细胞比值（PLR）已经成为重要的外周炎症生物标记物。研究发现 NLR、MLR 和 PLR 可作为区分单相与双相抑郁的潜在生物标记物；NLR 与自杀行为之间的关系也被发现。在情感障碍中，除了较高的自杀风险，还有可能出现肇事风险，研究发现，双相障碍患者抑郁发作期间自杀风险较高，而躁狂发作期间肇事风险较高。因此，本研究将（1）考察双相障碍不同状态下的自杀与肇事风险，以及全血细胞计数指标上的差异；（2）考察双相障碍患者与抑郁症患者全血细胞计数指标上的差异；（3）考察情感障碍患者全血细胞计数指标与自杀和肇事风险的关系。

方法 本研究纳入 18-65 岁双相障碍躁狂发作患者（双相躁狂）42 例，双相障碍抑郁发作（双相抑郁）患者 38 例，双相障碍伴混合特征（双相混合）患者 20 例，抑郁症患者 100 例。各组患者的性别、年龄、受教育年限均无显著性差异。研究中采集患者的外周血，进行全血细胞计数（CBC）检测，获得 WBC、中性粒细胞、淋巴细胞、单核细胞和血小板计数，以及 NLR、MLR、PLR 等指标。

结果 双相躁狂患者的自杀风险显著低于双相抑郁和双相混合患者，但三组患者全血细胞计数指标均无显著性差异。但双相障碍患者的 WBC、中性粒细胞数以及 NLR 均显著高于抑郁症患者。CBC 指标与自杀和肇事风险偏相关分析结果表明，自杀风险与淋巴细胞数呈正相关，与中性粒细胞数、NLR、PLR 呈负相关；自杀尝试史与 CBC 指标无显著相关。肇事风险与 WBC、中性粒细胞数、单核细胞数、NLR、MLR、PLR 均存在显著的正相关。

结论 （1）CBC 指标可能无法区分双相障碍的不同状态；（2）双相障碍与抑郁症患者 CBC 指标的差异表明，双相障碍患者的外周炎症水平可能高于抑郁症患者；（3）CBC 指标与自杀风险以及肇事风险均存在显著的相关，说明自杀风险与肇事风险均与外周炎症/免疫相关，这些指标可能成为风险监测的外周标记物。

关键字：抑郁症；双相障碍；全血细胞计数；自杀风险；肇事风险

锂盐对双相情感障碍患者血脂代谢的影响

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目的 在精神科的临床治疗中，应用锂盐等心境稳定剂治疗双相情感障碍(Bipolar disorder, BD) 往往会伴随出现代谢方面的并发症。目前，应用锂盐治疗 BD 对脂代谢的影响受到医生越来越多的关注。脂代谢紊乱会导致诸如心脑血管疾病等更严重的危害，更不利于疾病的治疗。基于此目的，本研究旨在探讨锂盐对双相障碍患者脂代谢的影响。

方法 采用回顾性研究方法，纳入 2021—2022 年在山西省精神卫生中心门诊就诊及住院治疗的 BD 患者 116 例，均接受锂盐治疗 1 个月。采用迈瑞 800 全自动生化分析仪检测患者基线及锂盐治疗 4 周后的空腹血脂水平，如血清甘油三酯、胆固醇、高密度脂蛋白、

低密度脂蛋白水平。

结果 共纳入BD患者116例(男69例，女47例)。我们发现应用锂盐治疗与血清甘油三酯水平呈显著正相关(r = 0.25, p = 0.038)，与血清高密度脂蛋白水平呈显著负相关(r = -0.19, p = 0.05)。进一步研究发现，女性患者的脂质代谢水平变化更为明显，主要表现为应用锂盐治疗与女性患者的胆固醇水平(r = 0.31, p = 0.032)和血甘油三酯水平(r = 0.41, p = 0.004)呈显著正相关。与低密度脂蛋白水平呈正相关(r = 0.36, p = 0.014)。

结论 锂盐治疗对双相障碍患者的脂代谢有显著影响，其中女性患者更为敏感。因此，定期监测患者的脂代谢水平十分必要。对于已经存在相关代谢性疾病风险的患者，应慎用锂盐。

关键字：锂盐；双相情感障碍；血脂代谢；胆固醇；甘油三酯；低密度脂蛋白；高密度脂蛋白；

住院双相情感障碍患者共病心血管疾病的患病率及危险因素

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目的 双相情感障碍（BD）是一种慢性、复发性精神疾病，其死亡率比一般人群高2-4倍，较高的死亡率导致预期寿命至少减少了10年。而其中心血管疾病（CVD）是导致双相障碍患者过多和过早死亡的主要原因之一。然而，关于双相障碍患者共病心血管疾病的危险因素还没有确切结论。本研究的目的是探讨在双相障碍患者中除心血管疾病的传统危险因素外，双相障碍临床特征与心血管疾病间的关系。

方法 本研究采用横断面研究的方法利用电子病历系统收集2016年1月1日~2020年12月31日于天津市安定医院住院的双相情感障碍患者相关资料，包括社会人口学信息、临床特征资料及空腹血液检查结果，研究数据均来源于末次住院资料。所有患者均符合ICD-10双相情感障碍诊断标准，并根据出院记录详细记录是否有心血管疾病（CVD）的明确诊断（本研究主要包括高血压、冠心病、心肌缺血）。心血管疾病的诊断有重要的身体或实验室检查结果支持，且这些疾病正在接受相关治疗。对分类变量采用卡方检验，连续变量进行正态分布检验后采用独立样本T检验或非参数检验比较伴或不伴心血管疾病的双相障碍患者的组间差异。最后采用二元logistic回归分析双相障碍患者共病心血管疾病的危险因素。

结果 本研究共包括1120名双相情感障碍患者，其中206例（18.4%）共病心血管疾病（CVD）。利用卡方检验分析，两组患者在年龄、性别、受教育程度、工作状况的差异有统计学意义（P<0.001）。共病CVD的BP患者病程更长，住院次数更多，使用更多的第二代抗精神病药物（P < 0.001）。而在疾病发作类型、是否伴精神病性症状和抗精神病药物的使用方面均未发现明显差异（P>0.05）。共病CVD的BP患者同时共病糖尿病比例更高，血清TG和LDL升高，而血清HDL显著降低（P<0.05）。两组患者在空腹血糖（FBG）、胆固醇（CHOL）、TSH、T3、T4 差异均无统计学意义（P>0.05）。最后通过logistic回归分析发现除糖尿病、TG传统因素外，双相障碍患者病程更长、使用第二代抗精神病药是其共病心血管疾病的重要非传统危险因素。

结论 与普通人群相比，双相障碍患者合并心血管疾病的风险更大，不仅与传统的危险因素相关，而且与疾病本身相关的非传统危险因素相关。为了阐明BP患者心血管疾病的发病机制，需要纵向研究传统危险因素与双相情感障碍特征之间的相互作用。

关键字：双相情感障碍，心血管疾病，患病率，临床特征

家庭单元式延续护理在双相情感障碍患者中的应用效果分析

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目的 研究对于双相情感障碍（Bipolar Disorder，BD）患者应用家庭单元式延续护理的效果

方法 于我院BD患者中随机抽取60例分为对照组（30例，常规延续护理）和观察组（30例，家庭单元式延续护理），对比两组应用效果。对照组采取常规护理，定期电话随访，督促患者按时用药，定期复诊。观察组实施家庭单元式延续护理，措施如下：（1）调查家庭状况：详细了解患者家庭结构、居住情况、兴趣爱好、生活状态、家庭成员关系等信息。（2）出院后随访管理：根据患者及家属意愿选择电话随访或者家访等方式，电话随访患者主要通过电话沟通，家访则需要到患者家里面对面沟通，着重向家属了解患者的情况，对患者和家属进行健康宣教，科普药物、居家护理等知识，帮助患者和家属了解疾病，学习家庭护理。了解出院后是否按照医嘱用药，保证健康生活方式，家庭成员相处过程中是否出现冲突，患者情绪状况等内容。根据家属反馈给出建议，帮助家属建立信心，能够多关怀包容患者，主动分担家务劳动，有意识帮助患者恢复生活能力，对家属进行鼓励和支持。表达对家属的理解，认同家属对护理的支持和努力，理解家属产生的照护压力感，指导家属沟通技巧。（3）小组训练活动：鼓励家属和患者展开小组训练活动，可以选择不同社交场景，让患者和家属扮演不同的角色，进行互相问候，在特定场景下进行社交交流，家属能够根据患者的表达做出对应的回应，给予肯定和表扬，让患者积极参与训练，提高其社交能力。

结果 结果：观察组CD-RISC（64.76±4.62）分，HAMD（16.41±4.39）分，显著优于对照组[CD-RISC（56.22±4.15）分，HAMD（26.39±3.85）分]（P＜0.05）。观察组SDSS（5.16±0.44）分，GQOL-74（304.65±23.41）分，显著优于对照组[SDSS（8.19±0.52）分，GQOL-74（268.47±25.30）分]（P＜0.05）。观察组满意度（100%）

高于对照组（80%）（P＜0.05）。

结论 对于 BD 患者应用家庭单元式延续护理后能够有效改善患者抑郁情绪，促进患者社会功能的恢复，并提高其生活质量，更能达到患者满意，具有较高应用价值。

关键字：双相情感障碍；家庭健康教育；延续性护理；生活质量；

基于汉族人群的双相障碍患者独立样本的遗传关联研究

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目的 通过芯片测序和生物信息学方法，采用全基因组遗传关联研究的方法，对汉族人群中双相障碍患者的遗传特征进行分析。分别通过病例/对照研究和自主探索的转相建模方式的数量性状进行关联分析，寻找一些和双相障碍发病及其相位发生转化的生物学机制。

方法 分别纳入同为汉族人群的患者 194 例和对照 99 例，该部分患者皆为北京大学第六医院纳入，同时和浙江大学第一医院纳入的 1006 例患者及 863 慢病计划纳入的 3000 名对照进。利用 ASA、zhonghua-8 等芯片对样本进行芯片测序，之后再根据千人基因组计划等的人类基因库数据进行 imputation。对性别、杂合率、MAF、亲缘关系等进行质控后，利用采用 plink 软件进行全基因组关联分析（GWAS）。除了利用 case/ctrl 进行分析外，还根据患者的 ymrs、hamd 分数进行转相剧烈程度进行分析，采用 sigmoid 函数设置阈值，利用深度学习方法输出其数量性状。之后再根据结果进行 GWAS 分析。采用 R 的 qqman、ggplot2 等包进行作图和结果呈现。

结果 设置 threshold 为 1*10^-8，经过 F 校正后，case/ctrl 的结果发现 rs461105，和 rs2330454 两个 SNP 为显著，分别位于 LOC102467217 和非编码区。利用和转相相关的数量性状进行分析，发现 rs200847539、rs9366721 、rs4663334 显著，分别位于 SDHAP2 辅酶 Q 家族基因、ZBED9 紧张致高血压风险基因、UGT1A10 和肝脏活性酶相关基因的编码区。

结论 利用中国汉族人群的独立样本进行分析后发现了一些前人未报道的显著的 SNP，尤其是和转相相关的 SNP 位于一些之前尚未被报道和双相相关的功能基因编码区。这些基因可能在双相障碍的相位转化中扮演了重要角色，有进一步进行探索和分析的价值。

关键字：双相障碍，遗传学，GWAS，生物信息学

双相障碍患者疾病知识水平、自我管理 和生活质量的相关性研究

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目的 描述双相障碍患者疾病知识水平、自我管理和生活质量的现状；探讨疾病知识水平、自我管理和生活质量的相关性；分析双相障碍患者生活质量的相关影响因素。

方法 采用横断面研究方法，于 2022 年 1 月～2022 年 10 月便利抽取广州市某两所三甲医院精神心理科门诊符合纳入标准的 255 例双相障碍患者，分别采用一般资料问卷、双相障碍生活质量量表、双相障碍知识量表、双相障碍自我管理量表对双相障碍患者的社会人口学和疾病资料、生活质量、疾病知识水平及自我管理进行调查，使用 SPSS 25.0 软件进行数据整理和统计分析。

结果 （1）双相障碍患者的生活质量平均得分为（39.36±8.93）分，条目均分为（3.28±0.74）分，生活方面条目均分为（3.13±0.85）分，社会功能条目均分为（3.27±0.88）分，社会心理条目均分为（3.40±0.79）分。双相障碍患者的疾病知识水平平均得分为（12.28±2.76）分。双相障碍患者的自我管理平均得分为（66.01±13.83）分。（2）双相障碍患者的生活质量与疾病知识水平呈正相关关系（r=0.201，P＜0.01）；双相障碍患者的生活质量与自我管理呈正相关关系（r=0.546，P＜0.01）。（3）双相障碍患者生活质量的影响因素包括体质指数（Body Mass Index，BMI）18.5～23.9Kg/m2（β=0.131，P＜0.01）、经济收入（β=0.097，P＜0.05）、病程（β=-0.134，P＜0.01）、抑郁症状（β=-0.356，P＜0.01）、躁狂症状（β=-0.070，P＜0.05）、疾病知识水平（β=0.165，P＜0.01）、自我管理（β=0.380，P＜0.01），共解释 46.6% 的变异量（R2=0.466，F=30.794，P＜0.01）。

结论 （1）双相障碍患者的生活质量较差，疾病知识水平不足，自我管理欠佳，有待提高。（2）疾病知识水平越高、自我管理水平越高、BMI 处于正常范围的双相障碍患者，其生活质量越好；经济收入越低、病程越长、抑郁症状和躁狂症状越严重的双相障碍患者，其生活质量越差。

关键字：双相障碍；疾病知识水平；自我管理；生活质量

儿童精神病学组

儿童青少年情绪障碍患者努力获得奖赏的动机受损的特征及影响因素

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目的 动机缺乏是抑郁症的一个典型特征，会导致患者为获得奖励而付出努力（effort）的意愿降低，并且与快感缺乏的严重程度及社会功能的受损之间存在联系。既往研究聚焦于成人抑郁症群体，对儿童青少年情绪障碍患者努力获得奖赏的动机受损的特征及影响因素的考察较少。

方法 采用奖励-努力付出任务(Effort-Expenditure for Rewards Task)及包括情绪状态、家庭关系等量表评估，结合计算建模（computational modelling）考察青少年障碍患者的奖赏努力受损的特征及可能的影响因素。被试为 49 名儿童青少年情绪障碍患者及 35 名正常对照。要求他们完成奖励任务的努力付出的行为学任务及有关情绪状态、家庭关系等系列量表评估。

结果 1）行为学结果发现：患者组选择高努力/高回报的比例（Proportion of effortful choice）显著低于正常组（$t=-2.12, p=0.037$），而折现率（ discounting rate）则高于对照组（$t=2.16, p=0.033$）。此外，在患者组，女生选择高努力/高回报的比例显著低于男生。2)在患者组中发现：选择高努力/高回报的比例与汉密尔顿抑郁量表（HAMD）评分存在负相关（$r=-0.250, p=0.08$）；与童年创伤问卷（CTQ）性虐待因子分之间存在显著正相关，$r=-0.475, p=0.0006$；与述情障碍量表(TAS)情感描述不能因子分之间存在显著负相关，$r=-0.290, p=0.0430$. 在对照组中发现：选择高努力/高回报的比例与反刍思维量表分间存在显著负相关，$r=-0.440, p=0.022$; 与家庭沟通家庭关系量表分之间存在显著正相关（$r=0.728, p=0.0003$;$r=0.667, p=0.0013$），折现率与家庭沟通及家庭关系量表分之间存在显著负相关（$r=-0.571, p=0.0085$; $r=-0.542, p=0.0135$）。

结论 儿童青少年情绪障碍患者为获得奖励而付出身体和认知努力的意愿降低，且这种动机受损在女性患者中更为严重，抑郁情绪、童年创伤及情感描述能力显著影响动机投入。家庭关系、家庭沟通是儿童青少年维持正常努力动机的保护因素，不良的思维习惯（反刍）是破坏因素。

关键字：儿童青少年；情绪障碍；动机；家庭关系

Peer Victimization and Non-suicidal Self-injury Among Depressed Adolescents: A Moderated Mediation Model

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Background Non-suicidal self-injury (NSSI) is a serious and highly prevalent problem among adolescents with depression. Peer victimization as a risk factor for non-suicidal self-injury has been confirmed in previous studies. However, little is known about how it induces adolescents to commit non-suicidal self-injury.

Methods A total of 740 depressed outpatients aged 12-18 years with non-suicidal self-injury were selected. General demographic information was collected using the self-designed scale, and relevant information was collected using the Functional Assessment of Self-Mutilation, Patient Health Questionnaire-9, Multidimensional Peer Victimization Scale, and Borderline Personality Features Scale for Children.

Results After controlling for age and sex, it was found that depressive symptoms partially mediated the relationship between peer victimization and non-suicidal self-injury ($P < 0.001$). Borderline personality features moderated the mediating effect of depressive symptoms. The moderating effect occurs in the second half of the mediating effect ($P = 0.002$). Limitations: The research covered a short span of time. Secondly, and only adolescents were selected as study subjects.

Conclusion The moderated mediation model constructed in this study reveals the internal mechanism between adolescent peer victimization and non-suicidal self-injury, which is of great significance for the prevention and intervention of adolescent non-suicidal self-injury.

关键字：Non-suicidal self-injury, Depression, Peer victimization, Borderline personality features, Adolescent

Severity Related Alterations of Gray Matter Volume, Cortical Thickness and Functional Activity in Young Adults with Major Depressive Disorder

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Objective The primary goal of the present study was to comprehensively clarify the neural basis of young depressed patients with suicide attempt through the combination of structural and functional analyses.

Methods In this study, we examined the cortical

and subcortical alterations of neuroanatomical structures and spontaneous functional activation in 50 unmedicated adolescents with MDD vs. 39 healthy controls through the combined structural and resting-state functional magnetic resonance imaging.Firstly, we utilized voxel-based morphometry (VBM) to examine the subcortical structure of GM volume in adult patients with MDD in comparison with healthy controls. Second, we used the surface-based morphometry (SBM) to examine the CT in MDD patients compared with healthy controls. Thirdly, we also investigated the subcortical ALFF and ReHo as measurements of functional activity in MDD patients compared to controls. Finally, we calculated the surface ALFF and ReHo measurements and compared between patients and control groups.

Results Significantly altered regional gray matter volume was found at broader frontal-temporal-parietal and subcortical brain areas involved with various forms of information processing in adolescent MDD. Specifically, the increased GM volume at the left paracentral lobule and right supplementary motor cortex was significantly correlated with depression severity in adolescent MDD. Furthermore, lower cortical thickness at brain areas responsible for visual and auditory processing as well as motor movements was found in adolescent MDD. The lower cortical thickness at the superior premotor subdivision was positively correlated with the course of the disease. Moreover, higher spontaneous neuronal activity was found at the anterior cingulum and medial prefrontal cortex, and this hyperactivity was also negatively correlated with the course of the disease. It potentially reflected the rumination, impaired concentration, and physiological arousal in adolescent MDD.

Conclusion The abnormal structural and functional findings at cortico-subcortical areas implied the dysfunctional cognitive control and emotional regulations in adolescent depression. The findings might help elaborate the underlying neural mechanisms of MDD in adolescents.

关键字：adolescent depression; anterior cingulate; cortical thickness; gray matter; premotor cortex; thalamus; visual cortex

益生菌在有胃肠道症状孤独症儿童中的疗效和机制研究——一项随机、双盲、对照研究

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目的 评估特定组合益生菌制剂对有胃肠道症状的孤独症儿童的疗效和安全性，挖掘与疗效相关的肠道微生物，初步阐明特定组合益生菌制剂对有胃肠道症状的孤独症儿童疗效的可能作用机制。

方法 我们在门诊招募3～6岁有胃肠道症状的孤独症受试者，进行了一项为期12周的益生菌随机、双盲、对照干预研究。所有孤独症儿童按1:1的比例随机分配到益生菌组或安慰机组，受试者原有的行为训练内容保持不变。干预过程中，我们评估了使用该特定组合益生菌制剂干预前后两组的临床症状和肠道微生物组变化。

结果 1. 益生菌干预 12 周末，孤独症儿童孤独症评定量表（the Childhood Autism Rating Scale, CARS）、孤独症行为量表（Autism Behavior Checklist, ABC）、临床总体印象量表-改善程度量表（Clinical Global Impressions of Improvement, CGI-I）、 6 项胃肠道症状严重程度指数量表（six gastrointestinal severity indices, 6-GSI）和 Zarit 护理负担量表评分显著下降。其中，6-GSI 评分中大便气味和便秘症状改善显著。整个干预过程中，未见与研究相关的严重不良反应。 2. 在研究结束时，益生菌组肠道微生物群落 α 多样性显著升高。干预后两组样本菌群组成在 4 周时接近明显分离，但到 12 周末，干预导致的菌群组成改变逐渐回落至无差异水平。在干预的 12 周末，有 2 种益生菌（ifidobacterium animalis 和 Lactobacillus paracasei）在干预组富集，所干预的益生菌部分成功定植于干预组孤独症儿童肠道中。3. 研究初步阐明了该益生菌对有胃肠道症状的孤独症儿童有效的可能作用机制，即孤独症儿童症状的改善与益生菌制剂中有益菌（主要是 Bifidobacterium animalis 和 Lactobacillus paracasei）在其肠道成功定植，并通过神经通路、代谢通路、肠道渗透通路等作用于肠道微生物-大脑轴有关。

结论 微生物疗法可使有益菌在3～6岁伴胃肠道症状的孤独症儿童肠道中成功定植，从而改善其肠道生态环境，显著缓解该群体临床症状和胃肠道症状，为孤独症精准治疗提供了科学依据和方向。

关键字：益生菌；胃肠道症状；孤独症谱系障碍；肠道微生物；疗效

The Impact of Body Weight, Sex, Infection, and Comedication Administration on Oral Olanzapine: A Population Pharmacokinetic Model in Pediatric Chinese Patients

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Objective To develop and validate a population pharmacokinetic (PPK) model of olanzapine in pediatric Chinese patients, and provide guidance for individualized therapy in this population.

Methods A total of 897 serum concentrations from 269 pediatric patients (aged from 8 to 17) were collected in this study. The data analysis was performed using a nonlinear mixed-effects modeling approach. Demographic parameters, co-occurrence of infections and concomitant medications were investigated as covariates. Bootstrap (1000 runs), normalized prediction distribution error (NPDE), and external validation of 32 patients were employed to evaluate the final model.

Results A one-compartment model with first-order absorption and elimination was developed for olanzapine

in pediatric patients. The clearance was significantly influenced by six variables: body weight (increasing with the 0.25 exponent), sex (33% higher in male patients), co-occurrence of infections (29% lower in patients with infections), and co-medications (27% higher in patients co-administrated with sertraline, 49% lower in patients co-administrated with fluvoxamine, and 43% higher in patients co-administrated with valproate). The typical estimates for absorption rate constant (Ka), apparent clearance (CL/F) and apparent distribution volume (V/F) were 0.30 h-1, 10.38L/h and 564.37 L, respectively. Model evaluation results indicated the final model's performance was good, stable and precise.

Conclusion A qualified PPK model of olanzapine was developed in pediatric Chinese patients. This model could be used as a suitable tool for the personalization of olanzapine dosing for pediatric patients.

关键字：olanzpine, pediatric， population pharmacokinetic model

青少年抑郁患者非自杀性自伤行为的影响因素分析

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目的 探讨青少年抑郁症患者伴有非自杀性自伤行为（NSSI）的影响因素。

方法 选取 2020 年 9 月 20 日至 2020 年 12 月 6 日在首都医科大学附属北京安定医院门诊就诊的青少年抑郁症患者进行横断面调查，采用一般情况调查表、应对方式问卷(CSQ)、青少年生活事件量表(ASCLE)、儿童期创伤问卷（CTQ）、简式父母教养方式问卷（s-EMBU）对患者的一般资料、自责、退避、人际关系因子、学习压力因子、丧失因子、健康适应因子、父亲过度保护、母亲过度保护进行评估。采用单因素和多因素 Logistic 逐步回归模型分析研究青少年抑郁症患者伴有 NSSI 的影响因素。

结果 本研究共纳入 67 例青少年抑郁症患者，根据是否伴有 NSSI 分为 44（65.7%）例 NSSI 组患者及 23（34.3%）例非 NSSI 组患者，两组在人口学资料方面无统计学差异（P＞0.05）。单因素分析结果显示，两组患者在应对方式问卷的自责、退避 2 个维度，青少年生活事件量表的人际关系因子、学习压力因子、丧失因子、健康适应因子 4 个维度，父母教养方式评价量表的父亲过度保护、母亲过度保护 2 个维度方面差异均有统计学意义（P＜0.05）。多因素 Logistic 逐步回归分析结果显示，应对方式问卷的避退（OR=19.647，95%CI=1.022~377.838，P=0.048），青少年生活事件量表的学习压力因子（OR=2.906，95%CI=1.126~7.502，P=0.027）以及父母教养方式评价量表的母亲过度保护（OR=2.996，95%CI=1.122~8.000，P=0.029）这 3 个维度是青少年抑郁症患者伴有 NSSI 的危险因素。

结论 青少年抑郁症患者伴有 NSSI 发生率较高，避退的应对方式、学习的压力高以及母亲过度保护者更容易发生 NSSI。

关键字：抑郁症；青少年；非自杀性自伤行为；影响因素

A DYNAMIC STUDY ON THE LOCAL AND FUNCTIONAL CONNECTIONS OF REWARD NETWORK IN YOUTH DEPRESSIVE PATIENTS WITH AND WITHOUT SUICIDAL ATTEMPTS

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Objective Focusing on the dynamic characteristics of local resting state indicators (such as ALFF, ReHo, DC) and functional connectivity, this study systematically explored the abnormal characteristics of local neural activity and network functional connectivity indicators in young patients with or without suicide attempts compared with normal controls.

Methods The Temporal Dynamic Analysis software package in DPABI was used for data processing, and the mean and standard deviation between sliding Windows were calculated to characterize the variability of Dynamic FC. The statistical analysis method of ANOVA was used to calculate the statistical significance of the differences among the three groups in SPSS, and the post-test was conducted. The correlation between the change of index dynamic characteristics and MDD shape and suicide was analyzed.

Results 1. Variance analysis of ALFF dynamics in the ROI of the reward network revealed that there were statistically significant differences in bilateral striatum and vmPFC. Bonferroni post-test revealed that the three ROIs were all statistically significant differences between nMDD and HC groups (all p <0.05). 2. The results of dynamic ReHo analysis of variance (ANOVA) showed that there were statistically significant differences in the left striatum and ACC、PCC (both P < 0.05).Bonferroni post-mortem test showed that both ROIs were statistically significant differences in ReHo dynamics between nMDD and HC groups (p<0.05). 3. For the DC dynamic analysis of ROI based on reward network among the three groups, no significant inter-group difference was found. 4. The results of dynamic FC indicated that the dynamic of FC between the left ventral striatum and the putamen changed. Bonferroni's post hoc analysis showed that the differences between sMDD and nMDD groups and between nMDD and HC groups were statistically significant (all p <0.001).The dynamics of FC between the left anterior insula and the left medial superior frontal gyrus changed, with significant differences between sMDD and HC groups and between nMDD and HC groups (p

关键字：youth depression, suicide attempt, reward network, dynamic functional network

Clinical Characteristics and Risk Factors of Early-onset Schizophrenia in Children with Self-injurious Suicide Behavior

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Objective To understand the clinical characteristics and risk factors of early-onset schizophrenia in children with self-inflicted suicide behavior.

Methods From March 2021 to December 2021, the clinical information of 77 inpatients with Demography characteristics, family characteristics, and diseases who met the ICD-10 diagnostic criteria for "schizophrenia" in the pediatric wards of Shanghai Mental Health Center was retrospectively collected. According to whether there was self-injurious suicide, they were divided into the self-harm and suicidal behavior group (Self-harm and suicidal behavior - S) and the non-self-injurious suicide group (NS); they performed inter-group comparison and regression analysis between the two groups.

Result There were 51 cases (66.2%) of early-onset childhood schizophrenia patients with self-injurious suicidal behavior, with verbal auditory hallucinations (94.12%) and relationship delusions (92.16%) being the main psychological symptoms. Compared with early-onset schizophrenia patients without self-injurious suicidal behavior, early-onset schizophrenia patients with self-injurious suicidal behavior have a higher incidence of relationship delusions (t=3.184, p=0.002) and command auditory hallucinations (t=2.256, p=0.027). The Eysenck Personality Questionnaire showed that the score of Neuroticism was higher (F=4.139, p=0.001); The level of free tetraiodothyronine (FT4) was lower (t=-4.436, p<0.001); Logistic regression analysis showed that gender (p=0.036, OR=14.863), FT4 (p=0.011, OR=0.607,), and Neuroticism score (p=0.035, OR=1.073) were related to the occurrence of self-injurious suicide in children with early-onset schizophrenia.

Conclusion Early onset schizophrenia patients with self-injurious and suicidal behavior have typical psychiatric symptoms, accompanied by some characteristics associated with emotional instability. Females with low levels of FT4 and Neuroticism are risk factors for suicide with self-injury in early-onset schizophrenia.

关键字：Early onset childhood schizophrenia; Self-injury and suicide behavior; Free tetraiodothyronine; Family functions; Eysenck Personality Questionnaire

The Relationship between Childhood Traumatic Experience and Suicidal Tendency Based on NSSI Behavior: Structural Equation Modeling and Mediating Behavior

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Objective To explore the influence of childhood traumatic experience on suicidal behavior tendency in the context of NSSI problems.

Methods 311 adolescent NSSI behavioral patients were recruited at the Ningbo kangning hospital, according to the DSM-5 diagnostic criteria. Demographic data, childhood abuse and neglect, internet addiction, self-esteem, anxiety, and suicidal tendency were evaluated. A structural equation model with a path induction mechanism was constructed to evaluate the relationship between distal and proximal factors related to suicidal tendencies due to childhood traumatic experiences in NSSI behavioral individuals.

Results In the context of NSSI, childhood abuse and suicide showed complex and interlaced influential relationships, which often lead to personality problems (low self-esteem, anxiety, substance addiction, etc.). In particular, a mediating role with comorbidity influence mechanism is proposed: in the context of childhood traumatic experience, it is often accompanied by a series of regulatory behaviors such as Internet addiction, self-esteem, and so on, which finally leads to anxiety, mental symptoms, and even suicidal tendencies.

Conclusion The results provide effective support for the structural equation modeling to evaluate the multilevel influence of NSSI behavior individuals and emphasize that childhood familial factors may lead to psychiatric comorbidity symptoms and suicidal behavior.

关键字：suicidal tendency, structural equation model, childhood traumatic experience, psychiatric comorbidity mechanism, NSSI guidance, regulation

The Influence of Parenting Style and Coping Behavior on Nonsuicidal Self-injury Behavior in Different Genders Based on Path Analysis

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Objective To examine mediating behaviors among parenting styles, students' coping styles,and endogenous and exogenous influencing variables of adolescents' NSSI behaviors.

Methods The Secondary school students in Ningbo,Zhejiang Province, China (n = 2,689; F/M:1532/1157) were surveyed for basic attributes, parenting styles, coping styles, and NSSI behaviors. After the initial screening of the sample data, several external derivatives were screened based on the single factor analysis method. On this basis, the construction of path analysis models under multivariate multiple elicitations was carried out.

Results The overall prevalence of NSSI was 15.16%, and the incidence of NSSI in boys was lower than that in girls (OR = 0.334, 95% CI [0.235–0.474]). The path analysis model data fit well; the indicators of female and male part are:CFI = 0.913/0.923, GFI = 0.964/0.977, SRMR = 0.055/0.047, RMSEA = 0.097/0.069 with 90% confidence interval (CI) [0.084–0.111]/[0.054–0.084]. For

female, when negative coping style and extreme education affect NSSI respectively, the standardized path coefficient values are 0.478 (z = 20.636, P = 0.000 < 0.01) and 0.151(z = 6.524, P = 0.000 < 0.01) respectively, while for male, the corresponding values become 0.225 (z = 7.057, P < 0.001) and 0.104 (z = 3.262, P < 0.001).

Conclusion In particular, we investigated the mediating effects of gender-specific NSSI influences and found that NSSI behaviors were strongly associated with environmental variables and individual factors, especially family parenting style and adolescent coping style, which influenced NSSI in a gender-specific manner.The results showed that males were the target of both positive and negative parenting styles, whereas females were more likely to choose negative coping styles directed towards emotions in response to external stimuli, and instead showed a more significant predisposition towards NSSI behaviors. This phenomenon seems to be influenced by multilevel factors such as sociocultural, individual value identity, and physiological structure differences. In the path analysis model with the introduction of mediating effects, the influence of gender differences on NSSI behavior becomes more pronounced under the interaction of multiple factors: women seem to be more significantly influenced by the external derivatives in the internal derivatives than male subjects, and are more likely to trigger NSSI behavior under the interaction of multiple factors.

关键字：NSSI, Parenting style, Coping behavior, Adolescent gender difference

学习压力与小学生冲动-多动症状和睡眠问题的关系：性别差异分析

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目的 探讨学习压力与小学生冲动-多动症状和睡眠问题的关系。

方法 2019 年，以学校为调查整体，调查深圳市 14 所小学，共发放 17 400 份问卷，回收率 84.61%，本研究使用 Conners 父母问卷和自编的父母评睡眠质量条目（包括入睡困难、时睡时醒和醒来难以入睡）分别评估小学生冲动-多动症状和睡眠情况，学习压力由父母评估，选项包括“无”、“很小”、“一般”、“较大”和“非常大”。本研究以完整有效完成本研究所有变量的学生作为研究对象，其中女生 5508 人（8.84±1.87），男生 6743 人（8.89±1.87 岁）。

结果 研究发现：（1）相关分析结果显示，在男生和女生中，均发现学习压力与小学生冲动-多动症状和睡眠问题差呈正相关（p＜0.05），小学生冲动-多动症状与睡眠问题差呈正相关（p＜0.05）；（2）调节分析模型结果显示，在女生人群中，学习压力未调节冲动-多动症状与睡眠问题差之间的关系（p＞0.05），而在男生人群，学习压力调节了冲动-多动症状与睡眠问题差之间的关系（p=0.049），进一步分析发现，学习压力越大，冲动-多动症状对睡眠质量影响越大。

结论 小学生的学习压力越大，越容易出现冲动-多动症状和睡眠问题差的问题。在男生人群，学习压力越大，冲动-多动症状对睡眠质量影响越大，而在女生人群，未发现学习压力对冲动-多动症状与睡眠质量之间关系的影响。

关键字：学习压力；冲动-多动症状；睡眠问题；性别差异分析；调节分析

Prevalence of and Risk Factors for Depressive and Anxiety Symptoms in A Large Sample of Chinese Adolescents in The Post-COVID-19 Era

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Objective Depressive and anxiety symptoms are widespread among adolescents today, creating a large social problem. However, few previous studies have addressed depression and anxiety among adolescents in Chinese cohorts. The aim of this study was to evaluate the prevalence of and risk factors for depressive and anxiety symptoms among Chinese middle school adolescent students in the post-COVID-19 era.

Methods A total of 22380 middle school students from Jiangsu Province were surveyed online, and their general demographic data were collected. The Patient Health Questionnaire-9 (PHQ-9) was used to assess depressive symptoms, and the seven-item Generalized Anxiety Disorder (GAD-7) scale was used to measure anxiety symptoms.

Results Of these participants (aged 12–17 years), 25.6% had depressive symptoms, 26.9% had anxiety symptoms, and 20.6% had a combination of depression and anxiety symptoms. The prevalence of depressive symptoms was higher in female adolescents (27.6%) than in male adolescents (23.7%; ?2=45.479, P=0.000), and the proportion with anxiety symptoms was higher among female adolescents (28.6%) than among male adolescents (25.4%; ?2=29.390, P=0.000). Furthermore, binary logistic regression analysis showed that gender, region, and parental relationship were significantly associated with depressive symptoms among adolescents, while age, gender, region, and parental relationship were significantly associated with anxiety symptoms.

Conclusion Our findings demonstrated that the prevalence of reported depressive and anxiety symptoms in Chinese adolescents are high. Female gender, urban region, and poor parental relationship may be risk factors for depressive and anxiety symptoms. Furthermore, policy makers, schools, and families need to pay more attention to the psychological health of adolescents, develop response plans and take early intervention measures to reduce the prevalence of adolescent depression and anxiety.

关键字：Depression; anxiety; prevalence; risk factors; adolescents; post-COVID-19 era

静灵口服液治疗儿童注意缺陷多动障碍有效性和安全性的多中心、随机、双盲、安慰剂对照临床试验

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目的 注意缺陷多动障碍(Attention Deficit-Hyperactivity Disorder，ADHD)是一种儿童和青少年时期最常见、对生活质量影响较大的神经发育性障碍，主要表现为与年龄不相称的注意力易分散，过度活动，情绪冲动 并伴有认知障碍和学习困难。目前的一线治疗药物，如盐酸哌甲酯和托莫西汀存在食欲下降、发育减缓等副作用，并具有潜在的依赖和滥用的风险。作为纯中药制剂的静灵口服液，大量临床资料证实其可以改善ADHD 症状，且副作用小。但是，目前国内仍缺乏多中心的双盲随机对照研究用以验证静灵口服液的治疗效果和安全性。

方法 本研究采用多中心、随机、双盲、安慰剂对照设计。在首都医科大学附属北京安定医院，西安儿童医院、北京大学第六医院三个中心，纳入被试 85 例，其中试验组 41 人，对照组 44 人，脱落 7 人。患者连续用药 4 周和 8 周后，记录患者症状表现(ADHD-RS，CPRS)、用药情况以及药物不良反应进行分析。以ADHD-RS-IV 总分作为主要疗效指标，采用 ANCOVA 模型分析患者治疗前后的症状表现特征，并统计用药期间的不良反应情况。

结果 试验组和对照组的 ADHD-RS-IV 总分在 8 周治疗前后均得到改善，相比于对照组，试验组的 ADHD-RS-IV 总分减少量更大(p＝0.011)，试验组与对照组的 ADHD-RS-IV 总分差异为-4.8 (95%CI: -8.4 - -1.1)。分别分析注意缺陷得分和多动冲动得分的表现，试验组和对照组的注意缺陷得分并未表现出显著差异，但多动冲动得分试验组相比于对照组有显著改善(p = 0.002)。患者血常规、尿常规、生化指标在用药期间的正常到异常转化例数为 0，对照组有 1 例心电图由正常转化为异常。临床不良事件试验组为 4 例，对照组为 13 例，与药物关系均为可能无关或无关。

结论 静灵口服液可以显著改善 ADHD 儿童的症状表现，其中主要对多动冲动症状有明显的改善作用，同时，药物起效期间，未显示出对生理指标的显著影响，具有较高的安全性。

关键字：ADHD，药物治疗，静灵口服液，随机对照

Application of EEG Synchronous Eye Tracking As A Biomarker for ASD

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Objective Electroencephalography (EEG) functional connectivity (EFC) and eye tracking (ET) have been explored as objective screening methods for autism spectrum disorder (ASD), but no study has yet evaluated them simultaneously to measure restricted and repetitive behavior (RRBs) to infer early ASD diagnosis.

Methods Typically developing (TD) children (n=27) and ASD (n=32), age- and sex-matched, were evaluated with EFC and ET simultaneously, using the restricted interest stimulus paradigm. Network-based machine learning prediction (NBS-predict) was used to identify ASD. Correlations between EFC, ET, and Autism Diagnostic Observation Schedule-Second Edition (ADOS-2) were performed. The Area Under the Curve (AUC) was measured to evaluate the predictive performance.

Results Under high restrictive interest stimuli (HRIS), ASD children have significantly higher α band connectivity and significantly more total fixation time (TFT)/pupil enlargement of ET relative to TD children (P<0.05). These biomarkers were not only significantly positively correlated with each other (R=0.716, P<0.05), but also with ADOS total scores and RRBs sub-score (R=0.749, R=0.770, P<0.01) for EFC (R=0.641, P<0.05) for TFT. The accuracy of NBS-predict in identifying ASD was 63.4%. ROC curve demonstrated TFT with 91% and 90% sensitivity, and 78.7% and 77.4% specificity for ADOS total and RRB sub-scores respectively.

Conclusion Simultaneous EFC and ET evaluation in ASD is highly correlated with RRB symptoms measured by ADOS-2. NBS-predict of EFC offered a direct prediction of ASD. The use of both EFC and ET substantially improves early ASD diagnosis.

关键字：EEG, Functional connectivity, Eye tracking, ASD biomarker, ASD early diagnosis

青少年抑郁障碍患者述情障碍与自杀未遂的相关性研究

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目的 探讨伴与不伴自杀未遂青少年抑郁障碍患者述情障碍的差异及其与抑郁严重程度的相关性。

方法 从 2019 年 9 月至 2021 年 4 月,纳入 43 例自杀未遂青少年抑郁障碍患者(自杀未遂组)、93 例非自杀未遂青少年抑郁障碍患者(非自杀未遂组)以及 23 名性别、年龄和受教育年限相 匹配的健康对照者(健康对照组),采用汉密尔顿抑郁量表（HAMD17）、多伦多述情障碍量表（TAS）、儿童期创伤问卷（CTQ）对

所有被试进行抑郁严重程度和述情障碍相关临床心理量表评定,多伦多述情障碍量表包括总分、因子 1（描述情感的能力）、因子 2（认识和区分情感与躯体感受的能力）、因子 3（幻想）、因子 4（外向性思维）；儿童期创伤问卷包括情感虐待、躯体虐待、性虐待、情感无视、躯体无视。采用 SPSS25 对数据进行统计分析,独立样本 T 检验比较 3 组被试述情障碍的差异,采用 Pearson 相关分析对自杀未遂组的述情障碍与抑郁严重程度进行相关分析。

结果 自杀未遂组在述情障碍总分、因子 3、因子 4 显著高于非自杀未遂组总分、因子 3、因子 4 {P＜0.05}。自杀未遂组在述情障碍总分、因子 1、因子 2、因子 4 显著高于健康对照组总分、因子 1、因子 2、因子 4{P＜0.05}。非自杀未遂组在述情障碍总分、因子 1、因子 2、显著高于健康对照组总分、因子 1、因子 2{P＜0.05}。自杀未遂组在汉密尔顿抑郁量表中因子认知障碍显著高于非自杀未遂组认知障碍。自杀未遂组、非自杀未遂组、健康对照组三组之间童年创伤均无显著差异。Pearson 相关分析显示，自杀未遂组的述情障碍量表中因子 2、总分与 HAMD17 因子焦虑躯体化呈显著正相关(P<0.05),因子 4 与 HAMD17 因子阻滞呈显著正相关(P<0.05)，自杀未遂组的因子 1、因子 3 与抑郁总分及各因子无显著相关性。自杀未遂组的述情障碍量表中因子 1 与童年创伤问卷中躯体无视呈显著正相关（P<0.05），因子 2 与情感虐待、躯体无视呈显著正相关，因子 4 与情感无视、躯体无视呈显著负相关，总分与情感虐待呈显著正相关。

结论 自杀未遂组、非自杀未遂组、健康对照组三组之间童年创伤无显著差异，伴与不伴自杀未遂的青少年抑郁障碍患者述情障碍严重程度、幻想及外向性思维存在差异,差异因子分与抑郁严重程度无相关性，差异因子中述情障碍严重程度及外向性思维与童年创伤因子存在显著相关。

关键字：青少年，抑郁障碍，述情障碍，自杀未遂

注意缺陷多动障碍儿童汉语阅读能力特点及其内在神经机制

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目的 既往研究表明注意缺陷多动障碍（ADHD）儿童存在阅读能力低下，本研究计划探索 ADHD 儿童的阅读能力缺陷特征，并利用静息态核磁共振技术（fMRI）探讨其内在神经机制。

方法 本研究一共纳入 302 名单纯 ADHD 儿童和 105 名健康对照（年龄 6-15 岁）。利用工具评估 ADHD 儿童和健康对照的中文阅读能力，ADHD 有关临床和神经心理特征。中文阅读评估工具产生指标包括识字量、正交知识、切字水平等。所有临床和神经心理数据利用协方差分析（ANCOVA）分析，纳入性别年龄作为协变量。通过建立中介模型和结构方程模型深入探讨 ADHD 儿童中文阅读能力与认知功能的相关性。其中有 175 名被试同时采集了 fMRI 数据。利用基于体素的分析比较组间功能连接强度（functional connectivity, FC）。所有全脑分析均选用无阈值簇增强（TFCE）方法进行多重检验校正。

结果 在基本信息方面，对比对照组儿童，ADHD 儿童中男性比例更高（p<0.001）,年龄较小（p<0.001），总智商、言语理解指数、知觉推理指数、工作记忆指数和加工速度指数均较低（p<0.001）。在中文阅读水平方面，ADHD 儿童识字量较低、切字能力水平较低（p 分别为 0.0075 和 0.0045），正交知识水平方面，ADHD 组和对照组两组差异无统计学意义（p=0.069）。在中介模型中，总智商（IQ）、持续注意指标(RTIFMDRT 和 RTISMDRT)、快速视觉加工指数（RVPA）均为诊断 ADHD 和中文阅读水平低下之间的有效中介因素（中介效应 p 均<0.05）。在神经影像学方面，与对照组相比，ADHD 儿童组在默认网络和执行控制网络存在 FC 减低。对于中文阅读功能指标，在默认网络、执行控制网络和背侧注意网络的功能连接中存在诊断和阅读能力指标的交互作用。在 ADHD 儿童中，识字量和正交知识水平和默认网络的 FC 存在正相关，正交知识水平和执行控制网络或背侧注意网络的 FC 存在负相关（TFCE 校正 p<0.05）。这种相关关系在对照中是相反的。具体见图 1。

结论 儿童 ADHD 存在中文阅读能力下降，智商低下和执行功能缺陷是其中文阅读能力下降的有效中介因素。儿童 ADHD 的中文阅读能力下降与其默认网络、执行控制网络及背侧注意网络大脑所调用的功能连接异常有关。

关键字：ADHD，中文阅读能力，认知，脑功能

青少年非自杀性自伤行为诊断性预测模型的建立及验证

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目的 非自杀性自伤（NSSI）行为在青少年中发生率较高，是目前主要的公共健康问题之一。NSSI 行为常首发于青少年早期或中期，并且发生率在整个青少年阶段呈逐步上升趋势。NSSI 行为的发生不仅影响了青少年群体的身体健康，更影响了他们的心理发展。NSSI 行为并非某一单一因素引起，它主要受到社会环境因素、家庭因素以及个人因素的相互影响。本研究建立青少年非自杀性自伤（NSSI）行为诊断性预测模型，以期对青少年 NSSI 行为的早期识别提供参考。

方法 采用随机整群抽样的方法，选取合肥市5所中学7 431名中学生作为研究对象，根据是否存在NSSI行为，将青少年分为伴 NSSI 行为组（n=5231）和不伴NSSI 行为组（n=2200）。将 7431 例患者按 7:3 随机分为训练集（n=5202）和验证集（n=2229）。使用 Logistic 回归分析筛选青少年 NSSI 行为的独立危险因素，建立预测模型。使用受试者工作特征（ROC）曲线下面积（AUC）评估训练集和验证集模型的区分度，使用校准曲线评估训练集和验证集模型的校准度，使用 Homser-Lemeshow（HL）检验评估模型的拟合优度，使用临床决策分析（DCA）曲线评价模型的临床获益情况。

结果 性别（β=0.17，OR=1.18，95% CI：1.06~1.32）、受家庭居住地（β=0.31，OR=1.74，95% CI：1.66~1.82）、快感缺失水平（β=0.21，OR=1.23，95% CI：1.11~1.38）、童年期虐待情况（β=1.89，OR=2.41，95% CI：2.36~3.46）、抑郁严重程度（β=1.02，OR=2.77，95% CI：2.46~3.12）是青少年 NSSI 行为的独立危险因素（P＜0.001）。训练集 ROC 曲线 AUC=0. 85（95% CI：0. 75~0. 87），验证集 AUC=0. 72（95% CI：0. 58~0. 86）。HL 检验评估校准图后显示出较好的拟合度（P=0. 566）。

结论 性别、受家庭居住地、快感缺失水平、童年期虐待情况以及抑郁严重程度是青少年 NSSI 行为的独立危险因素，构建的青少年 NSSI 行为的诊断性临床预测模型具有良好的敏感性和特异性。

关键字：非自杀性自伤；青少年；诊断性临床预测模型

Diminished Prefrontal Hemodynamic Response in Adult Attention Deficit Hyperactivity Disorder: A Multi-channel Functional Near-infrared Spectroscopy Study

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Objective Attention deficit hyperactivity disorder (ADHD) is a common neurodevelopmental disorder. Adult ADHD is currently diagnosed based only on subjective clinical and scoring measures, which inevitably lead to a low correct diagnosis rate. Hence, an effective auxiliary examination with higher sensitivity is needed.

Methods Twenty healthy controls (HC) subjects and 20 adults with ADHD were included in this study. The functional near-infrared spectroscopy (fNIRS) under verbal fluency test (VFT) was performed to detect cerebral cortex hemodynamics. Correlation and Receiver operating characteristic (ROC) curve analysis were employed to reveal the relationship between differences in hemodynamic response and clinical characteristics.

Results The HbO response of adult ADHD in the prefrontal cortex (PFC) was significantly smaller than that of HC. HbO concentration changes in the corresponding channels were negatively correlated with the ASRS-inattention score. HbO concentration changes of channels 16 and 26 corresponding to the medial PFC might be helpful for the diagnosis of adult ADHD.

Conclusion Adult ADHD patients have low activation of the PFC, changes of whose corresponding channels were significantly associated with attention deficit, indicating that fNIRS under VFT may be an effective auxiliary examination for adult ADHD.

关键字：Attention deficit hyperactivity disorder (ADHD),Functional near-infrared spectroscopy (fNIRS),Verbal fluency test (VFT)

Cognitive Impairment Might Be Evident in Adolescents with Suicide Attempts: A Study Affirmed by THINC-IT

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Objective Suicidal behavior was strongly correlated with depressive symptoms and the degree of suicidal ideation(SI). Suicidal ideation and suicide attempts(SA) may be affected by varying degrees of cognitive impairment. This study was intended to show that The THINC-intelligent tool (THINC-IT)can be utilized as a concise method for comparing suicidal ideation and suicide attempt in adolescents.

Methods The cross-sectional sample consisted of 54 adolescents with major depressive disorder (MDD) and 32 healthy controls. THINC-it was used to evaluate cognitive function in depressed adolescents and healthy controls. Suicidal ideation was examined using the Positive and Negative Suicide Ideation (PANSI) scale.

Results Depression symptoms (HAMD-17) (F=72.515, P=0.001) and suicidal ideation (PANSI) (F=267.952, P=0.001) were considerably greater in the SA than in the SI. Analysis of between-group differences showed SA performed worse in THINC-it, especially in “Spotter” (P=0.033), “Objective cognition score” (P=0.027), and “Composite score” (P=0.017). After controlling for the differential effects of depressive symptoms, the cognitive performance of SA remained lower than SI.

Conclusion Adolescents with SI or SA exhibit a broad spectrum of cognitive impairments. Impaired attention may be markers that distinguish adolescent depression from SA and SI.

关键字：Impaired attention; cognitive impairment; suicide ideation; suicide attempts ;adolescent; THINC-it Tool

儿童青少年抑郁障碍患者血脂代谢异常检出率及相关因素分析

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目的 探索儿童青少年抑郁障碍住院患者血脂代谢异常发生率及相关影响因素。

方法 选取在阜阳市第三人民医院住院的符合《国际疾病分类(第 10 版)》(International Classification of Diseases，tenth edition，ICD-10）抑郁障碍诊断标准的儿童青少年患者，收集年龄、性别等一般人口学资料及病程、发病年龄、自伤行为、自杀意念等临床数据。高胆固醇（TC）血症是指空腹血浆胆固醇水平≥5.18mmol/L；高甘油三酯（TG）血症系指空腹血浆 TG 水平≥1.70mmol/L；高 LDL-L 血症是指除空腹血浆 LDL-C 水平≥3.37mmol/L；低 HDL-C 血症指空腹血浆 HDL-C 水平≤1.04mmol/L。采用相关性分析及回归分析探讨抑郁障碍患者血脂代谢异常发生率及其独立影响因素。

结果 共计 756 例患者纳入该研究。儿童青少年抑郁障碍住院患者高 TC、TG、LDL-C 及低 HDL-C 检出率分别为 5.42%（41/756）、10.58%（80/756）、3.84%（29/756）和 5.42%（41/756）。高 TC 血症与空腹血糖、BMI 水平、肥胖、住院次数及自杀意念呈正相关关系（P<0.05）。高 TG 血症与空腹血糖、BMI 水平、肥胖、住院次数、自伤行为、抗抑郁药总剂量呈正相关关系，与发病年龄、体重过轻呈负相关关系（P<0.05）。高 LDL-L 血症与空腹血糖、BMI 水平、肥胖、自杀意念及抗抑郁药物总剂量呈正相关关系（P<0.05）。低 HDL-C 血症与 BMI 水平呈正相关，与空腹血糖、体重过轻呈负相关关系（P<0.05）。

结论 儿童青少年抑郁障碍住院患者血脂代谢异常检出率较高，应关注该人群体质指数、自伤行为或自杀意念，在使用抗抑郁药物时尽量选择增重效应较弱的药物。 [基金项目] 1.安徽省医疗卫生重点专科建设项目；2.安徽省卫生健康委科研项目（编号：AHWJ2021a035）；3.阜阳市卫生健康委科研项目（编号：FY2021-059）。

关键字：儿童青少年；抑郁障碍；血脂代谢；自伤行为；自杀意念；影响因素

青少年及成人抑郁症 fNIRS 前额叶含氧血红蛋白非低激活状态的回顾性研究

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目的 探讨青少年及成人抑郁症 fNIRS（function near-infrared spectroscopy，近红外脑功能成像）中前额叶非低激活状态，为抑郁症患者的准确识别诊断及个体化治疗提供客观生物学依据及应用价值。

方法 选择 2022 年 2 月-2023 年 6 月重庆市精神卫生中心诊断的青少年抑郁症(12-17 岁)患者 200 例，成人抑郁症（>18 岁）患者 200 例的 fNIRS 前额叶含氧血红蛋白脑激活结果进行回顾性研究。入组患者均完成在 VFT(言语流畅性范式)刺激下的近红外脑功能成像检查，比较分析两组患者中前额叶含氧血红蛋白非低激活状态（前额叶积分值>114）的差异。

结果 青少年抑郁症组前额叶含氧血红蛋白非低激活状态为 17%，共 34 例，成人抑郁症组前额叶含氧血红蛋白非低激活状态为 18%，共 36 例，两组 fNIRS 前额叶含氧血红蛋白非低激活状态例数百分比无统计学差异（x2=3.49,P>0.05,OR=2.31）。

结论 该研究提示青少年及成人抑郁症患者中约 18%左右的患者存在前额叶含氧血红蛋白非低激活状态，间接反映此类患者的前额叶脑功能受损可能并不显著，一方面从疾病诊断上来看，这部分非低激活状态的患者非常可能共患双相情感障碍、焦虑症等疾病，临床上应注意对这部分脑激活特征的患者加强共患病的筛查识别，另一方面从治疗上看，这部分非低激活状态的患者在抗抑郁药物以及物理治疗的选择使用上可能需要关注加重焦虑以及转躁的风险，例如避免使用 SNRI 之类药物、避免高频经颅磁刺激治疗。

关键字：青少年 成人 抑郁症 fNIRS

Impaired Behavioral Inhibition for Effective Facial Information Among Adolescents with Bipolar Depression: Evidence Form ERPs and Behavioral Data

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Objective To explore the impairment of emotional response inhibition and its underlying neural mechanism within adolescents with bipolar depression.

Methods Twenty-four adolescents with bipolar depression and nineteen healthy controls were enrolled in the study. All participants completed emotional go/no-go task and emotion regulation questionnaire, while the EEG data were recorded at the same time. Compared the behavioral performance and electrophysiological components (N170、N2 and P3) between the bipolar depressive adolescents and healthy controls.

Results The results of behavioral performance revealed that the scores of adolescents with bipolar depression on suppression dimension were significantly higher than healthy controls' (t=2.45，P<0.05), but the scores on reappraisal were lower than healthy controls' (t=-3.51，P<0.05). In the accuracy and discrimination d' value of emotional go/no-go task, the analysis revealed that adolescents with bipolar depression were lower than healthy controls in all conditions (both positive go/negative no-go and

negative go/positive no-go conditions) (P<0.05). The results of N170 analysis found that the group difference was not significant (P>0.05). The results of N2 amplitude have revealed that the N2 amplitude induced by positive and negative emotion all larger than healthy controls' (P<0.05). The analysis of P3 amplitude indicated that the P3 amplitude induced by no-go conditions within adolescents with bipolar disorder with depressive episodes was lower than healthy control's significantly (P<0.05). Correlation analysis suggested that the relation between the N170 induced by positive go and no-go conditions and HAMA scores revealed positive correction significantly (P<0.05).

Conclusion Adolescents with bipolar depression exhibited impaired behavioral inhibition for negative and positive emotion stimulus.

关键字：Adolescents; Bipolar depression; Response inhibition; Emotion regulation

基于多维情绪认知监测和虚拟现实技术的家庭人际修复技术对抑郁症青少年自杀自伤行为的影响

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目的 探索基于多维情绪认知监测和虚拟现实技术的家庭人际修复技术对抑郁症青少年自杀自伤行为的影响，为抑郁症青少年的心理干预提供新的方法和手段。

方法 多维情绪认知监测：使用脑电图（EEG）作为一种无创的脑电生理活动监测技术，记录受试者在不同情境下的脑电信号，提取与情绪状态相关的特征，（提取表情、语调等参数）并利用深度学习方法进行情绪分类和量化??。- 虚拟现实技术：使用虚拟现实（VR）设备，构建不同的家庭人际场景，让受试者在虚拟环境中体验和参与家庭成员之间的沟通、互动和冲突解决等活动，以增强受试者的家庭归属感、自我价值感和社会支持感。 - 家庭人际修复技术：根据受试者的多维情绪认知监测结果，动态调整虚拟现实场景中的内容、难度和反馈，以达到最佳的情绪调节效果，促进受试者的家庭人际关系的修复和改善。 主要指标：使用贝克抑郁量表（BDI）、贝克自杀意向量表（BSI）、自我伤害行为量表（SHBQ）等工具，评估受试者在干预前后的抑郁程度、自杀意向和自我伤害行为，并比较实验组和对照组之间的差异。 -次要指标：使用亲密关系经验量表（IRES）、家庭环境量表（FES）、社会支持评定量表（SSRS）等工具，评估受试者在干预前后的家庭关系质量、家庭环境特征和社会支持水平，并比较实验组和对照组之间的差异。

结果 使用描述性统计分析受试者的基本情况，使用重复测量方差分析和多元方差分析比较两组受试者在各个时间点的评估指标，使用相关分析和回归分析探讨多维情绪认知监测结果与家庭人际修复技术效果之间的关系。

结论 结果发现基于多维情绪认知监测和虚拟现实技术的家庭人际修复技术对抑郁症青少年自杀自伤行为具有一定积极影响，特别在家庭关系质量、家庭环境特征方面，

关键字：多维情绪认知监测、虚拟现实技术、家庭人际修复技术、抑郁症青少年、自杀自伤行为

青少年抑郁症患者心理健康素养现状及其影响因素

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目的 了解青少年抑郁障碍患者心理健康素养现状及其影响因素。

方法 选取于 2022 年 6 月至 2023 年 4 月在重庆医科大学附属第一医院精神科符合精神障碍诊断与统计手册第 5 版（DSM-5）抑郁障碍诊断标准的门诊、住院的青少年患者 310 例进行横断面调查。采用一般情况调查表，心理健康素养量表、精神疾病污名评估量表进行调查，采用 Spearman 相关分析童青少年抑郁障碍患者心理健康素养与一般资料、精神疾病污的相关性。采用多元 Logistic 回归分析儿童青少年抑郁障碍患者心理健康素养的影响因素。

结果 青少年抑郁障碍患者心理健康素养总分为（96.06±9.04）分，得分最高的两个条目为看心理医生意味着你没有能力处理好自己的困难以及如果我患有心理疾病，我不会向心理医生寻求帮助。精神疾病污名评估量表总分为（29.03±7.09）。相关分析显示，性别、年级、同伴支持、父母寻求专业帮助的意愿、精神疾病污名与心理健康素养呈正相关（P＜0.05）；多元线性回归分析结果显示，性别、同伴支持、父母寻求专业帮助的意愿、精神疾病污名是青少年心理健康素养的影响因素（P＜0.05）。

结论 青少年抑郁症患者心理健康素养处于较低水平，精神疾病污名处于较高水平，青少年抑郁障碍患者心理健康素养受社会-家庭-个人各个层面因素的影响，应根据影响因素采取针对性措施，以期提升青少年抑郁障碍患者的心理健康素养水平。

关键字：青少年；心理健康素养；抑郁障碍；精神疾病污名

Psychotic Symptoms in Chinese Adolescents with Major Depressive Disorder: Prevalence and Related Endocrine Clinical Factors

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Objective Many patients with major depressive disorder (MDD) have been found to exhibit psychotic symptoms. However, few studies have examined the relationship between psychotic symptoms and endocrine factors in adolescents with MDD. Therefore, this study aimed to investigate the prevalence and related endocrine clinical factors of psychotic symptoms in Chinese adolescents with MDD.

Methods In total, 601 adolescent inpatients with MDD were recruited. The Patient Health Questionnaire – 9 items (PHQ – 9) was utilized for assessing depressive symptoms, and the Bech–Rafaelsen Mania Rating Scale – Revised for determining psychotic symptoms. Prolactin (PRL), thyroid-stimulating hormone (TSH), triiodothyronine (T3), free triiodothyronine (FT3), thyroxine (T4), and free thyroxine (FT4) were also measured.

Results The incidence of psychotic symptoms in patients with MDD was 22.6%. Adolescent patients with MDD exhibiting psychotic symptoms were younger, had lower education levels, a higher incidence of self-harming behavior, and PHQ-9 scores, along with higher levels of T3, FT3, T4, FT4, and PRL (All $p<0.05$). Age (OR = 0.820; 95%CI: 0.715–0.942), self-harming behavior (OR = 1.986; 95%CI: 1.157–3.410), PHQ-9 score (OR = 1.103; 95%CI: 1.053–1.157), normalized PRL (OR = 1.220; 95%CI: 1.108–1.343), and FT4 (OR = 1.215; 95%CI: 1.145–1.289) were independently associated with psychotic symptoms of MDD.

Conclusion PRL and FT4 levels are more likely to be abnormally elevated in major depressive adolescents with psychotic symptoms. If initial hormonal abnormalities are ignored, they may develop into more serious clinical complications such as endocrine disturbances which will do great damage to the physical and mental health of teenagers in the future, but few people pay attention to it at present. Prolactin and thyroid hormones in adolescents with major depression should be paid more attention.

关键字：Major depressive disorder; Psychotic symptom; Prevalence; Prolactin; Thyroid hormones

Mendelian Randomization Study on The Causal Relationship between Screen Exposure and Autism Spectrum Disorder

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Objective Autism spectrum disorder (ASD) is a condition with a high heritability rate, and both genetic and environmental factors may play a role in its development. Among the environmental factors, screen exposure is considered a potential risk factor for the onset of ASD. Thus, this study aims to investigate the causal relationship between screen media exposure and ASD through a Mendelian randomization study design.

Methods Data on screen media exposure and associated genetic variants were obtained from 360,895 European individuals. Genome-wide association study data were obtained from 18,381 European individuals with ASD and 27,969 healthy controls. Inverse variance weighted, multiplicative random effects inverse variance weighted, MR-Egger, and weighted median methods were used for analysis.

Results The multiplicative random effects inverse variance weighted method showed a positive association between screen media exposure and the relative risk of ASD (OR = 2.65, 95% CI: 1.82-3.88, $P < 0.01$), which was also supported by the weighted median method (OR = 2.10, 95% CI: 1.37-3.20, $P < 0.01$). The MR-Egger method also trended in the same direction, although the 95% confidence interval had a wider range (OR = 2.55, 95% CI: 0.37-17.58, $P = 0.35$).

Conclusion This study found statistically significant causal effects of screen media exposure on ASD, suggesting that it may be a potential environmental risk factor for the development of ASD.

关键字：autism spectrum disorder; screen media exposure; mendelian randomization; causal relationship

Positive Effects of Parent-child Group Emotional Regulation and Resilience Training on Non-suicidal Self-injury (NSSI) Behavior in Adolescents--A Randomized Controlled Trial

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Objective Globally, the incidence of non-suicidal self-injury (NSSI) among adolescents has been steadily increasing, becoming a public health problem and bringing a heavy burden to society and families. However, there is little evidence of effective interventions for adolescent NSSI. The main aim of the present study was to examine the effect of 12 weeks of parent-child group emotional regulation and resilience training on adolescent NSSI.

Methods A total of 132 adolescents with NSSI and their mother or father were recruited from the mental health department of the First Hospital of Shanxi Medical University between April 2020 and September 2021. 12-week parent-child group resilience training was compared with treatment-as-usual (TAU). The primary endpoint was the frequency of self-injury assessed by Ottawa Self-Injury Inventory (OSI), and the secondary endpoints were depression, hope, and family function assessed by using Hamilton Depression Rating Scale (HAMD), Herth Hope Scale (HHS), Connor-Davidson Resilience Scale (CD-RISC), and Family Adaptability and Cohesion Evaluation Scale, second edition (FACES-II-CV) , at baseline 12-week, 24-week, and 36-week.

Results Finally, the NSSI frequency significantly differed between the intervention group and the control group ($p <0.001$). The frequency of NSSI in the control

group at week 12, 24, and 36 was higher than in the experimental group, and the values were (OR=2.153，P=0.032), (OR=1.896， P=0.015), and (OR=13.245, P<0.001), respectively, while the rates of patients without NSSI in the past month in the intervention and control group were 27.9% vs 8.8%, 24.6% vs 1.8%, and 39.3% vs 5.3% respectively.

Conclusion In adolescents with NSSI, parent-child group emotional regulation and resilience training effectively reduced the NSSI behavior, improved the level of hope and resilience of patients, and enhanced family closeness and adaptability. This effect did not diminish over time at follow-up, supporting further clinical NSSI interventions in adolescents.

关键字：adolescent; NSSI; parent-child relations; resilience

后疫情时代全国青少年心理健康状况及相关因素分析

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目的 青少年是重大公共卫生应激事件的脆弱人群，为了解后疫情时代全国青少年心理健康状况，人口学特征及相关危险因素，为后续干预及预防青少年心理障碍奠定基础。

方法 于2023年1月采用随机整群抽样方式在全国抽取50666名中学生（年龄：12-18岁），其中男性23687名，调查人口学基本情况、新冠感染情况，抑郁情绪、焦虑情绪、睡眠状况评估。其中，抑郁情绪筛查采用病人健康问卷抑郁量表（PHQ-9）、焦虑情绪筛查采用广泛性焦虑障碍量表（GAD-7）、睡眠状况采用匹兹堡睡眠质量指数量表（PSQI）进行评定。以自愿为原则填写。

结果 本次调研共有男性23687名，46.8%，生活在城市的中学生为30937名，占61.1%，曾感染新冠者为37633名，占74.3%。家庭成员曾感染新冠者为39971名，占78.9%。疫情后每天增加3小时以上电子屏幕使用者为18576名，占36.7%。PHQ-9显示，抑郁检出率为46.8%，焦虑检出率为31.5%。PSQI显示，每周大于3次，入睡困难者为6279名，占12.4%，夜间易醒或早醒为3893名，占7.7%。统计分析显示，在青少年人群中，16-18岁人群较12-15岁人群焦虑抑郁检出率高（p <0.001），女性较男性焦虑抑郁检出率高（p <0.001），自己和家人曾感染新冠者较未曾感染新冠者检出率高（p <0.001），其差异均有统计学意义，电子屏幕增加不同使用时间的焦虑抑郁检出率，其差异有统计学意义（p <0.001）。

结论 后疫情时代青少年的心理健康问题亟需重视，特别是女性，高中生及电子屏幕使用增加时间长的青少年人群后续需继续关注，学校应加强与心理卫生工作者的联系，早期干预和识别和治疗，预防学校危机事件发生。

关键字：后疫情时代 青少年 抑郁 焦虑 心理健康

Association between Peripheral Inflammation and Free-water Imaging in Adolescents with Major Depressive Disorder

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Objective Free-water (FW) imaging, a diffusion-weighted magnetic resonance imaging (dMRI) technique, enables measuring water molecule diffusion in the brain. It is postulated that FW imaging can be utilized for the detection of inflammatory processes. This study aimed to investigate the association between peripheral inflammation markers and FW in brain white matter among adolescents with major depressive disorder (MDD).

Methods 3-T Multishell dMRI data were collected from 149 participants aged 12-18 years, including 65 adolescents with MDD and 84 healthy controls (HCs). Firstly, we examined the volume fraction of free water and peripheral cytokine deregulation in MDD. Subsequently, MDD participants were classified into low-grade inflammation (LGI) and high-grade inflammation (HGI) groups by aberrant cytokines. We then explored the relationship between aberrant peripheral cytokines and FW in brain white matter within these groups.

Results MDD participants exhibited significantly reduced levels of interleukin-2 (IL-2) ($F = 9.6$, $P = 0.020$), IL-4 ($F = 9.1$, $P = 0.030$), INF-γ ($F = 14.2$, $P < 0.001$), and TNFα ($F = 20.5$, $P < 0.001$) compared to HCs. We observed a significant interaction between group and inflammation composite score on FW in brain white matter ($t = -3.0$, $P = 0.004$). In the LGI-MDD group, a positive association was observed between the inflammation composite score and FW ($r = 0.46$, $P = 0.019$), but not in HGI-MDD group ($r = -0.27$, $P = 0.132$).

Conclusion The association between peripheral inflammation markers and FW in brain white matter depends on the grade of inflammation. Peripheral inflammation may serve as a potential biomarker for neuroinflammation in a specific subgroup of adolescents with MDD, indicating its utility for identifying neuroinflammatory processes in this population.

关键字：adolescents with major depressive disorder; diffusion-weighted magnetic resonance imaging (dMRI); free-water imaging; peripheral cytokine

Depressive Disorders in Chinese Left-behind Children and Adolescents: Prevalence and Association with Self-harm Behaviors

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Objective The prevalence of clinically diagnosed depressive disorders (DD) in Chinese left-behind children (LBC) remains unknown. We aim to estimate the prevalence of DD, discuss the associations between DD and self-harm (SH) behaviors in a large representative sample of Chinese LBCs.

Methods A total of 5462 LBCs were selected from the most recent datasets of the Mental Health Survey for Children and Adolescents in Yunnan (MHSCAY), a mega population-based two-phase cross-sectional survey. Weighted prevalence rates and designed Logistic regression were adopted to estimate the prevalence of DD and the association between DD and SH.

Results The weighted prevalence of lifetime and current DD were 4.22% (95% CI: 3.13%-6.00%) and 3.84% (95% CI: 2.85%-5.00%) in Chinese LBCs. Higher lifetime and current depressive disorders prevalence rates were observed in girls and those reported adverse parental marital status and SH behaviors. The absence of depressive disorders was associated with over 85% reduction in odds of SH behavior, and decreased odds of repetitive SH, multiple SH methods, and severe SH. Subsequently performed stratified analyses identified prominent effect modification by sex and age.

Conclusion The prevalence of DD was high in Chinese LBCs. DD was associated with prominently increased risk of SH behaviors in LBCs. Attention and intervention are needed in this vulnerable population.

关键字：depressive disorders, self-harm, children and adolescents, effect modification, prevalence

The Relationship between Serum Resolvin D1, NLRP3, Cytokine Levels, and Adolescents with First-episode Medication-na?ve Major Depressive Disorder

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Objective Inflammation has become a critical pathological mechanism of Major Depressive Disorder (MDD). NLRP3 is a critical inflammatory pathway to maintain the immune balance. Recently, evidence showed that Resolvin D1(RvD1) might be a new antidepressant choice due to its protective effects through the inhibition of neuroinflammation. However, whether they have clinical value in the diagnosis and treatment evaluation of adolescent depression was unclear.

Methods Forty-eight untreated first-episode adolescent patients with moderate to severe major depressive disorder, as well as 30 healthy adolescents (HCs, age and gender-matched), were enrolled for this study. Their ages ranged from 13 to 18 (15.75± 1.36) years. The patients were treated with fluoxetine for 6-8 weeks. HDRS-17 was used to evaluate the severity of depressive symptoms. Venous blood samples were collected at baseline (patients and HCs) and after treatment (only patients). Serum concentrations of RvD1, NLRP3, IL-1β, IL-18, and IL-4 were measured by enzyme-linked immunosorbent assays (ELISA) pre- and post-fluoxetine?treatment.

Results Serum levels of RvD1 and anti-inflammatory cytokine IL-4 were significantly elevated in adolescents with MDD compared to healthy adolescents, but no significant difference in NLRP3, IL-1β, and IL-18 between the two groups. Meanwhile, RvD1 (positively) and IL-4 (negatively) were correlated with the severity of symptoms (HDRS-17 scores) after adjusting age, gender, and BMI. Interestingly, fluoxetine treatment significantly reduced the serum levels of RvD1, NLRP3, IL-1β, and IL-18 in MDD adolescents but increased the levels of IL-4 relative to baseline. Furthermore, we observed that serum levels of RvD1 might be an excellent distinguishing indicator for depression and healthy adolescents.

Conclusion Our study is the first to compare RvD1 and NLRP3 between adolescent MDD and HCs. Our findings of reactive increase of RvD1 in adolescent MDD comprised a novel and critical contribution. Our results showed the presence of inflammation resolution unbalanced in adolescents with MDD and indicated that RvD1 might be an ideal biomarker for diagnosing and treating adolescent MDD.

关键字：Major depressive disorder; Adolescent; Resolvin D1; NLRP3; cytokines; Medication-na?ve

Comparison of Three Intervention Methods in Improving Symptoms and Executive Function in Children with ADHD: A Retrospective Study

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Objective To compare the therapeutic effects of medication therapy (MTG), executive function training (EFTG), and support group (SG) in improving the symptoms and executive function of children with attention deficit hyperactivity disorder (ADHD).

Methods The study sample involved 118 children, who were enrolled in the pediatric outpatient department of Shanghai Mental Health Center and met the DSM-5 diagnostic criteria for ADHD. The participants were treated

with medication(n=39), executive function training(n=51), or supportive group intervention(n=28) for 8 weeks respectively. The SNAP-IV scales and the Conners Parent Symptom Questionnaire were used to assess the children's clinical symptoms of the three intervention groups, and the Stroop color-word association test, the Wisconsin Card Sorting Test, and the digit span test were used to evaluate ADHD children's executive function. The symptom scores and executive function indexes of the three groups of intervention children were assessed at baseline and at the end of the 8th week of treatment, which was a retrospective analysis. With the baseline level as a covariate, the covariance analysis of the three groups after 8 weeks of intervention was made respectively.

Results ① After 8 weeks of treatment, the clinical symptoms in the MTG group were significantly improved compared with baseline (t= 2.10-7.96, p< 0.05). The improvement of the executive function indexes was statistically significant (t=-5.574.15, p< 0.05). The clinical symptoms of the EFTG group were also significantly improved (t=2.094.35, p < 0.05). The improvement of the executive function index was statistically significant (t=-4.584.39, p < 0.05). ② After 8 weeks of intervention, the baseline level was utilized as the covariance. The results revealed that the therapeutic effect of the MTG group was significantly better than that of the SG (p< 0.05). The improvements in executive function in the MTG group and EFTG group were superior to that in the SG group (p＜0.05), while there was no difference between the MTG group and the EFTG group.

Conclusion Although both medication therapy and executive function training can improve the clinical symptoms and executive function of ADHD children, medication therapy is better than executive function training, and the improvement of supportive groups is not significant.

关键字：Attention deficit hyperactivity disorder (ADHD), Medication therapy, Executive function training, Curative effect comparison

A Cross-sectional Study of Depressive Symptoms Among Teenage Boys and Teenage Girls in Shanghai

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Objective To explore gender differences in affecting factors of depressive symptoms and in prevalence rate of anxiety-depression comorbidity.To compare the clinical characteristics among those with comorbid conditions and those with depression alone in different genders.

Methods A sampel of 3169 students aged 11-16, including 1616 boys and 1553 girls were selected in a district of Shanghai to participate in the on-site questionnaire survey. Children's Depression Inventory (CDI), Child Anxiety Related Emotional Disorders (SCARED),Strengths and Difficulties Questionnaire(SDQ) and a self-designed questionnaire were used for investigation.Binary logistic regression was conducted to explore the possible risk factors on prevalence rate of depressive symptoms.

Results The prevalence rate of depressive symptoms (CDI scores≥19) in adolescents was 16.72%，with 16.60% for boys and 16.90% for girls,and the prevalence rate was not differentiated on gender ($\chi2$=0.047，P=0.83). For boys, the prevalence rate of depressive symptoms was significantly different among different grades($\chi2$=8.79,P=0.032) and different school types ($\chi2$=7.86,P=0.005).Binary logistic regression analysis showed that senior class and private school were risk factors of depressive symptoms among boys(P＜0.05). For girls,the prevalence rate of depressive symptoms was significantly different among different grades($\chi2$=19.78,P＜0.001) and different family types ($\chi2$=11.48,P=0.003).Binary logistic regression analysis showed that senior class was risk factor and extended family was protective factor of depressive symptoms among girls(P＜0.05).The prevalence rate of anxiety-depression comorbidity in girls was higher than that in boys（$\chi2$ = 17.05,P<0.001).Boys with comorbid conditions scored higher on SDQ emotional symptoms (Z=-7.59,P<0.001), attention deficit/ hyperactivity problems（Z=-3.58,P<0.001) and total difficulty scores（Z=-5.20,P<0.001) than boys with depression alone；Girls with comorbid conditions scored higher on SDQ emotional symptoms（Z=-6.37,P<0.001), attention deficit/hyperactivity problems（Z=-3.90,P<0.001),peer relationship problems（Z=-3.03,P=0.002) and total difficulty scores（Z=-6.15,P<0.001) than girls with depression alone.

Conclusion There were gender differences in affecting factors of depressive symptoms and the prevalence rate of comorbidity.Boys with comorbid conditions had more emotional problems, attention deficit/ hyperactivity problems. Girls with comorbid conditions had more emotional problems, attention deficit/ hyperactivity problems and peer relationship problems.

关键字：depressive symptoms;prevalence;comorbidity;emotional and behavioral problems; teenage boys;teenage girls

Is Prosocial Behaviour Protective Against Depression: A Cross-sectional Study of Students in China

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Objective Prosocial behavior in adolescents is considered to be negatively correlated with depression and anxiety. However, it remains unclear whether this protective effect of prosocial behavior is affected when anxiety symptoms or depressive symptoms are present. The present study aimed to investigate (a) whether the prosocial

behavior-anxiety association is moderated by depressive symptoms and (b) whether the association between prosocial behavior and depression is moderated by anxiety symptoms.

Methods A cross-sectional survey of middle school students using standardized instruments (Children's Depression Inventory (CDI), Screen for Child Anxiety Related Emotional Disorders child version (SCARED-C),and Strengths and Difficulties Questionnaire(SDQ)). We used structural equation modeling (SEM) to examine the protective effect of prosocial behavior when anxiety symptoms or depressive symptoms are present.

Results The prevalence of anxiety and depression in early adolescents were 31.6% and 16.7%, respectively. 70.8% of depressed adolescents had comorbidities of anxiety, and 37.5% of anxious adolescents had depressive symptoms. Regression models showed that compared with depressed adolescents , prosocial behaviors of adolescents without depressive symptoms were significantly negatively correlated with anxiety and depression (β = -0.01, P ＞0.01，β = -0.06, P＞0.01；β = -0.11, P < 0.01，β = -0.17, P < 0.01). There was no difference in the protective effect of prosocial behavior on depression between anxious and non-anxious adolescents(P＞0.05).

Conclusion Anxiety and depression are common in early adolescence and are often comorbidities. However, the level of comorbidity is not symmetrical. The protective effect of prosocial behavior in depressed adolescents is weakened.

关键字： prosocial behavior, anxiety, depressive symptoms, middle school students

Working Experiences Among Frontline Nurses Fighting Against Coronavirus Disease 2019 in Mobile Cabin Hospitals：a Qualitative Research

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Objective Omicron outbreak in Shanghai in may 2022 In order to cope with the great shock, the government establishes the Mobile Cabin Hospitals (MCHs) to provide isolation and care for patients with mild to moderate symptoms. MCHs are rapidly built temporary hospitals composed of several movable shelters; they are equipped to provide services such as emergency treatment, surgical treatment and clinical examinations.. Frontline nurses working in this specific context may confronted dilemmas, such as heavy workloads, complicated and trivial nursing work contents, and sharp conflicts between doctors and patients, all of these may cause mental health challenges of frontline nurses.To understand the working experiences of frontline nurses in combat against Coronavirus Disease 2019 (COVID-19) in mobile cabin hospitals (MCHs) and provide a reference basis for improving the new path of prevention and control of public health emergencies in China.

Methods A purposive sampling method was used to conduct semi-structured in-depth interviews with 16 frontline nurses of the Chongqing-aid-Shanghai medical team from April to May 2022 as the study participants. A phenomenological qualitative design was followed throughout the study. The data were analyzed by applying the Colaizzi 7-step analysis method.

Results A total of three themes were summarized at three levels: change of mind (sense of responsibility and mission, worry and anxiety, moving, post-traumatic growth, sense of value and accomplishment), difficulty coping (unadapting to wearing protective equipment, unfamiliarity with processes, rapid change of work content dynamics, sleep disorder), and nursing focus (life care, psychological care, care for particular patients).

Conclusion A total of three themes were summarized: change of mind, difficulty coping, and key point of nursing/nursing priorities.

关键字：Coronavirus Disease 2019; Nurses; Working experience; Mobile cabin hospital; Qualitative research

结合多基因风险评分和神经影像特征寻找孤独症谱系障碍预后相关标志物

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目的 孤独症谱系障碍(Autism Spectrum Disorder, ASD)是遗传因素和环境因素相互作用的多致病因素导致的一类神经发育障碍，然而其病因学机制仍不明确，且少有研究对 ASD 进行长时间的随访，ASD 的预后信息知之甚少。本文将从神经影像和遗传学的角度寻找 ASD 预后相关的影像遗传学标志物，利用多基因风险评分(polygenetic risk score, PRS)，探索基因-脑-行为之间的关系。

方法 纳入 ASD 儿童 104 人，正常发育儿童 72 人，完善临床评估和一般情况问卷调查，采集磁共振成像数据；其中 90 名 ASD 儿童完成了为期 4 年的前瞻性纵向随访，采用五级评分方法对其整体社会功能（overall social outcome, OSO）进行系统性评价。59 例 ASD 患者进行全外显子测序，采用加权求和的公式计算全外显子组多基因风险评分(exon-PRS)，采用简单回归分析 PRS 与 ASD 预后的关系；支持向量回归（support vector regression, SVR）模型探索 exon-PRS 相关的 ASD 特征脑区；多元逻辑回归模型进一步探索 ASD 预后相关的影像遗传风险因素；最后建立中介模型探究基因-脑-行为的关系。

结果 1) exon-PRS 不能作为 ASD 症状的独立预测因素，不能预测 ASD 预后转归，能预测社会适应功能；2) SVR 模型发现与 exon-PRS 相关的脑区包括前额叶、扣带回、枕叶、楔前叶、梭状回、直回等；3)将预后分组和 OSO 分级分别作为因变量进行多元逻辑回归模型发现，对 OSO 分级有预测作用的因素是：右枕下回-左枕下回、左枕中回-右副中央小叶的功能连接，以及 exon-PRS 与左枕中回-右副中央小叶、左枕前回-右角回功能连接的交互作用。而预后分组的多元逻辑

回归拟合失败；4)成功构建两个基因-脑-行为中介模型，分别解释了脑作为内表型对 ASD 症状、ASD 预后社会适应能力的影响：exon-PRS 通过枕中回-苍白球功能连接中介作用间接影响 ASD 的沟通交流症状；随访时 ASD 社会功能的预测因素中 exon-PRS、枕中回间有交互作用，同时两者都受到基线语言表达能力的中介调节作用。

结论 影像遗传学研究发现影像内表型有利于 ASD 的遗传机制探索，枕叶中介调节了 ASD 外显子组多基因遗传风险与 ASD 预后的关系。

关键字：多基因风险评分，神经影像，孤独症，预后

基于 fNIRS 对非自杀性自伤青少年患者经 SSRI 药物治疗前后的前额叶血流动力学特点的研究

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目的 ：本研究采用基于语言流畅性任务范式的近红外脑功能成像技术（Functional near-infrared spectroscopy,fNIRS）探讨非自杀性自杀（Non-suicidal self-injury,NSSI）青少年患者的脑血流动力学特点，了解青少年 NSSI 患者经五羟色胺再摄取抑制剂（Selective Serotonin Reu，SSRI）药物干预后的血流动力学及脑功能变化特点，寻找 SSRI 药物干预的神经生物学机制及疗效预测因子。

方法 选取 2022 年 04 月-2022 年 10 月贵州省第二人民医院就诊的 30 例符合 DSM-5 关于 NSSI 诊断标准的青少年患者，另招募 30 例与患者组性别、年龄、教育程度相匹配的健康志愿者，作为 NSSI 组和健康组。健康组及 NSSI 组均使用 53 通道近红外光谱成像仪 在言语流畅性任务（VFT）中采集前额叶血流变化，并进行思维反刍量表（RRS）评定；同时 NSSI 组进行舍曲林药物干预后第四周再次采集前额叶血流变化。

结果 结果：1.NSSI 组在进行言语流畅性任务时词组个数明显少于正常对照组（P<0.05）。此外，患者组思维反刍量表分数明显高于正常对照组（P<0.05）；2. NSSI 组和健康对照组以氧和血红蛋白浓度为指标在背外侧前额叶、额极差异有统计学意义，其中主要表现在通道 CH6、CH21、CH41 有统计学意义（P<0.05），与健康组比较，NSSI 组患者 Hbo 浓度比健康对照组显著降低。3.NSSI 组经药物干预后临床疗效可，HAMD 评分显著低于干预前 P<0.05。4. NSSI 组经舍曲林药物干预后，NSSI 组以氧和血红蛋白浓度为指标在前运动皮层与辅助运动皮层、左背外侧前额叶、右布诺卡区差异有统计学意义，CH6、CH7、CH47 通道 Hbo 浓度有统计学差异（P<0.05），经舍曲林药物治疗后 NSSI 组患者 Hbo 浓度较干预前明显激活。

结论 NSSI 青少年患者 VFT 任务期间存在与反应力、注意力等认知功能相关及情绪调节相关脑区（背外侧前额叶、额极）中表现出较低的氧和血红蛋白浓度的激活。fNIRS 可能作为没有表露出 NSSI 患者的筛查工具，脑血流氧和血红蛋白浓度可能作为 NSSI 患者生物学标记物之一； 在青少年 NSSI 患者的治疗中实施盐酸舍曲林不但能改善患者的抑郁症状，还能够提高其前额叶脑血流量，可能提高 NSSI 患者认知功能及情绪调节。

关键字：非自杀性自伤；思维反刍；前额叶；；近红外光谱技术；言语流畅性任务；氧和血红蛋白

PRKCB 基因甲基化、童年慢性应激与青少年抑郁症的关联性研究

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目的 青少年抑郁症的患病率显著升高。既往研究发现 PRKCB 基因的变化与童年慢性应激及抑郁症相关。因此，本研究探讨童年慢性应激、PRKCB 基因甲基化及青少年抑郁症这三者的关系；童年慢性应激、PRKCB 基因甲基化与青少年抑郁症患者自杀行为的关系。

方法 本研究共纳入 100 例青少年抑郁症患者和 50 例健康对照。使用贝克抑郁量表（BDI）、童年慢性应激量表（CCSQ）对受试者进行评估，并对本课题组前期研究发现的 PRKCB 基因差异 CpG 位点-cg18526361 甲基化水平进行检测。比较两组 BDI、CCSQ 评分及 PRKCB 基因 CpG 位点甲基化水平。使用相关性分析及二元 Logistic 回归探索童年慢性应激、PRKCB 基因 CpG 位点甲基化与青少年抑郁症的关系。比较有、无自杀行为的青少年抑郁症患者的童年慢性应激及 PRKCB 基因 CpG 位点甲基化水平。构建交互模型及中介效应模型探讨 PRKCB 基因 CpG 位点甲基化和童年慢性应激的相互作用对青少年抑郁症的影响。

结果 1.患者组的 BDI 总分、CCSQ 总分及各维度评分均显著高于对照组（p＜0.05）。2.CCSQ 总分、3 个大维度及 4 个小维度评分与 BDI 总分呈正相关（p＜0.05）。除性虐待维度，其余童年慢性应激维度均与青少年抑郁症风险相关（p＜0.05）。3.患者组 PRKCB-108-34 甲基化水平显著高于对照组，且与 BDI 总分呈正相关（p＜0.05）。PRKCB-108-34 甲基化水平与青少年抑郁症风险相关（p＜0.05）。4.青少年抑郁症患者 PRKCB-108-34 甲基化水平与 CCSQ 总分、3 个大维度及 5 个小维度评分呈正相关（p＜0.05）。5.童年慢性应激与 PRKCB-108-34 甲基化的交互作用对青少年抑郁症没有影响，且 PRKCB-108-34 甲基化在童年慢性应激与青少年抑郁症严重程度之间无中介效应。6.有自杀行为组的 CCSQ 总分及各维度评分均高于无自杀行为组，但 PRKCB-108-34 甲基化水平在两组之间无显著差异。

结论 青少年抑郁症患者经历了更多的童年慢性应激，且童年慢性应激水平与青少年抑郁症相关。PRKCB-108-34 甲基化水平与青少年抑郁症相关，且与童年慢性应激水平相关。童年慢性应激与 PRKCB-108-34 甲基化的相互作用对青少年抑郁症没有影响。童年慢性应激水平高的青少年抑郁症患者自杀风险更高。

关键字：青少年抑郁症；童年慢性应激；蛋白激酶 C β；DNA 甲基化

孤独症谱系障碍高危婴幼儿的眼动研究

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目的 孤独症谱系障碍(Autism spectrum disorder, ASD)遗传高危（High risk, HR）婴幼儿,即 ASD 患者的婴幼儿同胞，患 ASD 的风险相对增高。既往研究发现 ASD 患者存在社交注意缺陷，主要表现为偏好注视非社交刺激。因此，本研究借助眼追踪技术：（1）探究 HR-ASD 婴幼儿对非社交刺激是否存在偏好注视；（2）探究 HR-ASD 婴幼儿的异常注视行为用于区分 ASD 风险的能力。

方法 本研究采用横断面设计，纳入 HR-ASD 婴幼儿、ASD 患儿、正常发育（Typically developing, TD）婴幼儿各 33 名。使用眼动仪采集三组被试观看小朋友互动的社交场景、人和卡通玩偶以及人和旋转物品 3 种刺激材料的眼动数据。采用协方差分析比较 3 组被试的眼动指标的差异，采用受试者工作特征（Receive operating characteristic, ROC）曲线探究 3 组间有差异的眼动指标区分 ASD 风险以及诊断结局的能力。

结果 （1）社交场景：HR-ASD 组对活动兴趣区（Area of interest, AOI）的首注视时间和注视时间百分比显著多于 TD 组（p<0.05），ASD 组对活动 AOI 的注视时间百分比显著多于 TD 组（p=0.002），（2）人和卡通玩偶：HR-ASD 组和 ASD 组首次注视到卡通 AOI 的潜伏期显著少于 TD 组（p<0.05），HR-ASD 组和 ASD 组对人物 AOI 的首注视时间以及卡通 AOI 的注视时间百分比显著高于 TD 组（p<0.05），另外，HR-ASD 组对头部和卡通 AOI 的首注视时间显著高于 TD 组（p<0.05）（3）人和旋转物品：ASD 组对物品 AOI 注视时间百分比显著高于 TD 组（p=0.002）（4）卡通 AOI 注视时间百分比用于区分 HR-ASD 组和 TD 组对应的 ROC 曲线下面积最高（0.81），相应的灵敏度、特异度、阳性预测值、阴性预测值分别为 0.80、0.72、0.74、0.78。

结论 （1）在观看人物互动的社交场景时，HR-ASD 婴幼儿表现出和 ASD 患儿类似的对人物所做的活动关注增加，而对人物不感兴趣。（2）观看同时呈现的社交刺激和非社交刺激物时，HR-ASD 婴幼儿表现出和 ASD 患儿类似的对非社交刺激物的注视偏好。（3）HR-ASD 婴幼儿对非社交刺激物的偏好注视用于区分 ASD 风险的效果良好。

关键字：孤独症谱系障碍高危婴幼儿；眼动

青少年边缘性人格特质、学校适应、社会支持与自我效能感：一个有调节的中介作用

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目的 探索边缘性人格特质、青少年社会支持、学校适应与自我效能感的关系，为进一步提高青少年自我效能感提供理论依据。

方法 采用方便取样，对 2369 名青少年进行一般人口学调查、边缘性人格特质、青少年社会支持、学校适应及自我效能感评估，采用 SPSS26.0 对数据进行描述性统计分析、相关分析、中介及调节效应等分析。

结果 学校适应在边缘性人格特质与青少年自我效能之间起中介作用，中介效应占比分别为 52.00%，72.48%，69.95%，35.95%；学校适应（β=0.152~0.222，P 均<0.01）显著正向预测青少年自我效能感，且学校适应与社会支持的交互项对青少年自我效能的预测作用显著；情绪不稳定、冲动控制问题显著负向预测青少年自我效能感（β 情绪不稳定=-0.081，β 冲动控制问题=-0.181，P 均<0.01），边缘性人格特质 4 个维度与社会支持的交互项对青少年自我效能感的预测作用不显著；简单斜率检验：社会支持水平较高时，情绪不稳定对自我效能感的负向预测作用不显著（β=-0.035，P=0.250），冲动控制问题对青少年自我效能感的负向预测增强（β=-0.200，P<0.01），学校适应显著正向预测青少年自我效能感，对青少年自我效能感的预测显著增强（β 情绪不稳定=0.313，β 冲动控制问题=0.223，P 均＜0.01）；社会支持水平低时，情绪不稳定可显著负向预测自我效能感（β=-0.126，P<0.01），冲动控制问题能够显著负向预测青少年自我效能感（β=-0.161，P<0.01），学习适应可显著正向预测青少年自我效能感（β x：情绪不稳定=0.120，β x：冲动控制问题=0.081，P 均＜0.01）。有中介的调节作用分析结果显示：情绪不稳定经学校适应对青少年自我效能感的影响在社会支持水平较低时显著（高社会支持中介效应值 0.19，低社会支持中介效应值 0.16），冲动控制经学校适应对青少年自我效能感的间接影响随着社会支持的增加而逐渐增强（高社会支持中介效应值 0.11，低社会支持中介效应值 0.16）。

结论 学校适应在边缘性人格特质与青少年自我效能之间起中介作用；社会支持在情绪不稳定或冲动控制问题经学校适应对自我效能感作用路径中的学校适应至自我效能感途径中起到调节作用。

关键字：社会支持 学校适应 边缘性人格 自我效能感

微生态制剂对神经发育障碍有效性及安全性的网状 meta 分析

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目的 神经发育障碍发病率逐年升高，包括孤独症谱系障碍(autistic spectrum disorder, ASD)、注意缺陷多动障碍(attention deficit hyperactivity disorder, ADHD)、智力障碍、交流障碍、特定学习障碍等，给家庭、社会带来巨大负担。现有治疗药物副反应较多，且部分患者存在药物不耐受、用药依从性差的问题。微生态制剂由益生菌及其代谢产物和促进物组成，包括益生菌、益生元、合生元。国内外研究提示微生态制剂有助于改善神经发育障碍，但其干预效果及安全性仍不明确。本研究旨在采用网状 meta 分析方法对微生态制剂干预神经发育障碍的有效性及安全性进行评价。

方法 分别对 Pubmed, Web of Science, Embase, Cochrane Library, the Cochrane Central Register of Controlled Trials 及 PsycINFO 数据库进行检索，检索时限为建库至 2023 年 7 月 3 日。纳入标准：（1）研究对象为神经发育障碍患者；（2）干预措施为微生态制剂或微生态制剂合并常规神经发育障碍药物治疗；（3）比较组为安慰剂或常规药物治疗；（4）主要结局指标包括干预前后神经发育障碍症状评分、药物不良反应，次要结局指标包括胃肠道症状评分、其他疾病症状评分（情绪评分等）、脑电图变化、肠道菌群丰度等；（5）研究类型为随机对照试验。采用 ADDIS 1.16.5 软件进行网状 meta 分析。

结果 共纳入 26 项随机对照试验，包括 18 项 ASD 研究，6 项 ADHD 研究，1 项智力障碍研究，1 项抽动障碍研究，总样本量 1099 例。纳入益生菌：鼠李糖乳杆菌、益生菌合剂（罗伊氏乳杆菌、噬酸乳杆菌、双歧杆菌）、双歧杆菌、植物乳杆菌、De Simone 合剂；益生元：乳清蛋白、低聚半乳糖；合生元：Synbiotic2000（乳酸菌、植物乳杆菌、纤维素等）、SB-121 制剂。发现植物乳杆菌、双歧杆菌、低聚半乳糖等可显著改善 ASD 症状；益生菌合剂、鼠李糖乳杆菌可以改善 ADHD 症状评分，Synbiotic2000 可以改善多动/冲动行为；大部分研究均未发现不良反应，只有 2 项研究报道了皮肤瘙痒、食欲改变。

结论 微生态制剂有助于改善神经发育障碍症状，且安全性较好，但未来仍需更多大样本、多中心的随机对照研究进行补充与论证。

关键字：神经发育障碍；微生态制剂；网状 meta 分析

机器学习在严肃游戏预测青少年自杀风险中的应用

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目的 青少年心理危机频发，学校心理筛查多采用量表，存在测验焦虑、社会赞许性、话题敏感性等问题，容易导致结果不准确，更加客观的严肃游戏受到越来越多的关注。严肃游戏是为了达到教育、治疗等严肃的目的而设计的游戏化心理测评形式，能获得更高的参与度，同时由于是采集实时的行为反应，可以有效减少作假。现实生活中，自杀影响因素众多且相互关系复杂，传统的统计方法只能建立简单的线性关系，且无法处理大规模数据，而机器学习可以基于大量数据，结合众多自杀风险影响因素，建立复杂的预测模型，并可以根据数据的特征，自适应调整模型的参数，从而得到更加准确的预测结果。然而，目前结合严肃游戏和机器学习预测青少年自杀风险的研究极少，在正常青少年群体中也缺少等级分类的模型。本研究尝试运用机器学习，探索严肃游戏所获取的行为特征数据对青少年自杀风险的预测能力，为青少年自杀风险早期预测提供新的思路。

方法 从医院和学校共招募 1135 名 9~18 岁青少年，由医生或学校心理老师对其进行自杀潜在风险评估，通过严肃游戏软件获取其行为反应特征数据，运用机器学习 LightGBM 算法构建模型，并评估模型的预测性能。

结果 机器学习模型对高风险的预测准确度最高（AUC=0.92），其次依次是中风险（AUC=0.85），无风险（AUC=0.74），低风险（AUC=0.62）。模型在区分自杀风险的 4 个类别（无风险、低风险、中风险、高风险）上的预测准确率为 0.81，召回率为 0.69，精确率为 0.64，F1 值为 0.66；在区分有无自杀风险上的预测准确率为 0.84，召回率为 0.80，精确率为 0.66，F1 值为 0.69。

结论 基于严肃游戏软件初步构建的算法模型一定程度可以有效地预测青少年的自杀潜在风险等级，可作为青少年自杀风险早期预测和筛查的工具之一。

关键字：自杀；严肃游戏；机器学习；青少年

重复经颅磁刺激（rTMS）治疗伴有快感缺失的抑郁障碍患者的急性期疗效的病例研究

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目的 本研究旨在比较高频 rTMS、低频 rTMS 和单纯药物对抑郁症患者急性期症状的改善效果，同时探讨高频组、低频组相较于单纯药物治疗组对抑郁症患者快感缺失的疗效，并探寻相关临床疗效的影响因素，为临床方案选择提供思路。

方法 本次实验收集了共 69 例，来自于重医附属大学城医院心理卫生中心就诊的患者，将符合入组的患者随机分为高频组、低频组和药物对照组，最终高频组患者共有 20 例，低频组患者共有 21 例，药物对照组共有 28 例。收集纳入患者的个人信息和相关病史资料。我们在治疗前、治疗 2、4 和 8 周末分别使用了汉

密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD-17）和斯奈思-汉密尔顿快感量表（SHAPS）来评估他们的焦虑、抑郁和快感缺失症状。同时还要观察患者在整个治疗过程中是否存在不良反应。

结果 在基线资料比较中，性别存在统计学差异（p=0.004）。在 2 周的急性期治疗后，所有纳入患者的焦虑、抑郁和快感缺失得分均在治疗 2、4、8 周后逐渐降低（p=0.000）。在改善抑郁症状方面，高频组、低频组疗效显著优于药物对照组（p=0.010，p=0.008），在改善焦虑症状方面，高频组优于低频组和药物治疗组（p=0.026），在改善快感缺失方面，低频组优于高频组和药物对照组（p=0.004）。三组不良反应均较少，呈个别化。对快感缺失的相关因素进行分析，得出有饮酒史，基线 HAMA、HAMD-17、SHAPS 总分与快感缺失疗效呈负相关关系（p=0.044，p=0.037，p=0.023，p=0.003）。

结论 rTMS、药物均能改善抑郁患者的症状，但 rTMS 效果优于药物治疗，高频 rTMS 在改善焦虑症状方面效果更优，低频 rTMS 在改善快感缺失症状方面效果更优。三组均未见明显不良反应，低频 rTMS 可以在今后的抑郁障碍患者中发挥独特的作用优势，后续维持期的治疗可以延续更长的时间，也可以进一步探索新兴的治疗模式。

关键字：抑郁障碍，急性期治疗，快感缺失，重复经颅磁刺激

青少年抑郁症非自杀性自伤反应抑制功能的 ERP 研究

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目的 有学者认为非自杀性自伤（Nonsuicidal self-injury, NSSI）是一种行为成瘾，而线索反应性是成瘾障碍的特征之一。本研究旨在探索伴 NSSI 的青少年抑郁症患者在自伤相关线索下反应抑制的行为表现和电生理指标是否存在异常。

方法 年龄在 12 岁-18 岁之间的 47 个伴 NSSI 的重度抑郁（Major depressive disorder, MDD）患者，39 个不伴 NSSI 的 MDD 患者，以及 25 个健康对照（Healthy control, HC）在完成双选择 Oddball 范式下采集脑电图。准确率代价（Accuracy cost）和反应时代价（RT cost）作为反应抑制功能的行为学指标；偏差刺激减去标准刺激的差异波 N2d 和 P3d 的潜伏期和波幅作为反应抑制功能的电生理指标。我们使用 ERP 可靠性分析工具箱去估计 N2 和 P3 的可信度估计，阈值设置为 0.70。

结果 P3d 波幅的组别×线索交互效应显著[F(2, 108) = 4.54, p = 0.01, ηp2 = 0.08]。将年龄加入协变量后，组别×线索条件的交互效应仍然显著[F(2, 107) = 5.85, p = 0.004, ηp2 = 0.10]。进一步简单效应分析结果显示：自伤相关线索下 MDD+NSSI 组的 P3d 波幅较 HC 组显著增大（Bonferroni 校正后的 p=0.046）；在 MDD 组和 MDD+NSSI 组中，自伤相关线索下的 P3d 波幅显著大于中性线索下的 P3d 波幅（Bonferroni 校正后的 p 分别为 0.038 和 0.009），但在 HC 组中，自伤相关线索下的 P3d 波幅显著小于中性线索下的 P3d 波幅（Bonferroni 校正后的 p 为 0.038）。N2 和 P3 可信度估计结果显示：MDD+NSSI 组、MDD 组和 HC 组在各种刺激条件下均具有较好的可信度（均大于 0.7）。

结论 我们提供了伴有 NSSI 的青少年抑郁患者在自伤相关线索下神经反应性发生改变的神经电生理证据，具体来说，自伤相关线索能诱发 NSSI 青少年显著更大的 P3 波幅。仍需要未来的纵向研究去探索线索反应性对于预测未来自伤自杀行为的作用和价值。

关键字：青少年，非自杀性自伤，反应抑制，事件相关电位，P300

阿戈美拉汀联合坦度螺酮治疗青少年抑郁焦虑共病 及非自杀性自杀干预的研究

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目的 探讨阿戈美拉汀联合坦度螺酮治疗青少年抑郁焦虑共病的临床效果与安全性及非自杀性自伤行为的发生率。

方法 选取 2021 年 1 月一 2023 年 1 月就诊于宁夏宁安医院的 168 例青少年抑郁共病焦虑障碍的患者作为研究对象，按照随机数字表法分为对照组（84 例）和观察组（84 例）。对照组采用单一阿戈美拉汀治疗，观察组采用阿戈美拉汀联合坦度螺酮组治疗。分别于治疗前及治疗 1、2、4 周末应用 17 项汉密尔顿抑郁量表(HAMD-17)、汉密尔顿焦虑量表(HAMA)、匹兹堡睡眠质量指数量表(PSQI)和不良反应症状量表(TESS)评定疗效及安全性，采用渥太华自我伤害调查表（OSI）评估 NSSI 行为发生情况。

结果 研究结束后两组患者在治疗有效率方面比较，观察组总有效率(96.3％)高于对照组(84.2％)，差异有统计学意义(P〈0.05)。治疗 1、2、4 周末，两组 HAMD-17、HAMA 总分与其治疗前比较均显著下降，且观察组 HAMD-17、HAMA 评分和 NSSI 行为发生率均明显低于对照组，差异均有统计学意义(P〈0.01) 。两组不良反应总发生率比较，差异无统计学意义(P>0．05)。

结论 阿戈美拉汀治疗青少年抑郁共病焦虑安全有效，不仅可缓解患者的焦虑抑郁情绪，而且可降低 NSSI 发生率。联用坦度螺酮治疗效果优于单用阿戈美拉汀治疗，值得临床应用推广。

关键字：阿戈美拉汀；坦度螺酮；抑郁；焦虑

Adjunctive Repetitive Transcranial Magnetic Stimulation for Adolescents with First-episode

Major Depressive Disorr: A Meta-analysis

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Objective This meta-analysis of randomized clinical trials (RCTs) was conducted to explore the therapeutic effects and acceptability of repetitive transcranial magnetic stimulation (rTMS) as an adjunct treatment in adolescents with first-episode major depressive disorder (FE-MDD).

Methods RCTs examining the efficacy and acceptability of adjunctive rTMS for adolescents with FE-MDD were included. Data were extracted by three independent authors and synthesized using RevMan 5.3 software with a random effects model.

Results A total of six RCTs involving 562 adolescents with FE-MDD were included. Adjunctive rTMS was superior in improving depressive symptoms over the control group (standardized mean difference (SMD)=-1.50, 95% confidence interval (CI): -2.16, -0.84; I2=89%, p<0.00001) in adolescents with FE-MDD. A sensitivity analysis and two subgroup analyses also confirmed the significant findings. Adolescents with FE-MDD treated with rTMS had significantly greater response (risk ratio (RR)=1.35, 95% CI: 1.04, 1.76; I2=56%, p=0.03) and remission (RR=1.35, 95% CI: 1.03, 1.77; I2=0%, p=0.03). All-cause discontinuations were similar between the two groups (RR=0.79, 95% CI: 0.32, 1.93; I2=0%, p=0.60). No significant differences were found regarding adverse events, including headache, loss of appetite, dizziness and nausea (p=0.14-0.82). Four out of six RCTs (66.7%, 4/6) showed that adjunctive rTMS was more efficacious over the control group in improving neurocognitive function (all p<0.05).

Conclusion Adjunctive rTMS appears to be a beneficial strategy in improving depressive symptoms and neurocognitive function in adolescents with FE-MDD. Higher quality RCTs with larger sample sizes and longer follow-up periods are warranted in the future.

关键字：repetitive transcranial magnetic stimulation; adolescent; depression; first episode; meta-analysis

Cognitive Functioning of Self-Injurious Or Suicidal Attempted Adolescents in Depressive Disorder Using Eye Tracking Technology

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Objective To explore the relationship between suicide and eye-movement characteristics in adolescent depression patients with and without self-injurious behavior.

Methods To investigated cognitive function in adolescents with depression with self-injurious or suicidal behavior: 30 depression patients with non-suicidal self-injurious behavior, 30 depression patients with suicide attempts, and 21 healthy controls were subjected to general condition, Hamilton Depression Inventory, THINC-it set of cognitive measurement tools and eye movement measurement.

Results Compared to the non-suicidal self-injurious behavior group, teenagers with depression who engage in self-injurious behavior have lower levels of the Hamilton Depression Scale (t=-3.753, P<0.05), the Adolescent Suicidal Ideation Scale（t=1.147，P<0.05）, and the Suicidal Behavior Questionnaire total score (Z=-4.079, P<0.05). There were no statistically significant differences in lifestyle self-injurious behavior and functioning between the two groups (P>0.05). THINC-it integrated cognitive measure instrument showed significant differences in all scores among the three groups (P< 0.05), and the five-item Perceived Deficits in Depression Questionnaire (OR=39.579, 95% CI: 3.995 to 329.124) and objective scores (OR=3.052, 95% CI: 0.904 to 10.295) were associated with adolescent depression. The total score of the Adolescent Suicidal Ideation Scale was associated with Spotter (r=-0.401, P<0.05), Codebreak (r=-0.274, P<0.05), Trails (r=-0.273, P<0.05), Objective score (r=-0.352, P<0.05), and Comprehensive score (r=-0.375, P<0.05) were negatively correlated in total score. In the antisaccade task, there were significant differences in gaze time, accuracy, latency, correct eye tracking latency, and peak velocity in all three groups (P<0.05), and in memory-guided saccade task, there were significant differences in gaze time, accuracy, latency, number of errors, total number of valid trials, spatial error, and mean number of eye tracking steps (P<0.05), while the rest of the differences were not significant (P>0.05). Correlation analysis revealed that antisaccade and memory guided saccade tasks were correlated with cognitive function (P<0.05).

Conclusion The degree of depression was related to suicidal ideation and suicidal behavior. Self-injury characteristics associated with suicidal ideation, self-injury may promote the occurrence of suicide. The degree of depression, suicidal ideation, NSSI behavior and function may affect the cognitive function of adolescents with depression. The eye movement characteristics of antisaccade and memory guided saccade tasks can reflect the subjects' working memory, attention control and executive function. There were differences in reverse saccade and memory saccade among non-suicidal NSSI patients, attempted suicide patients and healthy people.

关键字：adolescent depressive disorder, eye tracking, cognitive function, cognitive function, non-suicidal self-injury, suicide attempt

加速重复经颅磁刺激治疗抑郁症的临床疗效研究

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目的 尽管已经明确抗抑郁药物对抑郁患者的疗效，但目前仍有三分之一左右的抑郁患者对规范的抗抑郁药物治疗反应欠佳，本文在传统经颅磁刺激治疗

的基础上，结合斯坦福加速智能神经调控法，采用不同作用靶点的加速经颅磁治疗(accelerated repetitive transcranial magnetic stimulation, arTMS)策略，探索新经颅磁刺激治疗方案能否优化难治性抑郁的治疗，从而减轻疾病负担，并深入理解不同靶点的加速经颅磁治疗方案对难治性抑郁患者局部脑功能活动的影响,从而找到 arTMS 治疗的预测因子，为个体化经颅磁治疗提供依据。

方法 将在贵州省第二人民医院招募的难治性抑郁障碍患者平均分为单靶点刺激组、双靶点刺激组及伪刺激组，其中，单靶点组患者接受左侧背外侧前额叶(left dorsolateral prefrontal cortex, L-DLPFC)真刺激及右侧眶额叶(right orbitofrontal cortex, OFC)伪刺激治疗；双靶点组患者接受 L-DLPFC 及 R-OFC 双侧真刺激治疗；而伪刺激组接受双侧伪刺激治疗。最终有 58 名符合条件的患者完成连续 5 天的加速经颅磁治疗及相应测评。三组患者间的年龄、性别及受教育年限的差异均无统计学意义。各组在基线期和 5 天 arTMS 治疗结束后减分率为主要评估指标，运用方差分析比较三组方案治疗的疗效差异，用配对 t 检验分析方法比较三组患者治疗前后脑功能活动变化特点。

结果 基线期各组间 HAMD24 评分差异无统计学意义。经过连续 5 天共 20 次的 arTMS 治疗后，单靶点组的平均 HAMD24 减分率约为 30%，双靶点组患者的平均 HAMD24 减分率约为 42%；伪刺激组的平均 HAMD24 减分率约为 13%。三组间减分率差异具有统计学意义（$p<0.05$）。此外，我们发现左侧颞上回比率低频振幅与 HAMD24 减分率呈显著负相关。

结论 作用于 L-DLPFC 及 R-OFC 的双靶点 arTMS 较单靶点及伪刺激 arTMS 更大地降低抑郁症患者的 HAMD24 评分，即可以更好地改善抑郁症患者的症状，减少患者住院周期。基线期左侧颞上回局部脑活动性增高可能对 arTMS 治疗抑郁症有积极预测作用。

关键字：加速重复经颅磁刺激；双靶点；抑郁症；背外侧前额叶；眶额叶

Multidimensional Voiceprint Feature Assessment System for Identifying The Depression of Child and Adolescent：A Diagnostic Test

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Objective We design a diagnostic test to evaluate the effectiveness and accuracy of a multidimensional voiceprint feature diagnostic assessment (MVFDA) system versus Hamilton Rating Scale for Depression 24-Item (HAMD-24) for auxiliary diagnosis of child and adolescents with Major depressive disorder (MDD).

Methods This study include 55 children aged 6-16 who are clinically diagnosed as MDD by DSM-5 and analysis of professional doctors, and 55 healthy children (typically developing). Each subject completed speech feature capture and was assessed on the HAMD-24 scale by a trained rater. We calculate the indexes of validity, including sensitivity, specificity, Youden's index, likelihood ratio, and other indexes including predictive value, diagnostic odds ratio, diagnostic accuracy and area under the curve (AUC) to assess the effectiveness of MVFDA system as well as the HAMD-24.

Results The sensitivity (92.73% vs. 76.36%) and the specificity (90.91% vs. 85.45%) of the MVFDA system are significantly higher than the HAMD-24. The AUC of the MVFDA system is also higher than that of the HAMD-24. There is statistically significant difference between groups ($p<0.05$), and both of them have high diagnostic accuracy. In addition, the diagnostic efficacy of the MVFDA system is higher than that of HAMD-24 in terms of the Youden index, diagnostic accuracy, likelihood ratio, diagnostic odds ratio and predictive value.

Conclusion MVFDA has performed well in clinical diagnostic trials for identifying MDD in child and adolescents by capturing objective sound features. Compared with the scale assessment method, the MVFDA system could be further promoted in clinical practice for its advantages of simple operation, objective evaluation, and high diagnostic efficiency.

关键字：Major depression disorder;Feature of voiceprint；Diagnosis; Child and adolescent; objective

The P300 Amplitude Predicts Neural Reactivity and Responsiveness To Antidepressants in Adolescents with Depression: An ERP Study

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Objective Adolescent depression has extremely high rates of recurrence and disability and is significantly associated with suicide risk. No clear neurobiological markers have yet been identified. Antidepressants are widely used to treat depression, and there are also no neurobiological signatures that accurately reflect the effects of antidepressant treatment. Therefore, it is essential to find a reliable neurobiological marker.

Methods One hundred and seven patients with major depressive disorder (MDD group, 30 males, 77 females, mean age: 14.80 years), and 25 healthy subjects (HC group, 13 males, 12 females, mean age: 15.72 years) were recruited to perform a negative emotional stimulation task. All participants completed the Hamilton Depression Scale and a self-administered questionnaire to collect demographic information. We administered medication to 107 adolescents with MDD for 8 weeks; 61 of these patients were followed up. Multichannel EEG was recorded continuously from 64 scalp electrodes using the Curry 8 system. EEG signal preprocessing and analysis was performed offline, using the EEGLAB toolbox in MATLAB. ERP component characteristics associated with emotional processing were extracted from the difference waves and

statistically analyzed.

Results N100 and P300 amplitude was significantly greater in adolescents with depression than in healthy adolescents under neutral and negative emotional cues. P300 amplitude was greater under negative emotional cues than neutral emotional cues in adolescents with depression. The depression scale scores of adolescents with MDD decreased significantly after treatment with sertraline-based antidepressants. The P300 amplitude under neutral and negative emotional cues decreased significantly. Further, there was a strong positive correlation between depression scores in adolescents with MDD before and after treatment and in P300 amplitude under negative emotional cues.

Conclusion Adolescents with depression exhibited an increase in N100 and P300 amplitude than healthy adolescents in the face of negative emotional stimuli; the P300 amplitude in adolescents with depression significantly decreased after antidepressant medication and was positively correlated with improvement in depressive symptoms, suggesting that P300 amplitude may be a potential neurophysiological basis for the development of adolescent depression and response to medication treatment.

关键字：adolescents with depression, neural reactivity, responsiveness to antidepressants, negative emotion, event-related potential

Acoustic Analysis of Speech for Screening Self-harm Behaviors During Depressive Episodes in Adolescents with Mood Disorders: Machine Learning Classifiers and Short-term Prediction

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Objective This study aimed to explore cross-sectional and longitudinal approaches for assessing self-harm behavior in adolescents with mood disorders（MDs） by utilizing artificial intelligence and analyzing acoustic features.

Methods This study collected self-harm history data and voice recordings from 193 adolescents with mood disorders at baseline. Self-harm behaviors were evaluated 6 months later using patient disclosures and medical history records. Acoustic features, including temporal, spectral, and cepstral characteristics, were extracted from the voice recordings. Using relevant acoustic principal component values, a self-harm behavior classification model was developed for identifying individuals with self-harm behavior through cross-sectional analysis. Additionally, a risk prediction model was created using baseline acoustic principal component values to accurately forecast the occurrence of self-harm behaviors within a short-term period of 6 months.

Results A person-to-person classification model was developed using five correlated acoustic principal components and support vector learning. Additionally, a risk prediction model was established for short-term self-harm behavior occurrence based on the same five acoustic principal components at baseline. The person-to-person classification model achieved an accuracy rate of 71.21% in accurately identifying mood disorder patients with depressive episodes and self-harm behavior. Similarly, the risk prediction model attained an accuracy rate of 67.31% in predicting the occurrence of self-harm behavior within six months of recruitment.

Conclusion Self-harm behavior in adolescent MDs patients during depressive episodes is linked to acoustic features like spectral centroid, spectral roll-off, fundamental frequency envelope, Mel-frequency cepstral coefficients (MFCC), etc. These acoustic features serve as intrinsic characteristics of self-harm behavior in adolescent MDs patients and effectively differentiate between the presence and absence of self-harm behavior. Moreover, they can also predict the short-term risk of self-harm behavior. This study introduces a novel approach for detecting self-harm behavior during depressive episodes in adolescent MDs patients, which can aid in early clinical identification of self-harm behavior.

关键字：Adolescent; Mood disorders; Self-harm behavior; Acoustic characteristic; SVM model

ADHD 儿童药物响应者和非响应者的静息态脑功能差异：基于认知和行为改善的分析

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目的 药物治疗是注意缺陷多动障碍（Attention Deficit Hyperactivity Disorder, ADHD）的重要的干预手段，然而不同个体对治疗的反应存在差异，表现为不同程度的认知和行为改善。基于症状改善和认知变化的机器学习聚类分析可以客观和系统地区分药物治疗响应者和非响应者。进一步比较不同响应群体的基线期脑功能差异，并探讨其与认知行为改善的关系，对于理解药物治疗相关的神经机制和指导临床用药具有重要意义。

方法 本研究选取 80 名 7~15 岁 ADHD 儿童，经过 4 周的哌甲酯或托莫西汀治疗。利用治疗前后的注意缺陷/多动障碍评定量表、Conners 评定量表以及执行功能评定量表的减分率进行 k-means 聚类分析，区分药物治疗响应者和非响应者，并进一步比较两组在不同维度上的减分率特征。此外通过分析比较两组基线期的低频振幅分数（fractional amplitude of low frequency fluctuations，fALFF）探究局部脑功能差异表现，并提取差异脑区信号值与两组减分率显著差异的认知行为评分进行相关分析。

结果 基于 k-means 聚类的 39 名治疗响应者和 41 名治疗非响应者在年龄、性别和用药类型方面无显著

差异。在治疗改善的行为评估方面，注意缺陷评分（p<0.001）、多动冲动评分（p<0.001）、行为（p<0.001）、学习（p<0.001）和焦虑（p=0.002）方面存在显著差异；在认知评估方面，转换（p=0.020）、情感控制（p<0.001）和工作记忆（p<0.001）方面存在显著差异。与非响应者相比，治疗响应者的右侧中央后回 fALFF 升高，且与行为（r=0.337, p=0.014）、学习（r=0.481, p<0.001）显著相关；与工作记忆（r=0.273 p=0.050）边缘相关。

结论 中央后回脑区局部功能激活增强的 ADHD 儿童可能表现出更好的药物早期反应性，并且与行为和学习方面的改善密切相关。

关键字：ADHD，药物治疗，fMRI，认知，行为

血清骨钙素与精神疾病的研究进展

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目的 血清骨钙素（Osteocalcin，OC）是骨代谢的特异性标志物之一，由非增殖期的成骨细胞合成和分泌的，能反映骨转换、骨更新及成骨细胞的功能。骨钙素作为一种内分泌激素，研究发现骨钙素不仅参与骨代谢、糖脂代谢，也可以穿过血脑屏障并在脑干、中脑和海马发挥作用。近年来，已有多项基础实验和临床研究均发现血清 OC 与抑郁、认知功能、焦虑等精神疾病关系密切。因此本研究拟探讨血清骨钙素与精神疾病的相关研究进展。

方法 从中文数据库 CNKI 和英文数据库 PubMed 进行文献检索进行综述。相关检索词为：血清骨钙素/Osteocalcin；精神疾病/Mental illness。

结果 研究表明 OC 在大脑中生成并作为一种神经肽参与紧张感觉刺激的信息传输；OC 可直接作用于大脑诱导神经元中钙离子聚集，激活脑干和蓝斑中神经元的动作电位，同时抑制脑干 γ-氨基丁酸 (gamma-aminobutyric acid, GABA) 中间神经元动作电位频率，进而刺激 5-羟色胺、儿茶酚胺合成的基因表达，抑制 GABA 生物合成相关基因的表达，影响相应神经递质的合成；OC 还可直接阻止海马中神经元凋亡，从而保护与空间学习和记忆相关的认知功能。此外，研究发现骨钙素能够通过 G 蛋白偶联受体 37（GPCR37）调控中枢神经系统少突胶质细胞分化及髓鞘发生，这为骨钙素作为外周潜在靶点治疗中枢髓鞘病变提供了实验依据。既往利用核磁共振成像液体衰减反转恢复 (fluid-attenuated inversion recovery, FLAIR) 技术研究发现低 OC 水平的患者在其尾状核及壳核区有较低的 FLAIR 强度，其研究数据表明 OC 可能通过作用于基底节的微观结构来影响认知功能。

结论 目前关于血清骨钙素与抑郁、认知等精神疾病的研究越来越多，但具体机制仍不清楚，且在儿童青少年人群中鲜有研究，血清骨钙素是否有望成为精神疾病发病的潜在生物标记物，未来还需要更多的相关研究。

关键字：血清骨钙素；精神疾病；抑郁；认知；

Study on Neuroimage Features Related To The Efficacy of High-definition Transcranial Direct Current Stimulation for Adolescents with Mood Disorder During Depressive Episode

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Objective To investigate the efficacy of high-definition transcranial direct current stimulation (HD-tDCS) and its corresponding neuroimage features in adolescents with mood disorders during depressive episodes.

Methods 28 adolescents with mood disorders during depressive episodes were treated with 20 sessions of HD-tDCS targeting the left dorsolateral prefrontal cortex (DLPFC). Hamilton Depression Scale-17 Item (HAMD-17) scores were collected before and after treatment, and resting-state functional magnetic resonance imaging (fMRI) was performed. Patients were divided into effective and ineffective groups based on a ≥50% reduction in HAMD-17 scores. The differences in the amplitude of low-frequency fluctuations (ALFF) before treatment between the two groups were analyzed. A regression prediction model was constructed using significant ALFF values before treatment as independent variables and treatment efficacy as the dependent variable.

Results After treatment, all patients showed a significant reduction in HAMD-17 scores (t=-11.383, P<0.001). ALFF values in the right anterior cingulate gyrus and right rectus femoris were significantly decreased (tpeak=-3.816, P<0.05; tpeak=-4.077, P<0.05). Compared to the ineffective group, the effective group showed a significant increase in ALFF values in the right anterior cingulate gyrus and a significant decrease in ALFF values in the left paracingulate cortex before treatment (tpeak=3.816, P<0.05; tpeak=-4.127, P<0.05). Regression analysis showed that the larger the ALFF value in the right anterior cingulate gyrus before treatment, the more effective the HD-tDCS treatment was.

Conclusion HD-tDCS can be used as an adjunctive therapy for adolescents with mood disorders during depressive episodes. The ALFF value in the right anterior cingulate gyrus before treatment can assist in the early prediction of HD-tDCS treatment efficacy.

关键字：high-definition transcranial direct current stimulation, adolescent mood disorders, functional magnetic resonance imaging, response prediction.

基于脑沟的形态学测量对青少年抑郁症患者的

大脑皮层异常的研究

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目的 目前青少年抑郁症发病和皮质沟深度的特征关系尚不明确。本研究中，我们对未经治疗的青少年抑郁症神经影像的皮质沟深度的这一指标进行研究，了解潜在神经生物学机制，进而为青少年抑郁症的预防和治疗提供更多的影像学证据。

方法 本研究选择首发未服药的单纯抑郁青少年患者（n=66）作为研究对象，设立正常对照（n=40）。方式是通过精神病学定式访谈(M.I.N.I.KID 5.0)，并且由两名主治及以上职称的精神科专科医生确诊的。建立病例报告表，收集被试的一般资料，包括姓名、年龄、受教育程度、躯体健康状况、家族史等资料；使用 17 项汉密尔顿抑郁量表(HAMD-17)量表进行量表评估。磁共振数据采集采用 GE 3T Signa HDxt 扫描仪，配备标准 8 通道头部线圈；使用使用 DPABISurf 进行图像处理，使用 recin -all (FreeSurfer 6.0.1)进行预处理，使用一个 6mm 半高全宽(FWHM)的高斯滤波器对皮层影像进行滤波平滑，使用 DPABISurf 中的统计分析评估 MDD 患者与对照组之间的解剖形态统计学差异。

结果 1.一般资料结果提示：两组之间的性别比、年龄范围、受教育年限无统计学差异。 2.量表结果提示：其中 MDD 组的 HAMD 评分为 19.94+/-5.72 分，平均得分为 19.94，对应于抑郁症状的中度严重程度。3.大脑皮质沟深度的组间比较结果提示：抑郁患者在左侧外侧颞叶皮层区域显示沟深度增加；同时，沟深度增加的团块属于默认网络和边缘网络。 4.皮质脑沟改变与临床评分之间的相关性：该指标的变化和抑郁症状的严重程度没有相关性。 5.皮质沟改变的脑区受试者的 ROC 曲线：对于诊断青少年重度抑郁症，TE2a 的皮质沟深度变化的诊断灵敏度有一定准确性。

结论 本研究发现与正常青少年相比，首发青少年 MDD 的患者的左侧外侧颞叶皮层皮质沟深度增加。

关键字：青少年抑郁症；结构磁共振；左侧外侧颞叶皮层；皮质沟深度

Childhood Trauma Is Linked To Abnormal Static-dynamic Brain Topology in Adolescents with Major Depressive Disorder

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Objective Childhood trauma is a leading risk factor for adolescents developing major depressive disorder (MDD); however, the underlying neuroimaging mechanisms remain unclear. This study aimed to investigate the association among childhood trauma, MDD and brain dysfunctions by combining static and dynamic brain network models.

Methods We recruited 46 first-episode drug-na?ve adolescent MDD patients with childhood trauma (MDD-CT), 53 MDD patients without childhood trauma (MDD-nCT), and 90 healthy controls (HCs) for resting-state functional magnetic resonance imaging (fMRI) scans; all participants were aged 13-18 years.

Results Compared to the HCs and MDD-nCT groups, the MDD-CT group exhibited significantly higher global and local efficiency in static brain networks and significantly higher temporal correlation coefficients in dynamic brain network models at the whole-brain level, and altered the local efficiency of default mode network (DMN) and temporal correlation coefficients of DMN, salience (SAN), and attention (ATN) networks at the local perspective. Correlation analysis indicated that altered brain network features and clinical symptoms, childhood trauma, and particularly emotional neglect were highly correlated in adolescents with MDD.

Conclusion This study may provide new evidence for the dysconnectivity hypothesis regarding the associations between childhood trauma and MDD in adolescents from the perspectives of both static and dynamic brain topology.

关键字：childhood trauma, major depressive disorder, adolescent, functional neuroimaging, brain network

GNB4 基因 DNA 甲基化在青少年抑郁症中的相关研究

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目的 青少年抑郁症严重危害生命健康，发病机制不清，缺乏客观生物标记物。DNA 甲基化在抑郁症的发生发展中发挥非常重要的作用，抑郁症可能是环境作用下甲基化水平增高所致，抑制甲基化水平，抑郁症状得到不同程度的缓解。因此 DNA 甲基化可能是抑郁症治疗干预的潜在靶点。既往研究发现 GNB4 基因与抑郁症相关，但具体机制不清。GNB4 基因可调节少突胶质细胞祖细胞分化，但其是否参与青少年抑郁症发生发展尚不清楚。本研究拟探究 GNB4 基因 DNA 甲基化是否参与青少年抑郁症发生发展。

方法 （1）收集 50 例青少年抑郁症患者和 50 例健康对照者的一般信息，使用 HAMD、CDRS- R 量表进行量表评估，采集外周静脉血进行基因 DNA 甲基化测序。（2）构建慢性社交挫败应激(CSDS)青幼期抑郁小鼠模型，通过社会交互实验、糖水糖水偏好实验及悬尾实验评估小鼠抑郁样行为，采集脑组织，检测小鼠脑组织 GNB4 基因 DNA 甲基化水平，qRT-PCR 检测 GNB4 基因表达情况，Western Blot 检测 GNB4 蛋白表达水平。

结果 （1）通过 50 例青少年抑郁症患者与 50 例健康对照组外周血进行 DNA 甲基化测序，结果发现两组研究对象性别、年龄、BMI、吸烟史、饮酒史等无显

著差异（P>0.05），外周血 GNB4 基因 DNA 甲基化水平在青少年抑郁症患者中升高，差异有统计学意义（P<0.05)。(2)通过构建 CSDS 青幼期抑郁小鼠模型，结果发现 CSDS 组小鼠社会交互比、悬尾静止不动时间显著高于对照组（P<0.05），糖水糖水偏好百分比显著低于对照组（P<0.05）；采用 qRT-PCR、WB 检测小鼠海马组织中 GNB4 基因及蛋白的表达水平，结果发现，CSDS 组海马组织中 GNB4 基因及蛋白表达水平较对照组显著下调（P<0.05）。

结论 我们的临床及动物研究一致性表明 GNB4 基因 DNA 甲基化影响其基因表达水平，这提示 GNB4 基因在青少年 MDD 的发病机制中可能发挥重要作用，未来还需要更深入的相关基础实验进行机制探索。

关键字：DNA 甲基化；青少年；抑郁症；GNB4 基因

伴有非自杀性自伤的青少年抑郁障碍患者的血清炎症因子水平增加

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目的 研究舍曲林治疗前后的伴非自杀行自伤的青少年抑郁障碍患者的血清细胞炎症因子白细胞介素（Interleukin, IL）-1β、IL-6、肿瘤坏死因子-α(Tumor necrosis factor-α, TNF-α)水平的变化，探究青少年抑郁障碍患者出现非自杀性自伤的影响因素。

方法 本研究纳入就诊于重庆医科大学附属第一医院的青少年抑郁障碍患者 99 例，所有纳入病例均符合 DSM-5 关于抑郁障碍的诊断标准。根据 DSM-5《非自杀性自伤严重程度评定量表》对非自杀性自伤（non-suicidal self-injury，NSSI）的诊断，将 55 例伴有 NSSI 的青少年重性抑郁障碍患者纳入伴 NSSI 组，44 例不伴 NSSI 行为的青少年重性抑郁障碍患者纳入不伴 NSSI 组。采用血清细胞炎症因子 IL-1β、IL-6、TNF-α 评估炎性指标。纳入患者给与盐酸舍曲林抗抑郁治疗 8 周，初始剂量 25mg/d，第 1 周加量至 100mg/d，根据患者病情变化增加到 150～200 mg/d。以 HAMD-17 减分率 50%或以上来评估治疗有效性。分别在基线和第 8 周测定血清细胞炎症因子 IL-1β、IL-6、TNF-α 水平。使用 SPSS26.0 统计学软件对研究对象的炎症指标进行统计学分析。

结果 1.伴 NSSI 组的 IL-1β、IL-6、TNF-α 均高于不伴 NSSI 组。治疗后，伴 NSSI 组的 IL-1β、IL-6、TNF-α 水平呈下降趋势，差异具有统计学意义（P＜0.05)。与不伴 NSSI 组相比，伴 NSSI 组的 IL-6、TNF-α 水平较低，差异具有明显统计学意义（P＜0.05)。 2.基线期 IL-6 水平是青少年抑郁障碍患者发生 NSSI 的独立风险因素（OR=6.209，95%CI=0.804-0.974，P=0.01

结论 1. 与不伴 NSSI 的抑郁障碍青少年相比，伴有 NSSI 的抑郁障碍青少年的血清 IL-6、TNF-α 显著升高，伴有 NSSI 的青少年抑郁障碍患者存在更强的免疫激活和炎症反应。 2.IL-6 与青少年抑郁障碍患者的 NSSI 相关。 3. TNF-α 可能是预测青少年抑郁障碍患者 NSSI 的治疗应答的潜在生物标志物。

关键字：非自杀性自伤，青少年，炎症因子，抑郁障碍

青少年和成人抑郁症状的对比分析

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目的 了解青少年和成人抑郁症状群的差别，以早期发现青少年抑郁症提供可能的依据。

方法 选取 2022 年 7 月-12 月在重庆医科大学附属第一医院精神科门诊就诊的 14-40 岁的抑郁症患者，收集其抑郁自评量表（SDS）和症状自评量表（SCL-90），共计 1640 份，其中男生 456（27.8%）人，女生 1184（72.2%）人，青少年 564（34.4%）人，成年人 1076（65.60%）人

结果 年龄和性别对抑郁程度的影响是显著的（p＜0.001），且性别对抑郁程度的影响在青少年（p＜0.001）身上表现得更加明显。就症状分析而言，青少年整体症状更重、更敏感，尤其青少年在“想到死亡的事情”（p＜0.001）“想结束自己的生命”（p＜0.001）“感到自己没有什么价值”（p＜0.001）等消极观念相关条目、恐怖症状（p＜0.001）、敌对症状（p＜0.001）、人际关系敏感（p＜0.001）以及强迫症状等均与成人表现出显著差异，并且青少年更容易表现出明显的精神症状，如幻听、被控制感等，而关于睡眠、食欲方面，成人则表现的更加明显。

结论 在青少年期性别对抑郁的影响更大，随着年龄的增长，影响逐渐减少；青少年相比较成人表现出来的症状更严重，尤其表现在明显的消极想法、精神症状、人际关系、敌对症状等，我们在针对青少年抑郁的早期筛选中，要重点关注这些方面，并尽早给予干预。

关键字：青少年 成人 抑郁 抑郁症状 对比研究

血清胰岛素样生长因子与青少年抑郁症的相关性研究

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目的 本研究旨在探讨血清中胰岛素样生长因子 1（IGF-1），胰岛素样生长因子 2（IGF-2），胰岛素受体底物 1（IRS-1）水平与青少年抑郁症发病及临床特征的关系，探究其作为青少年抑郁症生物标志物的可能性。

方法 本研究共纳入 94 名 12-18 岁的青少年研究对象，包括 47 例青少年抑郁症患者（MDD 组）和 47

名青少年健康对照（HC 组）。收集所有研究对象的社会人口学资料，并在入组时使用汉密尔顿抑郁量表(HAMD-17)、儿童抑郁评定量表修订版(CDRS-R)、抑郁症自我评估量表(PHQ-9)、广泛性焦虑障碍量表(GAD-7)、认知功能缺陷自评问卷(PDQ-D)评估研究对象的抑郁症状、焦虑症状及认知状况。采用酶联免疫吸附（ELISA）测定所有研究对象血清的 IGF-1，IGF-2，IRS-1 水平，比较两组之间的差异，并探究 IGF-1，IGF-2，IRS-1 与青少年抑郁症临床特征的相关性。

结果 青少年抑郁症患者血清 IGF-1、IGF-2 水平显著高于青少年健康对照组（P<0.01），血清 IRS-1 水平在两组间未见显著差异（P>0.05）；青少年抑郁症女性患者血清 IGF-1 水平显著高于青少年抑郁症男性患者（P<0.05）；青少年抑郁症患者血清 IGF-1、IGF-2、IRS-1 水平与抑郁症病程及 HAMD-17、CDRS-R、PHQ-9、GAD-7 得分无显著相关性（P>0.05），IGF-1 与 PDQ-D 总分及 PDQ-D 注意力维度存在显著相关性（P<0.05）；logistic 回归分析显示血清 IGF-1（OR=1.051，P=0.003）、IGF-2（OR=1.029，P=0.014）与青少年抑郁症发病相关。

结论 本研究结果提示与健康对照相比青少年抑郁症患者血清 IGF-1, IGF-2 水平显著增高，IRS-1 水平无明显差异。IGF-1, IGF-2 是青少年抑郁症发病的危险因素。

关键字：青少年抑郁症，胰岛素样生长因子 1，胰岛素样生长因子 2，胰岛素受体底物 1

Based on Population Pharmacokinetics: Guidance for Rational Discontinuance in Chinese Adolescents Taking Long-term Sertraline

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Objective Adolescents with psychiatric disorders such as depression and obsessive-compulsive disorder are usually treated with sertraline as a first-line drug. The pharmacokinetics of sertraline in adolescent patients are not well understood. The safe discontinuation of medication after extended use is a common concern, especially for adolescent patients. This study aims to suggest safe ways of discontinuing medication in adolescents, along with appropriate dosage recommendations.

Methods Serum drug concentration data and related information such as age, gender, height, weight, body mass index, and combined medications were retrospectively collected from 140 inpatients. Nonlinear mixed-effects models (NONMEM) and inter-individual and intra-individual variance interactions (FOCE-I) were used for analysis and modeling. The final model predicts several discontinuation regimens for adolescent patients at 50-200 mg doses and the optimal dose to be administered to adolescents at the effective therapeutic concentration range.

Results A first-order absorption and elimination model of single-compartment sertraline based on Chinese patients with psychiatric disorders was developed with an apparent volume of distribution (V/F) and apparent clearance (CL/F) of 803 L and 76.1 L/h, respectively. Covariate screening revealed a significant effect of age on sertraline clearance (P<0.01), with a gradual decrease in clearance with increasing age. Simulation results suggest that for adolescent patients, a 3- or 7-day interval with a 25 mg fixed dose taper is recommended for OD doses of 50 mg and 100 mg, and a 25 mg taper regimen with a 7- or 14-day interval is recommended for OD doses of 150-200 mg. For 100-200 mg BID doses, a stepwise reduction at 7- and 14-day intervals with 25 mg as a fixed dose is recommended. To achieve effective therapeutic concentration, we recommend that the daily dose for adolescents aged 13 to 18 years should start at 100 mg and that BID (50 mg, 50 mg) dosing is preferred at a daily dose of 100 mg.

Conclusion Age was found with modeling as a potential sertraline-affecting factor. This study makes realistic sertraline dose recommendations for adolescents and protocol recommendations for drug discontinuation in adolescent patients using simulation.

关键字：Sertraline; Population pharmacokinetic; Adolescents; Discontinue the drug

The Effects of Non-suicidal Self-injury and Suicidal Ideation on White Matter Tracts of Adolescents with Depressive Disorders

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Objective Non-suicidal self-injury (NSSI) and suicidal ideation (SI) are risk factors for adolescent suicide. It is necessary to clarify the neurobiological characteristics of changes in brain white matter fiber bundle integrity in adolescent NSSI and SI, in order to provide information for future interventions and the development of brain-based treatment plans.

Methods Clinical evaluations were conducted on 86 adolescent patients with depressive disorder and 77 healthy controls to clarify the history of NSSI and SI. 44 adolescent patients with depressive disorder diagnosed with NSSI were included in the NSSI group, and 40 patients were included in the SI group after evaluation (with 26 patients overlapping between the two groups). All participants underwent cranial magnetic resonance imaging to obtain DTI data. Automated fiber tract quantification was used to compare the differences in 100 equidistant nodes along the 18 fiber tracts among the three groups, and partial correlation analysis was performed between node diffusion parameters and clinical variables.

Results Compared to the healthy control group, the NSSI group exhibited significant changes in diffusion metrics in 38.89% (7/18) of fiber bundles, including the callosum forceps major, callosum forceps minor, right inferior fronto-occipital fasciculus, right inferior longitudinal fasciculus, left inferior longitudinal fasciculus, right thalamic radiation, and right uncinate fasciculus. The SI group

showed significant changes in diffusion metrics in 27.78% (5/18) of fiber bundles, including the callosum forceps major, callosum forceps minor, right inferior fronto-occipital fasciculus, right inferior longitudinal fasciculus, and right thalamic radiation. In the NSSI group, 16.67% (3/18) of fiber bundles showed significant partial correlations with the Ottawa Self-Injury Inventory (OSI) addiction scale (all P<0.05). In the SI group, 33.33% (6/18) of fiber bundles showed significant partial correlations with the Beck Suicidal Ideation (BSI) scale (all P<0.05).

Conclusion Adolescents with depression accompanied by non-suicidal self-injury (NSSI) and suicidal ideation (SI) exhibit widespread abnormal changes in white matter fiber tracts in the brain. Additionally, these abnormalities are associated with higher levels of self-injury addiction and suicidal ideation, respectively.

关键字：Adolescents with depressive disorder; Non-suicidal self-injury; Suicidal ideation; Diffusion tensor imaging; Automated fiber tract quantification

Assessment of The Causal Relationship between Depression and Traits of Sarcopenia: A Bidirectional Two-sample Mendelian Randomization Study

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Objective Growing evidence reveals a significant association between depression and sarcopenia. However, the causal association between them remains elusive. We aimed to investigate the bidirectional relationship between depression and traits of sarcopenia.

Methods We used genetic variants associated with depression (n=2,113,907), grip strength (n=256,523), appendicular lean mass (n=450,243), and walking pace (n=459,915) in bidirectional two-sample Mendelian randomization. The random-effects inverse-variance weighted method was adopted as the primary method.

Results Mendelian randomization results revealed a causal relationship between depression and appendicular lean mass [β (95% confidence interval (CI)) = -0.051 (-0.086?(-0.016)), P=0.004], walking pace [OR (95% CI) = 0.973 (0.955?0.992), P=0.005]. Walking pace also revealed a causal relationship with depression [OR (95% CI) = 0.663 (0.507?0.864), P=0.002] in the reverse analysis. We observed no causal relationships between depression and grip strength. The leave-one-out sensitivity analysis verified our results.

Conclusion This Mendelian randomization analysis verified the bidirectional relationship between depression and sarcopenia. Early diagnosis and prevention of either disease may enhance the management of another.

关键字：Depression, Sarcopenia, Mendelian randomization, Grip strength, Walking pace, Appendicular lean mass.

无抽搐电休克治疗对青少年重度抑郁症患者血清脑源性神经营养因子的影响

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目的 研究无抽搐电休克治疗(MECT)对青少年抑郁症患者的疗效与血清脑源性神经营养因子(BDNF)变化的相关关系。

方法 将 80 例重度青少年（12-18 岁）抑郁症患者按照入院先后顺序依次编号，采用数字随机表法分组，单号为研究组，双号为对照组。对照组采用舍曲林治疗；研究组采用舍曲林联合无抽搐电休克治疗，均治疗 3 周。用汉密尔顿抑郁量表(HAMD)评定疗效,用酶联免疫吸附法测定患者 M ECT 前后的血清 BDN F 水平。观察治疗 3 周后两组患者不良反应情况，比较治疗前及治疗 2、3 周后两组患者抑郁情况，比较治疗前和治疗 3 周后两组患者认知功能及血清 BDNF。

结果 与治疗前比，治疗 2 周后，两组患者 HAMD 评分呈降低趋势，治疗 2、3 周后实验组均低于对照组（P＜0.05）；与治疗前比，治疗 3 周后两组患者背数记忆评分均升高，实验组患者再认、联想、图片分测验评分均升高，实验组均高于对照组（P＜0.05）；与治疗前比，治疗 3 周后实验组患者血清 BDNF 水平升高，对照组下降，实验组高于对照组（P＜0.05）；两组患者不良反应总发生率差异无统计学意义（P＞0.05）。

结论 无抽搐电休克治疗青少年重症抑郁症可有效调节神经营养因子 BDNF 水平，改善患者抑郁症状，减少认知功能损害，缓解患者抑郁情绪，且安全性良好。但也有影响记忆功能和引起肌肉酸痛等副作用。

关键字：无抽搐电休克；青少年；抑郁症；BDNF

中文版青少年情景攻击动态评估量表的效度和信度检验

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目的 检验引入的结构化动态风险评估工具青少年情景攻击动态评估量表（Dynamic Appraisal of Situational Aggression-Youth Version，DASA-YV）在中国大陆青少年精神障碍患者中的信度和效度，为我国儿少精神科工作人员提供一种简单、有效的早期动态识别青少年精神障碍患者情境性攻击风险的工具。

方法 经过原作者同意后对DASA-YV进行翻译、回译、文化调试、预实验得到符合汉语习惯的中文版青少年情景攻击动态评估量表。 邀请临床精神科工作的 10 名专家对中文版 DASA-YV 量表的内容效度评定。对参加本研究的护士进行统一培训考核，合格后评估

20 名青少年精神障碍患者，得出评分者信度。 收取 291 例住院的青少年精神障碍患者，每 24h 使用中文版青少年情景攻击动态评估量表对患者评估一次，应用布罗塞特风险评估量表（Broset-Violence Checklist,BVC）进行同时效度评定，采用接下来的 24h 内实际的行为表现检验预测效度，每名患者的评估周期为 14 天。

结果 在内容效度方面，量表水平的内容效度指数（平均 S-CVI）为 0.97，总体上量表水平的内容效度较好。 在预测效度方面，发生攻击组和未发生攻击组得分之间非参数检验结果有统计学差异(Z=-52.260，P＜0.01)。16 小时内的操作者特征曲线(ROC)的曲线下面积(AUC)值为 0.905，当截点为 1 时，量表的灵敏度和特异度分别为 84.70%和 95.50%，表明量表的预测效度较好。布罗塞特风险评估表（BVC）作为校标工具，其总分与中文版 DASA-YV 之间呈正相关。 5 名培训合格的护士对 20 名相同病例进行评估得出的中文版青少年情景攻击动态量表各条目的评分者信度在 0.820-0.921 之间，表明该量表在评估者间具有较好的一致性。同质性信度检验表明 Cronbach α 系数为 0.896，提示该量表评估结果一致性较好。各条目与总分之间的题总相关性 r=0.587-0.808（P<0.01），表明各条目评估的目的性一致。

结论 中文版青少年情景攻击动态评估量表（中文版 DASA-YV）在中国大陆青少年精神障碍人群中具有较好的信度和效度，可修订后应用于精神专科病房。

关键字：攻击行为；青少年；风险评估；青少年情景攻击动态评估量表

Correlation between Amplitude of Low Frequency Fluctuation Changes and Cognitive Improvement in Adolescents and Young Adults with Mood Disorder

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Objective Cognitive impairment is a common issue in adolescents and young adults with Mood disorders (MDs), and it often leads to a poor functional prognosis. To better understand the neurobiology of cognitive improvement after psychiatric treatment, we conducted a study using resting-state magnetic resonance imaging (rs-fMRI).

Methods We enrolled a total of 194 patients with MDs, aged between 12 and 25, and assessed them at baseline and after hospitalization treatment. All participants completed clinical and neurocognitive assessments and underwent rs-fMRI at both time points. We utilized the amplitude of low-frequency fluctuation (ALFF) as a measure of neural activity to investigate potential changes.Using paired sample t-test analysis, we compared the differences in ALFF values between the baseline and post-treatment. Additionally, we performed Pearson correlation analysis to examine the relationship between the extracted ALFF values of specific brain regions and the difference in cognitive assessments (after treatment minus baseline).

Results At baseline, we observed negative correlations between RBANS total scale score, total score of speech and attention, and BPRS total scores. This suggests that more severe mental illness is associated with poorer cognitive performance. However, after treatment, we found significant improvements in WCST-cc, WCST-rp, WCST-rpe, WCST-nrpe scores, RBANS attention, immediate and delayed memory, and total scale scores.Furthermore, our analysis revealed decreased ALFF values in the right frontal lobe, left temporal lobe, and limbic lobe, which were positively correlated with cognitive improvement ($r = 0.185$, $P = 0.01$). This suggests that stronger functional activity in the frontal and temporal lobes is associated with better cognitive improvement after treatment in young individuals with MDs.

Conclusion In summary, our findings indicate that cognitive improvement after treatment in individuals with MDs is related to the function of the frontal and temporal lobes. Understanding these neurobiological mechanisms can help inform treatment strategies for cognitive impairment in this population.

关键字：Adolescent; Young Adult; Mood Disorder; Cognitive Improvement; ALFF

当前存在非自杀性自伤行为的青少年正念及自我关怀水平其相关心理特质：一项病例对照研究

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目的 青少年非自杀性自伤是世界瞩目的精神卫生问题，探讨非自杀性自伤的心理机制有助于为开发相关的干预方法提供思路。本研究的目的在于探索具有非自杀性自伤行为的儿童青少年和健康儿童青少年正念水平，自我关怀水平，经验回避水平，思维反刍水平之间的差异。

方法 对深圳市康宁医院儿少精神科门诊就诊的儿童青少年进行招募，使用渥太华自我伤害量表对当前存在非自杀性自伤行为（最近一个月至少存在一次以上非自杀性自伤行为）进行评估，纳入当前存在非自杀性自伤行为的青少年 115 例。从社区招募和病例相匹配的健康儿童青少年 46 例。使用儿童正念量表，自我关怀量表，接纳及行动问卷及思维反刍问卷对儿童青少年的正念水平，自我关怀水平，经验回避水平以及思维反刍水平进行评估。使用独立样本 t 检验对两组数据进行比较。

结果 相比于健康儿童青少年，最近一年内具有非自杀性自伤行为的青少年正念水平更低（t=9.173,p<0.01），自我关怀水平中的自我友善（t=-5.723,p<0.01），共通人性(t=-5.288,p<0.01)，静观当下(t=-7.07,p<0.01)更低，自我批判(t=7.981, p<0.01)，孤立(t=8.427,p<0.01)，过度认同(t=8.699,p<0.01)得分更高；

相比于健康儿童青少年，具有非自杀性自伤性行为的青少年思维反刍水平更高(t=10.632,p<0.01)，经验性回避水平更高(t=11.997,p<0.01)。

结论 缺乏正念及自我关怀能力，倾向于思维反刍并回避痛苦经验，可能是青少年出现非自杀性自伤行为的重要心理机制。增强青少年自我关怀水平，增加正念觉察水平，减少思维反刍及减少对痛苦经验的回避的相关心理干预手段值得进一步研究。

关键字：青少年；非自杀性自伤；自我关怀；正念

Resting State-functional MRI and Structural MRI in Adolescent Major Depressive Disorder with Suicidal Ideation

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Objective More and more adolescents have been diagnosing major depressive disorder (MDD) with the increasing stress from our life. However, the symptoms of adolescent MDD are not typical as we used to describing in adult MDD. It was also limited in treatments and at higher risk for recurrences. What's more, adolescent MDD often trends to suicide or self-injury. It deeply affects their study and made them lose lots of opportunities to get a better life in the future. So it is important to research the mechanism of adolescent MDD. Although there were increasing studies showing that adolescent MDD were different between healthy adolescent in resting-state functional MRI(rs-fMRI) and structural MRI(s-MRI), they were often studying it from one or two aspects rather than combine sympotems, rs-fMRI and s-MRI together. Moreover, few researchers studied the role of the limbic system in adolescent MDD, which was a key network in the brain and played an important role in producing happiness and reward. This study researched the limbic system changes in adolescent MDD through rs-fMRI and s-MRI and also exposed the relationship between MRI, depression, suicide, and cognitive function.

Methods This study is a sub-study of the project "A Study to evaluate the efficacy and safety of Esketamine combined with oral antidepressants in the treatment of major depressive disorder with suicidal ideation ", which was run in Brain Hospital Affiliated to Guangzhou Medical University. We filtered the data which was collected from Dec 2020 to Oct 2021 in our inclusion and exclusion criteria and finally obtain 47 adolescent MDDs. We also recruited 47 healthy adolescents who match with adolescent MDD in age and sex as control .Comparing two groups in DC, ALFF, fALFF, ReHo, and grey matter volume in the limbic system using DPABI, CAT12, and SPM12. These regions with significant differences between groups were also correlated with cognitive function, depression, suicidal ideation and mediation analysis was also used to expose their relationship **Results** The adolescent MDD is hyperactive in the regions of hippocampus and amygdala, hypoactive in the region of thalamus. The hyperactive hippocampus compemsated the function of working memory. There are bigger volume in right anterior thalamus and hyper negative connectivity within limbic system in adolescent MDD group, which means dysfunction of limbic system. And the left anterior thalamus volume plays a mediative role between depressive systoms and cognitivie function. The thalamus is a key node in depression, and has potential to be an anti-depressive target.

Conclusion There were widely activity imbalance in the limbic system in adolescent MDD which showed more negetive connection than positive, especially in the regions of hippocampus, amygdala and thalamus. The volume of the left amygdala negatively mediates the decline in information processing speed caused by depressive symptoms.

关键字：adolescent major depressive disorder, suicide, limbic system, MRI

Optimal Cut-offs for PHQ-9 and GAD-7 in Screening Clinical Depression and Anxiety Among Chinese Children and Adolescents

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Objective The Patient Health Questionnaire (PHQ-9) and the Generalized Anxiety Disorder scale (GAD-7) are valid symptom-based instruments for screening depression and anxiety. However, their suitable cut-offs for Chinese children and adolescents are still controversial. We aim to investigate the optimal cut-offs of PHQ-9 and GAD-7 in Chinese children and adolescents, and to discuss the influencing factors of the cut-offs.

Methods The study subjects were chosen from 3 study sites of the Mental Health Survey for Children and

Adolescents in Yunnan (MHSCAY), a total of 2,237 participants who had been screened positive by self-administered questionnaire and further diagnosed by using the gold standard were included into the final analysis.

Results For Chinese children and adolescents in general, 11 was the optimal cut-off in screening clinical depression and anxiety for both PHQ-9 and GAD-7. For children and adolescents of different age, gender, race, and left-behind status, discordant cut-offs should be used for the two instruments. Self-harm (SH) also showed conspicuous influence on the optimal cut-offs of PHQ-9 and GAD-7, and the combination of SH information can significantly increase screening accuracy of PHQ-9, particularly for some subgroups of children and adolescents.

Conclusion Different optimal cut-offs of PHQ-9 and GAD-7 should be adopted for screening clinical anxiety and depression in Chinese children and adolescents with varied characteristics. SH information can be incorporated when screening clinical depression by using PHQ-9 in Chinese youngsters.

关键字：children and adolescents, depression, anxiety, PHQ-9 and GAD-7, optimal cut-off, sensitivity, specificity

Childhood Maltreatment and Suicidal Ideation in Chinese Children and Adolescents: The Mediating Role of Mindfulness

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Objective Childhood maltreatment (CM) has been associated with suicidal ideation (SI) in children and adolescents, yet the mediating role of mindfulness in this association remains unclear. This study sought to test the mediating role of mindfulness in CM-SI association among a large sample of Chinese children and adolescents.

Methods A population-based cross-sectional study of 3455 children and adolescents aged 10-17 years from southwest China Yunnan province was conducted. The survey adopted a comprehensive self-administered questionnaire. The Chinese version of the Childhood Trauma Questionnaire (CTQ), Five Facet Mindfulness Questionnaire (FFMQ), and the Beck Scale for Suicidal Ideation (BSSI) were used to measure CM, mindfulness, and SI, respectively. Univariate and multivariate binary Logistic regression models were used to estimate the crude and adjusted associations between CM, mindfulness and SI (one-week, one-year, lifetime). Pathway analysis was subsequently performed to measure the mediating role of mindfulness in CM-SI association.

Results The findings showed that mindfulness, CM, and the three types of SI were significantly correlated with each other ($p<0.05$). Mindfulness is a significant mediator in CM-SI association, accounted for 7.5%, 11.4%, and 17.6% of the total associations for one-week SI, one-year SI, and lifetime SI, respectively. For the five types of CM, the highest mediation ratio of mindfulness had been found for physical neglect (PN) and one-year SI (34.3%), followed by emotional neglect (EN) and one-year SI (30.2%), sexual abuse (SA) and one-year SI (25.4%).

Conclusion Our study findings highlight the intervention potential of mindfulness in preventing CM associated suicidal risk. Future studies are warranted to corroborate the effectiveness of mindfulness-based intervention for Chinese children and adolescents.

关键字：Childhood maltreatment, Suicidal ideation, Mindfulness, Children and adolescents, Mediation

生命早期环境污染物暴露与 ASD 和 ADHD 的风险：流行病学证据的伞状回顾

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目的 生命早期暴露于环境污染物可能与孤独症谱系障碍（autism spectrum disorders，ASD）以及注意力缺陷多动障碍（Attention-deficit/hyperactivity disorder，ADHD）风险的增加有关，但这些关联的证据尚未得到全面评估。 本研究旨在评估已发表的评估生命早期环境污染物暴露与 ASD 和 ADHD 之间关联的流行病学证据的可信度。

方法 在这项伞状回顾中，评估的主要环境污染物暴露包括，空气污染物、有毒元素、有机氯化合物、全氟烷基物质、多溴二苯醚、杀虫剂、邻苯二甲酸盐和双酚 A 等。 使用 AMSTAR 2（A Measurement Tool to Assess Systematic Reviews, Second Edition）对所有纳入的系统回顾质量进行了严格的评估。我们重新分析了每项 meta 分析的汇总估计值、研究间异质性、95%预测区间、发表偏倚、小研究效应和过度显着偏倚。 根据数据的分析结果和研究特征，基于 GRADE 和“Ioannidis”标准，严格评估了各项证据的可信度。

结果 本研究共纳入了 12 项 ASD 的系统综述（55 个 meta 分析结果）和 6 项 ADHD 的系统评价（55 个 meta 分析结果），主要环境暴露包括有毒元素，空气污染物，全氟烷基物质，增塑剂和农药。基于 AMSTAR 2 的质量评估，纳入的系统综述质量较低，12/18 项综述归类于低质量等级。可信度评估的结果表明，III 级证据支持较高的臭氧暴露与 ASD 的风险增加有关（Cohen’s g: 0.036 [95%CI: 0.017-0.055]），IV 级证据支持暴露于重金属（铅，汞，砷等）可能与 ASD 和 ADHD 风险的增加相关，此外还有 IV 级证据支持全氟烷基物质（PFNA）暴露可能与 ADHD 风险的增加相关。研究设计差异较大，异质性较高，样本量小是证据可信度偏低的主要因素。

结论 我们的研究结果提示，环境污染物暴露与 ASD 和 ADHD 风险的关联证据缺乏且证据质量普遍偏低，有部分证据表明环境污染物暴露对 ASD 和 ADHD 的有害效应。 未来需要高质量的研究来确定环境污染物暴露在 ASD 和 ADHD 病因学中的作用，确定是否应优先考虑环境污染物预警和干预来缓解 ASD 和 ADHD。

关键字：注意力缺陷多动障碍；环境污染物；伞状回顾

短视频使用和未成年人心理健康及认知功能的关联：一项横断面研究

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目的 随着科技和社会的快速发展，未成年人的心理健康和认知发育越来越受到心理、生理和社会各系统的复杂影响。过度屏幕时间对年轻人的影响已有广泛关注。然而，一种新兴的媒体形式，短视频对未成年人心理健康和认知功能的影响尚未得到全面研究。本研究旨在提供短视频在不同使用水平下与未成年人心理健康和认知功能相关关系的初步证据。

方法 研究使用线上程序在北京、四川、山东等多个省市共纳入 2640 名 6 至 18 岁的学生参与者。参与者的心理健康状况使用“长处与困难问卷”（SDQ）进行评估，认知功能则使用“语音情绪感知测试”（VEPT）、“数字符号转换测试”（DSST）和“威斯康星卡片分类测试”（WCST）进行测量。此外，该程序还收集了参与者过去六个月内短视频和电子游戏的使用情况以及需要在分析中控制的性别、年龄、生长发育、家庭背景、生活环境、学习压力和生活习惯等协变量数据。

结果 组间比较发现相较于过去六个月内未观看过短视频的未成年人（n=761），观看组（n=1879）在情绪症状、行为问题、注意力不足/多动症状和亲社会行为四个心理健康问题得分显著高于未观看组，在悲伤语音情感识别中得分显著低于未观看组。线性回归分析进一步证实了短视频时间（SVT）与更高的心理健康问题，包括情绪症状（β=0.078），行为问题（β=0.038），注意力不足/多动（β=0.078），同伴关系问题（β=0.023）和亲社会行为（β=0.031）以及更差的语音情感识别（惊奇：β=-0.009；愤怒：β=-0.009）的相关性，p 值均小于 0.01。阈值分析发现 SVT 与心理健康问题和语音情绪识别之间存在不同的模式。随着 SVT 的增加，参与者心理健康问题增加，其增长趋势在折点处减缓或停止（折点 k=2.5-18 小时/周）。语音情感感知得分随着 SVT 的增加先增高后下降（K=4-10 小时/周）。

结论 本研究发现短视频时间与儿童和青少年的心理健康和认知功能相关，并表现出不同关联模式：心理健康问题首先随着短视频时长增加，随后趋于稳定；而语音情感识别能力表现出先改善后下降趋势。这种差异可能表明了短视频使用对儿童和青少年心理健康和认知功能不同的影响机制，提示未来关于人类发育模型的研究需要考虑到短视频时长这一因素的影响，并对具体的心理健康和神经认知问题进行专门探讨。

关键字：未成年人，心理健康，认知功能，短视频，阈值效应

孤独症谱系障碍儿童与母亲的社交联系及变化：基于网络分析的纵向研究

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目的 本研究旨在探索孤独症谱系障碍（Autism Spectrum Disorder，ASD）儿童和母亲社交特质的中心特征及内部联系，并确定这些中心特征及内部联系是否会随着时间的推移发生变化。

方法 本研究于 2018 年 10 月-2021 年 6 月期间招募 1294 个 ASD 家庭完成基线评估，2022 年 7 月-2022 年 9 月期间 193 个 ASD 家庭完成随访。我们将这 193 个 ASD 家庭纳入分析，基线和随访平均时间间隔为 28.84 个月。通过创建网络模型分别进行横向和纵向网络分析，来探讨不同时期 ASD 儿童和母亲社交特质的中心特征及内部联系。其中，社交特质通过社会性反应量表（SRS-2）测量，包括社交知觉、社交认知、社交沟通、社交动机和孤独症行为方式五种特征。我们研究了(A)哪些特征是社交网络的中心，以及(B)网络结构是否随着年龄的增长而改变。

结果 社交沟通在 ASD 儿童的社交网络中表现出较高的中心性，且随着年龄的增长其中心性不断增加（P＜0.05）；社交认知和社交沟通在 ASD 患者母亲的社交网络中表现出较高的中心性，其中社交认知随着年龄的增长其中心性不断降低（P＜0.05）；ASD 儿童及母亲的单个网络结构随着年龄的增长均保持稳定（网络不变性检验、全局强度不变性检验均 P＞0.05）。将 ASD 儿童和母亲的社交特征同时纳入网络分析，发现 ASD 母亲的社交特质主要通过孤独症行为方式与儿童产生联系，ASD 儿童和母亲社交维度之间的网络关系随着年龄的增长保持总体稳定（网络不变性检验、全局强度不变性检验 P＞0.05）。

结论 随着年龄的增长，ASD 儿童和母亲不同社交维度之间的内部网络关系总体稳定，ASD 儿童的社交特质主要通过孤独症行为方式与母亲产生联系，提示孤独症行为方式可能是一种遗传特质。同时，SRS 可以作为 ASD 可靠稳定的社交评估工具。

关键字：孤独症谱系障碍、网络分析、社交特质、遗传

Associations Between Traumatic Events and Suicidality in Adolescents: A Large-scale Cross-sectional Study of 260,423 Participants

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Objective To comprehensively examine the association between early life traumatic events and suicidality among adolescents.

Methods A cross-sectional mental health survey conducted in Deyang, southwestern China in September 2021, involved 260,423 students from upper primary to high school. We assessed 8 traumatic events, calculated cumulative traumatic event types, and identified traumatic patterns using latent class analysis. Suicide risk scores and the presence of suicide ideation, attempts, or plans were evaluated using the Suicide Behavior Questionnaire-Revised (SBQ-R). Linear and Poisson regressions, adjusted for demographic factors, examined the associations, and stratified analysis compared different subgroups.

Results Violence- and abuse-related traumatic events showed robust associations with higher suicidality, with physical abuse demonstrating the strongest association (β: 2.51, 95% CI: 2.48–2.54). SBQ-R scores showed a clear increasing trend with higher cumulative types of traumatic events: one (β: 0.47, 95% CI: 0.44–0.49), two (β: 1.04, 95% CI: 1.01–1.07), three (β: 2.18, 95% CI: 2.15–2.21), and more than three (β: 3.58, 95% CI: 3.55–3.61). Four distinct traumatic patterns emerged: low traumas, high physical abuse, high death/serious injuries of a loved one, and multiple traumas (strongest association with suicide risk score; β: 3.68, 95% CI: 3.64–3.73). These associations were more pronounced in females, urban residents, only children, left-behind children, and those aged 13–15. Conversely, participants from families with intact parental relationships and middle socioeconomic status showed a weaker association.

Conclusion Adolescents exposed to diverse traumatic events, particularly interpersonal violence, face significantly increased suicidality. The cumulative number of traumatic event types demonstrates a clear dose-response relationship, indicating a progressively stronger association with suicidality. Demographic factors and traumatic patterns will be crucial in identifying at-risk youth, enabling early detection and targeted interventions for suicide-related concerns.

关键字：traumatic events; suicide prevention; adolescents

Social Support, Psychopathology and Non-suicidal Self-injury: Specific Effect of Threatening Or Deprivation Experiences

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Objective Non-suicidal self-injury (NSSI) are salient risk behaviors that threaten individual's physical and mental health, and the association of adverse experiences with NSSI has been widely recognized. However, based on the Dimensional Model of Adversity and Psychopathology (DMAP), the negative effects of different dimensions of adverse experiences (threatening experiences vs. deprivation experiences) on NSSI are not congruent. Identifying the specific effects of various adverse experiences on NSSI is of great significance for interventions.

Methods In a sample of Chinese college students (n = 1609), this study utilized latent category analysis (LCA) to identify and classify threatening and deprivation experiences, followed by structural equation modeling (SEM) to examine the effects of threatening and deprivation experiences on the correlations between social support, psychotic-like experiences, internet addiction, and NSSI.

Results Compared to individuals without adverse experiences, individuals with threatening and deprivation experiences both exhibited lower levels of social support and higher degrees of psychotic-like experiences, but only individuals with threatening experiences exhibited higher levels of internet addiction and NSSI. Furthermore, different dimensions of adverse experiences altered the psychopathological pathways by which social support influences NSSI, as manifested by the findings that social support indirectly and negatively affected NSSI by reducing psychotic-like experiences in individuals with threatening experiences only, whereas social support was ineffective to affect NSSI in individuals with deprivation experiences.

Conclusion Our findings highlighted that adverse experiences may not only be the risk factors directly associated with NSSI, but also be the significant factors in shaping developments of NSSI, and different dimensions of adverse experiences should be included as important considerations in the development of NSSI in early adult.

关键字：Non-suicidal self-injury; Social support; Adverse experience; Psychopathology; College students

Abnormal Intrinsic Functional Connectivity in The Frontal Striatum Network in Adolescent Depression with and without Psychotic Symptoms

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Objective Adolescent depression with psychotic symptoms is characterized by more severe impairment and a poorer treatment response, along with a higher risk of suicide. Previous studies have demonstrated the involvement of the frontal striatal network (FSN) circuit in various psychiatric disorders such as depression, bipolar disorder and schizophrenia, indicating its crucial role in emotional regulation and cognitive control. However, it remains unclear whether adolescent depression with psychotic symptoms exhibits similar or different coupling with the orbitofrontal-striatal network. Therefore, the aim of this study is to compare adolescent depression, both with and without psychotic symptoms, in order to explore the potential disruptions in connectivity within the FSN and the neural mechanisms associated with psychotic symptoms.

Methods The study included 77 adolescents diagnosed with depression. Based on the presence or absence

of psychotic events such as hallucinations or delusions in their medical history, the participants were divided into two groups: the group with psychotic symptoms (n=33) and the group without psychotic symptoms (n=44). The Brief Psychiatric Rating Scale (BPRS) was used to assess the severity of psychotic symptoms, and the Patient Health Questionnaire-9 (PHQ-9) was used to assess the severity of depressive symptoms. Functional magnetic resonance imaging (fMRI) data were collected from each participant. Independent component analysis was then performed using the GIFT software to obtain the functional connectivity networks. The voxel-wise distribution of the FSN predominantly encompasses the frontal lobe and bilateral striatum regions, including the superior frontal gyrus, middle frontal gyrus, inferior frontal gyrus, anterior cingulate, frontal orbital cortex, caudate nucleus, putamen, and globus pallidus. Finally, two-sample t-tests were conducted to compare the two groups of participants.

Results There was no significant difference in sex, age, education years, disease duration, and PHQ-9 scores between the two subgroups. A significant difference in the BPRS total score was found ($P < 0.001$). The one-sample t-test revealed a typical spatial pattern in the FSN in each group, including superior frontal gyrus, middle frontal gyrus, inferior frontal gyrus, anterior cingulate, frontal orbital cortex, caudate nucleus, putamen, and globus pallidus. The adolescent depression with psychotic symptoms demonstrated decreased FSN connectivity in the bilateral caudate and bilateral putamen compared with the adolescent depression without psychotic symptoms (corrected at the cluster level using family-wise error, $P < 0.05$). Additionally, a negative correlation was observed between the left caudate, left putamen and BPRS scores ($r = -0.385$, $P = 0.030$) in adolescent depression with psychotic symptoms group.

Conclusion We found specific alterations in the striatum and temporal lobe in adolescent depression with psychotic symptoms.

关键字：the Frontal Striatum Network, adolescent depression, psychotic, striatum.

Comparison of The Clancy Autism Behavior Scale (CABS) and Autism Behavior Checklist (ABC) for Autism

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Objective Autism spectrum disorder (ASD) is a group of neurodevelopmental disorders characterized by impairments in social interaction and repetitive and stereotyped behaviors. To make early detection of individuals with ASD, caregiver-reported instruments remain an efficient and adaptable option for the preliminary assessment. This study compared the psychometric properties of the Clancy Autism Behavior Scale (CABS) and Autism Behavior Checklist (ABC) as screening tools for ASD by caregivers.

Methods A total of 154 pairs of outpatients and their parents, who sought medical attention for suspected autism at Peking University Sixth Hospital, were enrolled in the study. The CABS and ABC assessments were completed by the parents to evaluate their children's ASD symptoms, which were then compared with clinical diagnoses. Receiver operating characteristics (ROC) curves were generated for both instruments. The sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), positive likelihood ratio (+LR), negative likelihood ratio (-LR), Youden index, and area under the ROC curve (AUC) of the CABS and ABC were calculated and compared using recommended cut-off values from initial papers. The optimal cut-off values for CABS and ABC were determined according to the maximum Youden index.

Results The ABC outperformed the CABS, in terms of sensitivity, PPV, NPV, +LR, -LR, AUC and Youden index for ASD screening. Specifically, the ABC demonstrated higher sensitivity than the CABS (79.310% vs. 44.828%) in identifying children with ASD, while the CABS exhibited superior specificity compared to the ABC (70.833% vs. 53.125%). According to the maximum Youden index, the optimal cut-off value was determined to be 13 for CABS and 62 for ABC.

Conclusion Both instruments demonstrate acceptable psychometric properties in assessing ASD. However, the ABC exhibits higher sensitivity and overall performance in screening individuals with ASD compared to the CABS. The ABC is more suitable as a screening tool for caregivers in both domestic and clinical settings, while the CABS may be utilized when evaluation time or medical resources are limited due to its shorter completion time and fewer items.

关键字：Autism; Screening instrument; Receiver operating characteristic curve; Comparison

倒退型孤独症谱系障碍的临床特征和危险因素研究

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目的 倒退型孤独症谱系障碍（ASD-R）是指儿童从出生后至生命早期经历一段正常发育阶段，后又出现已获得的语言、社交或运动等技能的倒退，继而发展成完整的 ASD 临床表现的独特 ASD 亚型。本研究探讨了 ASD-R 儿童临床特征及相关危险因素，旨在为 ASD-R 的早期诊断、个体化干预和致病机制研究提供临床线索。

方法 对 ASD-R、非倒退型孤独症（ASD-NR）和正常发育（TD）儿童进行病例对照研究。本研究最终纳入 128 名 ASD 儿童和 58 名 TD 儿童。使用自编一般情况调查表采集儿童及父母的一般情况及相关信息。采用孤独症诊断观察量表（ADOS）对儿童孤独症进行诊断。使用《倒退情况补充核查表》将 ASD 儿童分为ASD-R 儿童（50名）和ASD-NR儿童（70 名）。采用孤独症行为评定量表（ABC）评估 ASD 儿童的临床症状严重程度。采用格里菲斯发育量表中国版

（GDS-C）对儿童发育商进行评估。同时，采用《倒退情况补充核查表》评估 ASD-R 儿童的倒退特征和倒退相关危险因素。对比分析三组被试的一般情况、孤独症症状、发育商和倒退相关危险因素。采用单因素方差分析、卡方检验和 Kru- skal-Wallis H 检验等对三组儿童孤独症症状、发育商、倒退相关危险因素进行差异分析，并将结果中具有统计学差异（p＜0.05）的危险因素纳入 Logistic 回归模型，以进一步探讨与 ASD-R 儿童倒退发生相关的危险因素。

结果 本研究中，ASD-R 组倒退发生的平均年龄为 24.00（20.00-26.50）个月，其中语言技能出现倒退占比最多（39.66%）。与 ASD-NR 组相比，ASD-R 组儿童父母生育年龄和教育程度偏低。ASD-R 组儿童 ADOS 和 ABC 得分显著增加；ASD-R 组儿童 GDS-C 六个维度发育商评分降低，其中语言发育商差异有统计学差异（p＜0.05）。Logistic 回归分析显示：母亲生育年龄和受教育程度、儿童 GDS-C 语言项、发热和腹泻是 ASD-R 发生的危险因素，均有统计学意义（OR=0.725，0.165，0.970，4.011，6.324，均 p＜0.05）。

结论 本研究提示与 ASD-NR 组相比，ASD-R 儿童的核心症状更为严重。语言退化成为 ASD-R 的主要模式。母亲生育年龄、母亲受教育程度、GDS-C 语言项、发热和腹泻被确定为 ASD-R 的危险因素。

关键字：孤独症谱系障碍；倒退型；临床特征；危险因素

维生素 D 对 VPA 大鼠孤独症样行为的预防作用

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目的 维生素 D 除了具有经典的钙、磷调节功能外，还在神经元分化和成熟、神经保护和神经保护中发挥着重要作用。流行病学调查已经探讨了母体维生素 D 浓度与后代 ASD 风险之间的关系，但结果不一致。本研究拟于观察雌鼠孕前、孕期补充维生素 D 经 VPA 造模后对仔鼠孤独症样行为的预防作用。

方法 正常对照组雌鼠所生雄性仔鼠分为正常对照组（N=20）；合笼前 5 天雌鼠肌注维生素 D 3，造模后所生雄性仔鼠为维生素 D 预防 1 组（VDP1 组，N=20）；受孕后第五天肌注维生素 D 3，造模后所生雄性仔鼠为维生素 D 预防 2 组（VDP2 组，N=20）；受孕后第 12.5 天腹腔注射 VPA 同时肌注维生素 D 3，所生雄性仔鼠为维生素 D 预防 3 组（VDP3 组，N=20）；孤独症模型组雌鼠所生雄性仔鼠分为孤独症组（ASD 组，N=20）。比较各组大鼠的重复理毛时间、三箱实验数据。

结果 1.重复理毛时间：PN32、42 天，ASD 组大鼠重复理毛时间明显长于对照组（P＜0.05），VDP1 组、VDP2 组、VDP3 组大鼠重复理毛时间均明显短于 ASD 组（P＜0.05），VDP2 组大鼠重复理毛时间明显长于 VDP1 组（P＜0.05）。2.三箱实验：PN42 天，对照组、VDP1 组、VDP2 组、VDP3 组大鼠陌生鼠箱停留时间明显久于空白箱（P＜0.05），ASD 组大鼠陌生鼠箱、空白箱停留时间无明显差别（P＞0.05）；ASD 组大鼠陌生鼠箱停留时间明显短于对照组（P＜0.05），空白箱停留时间明显久于对照组（P＜0.05）；VDP1 组、VDP2 组、VDP3 组大鼠陌生鼠箱停留时间明显久于 ASD 组，VDP1 组大鼠空白箱停留时间均明显短于 ASD 组（P＜0.05）。

结论 雌鼠造模前及造模当天补充维生素 D3 可减少 VPA 大鼠重复行为、增加社会交往，对 VPA 大鼠出现孤独症样行为有预防作用，于受孕前补充维生素 D 可能最佳。

关键字：ASD；维生素 D；预防；行为；大鼠

Association of Emotion Regulation with Depressive Symptoms in Adolescent Girls: The Mediating and Moderating Roles of Self-esteem and Peer Rejection

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Objective Existing research proposed that emotion regulation may have an indirect effect on the elevated prevalence of depression. The aim of this cross-sectional study was to investigate whether self-esteem mediates the association between emotion regulation and depressive symptoms and whether social peer rejection serves a moderating role during the post-COVID-19 pandemic.

Methods This study was conducted among 326 adolescent girls with depressive disorders, and the data were collected at Shandong Mental Health Center from January to November 2022. Participants filled out self-report questionnaires, including the Emotion Regulation Questionnaire, Rosenberg Self-esteem Scale, Social Peer Rejection, and Children's Depression Inventory. The statistical model was tested by using bootstrapping with resampling strategies, and the Johnson-Neyman technique was used to visualize the moderating effect of peer rejection.

Results The participants had a mean age of 15.26 (SD=1.92) and scored high on the Children's Depression Inventory (M=27.60, SD=11.00). Depression was negatively correlated with cognitive reappraisal (r=-0.480, p<0.01) and positively correlated with expressive suppression (r=0.270, p<0.01). Self-esteem partially mediated the relationship between cognitive reappraisal and depressive symptoms (β=-0.395, 95%CI [-0.475, -0.310], p<0.001); as well as fully mediated the association between expressive suppression and depressive symptoms (β=0.255, 95%CI [0.161, 0.345], p<0.001). Insults in peer rejection showed a significant moderating effect (index of moderated mediation=-0.115, 95%CI [-0.205, -0.028], p=0.013).

Conclusion Our research identified the negative influence of reappraisal on depression as well as the positive

effect of suppression on depression, highlighting the mediating role of self-esteem. Of significance, we also found the moderation effect of peer rejection in the development of self-esteem. These findings provide theoretical and practical implications for intervention and treatment of depression.

关键字：Depressive symptoms, Emotion regulation, Self-esteem, Peer rejection, Adolescent girls

网络化认知行为疗法对青少年抑郁症状干预效果的 Meta 分析和系统评价

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目的 本研究评估网络化认知行为疗法（iCBT）或心理健康教育对青少年抑郁症状的干预效果，并探索 iCBT 对青少年抑郁症状干预效果的影响因素。

方法 在中英文数据库中检索截止日期至2023年4月14日，有关网络化认知行为疗法干预青少年抑郁症状的 RCT 研究报告，纳入文献的研究对象为平均年龄13～17岁存在抑郁症状或具有轻中度抑郁症诊断的青少年，对照组多以心理健康教育为主，主要结局指标为抑郁症状和焦虑症状的严重程度。对纳入 meta 分析的文献进行质量偏倚风险评价，提取文献中有关受试对象、干预内容、统计学方法等特征，提取抑郁症状和焦虑症状的测量数据并采用均数差或标准化均数差计算干预措施的效应，针对异质性进行敏感性分析和亚组分析。

结果 文献检索的初步结果为 769 篇，通过排除重复文献、非随机对照试验、研究对象和方法不符合本系统评价纳入标准、无法提取想要数据的文献，最终纳入 10 篇文献进行 meta 分析，总体试验组 489 例，对照组 486 例。对于平均年龄 13～17 岁存在抑郁症状或具有轻中度抑郁症诊断的青少年，iCBT 组和对照组干预前后抑郁症状量表分数改变量的标准化均数差（SMD）较小而具有统计学意义，SMD = -0.36，95%CI（-0.57，-0.15），$p < 0.001$；试验组干预后 3 月以内的抑郁症状持续减轻，干预后 6 月以内、6 月以上的抑郁症状严重程度维持不变。iCBT 组和对照组干预前后焦虑症状量表分数改变量的 SMD 较小而具有统计学意义，SMD = -0.33，95%CI（-0.51，-0.15），$p < 0.001$；试验组干预后 3 月以内、6 月以内的焦虑症状持续减轻，干预后 6 月以上的焦虑症状严重程度维持不变。亚组分析结果发现，iCBT 干预内容特征、受试者来源是 iCBT 对青少年抑郁症状干预效果的影响因素。纳入的研究质量评价结果均为“中偏倚风险”或“高偏倚风险”。

结论 网络化认知行为疗法（iCBT）可有效缓解青少年的抑郁症状和焦虑症状，且具有一定的长期效果。iCBT 干预特征和受试者来源是 iCBT 改善青少年抑郁症状的影响因素，持续时间在 8 周以上、治疗师介入程度高、由家长参与部分模块以及临床环境样本的干预效果更佳。

关键字：网络化认知行为疗法；青少年；抑郁症状；meta 分析

Neural Progenitor Cells Derived From Autism Spectrum Disorder Patients Are More Susceptible To Ferroptosis

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Objective The etiology of autism spectrum disorder (ASD) is complex, including genetic, and environmental factors. Oxidative stress and antioxidants can participate in pathobiochemical mechanisms of autism. Ferroptosis, an iron-dependent cell death triggered by iron-mediated lipid peroxidation and oxidative stress, has been observed in many neurodegenerative diseases. However, it remains unclear whether ferroptosis is related to ASD.

Methods Here, we examined if ferroptosis could be detected in neural progenitor cells (NPCs) derived from induced pluripotent stem cells. We used CCK8 assays to demonstrate that RSL3, an ferroptosis inducer, can reduce NPCs cell viability. Fe2+ and mitochondrial ROS levels were confirmed using fluorescence microscopy. JC-1 was used to measure mitochondrial membrane potential were estimated by flow cytometry. qPCR and western blot were used to evaluate the expression of ferroptosis related genes and proteins.

Results We successfully induced NPCs from ASD patients, and the purity is basically the same.

Conclusion We hope these findings indicate that ferroptosis contributes to autism spectrum disorder progression and management of ferroptosis may be a novel strategy for ASD treatment.

关键字：autism spectrum disorder; ferroptosis; neural progenitor cells; ROS

抑郁大鼠电休克后认知功能变化及影响的现状以及相关研究综述

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目的 探讨抑郁大鼠电休克后认知功能损害的机制和改善因素，为抑郁症患者尤其青少年抑郁症患者今后在电休克治疗认知功能受损提供基础研究理论和更好的保护其认知功能。

方法 通过知网，PubMed 等数据库检索了抑郁大鼠电休克后认知功能改变和干扰因素相关研究，已有研究提示电休克会引起大鼠认知功能损伤，这一损伤与过度激活的 N-甲基-D-天冬氨酸受体和长时程增强的受损有关。这些文章主要选用抑郁模型大鼠，分出对

照组，以及接受行为学实验评估抑郁行为和学习记忆能力后随机分为抑郁组、单纯电休克组或无抽搐电休克组进行干预。干预结束完毕行 Morris 水迷宫实验评估大鼠空间学习记忆能力；ELISA 法检测海马 GABA 浓度；免疫组化法和 Western-blot 检测海马 GABAARα5 的蛋白表达。

结果 电休克处理后的大鼠糖水偏好百分比上升，说明电休克具有抗抑郁效应。水迷宫实验结果提示，电休克组逃避潜伏期最长，空间探索时间最短。部分研究发现，相较于正常对照大鼠，抑郁模型大鼠海马 GABA 和 α5-GABAAR 低表达，空间学习记忆能力下降；电休克显著提高了抑郁大鼠 GABA 和α5-GABAARα5 的表达，改善大鼠抑郁状态，却引起学习记忆损伤；丙泊酚上调电休克抑郁大鼠海马 α5-GABAAR，保护大鼠学习记忆功能。

结论 抑郁大鼠电休克治疗后认知功能损害与电休克激活海马区自噬增加突触素表达有关，丙泊酚在电休克过程中具有脑保护作用，其机制可能与上调海马 GABA 能神经系统相关递质和受体的表达有关，目前实验进展提示可能是通过上调大鼠海马 α5-GABAAR 的表达，保护电休克后的学习记忆损伤。越来越多的证据表明，GABAergic 神经系统可调控 N-甲基-D-天冬氨酸受体介导的谷氨酸能神经系统活性。然而，在抑郁大鼠电休克模型中，GABAergic 系统是如何影响长时程增强的尚不清楚。考虑可以利用 siRNA 干扰技术调控 GABAAR 的表达，进一步研究丙泊酚通过激动 GABAAR 对认知功能的作用。随着青少年抑郁症发病年龄低龄化，考虑用青年期大鼠设计实验，研究其认知功能受损程度。

关键字：电休克，抑郁症，青少年抑郁，学习记忆功能

辩证行为疗法技能训练在青少年中开展现状及治疗效果的相关研究综述

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目的 了解辨证行为疗法技能训练模块（DBT-ST）在青少年中开展的发展现状及治疗效果，为日后在国内精神科对青少年开展 DBT-ST 治疗提供启发并予以建议。

方法 通过 PubMed, Web of Science, PsycINFO、知网检索文献，采用年份过滤范围，2018~2023 年。另设置过滤条件“年龄 0~18 岁”。没有对研究方法进行限制，因为相关的研究较少。使用的关键词是“辩证行为疗法”、“技能训练”、“青少年”和“儿童”。这些文章研究了 DBT-ST 治疗前后，患者行为和各量表得分的变化、DBT-ST 与标准 DBT 的治疗完成率对比、青少年在 DBT-ST 后的主观体验等。

结果 研究结果显示，对青少年只提供 DBT-ST 是可行的，哪怕在不进行个体治疗的情况下也是。完成 DBT-ST 的青少年对该培训有积极评价，它能改变青少年内在的心理变化，如改善反思活动。并且 DBT-ST 对健康人群也有效。单独使用 DBT-ST 的情绪调节模块可以减少高中生的心理健康症状，其对低收入学校教师来说是可以接受和可行的，但需要考虑内容是否适合不同情况的学生、训练实施的便利性，以及支持教师在课堂外使用技能等。单独使用 DBT-ST 的情绪调节模块可能对完成干预的青少年产生积极影响，尤其是抑郁、焦虑、社会压力方面。进一步改进该技能训练的内容、结构和执行，可能使青少年更易接受。综上，DBT-ST 作为结构化的心理干预措施，对改善青少年的心理健康和促进心理社会功能恢复具有促进作用。它可以在缺乏资源来进行个体治疗的情况下就取得较好效果，也可以同时对较多人群进行干预。单独使用 DBT-ST 中的一部分也是可行的，能有效减少高中生的心理健康症状。尽管如此，DBT-ST 的实施仍面临一定挑战，需要根据实施对象的具体情况进行相应改进，才能使之更易被青少年接受。

结论 DBT-ST 为青少年精神科患者和有情绪问题的青少年提供了一种心理干预的手段，可在缺乏足够资源的条件下进行，也可同时干预大量患者。它帮助受训者改善情绪、减轻症状、恢复心理社会功能，从而帮助受训者更好适应社会生活。但目前 DBT-ST 的大多数研究均在西方社会背景下展开，国内相关研究较少，对于其在中国医疗体制下的疗效如何，需要进一步的临床研究加以判断。

关键字：辩证行为治疗 技能训练 团体模式 青少年

Effect of Dynamic Functional Brain Connectivity Patterns in Moderating Early Antidepressant Treatment Response in Drug-naive, First-episode Adolescent MDD

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Objective Major depressive disorder (MDD) is a highly prevalent mental disorder and is associated with aberrant dynamic functional connectivity (dyn-FC) of brain networks supporting emotion and cognitive processing. The aim of this study was to determine whether intrinsic patterns of whole-brain dynamic functional connectivity before and after 6 weeks of antidepressant treatment in adolescent MDD patients influence early antidepressant treatment response.

Methods All participants, aged 12 to 18 years, including 35 drug-na?ve, first-episode adolescents with major depressive disorder and 24 healthy controls completed a resting-state functional magnetic resonance imaging scan (rs-fMRI) at baseline. Subsequently, 35 MDD patients were treated with antidepressants (agomelatine, sertraline,

escitalopram, or venlafaxine) for 6 weeks and completed another rs-fMRI at the end of treatment. Dynamic independent component analysis (dyn-ICA) was utilized to compare dyn-FC and screen out networks with difference between groups. Binary logistic regression model was used to identify dyn-FC patterns between brain networks that influence early treatment response.

Results Early antidepressant treatment response was significantly moderated by several between-network dynamic functional connectivity patterns. In general, dynamic functional connectivity patterns between frontoparietal network and salience network at baseline were found to moderate in early treatment response. As did dynamic FC patterns between visual network and dorsal attention network at post-treatment.

Conclusion This study identified dynamic functional connectivity patterns between-networks play an important role in the antidepressant medication of adolescent MDD.

关键字：adolescent MDD, dynamic functional connectivity, salience network, visual network, dorsal attention network, antidepressant treatment response.

基于辩证行为治疗的痛苦承受与正念技能训练对青少年抑郁症患者非自杀性自伤行为干预效果研究

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目的 探讨基于辩证行为治疗的痛苦承受与正念技能训练对青少年 抑郁症患者非自杀性自伤（NSSI）行为的干预效果。

方法 选取我院 2021 年 7 月-2022 年 7 月在儿少精神科住院的伴有 NSSI 行为的青少年抑郁症患者 120 名为研究对象。按入院顺序编号，奇数者为对照组，偶数者为干预组，每组各 60 例。对照组患者接受为期 4 周的常规青少年抑郁症疾病护理，干预组在对照组的基础上开展痛苦承受与正念技术训练。两组均在入组时填写一般资料问卷，并于入组时、入组后第 2 周、第 4 周、出院后第 3 个月，第 6 个月接受 HAMD-17、HAMA、GSES、青少年学生生活满意度量表评定，并比较两组患者住院期间 NSSI 行为发生率。

结果 1、组间干预组患者住院期间 NSSI 行为发生率较对照组低，差异有统计学意义（16.28%vs48.26%，$\chi2$=10.634，P<0.01)。两组患者 HAMD-17、HAMA、GSES、青少年学生生活满意度量表评分比较第 2 周差异均无统计学意义（P>0.05)；第 4 周、出院后 3 个月、6 个月干预组较对照组改善，差异均有统计学意义（P<0.01)。2、组内对照组 HAMD-17、HAMA、GSES、青少年学生生活满意度量表评分与入院时比较第 2 周、第 4 周、出院后 6 个月差异均无统计学意义（P>0.05)，出院后 3 个月差异有统计学意义（P<0.01)。干预组 HAMD-17、HAMA、GSES、青少年学生生活满意度量表评分与入院时比较，第 2 周差异均无统计学意义（P>0.05)，第 4 周、出院后 3 个月、6 个月均差异均有统计学意义（P<0.01)。

结论 基于辩证行为治疗的痛苦承受与正念技能训练有助于降低青少年抑郁症患者 NSSI 行为发生率，减轻抑郁程度，增强自我效能，提高生活满意度。

关键字：痛苦承受技能；正念技能；青少年抑郁症；非自杀性自伤行为

功能失调性态度对青少年抑郁障碍的影响及自动思维的中介作用

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目的 探讨发作期青少年抑郁障碍患者功能失调性态度和自动思维的差异，以及功能失调性态度对抑郁的影响和自动思维的中介作用，为其心理干预提供参考。

方法 纳入 148 例符合《国际疾病分类（第 10 版）》（ICD-10）情感障碍诊断标准的发作期抑郁障碍的青少年患者（年龄 13～18 周岁），且抑郁自评量表（SDS）标准分≥53 分作为研究对象。采用功能失调性态度问卷（DAS）、自动思维问卷（ATQ）、抑郁自评量表（SDS）及自编基本资料调查表进行评定。采用独立样本 t 检验比较不同人口学资料在 DAS、ATQ 及 SDS 的差异，使用 Pearson 相关分析 DAS、ATQ 与 SDS 间的关系。最后，采用 AMOS 构建中介模型以阐释功能失调性态度通过自动思维进而影响抑郁症状的机制。

结果 （1）对比分析：女性组 DAS 总评分、ATQ 总评分、SDS 总评分、吸引和排斥因子分、完美化因子分、寻求赞许因子分、自主性态度因子分、认知哲学因子分均高于男性组，差异有统计学显著性（P＜0.05)；初中生组 DAS 总评分、ATQ 总评分、SDS 总评分、吸引和排斥因子分、寻求赞许因子分、依赖性因子分、认知哲学因子均高于高中生组，差异有统计学显著性(P＜0.05)；是否独生、父母婚姻状况及户口类型在各量表评分差异均无统计学显著性；（2）相关性分析：抑郁障碍青少年 DAS 评分与抑郁症状呈正相关（r=0.673，P＜0.01)，与 ATQ 自动思维评分呈正相关（r=0.744，P＜0.01)；抑郁症状与 ATQ 自动思维评分呈正相关（r=0.632，P＜0.01)；（3）中介效应的 Bootstrap 结果：功能失调性态度对抑郁症状有显著正向预测作用（β=0.480，Boot SE=0.110，95%CI：0.699～0.841)；自动思维在功能失调性态度与抑郁症状间起部分中介作用（β=0.243，Boot SE=0.089，95%CI：0.073～0.422)。

结论 （1）女性和受教育年限短的青少年抑郁障碍患者，往往功能失调性态度、负性自动思维和抑郁症状更严重；（2）功能失调性态度对青少年抑郁障碍患者抑郁症状有直接预测作用，负性自动思维在功能失调性态度与抑郁症状间起部分中间作用，这为青少年抑

郁障碍患者心理干预起参考作用。

关键字：青少年；抑郁；功能失调性态度；自动思维

The Associations of Brain-derived Neurotrophic Factor (BDNF) Levels with Psychopathology and Lipid Metabolism Parameters in Adolescents with Major Depressive Disorder

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Objective Brain-derived neurotrophic factor (BDNF) plays a critical role in growth, differentiation, maintenance and synaptic plasticity of neuronal systems, and is thought to be closely associated with major depressive disorder (MDD). This study aimed to compare BDNF levels between adolescents with MDD and healthy controls (HCs), and to investigate the associations of BDNF levels with psychopathology symptoms and lipid metabolism parameters in patients as well as gender differences in the above associations.

Methods A total of 141 adolescents with MDD and 90 HCs were included in this study, and BDNF levels and lipid metabolism parameters were measured. The Center for Epidemiological Studies Depression Scale (CES-D), the Insomnia Severity Index Scale (ISI), the Epworth Sleepiness Scale (ESS) and the Positive and Negative Suicidal Ideation Scale (PANSI) were used to assess patients' depressive symptoms, insomnia, excessive daytime sleepiness and suicidal ideation, respectively.

Results Compared to HCs, adolescents with MDD had significantly lower BDNF levels ($p<0.001$). In patients, the results of Pearson's correlation analyses showed that age, BMI, total cholesterol (TC), high-density lipoprotein cholesterol (HDL-C) and low-density lipoprotein cholesterol (LDL-C) were positively correlated with BDNF levels (all $p<0.05$). The total scores of CES-D and ISI were negatively correlated with BDNF levels (all $p<0.05$). In multivariate linear regression analyses, BDNF levels were positively associated with age (beta=0.160, t=1.997, p=0.048) and TC levels (beta=0.247, t=3.101, p=0.002), but negatively associated with the total scores of ESS (beta=-0.179, t=-2.270, p=0.025) and ISI (beta=-0.236, t=-3.026, p=0.003). Furthermore, the associations between BDNF levels and psychopathology were observed only in females and not in males.

Conclusion BDNF levels are significantly reduced in adolescents with MDD. Patients with low BDNF levels have more severe psychopathology and develop changes in lipid metabolism parameters, especially in female patients.

关键字：BDNF; major depressive disorder; psychopathology; lipid metabolism; adolescents.

Associations between Insomnia and Inflammatory Biomarkers in Adolescents with First-episode and Recurrent Major Depressive Disorder

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Objective Insomnia is often associated with increases in biomarkers of inflammation, which has been repeatedly confirmed in numerous previous studies. However, the association has not been adequately explored in adolescents with major depressive disorder (MDD). The purpose of this current study was to investigate the associations of insomnia with inflammatory biomarkers in adolescents with first-episode and recurrent MDD.

Methods A total of 164 adolescents with MDD and 76 health controls (HCs) were included in this cross-sectional study. The Center for Epidemiological Studies Depression Scale (CES-D) and the Insomnia Severity Index Scale (ISI) were used to assess subjects' depressive and insomnia symptoms, respectively. And plasma levels of interleukin-1β (IL-1β), interleukin-6 (IL-6), interleukin-8 (IL-8) interleukin-10 (IL-10), interleukin-17A (IL-17A) and tumor necrosis factor-α (TNF-α) were measured.

Results The prevalence of mild insomnia, moderate insomnia and severe insomnia in adolescents with MDD was 40.24%, 36.59% and 6.71%, respectively. Compared to HCs, the patients had higher levels of IL-1β, IL-6 and TNF-α (all $p<0.05$). There was no statistical difference in inflammatory biomarkers levels between patients with first-episode and recurrent MDD. In first-episode patients, the results of correlation analyses showed that ISI socre was positively correlated with CES-D score and levels of IL-1β, IL-6 and TNF-α (all $p<0.05$). Furthermore, in multivariate linear regression analyses, ISI socre was independently associated with CES-D score (beta=0.523, t=5.833, $p<0.001$) and TNF-α levels (beta=0.254, t=2.832, p=0.006). However, no associations between insomnia and inflammatory biomarkers were found in patients with recurrent MDD.

Conclusion Insomnia symptoms are common in adolescents with MDD and appear to be associated with inflammatory biomarkers in first-episode patients. Therefore, inflammatory biomarkers may be involved in insomnia of MDD, but further longitudinal studies are still needed to explore the underlying mechanisms.

关键字：insomnia; inflammatory biomarkers; adolescents; major depressive disorder; first-episode.

注意缺陷多动障碍青少年儿童时间知觉特征及其影响因素

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目的 既往研究表明注意缺陷多动障碍（ADHD）儿童在时间知觉方面存在缺陷，这种缺陷与患儿的执行功能障碍和厌恶延迟的动机风格之间都有着密切的联系。本研究试图探讨 ADHD 儿童的时间知觉特征及可能的影响因素。

方法 选择符合美国精神障碍诊断与统计手册第 5 版（DSM-5）中 ADHD 诊断标准并且 SNAP-IV 父母及教师评定量表：注意力不集中平均分≥1.6 分或多动/冲动平均分≥1.6 的儿童 56 例及正常对照儿童 13 例。使用韦氏儿童智力量表-第四版中文版（WISC-IV）评定总智商，以时间辨别任务和时间复制任务，分别评定两组儿童的 500 ms 和 1500 ms 的时间辨别差别阈限值，及 2000ms、12000ms 和 45000ms 的时间复制任务表现。由家长评写执行功能行为评定量表（BRIEF-P）以评定两组儿童的执行功能水平；以注意力多项参数测试（TOVA）评定 ADHD 组儿童注意力持续表现。

结果 ADHD 儿童总体智商低于正常儿童，[(106.80±15.772)vs(118.92±14.660)，P＜0.05]，ADHD 儿童 BRIEF-P 量表元认知指数（MI）得分高于正常儿童[(106.80±15.772)vs(118.92±14.660)，P＜0.05]，两组儿童在 500ms 和 1500ms 条件下的时间辨别阈限不存在显著差异[F（1,67）=50.41，P＞0.05]，ADHD 儿童在 12000ms 时间复制任务中所表现出的绝对偏差错误（Absolute discrepancy errors）大于正常儿童[(5046.35±4025.50)vs(2333.10±1612.23)，P＜0.05]。注意缺陷多动障碍儿童在 12000ms 时间复制任务中的绝对偏差错误与其 TOVA 测试得分呈现负相关（r=-0.446，P ＜0.01）与其 SNAP-IV 量表中注意力不集中得分呈现正相关（r=0.323，P＜0.05），与其 WISC-IV 量表中的加工速度指数呈负相关（r=-0.302，P ＜0.05）。

结论 注意缺陷多动障碍儿童相比于正常儿童存在时间知觉的缺陷，这一缺陷可能与患儿的持续性注意、注意力不集中症状严重程度以及加工速度的受损有关。这些发现将对未来针对 ADHD 儿童执行功能缺陷的干预设计，提供新的视角和思路。

关键字：注意缺陷多动障碍（ADHD）、时间知觉、执行功能

基于社会生态系统理论的青少年抑郁症影响因素分析-病例对照研究

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目的 基于社会生态系统模型为理论框架，探讨青少年发生抑郁症的危险因素。

方法 采用病例对照研究设计。病例组包括 2021 年 11 月至 2022 年 7 月在中国江苏省南京某精神病专科医院住院的青少年抑郁症（13-18 周岁）。病例患者符合抑郁症国际疾病分类(ICD-10)标准。同期随机选取以性别、年龄（1:1）与之相匹配的在校健康青少年作为对照组。以性别、年龄为协变量进行 Logistic 回归分析抑郁症的相关因素。

结果 共有 200 名参与者（病例组、对照组各 100 人），其中男性各 20 人（22.0%），女性各 78 人（78.0%），平均年龄(15.00±1.33)岁。调整后 Logistic 回归分析显示，居住在城市（Adjusted OR =4.504，CI:1.349～15.038）、遭遇校园霸凌（Adjusted OR=8.193，CI:1.867～35.943）、家庭功能严重障碍（Adjusted OR =8.087，CI:1.275～51.278）、自我评价低（Adjusted OR =10.804，CI:2.961～39.426），差异有统计学意(P＜0.05)，且均为青少年抑郁症的危险因素（OR＞1，P<0.05）。

结论 本研究从社会生态系统角度出发，发现青少年抑郁症最显著的危险因素是低自我评价、校园欺凌、家庭功能严重障碍和城市区域，丰富了青少年抑郁症的社会生态内在机制研究。可为实施针对抑郁症危险因素的干预措施提供参考。

关键字：青少年 抑郁 校园霸凌 家庭功能 自我评价 影响因素

青少年抑郁症患者非自杀性自伤行为发生风险预测模型的构建与应用

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目的 根据青少年抑郁症患者非自杀性自伤行为发生危险因素构建风险预测模型，并评价模型应用效果。

方法 选择青少年抑郁症患者 200 例为训练集，青少年抑郁症患者 50 例为验证集，统计训练集有非自杀性自伤行为的患者例数，通过单因素、多因素 logistic 回归分析筛选青少年抑郁症患者非自杀性自伤行为发生的危险因素，结合回归分析结果构建风险预测模型，并采用模型对验证集患者非自杀性自伤行为发生风险实施评估，检验其预测效果。

结果 训练集非自杀性自伤行为患者 46 例，发生率 23.00%；单因素、多因素 logistic 回归分析得到，青少年抑郁症患者非自杀性自伤行为发生影响因素有抑郁程度、童年创伤/校园欺凌经历、存在睡眠障碍、同伴排斥/歧视、强冲动性、青少年生活事件中重度影响（P<0.05）；结合回归分析拟合青少年抑郁症患者非自杀性自伤行为发生风险预测模型的回归方程，Hosmer-Lemeshow 检验显示，P=0.148，差异无统计学意义，ROC 曲线下面积为 0.901，95%CI 为 0.872～0.924，当最佳风险截断值达到 48.39%，模型灵敏度为 0.827，特异度为 0.884，约登指数为 0.711；外部验证显示，模型预测准确率为 84.00%。

结论 青少年抑郁症患者非自杀性自伤行为发生风险较高，危险因素复杂，研究构建青少年抑郁症患者非自杀性自伤行为发生风险预测模型能有效预测风险，实现对高危患者的有效区分。

关键字：抑郁症；青少年；非自杀性自伤行为；危险因素；风险预测

Transcutaneous Electrical Acupoint Stimulation for Children with Attention-deficit/hyperactivity Disorder: A Randomized Clinical Trial

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Objective Little is known about the effects of transcutaneous electrical acupoint stimulation (TEAS) for children with attention-deficit/ hyperactivity disorder (ADHD).

Methods We carried out a 4-week randomized clinical trial in which patients aged 6–12 years old with ADHD received TEAS or sham TEAS. The primary outcome measure was the investigator-rated Clinical Global Impression-Improvement (CGI-I) score at week 4. Secondary outcomes included the investigator-rated Clinical Global Impression-Severity of Illness (CGI-S) score, the Conners' Parent/Teacher Rating Scales-Revised: Short Form (CPRS-R: S/CTRS-R: S) score, go/no-go task performance, and functional near-infrared spectroscopy (fNIRS)-based oxygenated hemoglobin level within the prefrontal cortex.

Results After TEAS treatment for 4 weeks, the CGI-I score improved from 7.7% to 33.3% (P = 0.005). The mean CGI-S score (?0.87) in the TEAS group decreased markedly than the sham TEAS group (?0.28) (P = 0.003). A greater enhancement in the mean cerebral oxygenated hemoglobin within the prefrontal cortex was found in the TEAS group (P < 0.001). While CPRS-R: S/CTRS-R: S score, and go/no-go performance exhibited no significant improvement. The manipulation-associated adverse events were very mild in both groups.

Conclusion This study shows that noninvasive TEAS significantly improved general symptoms and increased prefrontal cortex blood flow within 4 weeks for children with ADHD. Further clinical trials are required to understand the long-term efficacy in a larger clinical sample.

关键字：TEAS; ADHD; fNIRS; Oxyhemoglobin

Aberrant Local Brain Activity Related To Adolescent with Non-suicidal Self-injury

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Objective Non-suicidal self-injury (NSSI) is a significant mental health problem among adolescents. Research is needed to clarify the neurobiology of NSSI and identify candidate neurobiological targets for interventions. Based on prior research implicating heightened negative affect and dysfunction default mode network in NSSI, we pursued a systems approach to characterize default mode network during resting-state functional connectivity in adolescents with NSSI.

Methods We enroll adolescents with NSSI (n = 52) and healthy controls (n = 58). Two groups of participants were scanned by fMRI, then extracted the whole brain voxel of ALFF map. Additionally, contrast the difference of the ALFF values between two groups. Furthermore, we analyses the correlation between the aberrant brain regions in ALFF, and the characteristics of NSSI behavior in NSSI group.

Results Compared to healthy controls, adolescents with NSSI showed four significant ALFF brain regions between two group, as right lingua (F=30.89, p<0.05), right inferior occipital (F=26.30, p<0.05), left lingual (F=22.55, p<0.05) and right superior occipital (F=17.19, p<0.05). Using DPARSF-A extract ROIs' ALFF value. In Pearson correlation analysis, we found that right inferior occipital zALFF value was significant positive associated with severity of NSSI behavior (r= 0.566, p < 0.05).

Conclusion The study provides evidence for abnormalities of resting state functional connectivity in multiple brain regions in adolescent with non-suicidal self-injury, and the aberrant local brain activity were correlated with severity of NSSI behavior.

关键字：adolescent, non-suicidal self-injury, fMRI

Novel Genetic Loci of Inhibitory Control in ADHD and Healthy Children and Genetic Correlations with ADHD

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Objective Cumulative evidence proved the deficits of inhibitory control in patients with attention deficit hyperactivity disorder (ADHD), and it is considered as an endophenotype of ADHD. Genetic study of inhibitory control could advance the gene discovery and further facilitate the understanding of ADHD genetic basis, but the studies were limited in both general population and ADHD patients.

Methods To reveal genetic risk variants of inhibitory control and its potential genetic relationship with ADHD, we conducted genome-wide association studies (GWAS) for inhibitory control based on three datasets including 783 and 957 ADHD patients and 1350 healthy children and then used polygenic risk scores (PRS) to explore the association between inhibitory control and ADHD and related psychiatric disorders.

Results Firstly, we identified three significant loci for inhibitory control in the healthy dataset and two loci for

the case dataset, and one locus for the meta-analysis of three datasets. Besides, we found two significant genes and four risk loci by applying transcriptome-wide association study (TWAS) and conditional FDR method. Then by connecting the genes found in our study, we build a network and found some vital genes. Last, we identified a potential relationship between inhibitory control and ADHD and autism by PRS analysis and found the direct and mediation contribution of the identified genetic loci on ADHD symptoms.

Conclusion In conclusion, we revealed some genetic risk variants related to inhibitory control and elucidated the benefit of inhibitory control as an endophenotype to help explore the mechanism of ADHD.

关键字：ADHD, inhibitory control, GWAS, endophenotype, genetic loci

Peer Victimization and Non-suicidal Self-injury Among Depressed Adolescents: A Moderated Mediation Model

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Objective Non-suicidal self-injury (NSSI) among teenagers with depression is a major and pervasive issue. Previous studies have established peer victimization as a risk factor for non-suicidal self-injury. However, little is known about how it influences teenagers to harm themselves non-suicidally.

Methods A total of 740 depressive outpatients aged 12-18 years with non-suicidal self-injury were selected. General demographic information was collected using the self-designed scale, and relevant information was collected using the Functional Assessment of Self-Mutilation, the Patient Health Questionnaire-9, the Multidimensional Peer Victimization Scale, and the Borderline Personality Features Scale for Children.

Results After controlling for age and sex, it was discovered that depressive symptoms partially mediated the association between peer victimization and non-suicidal self-injury ($P < 0.001$). The mediating influence of depressive symptoms was modulated by borderline personality features. The moderating effect occurs in the second half of the mediating effect ($P = 0.002$).

Conclusion The moderated mediation model constructed in this study reveals the internal mechanism between adolescent peer victimization and non-suicidal self-injury, which is of great significance for the prevention and intervention of adolescent non-suicidal self-injury.

关键字：non-suicidal self-injury, depression, peer victimization, borderline personality features, adolescent

孤独症谱系障碍儿童的睡眠问题与食物选择性和食物不耐受的关系

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目的 探讨孤独症谱系障碍（Autism spectrum disorder, ASD）儿童的睡眠问题与食物选择性及食物不耐受之间的关系。

方法 选取 2023 年 1 月至 2023 年 5 月期间在门诊就诊的 2-7 岁 ASD 患儿 211 名作为 ASD 组，同时社区招募年龄、性别相匹配的 91 名正常儿童作为对照组。采用儿童睡眠习惯问卷(CSHQ)评估两组被试的睡眠问题，采用自编问卷调查儿童的食物选择性，采用孤独症行为核查表(ABC)评估 ASD 严重程度。食物不耐受通过酶联免疫吸附法(ELISAs)检测血清 14 种特异性 IgG 抗体。使用 SPSS26.0 进行统计分析。采用卡方检验分析两组睡眠问题、食物选择性问题发生率的差异，t 检验比较两组被试 CSHQ 总分的差异，非参数检验分析 CSHQ 各分量表之间的差异。采用秩相关分析睡眠问题与 ASD 严重程度、食物选择性和食物不耐受之间的关系。使用多元 logistic 回归分析 ASD 组睡眠问题的影响因素。

结果 ASD 组患儿 CSHQ 总分及睡眠问题发生率[(48.55±6.07)分，85.30%] 显著高于 TD 组[(45.24±5.33)分，72.53%]。ASD 儿童更有可能出现就寝习惯、入睡潜伏期、睡眠持续时间、夜醒、异态睡眠、睡眠呼吸暂停等睡眠问题(Z= -2. 00~-4.61，均 P< 0. 05)。食物选择性问题（种类、质地、颜色）的发生率在 ASD 组中显著高于 TD 组(均 P<0.05)。有食物种类选择性的 ASD 儿童 CSHQ 总分[(49.19±6.15)分]显著增高[(47.43±5.81)分]，差异有统计学意义(P<0.05)。ASD 组患儿 CSHQ 总分与 ABC 总分呈正相关(r=2.42，P<0.01)。ASD 组患儿白天嗜睡得分与鸡蛋变应原呈显著正相关(r=0.27，P<0.01)。多元有序 logistic 回归分析显示入睡潜伏期延长受到 ABC 量表运动能力分量表得分(B=0.06，P<0.05)的正向影响，食物质地选择性(B=-0.67，P<0.05)和异食癖(B=-1.16，P<0.05)的负向影响。

结论 ASD 儿童常伴随更严重的睡眠问题和食物选择性问题。ASD 儿童的睡眠问题与 ASD 的严重程度和食物选择性有关，白天嗜睡和鸡蛋不耐受有关。ASD 儿童入睡困难受到运动能力、食物质地选择性和异食癖的影响。

关键字：孤独症谱系障碍；儿童；睡眠；食物选择性；食物不耐受

Childhood Trauma, Peer Victimization, and Non-suicidal Self-injury Among Chinese Adolescents: A Latent Variable Mediation Analysis

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Objective Childhood and peer experiences can influence adolescents' perceptions of interpersonal relationships, which can, in turn, influence their emotional states and behavior patterns. Non-suicidal self-injury (NSSI) is now a common problem behavior among adolescents. The present study examined the role of childhood trauma and peer victimization in adolescents' NSSI.

Methods A cross-sectional survey was conducted among 1783 adolescents (1464 girls and 318 boys) in the psychiatric outpatient clinics or wards of 14 psychiatric hospitals or general hospitals in nine provinces in China. Data were collected using the Multidimensional Peer Victimization Scale (MPVS), Short-form Childhood Trauma Questionnaire(CTQ-SF), and Functional Assessment of Self-Mutilation (FASM). Structural equation modeling (SEM) with?latent?variables was used to demonstrate the mediating role of peer victimization in the association between childhoodtrauma and NSSI.

Results The SEM analysis demonstrated that peer victimization plays a partial mediating role in the relationship between childhood trauma and NSSI. . In addition, several covariates (such as age, gender, education level, and place of residence) effectively regulated the relationship between peer victimization and NSSI.

Conclusion In future studies of NSSI among Chinese adolescents, attention should be paid to the roles of childhood trauma and peer bullying; there is a temporal sequence between these two variables and, to some extent, childhood trauma can have an impact on bullying during adolescence which, in turn, influences NSSI behavior.

关键字：Non-suicidal self-injury, Childhood trauma, Peer victimization, Chinese adolescents, Latent variable, Mediation analysis

3-6 岁孤独症幼儿认知灵活性研究

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目的 认知灵活性被广泛地定义为根据情境在两种不同概念或任务之间切换的能力。很少有研究涉及到孤独症患者的认知灵活性,尤其是在低年龄段的患者中相关研究非常缺乏.本研究旨在调查 3-6 岁孤独症患儿及正常发育儿童的认知灵活性, 比较两组人群中认知灵活性的差异,寻找孤独症幼儿认知灵活性的相关因素,并进一步研究幼儿情绪与行为问题与认知灵活性的相关性.

方法 本研究纳入了符合入组标准的51名孤独症儿童及 60 名正常发育儿童.使用纬度变化卡片排序(DCCS)评估幼儿认知灵活性,儿童行为量表(CBCL)评估儿童情绪与行为问题.使用孤独症儿童行为评定量表(ABC)、孤独症症状访谈量表(ADI-R)、孤独症诊断观察量表(ADOS)等量表评估孤独症患儿孤独症相关症状.

结果 孤独症组中有21个孩子未能通过切换后的卡片分类任务,而正常发育儿童中仅有 5 个在该任务中失败.孤独症幼儿在 RBS-R 量表中的得分与 DCCS 任务中的表现呈显著相关性.在卡片分类任务中完成更差的儿童在 CBCL 量表中的得分越高.

结论 与正常儿童相比,孤独症儿童通过卡片分类测试的比例明显较少,这说明孤独症患儿在完成认知灵活性任务时存在显著困难.认知灵活性的变化与年龄密切相关.认知灵活性较差的孩子更容易出现情绪行为问题,这可能与幼儿解决复杂问题的能力相关.我们试图寻找一些办法改善孤独症幼儿的认知灵活性以降低问题行为的发生.

关键字：孤独症、认知灵活性、学龄前儿童、情绪行为问题

Parents' Rearing Practices Mediate The Negative Effects of Parents' Mental Health Problems on Rural-to-urban Migrant Children

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Objective (1) to investigate the impacts of parents' mental health on the mental health of rural-to-urban migrant children and local ruban children. (2) to study the differences in parents' rearing styles and attitudes between parents of migrant children and local children. (3) to test whether parents' rearing styles and attitudes could mediate the negative effect of parents' mental health problems on their children.

Methods We investigated 1274 parents and 1001 children aged 9-13 from two primary schools in Hangzhou, one for local children and one for rural-to-urban migrant children in a cross-sectional survey in 2022. The structural equation model (SEM) was used to test the hypothesis that parents' rearing styles and attitudes could mediate the negative effect of parents' mental health problems on their children.

Results The migrant groups, including children, fathers, and mothers all had higher levels of mental health problems than their urban local counterparts. The children of mothers with anxiety had a higher level of self-blaming tendency (qFDR =0.009) and sensitive tendency (qFDR =0.009). Parental mental health had significant impacts on their rearing styles and attitudes, with more effects on attitudes reported by themselves than styles reported by children. Parents' rearing practices were associated with the mental health of children, with a stronger association observed for rearing styles and in urban children. In SEM, emotional warmth and self-confidence were negatively associated with both mothers' anxiety and children's anxiety tendency. In contrast, overprotection/over-interference was positively associated, which supported our hypothesis.

Conclusion More actions should be taken to improve the mental health of migrant children. Our results suggest that we can achieve this goal by reducing mothers'

anxious symptoms and improving their parenting practices.

关键字：rural-to-urban migration, parents and children, depression and anxiety, rearing styles

Shared and Unique Alterations of Large-Scale Network Connectivity in Adolescent and Adult Major Depressive Disorder

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Objective Compared with adult-onset MDD, adolescent-onset MDD is associated with an increased likelihood of recurrent depressive episodes, increased symptom severity, more insidious symptoms and higher risk of mania. Current MDD brain network studies only focus on one age level. We aim to explore the shared and unique alterations of Large-Scale network connectivity between the two different age level of MDD , and explain why MDD symptoms differ between two different age levels from the perspective of neural mechanisms.

Methods In this study, 46 adolescents with MDD, 35 adults with MDD, 19 healthy adolescents and 56 healthy adults completed resting-state functional magnetic resonance imaging (R-fMRI) scans. We used surface-based methods to preprocess R-fMRI data. Large-scale network analyses were applied based on the Schaefer's template. We calculated the intra-network and between-network functional connectivity(FC) of visual network (VN), sensorimotor network (SMN), dorsal attention network (DAN), ventral attention network (VAN), limbic network (LN), frontoparietal network (FPN) and default mode network (DMN). Then we used 2×2 ANOVA to analyze the main effects of diagnosis, age and their interaction effect on brain FC. In addition, we examined correlations between network abnormalities and HAMD sub-scores.

Results Results found that both the adult and adolescent groups have diagnosis main effect on FC of VN, LN, VN-DAN and VN-LN, uncorrelated with age stratification. Post hoc analysis showed that the shared increased network connectivities were found in MDD group. There was an interaction effect of diagnosis and age on FC between components of DAN. Post hoc analysis showed that adolescent MDD patients had decreased FC than the adolescent HC group, whereas adult MDD patients had increased FC than the adult HC group. Regression analysis showed that these abnormal FCs were associated with HAMD factor 1 anxiety somatization, and the association was more significant in the adults with MDD.

Conclusion Our findings indicated that adolescents and adults with MDD have shared and unique Large-Scale network alterations. And we found the correlation between factor 1 anxiety somatization and abnormal FC was more significant in the adults with MDD. The results may explain why symptoms are more insidious in adolescents with MDD. The results also suggest that when we explore biomarker of MDD, we should include age as a consideration.

关键字：major depressive disorder, adolescent, functional connectivity, large scale, interaction effect

南充市"正心"健康工程关于未成年人心理健康促进的模式探索

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目的 推动"南充市未成年人心理健康管理中心"和"南充市未成年人心理健康大数据平台"建设，整合资源、精准施策、统筹推进全市未成年人心理健康促进工作；建立未成年人心理健康服务的"准入制度"、"行业标准"和"人才共享"制度，为未成年人提供同质化服务；建立多元化的心理健康援助通道和覆盖全市的病患转介机制。掌握南充市在校学生心理健康状况，筛查潜在的心理健康问题，分析问题成因，从而建立四川地区适应性的、可推广的未成年人心理问题预测预警系统。

方法 测评采用师生同步线上测评的形式，通过"国家卫生健康委科学技术研究所"授权研发的微信小程序——"米慕爱心"导入受测者的基本信息，包括姓名、性别、年龄、年级和班级等，使用本人或家长的身份证号码进行账号密码登录，此外，由于教师和学生两大 群体的认知方式、知识水平、行为习惯、以及社会环境等方面各不相同，为保证测评问卷选择的适配性、基础信息采集的完整性和科学性，针对不同群体，采用不同的问卷和量表进行施测。

结果 在本次调查中，南充市儿童青少年抑郁检出率为 20.62%,跟全国流调结果基本一致。此外，中重度抑郁检出率明显高于全国平均水平。本次调查结果显示，在南充市，每 100 个儿童青少年中，就有一个残疾儿童 (1.08%)、1 个事实无人抚养儿童(1.22%)、10 个孩子生活在单亲家庭，56 个孩子长期与父母分离。小学、初中、高中学生分别有 65%、80%和 84%的人报告经历过不良生活事件，人际关系不和谐是不同学段孩子发生率最高的不良生活事件。超过 10%的孩子认为这些事件对自己心理产生严重或极其严重的影响。在南充市，具有心理健康教师资质的教师占比仅 1.14%，从事心理健康教育 工作的仅占比 0.4%。 此外，31.63%的教师检出存在不同程度的心理健康问题 (SCL-90)，超过 40%的教师有较为严重的职业倦怠。

结论 整合服务资源，统筹推进未成年人心理健康服务工作。尽快推动"南充市未成年人心理健康管理中心"的建设，统筹安排、统一部署全市心理健康教育工作；启动"南充市未成年人心理健康大数据平台"建设工作，增强资源配置的合理性、卫生决策的科学性；针对高危亚群或个体，尤其是经历过严重不良生活事件的青少年，除常规筛查外，及时、动态掌握其心理动向极为重要；此外，对于筛检出的中重度抑郁学生，提供规范化的医学服务也势在必行。

关键字：未成年人、心理健康、抑郁

剧烈运动及网络游戏成瘾对高中学生心理健康状况的影响

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目的 探究不同剧烈运动程度的高中生心理健康状态的差异，以及剧烈运动、网络游戏成瘾对高中生的抑郁症状、焦虑症状及失眠症状的影响。

方法 采用方便抽样，于 2022 年 9 月-10 月选取江西省三所职业高中的15300名在校学生为研究对象，根据每周剧烈运动情况分无运动组、轻度运动组（每周剧烈运动总时长≤90 分钟）、高度运动组（每周剧烈运动时长＞90 分钟）组，采用 9 项患者健康问卷、7 项广泛性焦虑障碍量表，7 项失眠严重程度量表，应激反应量表、领悟社会支持量表、同伴欺负量表、网络游戏障碍量表、青少年非自杀性自伤行为功能问卷、情绪调节问卷、心理僵化问卷、正念注意觉知量表评估学生的心理健康状况，采用方差分析比较组间差异，采用 logistic 回归分析探究影响心理健康状况的因素。

结果 最终共纳入 13983 名受试者，问卷有效率91.3%，心理健康总体阳性检出率为：抑郁症状 43.1%、焦虑症状 25.6%、失眠症状 18.4%。不同运动程度的三组组在9项患者健康问卷、7 项广泛性焦虑障碍量表、7 项失眠严重程度指数量表、应激反应、领悟社会支持、网络游戏障碍、青少年非自杀性自伤行为问卷、心理僵化问卷、正念注意觉知量表总分、同伴欺负量表、青少年非自杀性自伤功能问卷、情绪调节问卷总分、表达抑制维度的差异均有统计学意义（P 均<0.05）。多因素 Logistic 回归分析显示，高度运动组是无运动组出现抑郁症状风险的 0.747 倍（95%CI：0.670 -0.833）、焦虑症状风险的 0.869 倍（95%CI：0.768 -0.984），轻度运动组是无运动组出现抑郁症状风险的 0.867 倍（95%CI：0.793-0.948）、焦虑症状风险的 0.963（95%CI：0.872 -01.063）、失眠症状风险的 0.865 倍（95%CI：0.776-0.964）。而亚组分析发现有网络游戏成瘾组是无网络游戏成瘾组出现抑郁症状风险的 5.353 倍（95%CI：4.852-5.905）、焦虑症状风险的 4.718 倍（95%CI：4.29-5.188）、失眠症状风险的 4.323 倍（95%CI：3.914-4.775）。

结论 当下在职高中学生普遍存在一定的心理健康困扰，每周超过90分钟的剧烈运动是罹患抑郁症状、焦虑症状的保护性因素，而网络游戏成瘾是罹患抑郁症状、焦虑症状、失眠症状的危险因素。

关键字：剧烈运动 网络游戏成瘾 心理健康 焦虑 抑郁 失眠

血清促甲状腺激素和 BDNF 与儿童青少年抑郁障碍患者伴有激越症状的相关性

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目的 探索血清促甲状腺激素和 BDNF 与儿童青少年抑郁障碍患者伴有激越症状的相关性

方法 入组符合《精神疾病诊断与统计手册》第 5 版(DSM-V)抑郁障碍诊断标准的患者 91 例，根据外显攻击行为量表修订版（Modified Overt Aggression Scale，MOAS）评分将患者分为伴激越组(60 例) 和不伴激越组 (31 例)。采用 MSD 电化学发光 (electrochemiluminescence) 检测技术测定患者脑源性神经营养因子（BDNF）和血清促甲状腺激素（TSH）水平；汉密尔顿焦虑评定量表（HAMA）和汉密尔顿抑郁评定量表（HAMD）被用来检测临床症状 ；使用 Logistic 回归分析探索抑郁障碍患者 TSH、BDNF 和 HAMD 评分与是否伴有激越症状的相关性；应用受试者工作曲线(ROC)探讨 TSH、BDNF 和 HAMD 评分作为抑郁障碍患者是否会伴有激越症状的潜在预测价值。

结果 抑郁障碍伴有激越症状的患者较不伴有激越症状的患者具有较低的 TSH 水平（P<0.001）、BDNF 水平（P=0.001）；激越组较非激越组具有较高的 HAMD 得分（P<0.001）。Logistic 回顾分析结果表明血清 TSH 水平(OR=0.002,P=0.002),血清 BDNF 水平（OR =0.098，P=0.001）、HAMD 评分(OR =1.148，P ＜ 0. 001) 是儿童青少年抑郁障碍患者伴有激越症状的独立危险因素。ROC 分析结果显示 TSH 的线下面积（AUC）为 0.733 ， 95%CI(0.63~0.84),TSH 的最佳截断点为 1.605?IU/mL；BDNF 的线下面积（AUC）为 0.712，95%CI(0.60~0.83),BDNF 的最佳截断点为 429.763pg/mL；HAMD 的线下面积（AUC）为 0.771，95%CI(0.67~0.88),最佳截断点为 30.5 分。

结论 伴有激越症状的儿童青少年抑郁障碍患者血清 TSH、BDNF 水平更低; 血清 TSH、BDNF 和 HAMD 是抑郁障碍伴有激越症状的独立危险因素，并可以作为是否伴有激越症状的预测因素。

关键字：抑郁障碍; 激越;BDNF; 促甲状腺激素

基于两样本孟德尔随机化方法分析流体智力与精神疾病的因果关系

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目的 流体智力是个体信息处理和问题解决过程中所表现出来的能力。既往流行病学研究报道许多精神疾病都与流动智力有关，但其原因尚不清楚。两样本孟德尔随机化（two-sample Mendelian randomization, TSMR）分析方法以遗传变异为工具变量，利用遗传变

异的自然随机分配可以避免潜在混杂因素。本研究应用 TSMR 法分析流体智力和精神疾病之间的潜在因果关系，为更好的干预精神疾病提供参考。

方法 遗传数据源于 IEU openGWAS 数据库（https://gwas.mrcieu.ac.uk/）。利用 R 软件进行 TSMR 分析，从遗传学角度分析流体智力与常见精神疾病精神分裂症、重性抑郁障碍、双相情感障碍、焦虑障碍、强迫性障碍、神经性厌食、孤独症谱系障碍、注意缺陷多动障碍、失眠、品行障碍、创伤后应激障碍之间的因果关联。从 GWAS 数据库中筛选出与流体智力强相关的单核苷酸多态性位点 SNPs 作为工具变量，即设置 P＜5×10-8。同时去除连锁不平衡的 SNP，设置参数为 r2<0.001，遗传距离阈值为 10 000 kb，以保证 SNP 之间的独立性。以流体智力作为暴露因素，精神疾病为结局变量，使用反向方差加权（Inverse Variance Weighted, IVW）法、MR-Egger 回归法、加权中位数法进行 TSMR 分析，并为保证研究结果的准确性和稳定性，进行异质性检验、多效性检验以及敏感度分析。

结果 IVW 结果表明流体智力与 SCZ（OR=0.771, P=0.030）、AD（OR=0.999, P=0.009）、AN（OR=1.211, P=0.035 ）、 ASD （ OR=1.194, P=0.007 ）、 ADHD （ OR=0.775, P=0.000003 ）、 Insomnia （ OR=0.982, P=0.008 ）之间存在因果关系；流体智力与 MDD（OR=0.963, P=0.963）、BD（OR=1.022, P=0.743）、OCD（OR=0.981,P=0.856）、CD（OR=0.885,P=0.498）、PTSD（OR=0.899,P=0.387）不存在因果关系。

结论 从遗传学角度发现流体智力与 SCZ、AD、AN、ASD、ADHD、insomnia 存在明确因果关联，与 MDD、BD、OCD、CD、PTSD 不存在因果关系。

关键字：流体智力；精神疾病；孟德尔随机化；因果关联

基于症状学的青少年及成年早期重性抑郁发作重复经颅磁治疗的疗效预测研究

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目的 青少年时期及成年早期处于抑郁的高发阶段，其对于药物治疗反应个体差异大，寻找与重复经颅磁治疗疗效有关的生物标志物有助于患者治疗方案的选择。

方法 本研究为单中心真实世界研究，纳入 218 个青少年及成年早期患者，目前为重型抑郁发作，使用 17 项的汉密尔顿抑郁评分量表(HAMD-17)、汉密尔顿焦虑症评分量表(HAMA)、青少年躁狂评分量表(YMRS)和短精神精神病评分量表(BPRS)来测量症状严重程度。纳入标准为 HAMD 评分≥17 分，YMRS≤12 分。在 2 周内进行 20 次经颅磁治疗联合药物治疗，分别在治疗前、治疗 10 次、治疗 20 次时通过量表对进行临床症状评估。以治疗结束后以 HAMD 减分率≥50% 为有反应，分为治疗有反应组及无反应组，使用卡方检验或 t 检验分别比较两组在基线时人口学、症状学差异，通过配对 t 检验比较治疗后不同维度的临床症状改善情况，采用 logit 回归分析基线时与治疗效果相关的临床症状。

结果 两组在年龄、性别、教育、药物使用方面无显著差异，在诊断上有显著差异（(?2 = 7.80, P < 0.05）。基线中,有反应组相对于无反应组焦虑抑郁症状(核心抑郁和厌食症因子分数,HAM 总得分)得分更高,但在精神症状严重程度(思想障碍因子得分)得分较低。两组在治疗后症状均有改善（配对 t 检验，p<0.05）。logistic 回归分析显示，在控制了年龄、性别和诊断后，基线 HAMD 总分(OR = 1.10, 95% CI [1.00, 1.20]，P = 0.045) 和 BPRS 思维障碍因子分(OR = 0.79, 95% CI [0.70, 0.91]， P <0.001)与治疗反应显著相关。Hosmer-Lemeshow 拟合优度检验显示模型拟合可接受($\chi2$ = 2.38, df = 8, P = 0.97)。

结论 本研究结果表明，2 周 rTMS 治疗后患者症状得到改善，基线时的抑郁严重程度及思维障碍可以预测 rTMS 治疗疗效。

关键字：重复经颅磁，青少年及成年早期，重性抑郁发作，疗效预测

孤独症谱系障碍筛查阳性青少年的心理韧性研究

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目的 比较孤独症谱系障碍筛查阳性与阴性青少年的心理弹性，探讨筛查阳性青少年是孤独症谱系障碍症状与心理韧性之间的相关性。

方法 采用自编社会人口学资料调查表、孤独症谱系障碍筛查量表（ASSQ）以及青少年心理韧性量表（RSCA）对北京市平谷区初中、高中共 9668 名青少年进行问卷调查。以 ASSQ 总分 12 分为界限分，将入组青少年分为筛查阳性组与筛查阴性组，比较两组青少年的心理韧性量表评分总分以及各因子分；对 ASSQ 总分及三因子得评分和青少年心理韧性量表总分及五因子得评分进行相关性分析；以 ASSQ 总分及各因子分为自变量，心理韧性量表总分为因变量进行多元回归分析。

结果 ASSQ 筛查阳性组的心理韧性量表总分及其五个因子分（目标专注、情绪控制、积极认知、家庭支持、人际交往）均显著低于 ASSQ 筛查阴性组（均 P<0.01）；ASSQ 总分及其三个因子分（局限性和重复行为、社交互动、交流问题）与青少年心理韧性总分及其五个因子分均存在显著的相关性（均 P<0.01）；ASSQ 总分与青少年心理韧性呈负相关（β=-0.553，P<0.01），三因子中以局限性和重复性行为因子(β=-0.358，P=0.015)、社交互动交往因子(β=-1.197，P<0.01)与青少年心理韧性呈负相关

结论 孤独症谱系障碍筛查阳性的的青少年心理韧性差于筛查阴性的青少年；孤独症谱系障碍症状与青少年心理韧性呈负相关；青少年的社交障碍与局限

性和重复性行为表现越突出，心理韧性越差。

关键字：孤独症谱系障碍；心理韧性；青少年；相关性

述情障碍、童年创伤和身体投入对青少年抑郁障碍患者非自杀性自伤行为预测作用

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目的 分析述情障碍、童年创伤和身体投入对青少年抑郁障碍患者非自杀性自伤（non?suicidal self?injurious，NSSI）行为的关系以及其对青少年抑郁障碍患者 NSSI 行为是否有预测价值。

方法 纳入青少年抑郁障碍患者 225 例，根据 DSM-5 的诊断标准，将患者分为不伴 NSSI 组 98 例和伴 NSSI 组 127 例。比较 2 组一般人口学资料情况、24 项汉密尔顿抑郁量表（Hamilton depression scale, HAMD-24）、童年创伤问卷（Childhood Trauma Questionnaire，CTQ）、身体投入量表（Body Investment Scale，BIS）评分；采用二元 Logistic 回归分析青少年抑郁障碍患者 NSSI 行为的独立影响因素并建立预测模型。在模型预测概率的基础上，绘制 ROC 曲线计算预测效果。

结果 不伴 NSSI 组在 HAMD 总分（t=-3.887 p<0.001）、TAS-20 总分（t=-3.453 p=0.001）、情感辨别不能（t=-2.596 p=0.010）、情感描述不能（t=-2.745 p=0.007）、外向性思维（t=-2.063 p=0.040）、CTQ 总分（t=-4.120 p<0.001）、躯体忽视（t=-2.394 p=0.017）、情感忽视（t=-2.014 p=0.045）、躯体虐待（t=-2.772 p=0.006）、情感虐待（t=-4.920 p<0.001）均低于伴 NSSI 组，而 BIS 总分（t=7.223 p<0.001）、身体形象感受和态度（t=5.138 p<0.001）、身体护理（t=8.846 p<0.001）、身体保护（t=4.441 p<0.001）三个因子分均高于伴 NSSI 组。BIS 中身体护理因子分（OR=0.757，95% CI=0.690–0.829, p<0.001）和 CTQ 中情感虐待因子分（OR=1.078, 95% CI=1.002–1.160, p=0.044）与青少年抑郁障碍患者 NSSI 行为显著相关，诊断模型良好（ROC 曲线下面积=0.815，P<0.001）。

结论 低水平的身体护理、童年的情感虐待可能是青少年抑郁障碍患者实施 NSSI 的独立影响因素，身体投入与童年创伤对诊断和预测 NSSI 行为具有重要价值，应将其作为一个潜在的重要临床治疗手段。

关键字：抑郁障碍； 青少年； 非自杀性自伤；述情障碍；童年创伤；身体投入；预测模型

Examining The Chain Mediating Role of Family Environment Intimacy and Children Emotional/Behavioral Difficulties in The Relationship Between Parental Anxiety and Internet Addiction in Youth

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Objective The purpose of study is to investigate the relationship between parental anxiety and adolescent internet addiction, exploring the mediating mechanisms of family environment intimacy and emotional and behavioral problems within it.

Methods This study surveyed 10-18-year-old students and their parents in Taizhou, Yixing, and Sheyang cities in Jiangsu Province, China. A total of 6243 valid questionnaires were collected. The study measured parental anxiety levels and family environment intimacy using Generalized Anxiety Disorde-7 and Family Environment Scale, respectively. Adolescent emotional and behavioral problems, as well as internet addiction, were assessed using Strengths and Difficulties Questionnaire and Internet Addiction Questionnaire. Statistical analyses included descriptive analysis, chi-square test, correlation analysis, and chain mediation analysis using SPSS .

Results The average age of the adolescents in the study was 13.5 years, with 3411 participants (54.6%) being male. There were significant positive correlations observed between parental anxiety, adolescent emotional and behavioral problems, and adolescent internet addiction variables. Family environment intimacy showed a negative correlation with all three variables. Parental anxiety had a direct impact on adolescent internet addiction and also played a mediating role through family environment intimacy and adolescent emotional and behavioral problems (β=0.096, β=0.267). Furthermore, a chain mediation effect was observed, with parental anxiety influencing adolescent internet addiction through family environment intimacy and adolescent emotional and behavioral problems (β=0.229), accounting for 55.8% of the total effect.

Conclusion The conclusions of this study contribute to a better understanding of the relationship and underlying mechanisms between parental anxiety, family environment intimacy, adolescent emotional and behavioral problems, and internet addiction. The findings suggest the need to address parental anxiety and maintain a positive family environment as effective measures to alleviate adolescent emotional and behavioral issues and reduce the risk of internet addiction.

关键字：Adolescents; Parental anxiety; Family environment; Emotional and behavioral difficulties ; Internet addiction

注意缺陷多动障碍儿童社会功能损害的情绪与认知信息加工机制

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目的 注意缺陷多动障碍（ADHD）儿童社会功能损害领域主要是社会信息加工缺陷。其中，情绪信息加工的受损程度与认知信息与认知信息加工不同，但目前支持证据少。ADHD 儿童在情绪识别、心理理论、情绪控制与执行功能等功能损害领域可以用以解释其社会信息加工机制。但既往研究中存在概念混用、未比较情绪和认知过程、研究任务单一、缺少综合探索等不足。因此，本研究在区分概念和设计相应任务基础上，比较 ADHD 儿童与正常发育（TD）儿童的表现，以验证 ADHD 儿童在这四个部分上的受损模式，并使用社会信息加工模型和 ADHD 的情绪失调模型来解释 ADHD 儿童社会功能损害中的情绪和认知信息加工机制。

方法 在广州市某精神科医院招募 7-13 岁的 42 名确诊 ADHD 儿童（平均年龄 9.33，32 名男孩）、在小学招募 48 名 TD 儿童（平均年龄 9.81，31 名男孩），施测一组情绪识别、心理理论、情绪控制和执行功能任务。ADHD 组儿童在实验前 24 小时不服药。随后，排除共病、智商低于 80 和数据流失的儿童共 15 名，且使用独立样本 t 检验、重复测量方差分析等进行数据分析。两组儿童在人口学变量上不存在差异。

结果 与 TD 儿童相比，（1）ADHD 儿童在情绪识别的正确率较低，尤其体现在消极情绪（厌恶、悲伤）和高社会参与度的识别上，并且支持了在积极情绪识别、中立强度感知的潜在受损；（2）ADHD 儿童在情感心理理论、高阶心理理论表现显著更差，但认知心理理论的总体正确率更低（不显著），结果可能受到任务难度、个体差异的影响；（3）ADHD 儿童在情绪控制和同理心整体表现显著更差，具体表现在不稳定/消极、情绪调节维、认知重评策略、认知同理心子维度上；（4）ADHD 儿童在执行功能（抑制控制、认知灵活性和工作记忆）的整体表现显著较差，但在认知灵活性任务中，情绪材料任务的正确率明显低于认知材料；（5）ADHD 组的执行功能与大多数显著受损的部分存在较为稳定的相关关系，支持了执行功能参与基本信息加工的理论解释。

结论 本研究解释了 ADHD 儿童在情绪识别、心理理论、情绪控制和执行功能上的受损模式，说明执行功能参与基本信息加工的作用。除此之外，本研究提供了情绪信息加工比认知信息加工受损程度更大的两个支持证据。这四个变量在社会信息加工过程中的独立性和合作性，可以解释 ADHD 儿童的情绪和认知机制，适合将结论推广于临床评估 ADHD 儿童社会功能损害上。

关键字：儿童；情绪控制；情绪识别；社会功能损害；社会信息加工；心理理论；执行功能；注意缺陷多动障碍

母亲焦虑引起儿童青少年焦虑的代际机传递特征及其因素

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目的 儿童青少年是脑发育的关键期，同时也是焦虑、抑郁等情感障碍首发和高发时期。情感障碍受遗传和环境的交互影响，其中环境因素体现为父母焦虑的代际传递；同时，儿童青少年感受的压力无法准确表达并引起父母的关注。因此，探究家庭环境内焦虑的代际传递的相互作用模式具有重要意义。

方法 因此，本研究选取患者家庭 54 对，正常对照组 25 对进行研究。我们选取 PBI 和 CPRS 作为家庭关系测量手段，以 STAI-S 和 GAD-7 作为亲子焦虑评价手段，同时采用色-词 Stroop 认知任务，系统考察家庭关系对儿童青少年认知功能的影响。

结果 在控制性别和年龄后，母亲对于孩子的焦虑症状和孩子自知的焦虑症状具有高度一致性（$\beta=0.73$，$t=5.088$，$p<0.001$）。进一步中介效应分析显示孩子感受到的母亲关心，部分解释了母亲评价孩子焦虑和孩子自身焦虑的关系（路径 a,b：$\beta<-0.40$，$t<-3.785$，所有 $p<0.001$，直接效应：$\beta=0.337$，$p<0.001$，Bootstrap 95%CI = [0.151, 0.536]，间接效应：$\beta=0.163$，$p<0.003$，Bootstrap 95%CI =[0.056, 0.282]）。 进一步，我们发现，当母亲焦虑水平越高，母亲和孩子间的冲突越严重，引起孩子焦虑水平越高（路径 a,b：$\beta>0.24$，$t>1.4$，所有 $p<0.05$，直接效应：$\beta=0.161$，$t=1.395$，$p=0.167$，间接效应：$\beta=0.079$，Bootstrap 95%CI =[0.012，0.197]），并且母亲的焦虑会导致对孩子的关心减少，从而引起孩子的焦虑（路径 a,b：$\beta<-0.349$，$t<-3.238$，$p<0.001$，直接效应：$\beta=0.049$，$t=0.475$，$p=0.636$，间接效应：$\beta=0.193$，Bootstrap 95%CI =[0.088，0.355]）。 进一步我们揭示了上述家庭环境对儿童青少年执行功能的影响。我们发现，不良家庭环境增加了孩子的 Stroop 反应时（$\beta=0.25$，$sd=0.11$，$p=0.027$），揭示了家庭环境对孩子认知功能的潜在影响。

结论 家庭关系影响母亲对孩子症状判断的同时，加剧了母亲焦虑的代际传递。这种家庭关系和代际传递的交互并非是患者独有的，而是一般性特征，可能是家庭环境对儿童青少年情绪障碍影响的重要因素。

关键字：儿童青少年，焦虑，代际传递，家庭关系

社交焦虑障碍青少年的应对方式潜在类型及其非自杀性自伤行为差异： 一个潜在剖面分析

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目的 探索社交焦虑障碍青少年应对方式的潜在类型，比较不同应对方式潜在类型的社交焦虑青少年在非自杀性自伤行为上的差异

方法 对门诊 268 例社交焦虑障碍青少年使用中学生应对方式量表，儿童社交焦虑量表和渥太华自我伤害调查表进行调查。使用潜在剖面分析的方法探索

社交焦虑障碍青少年的应对方式潜在类型，使用卡方检验、独立样本 t 检验和 logistic 回归分析探索社交焦虑障碍青少年的应对方式类型的影响因素，使用独立样本 T 检验比较不同应对方式潜在类型的社交焦虑青少年的与非自杀性自伤行为。

结果 （1）社交焦虑障碍青少年应对方式具有明显的分类特征，可分为高问题导向型（51.12%）和低问题导向型（48.88%）两个潜在类型。（2）年龄更小的社交焦虑青少年更可能归属于低问题导向型。（3）低问题导向型的社交焦虑青少年近 1 月和近 6 月的非自杀性自伤行为显著多于高问题导向型的社交焦虑青少年。

结论 较少进行指向问题应对与社交焦虑障碍青少年的非自杀性自伤风险有关，未来应重点关注社交焦虑障碍青少年问题导向的应对方式，帮助其学习解决问题的方法，保护其身心健康。关键词：社交焦虑；青少年；应对方式；非自杀性自伤；潜在剖面分析

关键字：社交焦虑障碍；青少年；应对方式；非自杀性自伤；潜在剖面分析

系统式执行技能训练对阈下 ADHD 儿童的疗效：随机对照研究

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目的 我国注意缺陷多动障碍(Attention Deficit Hyperactivity Disorder，ADHD)发病率高达 6.26%，在达到 ADHD 诊断之前存在亚临床症状阶段，即阈下 ADHD，其发生率达 23.1%。同时 12%-70%阈下 ADHD 至少有一种共患病，常见共患病包括对立违抗性障碍、品行障碍、情绪障碍、焦虑障碍和抽动障碍。而当前阈下 ADHD 儿童心理治疗缺乏循证证据，系统式执行技能训练在确诊 ADHD 患儿中已有明确疗效证据，是极有前景的治疗手段。为探索针对阈下 ADHD 儿童有效的早期干预方法，预防 ADHD 等精神障碍的发生，改善儿童的功能障碍，减少各种继发性社会问题，我们设计本随机对照研究，旨在评估学校环境中系统式执行技能训练对阈下 ADHD 儿童的疗效。

方法 32 名儿童随机分在线下系统执行技能训练组(n=16)和心理健康教育组(n=16)。干预组和对照组分别接受 5 周的线下系统执行技能培训和 5 周的健康教育课程。在基线和实验结束时对干预组和对照组的 ADHD 核心症状(SwansonNolan, and Pelham-IV rating scales [SNAP-IV])和执行功能(SwansonNolan, and Pelham-IV rating scales [SNAP-IV])进行评估。

结果 重复测量方差分析显示，剑桥神经心理自动化成套测试(CANTAB)中，剑桥长筒袜试验(SOC)中的 SOC-MNM5 ($F = 6.305, P = 0.02$)，SOC-STMN5 ($F = 2.951, P=0.032$)以及额外维度集内移位(IED)试验中的 IED-EEDS ($F = 7.685, P =0.011$)在时间和组间存在显著的交互作用。从儿童注意力不集中这一核心症状的改变来看，我们的初步结果显示家长评-注意力不集中在时间*组间上存在显著交互作用($F = 4.612, P = 0.041$)。

结论 本研究中，系统式执行技能训练为改善阈下 ADHD 儿童的执行功能和 ADHD 症状提供了积极的证据。系统的执行技能训练对 ADHD 核心症状和其他社会功能的影响有待进一步研究。

关键字：阈下 ADHD、系统式执行技能训练、随机对照研究

青少年注意缺陷与多动障碍患者欺凌实施与被加害的相关性研究

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目的 欺凌、受害和实施欺凌是儿童和青少年的严重健康问题。与没有参与欺凌的人相比，欺凌的受害者和实施者都有很大的抑郁、自杀意念和企图以及酒精滥用障碍的风险。罹患注意缺陷与多动障碍的儿童和青少年已被确定为欺凌、受害和实施暴力的高危群体。

方法 探讨诊断为注意缺陷与多动障碍的青少年欺凌行为的患病率及其相关因素。

方法 对在西安市精神卫生中心就诊的 50 例注意缺陷与多动障碍的儿童及青少年通过青少年校园欺凌体验问卷、家庭环境量表和注意缺陷与多动障碍特征、行为抑制/激活系统水平及精神障碍共病情况进行评估。使用多元回归分析来检验欺负和实施欺负(因变量)与性别、年龄、抑制/激活系统水平、注意缺陷与多动障碍特征、精神疾病、家庭因素(自变量)的关系。

结果 单纯受害人、单纯施暴者和受害人-施暴者的患病率分别为 14.6%、8.4%和 5.6%。年龄小、抑制系统评分高、孤独谱系障碍和对家庭关系的低满意度与严重欺凌受害者有关。BAS 娱乐得分高和对家庭关系满意度低与严重欺凌行为有关。

结论 患有注意缺陷与多动障的青少年中有很高比例的人受到欺凌。多因素与青少年注意缺陷多动障碍的欺负相关，其中以年龄小、抑制系统得分高、孤独谱系障碍的共病和对家庭关系的满意度低与严重的欺凌受害显著相关，激活系统娱乐得分高和对家庭关系满意度低与严重欺凌行为有关。

关键字：儿童及青少年，注意缺陷与多动障，校园欺凌

Gender Differences in The Association between Alexithymia and Insomnia in Adolescents with Major Depressive Disorder

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Objective Insomnia is related to major depressive disorder (MDD), but the relationship between alexithymia

and insomnia in adolescents with MDD remains unclear. The purpose of this study was to investigate the potential gender differences in the prevalence of insomnia and the association between alexithymia and insomnia in adolescents with MDD.

Methods From October 2020 to April 2022, adolescent patients with MDD were recruited from psychiatric outpatients and inpatients of seven hospitals in Anhui Province, China. Their general demographic and clinical data were collected. The 20-item Toronto Alexithymia Scale (TAS-20), the Center for Epidemiologic Studies of Depression Scale (CES-D), and the Insomnia Severity Index Scale (ISI) were used to assess their alexithymia, depressive symptoms, and insomnia, respectively.

Results The prevalence of MDD with insomnia in female patients was similar to that of male patients (80.0%vs. 73.0%, P = 0.175). Compared with those without insomnia, patients with insomnia manifested more severe depression and alexithymia, worse family relationships, more academic stress, and more use of sedative hypnotics (P < 0.05). Correlation analysis showed that alexithymia was significantly associated with insomnia in male and female patients. Binary logistic regression analysis showed that, while depression was independently correlated with insomnia in both female and male patients, alexithymia was significantly associated with insomnia only in female patients, being only-child was significantly associated with insomnia only in male patients.

Conclusion Insomnia is common in adolescents with MDD. In female MDD patients, alexithymia is correlated with insomnia, which deserves attention in the understanding of the psychopathological mechanisms, treatments and psychological interventions of adolescents with MDD.

关键字：adolescents; major depressive disorder; insomnia; alexithymia

焦虑障碍儿童父母过度保护的代际传递：自尊的调节作用

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目的 本研究旨在探讨（1）过度保护的父母教养方式在临床诊断为焦虑障碍的儿童青少年家庭中是否存在代际一致性；（2）这种代际传递模式是否与对照组家庭存在差异；（3）自尊作为焦虑的缓冲剂，是否在焦虑障碍组中对父母过度保护的代际传递存在调节作用。

方法 本研究采用方便抽样法，在上海市精神卫生中心门诊入组 140 名诊断为 DSM-5 焦虑障碍的儿童青少年（平均年龄 14.82 ± 2.11 岁），在学校与社区招募 150 名年龄与性别匹配的健康组儿童青少年。采用人口学问卷、儿童焦虑性情绪筛选量表（SCARED）、自尊量表（SES）和父母教养方式问卷（EMBU）对儿童进行评定，父母也填写 EMBU 以测量父母感知到的祖辈的教养方式。采用 SPSS 进行统计分析，采用 PROCESS 程序检验调节效应。本研究的伦理批件号为 2018-50。

结果 在控制了年龄和性别之后，焦虑障碍组中，儿童报告的父亲过度保护与父亲报告的父亲过度保护呈正相关（r = 0.20，p < 0.01），而在健康对照组中没有显著的相关（r = -0.03，p > 0.05），两个相关系数有显著差异（Z = 2.17, p > 0.05）。在调节效应分析中，调节变量的数值为高斯分布。所以我们根据 Hayes（2017）将调节变量自尊水平分为三组（平均值±1SD）。在焦虑障碍组中，儿童的自尊在儿童和父亲感知的父亲过度保护之间的调节作用是显著的。对于低自尊的儿童，儿童报告的父亲过度保护与父亲报告的父亲过度保护显著相关。

结论 在这个中国焦虑障碍儿童青少年的样本中，存在着父亲过度保护的教养方式的代际传递模式。儿童的自尊对父亲感知的父辈过度保护和儿童感知的父辈过度保护有调节作用。自尊有其作为缓冲和保护因素的潜在作用。

关键字：焦虑障碍，过度保护，代际传递，自尊，调节作用

Sex Differences in Factors Influencing Non-Suicidal Self-Injury in Chinese Adolescents with Mood Disorder

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Objective Non-suicidal self-injury (NSSI) among adolescents is a considerable and widespread concern in public health. Previous researches have explored the variations in NSSI across sexes and the resulting effect of NSSI as an independent variable. However, whether sex differences exist in influencing NSSI remains largely unexplored, resulting into ambiguous and even contradictory findings. This study aims to identify the contributing factors and sex differences that impact NSSI in adolescents with Mood Disorder (MD).

Methods 2324 Chinese adolescents diagnosed with MD participated in this study to complete self-report surveys based on different questionnaires and demographic issues. To identify the primary factors influencing NSSI among adolescents and explore sex differences, cross-sectional data was evaluated with a random forest (RF) model and the findings were interpreted with the Shapley Additive Explanations (SHAP) method.

Results Factors influencing NSSI tended to be more related to family aspects for males, while factors are more diverse for females. As for family related factors, overprotection is a significant risk factor for females with NSSI (BSV=0.0065, GSV=0.0168), while emotional neglect inhibits NSSI in both sexes. For social relationship related factors, support from significant others is a risk factor for male NSSI and serves as a protective factor for females (BSV=0.0096, GSV=-0.0075). Additionally, BMI exerts a greater impact on females(BSV=0.0072,

GSV=0.0122), and males among non-only child were more likely to engage in NSSI (BSV=0.0148, GSV=0.0014).

Conclusion Machine learning techniques can effectively identify adolescent NSSI, which can contribute to early detection, preventive intervention and intensive monitoring. Our findings indicate that family interventions should be emphasized in treating NSSI among males, whereas tailored interventions targeting on specific contexts are recommended for females.

关键字：Machine Learning; Adolescent; Non-suicidal Self-injury; Random Forest; Sex Differences; SHAP

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伴忧郁特征的青少年抑郁障碍患者促炎细胞因子水平及其与认知功能的相关研究

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目的 探讨首发、未用药、伴忧郁特征的青少年抑郁障碍（Major depressive disorder，MDD）患者与不伴忧郁特征的青少年 MDD 患者之间促炎细胞因子水平的差异，以及其与认知功能的关系。

方法 对 300 例首发、未用药的青少年 MDD 患者（包括 150 例伴忧郁特征患者和 150 例不伴忧郁症特征患者），检测促炎细胞因子血清水平：白细胞介素（Interleukin，IL）-1β、IL-2、IL-6、干扰素（Interferon，IFN）-γ，和肿瘤坏死因子（Tumor necrosis factor，TNF）-α。80 名健康志愿者作为对照。采用改良版威斯康星卡片分类测验（Modified Wisconsin Card Sorting Test，M-WCST）、连线测验（Trail Making Test，TMT）和汉诺塔测验（Tower of Hanoi，TOH）评估认知功能。采用 17 项汉密尔顿抑郁量表（the 17-item Hamilton Rating Scale for Depression，HAMD17）、汉密尔顿焦虑量表（the Hamilton Rating Scale for Anxiety，HAMD）、斯奈思-汉密尔顿快感量表中文版（the Chinese version of the Snaith–Hamilton Pleasure Scale，SHAPS）和愉快情绪体验量表中文版（the Chinese version of the Temporal Experience of Pleasure Scale，TEPS）评估临床特征。

结果 与健康志愿者相比，伴忧郁特征和不伴忧郁特征的青少年 MDD 患者均表现促炎细胞因子血清水平升高和认知功能损害。与不伴忧郁特征的青少年 MDD 患者相比，伴忧郁特征的青少年 MDD 患者 IL-1β 和 IL-6 血清水平显著升高和认知损害更严重（P<0.001 或 P<0.05）。伴忧郁特征的青少年 MDD 患者 IL-1β、IL-6 和 IFN-γ 血清水平升高与快感缺失呈显著正相关，尤其 IL-1β 血清水平的升高与认知损害显著相关，但在不伴忧郁特征的青少年 MDD 患者中没有发现该结果。

结论 促炎细胞因子的异常与快感缺失和认知损害的严重程度相关，这可能是伴忧郁特征的青少年 MDD 患者的神经生物学潜在特征。

关键字：抑郁症；忧郁；青少年；促炎细胞因子；认知功能

Depression in Children and Adolescents with Early Life Adversity: A Systematic Review and Meta-Analysis

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Objective Globally, Early life adversity (ELA) is

linked to an increased risk of developing depression in adulthood; however, only a few studies have examined the specific effects of various types of ELA on depression in children and adolescents. The meta-analysis was to explore the association between sub-types of ELA and risk for youth-onset depression.

Methods Studies assessing ELA and depression before the age of 18 years were systematically searched in scientific databases. Our meta-analysis utilized the odds ratio (OR) and relied on a random-effects model. While detecting large heterogeneous effects, it was examined whether some factors moderated the association between ELA and depression in youths.

Results We found that individuals who experienced ELA were more likely to develop depression before the age of 18 years than were individuals without a history of ELA (odds ratio=2.15; 95% CI [1.91, 2.43]). The results of the subgroup analysis showed a strong association between ELA and depression in youth, both in terms of dimensions and specific types. Specifically, threat (OR = 2.58, 95% CI [2.21,3.01]) and emotional abuse (OR = 4.30, 95% CI [2.59, 7.16]) had stronger relationships with depression in children and adolescents than other forms of ELA.

Conclusion This meta-analysis confirms that the adverse effects of a broader consideration of ELA on the risk of depression appear during early development and vary according to the type of ELA.

关键字：Early life adversity; Depression; Children and adolescents; Meta-analysis

氧化应激介导妊娠晚期晚睡损伤胎盘铁转移的相关性研究

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目的 探讨夜眠时间是否影响炎症因子介导胎盘氧化应激损伤孕妇胎盘铁转移功能，探索其病理生理学基础，为保障母婴身心健康提供新的科学依据和理论指导。

方法 收集妊娠晚期孕妇123例。收集夜眠时间，分为睡眠正常组（11点之前就寝，n=42）和晚睡组（11点之后就寝，n=81）。采集分娩时外周血、胎盘组织和脐动脉血，测定外周血清中白细胞介素-6（IL-6）水平，测定外周血清、胎盘和脐动脉血清中的铁蛋白、转铁蛋白（Tf）水平；测定胎盘中的谷胱甘肽过氧化物酶4(GPX4)、丙二醛(MDA)、还原型谷胱甘肽(GSH)水平。

结果 (1)睡眠正常组脐动脉血清铁蛋白、外周血Tf、胎盘MDA和GSH水平均高于晚睡组(P脐动脉血清铁蛋白=0.014, P外周血Tf=0.026, PMDA=0.010, PGSH=0.045)，睡眠正常组内胎盘铁蛋白和Tf水平＞脐动脉血清水平＞外周血水平(P铁蛋白=0.006，PTf<0.001)，晚睡组内胎盘Tf水平＞外周血水平＞脐动脉血清水平(P<0.001)。(2)睡眠正常组就寝时间与胎盘MDA和GSH水平正相关(PMDA=0.018, PGSH=0.031)，晚睡组就寝时间与脐动脉血清铁蛋白、Tf水平和胎盘Tf水平均为负相关(P脐动脉血清铁蛋白=0.015, P脐动脉血清Tf=0.048, P胎盘Tf=0.011)，晚睡组胎盘MDA和GSH水平与脐动脉血清Tf水平均负相关(PMDA=0.012, PGSH=0.021)。(3)分层逐步线性回归分析表明，睡眠正常组就寝时间与胎盘MDA、GSH水平正相关(PMDA=0.041, PGSH=0.039)；晚睡组就寝时间与脐动脉血清铁蛋白、Tf水平负相关(P脐动脉血清铁蛋白=0.015，P脐动脉血清Tf=0.048)，晚睡组胎盘MDA水平与脐动脉血清Tf水平负相关(P=0.012)；

结论 妊娠晚期晚睡通过胎盘氧化应激加重了胎盘铁转移功能异常发生，因此就寝时间早有助于预防和增强孕妇宫内铁水平转移情况从而降低孕产妇及胎儿并发症发生的可能性。

关键字：晚睡；铁转移；孕晚期；胎盘；氧化应激

中枢神经递质及炎症因子介导晚睡影响心血管风险因素的相关性研究

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目的 载脂蛋白B1(Apo-B1)/载脂蛋白A(Apo-A1)反映胆固醇转运过程致除动脉粥样硬化(AS)-apoB和抗AS-apoA1，比值越高心血管事件风险越高。因此，研究中枢神经递质与炎症因子对晚睡与心血管疾病(CVD)风险因素关系的影响。

方法 共招募211名被试，年龄53.8±12.7周岁。按就寝时间分<11点组（早睡组, n=126）和≥11点组（晚睡组, n=85）。采集外周血和脑脊液(CSF)，检测CSF食欲素A(OXA)和MT水平，血清白介素10（IL-10）和IL-18以及Apo-A1、Apo-B100水平。比较两组Apo-A1、Apo-B与二者比值及IL-10、IL-18、OXA和MT含量差异；进行就寝时间、Apo-A1、Apo-B/Apo-A1与各生物标志物相关分析，完成就寝时间、Apo-A1、Apo-B/Apo-A1间相关分析。

结果 （1）早睡组Apo-A1水平高于晚睡组(P=0.014)，Apo-B/Apo-A1水平低于晚睡组(P=0.012)；（2）早睡组OXA、IL-18水平分别高于、低于晚睡组(P＜0.01，P=0.041)；（3）早睡组就寝时间与Apo-A1和Apo-B/Apo-A1无相关性(P＞0.05)，OXA和MT、IL-10、IL-18与就寝时间、Apo-A1和Apo-B/Apo-A1均无相关性(P＞0.05)；（4）晚睡组就寝时间与Apo-A1负相关（P=0.034），与Apo-B/Apo-A1正相关(P＜0.01)，OXA与就寝时间正相关（P=0.04）;CSF MT与Apo-A1正相关(P=0.036)；（5）晚睡组就寝时间影响Apo-A1、Apo-B/Apo-A1 (b=-0.074, t=-2.214, PApo-A1=0.03；b=0.123, t=2.902, PApo-B/Apo-A1=0.005)，早睡组就寝时间影响CSF LogOXA（b=0.038, t=2.442, P=0.017)，晚睡组CSF MT影响Apo-A1 (b=0.001, t=2.665, PApo-B/Apo-A1=0.009）。

结论 (1)晚睡是心血管风险因素的重要影响因素，

就寝晚于11点时，越晚睡患心血管病的风险越高；（2）低水平MT是CVD重要风险因素，晚睡是其发生调节因素；（3）CSF OXA水平受晚睡影响而上升

关键字：晚睡；Apo-B/Apo-A1；褪黑素；食欲素A；白介素10；白介素18

游离脂肪酸谱在长短夜眠时长人群中的分布特征及与血脂异常的相关性研究

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目的 血脂异常是心脑血管疾病和代谢性疾病的重要危险因素。本研究旨在探讨游离脂肪酸（FFA）谱及其联合作用在长、短夜眠时长人群中分布特征及与血脂异常的相关性。

方法 共招募138名男性与80名女性。平均年龄为(53.8±12.7)周岁。依据夜眠时长分为<7小时和≥7小时组，收集被试血浆和脑脊液(CSF)，采用气相色谱法测定CSF及血浆FFA谱(14种饱和脂肪酸，15种不饱和脂肪酸)水平。根据血浆总TC、LDL、TG和HDL水平分为血脂正常组和血脂异常组。本研究第一部分比较夜眠<7和≥7小时组间一般资料和CSF-FFA水平差异；分析CSF-FFA对长短夜眠时长的影响；第二部分，对比血脂正常和血脂异常组间一般资料；分析长短夜眠时长两组间血浆FFAs差异；分析夜眠时长与血脂异常以及外周FFAs间相关性；探讨外周FFAs的联合作用对血脂异常的影响。

结果 （1）CSF中FFA公因子4(C18:3和C20:1)和公因子5(C17:0、C17:1、C16:1和C18:2)与夜眠时长正相关（P公因子4=0.014, P公因子5=0.003）。（2）≥7h组C10:0，C16:1，C22:6水平高于<7h组(PC10:0=0.008, PC16:1=0.014, PC22:6=0.043），≥7h组C17:1水平低于<7h组(PC17:1=0.024);<7h是血脂异常的危险因素(P=0.034);≥7h组中C16:1与夜眠时长正相关(P<.001),<7h组中C17:1与夜眠时长负相关(P=0.038);在≥7h组中与C16:1正相关(P<.001);≥7h组内C16:1增加血脂异常的风险(P=0.004);<7h组内C22:6增加血脂异常的风险(P<.001);（3）≥7h组中，公因子1(C14:0、C16:1、C18:1、C15:0、C16:0、C17:0、C18:3、C21:0、C18:3、C18:2、C18:0、C20:1和C20:0）增加血脂异常的风险(P公因子1<.001)。

结论 （1）夜眠时长不足是血脂异常风险增加的影响因素，脂肪酸在其中发挥作用。高水平血浆棕榈油酸和DHA分别是≥7h与＜7h人群血脂异常的风险因素。（2）CSF高水平不饱和脂肪酸及联合作用可能是睡眠不足重要风险因素；（3）无论夜眠长短，高水平脂肪酸联合作用均为血脂异常的风险因素。

关键字：夜眠时长，脑脊液，血脂异常，饱和脂肪酸，不饱和脂肪酸

双相障碍患者血清催乳素（PRL）、血清尿酸(UA)、神经生长因子(NGF)和执行功能变化的临床意义分析

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目的 探讨双相障碍患者治疗前后血清催乳素(PRL)和血清尿酸(UA)、神经生长因子(NGF)和执行功能的变化情况,分析其与患者病情的关系。

方法 选取2020年5月至2022年5月在河北医科大学第一医院住院的100例双相障碍患者为实验组,其中双相抑郁发作患者46例,双相躁狂患者56例,另选我院同期100例体检健康者为健康对照组。比较3组血清血清催乳素(PRL)和血清尿酸(UA)、神经生长因子(NGF)和威斯康星卡片分类测验(WCST)各维度结果,比较治疗前后双相抑郁组HAMD-24评分及双相躁狂组BRMS评分,并分析血清PRL、UA、NGF水平和WCST各维度结果与HAMD-24、BRMS评分的相关性。

结果 治疗前双相抑郁组、双相躁狂组及健康对照组入组时血清PRL、UA、NGF水平和WCST各维度结果比较差异有统计学意义(P<0.05);治疗后双相抑郁组和双相躁狂组前述各指标较治疗前改善,差异均有统计学意义(P<0.05),且双相抑郁组、双相躁狂组、健康对照组前述各指标差异无统计学意义(P>0.05).治疗后双相抑郁组HAMD-24评分和双相躁狂组BRMS评分低于治疗前,差异均有统计学意义(P<0.05).双相抑郁组血清PRL、UA、NGF水平及WCST错误数、非持续性错误数、持续性错误数与HAMD-24评分呈正相关(P<0.05);双相躁狂组血清PRL、UA、NGF水平及WCST错误数、非持续性错误数、持续性错误数与BRMS评分呈正相关(P<0.05)。

结论 双相障碍患者血清PRL、UA、NGF水平和执行功能治疗前后变化明显,可能是双相障碍患者的生物标记物，且各指标间存在一定相关性，并与患者临床症状改善评分相关,有望成为双相障碍患者症状改善及疗效判定的辅助评估指标。

关键字：双相障碍、泌乳素、尿酸、神经生长因子、执行功能

恐惧消退 cfos 激活地图的性别差异

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目的 恐惧性条件反射作为恐惧记忆及恐惧相关疾病研究的经典范式已经得到广泛的探索，其优点在于可以很好的模拟创伤后应激障碍（PTSD）的恐惧记忆形成以及应用暴露疗法治疗恐惧相关疾病时恐惧记忆消退的过程。但是以往的研究大多数都局限于雄性啮齿类动物，关于PTSD和暴露疗法两性差异的研究

较少。本研究旨在填补这一空白，利用分子手段探究条件恐惧消退过程中的两性差异。

方法 选取 8~10 周龄的雄性和雌性大鼠各 16 只，随机分为 4 组：雄性消退组、雄性未消退组、雌性消退组、雌性未消退组。按照分组对所有动物进行行为学训练后处死取脑进行 c-fos 免疫荧光染色，随后比较 15 个热门脑区的 c-fos 表达情况并与行为及脑区间进行皮尔逊相关性分析.

结果 经过消退训练，无论雄鼠还是雌鼠的僵直度水平均可降低到 40%以下，且分子实验发现消退过程中激活的脑区大部分相同，仅丘脑连结核和腹侧海马存在差异。随后的相关性分析实验发现，雄性大鼠的边缘下前额叶皮层与僵直度水平呈显著正相关，基底外侧杏仁核和背侧齿状回与僵直度水平呈显著负相关，而雌性大鼠仅腹侧齿状回与僵直度水平呈强正相关性。最后，脑区间相关性分析表明消退后雄性大鼠的边缘前前额叶皮层、后扣带回皮层和背侧齿状回间具有较强的相关性，岛叶皮层与腹侧 CA1 区呈强正相关性而与丘脑连结核呈强负相关性，中央杏仁核与前扣带回皮层间存在强正相关性而基底外侧杏仁核则与背侧齿状回间存在强正相关性。雌性大鼠则是中央杏仁核、后扣带回皮层、内嗅皮层间存在强相关性，边缘前前额叶皮层与基底外侧杏仁核间具有较高相关性，此外，雌性大鼠的海马与丘脑连结核和前扣带回皮层间也表现出较高的相关性。

结论 本研究通过行为学和分子技术评估大鼠在消退学习中的两性差异，结论如下：（1）雄性大鼠和雌性大鼠在恐惧消退的习得过程中差别不大；（2）雄性大鼠和雌性大鼠的各脑区在消退学习过程中存在明显差异。

关键字：恐惧记忆消退 性别差异 c-fos

青少年心境障碍患者非自杀性自伤行为及其影响因素研究

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目的 评估青少年心境障碍患者非自杀性自伤（NSSI）行为及其影响因素，为心境障碍青少年 NSSI 行为预防及干预提供理论指导。

方法 首次就诊为抑郁发作的青少年心境障碍患者，共 70 名。采用自制的一般情况调查表、渥太华自伤量表（OSI）、汉密尔顿抑郁量表（HAMD-24）、32 项轻躁狂症状清单（HCL-32）、杨氏躁狂评定量表（YMRS）和汉密尔顿焦虑量表（HAMA）进行问卷调查。应用 SPSS 25.0 软件进行统计分析，P＜0.05 表明差异具有统计学意义。

结果 心境障碍青少年的非自杀性自伤行为报告率为 52.86%，平均年龄（14.60±1.65）岁，首次自伤平均年龄（12.13±1.90）岁，10~14 岁为高发年龄段。当前自伤最常用的方式是“切割”（45.6%），其次为“击打”（14.0%），最常自伤的部位是“下臂或腕部”（30.0%），其次为“手”（23.3%）。2.伴与不伴 NSSI 组在年龄、性别、受教育年限、家庭类型、性取向、家族史上均无统计学差异(P＞0.05)。伴 NSSI 组在校园欺凌、躯体忽视/虐待、同伴 NSSI 行为和同伴自杀行为占比上均高于不伴 NSSI 组（P＜0.05）；伴 NSSI 组在 HAMD-24 总分、HAMA 总分、焦虑躯体化、认知障碍、迟缓、绝望感、躯体性焦虑、精神性焦虑因子得分上均高于不伴 NSSI 组（P＜0.05）。青少年双相抑郁患者 NSSI 行为的报告率（62.2%）显著高于单相抑郁患者（37.8%）（P＜0.05）。NSSI 行为的成瘾性与 NSSI 行为频率、抑郁严重程度、体重减轻和绝望感呈正相关（P＜0.05）。5.logistic 逐步回归分析显示：同伴 NSSI 行为、焦虑躯体化因子是青少年心境障碍患者 NSSI 行为的危险因素。

结论 青少年心境障碍患者 NSSI 行为的发生率较高，同伴 NSSI 行为、焦虑躯体化因子是促进 NSSI 发生的危险因素；双相抑郁青少年 NSSI 的行为特征、功能等与单相抑郁青少年存在不同。未来的研究应扩大样本量，在多地区、多时间点进行调研，更全面的评估 NSSI 行为以期为其制定个体化干预策略，并通过研究 NSSI 行为的差异性为鉴别单双相抑郁提供参考依据。

关键字：非自杀性自伤 青少年心境障碍 抑郁行为特征 影响因素

Theta 爆发刺激联合舍曲林治疗强迫症的临床研究

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目的 θ爆发刺激（TBS）作为 rTMS 的一种特殊刺激模式，能以较低的刺激强度对大脑皮层兴奋性产生更强更持久的调节作用。本研究旨在对 TBS 治疗首发 OCD 患者的临床疗效及安全性进行治疗观察，并为 TBS 治疗 OCD 的临床应用和机制研究提供依据。

方法 本研究为随机、伪刺激、双盲对照试验，分为辅助运动区（SMA）的 TBS 联合舍曲林治疗和相同部位的伪刺激联合舍曲林治疗两组，为期 6 周，以观察治疗首发 OCD 患者的临床治疗效果差异及安全性。选取 2019 年 9 月至 2020 年 2 月期间就诊于天津医科大学总医院门诊、符合纳入标准的首发 OCD 患者 30 例，随机分为两组，一组接受连续 TBS 联合舍曲林 100mg/d 治疗，一组接受伪刺激联合舍曲林 100mg/d 治疗。其中，cTBS 治疗：为期 2 周(每周 5 次)，每个刺激序列包括 600 个刺激，刺激部位为辅助运动区（SMA）。采用耶鲁-布朗强迫症量表（Y-BOCS）、汉密尔顿焦虑量表（HAMA）以及汉密尔顿抑郁量表（HAMA），分别在基线、治疗 3 周后和治疗 6 周后对患者进行疗效评估。对治疗的有效反应被定义为 Y-BOCS 评分至少降低 25%。应用统计分析软件 SPSS24.0 进行数据分析，P<0．05)、HAMA 评分(F=203.636，P<0．05)、HAMD 评分(F=124.907，P<0．05)

差异均有统计学意义。cTBS 治疗组与对照组 2 组间 Y-BOCS 总分(F=5.564，P<0．05)各时点差异具有统计学意义。

结论 本研究是首次应用 cTBS 治疗首诊强迫症的随机对照研究。研究结果表明作用于 SMA 的连续 θ 爆发刺激（cTBS）联合抗抑郁药物来治疗强迫症具有潜在优势，且具有良好的安全性与耐受性。未来的研究需要进一步增大样本量，完善研究过程以及借助于神经导航技术，来验证和优化 TBS 治疗强迫症患者的最佳参数。

关键字：θ 爆发刺激 强迫症 辅助运动区 治疗 疗效评价

Npas4 分子缺失对大鼠行为学的影响

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目的 在生命进化的过程中，恐惧反应所产生的趋利避害的本能能帮助个体适应诡秘多变的自然环境，为挣扎求生所必须。然而当恐惧情绪过度表达跨越了正常的调节限度就会变成有害的，会导致焦虑障碍等疾病的发生，诸如创伤后应激障碍的核心症状的基础就是恐惧的调节紊乱。因此，针对恐惧记忆及消退记忆的分子机制的研究是十分必要的。在积年的记忆分子机制的研究中发现，Npas4 分子在记忆调节和焦虑情绪的发生中有着重要作用，因此推测其可能在恐惧记忆的编码或储存过程中有着关键性的作用。本文利用恐惧记忆模型和生物分子学的方法对 Npas4 分子在记忆维持和储存中的作用进行探究。

方法 实验一：利用聚合酶链式反应（PCR）确认 Npas4 转基因大鼠基因型，并对不同基因型大鼠进行免疫印迹试验（Western blot），测定 NPAS4 敲除鼠中 NPAS4 蛋白的表达水平在不同脑区中的表达是否与普通 SD 大鼠和阴性大鼠存在差异。实验二：通过旷场实验与高架十字迷宫实验研究 Npas4 敲除鼠与普通基因型大鼠之间焦虑样行为是否有差异。实验三：通过恐惧条件反射模型研究 NPAS4 蛋白在恐惧记忆、消退过程、恐惧记忆唤起等环节中所起的作用。

结果 实验一：普通野生型 SD 大鼠与 NPAS4 敲除鼠的纯合子组相比，NPAS4 的蛋白含量在基地外侧杏仁核(BLA)、中央杏仁核(CeA)、海马（HIP）及前额皮层（PFC）中明显增高(P<0.05)，而野生型大鼠与杂合子之间蛋白质的含量则没有显著性差异 (P>0.05)，但有表达下降的趋势。在实验二中，在遭受电击前，三组大鼠在旷场实验和高架十字迷宫实验中没有差异。接受电击后，Npas4 敲降组的大鼠在中心区和开臂中所待的时间显著低于对照组（P<0．05）。在实验三中，三组大鼠在恐惧记忆形成和消退过程均没有显著差异，而在消退训练后，Npas4 敲降组大鼠在恐惧记忆唤起测试中，freezing 值明显高于对照组。

结论 （1）Npas4 基因敲降手段能够成功降低大鼠脑中 Npas4 蛋白的表达水平，且被 PCR 手段所准确检测。（2）Npas4 蛋白表达的下降本身并不影响大鼠的活动行为，Npas4 蛋白本身可能仅调节在遭受应激后动物的焦虑样行为。（3）Npas4 蛋白分子可能不是唯一对恐惧记忆编码进行调节的分子，但在消退记忆的维持过程中起关键作用。

关键字：Npas4 基因 PCR 恐惧记忆

右侧眶额叶皮质连续爆发模式脉冲刺激治疗难治性强迫症:一项随机对照试验

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目的 研究连续爆发模式脉冲刺激(continue Theta Burst Stimulation)在难治性强迫症（obsessive compulsive disorder）患者右侧眶额叶皮质(OFC)的疗效。

方法 我们采用随机双盲假对照试验方法，将 28 名难治性强迫症患者随机分为 2 组（每组 14 人）。在患者的右侧 OFC 进行每天两次，每周 5 天，连续 2 周的 cTBS 治疗或伪刺激治疗。主要结局指标为：耶鲁-布朗强迫症量表(Y-BOCS)评分变化，次要结局指标为：汉密尔顿焦虑量表（HAMA）和汉密尔顿抑郁量表（HAMD）的评分变化。

结果 经过 2 周的治疗后，两组在 Y-BOCS 评分和 HAMA 评分上无统计学差异（p＞0.05）。治疗组的抑郁症状显著改善（p=0.027），但这种显著差异在第 6 周时消失（p=0.089）。

结论 本研究是第一个在难治性 OCD 患者右侧 OFC 上使用 cTBS 治疗的随机对照研究。 研究发现，每天 2 次的 cTBS 是安全的，但 2 周的治疗不足以达到疗效。未来需要进一步研究以确定用于难治性 OCD 患者的最佳参数，以及探索更长的疗程对于难治性 OCD 的疗效，同时联合药物治疗也是值得进一步研究的思路。

关键字：右侧眶额叶皮质；爆发模式脉冲刺激；难治性强迫症

门诊青年抑郁障碍患者早期服药依从性及影响因素研究

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目的 抑郁障碍是一种常见的慢性精神疾病，其复发率高、社会功能损害严重，给社会和家庭带来沉重负担。但相当数量的患者服药依从性不佳，影响疗效和病情恢复。本研究针对国内青年抑郁患者服药依从性现状及其影响因素进行研究。

方法 研究纳入 2020.7 至 2021.1 期间就诊于天津医科大学总医院临床心理科门诊的患者；符合纳入标准和排除标准的首次就诊青年患者 94 例。使用自编一

般资料表收集患者人口学特征，使用服药信念问卷（BMQ）、中文版抑郁症病耻感量表（DSS）、父母控制量表（PCS）收集患者的资料。4 周后进行随访，通过患者自我报告结合 Morisky 服药依从性量表（MMAS），对服药依从性进行评估。

结果 1、患者的一般资料情况：94 名患者的年龄在 13-25 岁之间，平均年龄 18.95±2.945 岁。男性 24 人（25.5%），女性 70 人（74.5%）。83 人（88.3%）为在校学生，高中或中专生（28.7%）、大专生和大学生（56.4%）为主。所有患者均未婚。所有治疗方案中均包含了至少一种抗抑郁药，SSRIs 最为常用，使用 68 例（72.3%）。79 例（83.2%）患者采用联合治疗方案，苯二氮卓类药物使用 64 例（67.4%），是最常联用的药物。2、服药必要性得分 14.56±3.803 分，服药顾虑性得分 16（14~18）。个人病耻感得分 18.00±6.050 分，社会病耻感得分 23.60±7.050 分。心理控制得分 59.5（51~69）分，行为控制得分 46.51±11.88 分。3、入组患者服药依从性分布情况：服药依从性好的患者 36 名，占比 38.3%。服药依从性差的患者 58 名，占比 61.7%。4、在服药依从性好与差的组别中，个人病耻感、社会病耻感存在显著差异，抗抑郁药种类存在组间边缘显著差异。5、服药依从性的影响因素：Model1、Model2、Model3 中个人病耻感对服药依从性均具有显著影响，OR（CI）值分别为 1.128（1.021-1.247）、1.111（1.008-1.224）和 1.154（1.031-1.292）。

结论 1、门诊青年抑郁障碍患者的服药依从性较差；2、青年女性抑郁障碍患者显著多于男性，大部分患者为高中生、大学生；3、个人病耻感、社会病耻感、抗抑郁药种类影响患者依从性。

关键字：青年抑郁障碍患者；服药依从性

关注无业及低收入肿瘤患者的心理健康：多发性骨髓瘤患者中收入、就业及心理痛苦关系的横断面调查研究

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目的 多发性骨髓瘤目前仍无治愈方法，长期严重的躯体不适及治疗给患者带来巨大的就业及经济压力，并造成严重的心理痛苦。虽然在一般人群中无业及低收入与心理痛苦密切相关，但在多发性骨髓瘤患者中尚无相关研究。通过本研究探索多发性骨髓瘤患者低收入和失业与心理压力之间的关系。

方法 自 2022 年 10 月至 2023 年 3 月在 15 个中心进行自愿参加的横断面调查，共筛查多发性骨髓瘤患者 567 人，回收有效问卷 490 份。问卷内容包括患者的人口学及临床特征、收入水平、就业状态，以及心理痛苦温度计（distress thermometer，DT）。使用卡方检验、Mann-Whitney U 检验和 Spearman 相关检验，用于根据测量类别确定收入水平和就业状况与心理痛苦的严重性和来源之间的关系。使用广义线性模型（GLM）探讨人口统计学和临床特征对收入水平和就业状况与心理困扰严重程度和来源之间关系的影响。

结果 54.7%的患者月收入低于 3000 人民币，27.8%的患者存在显著的心理痛苦。收入水平与 DT 得分存在弱的负相关（rho = -0.090，p = 0.047）。与在婚患者相比，此种相关在单身患者中更为显著（rho = -0.071vs. -0.099，F(1)= 6.66，p = 0.010）。在心理痛苦的来源中，现实问题与低收入水平关系密切（Z =-3.07，p = 0.002）。亚组分析显示，处于工作年龄的患者中存在收入水平与心理痛苦的负相关趋势（rho = -0.099, p = 0.075），而在处于退休年龄的患者中则不显著。对于处在工作年龄的患者，此种相关在女性患者中较男性更为明显（rho = -0.290vs. -0.101，F(1)= 5.85, p = 0.017）。此外，对于处在工作年龄的无业患者，其情绪问题比例高于同年龄段的就业患者（59.3% vs. 81.3%，OR = 2.99，X2 = 9.34，p = 0.002）。

结论 在多发性骨髓瘤患者中，低收入水平与心理痛苦程度及现实问题存在一定的相关性，且在单身及处于工作年龄的女性中更为显著；而失业则与情绪问题密切相关。因此，医务人员、社会工作者、及政策制定者需要关注相关人群的心理健康问题，实施有效的预防及干预措施。本调查的结果需更多研究进一步验证，尤其需要队列研究探索就业及收入水平对患者心理健康影响的动态变化。

关键字：多发性骨髓瘤；收入及就业；心理痛苦；横断面调查研究

近红外光谱成像辅助诊断常见精神疾病的临床研究

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目的 研究近红外光谱（NIRS）客观诊断精神障碍灵敏度与特异度及 NIRS 相关指标对各类精神障碍的诊断价值。

方法 入组 18-60 岁的抑郁障碍、焦虑障碍、双相情感障碍及精神分裂症患者以及与性别和年龄匹配的对照组共 412 例。应用多通道近红外光谱仪检测所有被试在执行言语流利度任务过程中大脑氧合血红蛋白随时间变化的特征，参照患者的临床诊断，计算 NIRS 波谱客观诊断各类精神障碍的灵敏度与特异度；比较不同精神障碍 NIRS 相关指标（包括任务氧合血红蛋白的 K 激活值、S 积分值、峰值）的差异；应用 ROC 分析 NIRS 相关指标对各类精神障碍的诊断价值；计算各种精神疾病相应的量表评分与 NIRS 相关指标的相关性。

结果 NIRS 波谱客观诊断抑郁障碍的灵敏度 92%，特异度 85%，诊断双相抑郁的灵敏度 78%，特异度 85%，诊断双相躁狂的灵敏度 78%，特异度 93%，诊断焦虑障碍的灵敏度 73%，特异度 80%，诊断精神分裂症的灵敏度 82%，特异度 93%；抑郁障碍、双相抑郁、焦虑障碍、精神分裂症组的 K 激活值显著低于

正常对照，所有患者组的 S 积分值、峰值均显著低于正常对照，精神分裂症组的 T 重心显著高于正常对照；ROC 结果示 S 积分值诊断抑郁障碍的曲线下面积（AUC）为 0.832、诊断双相抑郁的 AUC 为 0.930、诊断焦虑障碍的 AUC 为 0.754，峰值诊断抑郁障碍的 AUC 为 0.761、诊断双相抑郁的 AUC 为 0.760、诊断精神分裂症的 AUC 为 0.776；双相抑郁患者的 HAMD 量表评分与 T 重心呈显著正相关，双相躁狂患者的 YMRS 量表评分与 K 激活值、S 积分值、峰值均呈显著正相关，焦虑障碍患者的 HAMA 量表评分与 K 激活值、S 积分值、峰值均呈显著正相关，与 T 重心呈显著负相关，精神分裂症患者的 PANSS 量表总分及阳性量表分与 S 积分值、峰值呈显著负相关，与 T 重心呈显著正相关，阴性量表分与 S 积分值、峰值呈显著正相关，与 T 重心呈显著负相关。

结论 NIRS 波谱对抑郁障碍和精神分裂症的诊断价值最高，对双相情感障碍的诊断价值中等，对焦虑障碍的诊断效果较差。其中，S 积分和峰值对抑郁障碍和双相抑郁的诊断具有重要价值。T 重心的大小能反映双相抑郁患者的抑郁严重程度。K 激活、S 积分、T 重心和峰值的大小均能反映躁狂和焦虑障碍的严重程度。S 积分、峰值和 T 重心能反映精神分裂症阳性症状和阴性症状严重程度，且与两种症状的相关性相反

关键字：精神障碍; 客观诊断; 近红外光谱；灵敏度；特异度

Serum ACE Methylation Level and Its Significance in Patients with Comorbid Major Depressive Disorder and Hypertension

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Objective Major depressive disorder (MDD) often coexists with hypertension (HYT) and is associated with poor health outcomes. Epigenetic mechanisms such as DNA methylation may play an essential role in their development. Angiotensin-converting enzyme (ACE) is a significant enzyme that regulates blood pressure. This study was intended to investigate the diagnostic values of ACE methylation in patients with comorbid MDD and HYT (MDD + HYT).

Methods A total of 119 patients with MDD + HYT were enrolled, including 15 patients with comorbid HYT and severe MDD (sMDD + HYT). Serum ACE methylation level was measured by bisulfite sequencing polymerase chain reaction (BSP), and the diagnostic efficacy of ACE methylation for MDD + HYT was analyzed by receiver operating characteristic curve. Pearson analysis was used to analyze the correlation between ACE methylation rate and depression and HYT. Logistics multivariate regression was utilized to evaluate the independent risk factors for sMDD + HYT.

Results Serum ACE methylation level was significantly increased in MDD + HYT patients. The area under the curve of serum ACE methylation level for differentiating MDD + HYT was 0.7980, and the cut-off value was 33.26 (sensitivity 57.98%, specificity 86.52%). Serum ACE methylation rate was positively correlated with HAMD-17 and self-rating depression scale scores, and diastolic and systolic blood pressure. ACE methylation was an independent risk factor for sMDD + HYT.

Conclusion The elevated serum ACE methylation level in patients with MDD + HYT has certain diagnostic values for MDD + HYT, and ACE methylation was independently correlated with sMDD + HYT.

关键字：Major depressive disorder; Hypertension; Angiotensin-converting enzyme; Methylation; Serum; Receiver operating characteristic; Pearson; Logistic regression

Altered Regional Spontaneous Neuronal Activity at Rest in Drug-naive Obsessive Compulsive Disorder

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Objective Previous resting-state functional magnetic resonance imaging (rs-fMRI) studies have been used to detect intrinsic regional activity distinction between obsessive-compulsive disorder (OCD) patients and healthy controls (HCs). However, whether the group difference derived from univariate analysis could be useful for informing the diagnosis of individual OCD patients remains unclear.

Methods We combined the amplitude of low-frequency fluctuations (ALFF), fractional ALFF (fALFF), percentage ALFF (perALFF) methods to investigate the group difference in regional spontaneous brain activity between 50 drug-naive OCD patients and 50 demographically matched HCs. Support vector machine (SVM) was applied to to examine whether the abnormal spontaneous neuronal activity regions could be used to distinguish OCD patients from HCs.

Results Compared with HCs, OCD patients showed increased ALFF in the left inferior frontal gyrus (IFG) and right insula, and decreased ALFF in the left cerebellum, right inferior temporal gyrus (ITG), left middle occipital gyrus (MOG), as well as increased fALFF in the right middle frontal, and decreased fALFF in left superior temporal gyrus (STG), besides, increased perALFF in the right ITG, and decreased perALFF in right occipital lobe. A positive correlation was found between increased ALFF in the left IFG and Yale–Brown obsessive compulsive scale compulsive behavior scores in the patients. Moreover, the ALFF values in the combination of left IFG and right insula can be deemed as a potential biomarker to discriminate OCD from HCs with the highest accuracy of 85.00%, sensitivity of 78.00% and specificity of 92.00%.

Conclusion Our preliminary findings emphasized that abnormal regional spontaneous neuronal activity in

the frontal, temporal and occipital regions may play an important role in the neural basis of OCD, and the ALFF values in the combination of left IFG and right insula can be used as a future marker for OCD understanding-classification.

关键字：obsessive-compulsive disorder, resting state, functional magnetic resonance imaging, amplitude of low frequency fluctuation, support vector machine

Abnormal Regional Homogeneity at Rest in Patients with Major Depressive Disorder Associated with Sleep Disturbances

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Objective Abnormal regional homogeneity at rest in patients with major depressive disorder associated with sleep disturbances

Methods Abnormal regional homogeneity at rest in patients with major depressive disorder associated with sleep disturbances

Results Compared with MDD without SD, MDD with SD exhibited increased ReHo values in the right posterior cingulate cortex (PCC)/precuneus, right median cingulate cortex, left postcentral gyrus (postCG), and right inferior temporal gyrus (ITG). Additionally, the ReHo values in the right PCC/precuneus and ITG were positively associated with clinical symptom in all patients. SVM classification results exhibited that a combination of abnormal ReHo in the left postCG and right ITG achieved an overall accuracy of 84.21%, sensitivity of 81.82%, and specificity of 87.50% in distinguishing SD in patients with MDD.

Conclusion We addressed disrupted ReHo patterns in MDD patients with SD, and presented a potential neuroimaging diagnostic biomarker for these patients.

关键字：Major depressive disorder, Sleep disturbances, Regional homogeneity, Neuroimaging diagnostic biomarker

老年血液透析患者睡眠状况、情绪调节与生存质量的相关研究

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目的 本研究旨在分析行血液透析治疗的老年患者的睡眠状况、情绪调节能力与生存质量之间的关系。

方法 研究对象是我市 2021 年 3 月至 2022 年 3 月行血液透析的 82 名老年患者。采用匹兹堡睡眠质量指数（PSQI）评估患者的睡眠质量，采用认知情绪调节策略问卷评估患者的情绪调节能力，采用生存质量测定量表简表（WHOQOL-BREF）评估患者的生存质量。通过分析血液透析患者的睡眠状况、情绪调节能力与生存质量之间的关系。

结果 不同收入和医疗自付方式的患者生存质量评分存在显著差异（P＜0.05）。血液透析患者的整体睡眠质量指数均分为 10.93±2.28 分，PSQI 总分（反向计分）与生存质量总分呈现明显的负相关（r=-0.351, P＜0.001）。PSQI 的 7 个维度与 WHOQOL-BREF 的 4 个维度均存在统计学意义的相关性（P＜0.05）。积极情绪调节策略与生存质量评分呈现明显的正相关（r=0.271, P=0.003），而消极情绪调节策略与生存质量总分呈现明显的负相关（r=-0.238, P=0.008）。

结论 老年血液透析患者的睡眠质量较差，情绪调节能力下降，这对他们的生存质量产生了显著的不良影响。因此，在临床实践中应关注患者的睡眠问题，并引导他们采取积极的情绪调节策略，以有效提高患者的生存质量。

关键字：血液透析；睡眠质量；情绪调节；生存质量

Psychiatric Help-seeking During 1-year Follow-up in Chinese Patients Diagnosed with Type 2 Diabetes Mellitus Comorbid Major Depressive Disorder

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Objective Previous research has revealed a bidirectional relationship between type 2 diabetes mellitus (T2DM) and major depressive disorder (MDD). A very limited proportion of patients with T2DM comorbid MDD received adequate psychiatric intervention. This study investigated the help-seeking behaviors of patients with T2DM comorbid with MDD during one-year follow-up.

Methods At a medical center in China, a cohort of outpatients with T2DM were assessed and diagnosed for comorbid depression at baseline and after one year. Mental health help-seeking behaviors of patients during follow-up period were also evaluated.

Results Out of the 203 patients with T2DM at baseline, 114 completed the follow-up. A total of 26 patients had comorbid MDD during the follow-up period. Among the 17 patients diagnosed with MDD at baseline, who also completed the follow-up, five sought psychiatric care subsequent to the initial diagnose. Three of the nine newly diagnosed patients with MDD voluntarily visited psychiatric clinics, while others did not seek assistance.

Conclusion Voluntary psychiatric help-seeking for Chinese patients with comorbid T2DM and MDD is uncommon. It is crucial to increase awareness of depression among patients and healthcare professionals alike.

关键字：Type 2 diabetes mellitus; Major depressive disorder; Comorbidity; Cohort study, Help-seeking

Predictive Factors of Psychiatric Syndrome in Patients with Systemic Erythematosus Lupus: A Retrospective Study

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Objective Early detection of neuropsychiatric systemic lupus erythematosus (NPSLE) remains a challenge in clinical settings. Previous studies have found different autoantibodies as markers for NPSLE. This study aimed to describe the distribution of psychiatric syndromes in a group of patients with systemic lupus erythematosus (SLE) and to investigate the association between psychiatric syndromes and specific autoantibodies.

Methods This retrospective study was conducted at a single medical center. We reviewed medical records of hospitalized patients with SLE who were consulted by psychiatrists, those with accurate psychiatric diagnoses were included in the study. Results of serum autoantibodies and general laboratory tests were collected. The correlation between clinical variables was examined. Binary logistic regression analyses were used to determine factors related to different psychiatric diagnoses.

Results 148 of 160 (92.5%) patients with SLE had at least one psychiatric diagnosis. Acute confusional state had the highest prevalence (54.4%). Anti-β2 glycoprotein I (-β2GP1) antibody alone varied significantly between groups (X2 = 14.153, p = 0.028), the highest positive rate (46.2%) found in patients with depressive disorders. Immunoglobin A level was a predictor of cognitive dysfunction (OR 1.606 [95% CI 1.052 - 2.452]), whereas anti-β2GP1 antibody (OR 0.226 [95% CI 0.053 – 0.952]) and course of disease (OR 1.129 [95% CI 1.031 – 1.236]) were predictors of mood disorders.

Conclusion Immunoglobin A and anti-β2GP1 antibody are potential markers for NPSLE. In order to better elucidate the pathological mechanism of NPSLE, it is important to investigate neuropsychiatric disorders separately in future studies.

关键字：systemic lupus erythematosus, neuropsychiatric systemic lupus erythematosus, mental disorders, biomarkers, referral consultation

Aberrant Plasma Exosomal Derived CeRNA Networks As Diagnosis Biomarkers for Adolescent Major Depressive Disorder and Its Potential Prediction for Antidepressant

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Objective Major depressive disorder (MDD) in adolescence seriously endangers their mental and physical health and is associated with poor social and scholastic function. However, the diagnosis biomarkers for adolescent with MDD remain unclear.

Methods A total of 114 adolescent subjects were enrolled in this study, the comprehensive clinical and cognitive assessments were performed. Differential expressions of lncRNAs and mRNAs of plasma exosomes were screened by microarray assay. Two sets of ceRNA (lncRNAs-miRNAs-mRNAs) networks had been generated and candidate genes had been screened by bioinformatic analysis, and candidate genes were validated in cohort using qRT-PCR.

Results A total of 3752 differentially expressed lncRNAs and 1789 differentially expressed mRNAs were identified. AC156455.1, miR-126-5p, AAK1 and CCDC18AS1, miR-6835-5p, CCND2 were picked from each network as candidate genes. We found that the six candidate genes were differential expression between MDD patients and healthy controls, or before and after antidepressant treatment of MDD group. The expression levels of AAK1, CCDC18AS1 and miR6835 varied in efficacy after 8-week sertraline treatment. We also found that the expression of CCDC18AS1, miR-6835-5p, CCND2 (in the same network) at baseline could predicted antidepressant efficacy, which may be mediated through reducing suicidal ideation and improving cognitive function.

Conclusion Our study identified and validated the plasma exosome-derived ceRNA networks altered in adolescent with MDD, our findings provided potential diagnosis and therapeutic biomarkers for adolescent with MDD.

关键字：Exosome; Adolescent; Major depressive Disorder; lncRNA; ceRNA

U-shaped Association between Fasting Blood Glucose and Suicide Attempts in Chinese Patients with First-episode Drug-na?ve Major Depressive Disorder

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Objective Evidence regarding the relationship between fasting blood glucose (FBG) and suicide attempts (SA) in patients with major depressive disorder (MDD) was limited. Therefore, the objective of this research was to investigate whether FBG was independently related to SA in Chinese patients with first-episode drug-na?ve (FEDN) MDD after adjusting for other covariates.

Methods The present study was a cross-sectional study. A total of 1718 participants (average age: 34.9 ± 12.4 years, 65.8% females) with FEDN MDD were involved in a hospital in China from September 2016 to December 2018. Multiple logistic regression analysis and smooth curve fitting were used to estimate the association between FBG and the risk of SA. The threshold effect was examined by the two-piecewise linear regression model. Interaction and stratified analyses were conducted according to sex, education, marital status, comorbid anxiety, and psychotic symptoms.

Results The prevalence of SA in patients with FEDN MDD was 20.1%. The result of fully adjusted binary logistic regression showed FBG was positively associated with the risk of SA after adjusting for confounders (odds ratio (OR) = 1.62, 95% CI: 1.13–2.32). Smoothing plots also revealed a nonlinear relationship between FBG and SA, with the inflection point of FBG being 5.34 mmol/l. The effect sizes and the confidence intervals on the left and right sides of the inflection point were 0.53 (0.32-0.88, P= 0.014) and 1.48 (1.04–2.10, P=0.030), respectively.

Conclusion A U-shaped relationship between FBG and SA in FEDN MDD patients was found, with the lowest risk of SA at a FBG of 5.34 mmol/l, indicating that both the lower and higher FBG levels may lead to an increased risk of SA.

关键字：association, fasting blood glucose, suicide attempt, major depressive disorder, non-linear relationship

Combined Static and Dynamic Functional Signatures of Default Mode Network Identifying Anhedonia in Patients with Recurrent Major Depressive Disorder

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Objective Default mode network (DMN) is demonstrated to be closely related to major depressive disorder (MDD). However, most previous studies only focus on DMN static changes while ignoring the dynamic changes. This study analyzes both functional connectivity (FC, static characteristics) and time variability (TV, dynamic characteristics) for the purpose of exploring the pathogenesis of MDD.

Methods 47 patients with FEDN, 49 rMDD and 64 healthy controls (HCs) are recruited. DPASF software is used to calculate DMN-FC and DMN-TV. Then, the differences of the above characteristics among three groups as well as their correlations with the severity of depression and anhedonia are analyzed. Finally, the TVs or FCs which significantly correlated with symptoms severity are regarded as predictors to forecast the symptoms by receiver operating characteristics (ROC) curve.

Results FCs of both FEND and rMDD are generally decreased, while TVs are generally increased. In the patients with rMDD, there are significant positive correlations between anhedonia and the TV, FC. The ROC analyses demonstrate that combined FC and TV in clusters with significant differences between groups exhibited higher accuracy (84.6%) than those of TV (78.3%). While, as for the whole MDD, these static and dynamic indicators still have good accuracy in predicting anhedonia, and the combination of dynamic and static functions is more accurate (77.5%) than either dynamic (69.8%) or static indicator (70.7%) alone.

Conclusion Our current findings highlight the potential of combined brain static and dynamic function for identifying reliable diagnostic biomarkers and unique neuropathological mechanisms underlying anhedonia in rMDD.

关键字：first-episode drug-na?ve major depressive disorder (FEND); recurrent major depressive disorder (rMDD); default mode network (DMN); functional connectivity (FC); time variability (TV)

模拟健康教育对首次无抽搐电休克治疗前精神障碍患者的焦虑情绪影响研究

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目的 评估患者治疗前的知识需求满足度、自身准备完备率、MECT 治疗达标率、满意度及麻醉配合度，患者恐惧、焦虑程度，首次电休克治疗、患者的焦虑情绪与健康教育有关，我们在对其进行传统的健康宣教后或者改用模拟电休克治疗进行术前宣教对患者焦虑情绪有没有明显的影响，

方法 以精神障碍患者为研究对象，一般资料调查问卷、汉密尔顿焦虑量表为评定问卷为研究工具，对研究对象进行横断面调查，描述精神障碍患者首次电休克前健康教育方式对患者焦虑情绪的影响 筛选 2023 年 10 月至 2024 年 10 月交大一附院精神心理科住院首次进行 MECT 治疗的精神障碍患者 60 例。将 60 例病人随机分组，分成实验组和对照组，每组 30 人，对照组按照传统健康教育形式进行宣教，实验组按照模拟健康教育形式进行宣教。同时采用焦虑自评量表(SAS)评估患者的焦虑状况。

结果 ①心理状态测评值，护理前，两组对比无差异（p>0.05），护理后，实验组获值更理想，优于参照组，具备差异（P<0.05）；②实验组健康教育各项评分结果获值优于参照组，差异具有统计学意义（p<0.05）；③实验组总满意率更高，均优于参照组，组间对比（p<0.05）。

结论 临床上针对首次无抽搐电休克治疗前精神障碍患者开展模拟健康教育模式，可以减轻患者的心理焦虑状态，能够更多，更全面的了解电休克治疗全过程，提升患者治疗依从性，进而提升了患者满意率，值得普及和应用。

关键字：模拟健康教育，无抽搐电休克治疗，精神障碍，焦虑情绪

青少年抑郁症患者出院准备度现状与 30 天内非计划再入院的关系研究

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目的 调查青少年抑郁症患者的出院准备度现状及影响因素；统计青少年抑郁症患者 30 天内非计划再入院率；探讨青少年抑郁症患者的出院准备度与 30 天内非计划再入院的关系。为医护人员提高青少年抑郁症患者出院准备度提供新的视角，有针对性的提高青少年抑郁症患者出院准备度，更好完成过渡时期护理，减少患者再入院。

方法 1.采用出院准备度量表(RHDS)，出院指导质量量表(QDTS)，领悟社会支持量表(PSSS)，采用便利抽样法对西安市某三级甲等医院的 275 例青少年抑郁症患者问卷调查，并在患者出院第 30 天进行电话或床旁随访确认是否再入院。2.运用 Epidata3.1 双人录入数据，SPSS 24.0 进行数据分析。采用频数、构成比、均数、标准差进行描述性统计分析，采用 t 检验、方差分析进行单因素分析。采用 Pearson 相关分析法，描述量表各个维度之间的相关关系。将单因素及相关分析有统计学意义的变量纳入方程，进行多元逐步线性回归分析。青少年抑郁症患者出院准备度与 30 天内非计划再入院的关系采用卡方检验。

结果 1.青少年抑郁症患者出院准备度得分为(95.69±11.43)分，出院指导质量得分为(150.95+14.92)分，领悟社会支持得分为(52.16+666)分。2.青少年抑郁症患者人口社会学及疾病相关资料单因素分析结果显示:文化程度、父母教养，家庭人均月收入、居住状态、存在障碍类型、家庭支持、主要照顾者、共 7 个方面显示出青少年抑郁症患者的出院准备度，存在差异具有统计学意义(P<0.05)。3.青少年抑郁症患者出院准备度与出院指导质量(r=0.664，P<0.01)、领悟社会支持(r=0.427，p<0.01)均呈现正相关关系 4.多元逐步回归分析显示共有 7 个因子:文化程度、指导技巧及效果、出院前实际获得的内容、经济支持意愿、存在障碍类型、家庭支持、患者出院前需要的内容进入回归方程，可解释青少年抑郁症患者出院准备度总变异的 67.5%。5. 7.3%的青少年抑郁症患者发生了 30 天内非计划再入院。

结论 1.青少年抑郁症患者出院准备度为中等水平，有提升的空间。2.青少年抑郁症患者出院准备度与出院指导质量、领悟社会支持均呈正相关。3.文化程度、指导技巧及效果、出院前实际获得的内容、经济支持意愿、存在障碍类型、家庭支持、 患者出院前需要的内容、家庭支持是影响患者出院准备度的主要因素。4

关键字：青少年抑郁症，出院准备度，非计划再入院

探析规范化风险管理模式对提高精神科护理安全和护理质量的作用

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探析规范化风险管理模式对提高精神科护理安全和护理质量的作用 目的 为使患者对护理工作更加满意，使护理满意度不断提高；可以降低不良事件的发生率，避免医疗纠纷的发生，提升精神科患者住院安全探析规范化风险管理模式对提高精神科护理安全和护理质量的作用。

方法 采用简单随机法选取 2019 年 1-6 月份 200 例精神障碍患者为研究对象，对 100 例对照组患者给予精神科护理常规，对 100 例观察组患者给予规范化风险管理措施，对比两组患者的临床护理质量与不良事件发生率。

结果 观察组临床护理质量明显要比对照组高(P<0.05)；观察组在临床护理过程中不良事件的发生情况要明显低于对照组(P<0.05)。

结论 在临床上护理精神科患者时，运用规范化风险管理模式可以提高临床护理质量，使患者对护理工作更加满意，使护理满意度不断提高；可以降低不良事件的发生率，避免医疗纠纷的发生，提升精神科患者住院安全，因此规范化风险管理模式具有提高精神科护理安全和护理质量的作用，在临床上值得进行应用。综上所述，在精神科住院患者护理中采用规范化风险管理模式，护理方面的满意度会显著上升；可有效预防或减少风险事件的发生，在临床上的应用价值较高。

关键字：风险管理；精神科护理；护理安全；护理质量

心理干预及语言沟通在精神科护理中的应用效果研究

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目的 探究心理干预及语言沟通在精神科护理中的应用效果。

方法 从我院精神科收治的患者中随机选择 50 人作为研究对象进行对比分析，时间在 2021 年 12 月-2022 年 12 月之间，并按照护理方法的不同进行分组研究，分别为采用常规护理的对照组和采用心理干预和语言沟通的观察组，每组均为 25 人。观察组男性患者人数为 13 例，女性患者人数为 12 例；年龄为 22～46 岁，平均年龄为 32.72±7.25 岁。对照组男性患者人数为 12 例，女性患者人数为 13 例；年龄为 21～45 岁，平均年龄为 32.32±7.43 岁。。

结果 两组患者 IDA 各评分在护理前均无显著性差异（P>0.05)；护理后观察组与对照组相比， IDA 各项评分均显著低于对照组（P<0.05）。观察组患者护理满意度（92.00%）显著高于对照组（68.00%)(P<0.05)；实验组冲动行为发生率显著低于对照组（P<0.05)； 结论：心理护理与语言沟通在临床精神病学护理中具有举足轻重的地位，可帮助病人克服疾病的自信心、减少言语、行为的异常，同时也能加强传统的理疗效果。随着社会生活水平的提高，精神疾病的发病率也越来越高，心理护理与言语交流在临床精神病治疗中的重要

性不言自明。现代护理工作者应具备良好的心理与言语交流，完善整体护理制度，以提升临床精神科护理质量。心理干预和语言沟通对精神病患者的护理效果显著，能缓解患者的不良精神症状，提高护理满意度，降低冲动行为发生率。

关键字：心理干预；语言沟通；精神科护理

心理护理及语言沟通在精神科护理中的价值分析

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心理护理及语言沟通在精神科护理中的价值分析

目的 针对在精神科护理中应用心理护理和语言沟通的效果进行对比分析。

方法 从我院精神科收治的患者中随机选择 100 人作为研究对象进行对比分析，时间在 2021 年 11 月-2022 年 11 月之间，并按照护理方法的不同，将这些患者平均分为两组，分别为采用常规护理的对照组和采用心理护理和语言沟通的观察组，每组均为 50 人。

结果 在两组患者的服药依从性方面，与对照组相比，观察组有明显的提高，结果具有明显差异（P<0.05），在生活质量评分方面，观察组也明显高于对于对照组，结果具有明显差异（P<0.05）；观察组患者的汉密尔顿焦虑量表（HAMA）评分、汉密尔顿抑郁量表（HAMD）评分均显著较对照组低（P＜0.05）；观察组患者的 MOAS 评分显著低于对照组（P＜0.05），安全事件发生率、性格改变发生率、行为异常发生率、语言异常发生率和病情复发率均显著较对照组低（P＜0.05）。

结论 将心理护理及语言沟通运用在精神科临床护理中，可以使得患者的服药依从性以及患者得生活质量得到有效提升的同时，而且患者的心理状态也可以得到有效的改善，使得安全事件的发生概率以及病情复发率也得到有效的降低。

关键字：心理护理，语言沟通，精神科护理

老年精神分裂症患者发生攻击行为的相关影响因素及其干预措施分析

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目的 探讨老年精神分裂症（SP）患者发生攻击行为的相关影响因素及其干预措施。 方法 选取我院 2019 年 10 月至 2022 年 9 月期间收治的 94 例老年精神分裂症患者的临床资料进行收集、整理及分析。以调查问卷方式收集入组患者年龄、性别、婚姻状况、文化程度、共同居住者、家族史、病程、服药依从性、童年创伤水平、社会支持水平、攻击行为、伴有躯体疾病等资料。运用修订版外显攻击行为量表（MOAS）、童年创伤水平使用童年期创伤经历问卷（CTQ）及社会支持评定量表（SSRS）进行评分，分析老年精神分裂症患者发生攻击行为的相关影响因素。 结果 老年精神分裂症患者攻击行为发生率为 29.79%（28/94）；单因素分析显示：年龄、性别、婚姻状况、共同居住者、家族史、病程与老年 SP 患者发生攻击行为无关，差异无统计学意义（P＞0.05）；文化程度、服药依从性、童年创伤水平、社会支持、伴有躯体疾病与老年精神分裂症患者发生攻击行为有关，差异有统计学意义（P＜0.05）。多因素分析显示：初中及以下文化、服药依从性较差、童年创伤水平＞62 分、社会支持＞32 分、伴有躯体疾病是老年精神分裂症患者发生攻击行为的高危因素（P＜0.05）。 结论 研究数据显示老年精神分裂症患者发生攻击行为与文化程度、服药依从性、童年创伤水平、社会支持、伴有躯体疾病有关。早期识别高危患者而实施相应的预防措施干预，对于减少或预防攻击行为发生至关重要。

关键字：老年精神分裂症，攻击行为，干预措施

父母教养方式与青少年抑郁的关系研究--反刍思维的中介作用

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目的 通过探讨青少年父母教养方式、反刍思维、抑郁三者的关系，构建以反刍思维为中介作用的结构方程模型，为青少年抑郁的预防及心理治疗提供数据支持。

方法 本研究为横断面调查研究。2022 年 3～4 月采用分层随机抽样的方法选取甘肃省宁县某中学和高中 302 名同学为研究对象，使用一般资料调查问卷、贝克抑郁量表第二版、简式父母教养方式量表、中文版反刍思维量表进行调查。采用 Pearson 相关分析青少年父母教养方式、反刍思维和抑郁之间的相关性，采用 AMOS 建立结构方程模型分析青少年反刍思维在父母教养和抑郁之间的中介效应。

结果 1. 反刍思维总分及各维度得分与抑郁得分均呈显著正相关（r=0.452～0.739，p<0.05）、父母教养方式中的父母情感温暖得分与抑郁得分均呈显著负相关（r=-0.297～-0.424，p<0.05）、父母拒绝得分和父亲过度保护得分与抑郁得分均呈显著正相关（r=0.248～0.355，p<0.05）。 2. 结构方程模型结果显示，父亲情感温暖、父亲过度保护、母亲过度保护、母亲拒绝对反刍思维的效应值分别为-0.188、0.379、-0.208、0.233；反刍思维对抑郁的效应值为 0.584；父亲情感温暖对抑郁的总效应值为-0.305，直接效应值为-0.195，通过反刍思维而影响的间接效应值为-0.110；父亲过度保护对抑郁的总效应值为 0.221，直接效应值为 0，通过反刍思维而影响的间接效应值为 0.221；母亲过度保护对抑郁的总效应值为-0.121，直接效应值为 0，通过反刍思

维而影响的间接效应值为-0.121；母亲拒绝对抑郁的总效应值为 0.136，直接效应值为 0，通过反刍思维而影响的间接效应值为 0.136。

结论 1. 反刍思维总分及各维度得分与青少年抑郁得分呈正相关，父母教养方式中的父母情感温暖得分与青少年抑郁呈负相关、父母拒绝得分和父亲过度保护得分与青少年抑郁呈正相关。2. 父母教养方式中的父亲情感温暖可以直接影响抑郁，也可以通过反刍思维间接影响抑郁；而父亲过度保护、母亲过度保护、母亲拒绝仅通过反刍思维间接影响抑郁。其中，父亲情感温暖、母亲过度保护与抑郁之间呈负性效应，父亲过度保护、母亲拒绝与抑郁之间呈正性效应。

关键字：父母教养方式；反刍思维；抑郁；青少年

Quality of Life Among Patients with Bodily Distress Syndromes in China

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Objective Somatoform and other functional disorders are common diseases with heavy social burden. It is necessary to explore the quality of life about the bodily distress syndrome (BDS), a new diagnosis of functional somatic symptoms, especially in primary care condition. Our study aims to investigate the quality of life in patients with the BDS and to explore the influencing factors, in order to gain more reference for treatment and prognosis.

Methods The data were derived from the 1269 patients' multicenter cross-sectional study, which conducted in 9 different Chinese hospitals. the BDS Checklist-25 and a brief version of the Schedules for Assessment in Neuropsychiatry (RIFD) were used to examine the BDS diagnosis. The quality of life was identified by the Short-form Health Survey-12 (SF-12). To accessed psychological characteristics, the Patient Health Questionnaire-9 (PHQ-9), the General Anxiety Disorder-7 (GAD-7) and the Whiteley scale -8 (WI-8) were applied.

Results A total of 697 patients were collected in the final analysis. The prevalence of the BDS in this sample was 26.8% (95% confidence interval: 23.5–30.1). Patients with BDS scored 72.61±15.08 on the SF-12, significantly lower than the patients without BDS(87.92±16.40, p<.001), of which scored 38.14±8.96 on the PCS and 34.72±11.87 on the MCS. The BDS patients scored significantly higher on PHQ-9(11.85±7.18), GAD-7(9.37±6.43), WI-8(25.11±8.64) (p<.001). In the stepwise regression analysis, the SF-12 total score was significantly associatied with WI-8 score (B=-1.127, p<.001), PHQ-9 (B=-.345, p<.001), and BDS (B=-3.416, p=.010), the explained variance was Nagelkerke's R2 = 0.424.

Conclusion The inferior quality of life of patients suffered from the BDS call for more attention for the BDS, including the recognition, diagnosis, treatment and prognosis.

关键字：Bodily Distress Syndrome; Quality of life; Health anxiety

静息态脑网络与抑郁症的因果关联研究：两样本双向孟德尔随机化分析

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目的 既往研究发现静息态脑网络（RSNs）与抑郁症密切相关，但 RSNs 与抑郁症之间的因果关系尚不明确，本研究通过双向孟德尔随机化研究进一步分析 RSNs 与抑郁症之间的因果效应。

方法 本研究全基因组关联分析（GWAS）静息态脑网络的数据来自于复杂性状遗传实验室（Complex Trait Genetics Lab），抑郁症的数据源于芬兰基因数据库（FinnGen Study）。选取默认网络、背侧注意网络、额顶网络、边缘网络、躯体运动网络、腹侧注意网络、视觉网络、全局网络共 8 个静息态脑网络进行分析，功能连接网络数据基于静息态脑功能成像（rs-fMRI），结构连接网络数据基于扩散加权成像（DWI）。采用两样本双向孟德尔随机化分析 8 个功能连接、8 个结构连接与抑郁症的关联，单核苷酸多态性（SNPs）采用的阈值为 $p < 5\times10\text{-}5$，连锁不平衡条件筛选设置为 $r2 < 0.01$，同时采用 MR-Egger 法、加权中值法、MR-PRESSO 方法检验结果的异质性、敏感性和多效性。本研究中使用的全基因组数据获取时间为 2023 年 5 月，由 R 软件进行统计分析。

结果 经逆方差加权法分析发现边缘网络结构连接与抑郁症存在因果关系：OR = 28.21, 95%CI: 3.32-239.54, P=0.002，但功能连接网络与抑郁症之间不存在具有统计学意义的因果关联，同时反向 MR 分析结果无统计学意义。

结论 结构连接边缘网络与抑郁症的发生相关联，但功能连接脑网络与抑郁症发生，或抑郁症与脑网络静息态结构或功能连接改变之间均无因果关联。

关键字：孟德尔随机化分析；抑郁症；静息态脑网络；神经影像学

MCRNN for Psychiatric Disorder Identification in Resting-state EEG

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Objective Accurate classification based on affordable objective neuroimaging biomarkers are important steps toward designing individualized treatment.

Methods In this work, we investigated a deep learning classification model, multi-scale convolutional recurrent neural network (MCRNN), to explore psychiatric disorder-related biomarkers by leveraging the spatiotemporal information of resting-state EEG (rsEEG) using a multiple psychiatric disorder database containing 327 individuals diagnosed with schizophrenia, bipolar, major depressive disorders and healthy controls. All subjects were mapped to a shared low-dimensional subspace for intuitively interpreting the inter-relationship and separation of psychiatric disorders.

Results Psychiatric disorders were identified using rsEEG with high accuracy ranged from 78.6% to 91.3% in patient vs controls 2-class classification, and 68.2% in 4-class classification. The control-to-schizophrenia trajectory interpretated by the model was consistent with the disease severity in clinical observation.

Conclusion The MCRNN demonstrated a capability in extracting discriminative rsEEG biomarkers for psychiatric disorder classification, indicating its potential to facilitate our understanding of psychiatric disorders and monitoring interventions.

关键字：Keywords: deep learning, EEG, MCRNN, psychiatric disorder, biomarker

The Trends of Psychosomatic Symptoms and Perceived Stress Among Healthcare Workers During The COVID-19 Pandemic in China: Four Cross-sectional Nationwide Surveys, 2020-2023.

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Objective Three years have passed since the COVID-19 outbreak. Global healthcare workers made significant contributions while enduring extra workloads and immediate health threats. However, an unseen wave of vast infection was detected in China last December, and healthcare workers were faced with inevitable challenges and heavy stress. This study aggregated four waves of the psychosomatic survey lasting to last month, emphasizing healthcare workers but the rest of society. We aimed to present a dynamic mental health map and, most importantly, provide a timely report of the current situation in our colleagues.

Methods The current study successfully conducted four national cross-sectional online surveys from February and March 2020, Apr 2022, and Jan 2023. The Psychosomatic Symptom Scale (PSSS) and Perceived Stress Scale-10 (PSS-10) were used to assess psychosomatic symptoms and perceived stress.

Results 14945 participants participated in the surveys, including 8578 healthcare workers and 6367 others. The prevalence of psychosomatic syndrome, reflected by PSSS, was 19.3% (first wave), 22.9% (second wave), 36.4% (third wave), and 60.7% (fourth wave) among healthcare workers, compared to 24.0% (first wave), 35.7% (second wave), 34.2% (third wave) and 50.5% (fourth wave) among the others. In addition, healthcare workers exhibited lower PSSS total scores at the beginning (waves 1 and 2), but scores were higher at later waves (waves 3 and 4) (all $p < 0.05$). Despite their infection status, they now suffer from more severe psychosomatic symptoms than the rest of society.

Conclusion Healthcare workers?in China experienced severe?psychosomatic symptoms and tremendous stress now. There is an urgent need to utilize social support for them.

关键字：COVID-19, healthcare workers, psychosomatic symptoms, perceived stress, prevalence

The Efficacy of Add-on Robot-Aided Transcranial Magnetic Stimulation on The Negative Thinking Related To Pain in Adolescent Depressive Disorder

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Objective The pain catastrophising and vigilance are typical manifestations of the fear of pain. Oftentimes, adolescent patients with major depressive disorder (MDD) complain of fear of pain that negatively impact their day-to-day function, and these pain problems are not alleviated by current first-line treatments. Converging evidence suggests this relationship is due in part to shared neural mechanisms, especially the altered function of dorsolateral prefrontal cortex (DLPFC). This study examined the therapeutic effect of targeting DLPFC on the level of pain catastrophising and vigilance in adolescent depressive disorder by add-on Robot-Aided Transcranial Magnetic Stimulation(TMS).

Methods 60 adolescent MDD patients were allocated to treatment with either Robot-Aided TMS combined with sertraline (add-on TMS group, n=30) or only setraline (Sertraline group, n=30). In addition to receiving the same dose of sertraline as the control group, patients in TMS group received 10 sessions of Robot-Aided TMS over the bilateral DLPFC (left: 10Hz, right: 1Hz). Clinical response to treatment was determined using the Pain Catastrophizing Scale (PCS) and Pain Vigilance and Awareness Questionnaire (PVAQ), and the primary efficacy was the change in score from baseline to posttreatment assessment. Additional measures were score changes after another 8 month of follow-up.

Results The add-on TMS group displayed a significant decreased score on the PCS, the rumination subscale of PCS, and PVAQ after the intervention, compared to that in the Sertraline group (all P<.05). Also, a mixed-effects repeated-measures model revealed significant improvement in scores on the PCS, the rumination subscale of PCS,

and PVAQ during the post-intervention and follow-up periods in the add-on TMS group (all P < .05, Bonferroni correction).

Conclusion Add-on Robot-Aided TMS over the DLPFC significantly improved the negative thinking related to pain and may be considered as a potential intervention for adolescent MDD patients with a high level of pain fear.

关键字：adolescent depression; pain; add-on Robot-Aided Transcranial Magnetic Stimulation; treatment

Differences in The Depression and Burnout Networks between Doctors and Nurses: Evidence From A Network Analysis

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Objective Previous studies have demonstrated a strong association between depression and occupational burnout among healthcare professionals, but the results have been inconsistent, and there is a lack of in-depth exploration of such a relationship among different healthcare professions. The present study aims to investigate the interrelationships between depression and burnout among Chinese healthcare professionals and whether there are differences in the networks of these symptoms between doctors and nurses.

Methods The Maslach Burnout Inventory-General Survey and the 2-item Patient Health Questionnaire were employed to assess occupational burnout and depression among 3,684 healthcare professionals. The translation has been refined to ensure accuracy and academic suitability. Subsequently, network analysis was conducted on 2,244 participants with a higher level of occupational burnout to identify core symptoms and explore the associations between occupational burnout and depression.

Results The present study showed a network association between lack of interest and pleasure in things and being exhausted from work, excessive tiredness facing work, tendency to collapse at work, and lack of passion for work than before among healthcare professionals, as well as a notable difference in the network association between lack of interest and pleasure in things and lack of passion for work than before between nurses and doctors.

Conclusion The present study provided a reference for the development of targeted interventions to improve the mental health of healthcare professionals.

关键字：Healthcare professionals, depression, occupational burnout, network analysis

首发与复发抑郁症患者临床特征分析与护理对策

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目的 通过分析首发与复发抑郁症患者的临床特征及其差异，以期能对不同患者提供更为针对性的护理措施。

方法 对 2017 年 5 月 1 日-2022 年 10 月 31 日在我院住院的 911 例抑郁症患者进行回顾分析，总结首发和复发抑郁症患者汉密尔顿抑郁量表（HAMD）、汉密尔顿焦虑量表（HAMA）评分情况，采用 t 检验对两者之间的差异进行分析。

结果 纳入的 911 例患者中，首发抑郁症患者 408 例，复发患者 503 例。本次研究的 408 名首发抑郁障碍患者中，男 137 例（33.58%）、女 271 例（66.42%），女性患者多于男性患者；复发患者 503 例，男 144 例（28.63%）、女 359 例（71.37%），女性患者也多于男性患者。本研究发现首发抑郁症及复发抑郁症女性患者所占比例大于男性患者。所有纳入患者中，年龄分布在 12 岁- 81 岁之间，平均 44.67±16.97 岁。首发抑郁症患者平均年龄为 41.75±17.24 岁，复发患者中平均年龄为 47.04±16.39。显示抑郁症患者平均发病年龄为 40 岁左右。首发和复发抑郁症患者 HAMD 评分中，得分较高的前三位因子均为焦虑/躯体化、阻滞和绝望感；复发患者在早晨情绪变化和能力减退感方面得分均高于首发患者，差异具有统计学意义（P<0.05）。首发和复发抑郁症患者 HAMA 评分中，两组患者各条目得分及 HAMA 总分均无明显差异，但两组患者中精神性焦虑得分均高于躯体性焦虑。

结论 首发抑郁症及复发抑郁症中，平均年龄 40 岁，且女性多于男性，首发与复发抑郁症患者的护理过程中，要加强对焦虑/躯体化、阻滞、绝望感和精神性焦虑的观察，与首发抑郁症患者相比，要更多关注复发抑郁症患者晨起的情绪和对自身能力的怀疑程度。复发抑郁症患者晨起的情绪低落较首发患者更明显，且绝望悲观感觉更强烈，因此针对疾病反复发作与住院时间较长的患者，护理人员应耐心讲解复发原因，疏导不良情绪。首发与复发抑郁症患者均伴有明显的焦虑情绪。因此，护理人员应帮助患者辨别焦虑行为，进一步引导患者接受焦虑行为。引导患者描述其解决焦虑的方式，设想初较好的应对方式；教会患者静坐、慢跑等放松技巧；鼓励患者参加活动分散注意力。

关键字：抑郁症；临床特征；护理

MIR124 Polygenic Risk and Childhood Trauma Is Associated with Bipolar Disorder and Affects Functional Connectivity of The Striatum

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Objective Bipolar disorder (BD) is a highly heritable disease, with a complex multifactorial etiology, and the

specific mechanisms remain largely unknown. MicroRNA-124 (MIR124) is associated with polygenic risks in the BD, which may relate to the integrity of brain function. Our study was to investigate the associations between MIR124 polygenic risk score (PRS) and functional connectivity (FC) of the striatum, as well as their relationship with childhood trauma.

Methods We calculated MIR124 PRS from 80 patients with BD and 54 healthy controls (HCs). And childhood trauma was measured by the Chinese version of Childhood Trauma Questionnaire (CTQ). We also analyzed resting-state functional magnetic resonance imaging (fMRI) data from BD and HCs. The sliding-window analysis was used to evaluate whole-brain FC for each striatum subregion seed. Partial correlation and mediation analysis were performed to explore the associations between MIR124 PRS, CTQ scores and FC values.

Results MIR124 PRS in the BD patients was significantly higher than that in the HCs. The frequency and score of emotional abuse (EA), physical abuse (PA), emotional neglect (EN), and physical neglect (PN) were higher in those patients with BD than those in HCs. Compared with the HCs group, the BD group exhibited decreased FC between the left dorsal caudate (dCa) and the right thalamus, the right dCa and the left medial superior frontal gyrus, and between the right dorsolateral putamen (dlPu) and right median cingulate and paracingulate gyri, as well as increased FC between the right dlPu and left precentral gyrus, and between the right globus pallidus (GP) and left precentral gyrus. In BD patients, MIR124 PRS showed a positive correlation with the FC values in the right GP-left precentral gyrus, and a negative correlation with the FC values in the right dlPu-right median cingulate and paracingulate gyri. In addition, MIR124 PRS and the FC values in the right GP-left precentral gyrus showed positive correlations with CTQ scores. The mediation analyses showed that the CTQ EN and PN scores were complete mediators of the relationship between MIR124 PRS and FC between right GP and left precentral gyrus.

Conclusion The findings suggested that higher MIR124 PRS and childhood trauma may relate to aberrant FC of corticostriatal circuitry in BD, which may provide new information on the mechanism of BD.

关键字：Bipolar disorder; MicroRNA-124; Functional connectivity; Childhood trauma; Striatum

Sex Differences in Serum Trace Elements/Minerals Levels in Unmedicated Patients with Unipolar and Bipolar Depression: The Role of Suicidal Ideation

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Objective Suicide in major depressive disorder (MDD) and bipolar disorder (BD) is a global public health concern. Evidence suggests that trace elements and minerals contribute to the pathogenesis of MDD/BD and suicide. However, sex differences in trace elements/minerals in MDD/BD with suicidal ideation are unknown. We aimed to examine the influence of gender on serum levels of trace elements/minerals in depression, as well as the impact of suicidal ideation (SI) on these gender dimorphisms.

Methods A total of 260 depressed patients (84 BD and 176 MDD) were recruited in this cross-sectional study. Suicidal ideation (SI) was assessed by the Beck Scale for Suicide Ideation Part I. Serum levels of copper, zinc, iron, calcium, magnesium and phosphorus were measured using atomic absorption spectroscopy.

Results The prevalence of SI in males and females was 36% and 43% respectively, with no significant difference ($\chi2 = 3.103$, $p = 0.078$). A main effect of sex was observed on copper, zinc, iron, calcium, and phosphorus (all $p < 0.05$). Analysis of covariance further showed that serum levels of copper ($F = 10.991$, $p = 0.001$) and phosphorus ($F = 7.708$, $p = 0.008$) were higher while zinc ($F = 5.278$, $p = 0.022$) and calcium ($F = 7.127$, $p = 0.008$) were lower in females than in males within the non-SI (NSI) group, but there were no gender differences of these trace elements within the SI group (all $p > 0.05$). However, no group effect was found (all $p > 0.05$). Only for serum iron levels, a group-by-sex interaction effect was seen ($F=5.126$, $p = 0.024$). Simple effect analyses indicated that serum iron levels were higher in the SI group than in the NSI group among females ($F = 3.955$, $p = 0.048$), and lower in females than in males within the NSI group ($F = 18.786$, $p < 0.001$). In females, but not in males, iron levels in the fourth quantile were positively associated with SI (odds ratio [OR] = 2.88, 95% confidence interval [CI]: 1.08–8.11).

Conclusion SI attenuated sex differences in serum trace element/mineral levels in depressed patients with MDD/BD. Serum iron levels were elevated when SI occurred in female patients. In turn, female patients with high serum iron levels were susceptible to SI.

关键字：Depression, iron, minerals, suicidal thought, sex difference, trace elements

喹硫平联合碳酸锂对青少年双相情感障碍I型躁狂相患者认知功能及生活质量的影响

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目的 观察喹硫平联合碳酸锂对青少年双相情感障碍I型躁狂相患者认知功能及生活质量的影响。

方法 选择石家庄市第八医院精神病科 2019 年 2 月至 2020 年 2 月期间收治的 74 例青少年双相情感障碍I型躁狂相患者为研究对象，按照简单随机化法分为对照组和观察组，每组 37 例。对照组患者给予碳酸锂治疗，疗程为 8 周；观察组患者行喹硫平联合碳酸锂治疗，疗程为 8 周。比较 2 组患者治疗前后的倍克-拉范森躁狂评定量表 (BRMS)评分、临床总体印象疾病严重度量表（CGI-s-BP）评分、生活质量综合评定问卷（GQOLI-74）评分及重复性成套神经心理状态测验(RBANS)评分，并观察比较 2 组患者的疗效及治疗期间不良反应发生情况。

结果 治疗前，2 组患者的 BRMS 评分、CGI-s-BP 评分、各项 GQOLI-74 评分、各项认知功能评分比较差异均无统计学意义（P＞0.05）。治疗后，2 组患者的 BRMS、CGI-s-BP 评分与治疗前比较均显著降低（P＜0.05），各项 GQOLI-74 评分、各项认知功能评分与治疗前比较均显著升高（P＜0.05）。对照组 37 例患者中，显效 13 例（29.72%），有效 14 例（37.84），无效 10 例（27.03），总有效率 72.97%；观察组 37 例患者中，显效 19 例（51.35%），有效 13 例（35.14），无效 5 例（13.51），总有效率 86.49%；观察组患者的总有效率显著高于对照组（=3.331，P＜0.05）。对照组患者发生腹泻 2 例（5.40%），便秘 1 例（2.70%），恶心呕吐 2 例（5.40%），头晕嗜睡 2 例（5.40%），震颤 1 例（2.70%），乏力 4 例（8.11%），口干 1 例（5.40%），不良反应发生率为 35.14%（13/37）；观察组发生腹泻 2 例（5.40%），便秘 1 例（2.70%），恶心呕吐 3 例（8.11%），头晕嗜睡 1 例（2.70%），低血压 2 例（5.40%），震颤 1 例（2.70%），乏力 3 例（8.11%），口干 1 例（2.70%），不良反应发生率为 37.84%（14/37）；2 组患者的不良反应发生率比较差异无统计学意义（=0.778，P＞0.05）。

结论 喹硫平联合碳酸锂对少双相情感障碍I型躁狂相患者能改善患者认知功能及生活质量的影响，临床疗效确切，用药安全。

关键字：双相情感障碍；躁狂；青少年；喹硫平；碳酸锂

自尊、述情障碍、疏离感对青少年非自杀性自伤的影响

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目的 探讨自尊、述情障碍、疏离感水平对青少年非自杀性自伤的影响。

方法 选取60例南宁市某医院精神心理科门诊及住院存在非自杀性自伤(non-suicidal self-injury,NSSI)行为的青少年作为研究组，以 60 例年龄、性别、受教育程度相匹配的青少年作为对照组，采用青少年自我伤害问卷(adolescents self-harm scale)、自尊问卷(Self-esteem Scale)、多伦多述情障碍问卷（Toronto Alexithymia scale，TAS）、青少年学生疏离感问卷（adolescent students′alienation scale，ASAS）分别进行测评。使用 SPSS 22.0 软件对数据进行独立样本 t 检验、χ2 检验、Pearson 线性相关、多因素 Logistic 回归分析。

结果 研究组和对照组在性别(χ2= 1.319,P = 0.251)、年龄(t= 0.240,P= 0. 811)、受教育年限(t = 0.290,P =0.772)差异无统计学意义，两组具有可比性；研究组的自尊水平得分低于对照组 [(19.38±5.437)分,(26.18±5.150)分]（P<0.01），述情障碍得分高于对照组[(82.10±8.276)分，(72.51±10.383)分] （P<0.01），疏离感均分高于对照组[(5.15±0.992)分，(3.53±1.191)分]（P<0.01）；自尊水平、社会疏离感、人际疏离感、环境疏离感均与青少年 NSSI 存在相关关系(r=-0.410，P<0.01；r=0.494，P<0.01；r=0.528，P<0.01;r=0.516，P<0.01)；Logistic 回归分析结果显示高疏离感(B=--1.505,OR= 0.222,95%CI=0.103-0.479,P=0.000)、女性(B=1.648,OR=5.195,95%CI=1.225-22.035,P=0.025)、居住地为农村 (B=-1.195,OR= 0.303,95%CI= 0.155-0.592,P= 0.000)，青少年发生 NSSI 风险较大。

结论 低自尊、高疏离感和青少年 NSSI 相关；高疏离感、女性、居住地为农村，可能是青少年 NSSI 的危险因素。

关键字：非自杀性自伤;青少年;自尊；述情障碍；疏离感

Individuals with Genetic High-risk for Psychosis Experience Impaired Coping Styles Compared with Healthy Controls

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Objectives The present study was designed to assess the role of coping style and self-esteem in the context of different phases of schizophrenia.

Methods Recurrent Schizophrenia(ReSch) ,first-episode schizophrenia patients (FEP), ultra-high riskfor psychosis (UHR) patients,and healthy controls (HC) (40 per group) were subjected to in-person clinical interviews. The results of these interviews were then used to gauge coping style and self-esteem using the Coping Styles Questionnaire (CSQ) and the Rosenberg's Self-Esteem Scale(RSES) . Data were analyzed through ANCOVAs and logistic regression analyses.

Results We found that positive coping style(CSQ problem-solving and CSQ seeking for help) generally decline with progression through the HC, UHR,and FEPgroups,while negative coping style(CSQ fantasy,CSQ repression and CSQ self-blame) generally increase with progression through the HC, UHR,and FEPgroups (except that UHR group was slightly lower than HC group in CSQself-blame).Results for members of ReSch group were in line with those of members of the FEP group in coping style.At the level of self-esteem, the UHR group was similar to the HC group and significantly higher than the FEP group and the ReSch group.Logistic regression analyses indicated that UHR group patients exhibited increased negative coping styles(CSQ fantasy) relative to members of the HC group, but had greater Positive coping style（CSQ problem-solving and CSQ seeking for help）than did members of the FEP group and RescH group. It also showed that the UHR group had higher levels of self-esteem than the members of Resch Group.

Conclusions These findings suggest that both UHR individuals experience impaired negative coping styles which expands the understanding of the psychological characteristics of the prodromal group. Further explorations are warranted to develop optimal psychosocial interventions.

关键字：coping style, schizophrenia, self-esteem, genetic-high risk for psychosis.

Gene Polymorphisms and Expression of NRG1, DAOA and DISC1 Gene in A Chinese Han Population with An Ultra-high Risk for Psychosis

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Objectives The objective of the current study was to explore the NRG1, DAOA, DISC1 gene polymorphism and the expression of NRG1 gene and DISC1 gene in ultra-high risk population, and to explore the biomarkers of UHR population.

Methods The study cohort consisted of 56 healthy controls,18 ultra-high risk (UHR) individuals, 61 first-episode (FEP) psychosis individuals and 61 first-degree relatives (FDR) of patients with schizophrenia. The genotypes at the four loci of the NRG1 gene, the four loci of the DAOA gene, and the two loci of the DISC1 gene were tested for all subjects, and the mRNAs of the NRG1, DISC1 of all subjects were examined and analyzed in a pairwise comparison between the UHR group and the FEP group, the UHR group and the FDR group, and the UHR group and the HC group. Statistical analysis of genetics was performed using snpstats software. For the case-control association analysis, single site association study, epistatic effect analysis as well as haplotype analysis were used to explore the association of the above genes with UHR from three perspectives.

Results 1. UHR group vs FEP group: the results of single site association analysis showed that: the rs3918341 locus of DAOA gene was associated with UHR; Epistatic effect analysis results showed that the rs6994992 polymorphism in the NRG1 gene interacted with the rs778294 polymorphism in the DAOA gene and that the rs6994992 polymorphism in the NRG1 gene interacted with the rs821616 polymorphism in the DISC1 gene in the susceptibility to UHR; The results of haplotype association analysis showed that all haplotypes were not significantly associated with UHR. 2. UHR groupvs FDRgroup: the results of single site association analysis showed that: the rs3918341 locus of DAOA gene was associated with UHR; Epistatic effect analysis results showed that the rs6994992 polymorphism in the NRG1 gene interacted with the rs2391191 polymorphism in the DAOA gene in the susceptibility to UHR; The results of haplotype association analysis showed that all haplotypes were not significantly associated with UHR. 3. UHR group vs HC group:No significant association was detected in two groups; Epistatic effect analysis results showed that the rs6994992 polymorphism in the NRG1 gene interacted with the rs2391191 polymorphism in the DAOA gene and that the rs4281084 polymorphism in the NRG1 gene interacted with the rs2391191polymorphism in the DAOA gene in the susceptibility to UHR; The results of haplotype association analysis showed that all haplotypes were not significantly associated with UHR. 4. Results of the four groups on gene expression of NRG1, DISC1:NRG1 mRNA was significantly downregulated in the UHR group compared with the HC group as well as the FEP group.

Conclusions Our preliminary results that NRG1、DAOA and DISC1 gene may play a role in psychosis onset,opening the way to the identification of prognostic biomarkers.

关键字：ultra-high risk for psychosis,Genetic susceptibility NRG1;DAOA;DISC1.

孤独谱系障碍的精神药物治疗研究进展

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目的 孤独症谱系障碍(autism spectrum disorder,ASD）是一种复杂的神经发育性障碍，是导致儿童精神残疾的主要原因，给患儿和家庭造成了严重的心理和经济负担。ASD 病因学很复杂，发病机制尚不清楚，针对核心症状还无有效的药物治疗方案，主要采用行为干预的方法。近年来，随着对该障碍及其共病问题认识的深入，如青少年 ASD 共病冲动、自残及其他挑战性行为时，需要抗精神病药物治疗。另外，其他相关药物的使用率也显著增加，有些患者联合多种药物，多种药物的使用率高达 12%~35% ，甚至在幼儿中出现抗精神病药物等超处方使用问题。为了规范 ASD 相关精神药理学的治疗，本文对 ASD 药物治疗相关研究进行综述。

方法 本文主要就近 3 年来孤独症谱系障碍的精神药物治疗方面的研究和文献进行综述。

结果 共检索到文献 571 篇，最终纳入 49 篇，文献主要来自儿科学、精神病学。

结论 ASD 是一种严重而复杂的早期神经发育性障碍，病因学异质性很大，预后差，是引起儿童精神残疾的主要原因。目前，有循证依据干预 ASD 核心症状的方法是行为干预，精神药物治疗主要是解决与 ASD 相关的并随年龄增长而表现突出的共病问题。抗精神病药物和中枢兴奋剂在 ASD 患者的临床管理中具有重要作用。依据已知的神经生物学异常所致的 ASD 表型，探讨对核心症状的靶向药物治疗研究已取得了一定的进步，至少在动物模型中看到了逆转其神经生物学异常的可能，催产素、布美他尼、二甲双胍、磷酸二酯酶 4D 抑制剂等化合物的研究结论不一致。许多 ASD 亚型也缺乏 GABA，作为 GABA 系统的激动剂 CBD、阿巴氯芬等值得进一步研究。线粒体功能异常也与一些 ASD 有关，改善线粒体功能的药物 AV2-73 也在进行研究。相信随着神经生物医药学技术的不断发展，有可能诞生治疗 ASD 核心症状的化合物。

关键字：孤独谱系障碍；药理学；治疗

重大疫情常态化防控下儿童青少年心理健康预警量表的编制及信效度检验

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目的 基于新型冠状病毒肺炎(COVID-19)疫情常态化防控期间儿童青少年心理健康评估及风险因素研究成果，编制重大疫情常态化防控下儿童青少年心理健康风险预警量表，并检验其信效度，以期对重大公共卫生事件下儿童青少年心理危机早期干预提供方法手段。

方法 根据 2021 年至 2022 年新冠肺炎大流行期间对全国五个省市（北京、山西、陕西、武汉、山东）的儿童青少年进行线下问卷调查，每 6 个月对同一批学生采集相关量表数据进行纵向动态追踪，评估其在疫情常态化防控期间的负性情绪、行为问题水平，分析其与人格特性、认知模式、家庭环境、人际关系、应激事件等内外源因素的交互影响情况。本研究使用机器学习的梯度提升决策树模型，在不同时间点对产生负面情绪结果的目标在各个横断面进行学习，寻找与之关联度最高的保护性因素与危险性因素。根据相关因素在原始调查量表中的问题，编制疫情常态化防控下儿童青少年心理健康风险预警量表。

结果 本研究共纳入 2413 名 10-18 岁儿童青少年，共采集 3 个时间点数据，利用梯度提升决策树模型筛选出包含家庭状况、自我认识、网络成瘾、社会事件等 4-5 个维度在内的 10 个问题，形成重大疫情常态化防控下儿童青少年心理健康预警量表。量表各维度与总量表相关系数为 0.55-0.87(P<0.01)，维度间相关系数为 0.19-0.53（P<0.01），量表各条目的内容效度指数为 0.8-1.0。对初中生在抑郁情绪和焦虑情绪的预警判断，ROC 曲线下面积分别为 0.92 和 0.91。

结论 重大疫情常态化防控下儿童青少年心理健康预警量表信度和效度均较高，尤其适用于初中阶段学生的快速筛查，在修改和新型冠状病毒肺炎相关的措辞后，可用于重大公共卫生事件防控期间快速筛查儿童青少年心理健康问题及风险预警。

关键字：疫情常态化防控；儿童青少年心理健康；梯度提升决策树模型；预警量表

综合医院患者抑郁、焦虑与失眠症状现况调查

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目的 综合医院躯体疾病患者常伴有抑郁、焦虑与失眠症状，但大多数患者未被识别与诊治。本研究对北京朝阳医院门诊和住院患者抑郁、焦虑与失眠症状进行现况调查，调查综合医院躯体疾病患者伴发抑郁、焦虑与失眠症状的情况，并分析相关影响因素。

方法 以北京朝阳医院门诊和住院患者为对象，通过“朝阳健康云”APP 中“情绪筛查”板块进行调查，抽样方法为方便抽样。该板块设置三个量表：患者健康问卷（PHQ-9），用于抑郁症状的评估；广泛性焦虑障碍量表（GAD-7），用于焦虑症状的评估；阿森斯失眠量表（AIS），用于失眠症状的评估。使用该 APP 对 2021 年 10 月份到 2023 年 3 月间回收的 4221 份有效问卷进行分析。PHQ-9 收集 1663 份、GAD-7 收集 2305 份、AIS 收集 2265 份，其中同时完成三份量表的共有 936 人，同时完成 PHQ-9 与 GAD-7 的共有 1100 人。研究使用 SPSS26.0 对问卷结果进行统计分析，以 5 分作为 PHQ-9 抑郁筛查和 GAD-7 焦虑筛查的阳性划界值，以 10 分作为 PHQ-9 抑郁诊断和 GAD-7 焦虑诊断的阳性划界值，调查各量表筛查与诊断阳性率，以及人口学因素对量表结果的影响。

结果 PHQ-9 抑郁筛查阳性率为 80.8%、GAD-7 焦虑筛查阳性率为 82.7%、AIS 失眠筛查阳性率为 74.5%；PHQ-9 抑郁诊断阳性率为 36.5%，GAD-7 焦虑诊断阳性率 48.2%。同时诊断阳性率为 21.8%。PHQ-9、GAD-7 与 AIS 量表得分之间具有相关性，且相关显著，三者与年龄的相关也较为显著；GAD-7 量表得分男性明显高于女性；文化程度、年龄和婚姻状态可以预测 PHQ-9 分数。

结论 综合医院躯体疾病患者伴发抑郁、焦虑与失眠症状较为常见。综合医院医生应加强精神卫生知识学习，提高对精神障碍的识别能力。

关键字：综合医院，抑郁，焦虑，失眠

失眠症患者静息态功能磁共振脑默认网络功能连接分析

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目的 探讨失眠症患者静息状态下大脑默认网络功能连接的变化。

方法 2021 年 7 月至 2022 年 1 月纳入符合国际睡眠障碍分类第三版诊断标准的失眠症患者 56 例，同期招募 50 例健康对照。采用匹兹堡睡眠指数量表、失眠严重指数、Epworth 嗜睡程度评价表、汉密尔顿抑郁量表 17 项对所有被试进行神经心理评估。对所有被试进行静息态功能磁共振扫描，在 MATLAB 上应用 SPM12 及 CONN18b 对 rs-fMRI 数据进行预处理，以双侧楔前叶、内侧额上回定义为种子点，比较两组研究对象功能连接强度的差异。并将差异有统计学意义脑区的 FC 值与 PSQI、ISI 评分进行 Pearson 相关性分析。

结果 FC 分析发现，与对照组相比，失眠症患者存在默认网络连接异常，具体如下：（1）左内侧额上回与左中央前回及前扣带回间 FC、右内侧额上回与左中央前回间 FC、左楔前叶与左中央前后回及左枕上回间 FC、右楔前叶与左中央后回间 FC 增强。（2）而左楔前

叶与右额中回及右角回间 FC、右楔前叶与左颞下回间 FC 减弱。相关性分析发现，以左内侧额上回为种子点，FC 值与 PSQI、ISI 评分呈正相关的脑区为前扣带回、左中央前回；以右楔前叶为种子点，FC 值与 PSQI、ISI 评分呈正相关的脑区为左中央后回

结论 失眠症患者可能存在多个网络的功能连接改变，DMN 内 FC 减弱可能是失眠症的潜在病因之一，DMN 与视空间注意网络间 FC 增强可能是失眠症大脑功能网络受损机制中的核心环节。

关键字：失眠症；静息态功能磁共振成像；功能连接；脑默认网络

经颅直流电刺激对首发未用药抑郁患者的疗效及静息态局部一致性研究

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目的 本研究拟探讨高精度多通道经颅直流电刺激（Transcranial direct-current stimulation, tDCS）左侧背外侧前额叶（dorolateral prefrontal cortex, DLPFC）对首发未用药抑郁患者的疗效和认知水平变化，并基于静息态磁共振技术分析 tDCS 治疗前后的局部一致性（Regional Homogeneity，ReHo）指标，为 tDCS 治疗抑郁患者提供新的证据。

方法 本研究社区招募符合入排标准的 19 名抑郁发作患者和匹配的 14 名健康对照，抑郁组完成为期两周（刺激靶点：左侧 DLPFC，频率：5 次/周，30min/次，共 10 次）的 tDCS 治疗。使用自制的一般情况表收集受试者人口学资料，在基线、tDCS 治疗 2 周后使用贝克抑郁量表（Beck Depression Inventory, BDI）、贝克焦虑量表（Beck Anxiety Inventory, BAI）、匹兹堡睡眠质量指数（Pittsburgh sleep quality index, PSQI）、疼痛测量尺评估患者的临床症状，使用神经心理状态评定量表（Repeatable Battery for the Assessment of Neuropsychological Status, RBANS）及抑郁症患者感知缺陷问卷（Perceived Deficits Questionnaire Depression, PDQ-D）评估患者的认知水平。使用静息态磁共振 ReHo 指标探讨受试者治疗前后的功能差异。 提取差异脑区的 ReHo 值与抑郁受试者的临床及认知数据进行相关分析。

结果 1）疗效评估：①抑郁水平：基线抑郁患者较健康对照组抑郁症状明显（BDI 得分：19.1±5.8 vs 0.9±1.4, p＜0.001），tDCS 干预后抑郁得分明显降低（p＜0.001），治疗前后减分率达到 50%以上的有 11 人，占比 57.9%；②焦虑水平，基线抑郁患者的焦虑水平较健康对照高（p＜0.001），tDCS 干预 2 周后抑郁患者的 BAI 焦虑得分明显降低（p＜0.001）；③睡眠质量：基线抑郁患者的睡眠质量较健康对照差， tDCS 干预后患者睡眠质量改善明显（p＜0.01）；④疼痛测量，基线抑郁患者自评疼痛得分较健康对照高（p＜0.001），tDCS 干预前后下降明显（p＜0.01）；⑤

关键字：首发未用药抑郁患者；高精度多通道经颅直流电刺激；磁共振；局部一致性

伴非自杀性自伤的抑郁障碍青少年患者经 SSRI 类抗抑郁药治疗前后的脑电微状态研究

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目的 单纯药物治疗对伴 NSSI 的抑郁障碍青少年患者疗效目前仍不明确，目前主流认为药物治疗仅针对抑郁障碍共病，而部分患者治疗后自伤行为缓解，具体原因仍待探究。

方法 为了探索 SSRI 类药物治疗伴 NSSI 的抑郁障碍青少年疗效，本研究对 58 名接受单纯药物治疗的伴有 NSSI 及单纯的抑郁障碍青少年进行随访，探究经过 8 周治疗后各组患者疗效反应及静息态脑电微状态变化，以及其内在的相关性分析。使用配对样本 t 检验被用来进行治疗前后比较，Spearman 相关性分析了基线水平脑电微状态参数与患者抑郁症状及自伤行为改善情况的相关。

结果 在经过单纯 SSRI 类药物治疗后，患者组 58 名抑郁青少年患者在微状态 B（P <0.01）的出现率，以及微状态 C（P <0.05）的平均持续时长均较基线水平降低，在转化动力水平上则在微状态 C 向 B 转化的概率（P <0.05）呈显著下降趋势。药物治疗 4 周时在患者自评（P <0.05）及医师他评（P <0.05）水平上观察单纯 MDD 组抑郁症状疗效反应均优于 NSSI 组，但在治疗 8 周后差异不再显著。NSSI 组经药物治疗后自伤频率下降患者，与未下降患者比在基线水平脑电微状态参数上无显著差异。NSSI 组抑郁症状改善患者基线水平脑电微状态 A 的覆盖率（P <0.05）及每秒出现频率（P <0.05）以及 B→A 的转化概率（P <0.01）上显著升高；而 MDD 组抑郁症状改善患者则在微状态 B 的平均持续时长（P <0.05）及覆盖率（P <0.05）上显著升高， 而微状态 C→A 的转化概率（P <0.05）显著降低。

结论 伴或不伴有 NSSI 的抑郁障碍青少年经 8 周 SSRI 类药物治疗后对抑郁症状的疗效反应无显著差异，其反应程度在基线水平脑电微状态上表现为不同模式。抑郁障碍青少年药物治疗前后在脑电微状态参数上识别到稳定地变化。

关键字：青少年，抑郁障碍，SSRIs 药物治疗，非自杀性自伤，脑电微状态

神经性厌食症患者杏仁核和海马亚区体积异常及其与临床特征的关联研究

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目的 本研究旨在探索神经性厌食症（AN）患者的杏仁核和海马亚区体积是否存在异常，并探究其与临床心理特征之间的关联。

方法 我们在四川大学华西医院精神卫生中心招募了 31 名汉族女性 AN 患者和 80 名与其年龄相匹配的汉族女性健康对照者。采用 T1 加权 MRI 扫描，使用 FreeSurfer7 对杏仁核和海马进行亚区分割和多阶段质量控制。收集所有被试的一般人口学资料和 AN 患者的病程及发病年龄，并使用核心自我评价（CSES）、自尊水平（RSES）、父母教养方式问卷（EMBU）评估 AN 患者的心理特征。采用协方差分析比较 AN 患者和健康对照者的左/右半球杏仁核亚区和海马亚区体积。偏相关分析用于探究脑区体积与一般临床心理特征之间的相关性。

结果 在校正受试者的年龄、受教育年限和总颅内体积（TIV）后，我们发现相对于健康对照者，AN 患者在 6 个杏仁核亚区（即左侧副基底核、左侧中央核、左侧内侧核、左侧皮层核、右侧外侧核和右侧皮层杏仁核过渡区）和 2 个海马亚区（右侧海马纤维束和右侧海马肌嵴）的体积显著减小。此外，我们发现 AN 患者的右侧海马纤维束体积与其父亲的情感温暖与理解（r= 0.45, p =0.018）、父亲的过度保护（r = 0.47, p = 0.013）和母亲的情感温暖与理解（r= 0.46, p = 0.015）呈显著正相关。然而，差异脑区体积与 AN 患者的 BMI、病程、发病年龄、自尊水平和核心自我评价之间无显著相关性（p > 0.05）。

结论 本研究的结果显示，AN 患者在多个杏仁核亚区和海马亚区的体积显著减小，这些结构的异常可能通过影响患者的食欲、情绪和奖赏调节而参与 AN 的发生和发展。此外，右侧海马纤维束体积与父母教养方式有关，这提示家庭环境可能对疾病的发展存在潜在影响。本研究的发现有助于加深我们对 AN 病因和病理生理的理解，为进一步研究和临床诊疗提供了线索。

关键字：神经性厌食症; 杏仁核; 海马; 父母教养方式

Efficacy of TDCS in The Treatment of Cognitive Function in Patients with Major Depressive Disorder: A Systematic Review and Meta-analysis

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Objective Transcranial direct current stimulation (tDCS) has demonstrated as a promising treatment for depression. However, it remains to be determined whether a tDCS treatment course may also enhance cognitive function in depressed patients. We conducted the first systematic review and meta-analysis of the efficacy of tDCS in anti-depressive treatment and its impact on cognitive function (INPLASY registration number: INPLASY202360008).

Methods A systematic review was performed from the first date available in PubMed, EMBASE, Cochrane Library, and additional sources published in English from 1 January 2001 to 31 May 2023. We examined cognitive outcomes from randomised, sham-controlled trials of tDCS treatment for major depression. The evaluation process strictly followed the Cochrane bias risk assessment tool into the literature, and Metaanalysis was performed according to the Cochrane System Reviewer's Manual.

Results We included a total of 341 patients from 11 studies in this quantitative synthesis. Results showed no cognitive enhancement after active tDCS compared to sham for the antidepressant effect (SDM -1.89 [-4.14, 0.36]) as well as cognitive function and verbal memory measures (SDM 0.17 [-0.07, 0.41]). Active relative to sham tDCS treatment was associated with increased performance gains on a measure of processing speed (SDM 0.38 [0.01, 0.73]).

Conclusion Active tDCS treatment for depression exhibited limitted benefits compared to sham tDCS. Further well-designed, large-scale RCTs are warranted.

关键字：Transcranial direct current stimulation, treatment, depression, cognition.

右美托咪定滴鼻用于改良电休克治疗中的效果评估

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目的 观察在 MECT 常规治疗前使用右美托咪定滴鼻对电疗效果的影响，以及对电疗副作用的疗效。

方法 选择住院 MECT 治疗的患者 60 例，年龄 18～65 岁；ASA 分级：I—II级；随机分为两组，在首次行 MECT 治疗前分别经鼻腔滴注 1ug/Kg 右美托咪定（试验组）或等量生理盐水（对照组）。滴鼻半小时后行常规 MECT 治疗。记录入室前（T0）麻醉前（T1）、麻醉后(T2) 、治疗后 MECT 通电后 30 s(T3) 及苏醒后（T4）的 MAP 和 HR。采集护理满意度评分，治疗前后认知评分评分、发作时间、苏醒时长、围治疗期不良事件。

结果 与对照组相比试验组护理满意度评分更高（P＜0.05），麻醉后的心率降低更明显（P＜0.05），治疗后血压心率试验组也低于对照组（P＜0.05），苏醒后试验组患者心率低于对照组（P＜0.05），治疗后躁动比例降低（P＜0.05）。首次通电未发作例数、发作时间＜25s 的例数以及发作时间长短方面没有统计学差异，苏醒时间，治疗前后的认知反应也无明显差异。

结论 MECT 治疗前右美托咪定滴鼻可降低心血管反应，提高患者配合度，减少治疗后躁动应，而不影响癫痫发作，不延长苏醒时间。

关键字：右美托咪定; 无抽搐电休克；滴鼻

预测焦虑障碍慢性化倾向的影响因素

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目的 以广泛性焦虑障碍（GAD）和惊恐障碍（PD）住院患者为研究对象，构建焦虑障碍数据库，探索预测慢性化焦虑的临床及生物学标记，为临床的早期识别提供简单、可行的预测指标。

方法 1.构建焦虑障碍数据库：回顾性搜集 2014 年 5 月至 2021 年 5 月期间来郑州大学第一附属医院精神医学科就诊的住院患者 GAD 和 PD 病例，共 3440 例。根据入组标准（ICD-10 诊断标准）和排除标准（排除其他精神疾病和器质性疾病等），同时结合住院病历及追踪查询门诊病历进行复核性诊断，共有 1121 例患者被纳入本研究，构建包括社会人口学资料、临床特征和生物学指标的 GAD/PD 数据库，共有 61 个变量。2.统计学分析：采用 SPSS 26.0 统计学软件进行一般数据分析，P＜0.05 表示差异有统计学意义。

结果 1.焦虑慢性化患者的筛选 所纳入 1121 例患者的病程分布特征为非正态分布，排除“1 年＜病程＜2 年”仅有的 18 例患者；将“病程≥2 年”自定义为慢性组（简称 GAD/PD-C 组，共 429 例），“病程≤1 年”自定义为非慢性组（简称 GAD/PD-NC 组，共 674 例），最终共纳入 1103 例。2.两组的一般情况及临床资料比较 比较两组社会人口学及临床特征发现，性别、年龄、诊断亚型、首发年龄、诱因、个性倾向、系统药物治疗和精神疾病家族史差异具有统计学意义（P<0.05），其他特征差异无统计学意义（P＞0.05）。比较两组生物学指标发现，C 反应蛋白（CRP）、复合炎症指数 NLR（中性粒细胞/淋巴细胞比值）、的促肾上腺皮质激素（ACTH）16 点、皮质醇（Cor）16 点、甲状腺素（TT4）、游离甲状腺素（FT4）、泌乳素（PRL）、雌二醇（E2）、孕酮 P（PROG）、睾酮 T（TESTO）、尿素（Urea）、总胆固醇（T-CHO）、甘油三酯（TG）、载脂蛋白 B（APOB）、低密度脂蛋白（LDL）和血管紧张素转换酶（ACE）水平差异具有统计学意义（P<0.05），其他指标差异无统计学意义（P＞0.05）。

结论 1.GAD/PD-C 和 GAD/PD-NC 患者在临床特征上的差异，提示个体可能在病程轨迹上具有异质性，在早期阶段也能一定程度预测焦虑的慢性化。 2.焦虑障碍的慢性化是复杂、多因素的，机体神经内分泌免疫反应及代谢紊乱可能与 GAD/PD-C 关联，影响着其临床自然病程，甚至导致治疗效果上的差异。

关键字：焦虑障碍；广泛性焦虑障碍；惊恐障碍；慢性化；预测

Rumination and Alexithymia Conversely Mediate The Relationship between Somatic and Depressive Symptoms in Patients with Major Depressive Disorder

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Objective Somatic symptoms are of high prevalence in patients with major depressive disorder (MDD) and are identified as hallmarks of this population in China. The psychological mechanism between somatic symptoms and depression has not been well explored. Rumination and alexithymia as two psychological traits have been consecutively reported to be associated with both depression and somatization, implying their possible roles bridging the two symptom dimensions. This study aims to explore the underlying role of these two psychological traits in the relationship between depression and somatization in a clinical population with MDD.

Methods A total of 200 patients from a tertiary psychiatric hospital in mainland China who met DSM-5 criteria for MDD were enrolled. Rumination (including two components, brooding and reflection), alexithymia (including three components, difficulty identifying feelings (DIF), difficulty describing feelings (DDF), and externally oriented thinking (EOT)), depression, and somatic symptoms were measured by using the 10-items Rumination Rating Scale (RRS-10), 20-items Toronto Alexithymia Scale (TAS-20),16-items Quick Inventory for Depressive Symptoms SR (QIDS-16 SR), and 15-items Patient Health Questionnaire (PHQ-15), respectively. Six path analysis models were built by using “R” software to examine the potential effects of rumination and alexithymia (either acting as mediators or confounders) in the relationship between somatic symptoms and depression.

Results It showed that rumination and alexithymia significantly mediated the relationship between depression and somatization in converse directions. In detail, brooding rumination significantly mediated the path from somatic symptoms to depression, while DIF significantly mediated the converse path. Specifically, brooding explained 12.3 percent of impact of somatization on depression, yet the mediating effect of DIF contributed to 12 percent of the total causal effect of depression on somatization. Besides, while there were strong correlations among these four factors, the result confirmed that neither rumination nor alexithymia was a confounding factor in the relationship of the depression-somatic symptoms.

Conclusion Our findings provide novel evidence for how cognitive traits and emotional regulation strategies may bridge these two symptom domains. Specifically, this study reveals the mediating roles of brooding rumination and DIF alexithymia in the converse path between somatic symptoms and depression, which may be helpful to explain the high co-occurrence of these two symptom sets from a psychological perspective. Moreover, this implies the po-

tential treatment targets in psychotherapy for patients exhibiting clinical symptoms of both depression and somatization and provides segmented intervention targets for different scenarios.

关键字：Depression; Somatization; Alexithymia; Rumination.

住院医师规范化培训学员心理健康影响因素分析

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目的 探讨住培学员心理健康的影响因素，为进一步提高住培学员心理健康水平及改善住培学员心理健康问题提供理论依据。

方法 采用自编《住培学员心理健康评定量表》，以及曹静等汉化的《接纳与行动问卷第二版》、陈思佚等汉化的《正念注意觉知量表》对云南省昆明市某两家住培基地学员进行调查，评估其心理健康水平、经验回避、正念水平状况。采用独立样本 t 检验、单因素方差分析，对全部调查的住培学员（共 650 人）心理健康水平的差异进行分析，采用 Pearson 积差相关分析、结构方程模型（SEM）探讨正念水平在经验回避对住培学员心理健康影响中的作用。

结果 对 650 名住培学员量表发放结果显示，心理健康水平得分为（102.34±24.43），经验回避（22.09±8.42）和正念水平（65.70±13.17）。女生在支持网络维度得分高于男生；研究生在临床工作失误上的得分低于本科生，表现出更好的临床工作处理能力；除了临床工作维度上，住培一年级的学员总分与其他 5 个维度得分都较低；专硕型研究生在躯体症状维度上得分显著高于另两类住培学员。此外，是否通过执医考试、是否轮转、对专业的喜欢以及管理床位数与值班频率都影响着住培学员的心理健康水平（P 值均＜0.05）。Pearson 积差相关分析显示，经验回避与心理健康水平的总分呈正相关（r＝0.684，P＜0.01）；与 6 个维度的得分均呈显著正相关（P 值均＜0.01）。正念水平与心理健康水平的总分呈负相关（r＝-0.653，P＜0.01）；与 6 个维度的得分均呈显著负相关（P 值均＜0.01）。结构方程模型（SEM）检验结果显示，正念水平在经验回避对心理健康的影响中发挥部分中介作用，占总效应的 32.33%。

结论 在大样本住培学员的调查中，心理健康水平与性别、住培年级、住培类型等多种因素有关；经验回避与心理健康水平总分及 6 个维度得分均呈正相关，正念水平与心理健康水平总分及 6 个维度得分均呈负相关；经验回避不仅直接影响其心理健康，同时还通过正念水平影响心理健康。

关键字：住培学员；心理健康；经验回避；正念水平

云南省两地儿童青少年校园欺凌、非自杀性自伤和正念水平现况调查

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目的 探究云南省两地区儿童青少年校园欺凌、非自杀性自伤与正念水平的现状

方法 本研究对云南省两地区共 5970 名儿童青少年进行基于人群的横断面调查。使用《Olweus 欺凌问卷中文版》评估儿童青少年校园欺凌行为，《五因素正念觉知量表》（FFMQ）测量其正念水平，《青少年自我伤害行为问卷修正版》（MASHS）测量其 NSSI 行为，广泛性焦虑障碍量表-7(GAD-7)和患者健康问卷-9(PHQ-9)评估其焦虑和抑郁情况。

结果 共 5897 名调查对象中纳入最后分析，其中 2043 人报告有自伤行为，自伤行为发生率为 34.6(95%CI:30.3%-39.0%)。进一步分析有过自伤行为的调查对象，反复自伤发生率达到 54.9%(95%CI:47.2%-62.0%)，严重自伤发生率为 20.4%(95%CI:14.6%-28.0%)。校园欺凌中仅被欺凌为 743 人，占比 12.60%(95%CI:8.54%-18.00%)，欺凌他人者计 117 人，占比 1.98%(95%CI:1.31%-3.00%)。所有调查对象的正念总分为 121.28±13.56 分，正念的五个维度中，正念觉知行动得分最高，正念不行动得分最低。

结论 NSSI 和校园欺凌在调查地区儿童青少年群体中的报告率较高，凸显了 NSSI 和校园欺凌干预在我国这一地区的重要性和紧迫性。

关键字：非自杀性自伤行为；校园欺凌；正念水平；心理健康

Depression and Suicidal Ideation Genetically Affect The Longitudinal Changes in Brain Structure Across The Lifespan: A Mendelian Randomization Study

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Objective Abnormal development of brain structures underlie the anatomy of depression in adolescents. However, it is not known whether the changes in brain structure with age can be disrupted following the onset of this disease. The aim of the Mendelian randomization study was to explored the effect of depression on the longitudinal changes in brain structure across the lifespan.

Methods Genome-wide association studies summary data in 500199 participants from the PGC Consortium were adopted to identify genetically predicted depression, and data in 218792 participants from the FinnGen was used to assess predicted suicidal ideation. Data in 15640 subjects from the ENIGMA Consortium were included to measure the association of depression and suicidal ideation with the changes in 15 brain structures across the lifespan, and the latter expressed in a linear regression model (testing for an age-dependent effect of variants on rates of change). Analysis was performed using inverse-variance weighted, and MR-PRESSO, Cochran's Q test, MR-Egger intercept test, leave-one-out test and funnel plot were conducted for quality control.

Results Depression accelerated the rate of change in the volume of cerebral white matter (β= 22.003, 95%CI = 7.650 ~ 36.356, P = 0.0027), and suicidal ideation slowed down the rate of change in the volume and mean thickness of cortical gray matter across the lifespan (β= -55.426, 95%CI = -91.813 ~ -19.040, P = 0.0028; β= -0.221, 95%CI = -0.362 ~ -0.080, P = 0.0021).

Conclusion Depression and suicidal ideation genetically affect the longitudinal changes in brain structure across the lifespan.

关键字：Brain structure; Depression; Mendelian randomization; Suicidal ideation

Are ChatGPT Going To Replace Psychiatrist?

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Objective ChatGPT (Chat Generative Pre-Trained Transformer) is one of the hottest topics currently worldwide and this heatwave has also swept the entire medical industry. Medical research experts have attempted to use ChatGPT to solve patient's clinical problems, and ChatGPT fared well in answering all of queries regarding it and offering good explanations of the underlying reasoning. As is known to all, the diagnosis of mental health problems relies on face-to-face communication and emotional exchange between psychiatrists and patients. As the strongest chat robot in history, can ChatGPT replace psychiatrist?

Methods After we designed a series typical questions which could cover psychopathology (i.e., diagnosis, prognosis, treatment) with three experienced psychiatrists, we tested ChatGPT (available via OpenAI) retrieved from an online presentation.

Results Our psychiatrist discussed the questions for ChatGPT answered, and most of the answers provided effective suggestions. However, they were unable to provide individualized plans, corresponding interventions, and solutions in details, and more difficult to answer and explain specific medication plans instead of psychiatrists or doctors.

Conclusion ChatGPT could provide some useful information and answers, but cannot replace the expertise, training, and experience of a qualified psychiatrist. It is crucial for researchers, developers, and healthcare professionals to collaborate in order to create AI programs that are validated, reliable, and accurately tailored to the individual needs of people with mental health problems in the future.

关键字：ChatGPT replace psychiatrists

22139 名综合医院心理科门诊患者症状自评量表结果及影响因素研究

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目的 了解综合医院心理科不同病种患者的症状自评量表（the symptom checklist 90，SCL-90）评估结果及临床特征，探索 SCL-90 得分影响因素。

方法 研究纳入某三级甲等综合医院心理科 2009 年 2 月至 2023 年 3 月期间进行症状自评量表测评的患者 22139 名，并收集年龄、性别等人口学信息。根据患者诊断类别分组，统计不同病种患者症状自评量表的十项因子得分。将各项因子得分与常模[1]比较，并进行组间比较。并探索 SCL-90 各项因子得分与年龄、性别相关性。

结果 （1）22139 名患者平均年龄 45.02±18.95 岁，男性比例 32.7%，女性比例 67.3%。病种人数前四位分别为：焦虑组 11665 例、抑郁组 5435 例、睡眠障碍 864 例、强迫组 578 例。焦虑组患者比例总体呈上升趋势（R2=0.64，P<0.001）（2）焦虑组、抑郁组、强迫组各项因子得分均高于常模组（P 均＜0.001），睡眠障碍组"人际敏感"、"偏执"因子分与常模与明显差异，其余各因子得分均高于常模组（P 均＜0.001）。除"强迫"因子外，抑郁组各项因子分均高于其余各组；除"其他"因子外，睡眠障碍组各项因子均低于其余各组；与强迫组相比，焦虑组"躯体化"、"其他"因子得分更高，"强迫"、"人际敏感"、"敌对"、"偏执"、"精神病性"得分更低（P 均＜0.05）。（3）年龄与 SCL-90 各项因子分呈负相关，各因子与年龄的相关系数-0.11 至-0.43；女性患者"躯体化"、"抑郁"、"焦虑"、"恐怖"、"其他"因子得分高于男性组（P 均＜0.01）。

结论 综合医院心理科门诊焦虑症状、抑郁症状就诊患者比例较高，就诊患者 SCL-90 测评症状严重程度普遍高于常模平均水平。有抑郁症状的人群、女性患者、年龄较轻患者症状可能更加显著。 参考文献： 1. 刘媛媛, 武圣君, 李永奇, 邵峰, 苏景宽, 刘旭峰: 基于 SCL-90 的中国人群心理症状现况调查. 中国心理卫生杂志 2018, 32(5):5.

关键字：症状自评量表；焦虑障碍；抑郁障碍；心理症状

Video Game Addiction in Psychiatric Adolescent Population: A Hospital-based Study on The

Role of Individualism From South China

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Background For decades, the video-game-related behaviors have been investigated in different psychologic researches, much of whose attention focus on video game addiction (VGA) while the differences between VGA and social media addiction (SMA) should have deserved more concerns. Beside detecting common risk factors to VGA, one core question is whether the social inclination (individualism or collectivism) matters to it. Object: to clarify the prevalence of VGA and SMA respectively; to identify the influencing factors of VGA; and to make clear the relationships between VGA and adolescents' individualism-collectivism inclination.

Method The survey was conducted among 110 adolescent psychiatric patients. To each interviewee, psychological scales were filled face to face. Path analysis was used to exam the causation structure of the childhood-trauma-related symptoms.

Result The prevalence for VGA was 40.9% (45 out of 110) and for SMA 41.8% (46 out of 110); childhood trauma, social media addiction, the individualistic inclination, and the rate of homosexuality were observed to be independent indicators for video game addiction (r2 =0.46).

Conclusion Psychological Counseling on patients' internet-related behaviors may focus on the individualistic personality and possible childhood trauma, which are two important risk factors of video game addiction. It is recommended to distinguish between video game addiction and social addiction in clinical practice.

关键字：Key word: individualism, video game addiction, social media addiction, childhood trauma, homosexuality.

Symptoms Mediate The Relationship Between Childhood Trauma and Non-suicidal Self-Injury: A Hospital-Based Study of Adolescents with Mood Disorder

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Background Childhood trauma exerts a noticeable influence on adolescents' development, where the interpersonal and psychological factors are involved. It is important to identify the prevalence, risk factors and aftermaths of childhood trauma.

Methods The survey was conducted among the adolescent psychiatric patients with mood disorder. To each interviewee, psychological scales includingbeside the Childhood Trauma Questionnaire, a series of psychological scales assessing their NSSI behavior, internet behavior, family function, mood condition and sleep condition were filled face to face. Path analysis was used to exam the causation structure of the childhood-trauma-related symptoms. Result: there were 117 (74.5%) participants observed with at least one type of trauma. A lot of characteristics of traumatic adolescent patients including interpersonal and psychological features were detailed in this study. The path analysis model showed that the relationships between childhood trauma and NSSI were respectively mediated by depressive symptoms and thinking disorders, while depressive symptoms individually mediated the correlation between the childhood trauma and sleep disturbance in psychiatric adolescent patients (X 2/df=1.23).

Conclusion For psychiatric adolescent patients with childhood traumas, psychological counseling on interpersonal relationships should focus on their families and peers; it is recommended to begin the treatment by alleviating their depressive symptoms and thinking disorders firstly, before focusing on their NSSI behaviors and sleep disturbance.

关键字：Keywords: adolescent; childhood trauma; hospital-based; path analysis; non-suicidal self-injury; psychiatric patient.

The Weakening of Family Cohesion and Adaptability Aggravated The Risk of Non-suicidal Self-injury Behavior Among Chinese Adolescents with Psychiatric Diseases

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Background This study was conducted to explore the specific relationship between family cohesion, adaptability and non-suicidal self-injury (NSSI) in adolescent psychiatric patients.

Method 157 inpatients and outpatients (aged between 13 and 18 years) were recruited and they were divided into NSSI group and non-NSSI group. They were assessed with a revised Adolescent Self-Harm Scale and a scheduled unstructured one-by-one interview, and family cohesion and adaptability were evaluated through the Family Adaptability and Cohesion Evaluation Scales (FACES II).

Result The 12-month prevalence of NSSI in this representative clinical sample was 50.9%. After controlling for psychosocial and psychopathological factors, the results represented that engagement in NSSI was significantly related to family cohesion and adaptability. NSSI was also related to sexual orientation and severer depressive symptoms.

Conclusion Improving family function may be one of the complementary treatment strategies for NSSI in adolescent psychiatric patients. The disturbance of sexual orientation and the effective response to depressive symptoms also needed to be considered.

关键字：adolescents; psychiatric disease; non-suicidal self- injury; family function

抗抑郁药治疗肠易激综合征的网络荟萃分析

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目的 肠易激综合征（IBS）是一种常见的功能性胃肠道疾病，以反复腹痛和排便障碍为特征。抗抑郁药如三环类抗抑郁药和选择性 5-羟色胺再摄取抑制剂可能对 IBS 患者有效，但关于这些药物疗效的临床证据仍有争议。通过对随机对照试验（RCT）进行网络荟萃分析（NMA），评估抗抑郁药在 IBS 中的疗效和安全性。

方法 通过 EMBASE、MEDLINE、PsychINFO、Cochrane 和 Web of Science 检索抗抑郁药用于 IBS 患者的疗效和安全性的 RCT。使用 Rayyan 软件筛选文献、提取数据并评估文献质量。使用 RevMan 5.4、Stata 17.0 和 R 4.3.0 软件进行统计分析。主要结果指标包括反应率和腹部疼痛/不适。次要结果指标包括焦虑、抑郁程度、生活质量和不良事件。

结果 纳入了 27 篇关于抗抑郁药用于 IBS 治疗的 RCT，包括 1635 名受试者。纳入研究的质量普遍较高，偏倚风险较低。结果显示，TCAs（0.23 [0.10；0.50]）和非典型抗抑郁药（0.07 [0.01；0.35]）在提高反应率方面优于安慰剂，而在缓解腹痛方面无显著优势。其他药物在缓解焦虑、抑郁，提高生活质量和不良事件方面表现出不同程度的差异。然而，研究之间存在显著异质性，部分药物试验数量较少，且缺少大部分抗抑郁药之间的直接比较。

结论 推荐常规使用 TCAs 来治疗 IBS，而对其他类型的抗抑郁药持审慎态度，除非患者为症状较为严重，且对其他的治疗药物无效或合并精神疾病。需进行大型和长期的 RCT 以更好评估抗抑郁药的疗效。

关键字：抗抑郁药；肠易激综合征；网络荟萃分析

Gut Microbial Characteristics in Chinese Adolescents with Non-Suicidal Self-Injury and Childhood Trauma: A Comparative Study

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Objective By assessing childhood trauma in Non-Suicidal Self-Injury (NSSI) adolescents, and using PCR detection technology to detect the diversity and abundance of the gut microbiota between NSSI adolescents with and without childhood trauma， to explore the relationship among childhood trauma, intestinal flora and NSSI, attempts to elucidate pathogenesis of adolescent NSSI from social-psycho-biological models. This will facilitate our implementation of NSSI-related health education for adolescents and enhance our comprehension of the pathogenesis of NSSI, thus enabling us to devise effective intervention strategies.

Methods Recruited 51 NSSI adolescents (KD) in Guangdong Province, China, among which 43 adolescents experienced childhood trauma (KD1) and 8 did not (KD2). Collected fecal samples from all subjects and assessed their childhood trauma and NSSI behaviors using standardized questionnaires. The gut microbiota taxonomic composition was determined by 16SrDNA gene sequencing, and utilized LEfSe software to analyze relative abundance and applied linear discriminative analysis (LDA) to perform differential species screening between groups.

Results There was no significant difference in Alpha diversity index between KD1 and KD2 ($P<0.05$). Metastat analysis revealed significant differences in relative abundance at the Order, Family, and Genus levels, with higher proportions of Brucellace and Chryseobacterium in KD1 than in KD2 and a lower proportion of Parabacteroides_chinchillae in KD1 compared to KD2. LEfSe analysis demonstrated higher proportions of Brucellaceae, Mollicutes RF9, and other bacteria in KD1 than in KD2, while Lachnospira, Subdoligranulum, Erysipelotrichales, and Eubacterium fissicatena_group were significantly lower in KD2 (all $P<0.05$). Mollicutes was the dominant flora in KD1.

Conclusion Although Alpha diversity of gut microbiota did not differ between the two groups, relative abundance of gut microbiota was altered at different taxonomic levels in adolescents with childhood trauma, characterized by increased abundance of inflammation-related pathogenic bacteria (e.g. Brucellace and Mollicute) and decreased abundance of probiotics (e.g. Parabacteroides, Lachnospira). These clinical findings suggest a link between gut-brain alterations and NSSI in adolescents with childhood trauma. Incorporating gut microbiota-based strategies in the auxiliary diagnosis of NSSI with childhood trauma may be of importance and may inform novel therapeutic targets aimed at modulating the gut microbiota. Understanding the pathological mechanisms of NSSI may benefit from considering the role of the gut microbiota.

关键字：adolescents, NSSI, childhood trauma, gut microbiota, gut-brain axis

Disrupted Functional Network Topology and Age-related Effects in First-episode Drug-na?ve Schizophrenia From Childhood To Adolescence

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Objective Few studies have comprehensively described abnormal developmental patterns of functional networks in EOS patients from childhood to adolescence. This study used functional network topology to explore the neurodevelopmental mechanism of early-onset (EOS) patients from childhood to adolescence.

Methods A total of 167 subjects aged 7 to 17 participated in the study, including 80 EOS patients and 87 healthy controls (HC), and all subjects were divided into childhood (7–13 years) and adolescents (14–17 years).

Two-way analyses of variance were used to compare the functional network topology of EOS patients and HC, and the quadratic nonlinear model was used to explore the different developmental curves of EOS patients and HC with age. Then, two-sample t-tests were used to compare network differences between EOS and HC in childhood and adolescence.

Results Interaction effects and quadratic nonlinear models revealed abnormal developmental trajectories from childhood to adolescence in the global metrics and nodal metrics of the sensorimotor, visual, and frontoparietal network in EOS patients. In addition, the nodal metrics of EOS patients was hyperactivated in cingulo-opercular network in childhood and decreased in cingulo-opercular and default network in adolescence.

Conclusion Our study found that the network topology of EOS patients was overactivated in childhood and abnormally decreased in adolescence. This study revealed the abnormal developmental trajectory of EOS patients from childhood to adolescence in functional network topology, which provided a basis for early clinical diagnosis and treatment of EOS in children and adolescents.

关键字：schizophrenia, early-onset, childhood, adolescence, network metrics

Mental Health Conditions in Patients with Systemic Lupus Erythematosus: A Systematic Review and Meta-analysis

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Objective To estimate the prevalence of mental health conditions (MHCs) in people with systemic lupus erythematosus (SLE), to identify whether pre-existing mental health conditions increase the risk of systemic lupus erythematosus, and to evaluate the association between mental health conditions and patient outcomes.

Methods We used evidence-based method to evaluate the mental health conditions among SLE patients and conducted a cross-sectional study to validate the findings of our meta-analysis. We searched PubMed, Web of Science and Embase for studies published before June 2023. Studies reported the prevalence of MHCs and the relationship between MHCs and SLE were included. Random-effect models were used to calculate the pooled prevalence and pooled risk ratio for each MHC.

Results 206 studies were eligible for inclusion in our qualitative synthesis, of which 200 were included in our meta-analyses: 192 studies reporting the prevalence of MHCs (13 focused on children and 179 on adults), and eight studies in prospective design assessing the association between preexisting MHCs and the risk of SLE. The remaining seven studies were described narratively due to the different outcome measures reported. The most prevalent MHCs observed in SLE patients was sleep disturbance (59.7[95% CI, 52.4%-66.8%]) among adults and sleep disturbance (59.0[95% CI, 32.8%-82.8%]) among children. Individuals with posttraumatic stress disorder were likely to develop systemic lupus erythematosus (RR=1.86, 95% CI=1.51-2.22, P＜0.001) compared to those without posttraumatic stress disorder. There was conflicting evidence regarding the association between mental health symptoms and patient outcomes. In patients with SLE, the presence of depressive symptoms was associated with unfavorable outcomes, such as increased risk of unemployment, reduced health-related quality of life, and higher likelihood of subclinical atherosclerosis. Additionally, mental disorders in SLE may also impact ICU admission rates and suicidal incidence. The results of our cross-sectional study supported the findings of our meta-analysis. The prevalence of depressive symptoms, anxiety symptoms, cognitive impairment, and sleep disturbance in 94 SLE patients was 25.5%, 43.6%, 59.6% and 63.8%, respectively.

Conclusion Our study revealed that MHCs are common among SLE patients. Compared with people without mental disorders, those with mental disorders have a greater risk of developing SLE. Our results contribute to identifying individuals who are at risk for SLE and optimizing early prevention strategies. The impact of MHCs on patient outcomes such as suicide rates remains to be clearly established. Clinicians should pay more attention to monitoring the implications of MHCs for SLE and improving patient outcomes by providing timely psychological interventions.

关键字：Systemic lupus erythematosus; Mental health; Mental disorder; Patient outcomes

Psychological Criteria of Abnormal Thoughts, Feelings, and Behaviors Related To The Symptoms: An Investigation of DSM-V Somatic Symptom Disorders（SSD）of A Muti-center Research in China

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Objective There has been a debate among scholars about how to define psychological criteria between “normal” and excessive with no clear threshold. The main objectives of this study is determining a quantifiable threshold for disproportionate and persistent thoughts about the seriousness somatic symptoms of diagnostic criteria (B criteria).

Methods A cross-sectional study from May 2016 to January 2018 in China. Patients were recruited from 9 tertiary general hospitals in different regions of China, including outpatient department of Traditional Chinese Medicine, Biomedicine (neurology or gastroenterology or cardiology) and Psychosomatic. We analyzed group differences in the time of daily physical complaints between individuals with (SSD = yes, n=236) and without SSD (SSD = no, n=461). SSD patients confirmed diagnosis through structured interviews. Demographic data, lifestyle and medical treatment

behavior, time spent on physical discomfort per day, treatment satisfaction and subjective treatment effect were collected. Self-report questionnaires were used to operationalize the psychological criteria and severity of somatic symptoms. T-test was used to compare the measurement data, and chi-square test were used to compare the categorical data. Receiver operating curve (ROC) analysis was applied to obtain the optimal cut-off value of time to worry about physical discomfort per day. Pearson correlation analysis and multiple linear regression were used to analyze the correlation factors affecting the SSD-12 of psychological characteristics.

Results There was a significant difference of group (SSD yes/no) in daily time spent on symptoms. Compared to the non-SSD group, patients in SSD group were more worried about physical discomfort [(1.5±3.4) h/d vs. (3.9±4.1) h/d, t=8.14, P<0.01)], less satisfied with the treatment [(3.3±1.6) score vs. (2.5±1.8) score, t=4.945, P<0.01)], and had lower evaluation to the treatment effect [(3.1±1.6) score vs.〔2.4±1.6) score, t=4.271, P<0.01]. SSD group have a heavier psychological and physical burden and lower quality of life. Pearson correlation study showed that symptom-related cognitive behavior (SSD-12) was strongly correlated with health-related anxiety (r=0.823, P<0.01) and anxiety (r=0.642, P<0.01) and severity of somatic symptom (r=0.607, P<0.01). Multiple regression analysis showed that health-related anxiety, quality of life, severity of somatic symptoms and time spent on physical discomfort per day have a significant influence on psychological criteria, which explained 74% of the overall variation(P<0.05). The ROC curve analysis showed that the cut-off value of time to worry about physical discomfort per day was 1.25 hours (AUC=0.773).

Conclusion SSD should be considered if patients have at least one somatic symptom for more than 6 months and worry about physical discomfort for more than 1.25 h / d.

关键字：somatic symptom disorder; psychological criteria; symptom-related behavior; SSD-12 = Somatic Symptom Disorder—B Criteria Scale；

First Episode Psychosis(FEP) Experienced Significant Thickness Reduction and Volume Reduction in Many Brain Regions in Comparison To High Risk for Psychosis (HR).

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Objective ：Ultra-high risk for psychosis(UHR) will see a transition into psychosis within a 2-3 year time period following the time of the individual's first assessment for UHR criteria. In this study, we aimed to study volumetric changes of brain regions in high risk for psychosis (HR) compared to first-episode patients with schizophrenia (FEP) and healthy controls (HC) in Chinese individuals. The better understanding of the morphological differences in the brain could potentially lead to the development of early interventions, delaying the onset of psychosis or preventing the transition into a first-episode psychosis and schizophrenia.

Methods : In the study, 12 FEP, 29 HR and 18 HC were recruited. Basic sociodemographic and clinical information were collected. Mini International Neuropsychiatric Interview (MINI) and Structured Interview for Prodromal Syndromes (SIPS) were investigated to confirm individuals' diagnosis and enrollment. Positive and negative syndrome scale (PANSS), Global Assessment Function (GAF) and Montgomery–Asberg Depression Rating Scale (MADRS) were applied to assess psychiatric symptoms. Magnetic resonance imaging (MRI) data included structural imaging, functional imaging and 3D structural image were collected and then volumetric analysis was performed.

Results : The mean age of FEP group was 22.4, and 30.1 for HR group while 30.06 for HC individuals (F=4.6, P=0.01). Significant differences were found between FEP and HR groups in the aspect of PANSS Total and all PANSS subscales (all P values<0.05), which showed a descending trend. There was also a declined trend for the score of SIPS Total and all SIPS subscales other than SIPS General between HR and HC groups (all P values<0.05). An ascending trend was found on GAF score among FEP, HR and HC groups (F=50.1, P<0.001). Otherwise, FEP group got the highest MADRS score, followed by HR group, then HC group (F=23.3, P<0.001). FEP group showed significant cortical thinning and volume reduction in multiple cortical ROIs compared to HR group, which was similarly found in some ROIs compared to HC group. However, to our surprise, HR group exhibited significant larger thickness and volume in few ROIs than HC group.

Conclusion : FEP group experienced significant thickness reduction and volume reduction in many brain regions in comparison to HR group. Thus, gray matter abnormality could be a neuroimaging biomarker of the occurrence and development of psychosis. More comprehensive researches on individuals with high risk for psychosis are needed to determine more promising biomarkers, enabling early detection and intervention for susceptibility to psychosis.

关键字：Ultra-high risk for psychosis(UHR), high risk for psychosis (HR), Magnetic resonance imaging(MRI), neuroimaging biomarker, early diagnosis and intervention

青少年抑郁症脑电微状态异常与童年期情感虐待的相关性研究

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目的 探究睁眼状态下青少年抑郁症静息态脑电微状态的异常，并分析静息态脑电微状态指标与患者童年创伤经历的相关性。

方法 本研究采用了静息态脑电微状态分析，其反映了大脑静息态脑网络激活的短暂重叠，以探究伴童年期创伤的抑郁症青少年大脑活动的时间动力学特征。选用改良 k-means 聚类算法，将 64 通道的静息态脑电数据分类成不同微状态。本研究共纳入 27 名健康青少年、66 名患抑郁症青少年。使用独立样本 t 检验和 Spearman 相关，比较组间的微状态指标差异，并分析显著指标与患者童年期创伤间的相关性。

结果 组间在微状态 A 的出现频率上差异显著（P＜0.05）且与童年创伤中的情感虐待因子得分呈显著的负相关（Spearman's rho= -0.31，P= 0.013，N=66），病例组特异性非随机的微状态 B→A 转化（Spearman's rho=-0.3，P=0.015，N=66）及 C→A 转化（Spearman's rho=-0.31，P=0.013，N=66）均与童年期情感虐待因子得分呈显著负相关，并与健康对照有显著差异（P＜0.05）。以情感虐待因子分的高低四分位分组比较，三种指标经多重比较校正后均有显著差异（P＜0.05）。

结论 经历严重童年创伤的抑郁症青少年在大脑视觉网络、中央执行网络功能的时间动态上存在异常。脑电微状态具有辅助识别伴严重童年创伤的青少年抑郁症的潜能。

关键字：抑郁症；青少年；静息态脑电图；微状态；童年创伤

Dysregulated Cerebral Blood?flow and Its Relationship with Blood Inflammatory and Lipid Markers in Youth Depression

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Objective Arterial spin labeling (ASL) in detecting differences in perfusion for multiple brain regions thought to be important in?MDD. However, the potential of cerebral blood flow (CBF) to predict MDD and its correlations between the blood lipid levels and immune?markers, which are closely related to MDD and brain function change, remain unclear.

Methods We enrolled 451 participants. Then performe ASL and high-resolution 3-dimensional T1-weighted structural. The peripheral blood was drawn and tested for lipid and immunity profiling indicators. After completing CBF case-control comparisons, random forest model construction, and exploratory correlation exploration.

Results The CBF of bilateral inferior temporal gyrus, right middle temporal gyrus and left precentral gyrus in MDD are importance in predict MDD (the area under the receiver operating characteristic curve of the random forest model is 0.717), which is more sensitive than gray matter volume. And immunity and lipids are closely related to CBF change, with the immunity relationship potentially playing a greater role.

Conclusion The interactions between cerebral perfusion, plasma lipids and immune index could therefore represent a MDD pathophysiological mechanism. The current findings provide effective targets for the prevention, diagnosis, and treatment of MDD.

关键字：major depressive disorder, lipid, immunity, cerebral blood flow

Effect of Trazodone on Inflammatory Biomarkers in Arteriosclerotic Cerebral Small Vessel Disease Comorbid with Chronic Insomnia

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Objective Chronic insomnia is linked to inflammatory processes in patients with arteriosclerotic cerebral small vessel disease (aCSVD). Low-dose trazodone is beneficial to treat insomnia, but the evidence of its effects on inflammation regulation is scarce. The present study was conducted to explore the effects of trazodone on circulating biomarkers of inflammation in aCSVD comorbid with chronic insomnia.

Methods This was a prospective sleep intervention trial conducted in a randomized, double-blinded, and placebo-controlled design. Fifty eligible patients with aCSVD and chronic insomnia were sequentially recruited and randomized to either study group (trazodone) or control group (placebo). The sleep intervention lasted for 4 weeks, and the outcomes were assessed at baseline and after treatment. The primary outcome was the circulating counting of immune cells including [Monocyte，M (CD66b-CD14+), M1（CD66b-CD14+CD86+CD206-），M2（CD66b-CD14+CD86-CD206+）; Neutrophils，N（CD66b+CD14-），N1（CD66b+CD14-CD86+CD206-），N2（CD66b+CD14-CD86-CD206+）；B cells（CD19+CD27+）；Treg cells（CD4+CD25+Foxp3+）] measured by flow cytometry. Secondary outcomes included circulating cytokines (IL-1β, IL-6，TNF-α and IL-8) and objective sleep parameters measured with polysomnography (PSG).

Results The study group showed decreased N1 [(1.87±0.85) Vs (2.82±1.25), t =2.874, P =0.007] and IL-8[(6.52±2.87) Vs (9.77±3.56), t=23.218, P =0.003）]; increased N2 [(2.99±1.64) Vs (1.341±0.59), t=4.057, P＜0.001] and M2 [(4.13±3.34) Vs (1.77±1.02), t =3.031, P=0.004] compared with those in control group after the treatment. Trazodone caused batter improvements in sleep efficiency, N3 sleep ratio, and sleep continuity than the placebo.

Conclusion Trazodone is helpful to treat insomnia and promote neutrophil and monocyte to anti-inflammatory polarization in patients with aCSVD and insomnia.

关键字：trazodone, small vessel disease, sleep, inflammation, polysomnography

综合医院精神心理科青少年住院患者抑郁焦虑症状与人格特征的关系

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目的 ：探讨青少年住院患者抑郁焦虑症状与人格特征的关系，为他们的心理健康指导及干预提供有理依据。

方法 采用方便抽样的方法，选取中国人民解放军联勤保障部队第九二三医院精神心理科青少年77名住院患者进行心理测试，采用抑郁自评量表（SDS）、焦虑自评量表（SAS）和艾森克人格问卷（EPQ）对其进行问卷调查。

结果 被试者抑郁症状发生率为 75.32%，焦虑症状发生率为 61.04%;（抑郁症状、焦虑症状、抑郁焦虑共病和无症状）被试者的抑郁焦虑情绪发生率在性别、年龄构成比上，差异有统计学意义（x2=13.941，x2=5.627，P＜0.05），在文化程度构成比上，差异无统计学意义（x2=5.909，P＞0.05)。被试的 EPQ 精神质（P)因子得分差异有统计学意义(F=5.654，P＜0.01)。多因素 logistic 回归分析，神经质（N)、精神质（P）得分与抑郁、焦虑、抑郁焦虑共病发生的 OR 值均＞1（OR=4.623,14.273,3.397,8.213,3.397,8.213，均 P＜0.05)，是罹患抑郁、焦虑、抑郁焦虑共病的危险因素，而内外向(E)得分与抑郁发生的 OR 值＞1(OR=4.196，P＜0.05)，是罹患抑郁的危险因素；掩饰程度（L）得分和焦虑、抑郁焦虑共病发生的 OR 值＜1（均 OR=0.311)，可能是焦虑、抑郁焦虑共病的保护因素。

结论 不健全的人格特征可增加抑郁、焦虑等心理疾病的发生概率。人格特征对个体心理健康发展有着重要的意义。积极的心理状态是可干预和促进的。所以，培养良好的人格有利于提高个体的心理健康水平。

关键字：精神心理科、青少年、抑郁、焦虑、人格特征

中国综合医院常见心身疾病患者 DCPR-R 综合征的患病率及影响因素分析：研究设计和初步结果

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目的 心身医学研究诊断标准-修订版（DCPR-R）作为特定心身综合症的识别和分类工具，有效填补了传统精神病诊断系统无法充分涵盖的部分。尽管全球对 DCPR-R 综合症的理解和评估已取得显著进步，中国在这方面的流行病学知识仍然有限。因此，中国心身医学会（CSPM）启动了一项全国多中心流行病学研究，旨在探索 DCPR-R 综合症在中国各区域和人群中的患病率和分布情况，调查风险因素并进行 DCPR-R 的跨文化研究。

方法 我们将根据第七次人口普查结果，通过概率比例抽样方法，招募 9865 名参与者。至 2023 年 3 月 1 日，五个工作组在 145 家综合医院中已成功招募了 2079 名心身疾病患者和 862 名健康对照组成员。收集的数据涵盖社会人口学信息、临床数据、DCPR-R 诊断面谈，以及补充心理评估。

结果 初步结果表明，纤维肌痛和偏头痛患者可能伴随着更多的心理困扰和心身综合征，如焦虑、抑郁和持续的躯体化。此外，无论健康对照组还是患者组，有 30.30%-49.56%的人可能存在述情障碍。然而，各工作组在受试者人数、性别比例、教育程度和社会经济地位方面存在差异，因此未来的分析需要根据潜在的站点效应进行调整。

结论 此项开创性的研究将对中国心身疾病的临床实践和未来研究产生深远影响，为实施更为精确且个性化的干预措施和治疗策略铺平道路。

关键字：心身医学研究诊断标准-修订版，实施策略，中国，综合医院，心身疾病。

基于跨理论模型的随访管理对抑郁症患者服药依从性的研究

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目的 探讨跨理论模型（TTM）的健康教育对抑郁症患者健康管理行为及服药依从性的影响。

方法 随机抽取 2022 年 03 月-2023 年 03 月我院心理精神科 120 例抑郁症患者，应用随机数字表法将患者随机分为对照组和干预组各 60 例。对照组患者进行抑郁症患者常规护理、出院健康宣教和随访管理。干预组在此基础上，采用 TTM 的随访管理模式，即小组成员在患者出院 1 周内，采用电话随访、视频等对其运用行为阶段评估问卷进行评估，了解患者服药行为所处的改变阶段，然后根据所处的行为改变阶段及其健康需求，予以与之行为改变阶段相对应的干预措施。在干预过程中，根据患者行为变化，采用电话随访、互联网技术，互助小组、健康大讲堂、疾病日志等多种方法进行干预。提高患者对疾病的认知，促进行为的改变。两组均在出院前 1 天、出院后 1 个月、3 个月、6 个月后分别进行服药依从性量表、服药相关信念问卷、自知力与治疗态度问卷（ITAQ）、席汉失能量表的评定，

评估患者抑郁症复发情况。两组资料进行统计分析，判断基于跨理论模型的随访管理模式对抑郁症患者出院后的服药依从性、服药信念、对疾病的自知力、生活质量以及抑郁症复发率的干预有效性。

结果 干预组 干预后患者服药依从性、服药信念、对疾病的自知力、生活质量评分及相关维度评分高于对照组，差异有统计学意义（P<0.05）；抑郁症复发率低于对照组，差异有统计学意义（P<0.05）。

结论 基于 TTM 理论的健康教育能有效提高抑郁患者服药依从性、服药信念、自知力及生活质量，有助于患者抑郁症状控制，减少疾病的复发，改善患者社会生活质量。

关键字：跨理论模型；健康教育；抑郁症；健康管理行为；健康信念；生活质量

授权赋能疼痛护理组成员对提升疼痛管理质量的效果研究

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目的 对疼痛护理组成员授权赋能，改进疼痛管理模式，研究对疼痛管理质量的提升效果。

方法 研究医院于 2014 年成立疼痛护理组，负责全院疼痛护理培训及质量改善工作，网络成员为各病区选送的具有三年及以上临床经验的护士。采取便利抽样法，选择 2020 年每个季度第 5 周在院的疼痛病人为对照组，选择 2022 年同期在院的疼痛病人为试验组。对照组提供疼痛常规管理，疼痛护理组制定小组年度工作计划并组织实施，定期组织培训、学习，指导临床护理工作。每季度开展疼痛护理质量检查，针对存在问题，提出改进措施，持续改进疼痛护理质量。 试验组提供授权赋能模式管理，包括①明确成员权责 2021 年 1 月，召开网络成员会议，明确告知网络成员为各病区疼痛护理质量的责任人，负责本病区护理人员的疼痛知识培训、工作指导，参与质量检查。②定期培训 制定培训计划，每季度邀请专家进行疼痛护理专题讲座，网络推送相关指南、文献。举办个案分享、知识竞赛，经验交流活动。③保证赋权过程的稳定 2021 年 1-3 月修定疼痛护理手册、用药规范、疼痛评估流程，拍摄操作视频。完善标准化流程，指导疼痛护理。④及时进行纠偏处理 每季度质控，针对高频问题，提出要因及改进措施。及时向网络成员反馈，并要求传达给本病区护士，督促改进。 干预后每 3 个月进行疼痛质量检查，连续 4 次。干预 1 年后，对疼痛护理组成员进行心理授权评分，对照分析两种模式下疼痛护理的质量及成员的心理授权变化。

结果 试验组病人疼痛护理质量评分高于对照组，网络成员心理授权水平提高，差异有统计学意义（p＜0.05）。

结论 授权赋能模式下的疼痛护理管理，帮助疼痛护理组网络成员厘清工作重点，落实疼痛护理管理，提升疼痛护理质量。授权赋能模式充分调动护士的积极性和主观能动性,提高网络成员的心理授权水平。在疼痛护理组的规划带领下，发挥网络成员的管理才能,为住院病人疼痛护理管理提供了有效模式。

关键字：授权赋能；疼痛护理组；疼痛管理；质量

家庭支持干预对晚期宫颈癌患者的情绪及生活质量的影响研究

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目的 开展积极的家庭支持干预，探讨对晚期宫颈癌患者的情绪及生活质量的影响。

方法 选取本院 2020 年 1 月至 2021 年 6 月收治的 110 例晚期宫颈癌患者作为研究对象。通过随机数字表法进行分组，分为对照组和试验组，各 55 例，对照组行常规护理干预，内容包括：开展健康知识教育，并进行心理疏导；积极做好饮食指导、用药指导等护理。观察组在对照组基础上增加家庭支持干预。具体实施措施如下：①同步教育。通过与家属进行面对面沟通交谈，提高家属对疾病的认识，增强相关的配合技能，给予患者更多地鼓励、照顾，让患者感受到温暖；②情感支持。“家-院”联动，共同帮助患者疏解恐惧、焦虑等不良情绪，帮助患者以积极乐观的人生态度，认识生命价值，感受生命尊严；指导家属做好倾听者，多陪同患者，增强家庭关怀的情感支持效能；③健康支持：建立患者家属微信群，通过群平台，进行疾病知识的推送，分享相关抗癌经验，正确认识疾病，保持良好心态。比较两组患者干预前后心理情绪、家庭支持效果、希望水平及生活质量等的变化。

结果 两组患者干预前心理情绪评分、家庭支持效果、希望水平及生活质量评估无统计学差异（P＞0.05）。干预后评估结果：①心理情绪评分，试验组 SAS、SDS 评分均明显小于对照组（P＜0.05）；②家庭支持效果评价，试验组患者亲密度、情感度等六个方面均明显高于对照组（P＜0.05）。③希望水平，试验组采取积极行为、与他人保持亲密关系及保持积极态度的评分均明显高于对照组（P＜0.05）。④生活质量，试验组生命质量评分明显高于对照组（P＜0.05）

结论 家庭支持已广泛用与晚期癌症患者护理，在晚期宫颈癌患者中积极开展家庭支持干预，通过建立“家-院”互动护理模式，在情感支持、健康支持等维度，实现对患者的精细化、全面化优质护理，改善患者心理情绪水平，提高家庭支持及希望水平，提高患者生存期生活质量，具有良好的应用价值。

关键字：家庭支持；晚期宫颈癌；心理情绪；生活质量；影响；效果

曼陀罗绘画疗法对钙化防御患者抑郁、焦虑情绪的影响

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目的 钙化防御是一种罕见的致死性血管性疾病，透析人群中患病率仅为 0.01%-0.35%，而死亡率可高达 50%-80%。钙化防御临床症状复杂，基础疾病病程长，伤口疼痛难忍，药物疗效不佳，创面持续进展易造成视觉恐惧感，这为临床多学科诊疗（MDT）提出挑战。钙化防御患者常处于无助无望的精神状态，极易焦虑、恐惧与抑郁。而在钙化防御诊疗过程中因科室的专业性限制，往往疏忽精神状态诊治。作为全国拥有最大钙化防御生物样本库的研究中心，医疗组在探索钙化防御诊疗方案、制定适应中国人群钙化防御诊疗策略方面，取得了较大进展，同时积极询证，研究适合钙化防御患者的心理疗法。而曼陀罗绘画疗法是由卡尔荣格发明的一种特殊的心理治疗方法。该疗法具有减少心理障碍，维持内心秩序，反映内心世界，用绘画治愈心灵创伤的功能。研究表明其在缓解术前等候室患者、康复期精神分裂症患者、癌症患者、术后患者的焦虑及抑郁等负性情绪方面安全可行，效果良好。因此，本研究将其应用于钙化防御患者，目的在缓解患者焦虑、抑郁情绪，为钙化防御心理护理工作提供新思路及参考依据。本研究已经通过伦理委员会批准。

方法 便利抽样选取 2021 年 4 月-2022 年 3 月在南京市某三甲医院钙化防御研究中心患者 40 例作为研究对象，随机分成观察组（n=20)和对照组（n=20）。对照组进行常规护理，在此基础上，观察组进行曼陀罗绘画疗法干预，从患者进入治疗周期开始，每天 1 次，1 次 30 分钟，每周 5 次，共 4 周。采用抑郁、焦虑自评量表、匹兹堡睡眠质量指数量表、生活质量评估量表对两组患者进行比较。

结果 干预后，观察组焦虑、抑郁水平得分明显低于对照组（ P ＜0.05）；睡眠质量、生活质量得分明显高于对照组（ P ＜0.05）。

结论 曼陀罗绘画可改善钙化防御患者的焦虑抑郁情绪。而且能提升患者的睡眠、生活质量。

关键字：钙化防御；曼陀罗绘画；焦虑；抑郁；生活质量

石家庄市居民心理健康素养及服务需求调查

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目的 了解石家庄市居民心理健康素养水平和服务需求，评价社会心理服务体系建设效果，为更好开展工作提供依据。

方法 石家庄市居民心理健康素养问卷由中国科学院心理研究所设计，通过线上问卷形式开展调查，调查范围为石家庄市常住居民。

结果 本次调查共收集有效问卷 153942 份，精神卫生知识知晓率为 74.11%，不同特征居民精神卫生知识知晓率不同，差异有统计学意义（P<0.01）；居民整体可求助资源不高，仅为 37.87%，与居民精神卫生服务需求高应答率形成对比；石家庄市居民对待精神疾病患者的态度得分 18.06±3.939，对待心理和精神疾病的态度得分 11.12±2.209。不同特征居民对待精神疾病及患者的态度差异有统计学意义（P<0.01），精神卫生知识知晓程度越高，对精神疾病及患者的态度越偏于正向，对疾病及患者包容性越好。

结论 石家庄市居民精神卫生知识知晓率已达到国家相关要求，但心理健康服务的高需求与可求助资源的不足矛盾较为突出，对待疾病和患者的态度也存在一定的偏见，尤其需关注农村县居民和青少年、学生的心理健康。提示要加快推进我市社会心理服务体系建设工作，促进居民精神卫生健康素养水平的整体提高。

关键字：精神卫生 健康素养 服务需求 社会心理服务

补充膳食硒通过增加海马内 Sepp1 改善小鼠抑郁样行为

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目的 硒元素作为一种必需的微量元素，其缺乏与多种疾病尤其是神经系统疾病相关,而海马则处于大脑硒富集链的最高点，即使是在全身极度缺硒的状态下，海马中的硒元素浓度仍与正常对照无显著差异。此项研究表明了维持海马中的硒浓度对于哺乳动物至关重要。而海马作为抑郁症发病机制中的关键器官，其中的硒环境的改变极有可能对抑郁症的发病产生重要影响.本课题在原有探究硒元素浓度与抑郁症的关系的基础上，聚焦于其功能载体——硒蛋白上.

方法 取 80 只 6 周大的 C57/BL 雄性小鼠，根据行为学基线结果，20 只一组分为四组（组间无显著性差异）：CON-NC(正常饲料)、CUMS-NC（正常对照）、CON-SE+（富硒饲料）、CUMS-SE+（富硒饲料）。其中富硒饲料采用 Ain93G 对照饲料中添加硒代蛋氨酸使其硒元素达到 1mg/kg。CUMS（慢性不可预测性轻度应激）造模从以下刺激中每日随机选取 2 种施加：1.禁食 24h 2.禁水 24h 3.昼夜颠倒 24h 4.夹尾 5min 5.空笼 24h 6.震荡 10min 7.束缚 6h，持续 5 周。造模结束后，采用旷场试验（OFT）、悬尾实验（TST）、强迫游泳实验（FST）、糖水偏好实验（SPT）评估各组小鼠抑郁状态。行为学实验完成后，采用异氟烷麻醉小鼠后选取部分小鼠进行多聚甲醛灌注，取完整脑制石蜡切片。选取部分小鼠取海马制备单细胞悬液后采用流式细胞仪测量 ROS 水平。剩余小鼠取血液、海马、前额叶，剩余大脑部分做匀浆送检 ICP-MS 测量硒元素含量。血液 3000r 离心 15min 取血清通过 SEPP1 试剂盒测量血清 SEPP1 含量，海马前额叶制备蛋白样品，通过 WB 相对定量硒蛋白 P、GPX4、TXN、NLRP3 等蛋白的表达水平。通过免疫荧光观察上述蛋白的空间表达情况及

相对表达量。

结果 我们的研究结果显示，CUMS 小鼠海马内 Sepp1 水平降低，通过在饲料中添加硒代蛋氨酸可以有效增加小鼠海马内 Sepp1 水平、减低 NLRP3 水平并缓解小鼠抑郁样行为。这一现象可能是通过减少细胞内 ROS 水平实现的。

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关键字：抑郁症 活性氧 硒

精神分裂症患者基于简单眼区情绪识别范式的脑血氧浓度空间特征

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目的 精神分裂症（schizophrenia，SCZ）患者的独立核心症状之一就是认知功能减退。简单眼区情绪识别任务（EBEDT）反映了社会认知功能中的社会知觉加工功能。近红外光谱脑功能成像（fNIRS）是一种新兴脑成像技术，检测人脑皮层的氧合血红蛋白（HbO2)和脱氧血红蛋白（HbR)在各种神经认知活动中的浓度变化。

方法 1.研究对象：受试者均为来自武汉大学人民医院精神卫生中心的精神分裂症患者（45 人），以及同期来自附近社区的自愿参与研究的健康志愿者（45 人）。2.EBEDT 的 Eprime 范式：简单眼部情绪识别任务（EBEDT）是 1997 年由英国心理学家 Baron-Cohen 等编制的反映社会知觉加工的评估量表。本研究将 EBEDT 改编成一个 block 设计的 fNIRS 范式。 3.统计学分析：使用 MATLAB R2014a 处理 fNIRS 数据：使用 Homer2 对数据进行预处理；NIRS_KIT 进行个体水平的 GLM 分析，然后对精分组和正常组的数据分别进行单样本 t 检验，以及精分组和正常组之间的双样本 t 检验。

结果 正常组在 EBEDT 下，通道 46 正激活，通道（25、27、29、30、40）负激活，差异均有统计学意义（均 $P < 0.05$），其余各通道差异均无统计学意义（均 $P > 0.05$）；精分组在 EBEDT 下，通道 5 正激活,通道（19、21、27、30、31）负激活，差异均有统计学意义（均 $P < 0.05$），其余各通道差异均无统计学意义（均 $P > 0.05$）。精分组在 EBEDT 下，通道 40 平均 OxyHb 水平高于高于正常组，差异有统计学意义（均 $P < 0.05$），其余各通道差异均无统计学意义（均 $P > 0.05$）。

结论 研究推测，Broca 区和社会认知功能的情绪识别有关。精神分裂症患者和正常受试者在情绪识别过程中，脑功能差异主要体现在右侧前运动皮层与辅助运动皮层。

关键字：精神分裂症 近红外光谱脑功能成像 fNIRS 简单眼区情绪识别任务 EBEDT

Mapping Prodromal Symptoms in Patients with Bipolar Disorder: A Network Perspective

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Objective Bipolar disorder (BD) is a major mental disorder that significantly impairs individuals' behaviour and social functioning. Symptoms of bipolar disorder can cause unpredictable changes in mood and behaviour, resulting in significant distress and personal/family suffering. This study aimed to assess the network structure of prodromal symptoms in patients with BD prior to their index mood episode.

Methods Semi-structured interviews were conducted with the Bipolar Prodrome Symptom Scale-Retrospective (BPSS-R) to examine patients' prodromal symptoms. Network analysis was conducted to elucidate interrelations between BD symptoms.

Results A total of 120 eligible patients participated in this study. Network analysis indicated that the observed model was stable. The edge Mania3-Depression9 ('Racing thoughts' - 'Thinking about suicide', edge weight = 14.919) showed the strongest positive connection in the model, followed by the edge Mania1-depression1 ('Extremely energetic/active' - 'Depressed mood', edge weight = 14.643). The only negative correlation in the model was for Mania7-depression2 ('Overly self-confident' - 'Tiredness or lack of energy', edge weight = -1.068). Nodes Mania3 ('Racing thoughts'), Depression9 ('Thinking about suicide'), Mania1 ('Extremely energetic/active'), and Depression1 ('Depressed mood') were the most central symptoms. Both depressed and (hypo)manic symptoms appeared in the prodromal phase.

Conclusion In conclusion, 'Racing thoughts', 'Thinking about suicide', 'Extremely energetic/active', and 'Depressed mood' emerged as key symptoms within the network model of bipolar disorder in this research. Given the centrality of these symptoms, ongoing clinical care and targeted interventions to address them may be important for reducing the risk for both suicide and new episodes of bipolar disorder among currently remitted patients.

关键字：Bipolar disorder, depressive, mania, network, prodrome

Application of Repeated Transcranial Magnetic Stimulation Therapy in Cancer Patients: A Systematic Review

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Objective The purpose of this review is to systematically summarize the application of repetitive transcra-

nial magnetic stimulation therapy (rTMS) in cancer patients, to provide a new choice for comprehensive treatment of cancer patients, and to improve cancer patient's social function and quality of life.

Methods Literature related to the effects of rTMS among cancer patients was systematically searched in the Web of Science Core collection database, PubMed, Cochrane Library, CNKI and Wanfang database from their inception dates until March 3rd, 2023. After literature screening, relevant data were extracted and literature quality was evaluated by the Cochrane Manual 5.1.0 randomized Controlled trial Bias Risk Assessment Scale.

Results Twelve literatures were included in this review, including 8 in Chinese and 4 in English, all of which were randomized controlled studies with good quality. Five studies reported the efficacy and safety of rTMS in the treatment of depression associated with cancer, three studies discussed the efficacy of rTMS on cancer pain, and two reports on the benefits of improved sleep. One each explored the treatment effects of rTMS on increasing physical activity and improving postoperative paralysis.

Conclusion rTMS therapy is rarely carried out in cancer patients, and its efficacy and safety are still unclear. However, the current review provided evidence regarding the efficacy of rTMS on the management of cancer-related emotional disturbances and cancer pain, and also provided crucial clinical implications for cancer treatment in the future.

关键字：Repetitive Transcranial Magnetic Stimulation, cancer, depression, analgesia, Systematic review

Network Analysis of Suicidality and Internet Addiction Symptoms Among Chinese Primary and Secondary School Students

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Objective The COVID-19 pandemic has increased the risk of both Internet addiction and suicide across various populations, especially among children and adolescents. This study aimed to assess the inter-relationships between Internet addiction symptoms and suicidality among primary and secondary school students from the perspective of network analysis.

Methods This was a cross-sectional, multicenter study. The Internet Addiction Test (IAT) was used to assess internet addiction symptoms. Participants were also asked about having any suicidal ideation and suicide plan. Univariate analyses and network analysis were subsequently conducted.

Results Altogether, 5,380 primary and secondary school students participated in the study. Among them, 3,161 (58.8%, 95% CI = 57.4% - 60.1%) students reported having Internet addiction symptoms and 798 (14.8%, 95% CI = 13.9% - 15.8%) reported having suicidal ideation or suicide plan in the past two weeks. Network analysis revealed that IAT16 ('Request an extension for longer time spent online'; node strength = 1.223) was the most central symptom in the Suicidality-Internet addiction network model, while the edge suicidality-IAT4 ('Form new relationship with online users'; edge weight = 0.055) was the strongest edge linking both communities.

Conclusions Internet addiction symptoms were common among primary and secondary school students during the COVID-19 school closure period in China and were significantly associated with suicidality. Targeted strategies such as strengthening self-control, sense of belonging and connectedness may be important in reducing the risk of both suicidality and Internet addiction among primary and secondary school students.

关键字：Internet addiction, suicidality, children, adolescents, network analysis

鉴别单相抑郁与双相障碍列线图模型的构建及验证

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目的 探讨单相抑郁与双相障碍临床特征及血液学指标的差异性，构建列线图预测模型并验证

方法 收集自 2019 年 1 月至 2021 年 12 月在中山大学附属第五医院精神心理科住院治疗的病例。根据 ICD-10 诊断标准，纳入抑郁障碍 234 例，双相障碍 487 例。收集的预测变量包括人口学指标及血液学指标，其中前者包括性别、年龄、病程、婚姻状况、家族史等；后者包括红细胞计数、白细胞计数、血小板计数、中性粒细胞计数、嗜酸性粒细胞计数、血清总胆固醇水平、血清甘油三酯水平、血清高密度脂蛋白水平、血清低密度脂蛋白水平、甲状腺功能指标、内分泌六项、风湿相关指标、C 反应蛋白、自身免疫性指标等。本研究首先通过单变量分析进行变量初筛；然后通过最佳子集法选择出预测效果最佳的变量组合；随后通过多变量逻辑回归进行模型构建，其中精神科药物大类使用情况被纳入回归方程进行模型调整；最后通过受试者工作特征曲线（C 指数）、校准曲线、重复 10 折交叉验证法对模型进行评估及验证。此外，还通过对研究人群进行年龄梯度分组，平衡两组患者的年龄差异后评估模型稳健型以进行敏感性分析。

结果 首先单变量分析将 47 个预测变量缩减至 22 个，随后最佳子集法挑选出由"年龄、嗜酸性粒细胞计数、促甲状腺素、卵泡刺激素、泌乳素、血清总胆固醇水平和血清低密度脂蛋白水平"构成的子集是鉴别单相抑郁与双相障碍的最优预测变量集合（AIC 值最小），然后通过多变量逻辑回归构建预测模型，并删除了控制精神科大类药物使用情况后失去统计学差异的指标"促甲状腺素和卵泡刺激素"，最后通过列线图将模型进行可视化。该模型的 C 值（ROC 曲线下面积）为 0.858，当模型选择 0.66 作为界值时，灵敏度为 0.716，特异性为 0.89，阳性似然比和阴性似然比分别为 6.51 和 0.32；校准曲线显示模型预测值与真实值一致性程度较高，Hosmer-Lemeshow 检验的 P 值为 0.705；上述

指标提示该模型区分度和校准度良好。10 折交叉验证重复 10 次后得出平均 C 统计量为 0.853 (0.850 - 0.856)，提示该模型稳定且可靠。敏感性分析显示平衡了两组患者的年龄差距后，该预测模型仍具有良好的区分度。

结论 本研究构建的鉴别单相抑郁与双相障碍的列线图预测模型，应用方便，准确度较好，具有一定的应用价值。

关键字：抑郁障碍；双相障碍；预测模型；列线图；模型验证

The Risk Factors of Psychotic Symptoms in Inpatients with Major Depressive Disorder: A Cross-sectional Naturalistic Study

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Objective To explore the risk factors of psychotic symptoms in major depression disorder (MDD) patients , and to reveal the relationship between 25(OH)D level and psychotic symptoms in patients with MDD, so as to provide theoretical basis for the prevention and treatment of psychotic symptoms in MDD in the future.

Methods 233 MDD patients were recruited from the Psychological Medicine Center of the first affiliated Hospital of Xinjiang Medical University. All participates were assessed by Positive and Negative syndrome Scale (PANSS), Hamilton Depression Scale (HAMD-24) and its sub-scale, Hamilton Anxiety Scale (HAMA) and its subscale. The patients were divided into psychotic major depression (PMD, N=46) group and non-psychotic major depression (NPMD, N=187) group. In addition, we collected their basic information and blood biochemical indicators, and compared the differences of each index between the two groups. Finally, all differences indicators were included in the logistic regression model to explore the risk factors related to PMD.

Results The result showed that psychotic symptoms were more likely in recurrent episodes and single patients. In addition, PMD patients had higher HAMD-24 total score, especially in the sub-scale of cognitive disturbance, retardation, sleep disturbance and hopelessness, and with lower 25(OH)D level. The sub-scale scores of HAMA indicated that PMD patients had lower somatic anxiety score and more serious psychic anxiety symptom. The logistic regression model suggested that marital status, cognitive disturbance, retardation, sleep disturbance and 25(OH)D level were independently associated with PMD. Furthermore, ROC curve prompted us that the combination indicators of all independent risk factors screened by logistic regression model could distinguished well between PMD and NPMD patients (AUC=0.894).

Conclusion General clinical data and biochemical indicators may be able to predict psychotic symptoms in MDD patients, which needs to be taken seriously in clinical practice.

关键字：psychotic major disorder, 25-hydroxy-vitamin-D level, cognitive disturbance, retardation, sleep disturbance

The Effects of Managing Cancer and Living Meaningfully (CALM) on Psychological Distress in Patients with Esophageal Cancer

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Objective Managing Cancer and Living Meaningfully (CALM) is an evidence-based, tailored, semistructured psychotherapeutic intervention. The aim of this study was to evaluate the effectiveness of CALM in esophageal cancer with psychological distress during treatment.

Methods Ninety-one patients with esophageal cancer who reported psychological distress during treatment were recruited for the study. Patients were assigned to either the CALM group (n = 45) or the care as usual (CAU) group (n = 46). Patients in the CALM group were regularly scheduled for six face-to-face individual psychotherapy sessions in the hospital. Assessed at baseline (T0), during the intervention period or control period (T1) and at the 1-month follow-up after the end of the intervention (T2) using the Hospital Anxiety and Depression Scale, the Distress Thermometer and the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Core 30. The primary outcome assessed differences in psychological distress between and within groups across the periods. Secondary outcomes measured anxiety depression, psychological distress and quality of life.

Results In contrast to CAU, patients showed a significant reduction in psychological distress ($P < 0.001$), as well as reduced anxiety ($P < 0.001$) depression ($P < 0.001$) and improved quality of life ($P = 0.042$) after the CALM intervention, and the positive effect remained after 1 month of follow-up ($P < 0.05$).

Conclusion This study suggests that CALM may be an effective approach for targeting psychological distress in patients with esophageal cancer and provides a strong rationale for further research on the use of CALM in patients with esophageal cancer.

关键字：distress, esophageal neoplasms, psychotherapy, managing cancer and living meaningfully, quality of life

基于暴力风险评估的针对性护理干预在住院精神疾病患者中的应用

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目的 探究基于暴力风险评估的针对性护理干预在住院精神疾病患者中的应用的效果

方法 依据纳入及排除标准将我院于2020年2月至2021年6月收入住院的100例精神疾病患者作为研究对象，并采用抽签法分为两组。对照组50例患者实施常规护理干预措施，而观察组50例患者实施基于暴力风险评估的针对性护理干预，两组均护理三个月。对比两组患者护理前后简明精神病评定量表（BPRS）、外显攻击行为量表（MOAS）以及护理过程中暴力事件发生情况。两种量表总分反映暴力行为严重性，总分越高患者暴力行为越严重。

结果 与参照组比较，护理后观察组BPRS量表、MOAS量表评分更低，P<0.05；与参照组比较，观察组暴力事件发生率更低，P<0.05。研究结果数据经SPSS22.0软件分析处理，卡方X2检验计数资料，样本t检验计量资料，P<0.05提示数据差异具有统计学意义。

结论 精神疾病患者的暴力冲动行为具有不确定性和突发性，且不同的精神疾病患者暴力行为发生频率、严重性、针对性不同，护理人员往往难以单纯靠护理经验和直觉判断患者暴力行为发生的时间及伤害性，而导致对患者疏于防范而造成暴力伤害。因此基于暴力风险评估的针对性护理干预在住院精神疾病患者中应用，有利于患者暴力行为的降低，使得患者危害性降低。

关键字：暴力风险评估；针对性护理干预；住院精神疾病

Differences between Bipolar I and Bipolar II Disorders in Biochemical Metabolism and Their Associations with Cognitive Function, and Thyroid Function

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Objective Previous studies have reported abnormal brain function in bipolar disorder. Recent studies have shown that bipolar subtypes differ in the degree of biochemical metabolism. This study was to investigate the differences of biochemical metabolism between bipolar I disorder (BD I) and bipolar II disorder (BD II), as well as their associations with cognitive function and thyroid function.

Methods 50 patients with BD I, 80 patients with BD II, and 50 healthy controls (HCs) were recruited in our study. Bilateral metabolite levels of prefrontal cortex (PFC), anterior cingulated cortex (ACC), and thalamus were obtained by 1 H-MRS at 3.0 T, then determined the ratios of N-acetyl aspartate (NAA) and choline-containing compounds (Cho) to creatine (Cr). Cognitive function was measured using the Chinese versions of MATRICS Consensus Cognitive Battery (MCCB). Additionally, serum thyroid hormone levels including free tri-iodothyronine (FT3), total tri-iodothyronine (TT3), free thyroxin (FT4), total thyroxin (TT4), and thyroid-stimulating hormone (TSH) were detected.

Results Compared with the BD II group, BD I showed significantly lower Cho/Cr ratio in the right PFC and NAA/Cr ratio in the right thalamus, and higher Cho/Cr ratio in the left ACC. Both BD I and BD II were significantly impaired relative to the HCs group in terms of speed of processing, attention/vigilance, working memory, verbal learning, visual learning, reasoning problem solving, social cognition, and composite score. And the two patient groups showed lower FT3 and higher levels compared to HCs, in addition, patients with BD I performed higher TT4 level than patients with BD II. For BD I, the Cho/Cr ratio in the left ACC was negatively correlated with reasoning problem solving and attention vigilance, and positively correlated with the TT4 level; the Cho/Cr ratio in the right PFC was also positively correlated with the verbal learning. Additionally, the TT4 level was positively correlated with attention vigilance and composite score in patients with BD I.

Conclusion The findings suggested that BD I and BD II may have different biochemical abnormalities and thyroid dysfunction, which may help to distinguish the two subtypes. Further, thyroid dysfunction and abnormal Cho metabolism might be implicated in cognitive impairment in the early stages of BD I.

关键字：Bipolar disorder; bipolar subtype; biochemical metabolism; cognitive function; thyroid

护士对自伤行为态度量表的汉化及信效度检验

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目的 自我伤害（Self-harm，SH）是指通过各种各样的形式对个体生理进行自我伤害的行为，自伤行为已成为全球性的医疗问题。研究发现，患者自伤时需要护士的关怀与同情，然而护士在面对自伤行为时常存在消极态度。目前，我国护士对自伤行为的态度尚无直接测量的方法。英国学者研发了自我伤害态度量表（Self-Harm Antipathy Scale, SHAS），可作为评估护士对自伤行为态度的工具。本研究旨在引进并汉化自我伤害态度量表（Self-Harm Antipathy Scale, SHAS），检验中文版护士对自伤行为态度量表在我国护士人群中的信效度。

方法 本研究在经过量表原作者同意后，采用Brislin双向翻译法对SHAS量表进行翻译，由9名来自精神卫生和护理领域的专家组成专家小组，对量表进行评议和跨文化调试，最终形成中文版护士对自伤行为态度量表。于2022年8月～10月采用便利抽样法选取湖南3所三甲医院内420名护士为研究对象进行问卷调查。采用条目分析、探索性因子分析、验证性因子分析、信度分析对量表进行信效度检验。

结果 中文版护士对自伤行为态度量表包含21个条目，共6个维度，分别为能力评估、患者意图处理、帮助认知、无效照护、需求功能和自伤反感。在探索性因子分析中，因子累计贡献率为64.708%。在验证性因子分析中，一阶六因子模型拟合指数良好（模型绝对适配度指数：0.902，增值适配度指数：0.907，简约适配度指数卡方自由度比：2.723）。校标度检验中相关系数分别为0.615、0.646、0.754和0.291（P<0.01），校标度良好。量表条目水平的内容效度指数和量表内容效度分别为0.78～1.00和0.80～1.00，量表内容效度良好；总量表Cronbach's α系数为0.803,重测信度为0.97，信度良好。

结论 中文版护士对自伤行为态度量表包含21个条目，6个维度，具有良好的信效度、科学性和临床实用性。可用于测量我国护士人群对自伤行为的态度水平。

关键字：自伤行为；态度；汉化；信度；效度

针刺治疗原发性抑郁症的研究进展

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目的 抑郁症是指个体出现不同程度的情绪低落、兴趣减退、主动性缺乏等症状为主要临床特征的行为、心理障碍，是患病率高、复发率高、致残率高的精神疾病。抑郁症患者的生活质量严重下降并造成了巨大的医疗经济负担。目前在原发性抑郁症的治疗手段中，药物治疗是最常见的治疗手段，心理疗法用于辅助治疗，改善患者心理健康状况。此外，临床还应用电休克治疗、重复经颅磁刺激等用于加强治疗效果。临床实践中，针灸治疗原发性抑郁症疗效明显，治疗方案丰富，除了针灸治疗外，还有电针、耳针、温针灸、穴位注射等手段被广泛应用于抑郁症的临床诊疗过程中。针灸治疗的优势明显，其安全性、经济性、经济性等均受到了广泛的认可。

方法 通过搜集论文，进行分类总结，探究抑郁症的发病及治疗机制，总结针灸在抑郁症治疗过程中发挥的作用，并对其安全性进行讨论。

结果 近些年在5-羟色胺、神经递质、信号通路、脑肠轴等方面的研究都取得了重要进展，虽然其确切的机制尚未完全确定，但有一些研究表明针刺可能通过以下方面发挥抗抑郁作用。药物治疗仍是目前原发性抑郁症治疗的首选治疗手段，但在起效时间方面，针刺较药物治疗相比有起效时间短的优势。针刺在治疗抑郁症中能发挥积极的治疗作用，与单纯药物治疗相比能够减轻不良反应，是值得推广的治疗手段。

结论 抑郁症属中医学"郁证"的范畴，虞抟《医学正传·郁证》首先采用郁证这一病名。《金匮翼·积聚统论》所说："烦忧思郁怒，久不能解者，多此成疾"。郁证是由于原本肝旺，或体质素弱，复加情志所伤引起肝郁气滞，肝失疏泄，脾失健运，心失所养，脏腑阴阳气血失调而成，以心情抑郁、情绪不宁、胸部满闷或易怒易哭等为主要临床表现的一类病证。本病的基本治疗原则为理气解郁、调畅气机。中医学对抑郁症的诊治有着悠久的历史，同时也积累了丰富的经验。近年来，针刺对抑郁症的治疗在临床上有着较好的疗效，越来越被重视，因此针刺疗法治疗原发性抑郁症，值得进一步的推广和更深入的研究。但同时，针刺治疗抑郁症在机制研究、方法选择等多方面都存在着有待改进和提高之处。在临床研究过程中由于针刺疗法的选穴位置受个人经验影响较大，缺乏统一标准，且目前针刺治疗的临床研究大多样本量较小，盲法实施难度较大，限制了其临床研究。因此，未来应加大基础研究力度，优化选穴方案，开展大样本、多中心的随机对照试验，加强远期预后的随访调查，提高针刺治疗原发性抑郁症的临床应用有效性及规范

关键字：针刺；原发性抑郁症；治疗手段；安全性；发展趋势。

精神分裂症研究协作组

Cognitive Deficits in Clinical High Risk, Genetically at High-risk for Psychosis and Patients with First-episode Schizophrenia

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Objective The goal of this study was to explore the cognitive impairments profiles in individuals at clinical high risk for psychosis (CHR), genetically high-risk of psychosis (GHR) and patients with first episode schizophrenia (FES).

Methods We compared the cognitive functions of three groups and a healthy control group (HCs) using the MATRICS Consensus Cognitive Battery (MCCB). Our sample consisted of 56 patients with first-episode schizophrenia (FES), 42 individuals at clinical high risk for psychosis (CHR), 26 individuals at genetic high risk for psychosis (GHR), and 62 HCs.

Results Individuals with FES, GHR, and CHR showed significant impairment in most MCCB domains, with the exception of visual learning, when compared to the HCs.None of the MCCB domains were able to accurately distinguish between CHR and GHR individuals. GHR and CHR individuals had intermediate scores between FES and HCs on the domain of processing speed and attention. However, the impairment levels in working memory and verbal learning were similar across all three groups. The CHR performance in social cognition was comparable to that of the HCs, whereas there was no significant difference in problem-solving scores between the GHR and HC groups.

Conclusion Our findings suggest that significant cognitive deficits exist in CHR, GHR, and FES individuals, and these deficits vary across domains. Cognitive impairment may be a key feature of individuals with schizophrenia, with processing speed and attention potentially serving as reliable markers for identifying those at risk for psychosis. The damage of reasoning/problem solving may be qualitative trait, while as social recgnition may be state characteristic of schizophrenia.

关键字：Cognition, Clinical high risk for psychosis, Genetically high-risk of psychosis, First episode schizophrenia

早发精神分裂症及精神病超高危个体静息态脑局部一致性特点

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目的 早发精神分裂症（early-onset schizophrenia, EOS）起病于 18 岁之前，此类患者较成年起病者表现为更显著的前驱期神经发育异常和不良预后，多数患儿起病前已处于超高危风险状态。本研究纳入了 EOS 患者、精神病超高危状态个体及健康对照，拟通过静息态功能磁共振成像（fMRI）指标，探讨上述人群的神经影像表型特点。

方法 研究对象包括：（1）EOS 组：符合 DSM5 精神分裂症诊断标准，病程≤2 年，既往无系统用药史，共 23 例；（2）高危组：符合前驱期综合征（Criteria of Prodromal Syndromes，COPS）诊断标准，即处于精神病超高危状态，共 23 例；（3）健康对照组：共 23 例。上述三组年龄范围均为 7-18 岁。所有研究对象均接受一般资料收集、临床症状评估（阳性与阴性症状量表）及静息态 fMRI 扫描。主要分析指标为局部一致性（regional homogeneity, ReHo）。采用 DPARSF 软件进行常规预处理、ReHo 个体指标运算及统计分析。单因素方差分析进行三组间比较，以明确是否存在组间差异脑区；之后通过 LSD 法进行两两组间比较，之后进行多重比较校正（GRF 校正，体素水平 $p < 0.01$，团块水平 $p < 0.05$，团块大小 > 30 个体素）。

结果 （1）EOS 患者较精神病超高危个体及对照组均表现为双侧壳核静息状态局部一致性 ReHo 值增高；（2）健康对照、精神病超高危个体、EOS 患者三组被试的额中回 ReHo 值呈下降趋势；（3）精神病超高危个体较健康对照表现为右侧小脑、左侧海马/海马旁回 ReHo 值增高，右侧额中回、右侧额上回 ReHo 值降低。

结论 （1）壳核功能异常增高可能是精神分裂症发病的特异性指标；（2）额上回功能异常可能是出现精神病风险、进而罹患精神分裂症的早期识别指标；（3）精神病超高危患者存在额叶-边缘-小脑环路功能异常。本研究初步探索精神病超高危状态人群及早发精神分裂症特异性的脑功能特点，为寻找有助于早发精神分裂症早期识别、预后判断相关的客观指标提供了参考依据。

关键字：早发精神分裂症；精神病超高危；功能磁共振；局部一致性

氯氮平相关性肺栓塞的系统评价

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目的 氯氮平是治疗难治性精神分裂症的标准药物，它可通过多种机制导致肺栓塞（pulmonary embolism，PE），包括镇静、活动减少或不动、体重增加和血小板聚集增加等。肺栓塞是猝死的常见原因，死亡率约 30%-40%。为提高临床医生对于氯氮平引起肺栓塞这一严重而致命的不良反应的认识，我们对已发表的氯氮平相关性肺栓塞病例进行系统回顾性研究。

方法 我们遵照系统综述/Meta 分析报告指南流程(PRISMA ，2009 年版)，根据纳入标准和排除标准筛选文献。通过 Medline、Embase 和 Cochrane 图书馆

自开始至2020年12月31日发表的英文文献进行综合检索，使用的搜索词为：氯氮平（“Clozapine”或“Clozaril”）和肺栓塞（“pulmonary embolism”或“pulmonary thromboembolism”或“PE”）。共搜索到氯氮平相关性肺栓塞98篇，其中MEDLINE数据库49篇，EMBASE数据库82篇。排除不符合纳入标准、其他语种外文文章、评论文章，最后，符合纳入和排除标准的仅26篇。

结果 平均年龄43.2岁，男性占优势（63.6%）。氯氮平的平均剂量为281.4mg/d。使用氯氮平治疗时间从几天到几年不等。近半数患者（47.8%）除氯氮平导致PE外无其他合并症。在Stein等人发表的文章中，90%的PE患者的主要主诉是呼吸困难/呼吸过速，这与我们的综述发现相似（55.6%的患者出现呼吸窘迫）。同样地，晕厥是10%的PE患者的持续症状，这与我们的研究结果类似。对于PE患者的处置：80%选择抗凝治疗，10%选择溶栓治疗，5%选择放置下腔静脉滤器。死亡率为36.4%，其中3例死亡，另外9例在随访期间死亡。在18例有氯氮平随访资料的患者中，14例停用氯氮平。

结论 肺栓塞是氯氮平的一种罕见而致命的副作用，它不是剂量相关的副作用，即使氯氮平剂量低于正常剂量（300mg/d）时仍可发生肺栓塞，并且可能在治疗开始后几天到几年内发生。服用氯氮平的患者发生肺栓塞是否可以重新开始服用氯氮平尚不完全清楚，但应该考虑到继续用药的风险和益处，这方面还需要进一步的研究。

关键字：氯氮平;镇静;血小板聚集;肺栓塞

基于持续同调的精分脑电拓扑特征提取与分类

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目的 针对基于持续同调的高阶脑网络分析中，采用单一模态持续特征无法充分利用持续同调过滤过程中产生的丰富拓扑信息之一问题。

方法 本文提出一种提取复杂脑网络多模态持续拓扑特征及分类的方法，并且使用圈比度量高阶复杂脑网络中节点的重要性。采用104例首发精神分裂症患者和94个健康被试的静息态脑电信号数据，使用自适应阈值的方式对脑网络进行持续同调过滤提取持续拓扑特征，特征分布状态使用热图与持续熵表示，对持续特征生成的过程状态计算贝蒂曲线与持续景观特征，最后在多个机器学习分类器中进行十折交叉验证评价多模态持续拓扑特征的分类性能。

结果 结果表明，该方法可以提供首发精分患者高维的全局的拓扑变化有效特征，此特征用于识别首发精神分裂症患者的准确率上比传统基于图论方法的脑网络特征以及单一持续拓扑特征有所提高,在最优分类器LightgGBM下分类准确率达到了93.7%。进一步通过统计分析可知Delta和Theta数据频段所获取的一些拓扑特征与GLBF、PLBF呈现显著相关性。最后通过圈比度量脑节点，可以准确找到脑网络中的关键节点从而可以回溯到产生病发的脑区。

结论 本文提出的方法对首发精神分裂症患者的早期识别与诊断具有重要的临床指导意义，也为高阶功能连接网络构建及拓扑结构特征提取提供了新的研究思路。

关键字：复杂脑网络；持续同调；持续拓扑特征；持续熵；持续景观；持续图；贝蒂曲线；热核

叶酸干预血清同型半胱氨酸改善首发精神分裂症认知功能研究

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目的 探讨血清同型半胱氨酸（HCY）水平与精神分裂症认知功能的关系，通过叶酸干预血清同型半胱氨酸探讨认知功能的变化，以利于进一步探讨精神分裂症发病机制及治疗。

方法 收集符合纳入和排除标准的200例首发SZ患者，随机分为2组： 100名SZ患者抗精神病药物+补充叶酸（SZ-干预组）、100名SZ患者抗精神病药物+补充安慰剂（SZ-非干预组）;招募与上述SZ患者年龄、性别匹配的100名健康志愿者作为对照组。收集三组受试者一般资料,测定血清HCY水平,评估重复性成套神经心理状态测验量表(RBANS),并对SZ组（SZ-干预组、SZ-非干预组）进行阳性与阴性症状量表(PANSS)评估,分析SZ组血清HCY水平与疾病严重程度和认知功能的相关性；SZ-干预组抗精神病药物、补充叶酸治疗3月；非干预组抗精神病药物、补充安慰剂3月，测定上述两组叶酸干预后同型半胱氨酸水平，比较叶酸干预前后认知功能的变化。

结果 SZ组（SZ-干预组、SZ-非干预组）血清HCY水平高于对照组(P<0.01)；SZ组（SZ-干预组、SZ-非干预组）RBANS量表总分及各分因子分值均低于对照组(P<0.01)；SZ组（SZ-干预组、SZ-非干预组）血清HCY水平与PANSS评分呈正相关(P<0.05)；与RBANS总分、即刻记忆、注意力因子分呈负相关(P<0.05)。药物治疗3月后，SZ-干预组治疗前后血清HCY水平存在统计学差异（P＜0.05）、SZ-非干预组治疗后血清HCY水平较治疗前下降，但无统计学差异；SZ-干预组血清HCY水平低于SZ-非干预组，结果有统计学差异(P<0.05)；SZ-干预组RBANS总分、即刻记忆、注意力因子分高于SZ-非干预组，结果有统计学差异(P<0.05)。

结论 首发SZ患者血清HCY水平高于对照人群,且与疾病严重程度和认知功能损害程度均呈正相关；抗精神病药物联合叶酸辅助治疗可通过降低同型半胱氨酸以改善精神分裂症患者认知功能。

关键字：精神分裂症；高同型半胱氨酸；叶酸；认知功能

10Hz 重复经颅磁刺激对慢性精神分裂症男性患者催乳素、雌二醇及认知功能的调节

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目的 探讨慢性精神分裂症男性患者经 10Hz 重复经颅磁刺激治疗后催乳素、雌二醇及认知功能的变化特点。

方法 选取 2022 年 1 月至 2023 年 4 月期间收治住院的 60 例慢性精神分裂症男性患者，按照简单随机数字表法，按照 1:1 分组原则分为对照组（n=30）和研究组（n=30），两组均给予利培酮治疗 4 周。在药物治疗的基础上，研究组给予 10Hz rTMS 治疗，刺激左侧前额叶背外侧皮质区（DLPFC），刺激强度 100%运动阈值，疗程 4 周，每周 5 天，每天 1 次，每次 20 分钟；对照组采用伪刺激治疗。抽血检测患者血清中的催乳素（PRL）、雌二醇水平（E2）；使用阳性与阴性症状量表（PANSS）评估患者的临床精神症状，记录总分、阳性量表分、阴性量表分和一般精神病理分；使用认知功能成套测验（MATRICS Consensus Cognitive Battery，MCCB）评估患者的广泛认知功能，该测验包括 7 个维度 10 个分测验，记录总分及言语流畅性评分（CF）、连线测验评分（TMT）、符号编码评分（SC）、数字序列评分（DS）、空间广度评分（SS）、言语记忆评分（HVLT-R）、视觉记忆评分（BVMT-R）、迷宫测验评分（NAB-Mazes）、持续操作能力测验评分（CPT-IP）、情绪管理能力评分（MSCEIT-ME）。记录治疗前后各指标及其变化值。

结果 治疗前，研究组和对照组各指标比较差异无统计学意义（P>0.05）。治疗后，两组 PANSS 总分、阳性症状分、阴性症状分和一般精神病理分等均低于治疗前，E2 水平、MCCB 总分及各分测验得分均高于治疗前，差异有统计学意义（P<0.05）；对照组治疗后 PRL 水平高于治疗前，差异有统计学意义（P<0.05）。研究组治疗后的 PRL 水平、PANSS 总分、阴性症状分和一般精神病理分等均低于对照组，差异有统计学意义（P<0.05）；E2 水平、MCCB 总分及 CF、TMT、SC、DS、SS、HVLT-R、CPT-IP 分、MSCEIT-ME 等评分高于对照组，差异有统计学意义（P<0.05）。治疗前后，E2 水平变化值与 MCCB 总分以及 10 个认知维度分测验评分变化值之间均呈正相关（r=0.28-0.37，P<0.05）。

结论 相比于单一应用利培酮治疗慢性精神分裂症男性患者，联合 10Hz 重复经颅磁刺激治疗可更好的改善临床症状，调节性激素水平，提升认知功能。

关键字：精神分裂症，经颅磁刺激，催乳素，雌二醇，MCCB

基于集成生物信息学识别精神分裂症和冠状动脉粥样硬化共同枢纽基因

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目的 精神分裂症患者合并心血管疾病近年来逐渐受到临床医生和研究人员关注。心血管疾病易导致内皮细胞功能损伤，与血脑屏障微渗漏有关。因此，精神分裂症与心血管疾病可能存在某些共同基因涉及内皮细胞及血脑屏障功能。本研究旨在通过集成生物信息学方法，探索两者共同枢纽基因。

方法 自 GEO 数据库筛选出人类冠状动脉粥样硬化（CHD）DNA 甲基化数据集 GSE46394 和精神分裂症（SCZ）DNA 甲基化数据集 GSE84727。首先校正数据集批次及人口学信息。使用加权基因共相关网络分析（WGCNA）和 R 4.3.1 软件来鉴定与 CHD 和 SCZ 相关的差异甲基化基因（DMGs）。随后，使用基因本体论（GO）和京都基因和基因组百科全书（KEGG）途径进行功能富集分析，并使用 STRING 数据库在共同基因上进行蛋白质相互作用网络（PPI）。最后，使用 CytoHubba 插件的 MCC 算法从 PPI 网络中筛选出枢纽基因。

结果 通过 WGCNA，1023 个基因和 533 个基因分别与 CHD 和 SCZ 最为相关。通过韦恩图在 CHD 和 SCZ 中筛选出了 65 个差异甲基化基因（DMGs）是两种疾病所重叠的。功能富集分析表明，DMGs 主要参与突触前膜、谷氨酸能突触等细胞组分。基于此 65 个基因构建 PPI 网络，筛选 TOP10 共同枢纽基因（在 CytoHubba 中得分高），排序第一的是 GRIN2A，其余基因包括 RBFOX1、NRXN2、ATP2B2、NTN1、PLXNA1、CDH23、LRP1、HSPG2、CDH20。

结论 本研究根据与 CHD 和 SCZ 的 65 个共同基因筛选出了 10 个共同枢纽基因。这些枢纽基因可能为探索 CHD 导致 SCZ 风险增加的潜在机制提供新的视角。

关键字：精神分裂症 心血管疾病 DNA 甲基化 枢纽基因

基于前脉冲抑制评估首发精神分裂症患者抗精神病药物治疗疗效

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目的 前脉冲抑制（PPI）被认为是反映精神分裂症患者感觉门控功能的电生理指标。而通过引入听觉优先效应优化 PPI 范式设计，使用知觉空间分离诱导的 PPI（PSS-PPI）评估精神分裂症的感觉门控水平，Cohen's d 提高到 1.2 以上。本研究旨在使用改良的 PPI 检测结果构建模型，探索用于首发精神分裂症患者抗精神病药物治疗疗效的评估。

方法 在本研究中，共纳入 31 名首发未用药精神

分裂症患者（患者组）和 26 名健康被试（对照组）。优化知觉空间分离诱导的 PPI 范式，形成目标刺激与干扰刺激知觉上的双耳分离，使空间注意更好的集中在某个特定方向，从而利用听觉注意增强效应提高人类被试的去掩蔽水平。首先进行 Pearson 相关分析，观察基线 PSS-PPI 与基线 PANSS 评分、基线 PSS-PPI 与治疗后 PANSS 减分率、治疗后 PSS-PPI 与治疗后 PANSS 减分率的相关性。针对治疗后 PANSS 减分率，利用基线 PSS-PPI 和治疗后 PSS-PPI 为变量，分别利用线性回归算法和随机森林回归算法，构建机器学习模型拟合治疗后 PANSS 减分率，用以评估药物治疗疗效。

结果 1、相较于对照组，患者组基线 PSS-PPI 显著下降（t=3.11，P=0.003），治疗后两者 PSS-PPI 无统计学差异（t=1.94，P=0.058）。2、相关分析结果显示，基线 PSS-PPI 与基线 PANSS 评分呈现负相关（r=-0.490，P=0.005）；基线 PSS-PPI 与治疗后 PANSS 减分率呈现正相关（r=0.36，P=0.045）；治疗后 PSS-PPI 与治疗后 PANSS 减分率呈现正相关（r=0.31，P=0.047），提示 PSS-PPI 可以反映精神分裂症药物治疗疗效。3、建模结果显示，线性回归算法机器学习模型拟合值与治疗后 PANSS 减分率呈现正相关（r=0.392，P<0.05），残差值为 0.000±11.569，总体离散程度较大；随机森林回归算法机器学习模型拟合值与治疗后 PANSS 减分率呈现正相关（r=0.941，P<0.001），总体收敛程度较线性回归算法理想。同时，随机森林回归算法拟合值分布情况也较类似于真实值。

结论 随机森林模型拟合值分布模式更接近与真实值，残差标准差也较低，为今后基于 PPI 的疗效评估工具开发提供了较好的数据支撑。

关键字：精神分裂症 前脉冲抑制 疗效评估

精神分裂症外周 DNA 甲基化异常及其免疫浸润模式改变

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目的 炎症是免疫系统对病原体、压力和损伤等因素的自然反应。越来越多的证据发现精神分裂症的炎性介质水平升高，提示慢性炎症可能与精神分裂症的发病机制有关。本研究旨在通过生物信息学方法，探索精神分裂症外周 DNA 甲基化与免疫功能异常的研究。

方法 自 GEO 数据库筛选出 GSE80417、GSE84727 血液样本 DNA 甲基化数据集。首先校正数据集批次及人口学信息。基于差异甲基化基，应用 R 软件 clusterProfiler 包进行基因本体论（Gene Ontology, GO）富集分析和基因集富集分析（Gene Set Enrichment Analysis, GSEA）；并应用 R 软件 EpiDISH 包推断代表细胞类型混合物的样品中存在的先验已知细胞亚型的分数，选用 Cibersort 反卷积法，评估外周免疫细胞浸润模式。

结果 GO 富集条目为淋巴免疫细胞的激活和分化及免疫因子产生等生物过程；GSEA 富集于免疫应答（校正后 P 值为 0.02）和免疫过程调控（校正后 P 值为 0.04）两个功能条目，提示 DNA 甲基化与精神分裂症免疫功能异常关系密切；经 DNA 甲基化评估免疫细胞浸润，显示患者与正常人在 NK 细胞、CD4+T 细胞、CD8+T 细胞、中性粒细胞的免疫浸润模式存在差异。

结论 虽然传统上，中枢免疫系统被认为与外周相互独立，但血脑屏障高渗状态可能导致免疫细胞通过缺损的血脑屏障扩散。外周免疫细胞浸润可能与血脑屏障滤过受损有关，进而可能参与精神分裂症的神经免疫异常的病理机制。

关键字：精神分裂症，DNA 甲基化，免疫浸润模式

磁休克治疗对精神分裂症患者海马可塑性的影响

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目的 精神分裂症是一种严重的精神疾病，具有广泛的症状谱，包括行为、情绪和认知障碍，几乎每个患者都检测到某种程度的残疾。许多抗精神病药物可用于治疗，但 40% 的患者仅获得部分反应，而 10% 的患者几乎没有反应。对于对药物反应有限的患者，电休克疗法 (ECT) 是一种潜在的选择，因为 ECT 可以提供快速的整体症状改善。然而，认知不良反应很常见，如健忘症和发作后迷失方向。作为替代方案，磁力发作疗法 (MST) 在减轻症状方面的效果与 ECT 相当，但认知障碍较轻。据报道，在精神分裂症患者中，ECT 后海马体积增加。然而，目前尚不清楚磁休克治疗 (MST)对精神分裂症患者海马亚结构体积的影响。

方法 51 名精神分裂症患者，其中接受电休克（ECT）治疗 33 例，接受 MST 治疗 18 例。通过阳性与阴性症状量表（PANSS）和重复性成套神经心理状态测验 (RBANS) 测定临床症状和认知功能。FreeSurfer 6.0 软件对患者海马亚结构体积进行分析。

结果 在 ECT 组中，17 个海马亚区的体积在治疗后显著增加（P<0.05）；而 MST 组中，仅 1 个海马亚区的体积在治疗后显著增加（P<0.05）。干预后两组注意力评分和视觉空间/结构评分均显著下降（P<0.05）。两组治疗前后即时记忆评分一致。治疗后，两组语言评分均显著升高。ECT 组的延迟记忆和总分明显下降，而 MST 组没有。右侧海马总体积，下托，分子层增加值和语言评分增加值呈显著正相关。

结论 磁休克对精神分裂症患者海马亚结构影响较弱，与其认知保留机制有关。

关键字：电休克；磁休克；精神分裂症；海马亚结构体积

TBS 模式重复经颅磁刺激联合音乐治疗对慢性精神分裂症患者社会功能及生活质量的影响

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目的 探讨 TBS 模式重复经颅磁刺激(Repetitive transcranial magnetic stimulate, rTMS) 联合音乐治疗(Music therapy, MT)对长期住院的慢性精神分裂症患者社会功能及生活质量的影响。

方法 选择宜兴市精神卫生中心长期住院治疗的慢性精神分裂症患者 120 例，精神分裂症符合《美国精神障碍诊断与统计手册第 4 版》（DSM-IV）诊断标准，将 120 例患者随机分为三组（联合治疗组、MT 组、对照组各 40 例），联合治疗组给予 TBS 模式的 rTMS 联合 MT 各 20 次，MT 组给予 MT20 次，对照组予只给予药物维持治疗，访视时间 4 周。在治疗前后对所有受试者均给予住院精神病人社会功能量表（Scale of social function in psychosis inpatients，SSPI）、个人和社会功能量表（Personal and social function scale, PSP）、精神分裂症病人生活质量量表（Schizophrenia Quality of Life Scale，SQLS）评估，将治疗前后及组间测试结果进行比较。

结果 与 rTMS 治疗前相比，联合治疗组的 SSPI 总分、各因子分及 PSP 总分均升高，差异有统计学意义(均 P＜0.05)，SQLS 的总分、心理社会、动力/精力量表评分均降低，差异有统计学意义(均 P＜0.05)，SQLS 的症状和副作用量表评分无变化，无统计学差异(P＞0.05)；与 rTMS 治疗前相比，MT 组的 SSPI 总分、I、II因子分及 PSP 总分均升高，SSPI 的III因子分无变化，无统计学差异(P＞0.05)，SQLS 的总分、心理社会、动力/精力分量表评分均降低，差异有统计学意义(均 P＜0.05)；对照组治疗前后比较，SSPI、PSP 及 SQLS 的各项目评分均无变化，无统计学差异(均 P＞0.05)。三组治疗后的各项目评分进行组间比较，差异均有统计学意义(均 P＜0.05)，两两比较，联合治疗组的 SSPI 总分、III因子分及 PSP 总分均高于其他两组，SQLS 总分低于其他两组，联合治疗组、MT 组的 SSPII、II因子分高于对照组，SQLS 的心理社会、动力/精力评分低于对照组，差异均有统计学意义(均 P＜0.05)。

结论 TBS 模式的 rTMS 及音乐治疗均能够改善长期住院的慢性精神分裂症患者的社会功能及生活质量

关键字：重复经颅磁刺激；音乐治疗；精神分裂症；生活质量；社会功能

The Causal Effect of Schizophrenia on Fractures and Bone Mineral Density: A Comprehensive Two-sample Mendelian Randomization Study of European Ancestry

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Objective Schizophrenia was clinically documented to co-occur with fractures and aberrant bone mineral density (BMD), but the potential causal relationship remained unclear. This study aimed to test the causal effects between schizophrenia and fractures as well as aberrant BMD by conducting Mendelian randomization (MR) analyses.

Methods Two-sample MR was utilized, based on instrumental variables from large genome-wide association studies (GWAS) of schizophrenia as exposure, to identify the causal association of schizophrenia with mixed fractures, fractures at different body sites (including skull and facial bones, shoulder and upper arm, wrist and hand, and femur) and BMDs of forearm (FA), femoral neck (FN), lumbar spine (LS) and estimated BMD (eBMD). Multivariable Mendelian randomization (MVMR) analysis was performed to minimize the confounding effect of body mass index (BMI).

Results Result from inverse variance weighting (IVW) method provided evidence schizophrenia was positively associated with the fractures of skull and facial bones [odds ratio (OR) = 1.0006, 95% confidence interval (CI): 1.0003 to 1.0010] and femur [OR =1.0007, 95% CI: 1.0003 to 1.0011], whereas, inversely associated with eBMD [β (95%CI): -0.013 (-0.021, -0.004)]. These causal effects still existed after adjusting for BMI. Sensitivity analyses showed similar results. However, no causal effect of schizophrenia on fracture or BMD in other parts was detected.

Conclusion The current finding confirmed that schizophrenia was causally associated with the fractures of skull, face and femur as well as eBMD, which might remind psychiatrists to pay close attention to the fracture risk in schizophrenic patients when formulating their treatment strategies.

关键字：Schizophrenia; Fractures; Bone mineral density; Causality; Mendelian randomization

整合 GWAS 和 eQTL 数据识别精神分裂症的风险基因

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目的 精神分裂症（SCZ）是一种严重的慢性精神障碍性疾病，其发生与遗传易感性密切相关。全基因组关联研究（GWAS）已经确定了多种风险变异与 SCZ 之间存在密切关联。然而，尚不清楚这些变异如何对 SCZ 产生风险。

方法 首先，本研究使用选择性表达检测驱动组织（DESE）来检测 SCZ 的驱动组织。紧接着，使用 Sherlock 分析系统的整合来自 SCZ GWAS 和 SCZ 驱动组织的表达定量性状位点（eQTL）数据来鉴定表达水平与 SCZ 存在因果关联的基因，并使用来自基因表达谱数据库（GEO）的多个数据集来验证风险基因在 SCZ 中的表达差异。并进一步的探索风险基因在不同人体组织及细胞、不同时间和空间的表达情况、功能分析，以及与单核苷酸多态性（SNPs）的关联分析等，从而探讨风险基因在 SCZ 发病机制中的潜在作用。

结果 本研究共识别了 13 个 SCZ 驱动组织，全部位于脑中。结合 Sherlock 分析和风险基因的差异表达验证，CD46 最终被确定为 SCZ 的风险基因。与健康对照相比，CD46 在 SCZ 的脑组织和血液中均表达下调。表达分析结果显示，CD46 在人体各组织中均存在广泛的表达并且在不同的时间和空间具有不同的表达情况，在脑组织以及神经细胞中的表达水平较低。CD46 在免疫细胞中显著富集，功能分析结果表明 CD46 显著富集的功能有补体激活、调节体液免疫反应等。在 CD46 的表达与风险变异 rs7541230, rs6540443, rs11118668 之间均存在显著的相关性，rs7541230 通过与转录因子 SOX5 结合而发挥对 CD46 的表达调控作用。

结论 通过全面的综合分析，我们认为 CD46 可能是 SCZ 的风险基因，风险变异 rs7541230, rs6540443, rs11118668 可能是通过影响 CD46 的表达而赋予 SCZ 风险。CD46 的表达分析和功能研究会为进一步理解 SCZ 发病机制提供新的见解。

关键字：精神分裂症，全基因组关联研究（GWAS），表达数量性状位点（eQTL），Sherlock 分析，CD46

Heterogeneity in Resting-state Connectivity Defines Biotypes of Clinical High-risk State for Psychosis

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Objective Neurobiological heterogeneity of psychiatric disorders presents a significant obstacle to understanding their etiology, especially when heterogeneity remains uncertain due to medication effects and disease progression. We hypothesize that the biological subtypes of psychiatric disorders precedes the onset of psychotic disorders, and is unique independent of clinical features.

Methods This study employed a multivariate, data-driven method called single-cell interpretation through multikernel learning to investigate biological heterogeneity pertinent to the psychosis spectrum using individuals in a clinical high-risk (CHR) state for psychosis, unaffected by drugs or disease progression. Resting-state functional connectivity were used to reveal the features of biotypes.

Results Resting-state functional connectivity features revealed three biotypes, constituting 29.8%, 19.0%, and 51.0% of the 151 CHRs, independent of clinical characteristics. The multiclass support vector machine (SVM) model demonstrated 98.45% accuracy in predicting subtype for the training set and 84.54% for the testing set. Among the three biotypes, Biotype1 had the least impairment of cognition. Biotype 2 exhibited more severe spatial working memory deficits than the other two, while Biotype 3 displayed marginally increased symptom severity. In comparison to healthy controls, the three biotypes exhibited unique neurobiological traits distributed across subcortical, somatomotor, and visual networks. Within each biotype, there is distinctive functional connectivity pattern.

Conclusion Biotype-specific effect of symptom severity may reflect distinct neurotransmitter abnormalities: Biotype 1 with dopamine, Biotype 2 with glutamate, and Biotype 3 with serotonin, indicating diverse neurobiological mechanisms underlying symptom expression and disease progression.

关键字：Heterogeneity; Clinical High-Risk State for Psychosis; Single-Cell Interpretation via Multikernel Learning; Resting-state functional connectivity; Biotype.

胰岛素抵抗对首发精神分裂症患者皮质表面积和认知功能关系的调节作用

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目的 认知障碍是精神分裂症患者的重要症状，显著影响患者的社会功能和预后。目前改善认知障碍的药物选择有限，疗效不理想，且精神分裂症患者认知缺陷的潜在机制尚不清楚。有证据表明，胰岛素抵抗与大脑结构和认知障碍密切相关。我们的研究旨在探索胰岛素抵抗是否介导了首发精神分裂症(FEPS)患者皮质表面积(CSA)和认知功能之间的关联。

方法 我们的研究共纳入 140 名 FEPS 和 190 名年龄和性别匹配的健康对照(HCs)。我们使用阳性和阴性症状量表（PANSS）和精神分裂症认知功能成套测验(MCCB)评估受试者的精神症状和认知功能。采用 3.0 T 高分辨率磁共振成像系统测量 CSA。同时测量受试者血清胰岛素(FINS)、血糖(FPG)等水平，并计算胰岛素抵抗指数(FPG (mmol/L)×FINS (mIU/L)/22.5)。通过

SPSS PROCESS V3.5 进行调节和中介分析，探索胰岛素抵抗对 CSA 与认知功能障碍之间关系的影响。

结果 FEPS 组和 HCs 组的双侧 CSA 和胰岛素抵抗指数无显著差异(P>0.05)。协方差分析显示 HCs 的 MCCB 总分和七个 MCCB 分量表得分显著高于 FEPS (P<0.001)。在控制了年龄、性别和受教育程度后，偏相关分析显示，FEPS 的双侧 CSA 与 MCCB 总分和多个分量表得分显著相关(P<0.05)，其中，连线测验、注意/警觉分量表分和 MCCB 总分的关联在 Bonferroni 校正后仍然存在(P=0.05/11=0.0045)。回归分析显示，FEPS 组的胰岛素抵抗指数与左侧 CSA、视觉学习、注意/警觉分量表分及 MCCB 总分相关(P<0.05)。FEPS 组胰岛素抵抗在 CSA 和认知功能之间的关联中没有中介作用，然而 FEPS 组胰岛素抵抗指数正向调节双侧 CSA 与 MCCB 迷宫测验分的关系(P<0.05)，这种正向调节作用随着胰岛素抵抗指数的增加而增强。

结论 首发精神分裂症患者的认知功能较健康对照组更差。胰岛素抵抗与脑结构和认知功能相关，此外，胰岛素抵抗调节了首发精神病患者大脑皮层结构与认知功能之间的关系，这可能为精神分裂症患者认知功能障碍的机制提供线索。需要进一步的研究来确定调节胰岛素抵抗或改善皮质功能是否有助于减轻首发精神分裂症患者的认知障碍。胰岛素受体相关药物能否为改善认知功能的药物开发提供方向还有待进一步探索。

关键字：精神分裂症;首发精神疾病;胰岛素抵抗;认知功能;皮质表面积

Genome-wide Analysis Reveals Extensive Genetic Overlap between Schizophrenia, Bipolar Disorder, and Hippocampal Volume

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Objective Schizophrenia (SCZ) and bipolar disorder (BD) are both complex polygenic disorders with subtle, distributed abnormalities in brain morphology. There are indications of shared genetic architecture between Schizophrenia (SCZ) and bipolar disorder (BD) and hippocampal (HIP) volume. Through the use of analytical methods that allow for mixed directions of effects, this overlap may be leveraged to improve our understanding of underlying mechanisms of schizophrenia and bipolar disorder.

Methods GWAS summary data sets on SCZ (N = 161,405) and BD (N = 130,644) were acquired from the Psychiatric Genomics Consortium (PGC). The left and right hippocampal volume GWAS data sets were downloaded from UK Biobank, including 33,224 participants. Using conditional/conjunctional false discovery rate (FDR) approach to evaluate overlap in common genetic variants and improve statistical power for genetic discovery. Using a variety of biological resources, we functionally characterized the identified genomic loci.

Results Conditional Q-Q plots showed single-nucleotide polymorphism (SNP) enrichment for both left and right hippocampal volumes across different levels of significance with SCZ and BD. Using conjFDR analysis we leveraged this genetic enrichment and identified several loci shared between SCZ and left HIP (n = 7) and right HIP (n = 12), BD and left HIP (n = 1) and right HIP (n = 3) at conjFDR

关键字：Genetic overlap; Schizophrenia; Bipolar disorde; Hippocampal volume

MPFC 脑区过表达 Gna13 基因诱导小鼠精神分裂症样行为及其机制研究

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目的 探索内侧前额叶脑区（medial prefrontal cortex, mPFC）Gna13 基因表达量增加诱导小鼠精神分裂症样行为及其机制。

方法 采用 CRISPR/Cas9 技术构建 Gna13 过表达的 flox 小鼠，繁殖后选取 8 周龄转基因雄性成年小鼠纳入后续实验。在实验小鼠 mPFC 脑区的锥体神经元过表达 Gna13 基因，脑组织冰冻切片验证注射部位，RT-qPCR 及 WB 验证过表达情况。三箱社交实验、旷场实验观察过表达 Gna13 基因以后小鼠行为学改变。随机选取单侧 mPFC 脑区注射 rAAV-CaMkIIa-CRE-GCaMP6s-WPREs 6.05E+12vg/ml 病毒，以此实现在 mPFC 脑区的椎体神经元过表达 Gna13 基因的同时表达钙指示蛋白 GCaMP6s，使用光纤记录检测实验小鼠进行社交活动时椎体神经元钙信号的变化。旷场、社交行为学实验结束后，取小鼠脑组织进行高尔基染色、全细胞膜片钳记录和 RNA 测序。

结果 三箱社交实验第二阶段结果显示，EV 组（n=18）小鼠在第二阶段接触陌生鼠 1（Stranger 1，S1）的时间多于空笼（Empty，E），两者差异存在显著性（P＜0.001），而 Gna13-OE 组（n=18）接触 S1 和 E 的时间无统计学差异（P＞0.05）。这表明，Gna13 在 mPFC 脑区过表达损坏了小鼠的社交能力。三箱社交实验的第三阶段，EV 组小鼠接触陌生鼠 2（Stranger 2，S2）的时间多于接触 S1，两者比较有统计学差异（P＜0.001），表现出对新加入小鼠的社交新奇性。同时 Gna13-OE 组小鼠在第三阶段接触 S2 的时间也多于接触 S1，两者相比较也存在统计学差异（P＜0.001）。综合三箱社交实验第二、第三阶段结果，提示 Gna13 基因在小鼠 mPFC 脑区过表达，损害了小鼠的社交能力，但不影响小鼠的社交新奇性。5min 的旷场结果显示，相比于 EV 组（n=18），Gna13-OE 组（n=18）小鼠到中央区的时间和频率明显减少，两组差异有统计学意义（P＜0.05），表明在 mPFC 脑区过表达 Gna13 基因介导小鼠出现了焦虑样行为。小鼠中 30min 旷场箱活动结果显示，相较于 EV 组（n=18），Gna13-OE 组（n=18）

小鼠在旷场箱的活动距离和移动速度减少，两者有统计学差异（P＜0.05）。此结果说明，mPFC 脑区过表达 Gna13 基因使得小鼠自发活动减少。在 30m

关键字：Gna13 基因；精神分裂症；阴性症状；分子机制

Comparative Efficacy and Target of Common Interventions for Social Cognition in Schizophrenia: A Systematic Review and Network Meta-analysis

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Objective Although research on the pathological mechanism and treatment of schizophrenia (SCZ) has never stopped, the current disease burden caused by the disease is still serious. Social cognition may play a crucial role.To facilitate the development of standardized treatments for social cognition impairment in schizophrenia (SCIS), this network meta-analysis aims to synthesize previous studies' results to compare the efficacy of different treatment methods on different dimensions of social cognition, laying a foundation for further determining standardized treatment plans.

Methods Both blinded and open-label randomized controlled trials were included in our study with a sample size of 10 or more SCZ patients. We included any study on interventions of drugs treatment, behavioral intervention, or physical therapy and considered both acute and maintenance effectiveness. The Hedge's g statistic was used to measure the effect size of each research based on the mean change from pre- to post-test of the treatment and control group. Effect size synthesis was conducted using the network-meta-analysis based on the fixed- and random-effects model. All analyses were conducted by R version 4.1.1.

Results 11 151 studies were identified through our database search and 271 were identified through other sources. Finally, 161 studies met the predefined inclusion criteria with 88 studies evaluating emotion recognition (ER), 68 studies evaluating theory of mind (ToM), 27 studies evaluating attribution style (AS), 23 studies evaluating social perception (SP), and 52 studies evaluated a broader range of social cognition. Among behavioral interventions, SCIT (Hedge's g: 0.54, 95% CI: 0.14 to 0.95) and TAR (Hedge's g: 0.76, 95% CI: 0.02 to 1.5) were superior to treatment as usual (TAU) for ToM in the short-term period. So is for ER. They were also ranked as having the highest probability of being the most effective psychological interventions according to the SUCRA values. ToMI (Hedge's g: 1.50, 95% CI: 0.18 to 2.80) and SCIT (Hedge's g: 0.59, 95% CI: 0.036 to 1.1) showed statistically significant with TAU for ToM in the long-term period while ToMI had the highest probability of being the most long-term effective psychological interventions. Among drugs treatment and physical therapy, no interventions showed better therapeutic effects than TAU and oxytocin showed a trend of improvement. Treatment effects were not evident on measures of AS and SP.

Conclusion This meta-analysis found only a few behavioral interventions were associated with improvement of ER and ToM than TAU while oxytocin only showed a trend of improvement. We replicated previous findings of the effectiveness of SCIT in SCIS. Psychosocial interventions which support individuals to build and maintain social networks may improve outcomes in schizophrenia. Further research is required to explore in detail theoretical models relating to explanatory or mediating mechanisms.

关键字：schizophrenia; social cognition; oxytocin; psychosocial interventions; network meta-analysis

Early Non-response As A Predictor of Later Non-response To Antipsychotics in Schizophrenia: A Randomized Trial

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Objective It remains a challenge to predict the long-term response to antipsychotics in patients with schizophrenia who do not respond at an early stage. This study aimed to investigate the optimal predictive cut-off value for early non-response that would better predict later non-response to antipsychotics in patients with schizophrenia.

Methods This multicenter, 8-week, open-label, randomized trial was conducted at 19 psychiatric centers throughout China. All enrolled participants were assigned to olanzapine, risperidone, amisulpride, or aripiprazole monotherapy for 8 weeks. The positive and negative syndrome scale (PANSS) was evaluated at baseline, week 2, week 4, and week 8. The main outcome was the prediction of nonresponse. Nonresponse is defined as a <20% reduction in the total scores of PANSS from baseline to endpoint. Severity ratings of mild, moderate, and severe illness corresponded to baseline PANSS total scores of 58, 75, and 95, respectively.

Results At week 2, a reduction of <5% in the PANSS total score showed the highest total accuracy in the severe and mild schizophrenia patients (total accuracy, 75.0% and 80.8%, respectively), and patients who treated with risperidone and amisulpride group (total accuracy, 82.4%, and 78.2%, respectively). A 10% decrease exhibited the best overall accuracy in the moderate schizophrenia patients (total accuracy, 84.0%), olanzapine (total accuracy, 79.2%), and aripiprazole group (total accuracy, 77.4%). At week 4, the best predictive cut-off value was <20% and regardless of the antipsychotic or severity of illness (total accuracy ranging from 89.8% to 92.1%).

Conclusion Symptom reduction at week 2 has acceptable discrimination in predicting later non-response to antipsychotics in schizophrenia, and a more accurate predictive cut-off value should be determined according to the

medication regimen and baseline illness severity. The response to treatment during the next two weeks after week 2 could be further assessed to determine whether there is a need to change antipsychotic medication during the first four weeks.

关键字：Schizophrenia, Early response, Atypical antipsychotic, Prediction

轻音乐干预对男性精神分裂症患者幻听症状和生活质量的影响研究

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目的 分析轻音乐疗法对男性精神分裂症患者幻听症状和生活质量的效果。

方法 2022 年 1 月—2022 年 12 月，采用便利抽样法，选取苏州市广济医院急性精神科 2 个男病区的 84 例精神分裂症伴幻听症状的患者为研究对象，根据随机数字表法将患者分为试验组和对照组。试验组在常规护理的基础上通过音乐疗法进行干预，对照组进行常规幻听护理。比较两组患者入院时、出院时、出院后随访 1 个月、3 个月、6 个月时间节点的阳性症状（SAPS）、幻听风险得分的差异性；住院期间和出院后 6 个月生活质量的差异性。

结果 82 名患者完成了该研究，对照组和试验组各 41 名。两组患者住院时、出院时及出院后 1、3、6 个月随访时的阳性症状得分明显降低，试验组[入院时（47.78±17.53）分，出院时（29.28±10.19）分，出院后 1 个月（27.71±20.65）分，出院后 3 个月（28.85±16.39）分，出院后 6 个月（29.28±21.07）分，F=20.32，p<0.05]，对照组[入院时（51.64±26.34）分，出院时（27.64±22.90）分，出院后 1 个月（24.74±21.90）分，出院后 3 个月（30.28±26.25）分，出院后 6 个月（30.57±24.92）分，F=19.13，p<0.05]，但出院后无明显差异（p>0.05）；两组患者五个时间段幻听风险得分明显降低，对照组[入院时（24.98±5.91）分，出院时（6.70±10.18）分，出院后 1 个月（9.57±13.50）分，出院后 3 个月（8.28±12.30）分，出院后 6 个月（8.21±10.92）分，F=30.75，p<0.05]，试验组[入院时（22.50±4.60）分，出院时（14.76±6.74）分，出院后 1 个月（7.90±10.79）分，出院后 3 个月（9.09±10.48）分，出院后 6 个月（9.37±8.03）分，F=17.04，p<0.05]，但出院后幻听风险评分逐渐增高，但 6 个月内无明显差异（p>0.05）；试验组患者在随访 6 个月时的生活质量量表（生理功能、社会功能、心理功能、环境）得分分别明显高于住院期间（p<0.05），对照组患者出院后 6 个月生活质量得分无明显差异（p>0.05）。

结论 轻音乐治疗对幻听患者的阳性症状、幻听风险和生活质量有积极的影响可能被推荐用来应对幻听，提高精神分裂症患者的生活质量。

关键字：轻音乐；幻听；生活质量

情绪启动对精神分裂症患者病耻感注意偏向的影响研究

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目的 本研究探讨不同病耻感体验的精神分裂症患者自身注意偏向的特点以及情绪启动与注意偏向之间的交互影响，为精神疾病病耻感的作用机制及精神分裂症患者情绪与认知的交互作用提供理论支持。

方法 本研究利用精神疾病病耻感量表中文版（SSMI-C），筛选 40 名康复期精神分裂症患者作为研究被试，根据得分高低分为高病耻感组与低病耻感组同时进入实验研究阶段；采用点探测范式以及阈下情绪启动范式对两组患者进行实验，最终根据被试的实验结果对其认知偏向特点进行探讨。

结果 1.两组被试在负性刺激配对与正性刺激配对的情况下均显示出明显的注意偏向，高分组反应时相差 134ms 与 170ms；低分组反应时相差为 98ms 与 217ms。此外，高分组被试对情绪刺激的平均反应时明显低于低分组的反应时。 2.负性启动组与正性启动组的反应时具有显著性差异 F=15.340(p=0.000)，正性启动组与控制组的反应时也具有显著差异 F=16.887(p=0.000)，而负性启动组与控制组没有差异（p=0.646）。 3.对探测字母的位置进行简单效应检验，发现负性启动组与正性启动组被试的反应时具有显著性差异(F=6.36,p=0.034;F=12.25,p=0.000)，而控制组的被试则没有表现出显著性差异。4.在正性启动条件下，病耻感高分组被试的反应时显著低于低分组的反应时(F=6.415,p=0.026)，不同情绪启动条件，病耻感高分组和低分组在不同情绪启动的情况下都表现出显著差异(F=15.48,p=0.000;F=29.95,p=0.000)。

结论 精神分裂症患者对情绪刺激具有注意偏向，其中对消极刺激表现出显著的注意偏向；病耻感体验与注意偏向的交互作用显著，高病耻感组对情绪刺激的反应时明显快于低病耻感组；负性情绪启动条件下，患者对消极刺激表现出显著的注意偏向，说明对消极词语存在着警觉；正性情绪启动下，患者表现出对中性词语的注意优势效应，对中性词语的反应明显快于对消极词语的反应，说明注意偏向发生反转。病耻感体验与情绪启动的交互作用显著，正性情绪启动组中患者对情绪刺激的反应时显著大于负性启动组；负性启动条件下两组被试反应时并无明显差异，而正性启动条件下，低病耻感患者的反应时显著大于高病耻感组的患者。

关键字：情绪启动；注意偏向；病耻感；精神分裂症

Transcriptional Level of Inflammation Markers Associates with Short-term Brain Structural Changes in First-episode Schizophrenia

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Objective Inflammation has been implicated in the pathology of schizophrenia, and may cause neuronal cell death and dendrite loss. Neuroimaging studies have highlighted longitudinal brain structural changes in patients with schizophrenia, yet it is unclear whether this is related to inflammation. We aim to address this question, by relating brain structural changes with the transcriptional profile of inflammation markers in the early stage of schizophrenia.

Methods Thirty-eight patients with first-episode schizophrenia and 51 healthy controls were included. High-resolution T1-weighted magnetic resonance imaging (MRI) and clinical assessments were performed at baseline and 2 ~ 6 months follow-up for all subjects. Changes of brain structure were analyzed using surface-based morphological analysis, and correlated with the expression of immune cells-related gene sets of interest reported by previous reviews. Transcriptional data were retrieved from the Allen Human Brain Atlas. Further, we examined brain structural changes and peripheral inflammation markers in association with behavioral symptoms and cognitive functioning in patients.

Results Patients exhibited accelerated cortical thickness decrease in the left frontal cortices, less decrease or an increase in the superior parietal lobule and right lateral occipital lobe, and increased volume in the bilateral pallidum, compared with controls. Changes of cortical thickness correlated with the transcriptional level of monocyte across cortical regions in patients ($r = 0.54$, $p < 0.01$), but not in controls ($r = ?0.05$, $p = 0.76$). In addition, cortical thickness change in the left superior parietal lobule positively correlated with changes of digital span-backward test scores in patients.

Conclusion Patients with schizophrenia exhibit regional specific cortical thickness changes in prefrontal and parietooccipital cortices, which is related to their cognitive impairment. Inflammation may be an important factor contributing to cortical thinning in first-episode schizophrenia. Our findings suggest that the immunity-brain-behavior association may play a crucial role in the pathogenesis of schizophrenia.

关键字：Schizophrenia, Brain structure, Longitudinal alterations, Inflammation, Transcriptome

首发精神分裂症患者任务态中异常“翻转”的脑网络激活模式

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目的 探究首发未用药精神分裂症患者在静息态以及面孔表情识别任务中脑网络的异常激活模式。

方法 对 75 名首发未用药精神分裂症患者与 50 名健康对照进行静息态以及面孔表情识别任务下的功能磁共振扫描，基于 AAL 图谱构建功能连接网络，并运用图论方法分析功能脑网络拓扑属性在首发精神分裂症患者中所发生的异常改变。

结果 预处理过程中，经过头动校正，排除了头动大于 3mm 的被试，最终纳入 62 例精神分裂症患者与 46 例健康对照。对任务态功能磁共振下构建的功能脑网络进行连边分析，经校正后发现精神分裂症组存在显著低于健康对照的连边，峰值点位于额下回、杏仁核、梭状回、舌回、海马等脑区，与先前研究认为的社会认知核心脑区存在广泛重叠。静息态下，图论分析的双样本 T 检验结果显示，脑网络的同配性与层级性存在显著组间差异，患者组的网络同配性高于对照组（t=-2.67），而对照组的网络层级性高于患者组（t=2.34），全局效率和局部效率指标存在对照组大于患者组的趋势。在任务情境下，患者组的网络同配性显著低于对照组（t=2.78），网络层级性（t=-3.00）和全局效率（t=-2.05）属性则显著高于对照组。这种激活模式在从静息态切换到任务态时类似于进行了“翻转”，即静息态时患者组大于对照组的脑网络拓扑属性指标在任务态下往往会小于对照组。

结论 首发精神分裂症患者的脑网络拓扑属性在静息态和任务态下都存在一定程度的异常。有意思的是在任务态情况下精神分裂症患者脑网络的全局和局部的信息处理能力较健康对照增强，但显然这种增强与患者明显降低的任务表现是完全不匹配的，因而表明任务态下患者的脑网络存在严重失代偿的功能紊乱。

关键字：精神分裂症 功能磁共振成像 脑功能网络 图论分析

稳定期精神分裂症患者快感缺失特征及其与社会功能的相关性研究

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目的 为探索稳定期精神分裂症（stable schizophrenia，SSZ）患者快感相关的奖赏加工过程异常特征，了解其与阴性症状、社会功能等临床特征的相关性。

方法 研究纳入 61 名 SSZ 患者和年龄、性别、受教育年限相匹配的 46 名健康对照，完成多维度快感评估，同时完成阴性症状、神经认知和社会功能评估。使用独立样本 t 检验、卡方检验用于比较 SSZ 患者和健康对照不同快感成分及临床特征的差异；相关性分析、线性回归用于探究 SSZ 患者快感水平与临床特征及社会功能的关联。

结果 SSZ 患者自评社交性快感、预期性快感、消费性快感水平、认知功能均低于健康被试（$p<0.05$）；SSZ 患者奖赏任务中困难任务选择比例显著低于健康对照（$p<0.05$），且在认知努力任务中尤为突出。阴性症状的动机/愉快因子分（motivation and pleasure，MAP）与社交性快感及认知努力的困难任务选择有关（β 分别

为 0.281，-0.303，p＜0.05）；而表达因子分（Expression，EXP）与预期性快感和躯体努力的困难任务选择比例有关（β 分别为-0.321，-0.359，p＜0.05）。预期性快感水平和 MAP 及 EXP 因子共同预测社会功能（β 分别为 0.227，-0.436，-0.297，p＜0.05）。

结论 SSZ 患者存在消费性快感下降、预期性快感下降、社交快感下降、动机下降等多维度快感缺失，且奖赏动机缺陷在认知努力中更加突出。预期性快感水平与阴性症状不同维度均为社会功能的预测因素。

关键字：精神分裂症；快感缺失；阴性症状；社会功能

Association between The Expression of MiRNA-137 in Plasma and The Efficacy of Olanzapine in The Treatment of Schizophrenia

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Objective The relative expression of miRNA-137 in plasma of patients with schizophrenia (SZ) before and after olanzapine treatment was determined to explore its relationship with the clinical efficacy of olanzapine.

Methods A total of 78 schizophrenic patients who treated with olanzapine alone for 4 weeks were recruited. The positive and negative symptom scale (PANSS) scores were used to measure the clinical efficacy of olanzapine. Patients were divided into ineffective group and effective group with a 50% reduction rate of PANSS as the boundary. The expression of miRNA-137 in plasma was measured by real-time fluorescence quantitative PCR before and after treatment.

Results The expression of miRNA-137 in plasma was significantly decreased than that before treatment in the effective group (t=12.065, P<0.05); The down-regulation of the relative expression of miRNA-137 in plasma was positively correlated with the reduction scores of positive symptoms, general psychopathology and total scores of PANSS (r=0.493, 0.373, 0.495, all P<0.05); The area under the ROC curve (AUC) of the down-regulation of miRNA-137 in plasma to predict the efficacy of olanzapine in the treatment of schizophrenia was 0.8750 (95% CI: 0.8007-0.9493) with 75.0% sensitivity and 93.3% specificity.

Conclusion The down-regulation of miRNA-137 expression in plasma can predict the clinical efficacy of olanzapine in the treatment of schizophrenia to some extent.

关键字：miRNA-137 Schizophrenia Olanzapine Clinical efficacy

精神分裂症患者脑白质异常在 NMDA/CREB/BDNF 基因风险评分和认知功能关系中的作用

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目的 N-甲基-D-天冬氨酸（N-Methyl-D-aspartic acid，NMDA）/环磷腺苷效应元件结合蛋白（cAMP responsive element-binding，CREB）/脑源性神经营养因子（brain-derived neurotrophic factor, BDNF）通路可以影响认知功能，其中机制可能涉及脑的异常改变；本研究探索精神分裂症（schizophrenia，SP）患者脑白质异常在 NMDA/CREB/BDNF 通路上基因风险评分和认知功能关系中的作用。

方法 共纳入 SP 组 67 例和健康对照（healthy control, HC）组 87 例。计算 NMDA/ CREB/ BDNF 通路上相关基因多态性累积基因风险评分，基于图论的方法探索 SP 患者脑白质受损的情况，MARTICS 共识认知功能成套测验评估 SP 患者的认知障碍。统计分析通过 SPSS 25.0 软件进行，对两组被试的性别和受教育水平进行 $\chi 2$ 检验，对年龄进行单因素方差分析；通过协方差分析比较两组脑白质和认知功能的差异，偏相关分析用于分析脑白质、认知功能与 NMDA/CREB/BDNF 基因风险评分间的相关性，当 p＜0.05 时具有统计学差异，Bonferroni 校正用于降低多重比较导致的假阳性率。使用 PROCESS 3.4.1 来建立中介模型，自变量为 NMDA/CREB/BDNF 基因风险评分，因变量为认知评分，中介变量为异常的脑参数，Bootstrap 法检验中介效应，抽样次数为 5000 次。

结果 以性别、年龄、受教育水平为协变量，SP 组的网络局域效率（Eloc）显著低于 HC 组；两组的右侧中央后回（Postcentral gyrus, PoCG）在节点最短路径长度和节点效率上具有显著差异；SP 组在信息处理速度、注意/警觉性、词语学习和推理和问题解决四个领域表现出显著的降低；SP 组信息处理速度、词语学习与 Eloc 存在正相关，信息处理速度与 PoCG 节点效率呈边缘正相关。以性别、年龄、受教育水平和组别为协变量时，以 PoCG 节点最短路径长度和节点效率为中介变量，注意/警觉性为因变量时，链式中介模型（Model6）成立。

结论 SP 患者存在脑白质网络拓扑属性的异常，并与不同认知领域相关；NMDA/CREB/BDNF 基因风险评分与注意功能存在相关性，并且右侧 PoCG 的节点拓扑属性在其中起到中介作用。

关键字：精神分裂症；NMDA/CREB/BDNF 基因风险评分；脑白质；认知障碍；中介作用

Association of Pathogen Infections on Neuropsychiatric Disorders: A Mendelian Randomization Analysis

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Objective Correlations between pathogen infections and risk of neuropsychiatric disorders and symptoms have been reported in observational studies. However, the

evidence of effects of pathogen infections on such disorders were scarce and subject to bias, thus limiting our understanding of how pathogen infections influences the incidence of neuropsychiatric conditions.

Methods We performed a two-sample bidirectional Mendelian randomization (MR) and muti-variable MR (MVMR) analyses to evaluate the causality and direction of associations between 4 pathogen infections including toxoplasma gondii (T.gondii), chlamydia? trachomati (CT), herpes simplex virus (HSV), cytomegalovirus (CMV) and 15 neuropsychiatric conditions including posttraumatic stress disorder (PTSD), attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), obsessive-compulsive disorder (OCD), bipolar disorder (BIP), Alzheimer's disease (AD) schizophrenia (SCZ), Parkinson's disease (PD), sleep disorder (SD), anorexia nervosa (AN), unspecified anxiety disorder (UAD), major depressive disorder (MDD), suicide attempt (SA), epilepsy and irritability with data derived from the IEU Open genome-wide association study (GWAS) project. Exposure-outcome correlations were primarily estimated by inverse variance weighted (IVW) method supplemented by a series of sensitivity analyses as validation of MR results.

Results Genetically predicted pathogen infection markers had the following causal effects on neuropsychiatric disorders with anti-CT IgG seropositivity on SCZ (odds ratio (OR) = 0.868, 95% confidence interval (CI)=(0.791, 0.953)), anti-CMV seropositivity on PTSD (OR=0.571, 95%CI=(0.459, 0.711)) and HSV2 mgG-1 antibody on MDD (OR=1.037, 95% CI=(1.021, 1.053)). Meanwhile, the biomarkers were possibly influenced by neuropsychiatric conditions, including anti-HSV1 IgG seropositivity (OR=0.964, 95%CI=(0.951, 0.977)), anti-HSV2 IgG seropositivity (OR=0.973, 95%CI=(0.957, 0.989)) by AN, HSV2 mgG-1 antibody by epilepsy (OR=1.57×10-27, 95%CI=(1.48×10-43, 1.67×10-11)) and HSV1 mgG-1 antibody by UAD(OR=0.009, 95%CI=(0.003, 0.027)) and irritability (OR=0.964, 95%CI= (1.914, 20.106). Using MVMR, anti-CT IgG seropositivity estimates remained after accounting for anti-CMV or anti-HSV2 IgG seropositivity (SCZ: OR=0.888, 95%CI=(0.815, 0.967)), BIP: OR=1.411, 95%CI=(1.009, 1.972)).

Conclusion Our analysis reveals that pathogen infection is bidirectionally associated with neuropsychiatric disorders. These results highlight the potential role of pathogen infection on the prevention of neuropsychiatric diseases.

关键字：mendelian randomization; pathogen infection; neuropsychiatric disorder

Prediction of Anhedonia in Patients with First-Episode Schizophrenia Using Wavelet-ALFF-Based Support Vector Regression Model

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Objective Anhedonia is one of the core features of negative symptoms of schizophrenia and can be extremely burdensome. Our study applied resting-state magnetic resonance imaging (MRI)-based support vector regression (SVR) to predict the anhedonia in patients with first-episode schizophrenia (FSZ) and analyse the correlation between the wavelet-ALFF of the main brain region and anhedonia.

Methods We recruited 31 patients with FSZ and 33 healthy controls (HCs) from the Affiliated Brain Hospital of Guangzhou Medical University. All subjects completed the Temporal Experience of Pleasure Scale (TEPS) and received resting-state fMRI (rs-fMRI). We used Wavelet-Based Amplitude low frequency fluctuation amplitude method (wavelet-ALFF) and SVR to analyze the data **Results** Patients with FSZ have lower consummatory pleasure scores than healthy subjects(t=-2.71,p＜0.01). FSZ exhibited increased wavelet-ALFF in bilateral middle cingulate gyrus and right putamen, while decreased in bilateral postcentral, bilateral Calcarine, and right superior occipital gyrus (voxel significance: $p < 0.005$, cluster significance: $p < 0.05$, GFR). The SVR analysis showed that wavelet-ALFF, based primarily on the right putamen ($r = 0.411$, $P < 0.05$) and right superior occipital gyrus ($r = -0.394$, $P < 0.05$), was effective in predicting consumed pleasure scores with an accuracy of 56.43%.

Conclusion Our study shows abnormal spontaneous neural activity in FSZ may be related to the state of consummatory anhedonia in FSZ. Wavelet-ALFF changes in the right putamen and superior occipital gyrus may be a biological feature of FSZ with anhedonia, and may be a potential biological marker of FSZ with anhedonia.

关键字：Schizophrenia; Anhedonia; support vector regression; Wavelet-ALFF

Temporal Trends in The Burden of Schizophrenia From 1990 To 2019: A Age-Period-Cohort Analysis

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Objective Schizophrenia is a serious public health disorder. This study aimed to estimate temporal trends in the burden of schizophrenia at the global, regional, national, and to elucidate the associations with age, period, and birth cohort.

Methods We use data from Global Burden of Disease Study 2019 (GBD 2019) to describe the prevalence and incidence of schizophrenia at the global, regional, and national levels. Joinpoint regression analysis was adopted to analyze the 1990–2019 temporal trends. Age-Period-Cohort (APC) analysis was used to describe long-term trends of schizophrenia and interpret schizophrenia epidemiological characteristics. Pearson correlation analysis was used to explore the factors influencing Estimated annual percentage change (EAPC) and Nordpred models to

further forecast.

Results The global Age-Standardized Incidence Rate (ASIR) (EAPC=?0.1, 95% UI =?0.11 to ?0.1) and Age-Standardized Prevalence Rate (ASPR) (EAPC=?0.02, 95% UI=?0.03 to ?0.02) decreased slightly from 1990 to 2019. In the context of sex, the incidence and prevalence of schizophrenia were more considerable among boys than girls, so as the ASIR and ASPR. In 2019, ASPR of schizophrenia was highest in High-income North America (ASPR=418.94, 95% CI 363.84 to 479.24). The ASR was highest in countries with high sociodemographic index (SDI). APC model analysis showed that, the age effect on the risk of schizophrenia increased then decreased with age (effect coefficient was-2.2635-0.6532--1.2612). The period effect increased then decreased then increased with years (effect coefficient was - 0.0005--0.0008--0.0013-0.0003). The cohort effect showed a decreasing trend in the overall risk for those born at early birth cohort (effect coefficient was 0.0403--0.0197) and a increasing trend in the overall risk for those born at late birth cohort(effect coefficient was -0.0197--0.0338).

Conclusion On a global scale, schizophrenia burden has significantly increased over the last 30 years, and males bear heavier burden than females. However, the upward trend is descending although the burden remains high. Schizophrenia burden differed substantially based on SDI, with the higher the level of SDI, the more severe the burden of schizophrenia. The disease burden of schizophrenia is a major public health challenge.

关键字：Schizophrenia, Disability-adjusted life-years, the Global Burden of Diseases

虚拟化身心理治疗在缓解精神分裂症患者焦虑及幻听的作用探究

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目的 英国 Leff 教授团队于 2013 年首次提出虚拟化身疗法可有效治疗难治性言语性幻听。本研究拟探究我国本土化虚拟化身心理治疗（Computer Avatar Therapy System, CATS）对精神分裂症患者焦虑、幻听信念及幻听症状改善效果。

方法 本团队采用专家会议法，基于我国实情，结合虚拟化身疗法原理、幻听认知模型及经验现象学等，编制出本土化虚拟化身疗法方案。于 2020 年 7 月-2022 年 1 月，采用方便取样，根据研究纳排标准，招募来自某三甲医院精神卫生科就诊的精神分裂症患者，实施为期七周，每周一次，每次约 60 分钟的虚拟化身心理治疗。分别在干预前和干预后进行临床症状评估，包括阳性与阴性症状评估量表（PANSS）、汉密尔顿焦虑量表（HAMA）、幻听相关信念量表（BAVQ-R）、精神症状评定量表-幻听分量表（PSYRATS-AH）。采用 SPSS 22.0 进行数据统计分析，使用配对样本 T 检验探究干预前后患者各临床症状指标的差异，使用皮尔逊相关分析探究各临床症状之间的相关性，并使用 Processes v3.0 插件探究幻听相关信念在焦虑和幻听症状之间是否具有中介作用。

结果 共收集到 33 名伴言语性幻听精神分裂症患者，其中男性 19 名，女性 14 名，平均年龄（26.42±6.87）岁，平均病程（4.56±3.38）年。经虚拟化身心理治疗干预后，患者的 PANSS 总分（t=7.449, p＜0.001）、HAMA 总分（t=4.214, p＜0.001）、BAVQ-R 恶意子量表得分（t=5.728, p＜0.001）、PSYRATS-AH 总分（t=7.164, p＜0.001）均显著下降。皮尔逊相关分析显示，焦虑与幻听症状（r=0.383, p＜0.05）、焦虑与幻听恶意信念（r=0.690, p＜0.001）、幻听恶意信念与幻听症状（r=0.694, p＜0.001）均存在显著正相关。进一步中介分析发现，幻听恶意信念在焦虑和幻听症状之间具有完全中介作用（直接效应[95% CI = (?1.019, 0.415)]，间接效应[95% CI = (0.157, 1.925)]）。

结论 虚拟化身心理治疗可有效缓解患者的焦虑情绪及幻听症状，且幻听恶意信念在焦虑情绪和幻听症状之间具有中介作用。

关键字：虚拟化身，精神分裂症，幻听，焦虑，中介作用

Plasma Exosomes LncRNA-miRNA-mRNA Network Construction and Its Diagnostic Efficacy Identification in First-episode Schizophrenia

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Objective The exosomal lncRNA-miRNA-mRNA networks in first episode schizophrenia (FOS) have not reported yet. This study examined the lncRNA, miRNA and mRNA expression level in exosome derived from first episode schizophrenia (FOS) patients, and explored the the potential of exosomes as biomarkers for schizophrenia.

Methods we recruited 10 FOS patients and healthy controls (HCs) respectively, examined the lncRNA, miRNA and mRNA expression level of plasma exosome by high throughput sequencing, constructed lncRNA-miRNA-mRNA network, and performed correlation analysis, GO and KEGG pathway analysis, PPI network construction and ROC analysis.

Results there were 746 differently expressed lncRNA, 22 differently expressed miRNA, and 2637 differently expressed mRNA in plasma exosome in FOS compared with HCs. Then we constructed ceRNA network

consisting of 8 down-regulated lncRNA , 7 up-regulated miRNA and 65 down-regulated mRNA, and 1 up-regulated lncRNA, 1 down-regulated miRNA and 4 up-regulated mRNA. The expression level of 1 lncRNA and 7 mRNA in exosomal network were correlated with PANSS score. GO and KEGG pathway analysis showed that 4 up-regulated mRNAs were enriched in neuropsychiatric system function. Down-regulated mRNA EZH2 and SIRT1 were identified as hub gene. Finally, we detected the ROC curve of ENSG00000251562，miR-26a-5p，EZH2, miR-22-3p，SIRT1, ENSG00000251562—miR-26a-5p—EZH2, ENSG00000251562—miR-22-3p—SIRT1, and found that the AUC of ceRNA network was higher than lncRNA, miRNA and mRNA alone.

Conclusion We constructed the lncRNA-miRNA-mRNA network in exosome derived from FOS plasma, and found that lncRNA-miRNA-mRNA network has potential as biomarkers for FOS.

关键字：schizophrenia, exosome, lncRNA, miRNA, mRNA

气体信号分子硫化氢通过缓解细胞凋亡调控精神分裂症

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目的 硫化氢（hydrogen sulfide, H2S）是继 NO 和 CO 之后的第三种气体信号分子，在中枢神经系统中具有多种生物学功能。然而，目前尚不清楚 H2S 与精神分裂症（Schizophrenia，SZ）的关联及其相关机制。本研究旨在从人群层面、细胞层面以及动物层面去探索 H2S 对精神分裂症是否有调控作用以及其作用机制。

方法 人群层面，招募 26 名首发型 SZ（first episode SZ, FOS）患者以及 29 名健康对照（healthy control, HC）,收集临床资料和外周血，利用酶联免疫吸附法测定血浆中 H2S 含量。细胞水平和动物水平，利用地佐西平马来酸盐（MK-801）处理 SH-SY5Y 细胞和 SD 大鼠模拟精神分裂症，用 NaHS 作为外源 H2S 供体，分别分为四组：对照组、NaHS 组、MK801 组和 NaHS+MK801 组。随后，细胞水平进行 miRNA 与 mRNA 转录组测序，利用生物信息学筛学出关键的差异表达基因，用实时荧光定量聚合酶链式反应（qRT-PCR）检测基因表达，流式细胞仪检测细胞凋亡情况。动物水平通过 ELISA 技术测定血浆及海马组织中 H2S 含量，并进行行为学实验，最后利用免疫荧光实验检测海马组织细胞凋亡情况。

结果 人群水平：FOS 患者的血浆 H2S 含量明显降低，ROC 分析显示血浆 H2S 对首发 SCZ 具有较高的诊断效度。细胞水平：100μM NaHS 预处理最挽救了 MK801 诱导 SH-SY5Y 细胞所致的活力降低。根据转录组测序结果，筛选出 MK801 处理后发生改变并被 NaHS 预处理回调的基因，其中包括 4 个 miRNAs 和 68 个 mRNA；这些基因主要富集在细胞凋亡通路中，QRT-PCR 实验验证了凋亡通路相关基因的表达，流式细胞仪检测细胞凋亡情况发现 NaHS 预处理明显缓解了 MK801 诱导的 SH-SY5Y 细胞凋亡。动物水平：MK801 诱导的大鼠血浆和海马区组织中 H2S 含量较对照组明显降低。MK801 组大鼠在旷场实验、三箱社交试验、Y 迷宫实验、新物体识别实验中的均与对照产生明显的异常，而 NaHS 预处理后，缓解了 MK-801 造成的异常。免疫荧光实验发现 NaHS 能够缓解 MK801 造成的细胞凋亡。

结论 在精神分裂症中，H2S 的含量显著降低；外源补充 H2S 能够缓解精神分裂症样行为，该缓解作用有可能是通过调控细胞凋亡过程实现的。

关键字：SCZ；H2S；阴性症状；认知功能障碍；凋亡

Efficacy of Cortical-hippocampal Target Intermittent Theta Burst Stimulation(iTBS) on Associative Memory of Schizophrenia: A Double-blind, Randomized Sham-controlled Trial

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Objective Associative memory deficits are a core cognitive deficit symptom in schizophrenia, affecting the functional prognosis. The hippocampus is a critical brain region for the formation of associative memory. Studies have shown that rTMS stimulation of specific brain regions in the cortex can modulate hippocampal function by stimulating the cortico-hippocampal functional network, which is composed of the dorsolateral prefrontal cortex (DLPFC), the lateral parietal cortex (LPC), and hippocampal structures. Compared with traditional rTMS, TBS has a lower stimulus intensity than conventional rTMS and can change cortical excitability in a shorter period (3-4 min), significantly reducing treatment time and increasing patient compliance. The objective of our study was to assess whether intermittent theta burst stimulation(iTBS) to the locations with the strongest cortico-hippocampal connectivity within the LPC or DLPFC areas in schizophrenia enhances associative memory.

Methods We randomized 96 participants with schizophrenia to receive either active iTBS applied to the right DLPFC, left LPC or sham iTBS for 20 days. Clincal and cognitive assessments were performed at baseline and at the end of treatment. The primary outcome was change in associative memory. The secondary outcome was change in other cognitive functions and psychiatric symptoms. The associative memory paradigm of this study included visual-visual (Vis-Vis), auditory-auditory (Aud-Aud), and visual-auditory (Vis-Aud) pairing task. To discourage the “verbalization”, we used abstract visual and meaningless auditory stimuli.

Results Ultimately, 89 patients received the intervention. Of these 89 participants, 61 patients successfully

completed treatment and follow-up. Out of the 61 participants who completed the treatment, a total of 37 individuals completed the associative memory tasks, with 13 in the right DLPFC group, 13 in the left LPC group, and 12 in the sham group, respectively. The discriminability d-prime(d') was calculated to quantify the associative memory performance. We used repeated measures ANOVA to evaluate the d 'value pre- and post- intervention in the three groups among Aud-Aud associative memory (F=1.27 p=0.294), Aud-Vis associative memory (F= 0.49,p=0.617),Vis-Vis associative memory (F=1.094,p=0.347). No statistical differences were observed in intervention mode and time interaction on the three types of associative memory. Moreover, the results showed that the interaction of group and time had no significant effect on any of the seven cognitive modules of the patients.

Conclusion Compared to the sham group, iTBS targeting the right DLPFC or left LPC in schizophrenia fails to improve neither within-domain nor across-domain associative memory. However, if more participants could be recruited and hippocampal-targeted iTBS could be combined with fMRI, the regulatory role of rTMS in hippocampal regeneration could be better understood.

关键字：theta burst stimulation, associative memory, schizophrenia, cortical-hippocampal network, lateral parietal cortical, dorsolateral prefrontal cortical.

中文版 Bell-Lysaker 情绪识别任务在精神分裂症患者中的信效度

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目的 评估中文版 Bell-Lysaker 情绪识别任务（Bell-Lysaker emotion recognition task，BLERT）在中国成年精神分裂症（SCH）患者中的信度和效度。

方法 招募稳定期精神分裂症(SCH)患者 60 例，按照年龄、性别及教育年限相匹配，招募来自社区体检中心的健康对照（HC）100 名，使用中文版 BLERT、中国面部表情图片系统（Chinese affective facial picture system，CAFPS）、阳性与阴性症状量表（PANSS）、蒙特利尔认知评估（MoCA)进行测评，其中 49 例 SCH 患者(81.67%)2 周后完成重测。

结果 中文版 BLERT 的总难度为 0.68，总区分度为 0.45；内部一致性信度为 0.73，重测信度为 0.70（P<0.001）；与 CAFPS 及 MoCA 的关联效度为 0.41、0.55（P<0.001），BLERT 在 SCH 组与 HC 组间区分效度较高（效应值 0.52），最佳划界分为 15 分（此时敏感性为 0.85，特异性为 0.87）；验证性因子分析显示 7 种基本情绪拟合良好。

结论 中文版 BLERT 在中国成年精神分裂症患者中具有可接受的信度和效度。

关键字：精神分裂症 Bell-Lysaker 情绪识别任务 信度 效度

Coupling Analysis of Brain Structural Connectivity and Functional Connectivity before and after Treatment of Female Patients with Schizophrenia

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Objective Convergent evidence has suggested significant abnormalities in structural connectivity or functional connectivity of patients with schizophrenia, yet the changings of antipsychotic treatment-related alterations based on multimodal connectivity patterns within whole brain and their relationships to clinical characteristics in female patients with schizophrenia before and after 8 weeks of treatment were still unknown.

Methods 53 female patients with schizophrenia, which were treated with antipsychotic drugs for 8 weeks, and 44 female healthy controls were included. Structural network and functional network were analyzed by Network-Based Statistics (NBS). Non-zero structural connectivity-functional connectivity coupling at whole brain level was calculated. Finally, a predictive model for clinical efficacy was established based on random forest algorithm.

Results Compared with healthy control, structural connectivity of sub-network-1 was decreased in pre-treatment group, including structural connectivity between right posterior cingulate gyrus and right frontal gyrus, right supplementary motor area, as well as left medial cingulate gyrus. After treatment, compared with healthy control, structural connectivity of sub-network-1 tended to be normalized, while structural connectivity of sub-network-2 were significantly enhanced, including structural connectivity between right insula and left putamen, between left putamen and right putamen, between right putamen and left thalamus, between left thalamus and right medial cingulate gyrus, between left cerebellum and right medial cingulate gyrus, between left cerebellum and right precuneus, and between left cerebellum and right superior temporal gyrus. Compared with pre-treatment group, functional connectivity of sub-network-3 was decreased in post-treatment group significantly, widely distributed in the frontal, temporal, parietal, subcortical and cerebellum. Despite no significant difference in structural connectivity-functional connectivity coupling analysis was found among healthy controls, patients in pre-treatment and in post-treatment, changes in non-zero structural connectivity-functional connectivity coupling at whole brain level before and after treatment were associated with changes in information processing speed positively. What's more, random forest models based on structural connectivity within sub-network-1 could predict changes in working memory, based on functional connectivity within sub-network-3 could predict changes in social cognition in patients after 8 weeks of treatment.

Conclusion Different changing in structural connectivity, functional connectivity, and structural connectivity-functional connectivity coupling, suggesting that brain connectivity may be dissociated by modality. What's more, antipsychotic drugs may influence functional connectivity, but have a weak effect on structural connectivity during 8 weeks of treatment.

关键字：female patients with schizophrenia, neuroimaging, brain structural/functional connectivity, brain network, antipsychotic drug

首发精神分裂症认知亚型的脑结构和功能磁共振研究

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目的 精神分裂症的认知功能损害具有高度异质性。 越来越多的证据表明，在这种异质性中存在着可识别的认知亚型,这些亚型内部具有更同质化的认知特征，这为我们理解精神分裂症认知障碍机制提供重要的切入点。本研究旨在探讨首发精神分裂症认知亚型，并揭示不同认知亚型之间的脑结构及自发神经活动的差异。

方法 基于多中心的临床及磁共振数据，我们共筛选了 181 名首发精神分裂症患者和 107 名健康对照。采用 MATRICS 共识认知成套测验评估认知功能，所有受试者均完成结构和静息态功能磁共振成像扫描。采用潜在剖面分析识别认知亚型类别，采用协方差分析比较组间灰质体积（GMV）及低频振幅(ALFF)的差异，把年龄、性别、受教育年限、颅内总体积/头动设为协变量，同时采用偏相关分析探究差异脑区与认知领域的相关性。

结果 潜在剖面分析初步确定了认知损伤程度不同的 2 个类别，分别命名为低认知组和高认知组。 与健康对照相比，两个认知亚组右海马 GMV 均降低。与对照组和高认知组相比，低认知组右侧脑岛和左侧颞上回 GMV 明显降低。此外，与健康对照组相比，两个认知亚组右直回 ALFF 降低，左尾状核 ALFF 增加，而这两个区域的 ALFF 在亚组之间没有差异。与对照组和低认知组相比，高认知组左眶内额上回和左岛盖部额下回 ALFF 降低；与对照组和高认知组相比，低认知组左楔前叶和右角回 ALFF 降低。相关分析显示，在首发精神分裂症中，右侧岛叶、左侧颞上回的 GMV 和左侧岛盖部额下回 ALFF 与多个认知领域（信息处理速度、注意/警觉）相关。

结论 我们在首发精神分裂症不同的认知亚型中观察到不同范围和程度的 GMV 下降以及自发神经活动改变，主要分布在额-颞-边缘系统，其中岛叶、颞上回的 GMV 以及岛盖部额下回 ALFF 与多个认知领域相关。这些发现有助于进一步了解精神分裂症认知功能障碍的病理生理学机制。

关键字：精神分裂症；认知障碍；潜在剖面分析；灰质体积；低频振幅

Role of HOMA-IR and IL-6 As Screening Markers for The Metabolic Syndrome in Patients with Chronic Schizophrenia: A Psychiatric Hospital-based Cross-sectional Study

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Objective This study starts from the metabolic related indexes and cellular inflammatory factors in patients with chronic schizophrenia to find out that it can be used as an effective screening index of metabolic syndrome.

Methods 320 patients with chronic schizophrenia (course of disease > 5 years) and 165 healthy subjects were selected. The mental symptoms of the patients were measured by positive and negative syndrome scale. Blood samples from patients and healthy controls were collected to detect blood glucose, triglyceride, HDL and fasting insulin. The serum levels of IL-1β, IL-2, IL-6, IL-17, IFN-γ and TNF-α were determined repeatedly by sandwich enzyme-linked immunosorbent assay.

Results The levels of HOMA-IR, plasma inflammatory factors IL-2, IL-6, IL-17 and TNF-α in patient group were higher than those in healthy group. It was found that there were differences in age and related metabolic indexes between patients with chronic schizophrenia with and without metabolic syndrome. In addition, HOMA-IR, plasma cytokines IL-2 and IL-6 still showed differences between groups. In the Spearmen correlation analysis of insulin resistance index, cytokines and metabolic indexes, it was found that there was a significant correlation between HOMA-IR, IL-6 and related metabolic indexes and metabolic syndrome. ROC curve analysis showed that HOMA-IR and IL-6 could be used as screening indexes for MS in male and female patients with schizophrenia.

Conclusion Metabolic syndrome is an important risk factor for cardiovascular disease in patients with chronic schizophrenia. HOMA-IR and IL-6 can be used as effective biological indicators to screen MS in patients with chronic schizophrenia.

关键字： Keywords: cytokine, IL-6, HOMA-IR, schizophrenia, metabolic syndrome

Drug-induced Liver Injury Associated with Atypical Generation Antipsychotics From The FDA Adverse Event Reporting System (FAERS)

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Objective There are few systematic studieson

Drug-induced liver injury (DILI) related to Atypical antipsychotics(AAPs) use. Therefore, this study conducted an exploratory analysis of pharmacovigilance data from a global FAERS database to systematically evaluate the risk of DILI related to AAPs,in order to increase awareness of drug safety and promote further research.

Methods Data were obtained from the FAERS, one of the most comprehensive spontaneous reporting system databases. The FDA publishes FAERS files every quarter. In this study, reports submitted between the first quarter of 2017 and the first quarter of 2022 were extracted. The AAPs we analyzed included:Olanzapine, Paliperidone, Risperidone, Amisulpride, Clozapine, Aripiprazole, Quetiapine and Ziprasidone. Analyses were carried out using the SPSS V.26.0 and STATA 12.0 software. Normally distributed data were presented in the form of mean (SD), and non- normally distributed data were represented by median (Q1, Q3). In this study, a case/non-case approach was used to calculate reporting odds ratio (RORs) and 95% confidence intervals (CIs). The ROR represents the ratio of the odds of an adverse event for a specific drug against the odds of the same adverse event reported for all other drugs, p-value

关键字：AAPs, hepatotoxicity,reporting odds ratio (ROR), FAERS,DILI

基于中医临床复杂证候评价体系解决精神分裂症患者问诊关键问题的实证研究

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目的 精神分裂症归属于中医神志病范畴，中医辨证施治对精神分裂症具有较好的临床干预效果。但临证时由于精神分裂症患者的特殊性，往往做不到四诊合参，辨证时多缺乏证候诊断关键性问诊信息，导致应用中医药治疗的过程中存在中医精准辨证困难的问题，进而治疗中出现“药不对证”，甚至存在“无辨证用药”的现象，影响了中医临床辨证的准确性。解决精神分裂症患者问诊“难”的问题可以通过运用现代研究技术及方法，建立《精神分裂症中医临床复杂证候评价量表》解决。量表的拟定能够使精神分裂症的中医证候诊断过程中问诊中涉及的关键问题能够量化、客观化、易于临床使用，提高临床辨证准确率。

方法 基于前期拟定的《精神分裂症中医临床复杂证候评价量表》进行内部验证及临床实证研究。选取6名中西医结合临床或中医内科住院医师，通过临床信息调查表（已将患者中医诊断信息隐藏），应用《精神分裂症中医临床复杂证候评价量表》对纳入研究的80例患者进行中医辨证，记录辨证结果，并对辨证的真实性及可靠性进行评价。

结果 研究采用探索性因子分析和验证性因子分析量表中指标体系的结构效度进行统计分析。提取的公因子累计方差贡献率＞70%。提取的公因子可以比较充分的解释变量的信息。探索性因子分析与前期所构建量表指标体系的结构基本一致。临床实证研究结果显示应用《精神分裂症中医临床复杂证候评价量表》对患者的临床辨证的敏感性和特异性均＞70%，曲线下面积 AUC＞90%，说明应用《精神分裂症中医临床复杂证候评价量表》能够对中医辨证起到重要的辅助作用。

结论 解决精神分裂症患者问诊关键问题在于应用主观赋值与客观赋值相结合，宏观辨证与微观辨证相补充的研究思路，借鉴国际量表研制指南，基于病证结合模式，综合运用多种现代研究技术及方法，通过《精神分裂症中医临床复杂证候评价量表》的应用实现精准辨证的目的。本研究通过内部验证及临床实证研究证实《精神分裂症中医临床复杂证候评价量表》能够解决精神分裂症患者问诊缺失而影响精准辨证的难题，值得临床进一步研究与推广应用。

关键字：精神分裂症；证候学；中医临床复杂证候；量表；实证研究

微表情对精神分裂症患者冲动行为预测的研究

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目的 探讨微表情识别与精神分裂症患者冲动行为的相关性，为制订针对性干预对策提供依据。

方法 选取 2022 年 6 月—12 月山西省精神卫生中心确诊的伴有冲动行为的精神分裂症患者 120 例，性别不限，年龄 14～64 岁，排除标准: 心肺、肝胆等严重躯体疾病导致的失眠；严重自杀、自伤意念或行为；精神活性物质所致精神障碍；痴呆等依从性差，无法满足实验要求的患者。入组者自愿参加本研究，签署项目知情同意书，通过伦理委员会审查，对其微表情进行识别测验，通过计算机分析获得攻击性、压力、焦虑、可疑、平衡、自信、活力、自我调节、抑郁、神经质 10 项行为参数，通过振动影像统计程序及利用神经网络的标准方法学习与其同时被测试的修订版外显攻击行为量表（MOAS）和巴瑞特冲动性人格问卷（Baratt 冲动量表）得分做相关性研究，为认识精神分裂症患者冲动行为的病理心理学机制提供新的证据。

结果 微表情识别的综合参数值与 MOAS 和 Baratt 冲动量表检测结果一致，Pearson(皮尔逊)相关系数分别为 R=0.974 和 R=0.977，准确率均高于 97%。

结论 微表情识别对精神分裂症患者的冲动行为的发生可能有重要预测作用,具有较高临床价值。

关键字：微表情，精神分裂症，冲动，预测

Adrenocorticotropic Hormone and Suicide Among Patients with Schizophrenia Spectrum Disorders Visiting Emergency Department: A Network Analysis Running Head: Suicidality in Schizophrenia Spectrum Disorders

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Objective Suicide-related behaviors are significantly associated with premature death in schizophrenia, with serious consequences and social burdens. The prevalence of suicidality and its pathophysiological processes exist among patients with schizophrenia spectrum disorders (SSD) are not well documented. This study examined the network structures of biomarkers on HPA axis, such as Adrenocorticotropic hormone (ACTH) and Corticosterone (Cort), as well as suicidality and symptoms in SSD patients in in psychiatric emergency departments (PED).

Methods SSD patients in PED were assessed with the measurements of suicidality and depressive symptoms, respectively. A network analysis was performed to identify central symptoms and bridge symptoms of this network and their links to ACTH and Cort. Network stability was examined using the case-dropping procedure. The Network Comparison Test (NCT) was conducted to evaluate whether network characteristics differed by gender.

Results A total of 467 SSD patients were recruited. The prevalence of SI was 5.6% (95% CI: 2.8%-8.6%), SA was 5.4% (95% CI: 3.4%-7.5%) among psychiatric outpatients. Network analysis revealed that 'Guilt feelings' had the highest expected centrality, followed by 'Difficulty in abstract thinking' and 'Poor rapport'. The network model showed a high degree of stability. Gender did not significantly influence the network structure. Within the male group, 'Corticosterone' and 'Poor attention' may be the main bridge symptoms between symptoms and the suicidality community. Within the female group, 'Unusual thought content' and 'Conceptual disorganization' may be the main bridge symptoms between symptoms and the suicidality community.

Conclusion The central symptoms and key bridge symptoms identified could be potential targets for interventions of the HPA axis, which is designed for regular screening of a range of suicidal activity, especially for male emergency patients.

关键字：schizophrenia spectrum disorders, suicidality, ACTH, network analysis

早期精神病患者听觉失匹配负波缺陷研究

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目的 比较频率 MMN 和持续时间 MMN 振幅以及能量、ITPS 等指标在早期精神病中的缺陷、临床认知相关性以及客观诊断价值。

方法 收集 39 例首发精神分裂症（first-episode schizophrenia, FES）和 35 例临床高危（clinical high risk for psychosis, CHR）个体，及其配对的 40 例健康对照（healthy control, HC）人群。使用时域分析和时频分析提取 MMN 相关指标，使用方差分析对各 MMN 指标受损差异进行分析、相关性分析研究各指标间的相关性、Logistic 回归判断各个指标对首发精神分裂症的诊断价值。

结果 1. MMN 时域指标受损结果：频率 MMN 振幅峰值受损只发现于 FES 患者（p=0.035），与 HC（p＜0.05，Cohen's d=0.52）及 CHR（p＜0.05，Cohen's d=0.58）相比均达到中区分效应；持续时间 MMN 振幅峰值在 FES 患者（p＜0.05，Cohen's d=0.50）及 CHR 个体中均受损（p＜0.05，Cohen's d=0.51），均具有中区分效应，但二者间受损无统计学意义。 2. MMN 时频指标受损结果：FES 患者标准刺激 alpha ITPS 显著降低，与 HC 相比具有中区分效应（p＜0.01，Cohen's d=0.75），与 CHR 个体相比也具有中区分效应（p＜0.05，Cohen's d=0.50），CHR 组的差异不具有统计学意义。 3. MMN 指标对 FES 的判别性能：频率 MMN 振幅峰值、标准刺激 alpha ITPS 的曲线下面积（area under curve, AUC）分别是 64%、65%，两个指标联合的 AUC 可达 72%，敏感度及特异度分别为 63%、72%。

结论 MMN 时域指标在 FES 及 CHR 个体中均受损，具有中等效应量，且频率 MMN 与 CHR 个体症状及功能相关。时域指标与时频指标相结合能提高对 FES 患者的判别性能。

关键字：早期精神病 失匹配负波 时域分析 时频分析

首发和复发精神分裂症患者烟酸皮肤潮红反应及其临床相关研究

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目的 本研究以烟酸皮肤潮红反应为切入点，研究处于稳定期的首发和复发精神分裂症患者烟酸反应及临床症状、认知功能，旨在探究烟酸反应在精神分裂症不同阶段的特征及其与临床症状、认知功能的相关性。

方法 （1）招募 2020 年 12 月至 2022 年 12 月武汉大学人民医院住院及门诊服用非典型抗精神病药物治疗的稳定期首发精神分裂症患者 35 例，稳定期复发精神分裂症患者 63 例，及与其年龄、性别相匹配的健康对照者 33 例。(2)采用阳性与阴性症状量表（Positive and Negative Syndrome，PANSS）评估患者组临床症状的严重程度，采用中文版简明精神分裂症认知评估测验（Brief Assessment of Cognition in Schizophrenia，BACS）对患者组及健康对照组进行认知功能评估。(3)使用 BrainAid 皮肤烟酸反应测试仪 TY-AraSnap-H100 对被试者进行 6 个烟酸甲酯水溶液（AMN，C7H7NO2，99%，Sigma-Aldrich）浓度（60、20、6.67、2.22、0.74 和 0.25 mM）梯度的前臂烟酸皮肤潮红反应测试，计算烟酸皮肤潮红反应程度及整体烟酸皮肤潮红反应程度值，并比较三组之间的差异，随后分析其与临床症状及认知功能的相关关系。采用 SPSS 21.0 统计软件进行相关数据分析，采用 Origin 2023 软件绘制图片，P＜0.05 认为差异有统计学意义。

结果 对照组、首发组、复发组在性别及年龄等方面无显著差异(P＞0.05)，复发组体质量指数（body mass index，BMI）高于对照组，首发组和复发组受教育年限均低于对照组，差异具有统计学意义（P＜0.05）。与对照组相比，复发组的烟酸皮肤潮红反应在各浓度及时间点下均减弱，首发组的烟酸皮肤潮红反应在不同AMN浓度及时间点下呈现出不同的趋势。

结论 复发精神分裂症患者的烟酸反应普遍低于健康对照组，随精神分裂症的发生发展，烟酸表型开始趋于稳定钝化。首发精神分裂症的烟酸反应个体间差异更大，暗示该亚组患者的疾病进程混杂程度更高。精神分裂症患者的神经认知功能表现普遍显著弱于健康对照组。认知功能受损更严重的精神分裂症患者烟酸反应更差，且可能存在磷脂酶A2信号通路紊乱与烟酸皮肤潮红反应导致的认知功能下降之间的关联。

关键字：精神分裂症；烟酸皮肤潮红反应；临床症状；认知功能

Risk Analysis of QTc Prolongation Induced by Second-generation Antipsychotics in The Real World: A Retrospective Cohort Study Based on Hospital Electronic Medical Records

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Objective Second-generation antipsychotics (SGAs) may prolong the QTc interval by blocking the hERG channel. To estimate the SGAs' risk of QTc prolongation, we conducted a cohort study by retrospectively reviewing the hospital medical records.

Methods This study was based on a previous study database which leveraged inpatient electronic medical records from Shanghai Mental Center Hospital Hospital Information System (from Feb. 1, 2007 to Oct. 31, 2019.) and integrated the desensitization information of schizophrenia patient. The outcome was QTc prolongation, defined as QTc exceeding 450ms in males and 470ms in females, or increasing by more than 60ms from the baseline QTc regardless of sex. We used the marginal structural Cox model, which constructed a counterfactual framework and a pseudo-population through inverse probability weighting to simulate a comparison between the exposed group and the non-exposed group.

Results The cohort consisted of 5180 patients who met the strict inclusion and exclusion criteria. Among them, 263 patients developed QTc prolongation during the study period. After fully adjusting the confounding, ziprasidone showed an association with QTc prolongation (HR:1.73, 95% CI, 1.04-2.89, adjusted p=0.027). The risk of amisulpride (HR:1.52, 95% CI, 1.02-2.26, adjusted p=0.037) was lower than that of ziprasidone and similar to that of olanzapine (HR:1.40, 95% CI, 1.01-1.95, adjusted p=0.044). No association was found between the other SGAs and QTc prolongation before or after adjusting for the p value, including risperidone, clozapine, perospirone, quetiapine, paliperidone and aripiprazole.In the subgroup analyses, we found olanzapine (HR:2.08, 95% CI, 1.23-3.51, adjusted p=0.002) and ziprasidone (HR:2.89, 95% CI, 1.47-5.67, adjusted p<0.001) were associated with QTc prolongation development in male patients. In addition, after stratifying on age, it was demonstrated that amisulpride (HR:1.91, 95% CI, 1.14-3.20, adjusted p=0.021) had significant risk of QTc prolongation in patients between age 40 to 65. The association between SGAs and QTc prolongation was not revealed in other sex group or age groups.

Conclusion Patients who took ziprasidone, amisulpride or olanzapine had an increased risk of QTc prolongation. The public should be aware of the risks of QTc prolongation caused by olanzapine and avoid making inappropriate drug adjustments after adverse events.

关键字：QTc prolongation, second-generation antipsychotics, hospital electronic medical records

Aberrant Brain Dynamics in Schizophrenia During Working Memory Task: Evidence From A?replication Functional MRI Study

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Objective The integration of information that typifies working memory (WM) operation requires a flexible, dynamic functional relationship among brain regions. In schizophrenia, though WM capacity is prominently impaired at higher loads, the mechanistic underpinnings are unclear. As a result, we lack convincing cognitive remediation of load-dependent deficits. We hypothesize that reduced WM capacity arises from a disruption in dynamic functional connectivity when patients face cognitive demands.

Methods We calculate the dynamic voxel-wise degree centrality (DC) across the functional connectome in 142 patients with schizophrenia and 88 healthy controls (HCs) facing different WM loads during an n-back task. We tested associations of the altered dynamic variability in DC and clinical symptoms and identified intermediate connectivity configurations (clustered states) across time during WM operation. These analyses were repeated in another independent dataset of 169 subjects (102 with schizophrenia).

Results Compared with HCs, patients showed an increased DC variability of SMA (supplementary motor area) for the ‘2back vs. 0back’ contrast. This instability at the SMA seen in patients correlated with increased positive symptoms and followed a ‘U-shape’ pattern at rest-condition and two loads. In the clustering analysis, patients showed a decreased DC in the SMA, superior temporal gyrus, and putamen. These results were replicated in the second independent dataset.

Conclusion Schizophrenia is characterized by a load-dependent reduction of stable centrality in SMA; this relates to the severity of positive symptoms. Restoring

SMA stability in the presence of cognitive demands may have a therapeutic effect on positive symptoms in schizophrenia.

关键字：n-back task; cognitive; degree centrality; stability; supplementary motor area.

Oxidative Stress Impairs Cognitive Function by Affecting Hippocampal Fimbria Volume in First-episode Schizophrenia

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Objective The aim of the present study was to explore influencing factors of cognitive impairments and their interrelationships in drug-na?ve, first-episode schizophrenia (SCZ).

Methods Patients with drug na?ve, first episode SCZ and healthy controls (HCs) were enrolled. Cognitive function was assessed by the MATRICS Consensus Cognitive Battery (MCCB). Serum levels of oxidative stress indices, including folate, superoxide dismutase (SOD), uric acid (UA) and homocysteine (Hcy), were determined after an overnight fast. Hippocampal subfield volumes were measured using FreeSurfer. Mediation models were conducted using the SPSS PROCESS v3.4 macro. A false discovery rate (FDR) correction was applied for multiple comparisons.

Results Sixty-seven patients with SCZ and 65 HCs were enrolled in our study. The patient group had significantly lower serum levels of folate and SOD and higher serum levels of HCY compared with the HCs (all $p < 0.05$). The patient group had a significantly smaller volume of the whole hippocampus than the HC group ($p < 0.05$). We also found significant volume differences between the two groups in the following subfields: CA1, molecular layer, GC-ML-DG and fimbria (all $p < 0.05$, uncorrected). The partial correlation analysis controlling for age and sex showed that the fimbria volume in the patient group was significantly positively associated with NAB scores ($r = 0.382$, $pFDR = 0.024$); serum levels of SOD in the patient group showed a significantly positive correlation with fimbria volume ($r = 0.360$, $pFDR = 0.036$). Mediation analyses controlling for age and sex showed that the serum levels of SOD in patients with SCZ had significant indirect effects on the NAB scores which were mediated by the fimbria volume (indirect effect = 0.0565, 95% CI from the bootstrap test excluding zero (0.0066 to 0.0891)).

Conclusion Oxidative stress, a reduction in hippocampal subfield volumes and cognitive impairments occur in early SCZ. Oxidative stress impairs cognitive function by affecting hippocampal subfield volumes.

关键字：schizophrenia, oxidative stress, hippocampal subfields, cognitive impairments, hippocampal fimbria volume

Across-domain Associative Memory Impairment in Schizophrenia

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Objective Schizophrenia is a complex mental illness that causes significant societal expenditure worldwide. Those with this illness often have problems with memory, particularly associative memory. However, previous studies on associative memory in individuals with schizophrenia have been inconsistent. Our study focused on how individuals with schizophrenia process audiovisual stimuli and across-domain associative function using nonverbal materials. We hypothesized that associative memory would be impaired in individuals with schizophrenia, particularly in the across-domain condition, and that better performance in across-domain associative memory function would be correlated with lower negative symptoms severity.

Methods The study included 32 patients with schizophrenia and 29 healthy controls, matched for demographics. Patients were diagnosed using the DSM-5 and healthy controls were recruited from the community. Our study utilized non-verbal visual and abstract sound stimuli to avoid verbalization strategies. Three paradigms were used for the associative memory task: auditory-auditory, visual-visual, and auditory-visual pairs. Each paradigm involved a learning and testing phase, with participants rating the degree of correlation and confidence in their responses. Prior to the official task, participants had a chance to practice. The entire task took about 1 hour and was programmed using E-PRIME software.

Results Patients exhibited poorer associative memory performance than healthy controls, particularly in the across-domain tasks. The repeated measures ANOVA revealed reliably impaired associative memory in schizophrenia patients compared to controls across different domains. Further analysis showed that patients were significantly impaired in the Aud-Vis condition, but no effects were detected in the within-domain conditions. Moreover, we found a significant association between higher scores of discriminations and less severe negative symptoms in the Aud-Vis task.

Conclusion Our results showed that schizophrenia patients had a significant decline in associative memory performance, particularly in across-domain functionality. This impairment may be due to selective loss of information encoding and damage to the hippocampus. However, within-domain associative memory function remained relatively intact in patients. The study also found a significant correlation between across-domain associative memory scores and negative symptom scores in schizophrenia patients. The findings suggest that cross-domain associative memory deficits may serve as a promising biomarker for schizophrenia and could facilitate the development of novel cognitive-behavioral treatments. Limitations of the study include a small sample size and the use

of abstract stimuli that may not fully capture real-life associations.

关键字：schizohrenia; associavitve memory; negative symptoms

Effects of Aripiprazole on Resting-state Functional Connectivity of Large-scale Brain Networks in First-episode Drug-naive Schizophrenia Patients

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Objective Aripiprazole modulates functional connectivity (FC) between several brain regions in first-episode schizophrenia patients, contributing to improvement in clinical symptoms. However, the effects of aripiprazole on abnormal connections among extensive brain networks in schizophrenia patients remain unclear. We aimed to investigate the effects of 12 weeks of aripiprazole treatment on the FC of large-scale brain networks.

Methods Forty-five first-episode drug-na?ve schizophrenia patients and 45 healthy controls were recruited for this longitudinal study. Resting-state functional magnetic resonance imaging (fMRI) data were collected at baseline and after 12 weeks of aripiprazole treatment. The patients were classified into those in response (SCHr group) and non-response (SCHnr group) according to the improvement of clinical symptoms after 12-weeks treatment. The FC were evaluated for seven large-scale brain networks. In addition, correlation analysis was performed to investigate associations between changes FC of large-scale brain networks and clinical symptoms.

Results Before aripiprazole treatment, schizophrenia patients showed decreased FC of extensive brain networks compared to healthy controls. The 12-week aripiprazole treatment significantly prevented the constantly decreased FC of subcortical network, default mode network and other brain networks in patients with SCHr, in association with the improvement of clinical symptoms.

Conclusion Taken together, these findings have revealed the effects of aripiprazole on FC in large-scale networks in schizophrenia patients, which could provide new insight on interpreting symptom improvement in SCH.

关键字：Large-scale brain network, Functional connectivity, Schizophrenia, Aripiprazole

Associations between Thyroid Hormones and Frontal Gray Matter Volume in Male Schizophrenia Patients with A History of Violence

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Objective Schizophrenia (SCZ) is a severe mental disorder characterized by positive symptoms, negative symptoms and cognitive deficits, with its lifetime prevalence being about 1%. It has been reported that patients with SCZ are more likely to commit violent behavior in relation to the general population. Such violence carried out by individuals with SCZ not only results in physical harm to people and economic cost to society, but also increases social stigmatization to them. Hence, it is vital to understand the potential mechanisms of violence associated with SCZ. The gray matter volume (GMV) in frontal lobe has been frequently found to be reduced in schizophrenia (SCZ) patients with a history of violence, but there have been few studies investigating the potential mechanisms of GMV alternations. This study was aimed to explore the associations between thyroid hormones and frontal GMV in SCZ patients with violence.

Methods From December 2021 to March 2022, a total of 57 male inpatients with SCZ were enrolled from the Hefei Fourth People's Hospital and they met the diagnostic criteria of SCZ according to Diagnostic and Statistical Manual of Mental Disorders, 5th edition. 30 SCZ patients with and 27 counterparts without violent behavior were subjected to Triiodothyronine (T3), Thyroxine (T4), thyroid-stimulating hormone (TSH), free Triiodothyronine (fT3) and free Thyroxine (fT4) and underwent structural magnetic resonance imaging (sMRI). sMRI data were processed using FreeSurfer version 5.0. The linear regression analysis was used to investigate the associations between frontal GMV and thyroid hormones in SCZ persons with violence.

Results T3, T4, TSH, fT3, and fT4 levels were within the reference range. The levels of T3, T4, fT3, and fT4 did not differ between groups, but there were significantly differences in age, TSH, and total brain volume between two groups, with VSPs having increased age and TSH levels as well as decreased total brain volume than nVSPs. After controlling for age and total brain volume, we found VSPs had a reduced GMV of frontal pole, compared with nVSPs. In conclusion, SCZ patients with violence exhibited the reduced GMV of frontal pole and elevated levels of TSH, compared with those without violence. In SCZ patients with violence,Linear regression analysis showed the GMV of frontal pole was negatively associated with TSH level.

Conclusion In the present study, our aim was to explore the associations between thyroid hormones and frontal GMV in SCZ patients with violence. Our results indicate that SCZ persons with violence exhibited the decreased GMV of frontal pole and increased levels of TSH, compared with those without violence. Moreover, the GMV of frontal pole was negatively associated with TSH levels. These findings provide valuable insight into the important role of reduced frontal GMV in violence among SCZ patients. Therefore, alternations in thyroid hormones levels in SCZ patients should be emphasized.

关键字：thyroid; schizophrenia; violence; gray matter volume; MRI; Structures

Schizophrenia, Bipolar Disorder and Brain Network Connectivity: A Genetically Informed Study

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Objective Schizophrenia (SCZ) and bipolar disorder (BD) are severe psychiatric disorders recognized as leading causes of morbidity and mortality in the world. SCZ and BD share clinical characteristics, genetic susceptibility and neural circuit changes. Dysfunction of large-scale intrinsic brain networks has been demonstrated in schizophrenia and bipolar disorder, but it remains unknown whether those network alterations are shared between these two diseases or specific to each one from a genetics viewpoint. To disentangle the genetic overlap between schizophrenia (SCZ) and bipolar disorder (BD), and their relevance with structural connectivity (SC) and functional connectivity (FC) within resting-state networks (RSNs). And then, to identify shared and distinct brian network connectivities between SCZ and BD from a genetics viewpoint.

Methods We used GWAS summary statistics for schizophrenia with European ancestry (N-case=71,554, N-control=243,649), bipolar disorder (N-case=41,917, N-control=371,549) from the Psychiatric Genomics Consortium (PGC). For functional connectivity (FC) and structural connectivity (SC) within seven resting-state networks that previously have been identified (Yeo et al., 2011), we used GWAS summary statistics based on UK Biobank participants(N=24,336). We estimated genome-wide genetic correlations between SCZ, BD and SC/FC. Then we conducted the Omnigenic Mendelian Randomization (OMR) analysis using RSN-FC and RSN-SC as the exposures and SCZ and BD as the outcomes.

Results We identi?ed? two RSN-SC linked to both schizophrenia and bipolar disorder, including frontoparietal network (for SCZ: effect = -0.0393[-0.0465,-0.0321], P = 4.81e-8; for BD: effect = -0.0405[-0.0493,-0.0317], P = 4.41e-6) and limbic network (for SCZ: effect = -0.0666[-0.0854,-0.0478], P = 3.9e-4; for BD: effect = -0.0687[-0.0883,-0.0492], P = 4.43e-4), which all passed Bonferroni? correction for multiple comparisons. Moreover, visual network-FC (effect = -0.146[-0.168,-0.125], P = 5.84e-12)?and default mode network-SC (effect = -0.0865[-0.11,-0.0628], P = 2.61e-4)?are uniquely related to BD. However, we didn't find a unique FC or SC related to SCZ, possibly due to sample and disease heterogeneity.

Conclusion Our study provides genetics insights into the roles of brain network connectivity in the pathophysiology of SCZ and BD. Identified shared and unique brain network connectivity could help better understanding and further facilitate development of diagnosis and novel treatments.

关键字：schizophrenia, brain network, genetics

Interaction between Depressive Symptoms and Psychotic Symptoms: A Longitudinal Study of College Students

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Objective Depressive symptoms overlap with psychotic symptoms in a complicated but not fully clear way. Since college students are experiencing their emerging adulthood, a period where depressive and psychotic disorders peak, effective assessments are of vital importance, as they can provide an opportunity to identify and intervene, as early as possible, the individuals at high risk. Based on a cohort of college students, this study aims to investigate the prevalence of depressive and psychotic symptoms, explore relevant risk factors for each symptom, observe the dynamic changes of depressive and psychotic symptoms during an individual's four-year campus life, and explore the potential causal relationship between them.

Methods This study assessed the mental states of all freshmen of Sichuan University through a set of online questionnaires from 2014 to 2018. By following them up every year until 2019, this study established a cohort of 22974 college students with multiple time points. Cross-sectional data were used to investigate the prevalence of depressive and psychotic symptoms at each time point, to seek the differences among different subgroups with correlation and subgroup analysis, and to identify risk factors through lasso regression and logistic regression. For longitudinal data, the cross-lagged panel model and the random intercept cross-lagged panel model were applied to explore the dynamic changes of the two symptoms at the population and within-person levels, respectively.

Results The prevalence of depressive symptoms were 24.0%, 32.6%, 34.3%, and 32.0%, of clinically significant depression (CSD) were 3.8%, 7.9%, 9.4% and 8.5%, of psychotic symptoms were 9.1%, 9.0%, 8.7%, 6.9%, of clinically significant psychosis were 1.0%, 1.1%, 1.2% and 0.7% at the four time points, respectively. The stable risk factors for CSD included somatic symptoms, suicide risk, internet addiction, negative life events, and psychotic symptoms; the stable risk factors for psychotic symptoms included male, childhood trauma, suicide risk, internet addiction, negative life events, and depressive symptoms. Depressive symptoms and psychotic symptoms positively predicted each other, in which the influence of the former was greater at the population level whereas the latter performed better at the within-person level.

Conclusion Depressive and psychotic symptoms among college students required attention, especially for male students and those with childhood trauma, somatic symptoms, suicide risk, internet addiction, and negative life events. During the four years of campus life, depressive and psychotic symptoms demonstrated dynamic changes and interacted with each other. There was a bidirectional causal relationship between the two symptoms, in which psychotic symptoms played the leading role at the within-person level, for their impact exerted on subsequent

depressive symptoms outweighed the influence of depressive symptoms on them.

关键字：Depressive Symptoms; Psychotic Symptoms; College Students; Longitudinal Study; Causal Analysis

NPTX2 and Cognitive Dysfunction in Schizophrenia

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Objective Synaptic dysfunction and loss are thought to be closely related to the occurrence and development of schizophrenia (SCZ), and may be involved in cognitive dysfunction. Specifically, neuronal pentraxin 2 (NPTX2), which are involved in synaptogenesis, synaptic pruning, and regulation of excitatory signals in parvalbumin interneurons by recruiting post-synaptic receptors into synapses, have emerged as potential biomarkers of glutamatergic synaptic plasticity. Hence, we aimed to explore the molecular mechanism of synaptic pathology of SCZ to discover novel targets for diagnosis and therapy.

Methods We recruited 257 participants, of whom 130 were SCZ patients from psychiatric hospital and 127 healthy control (HC) subjects from communities. Plasma concentrations of NPTX2 were measured in HC and SCZ patients at baseline. Psychopathology was assessed on the Positive and Negative Syndrome Scale (PANSS). The MATRICS Cognitive Consensus Battery was used to evaluate cognitive function.

Results Plasma NPTX2 levels were significantly lower in SCZ patients compared with HC subjects (P=0.017). In addition, plasma NPTX2 levels were significantly positively correlated (r=0.272, P=0.005) with the Category Fluency Test.

Conclusion These findings indicate that NPTX2 may reveal novel aspects of disease etiology and act as a promising target for new drug development.

关键字：neuronal pentraxin 2; schizophrenia; cognitive; synapse

短链脂肪酸及海马体积与首发精神分裂症的关联研究

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目的 观察首发未用药精神分裂症患者血清短链脂肪酸水平和海马亚区体积及其与认知功能的关系，探讨短链脂肪酸在精神分裂症中发挥的可能作用。

方法 选取2020年10月至2021年6月至郑州大学第一附属医院精神科就诊的首发未用药精神分裂症患者51例（患者组）和同期健康志愿者35名（健康对照组），采用气相色谱质谱法检测血清短链脂肪酸水平，采用GE Discovery 750 3.0T采集结构磁共振成像影像数据，采用精神分裂症认知功能成套测验（MCCB）评估认知功能。

结果 （1）患者组血清异丁酸、丙酸水平明显低于健康对照组，血清乙酸、异戊酸和己酸水平显著高于健康对照组，差异均有统计学意义（P<0.05）。（2）患者组右侧半球海马裂体积显著高于健康对照组，患者组右侧半球海马头部体积明显低于健康对照组，差异具有统计学意义（P<0.05）。（3）与健康对照组相比，患者组在认知功能七大领域中的得分下降较为明显（均P<0.05）。（4）相关性分析显示：患者组血清正丁酸水平与右侧半球海马尾部体积成正相关（r=0.371，P=0.012）。血清丙酸水平与认知功能中的视觉学习成负相关（r=-0.348，P=0.028）。患者组左侧半球海马裂体积与SOP T分、RPS T分均正相关（r=0.301、0.310，均P<0.05）；左侧半球海马头部体积与SC T分成正相关（r=0.336，P=0.021）；左侧半球海马体积与SC T分成正相关（r=0.357，P=0.014）；右侧半球海马头部体积与Vis.Lrng T分、SC T分成正相关（r=0.312、0.319，均P<0.05）；右侧半球海马尾部体积与RPS T分成负相关（r=-0.289，P=0.049）。（5）随机森林回归模型分析发现丁酸、异丁酸预测模型RMSE值为18.74±0.30；右侧半球海马头部体积、右侧半球海马尾部体积预测模型的RMSE值为17.98±0.33；丁酸、异丁酸、右侧半球海马头部体积和右侧半球海马尾部体积联合预测模型的RMSE值为17.59±0.58，其可以更好的预测Vis.Lrng水平。

结论 患者组血清丁酸水平与右侧半球海马尾部体积成正相关，并与认知功能部分得分具有一定的相关性，提示丁酸水平改变可能参与了精神分裂症的发生。丁酸和海马亚区体积联合做模型预测认知功能，优于分别单个做模型用于认知功能的预估。

关键字：精神分裂症；短链脂肪酸；海马；认知功能

Activation of The JAK-STAT Pathway in Clozapine-induced Metabolic Syndrome: An Intrinsic Intersection between Therapeutic and Metabolic Side Effects

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Objective to determine whether in vivo chronic clozapine administration cause metabolic syndrome in mice, then explore whether peripheral metabolic disorders caused by antipsychotic medications interact synergistically with the central nervous system and discussing possible mechanisms involved.

Methods In order to investigate the metabolic effects of antipsychotics on both the central and peripheral systems, we administered clozapine to mice for a duration of ten weeks to determine whether chronic administration resulted in the development of metabolic syndrome. Transcriptome analysis was employed to identify any changes in the prefrontal lobe, while protein levels were examined to ascertain whether clozapine caused central insulin resistance. Additionally, we observed whether similar changes occurred in the liver in relation to the JAK-STAT pathway.

Results The administration of clozapine over a prolonged period can result in the onset of metabolic syndrome in mice, which is linked to the activation of the JAK-STAT pathway and insulin resistance in the prefrontal cortex. Additionally, clozapine-induced central hyperinsulinism can cause the hepatic IL6-STAT3 pathway to become overactive, leading to chronic disruptions in hepatic glycogen production and gluconeogenesis.

Conclusion In mice, clozapine can cause prefrontal insulin resistance and increased insulin levels which leading to chronic activation of the hepatic JAK-STAT3 pathway, thereby promoting the release of downstream inflammatory factors and promoting the development of metabolic syndrome. STAT3 may be the brain-liver axis linking factor of AAPs on central therapeutic effect and peripheral metabolic disorder.

关键字：Antipsychotic drugs/ Clozapine/ Metabolic syndrome/ Inflammatory pathway

Association of NPY and SATB2 Gene Polymorphisms with Antipsychotics Efficacy

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Objective There are significant differences in response to antipsychotic drugs in patients with schizophrenia. Several studies have shown that NPY and SATB2 genes are related to the efficacy of antipsychotic drugs. In this study, to explore the correlation between single nucleotide polymorphism (SNP) sites of NPY gene and SATB2 gene and antipsychotics response in Chinese Han population.

Methods The 228 Chinese Han patients with schizophrenia were enrolled in the present study. The polymorphisms of NPY (rs16141, rs16145 and rs5573) and SATB2 gene (rs1900327, rs7557687, rs733156 and rs6745135) in 228 schizophrenia patients were measured using the KASP technique. Patients were treated with single antipsychotic medication for 8 weeks during the study. The Positive and Negative Syndrome Scale (PANSS) scores were used to assess clinical efficacy. A reduction in total PANSS scores ≥50% were classified as good responders, while others were poor responders. We evaluated the association between 2 genes and antipsychotic efficacy by comparing allele and genotype distribution, correlation analysis, linkage imbalance, and five genetic models between the two groups.

Results (1) There was no significant relationship between the three SNPs polymorphisms in the NPY gene and reduction rate in PANSS score at each stage (all $p>0.05$). The distribution of genotype and allele frequencies of locus rs16141 was not statistically difference between good responders and poor responders (genotype: $\chi2=4.088$, $p=0.043$, p-correction=0.129; allele: $\chi2=4.088$, $p=0.027$, p-correction=0.081). The allele distribution of rs5573 was significantly different between groups, yet the difference was disappeared. after correcting ($\chi2=4.136$, $p=0.042$, p-correction=0.126). The distribution frequencies of TA/TG and GG haplotypes constituted by rs16141 and rs5573showed no statistical difference between the two groups ($p>0.05$). In recessive inheritance mode, NPYrs5573 was found to be associated with antipsychotic drug response (G/G vs. A/A +A/G: $p=0.028$, AIC=197.2, BIC=210.9). (2)Four SNP polymorphisms of SATB2 were associated with reduced general psychopathology scores at the 8th week. Rs733156 was associated with negative symptom changes at the 4th week. There was no significant difference in the distribution of alleles and genotypes of the four loci between the two groups ($p>0.05$). The haplotype frequency of rs6745135, rs1900327, rs7557687 and rs733156 showed no statistical difference between the two groups ($p>0.05$). No SNP was found to associate with antipsychotics response under five genetic models ($p>0.05$).

Conclusion This study did not find an association between polymorphisms in the NPY gene and response to antipsychotics. The SATB2 gene polymorphism is probably related to how well antipsychotics treat general psychopathological symptoms. This will need to be verified in larger pharmacogenetic studies in the future.

关键字：schizophrenia, NPY, SATB2,gene polymorphism, antipsychotics, drug response

甲基化调节因子在精神分裂症中的作用研究

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目的 本研究旨在通过生物信息学方法寻找差异N6-腺苷酸甲基化（N6-Methyladenosine，m6A）基因，建立模型评估差异 m6A 基因在精神分裂症（schizophrenia，SCZ）中的诊断特异性，并取 SCZ 患者外周血用 q-PCR 实验验证特征基因表达，以期为 SCZ 的辅助诊断提供可能的生物标记物。

方法 于 NCBI 数据库下载 SCZ 相关基因集，限制测序类型为高通量测序和芯片测序，样本类型为人血样本，筛选目标基因集进行分析：结合基因集中的测序信息，从当前已有文献报道的 m6A 相关基因中选择 21 个 m6A 相关基因，使用 R 4.0.3 版本进行分析。（1）

就差异 m6A 调节因子进行差异分析，绘制箱线图和热图；（2）建立随机森林模型和支持向量模型从差异 m6A 调节因子中筛选疾病特征基因，根据残差大小判断模型的优劣性，结合最优模型筛选出具有诊断特异性的特征 m6A 调节因子；（3）就特征 m6A 调节因子行列线图，判断特征 m6A 调节因子的诊断效力；（4）根据 6 个特征 m6A 调节因子行聚类分析对 SCZ 分类，对不同分类的 SCZ 行免疫细胞相关性分析。并纳入 SCZ 患者 60 例，平均年龄 34±13.05 岁，健康对照 47 例，平均年龄 35.92±11.18 岁。取其晨起空腹肘静脉血 5ml，用 q-PCR 实验验证 SCZ 患者及 HC 对照外周血中差异 m6A 调节因子的表达。

结果 1、差异分析结果显示：m6A 调节因子 RBM15 和 YTHDF3 在 SCZ 患者中高表达，ALKBH5、FTO、RBM15B 和 YTHDF1 则低表达于 SCZ 患者。2、RF 模型为最优模型，根据 RF 特征变量 Mean Decrease Gini 排序如下：YTHDF3 ＞ ALKBH5 ＞FTO＞ YTHDF1＞RBM15B ＞RBM15。3、列线图模型中 6 个特征 m6A 调节因子对 SCZ 诊断的贡献排序如下：FTO ＞ YTHDF3 ＞ ALKBH5 ＞ RBM15B ＞ RBM15 ＞ YTHDF1，且基于 m6A 调节因子分类的 m6A 模式可对 SCZ 的分类。4、m6A 调节因子 RBM15 免疫相关性最为显著。5、人血 q-PCR 验证结果示：FTO、 RBM15 和 YTHDF3 均在 SCZ 患者中低表达。

结论 尽管生信分析结果支持 6 个差异 m6A 调节因子在 SCZ 诊断和分类中的可能，但血液学验证结果仅支持 m6A 调节因子 FTO 作为外周血生物标记物的可能。

关键字：精神分裂症，甲基化调节因子，生物信息学，生物标记物

中国汉族人群 IDO 基因多态性与精神分裂症的关联研究

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目的 精神分裂症（Schizophrenia, SZ）是一种病因复杂的慢性精神疾病，病程迁延，致残率高。SZ 的病因之一是神经发育缺陷。造成神经发育缺陷的原因可以分为两类原因：先天性的发育不良以及后天性的损伤。因此，先天调控神经元发育以及后天参与炎症过程损伤神经元的两类基因都有可能是 SZ 的易感基因。吲哚胺 2,3-双加氧酶（indoleamine 2,3-dioxygenase，IDO）是一种氧化还原酶，编码该酶的基因为 IDO 基因，位于 8 号染色体的短臂上。IDO 是色氨酸犬尿氨酸途径代谢的限速酶之一，其广泛参与免疫过程，可能与神经炎症密切相关。IDO 基因被认为是 SZ 的风险基因之一，但是缺乏相关遗传学证据。因此本研究在中国汉族人群中开展一项两阶段病例-对照关联研究，以探讨 IDO 基因的单核苷酸多态性（Single nucleotide polymorphisms, SNPs）与 SZ 的关联。

方法 SZ 病例组和对照组样本来源于河南省地区 SZ 患者和健康正常人，由新乡医学院第二附属医院等医院严格按照入组标准及排除标准收集。研究招募的受试者分别纳入发现阶段和验证阶段。发现阶段纳入 2098 名 SZ 患者和 1690 名健康对照，验证阶段纳入 2458 名 SZ 患者和 6914 名健康对照。采集样本外周血并提取基因组 DNA，使用基因芯片和 ARMS-PCR 等方法对样本 DNA 进行基因分型。使用在线分析工具 SHEsis 对 IDO 基因 SNPs 与 SZ 进行关联性分析。

结果 病例-对照研究发现，IDO 基因的 rs9657182 与 SZ 存在显著关联性（P =0.0026），rs10109853 在女性群体中与 SZ 显著关联（P=0.022）。经过 Bonferroni 校正，rs9657182 与 SZ 的关联性仍然存在（P=0.010），rs10109853 与 SZ 的关联性消失。在总体样本中，IDO 基因中 rs9657182 和 rs7820268 组成的单倍型 CC 和 TC 与 SZ 显著关联（P=0.048 和 0.029）。

结论 本研究在中国汉族人群中开展两阶段的病例-对照研究，发现了 IDO 基因与 SZ 存在显著关联性的证据，其中 rs9657182 是在全性别层面与 SZ 强关联的 SNPs 位点，而 rs10109853 是与女性 SZ 弱关联的 SNP 位点。综上，本研究发现 IDO 基因的多态性能够显著影响 SZ 的患病风险，是 SZ 的易感基因，进一步丰富了 SZ 遗传学机制。

关键字：关联性；单核苷酸多态性；IDO；精神分裂症

精神分裂症患者情绪语音识别和精神症状之间关联的神经机制

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目的 精神分裂症患者中，噪声中的语音识别和听觉情绪识别缺陷与精神症状有关。然而，嵌入目标语音中的韵律如何影响精分患者在噪声下的语音识别水平？由情绪韵律造成的语音识别的改变又是否以及如何与精神症状产生关联？目前这些问题尚不清楚。本研究旨在探讨情绪语音识别与精神症状的关系及其可能的神经机制。

方法 54 名精分患者和 59 名健康对照进行了噪声下的情绪语音识别任务（目标伪句以中性、快乐、悲伤、愤怒、恐惧和厌恶的韵律由专业演员读出，患者需要在不同噪声水平下复述听到的目标句），接受了阳性和阴性综合征量表（PANSS）评估和磁共振成像扫描。我们使用偏最小二乘（PLS）回归的多变量分析和中介分析来探索噪声下六种情绪韵律下的语音识别成绩、脑灰质体积和精神症状之间的关联。

结果 负性情绪韵律可以降低患者和对照组在噪声下的语音识别能力、降低语音识别随信噪比变化而变化的程度。精分患者在噪声下的情绪语音识别成绩和语音识别随信噪比的变化率均低于健康对照组。两

组受试者在噪声下的情绪语音识别成绩均与某些声学特征相关。正常对照组中，大脑灰质体积（尤其是各高级联合皮层、脑岛、楔叶和扣带皮层）的一个主成分与愤怒、恐惧和中性情绪条件下的语音识别能力有关；精分患者组中，以上大脑灰质体积的一个主成分和厌恶情绪韵律下的语音识别能力相关。精分患者中，噪声下的情绪（主要是厌恶情绪）语音识别的一个主成分与特定的症状特征的主成分（主要包含消极综合征、运动迟缓、注意力差、概念障碍和洞察力差）相关，而这个关联可以由以上大脑区域的灰质体积的主成分介导（解释了 39.3%的方差）。

结论 精分患者在噪声下的情绪语音识别异常和精神症状有关，这可能和患者处理语音和情绪的各脑区的结构异常有关。这些发现为基于皮层可塑性原理对精分患者进行行为干预、从而改善精分患者的精神症状提供了理论依据：即提高患者在噪声下韵律语音识别能力来改善相应精神症状的一种可能性。

关键字：灰质体积、偏最小二乘法、精神症状、语音识别、精神分裂症、语音韵律、情绪

分裂型特质个体心理时间旅行的自我优势效应和个人目标优势效应的行为研究

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目的 分裂型特质个体（high level of schizotypal trait，HST）是与精神分裂症患者有类似症状但尚未达到临床诊断标准的亚临床群体。自我异常是精神分裂症谱系障碍最基本和最核心的病理特征之一，被视为高危人群转化为精神分裂症的重要风险因素。心理时间旅行（mental time travel，MTT）是通过心理模拟将自己投射到过去或未来的能力，包括自传体记忆和未来情景想象。MTT 具有自我优势效应，即自我相关心理时间旅行事件的表现优于他人相关事件；进一步地，还具有个人目标优势效应，即个人目标相关的心理时间旅行事件的表现优于目标无关事件。然而，目前仍不清楚分裂型特质个体在自我优势效应和个人目标优势效应上是否存在异常改变。本研究旨在通过两个行为实验对以上问题进行探讨。

方法 实验一招募了 37 名分裂型特质和 37 名低分裂型特质（Low level of schizotypal traits，LST）个体作为对照组，所有被试完成自我/他人 MTT 行为任务。实验二招募了 37 名分裂型特质个体和 40 名低分裂型特质个体作为对照组，并完成个人目标相关和目标无关事件的 MTT 行为任务。

结果 实验一的结果表明，对照组中自我相关事件比他人相关事件更加具体，而分裂型特质个体生成的自我相关事件与他人相关事件在具体性上没有显著差异，即分裂型特质个体的自我优势效应在具体性上减弱。此外，相较于对照组，分裂型特质个体报告的具体事件更少，伴随着更低的生动性和正性情绪。实验二的结果表明，相较于对照组，分裂型特质个体个人目标相关的 MTT 事件具体性显著降低，但目标无关事件具体性与对照组没有显著差异，即分裂型特质个体个人目标优势在具体性上减弱。此外，与对照组相比，分裂型特质个体生成的具体事件更少，且正性情绪更少。

结论 综上所述，分裂型特质个体在 MTT 中自我优势效应和个人目标优势效应减弱。本研究加深了对分裂型特质心理时间旅行改变机制的理解，并为未来开发心理时间旅行相关的行为干预提供了理论基础。

关键字：心理时间旅行，分裂型特质，自我优势效应，个人目标优势效应

Quantifying Language Disturbances in Schizophrenia: Novel Metrics and Fine-Tuned Language Models

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Objective This research presents two stable language metrics, namely Successful Prediction Rate (SPR) and Disfluency (DF), to objectively quantify the linguistic disturbances associated with schizophrenia. Natural Language Processing offers an objective approach to quantify subtle deviations and idiosyncrasies in speech through recorded readouts. However, accurately detecting and reliably assessing the severity of language disturbances remains challenging. To address this, we propose novel language metrics that capture both off-topic responses and incoherence in patients' speech by modeling speech information and fine-tuning techniques. These metrics exhibit cultural sensitivity while providing a more comprehensive evaluation of linguistic abnormalities in schizophrenia.

Methods In this study, we fine-tuned the ELECTRA Pretrained Language Model on a 750MB text corpus obtained from major Chinese mental health forums. The fine-tuning process involves masking tokens and training the model to predict the original tokens. The effectiveness of the fine-tuned language model is verified on a group comprising 38 individuals diagnosed with schizophrenia and 25 meticulously matched healthy controls. The study explores the association between the fine-tuned language model and the Positive and Negative Syndrome Scale (PANSS) items.

Results The results demonstrate that SPR is higher in healthy controls, indicating better language understanding by the pre-trained language model. Conversely, DF is higher in individuals with schizophrenia, indicating more inconsistent language structure. The relationship between linguistic features and P2 (conceptual disorganization) reveals that patients with positive P2 exhibit lower SPR and higher DF, indicating greater language disturbances. Binary logistic regression using the combined SPR and DF features achieves 84.5% accuracy in classifying P2, exceeding the performance of traditional features by 20.5%.

Moreover, the proposed linguistic features outperform traditional linguistic features in discriminating formal thought disorder, as demonstrated by multivariate linear regression analysis. Furthermore, the linguistic features exhibit significant correlations with PANSS N2 (Emotional Withdrawal), N4 (Passive/Apathetic Social Withdrawal), G1 (Somatic Concern), and total PANSS scores, indicating their potential for assessing a range of symptoms beyond conceptual disorganization.

Conclusion In conclusion, our study reveals that linguistic features derived from the pre-trained language model adeptly capture language abnormalities linked to schizophrenia. The fine-tuned language model showcases its efficacy in comprehending and assessing language impairments in individuals with schizophrenia. These findings contribute to a deeper understanding of language disturbances in schizophrenia and hold promise for advancing the development of more precise assessment and intervention strategies in clinical contexts.

关键字：schizophrenia, formal thought disorder, natural language processing, fine-tuned, pre-trainted language model

Cortical Anatomical Variations, Gene Expression Profiles, and Clinical Phenotypes in Patients with Schizophrenia

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Objective Schizophrenia (SZ) patients display significant structural brain abnormalities; nevertheless, the genetic mechanisms regulating cortical anatomical variations and their correlation with the disease phenotype are still ambiguous.

Methods We characterized anatomical variation using a surface-based method derived from structural magnetic resonance imaging of patients with SZ and age- and sex-matched healthy controls (HCs). Partial least-squares regression was performed across cortex regions between anatomical variation and average transcriptional profiles of SZ risk genes and all qualified genes from the Allen Human Brain Atlas. The morphological features of each brain region were correlated to symptomology variables in patients with SZ using partial correlation analysis.

Results A total of 203 SZ and 201 HCs were included in the final analysis. We observed significant variation of 55 regions of cortical thickness, 23 regions of volume, 7 regions of area, and 55 regions of local gyrification index (LGI) between SZ and HC groups. Expression profiles of 4 SZ risk genes and 96 genes from all qualified genes showed a correlation to anatomical variability, however, after multiple comparisons, the correlations were no longer significant. LGI variability in multiple frontal subregions was associated with specific symptoms of SZ, whereas cognitive function involving attention/vigilance was linked to LGI variability across nine brain regions.

Conclusion Cortical anatomical variation of patients with schizophrenia is associated with gene transcriptome profiles as well as clinical phenotypes.

关键字：Magnetic resonance imagingMorphologyGene expressionClinical phenotypeSchizophrenia

经颅交流电刺激治疗精神分裂症的疗效研究

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目的 探究经颅交流电刺激（transcranial alternating current stimulation, tACS）治疗精神分裂症的潜在机制、刺激参数与靶点、临床疗效及不良反应等，展望未来的研究方向，以期为精神分裂症的神经调控治疗提供参考。

方法 对五个数据库（包括 Web of Science，Embase，Pubmed，Cochrane Central Register of Controlled Trials 和 PsycINFO）进行文献检索，以筛选 tACS 应用于精神分裂症治疗的研究。本综述纳入所有涉及在精神分裂症患者中实验性使用 tACS 治疗，并主要关注症状疗效的研究。

结果 本综述最终纳入 19 篇文献，其中 7 篇为会议摘要。tACS 可以在一定程度上改善精神分裂症患者的阴性症状和认知功能，并且在幻听、妄想以及其他精神病性症状的缓解方面也取得了一定的效果。目前最常用的电流强度是 2mA 和 1mA，最常用的频率是 alpha（10Hz），theta（4.5Hz 和 6Hz）和 gamma（40Hz）。但也有部分研究未发现 tACS 对精神分裂症患者症状的改善作用。此外，tACS 治疗无明显不良反应，患者接受度良好。

结论 总体来说，tACS 作为一种新型有效的治疗方法有望应用于治疗精神分裂症。未来需要更多的大规模、高质量的随机对照试验来验证 tACS 治疗精神分裂症的有效性，并评估其长期安全性。同时，还需要探讨 tACS 与其他治疗手段的联合应用，以提高治疗效果。

关键字：经颅交流电刺激，精神分裂症，阴性症状，认知功能障碍

The Expression of Immune Related Genes and Potential Regulatory Mechanisms in Schizophrenia

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Objective This study aimed to investigate the role of immune dysfunction in the pathogenesis of schizophrenia through single-cell transcriptome and bulk RNA data analyses.

Methods The single-cell RNA sequencing

(scRNA-seq) was selected to assess the cellular composition and gene expression profiles of the brain tissue. Further, bulk RNA sequencing data was utilized to corroborate findings from the single-cell analyses and provide additional insights into the molecular changes associated with the disease. Gene-drug interaction data was also included to identify potential therapeutic drugs targeting these dysregulated immune-related genes in schizophrenia.

Results We discovered significant differences in cellular composition within schizophrenia tissue, including increased infiltration of fibroblasts, horizontal basal cells, monocytes, mesenchymal cells, and smooth muscle cells. The investigation of immune-related genes revealed significantly different expression of genes such as S100A2, CCL14, IGHA1, BPIFA1, GDF15, IL32, BPIFB2, HLA-DRA, S100A8, PTX3, TPM2, TNFRSF12A, GREM1 and others. These genes possibly contribute to the progression of schizophrenia through various pathways such as humoral immune response, IL-17 signaling pathway, adaptive immune response, antigen processing and presentation, and gut IgA production. Our findings also suggest possible transcriptional regulation in schizophrenia's immune dysfunction by transcription factors in monocytes, neutrophils, endothelial cells, and epithelial cells. Lastly, potential therapeutic drugs were identified through gene-drug interaction data, such as those targeting HLA-A and HLA-B.

Conclusion The cellular heterogeneity and immune-related gene dysregulation play important roles in schizophrenia, which provides a foundation for understanding the pathogenesis and developing new treatment methods.

关键字：Schizophrenia, scRNA, bulk RNA, immunity related genes, mechanism

Brain Abnormalities in Schizophrenia before and after Treatment: A Structural and Functional MRI Study

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Objective Convergent evidence has suggested that a significant effect of antipsychotic exposure on brain structure and function in patients with schizophrenia (SZ), yet the characteristics of favourable treatment outcome remain largely unclear. In this work, we primarily through how grey matter (GM) and white matter (WM) density as also as functional connectivity (FC) were modulated by antipsychotic treatment, aiming to explore the probable efficacy predictor of SZ by the longitudinal changes.

Methods We take advantage of a dataset including 163 SZ patients and 131 healthy controls (HCs), 77 of SZ from them to have structure magnetic resonance imaging (sMRI) scans at baseline and 8 weeks of treatment with the second-generation antipsychotics to assess GM and WM density. Meanwhile, 88 SZ patients with resting-state functional MRI (rs-fMRI) information also before and after treatment, along with baseline scanning of 81 HCs for comparison purposes for the sake of calculating FC to evaluate the brain connectivity. The Positive and Negative Syndrome Scale (PANSS) and MATRICS Consensus Cognitive Battery (MCCB) were applied to measure psychiatric symptoms and cognitive impairment in SZ patients.

Results After antipsychotic treatment for 8 weeks, compared with the SZ non-response group (the reduction rate of PANSS＜50%), the GM density of the response group (the reduction rate of PANSS ≥50%) in right Cingulate gyrus (CG) decreased. At the same way, it was reduced in right Superior frontal gyrus (SFG) and five other regions of the WM density in the response group. On the other hand, the FC between the right inferior temporal gyrus (ITG) and the right medial superior frontal gyrus (SFGmed) increased in the response group of SZ.

Conclusion These results suggest that the efficacy of antipsychotics in SZ is related to FC and WM density in right SFG. Moreover, the findings tied to the brain change of SFG of SZ could be used as potential indicators in predicting the treatment outcome of antipsychotics.

关键字：schizophrenia; functional connectivity; white matter density; grey matter density; before and after treatment

不同部位间歇性 θ 脉冲式经颅磁刺激对精神分裂症认知功能的影响

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目的 评价间歇性 θ 脉冲式经颅磁刺激（intermitted Theta Burst Stimulation，iTBS）干预左侧或双侧前额叶背外侧（dorsalateral prefrontal cortex，DLPFC）对精神分裂症认知功能的影响

方法 纳入 2020 年 1 月至 2022 年 1 月上海市徐汇区精神卫生中心 18-60 岁，符合 DSM-5 精神分裂症诊断标准的患者 90 例。按随机数字表法分为双侧 DLPFC 真刺激组（A 组，30 例），左侧 DLPFC 真刺激

/右侧 DLPFC 伪刺激组（B 组，30 例），或双侧 DLPFC 伪刺激组（C 组，30 例）。三组均在药物治疗方案不变的基础上使用 iTBS 干预，干预时间为 4 周（1 次/日，5 次/周，周末休息），共治疗 20 次。在基线及治疗第 4 周末，采用 MATRICS 认知成套测验（MATRICS Consensus Cognitive Battery, MCCB）评定患者认知功能。

结果 三组基线 MCCB 总分和 7 个认知维度分差异均无统计学意义（p>0.05）。治疗第 4 周末，三组均可以提高患者的 MCCB 总分及词语学习，双侧 DLPFC 真刺激组（A 组）可以改善患者的信息处理速度、视觉学习和推理和问题解决；伪刺激组（C 组）可以改善患者的视觉学习。三组干预对 MCCB 总分和 7 个认知维度评分变化差异均无统计学意义（p>0.05）。

结论 iTBS 干预左侧或双侧前额叶背外侧并不能改善精神分裂症的认知缺陷症状。

关键字：精神分裂症，认知功能，经颅磁刺激，前额叶背外侧

早发型精神分裂症的血浆代谢组学分析

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目的 早发型精神分裂症(Early Onset Schizophrenia, EOS)是指起病年龄小于 18 岁的精神分裂症（Schizophrenia，SCZ）。目前临床诊断方式与精神分裂症的类似，主要依赖于对患者临床症状的主观识别，缺乏客观的生物学诊断指标，常出现漏诊或误诊的现象，早期诊断对后续的治疗及预后极为重要。采用代谢组学方法筛选出的代谢产物是机体内多种因素相互作用的最终产物, 代谢组学指标有助于深入认识 SCZ 的发生、发展、治疗和预后。本研究旨在利用靶向代谢组学鉴定 EOS 患者与健康人群的血浆中差异代谢物，以期为 EOS 早期诊断提供科学依据。

方法 本研究共招募 28 例 EOS 患者作为病例组，以及 23 例年龄、性别及受教育程度相当的健康志愿者作为对照组。分别收集其临床资料、外周血液样本，使用阳性与阴性症状量表（positive and negative syndrome scale, PANSS）评定症状严重程度。采用超高效液相色谱-高分辨质谱联用（ultra-high performance liquid chromatography-high resolution mass spectrometry, UPLC-MS）技术对研究对象的血浆进行全面代谢组学分析，运用非参数检验联合 OPLS-DA 模式识别方法筛选差异代谢物，并进行了富集分析和 KEGG pathway 富集分析，探索 EOS 患者紊乱的代谢通路。

结果 基于广泛靶向代谢组技术的代谢分析，共检测到 834 个代谢物。与健康对照组相比，EOS 患者血浆中差异代谢物数目为 60 个。在对所检测到的代谢物进行定性和定量分析后，挑选出差异倍数前 5 的代谢物，EOS 患者表现为血浆中 异亮氨酸-缬氨酸、水杨酸 β-D-O-葡萄糖醛酸、肉碱含量显著下降，六甘醇、三缩四乙二醇含量显著升高。通过对所有差异代谢物进行通路分析,主要涉及氨基酸代谢、脂质代谢、醇、胺类代谢异常。

结论 本研究发现 EOS 患者存在代谢紊乱，包括血浆中异亮氨酸-缬氨酸、水杨酸 β-D-O-葡萄糖醛酸、肉碱含量显著下降，六甘醇、三缩四乙二醇含量显著升高等。具体涉及氨基酸代谢、脂质代谢、醇、胺类代谢通路的异常。上述研究结果提示，精神分裂症的致病机制可能与氨基酸代谢、脂质代谢、醇、胺类代谢异常有关。

关键字：早发型精神分裂症 代谢组学 生物诊断标志物

Hub Genes, Diagnostic Model, and Immune Infiltration Based on Ferroptosis-linked Genes in Schizophrenia

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Objective Schizophrenia (SCZ) is a prevalent and serious mental disorder, and the exact pathophysiology of this condition is not fully understood. In previous studies, it has been proven that ferroprotein levels are high in SCZ. It has also been shown that this inflammatory response may modify fibromodulin. Accumulating evidence indicates a strong link between metabolism and ferroptosis. Therefore, the present study aims to identify ferroptosis-linked hub genes to further investigate the role that ferroptosis plays in the development of SCZ.

Methods From the GEO database, four microarray data sets on SCZ (GSE53987, GSE38481, GSE18312, and GSE38484) and ferroptosis-linked genes were extracted. Using the prefrontal cortex expression matrix of SCZ patients and healthy individuals as the control group from GSE53987, weighted gene co-expression network analysis (WGCNA) was performed to discover SCZ-linked module genes. From the feed, genes associated with ferroptosis were retrieved. The intersection of the module and ferroptosis-linked genes was done to obtain the hub genes. Then, Gene Ontology (GO), Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway enrichment analyses, and Gene Set Enrichment Analysis (GSEA) were conducted. The SCZ diagnostic model was established using logistic regression, and the GSE38481, GSE18312, and GSE38484 data sets were used to validate the model. Finally, hub genes linked to immune infiltration were examined.

Results A total of 13 SCZ module genes and 7 hub genes linked to ferroptosis were obtained: DECR1, GJA1, EFN2L2, PSAT1, SCL7A11, SOX2, and YAP1. The GO/KEGG/GSEA study indicated that these hub genes were predominantly enriched in mitochondria and lipid metabolism, oxidative stress, immunological inflammation, ferroptosis, Hippo signaling pathway, AMP-activated protein kinase pathway, and other associated biological

processes. The diagnostic model created using these hub genes was further confirmed using the data sets of three blood samples from patients with SCZ. The immune infiltration data showed that immune cell dysfunction enhanced ferroptosis and triggered SCZ.

Conclusion this study, seven critical genes that are strongly associated with ferroptosis in patients with SCZ were discovered, a valid clinical diagnostic model was built, and a novel therapeutic target for the treatment of SCZ was identified by the investigation of immune infiltration.

关键字：Schizophrenia, ferroptosis, WGCNA, hub gene, diagnostic model, immune infiltration.

孕期母体免疫激活致子代突触损伤与 Eph-Ephrin 信号通路 紊乱的相关研究

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目的 运用孕早期注射聚肌胞苷酸（Poly I:C）构建母体免疫激活致子代精神分裂症大鼠模型，观察该模型在疾病发生发展过程中不同发育阶段突触损伤和 Eph-Ephrin 通路及其下游靶向分子表达及紊乱情况。

方法 1．选取孕 9.5 天 SD 大鼠尾静脉注射 10mg/kg Poly I:C (n=10)和等体积的 0.9%无菌生理盐水(n=10)。模型组和对照组子代在 21 日龄时离乳分笼，选取雄鼠作为研究对象，分别在青春期及成年期两个发育节点，对两组仔鼠进行旷场、高架十字迷宫、Y 迷宫、被动规避、前脉冲抑制等行为学检测。2．采用高尔基染色方法观察青春期和成年期两组大鼠海马锥体神经元树突棘的发育情况。3．采用蛋白质免疫印迹（Western Blot, WB）技术检测两组大鼠海马脑区中 Eph 信号通路及其下游靶向分子（p-LIMK1/LIMK1、p-Cofilin/Cofilin）的表达。4．用均数±标准差来表示计量资料。对两个时期的开放旷场、Y 迷宫、高架十字迷宫实验、高尔基染色结果和蛋白质结果实行双因素方差分析，对于 PPI 结果进行重复测量的双因素方差分析；使用 GraphPad Prism 9.0 软件进行统计学分析及绘图，检验结果 P<0.05 可认为有统计学差异。

结果 1．行为学检测结果显示：青春期模型大鼠表现出明显的自发活动增多，焦虑抑郁样情绪明显降低；成年期模型组大鼠出现自发活动降低，焦虑抑郁样情绪适度增加，认知功能减退，前脉冲抑制缺陷等行为表型（P 均<0.05）。2．高尔基染色结果显示：青春期和成年期模型组大鼠较对照组大鼠海马锥体神经元树突棘的密度降低（P 均<0.05）。3．模型组大鼠 EphB1-3 及 EphB2 蛋白在海马脑区的表达，自青春期已出现明显升高，这种变化持续到成年期（P 均<0.05）。4．EphB 信号通路下游分子，p-LIMK1/LIMK1，p-Cofilin/Cofilin 水平在青春期及成年期的海马脑区均表现出明显下降（P 均<0.05）。

结论 孕早期母体免疫激活子代在不同发育时期表现出突触结构损伤和 Eph 相关基因表达异常，Eph 通路介导的突触发育障碍可能是引起精神分裂症样行为及认知功能障碍发生的重要病理基础。

关键字：EphB2；母体免疫激活；突触可塑性；精神分裂症

母体免疫激活子代大鼠 MAPK 通路相关研究

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目的 研究母体免疫激活大鼠模型发育早期 MAP3K5 及其下游通路的异常表达；分析孕期感染子代精神分裂症大鼠 MAPK 通路紊乱与神经元功能的关系。

方法 1.在 SD 大鼠孕 9 天尾静脉注射 10 mg/kg 的 Poly I:C（n=9）或等体积生理盐水（n=9），3 小时后尾静脉采血做孕鼠血浆的炎症因子水平；挑选出生后的雄性后代，随机分为 Poly I:C 组和 Saline 组，在子代大鼠出生 60 天（postnatal day 60, P60）进行行为学检测，两种方法评估模型质量。。 2.分别在子代 P1、P7、P14 这三个离乳期时间节点进行免疫印迹分析，检测子代大鼠海马 MAP3K5、下游通路 JNK 和 p38 通路的磷酸化水平。 3.采用免疫荧光技术检测大鼠 MAP3K5 在海马的分布情况以及是否在神经元中表达。4.采用尼氏染色观察额叶尼氏小体含量及神经元形态。

结果 1.孕鼠血浆结果：Poly I:C 组 IL-6（P<0.01）、IL-1β（P<0.01）和 TNF-α（P<0.01）炎症因子水平均显著高。 2.行为学结果：开放旷场实验中 Poly I:C 组代大鼠运动总距离无显著统计学差异，中心区域活动距离明显减少（t=5.905，P<0.01）；在高架十字迷宫中 Poly I:C 组入开放臂的时间显著减少（t=1.122，P<0.01），进入开放臂的次数无显著统计学差异；在 Y 迷宫实验中 Poly I:C 组进入新异臂的时间显著减少（t=0.632，P<0.01）；在 PPI 实验中 Poly I:C 组在 75dB（t=3.033，P<0.01）、80dB（t=3.894，P<0.05）及 85dB（t=4.429，P<0.01）抑制率均显著降低。 3.免疫印迹实验结果显示：Poly I:C 组在 P1 海马 p-ASK1/t-ASK1 蛋白水平增加，下游通路 JNK、p38 表达显著被抑制；Poly I:C 组在 P7 海马区 p-p38 和 p-JNK 均显著降低；Poly I:C 组在 P14 海马区 p-JNK 明显降低。 4.免疫荧光结果：与对照组相比，ASK1 荧光密度在 P7 天海马区明显增加，在 P14 天海马中显著降低。 5.尼氏染色结果显示：与对照组相比，神经元胞体肿胀，数目没有明显改变。

结论 1.母体免疫激活子代大鼠在神经发育早期中枢神经系统 MAPK 通路相关蛋白表达异常。2.MAPK 通路的紊乱可能是影响神经系统发育的重要因素。

关键字：ASK1；MAPK；孕期感染；神经发育；精神分裂症

Diagnosis Biomarkers and Individualized Treatment of Schizophrenia Based on Multidimensional Data: Study Protocol for A Real-World Clinical Trial

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Objective We aimed to establish a standardized, two-stage, independent, large-sample clinical cohort, obtain a multi-dimensional large data set, explore the diagnostic and predictive models of objective biomarkers for schizophrenia, and explore the relevant biomarker mechanisms for the diagnosis and treatment of schizophrenia.

Methods In this study, 900 Chinese Han descendants aged 18 to 55 years who met the DSM-5 diagnostic criteria for schizophrenia and 2000 healthy volunteers were recruited to establish a multi-center standardized, two-stage independent large-sample clinical cohort, including 600 discovery samples in phase I and 300 validation samples in phase II. Using the real-world research strategy, the general data collection, clinical biochemical test, clinical symptom assessment, neuropsychological assessment, social psychological assessment, antipsychotic treatment effect assessment of patients with schizophrenia were conducted. Data on psychopathology, molecular genetics, neurobiochemistry, brain imaging, neuroelectrophysiology, and clinical treatment effects were collected at multiple time points (V1- treatment initiation, V2-day 28, V3-day 56, V4-3 months). A schizophrenia biobank and clinical information database were established to screen and establish multi-dimensional candidate biomarkers that may have diagnostic and therapeutic efficacy prediction value.

Results To establish a standardized, two-stage, independent, large-sample clinical cohort, and to construct an objective diagnosis and prediction model for schizophrenia, and to analyze the neurobiological mechanisms of diagnostic indicators, efficacy prediction, and treatment-related mechanisms.

Conclusion This study aims to establish a schizophrenia biobank and clinical information database by analyzing the collected and integrated information of schizophrenia patients, and to construct a biomarker system for SCH objective diagnosis and treatment prediction, and to explore the relevant mechanisms of biomarkers in the diagnosis and treatment of schizophrenia.

关键字：schizophrenia biomarkers diagnostic multi-dimensional

磁共振化学交换饱和转移谷氨酸成像在精神分裂症中的应用

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目的 本研究基于磁共振(Magnetic Resonance Imaging, MRI)化学交换饱和转移(Chemical Exchange Saturation Transfer，CEST)谷氨酸成像探索精神分裂症（Schizophrenia, SCZ)神经生化物质特点，为 SCZ 的病理机制研究提供依据。CEST 是一种新的磁共振（Magnetic Resonance Imaging, MRI）方法，通过施加特定频率的饱和脉冲，对可交换的质子或分子进行预饱和，然后通过氢质子交换这种饱和传递给自由水引起水信号的下降，这种成像技术方法显示了更高的灵敏度。其中用于检测 Glu 中的胺基质子与自由水之间化学交换的CEST技术，称之为谷氨酸CEST(Glutamate chemical exchange saturation transfer，GluCEST)，GluCEST 可以定量分析大脑区域谷氨酸含量。

方法 应用磁共振化学交换饱和转移技术检测满足入组的 21 例 SCZ 患者及 16 例健康对照（Healthy Control，HC）的大脑不同区域谷氨酸的水平，分析 SCZ 和 HC 对照组 GluCEST 水平，分割、计算大脑区域海马、杏仁核、丘脑、尾状核、胼胝体、皮层下、额叶、顶叶、枕叶和颞叶谷氨酸水平。获得的 CEST 图像利用非对称分析方程式计算得出 GluCEST 量化参数图，定量分析谷氨酸含量。并对谷氨酸水平有差异的脑区分别与临床阳性和阴性症状评定量表（Positive and Negative Syndrome Scale，PANSS）评分进行相关性分析。

结果 本研究基于 GluCEST 成像，通过测量 SCZ 和 HC 大脑中的谷氨酸水平来研究 SCZ 谷氨酸神经递质的异常。结果显示，与 HC 相比，SCZ 组额叶和海马脑区存在谷氨酸水平的明显差异，表现为 SCZ 组额叶谷氨酸水平明显升高（$P<0.05$），而在海马谷氨酸水平明显降低（$P<0.05$）。SCZ 组额叶、海马的谷氨酸水平与 PANSS 评分无相关性（$p>0.05$）。

结论 SCZ GluCEST 成像发现谷氨酸神经递质功能异常，为 SCZ 的病理机制提供依据。

关键字：化学交换饱和转移；谷氨酸；磁共振成像；精神分裂症

精神分裂症易感基因 NKAPL 与炎症激活相关研究

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目的 1.通过以 BABL/C 小鼠为模型，了解 NKAPL 基因时空表达模式，为进一步研究提供基础。2.通过细胞及 BABL/C 小鼠炎症模型，了解炎症相关基因 NKAPL、NF-κB 和炎症因子表达变化，来探究精神分裂症易感基因 NKAPL 与神经发育及炎症的相关性。 3.通过 Poly I:C 孕期子代精神分裂症模型，研究 NKAPL 变化情况，为精神分裂症的发病机制提供相关依据。

方法 1.BABL/C 小鼠为实验动物，在不同时空点进行取材。将取得材料提取总 RNA 进行逆转录成 cDNA，利用 qRT-PCR 技术比较 NKAPL 基因的表达水平。同时取得材料提取总蛋白，利用免疫印迹比较 NKAPL 蛋白的表达水平。 2.炎症模型：LPS 刺激 BV2 细胞 12h 后收集培养基上清及细胞，另外将 LPS 通过腹腔注射刺激 BALB/C 小鼠，连续注射 7 天，并取相应的组织器官及血浆，利用 ELISA 试剂盒检测细胞因子及免疫印迹检测正常组和 LPS 组相关蛋白及 NKAPL 的表达情况。 3.选取孕 9 天 BABL/C 小鼠尾静脉注射 10mg/kg Poly I:C (n=10)和等体积的 0.9%无菌生理盐水 (n=10)。模型组子代和对照组子代在 21 日龄时离乳分笼，只选取雄鼠作为研究对象，在成年期进行取材，并通过分子技术进行相关基因表达检测。

结果 1.PND21 随着时间增长而增加，并且在 PND21-PND65 时趋于稳定，同时 mRNA 水平和蛋白水平表达趋势一致。 2.检测发现 LPS 刺激 BV2 细胞及 BABL/C 小鼠其炎症水平高于正常组，并且我们通过 qRT-PCR、分析 NKAPL 及炎症因子表达水平高于正常组。同时免疫荧光显示在海马区 LPS 组星形胶质细胞、小胶质细胞数目明显高于 PBS 组；小脑 LPS 组星形胶质细胞、NKAPL 阳性细胞数目明显高于 PBS 组。3.检测发现 Poly I:C 孕期感染子代模型中，成年期模型组相对于对照组部分脑区 NKAPL 表达下降，同时 PSD95 表达水平降低。

结论 1.NKAPL 基因在 PND21 表达几乎稳定，在发育早期随着发育需要而表达量逐渐增加，揭示可能与发育相关。 2.细胞及动物炎症模型中，NKAPL 基因表达水平增加，揭示 NKAPL 涉及炎症相关通路。3.Poly I:C 孕期感染子代模型中，模型组相对于对照组 NKAPL 表达下降，神经发育异常，揭示 NKAPL 可能与精神分裂症模型神经发育异常相关。

关键字：精神分裂症；NKAPL；LPS；Poly I:C；炎症因子

奥尔夫音乐治疗合并非洲鼓即兴演奏对精神分裂症患者的阴性症状及社交能力的影响

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目的 探讨奥尔夫音乐治疗合并非洲鼓即兴演奏对精神分裂症患者的阴性症状及社交能力的影响。

方法 选择 2019 年 5 月至 2020 年 5 月，在我院康复科参加康复活动的精神分裂症患者 100 例，均符合国际疾病分类（ICD）-10 的诊断标准，按临床医嘱分类，分为研究组和对照组各 50 例，两组患者均接受常规康复治疗，研究组在此基础参加奥尔夫音乐治疗及非洲鼓即兴演奏。 两组患者在康复科均进行常规的工娱疗康复，研究组在原有治疗的基础上给予奥尔夫音乐治疗及非洲鼓即兴演奏 8 周。 其中，研究组脱落 5 人，对照组脱落 3 人。脱落标准：①2 组患者在治疗的 5 周内，因病情复发不能正常参加治疗的允许脱落；②两组患者治疗期间有出院的允许脱落； ③研究组患者参加治疗次数低于 16 次的允许脱落。最后人数：研究组;45 名，对照组 47 名。2 组患者均给予常规工娱疗，研究组接受 8 周的奥尔夫音乐治疗合并非洲鼓即兴演奏治疗,治疗前后采用阳性与阴性症状评定量表(PANSS)、住院精神病人康复疗效评定量表（IPROS）、社会功能评定量表(SSPI)进行评定。

结果 治疗前两组各量表总分和各因子分差异无统计学意义。经奥尔夫音乐治疗合并非洲鼓即兴演奏 8 周后,研究组患者的 IPROS 得分较治疗前有所提高,差异有统计学意义(P<0.05),PANSS 量表总分和各因子分均较治疗前减少,(P<0.05)差异有统计学意义,SSPI 量表评分减少,差异有统计学意义(P<0.05)。

结论 奥尔夫音乐治疗合并非洲鼓即兴演奏能改善精神分裂症患者的阴性症状，提高社交能力，促进社会功能的恢复。

关键字：精神分裂症;?奥尔夫音乐治疗合并非洲鼓即兴演奏;?阴性症状;?社交能力

精神分裂症纹状体功能障碍与临床症状及认知功能相关研究

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目的 探讨精神分裂症纹状体功能与临床症状及认知功能相关性。

方法 收集 92 例精神分裂症患者，分别在基线和抗精神病药物治疗 8 周后进行静息态功能磁共振成像扫描。采用阳性与阴性症状量表和认知功能成套测验评估精神分裂症患者基线期及治疗 8 周后的临床症状及认知功能。根据阳性与阴性症状量表减分率，将患者通过二分法和四分法进行分组，分别比较各亚组治疗前后指标变化，探究精神分裂症患者治疗前后纹状体功能异常与临床症状及认知功能的相关性。

结果 与基线期相比，治疗 8 周后无论二分法的有效组/无效组，还是四分法的临床痊愈组/显效组/有效组/无效组纹状体功能异常评分均无显著性差异。在纹状体功能与认知功能相关性研究中发现：基线期有效组与无效组畴流畅测试评分呈现显著性差异（p

=0.011），且有效组在该时期纹状体功能异常评分与范围流畅测验得分呈正相关（R=0.343；p=0.033）；治疗8 周后有效组与无效组空间广度评分存在显著性差异（p =0.034），且无效组在该时期空间广度测验评分与纹状体功能异常评分差值呈正相关。

结论 精神分裂症纹状体功能可能并不受抗精神病治疗影响，但与患者的症状和认知功能存在关联。

关键字：纹状体功能；临床症状；认知功能；精神分裂症

基于生态系统理论的慢性精神分裂症患者精神残疾的影响因素分析

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目的 基于生态系统理论探讨慢性精神分裂症患者精神残疾的影响因素及其作用路径。

方法 本研究为横断面研究，采用便利抽样法，于2021 年 3 月至 2022 年 9 月在南京脑科医院就诊的 207 名慢性精神分裂症患者为研究对象，应用一般资料调查表、世界卫生组织残疾评定量表(WHO－DASII)、社会支持评定量表(SSRS)、中文版家庭坚韧性量表（FH）、心理弹性量表（CD-RISC）、匹兹堡睡眠质量问卷（PSQI）对其进行调查。采用多元线性回归分析慢性精神分裂症患者精神残疾的影响因素。采用 AMOS 软件，以精神残疾为因变量，家庭韧性、心理弹性为中介变量，社会支持为自变量建立结构方程模型并进行中介效应验证，共回收有效问卷 188 份，有效回收率为 90.8%。

结果 慢性精神分裂症患者 WHO－DASII得分（72.91±14.04）；SSRS 得分=（31.72±7.94）；FH 得分（56.84±7.11）；CD-RISC 得分（54.19±13.74）分，PSQI 得分（8.51±4.17）；WHO－DASII得分与 SSRS 得分呈负相关（r=-0.41，P＜0.01），WHO－DASII得分与 FH 得分呈负相关（r=-0.456，P＜0.01），WHO－DASII得分与 CD-RISC 得分呈负相关（r=-0.531，P＜0.01），WHO－DASII得分与 PSQI 得分呈正相关（r=0.351，P＜0.01）；多元线性回归分析显示：心理弹性、社会支持、家庭韧性、睡眠质量、文化程度是精神残疾的影响因素（P＜0.05）。中介效应分析显示，社会支持可通过家庭韧性、心理弹性路径负向预测精神残疾（β=-0.107，P＜0.001），采用 Bootstrap 抽样法进行检验，抽样 5000 次，结果显示，95％置信区间均未包括 0，说明社会支持、家庭韧性、心理弹性、精神残疾路径存在链式中介作用。中介效应占总效应的 21.4％。

结论 慢性精神分裂症患者精神残疾整体处于四级残疾水平，社会支持通过正向影响家庭韧性，家庭韧性正向影响心理弹性，心理弹性负向影响精神残疾，从而间接负向影响精神残疾。护士可以从生态系统理论视角，采取针对性的措施提高患者社会支持、家庭韧性、心理弹性水平及睡眠质量，降低慢性精神分裂症患者残疾水平。

关键字：精神分裂症；精神残疾，社会支持；家庭坚韧性；心理弹性；睡眠质量；影响因素

精神分裂症易感基因 RELN 及其信号通路与母体感染介导的子代神经发育障碍相关研究

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目的 孕期母体免疫激活（MIA）会增加后代患精神分裂症和自闭症等疾病的风险。Reelin 是一种细胞外基质蛋白，在发育过程中介导神经元的正确定位、皮质板层形成及调节突触的功能和可塑性。通过构建 MIA 模型，研究子代重要发育阶段 RELN 及其下游信号通路分子表达变化、突触发育特点和行为学变化，探索 RELN 及其信号通路是否参与了母体感染介导的子代神经发育障碍。

方法 1．在 SD 大鼠孕 9 天时尾静脉注射聚肌胞苷酸（Poly I: C）（模型组）或等体积生理盐水（对照组），注射 3h 后，检测孕鼠血浆炎症因子水平，制备 MIA 模型。在子鼠成年期，利用开放旷场、Y 迷宫、高架、前脉冲抑制等行为学评价焦虑、空间记忆和感觉门控功能。2. 利用高尔基染色检测树突棘的数量和形态。 3．利用免疫印迹、免疫荧光、q-PCR 等方法检测子鼠各发育阶段海马和额叶中 Reelin 及下游信号通路分子表达变化。

结果 1．行为学检测结果显示在开放旷场实验中，模型组在中心区域运动的距离、进入中心区域的距离百分比和在中心区域停留的时间均显著减少；在高架十字迷宫实验中，模型组进入开放臂的时间显著减少；Y 迷宫实验中，模型组进入新异臂的时间显著降低；在前脉冲抑制实验中，模型组在 75dB、80dB 和 85dB 中抑制率均显著降低（P 均<0.05）。 2．蛋白水平结果显示：模型组 Reelin 蛋白表达水平在新生期海马和前额叶皮质中均显著降低；模型组 p-Dab1 蛋白表达水平在新生期海马显著降低，模型组 PSD95 和 SYN 分别在新生期海马和额叶中显著降低；模型组围产期 Reelin 在海马中显著增加（P 均<0.05）。 3．基因水平结果显示：模型组 RELN 基因在新生期海马和额叶组织中均降低（P=0.026，0.032）。 4. 形态学结果显示：胚胎期，模型组 Reelin 在皮层边缘带以及海马齿状回阳性细胞数降低。新生期，模型组 Reelin 在海马齿状回阳性细胞数降低。成年期，模型组海马神经元树突棘密度降低（P=0.024）。

结论 1．孕早期注射 Poly I: C 可导致子代 Reelin 及其下游分子表达异常，且这种异常具有时空特异性和脑区特异性。 2．MIA 可致成年期子代出现突触发育异常和行为学紊乱，且滞后于 Reelin 异常出现，提示 Reelin 及其下游信号通路异常表达可能是 MIA 子代突触受损，出现突触功能受损，进而出现异常行为的分子机制。

关键字：RELN；神经发育；精神分裂症；母体免疫激活

The Association between Clozapine Plasma Concentration, CYP2D6 (*10, *2) Polymorphisms and Risk of Adverse Reactions

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Objective The aim of this paper was to study the relationships between the risk of adverse reactions, plasma concentration and cytochrome P450 (CYP) 2D6 rs1065852 (*10) and rs16947 (*2) polymorphisms for clozapine.

Methods The steady-state clozapine plasma concentration of 100 Chinese inpatients with schizophrenia was determined using two-dimensional liquid chromatography. The polymorphisms of CYP2D6 (*10 and *2) were determined using fluorescent in situ hybridization protocols.

Results The decreased percentages of WBCs and NEUTs and the elevated percentages of CK, ALT, and AST in patients treated with clozapine for six months were linearly associated with clozapine plasma concentration. Compared with the corresponding groups, the clozapine plasma concentration of individuals with the *10TT genotype and individuals with the *2CC genotype were the highest (p<.05). The decreased percentages of WBCs and NEUTs and elevated percentages of CK, ALT, and AST for patients with the *10TT genotype were significantly higher than those for patients with the *10CC and *10CT genotypes (p<.05). The decreased percentages of WBCs and NEUTs and increased percentages of CK, ALT, and AST for patients with the *2CC genotype were significantly higher than those of the other groups (p<.05). The therapeutic reference range of clozapine for Chinese patients with schizophrenia was defined as 102.5-483.1 ng·ml-1.

Conclusion This study demonstrated that the determination of CYP2D6 polymorphisms and therapeutic drug monitoring (TDM) of clozapine might be beneficial for identifying patients with a higher risk of adverse reactions.

关键字：Clozapine, plasma concentration, CYP2D6, adverse reactions, genetic polymorphisms

新冠疫情相关应激对精神分裂症和精神病临床高危综合征心理障碍的影响：一项纵向混合研究

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目的 探究新冠疫情爆发前后首发精神分裂症（FES）、精神病临床高危综合征（CHR）和健康人群（HC）的心理健康状况变化趋势及差异，探索影响其心理健康水平的风险因素和保护因素。

方法 招募 FES、CHR 患者及年龄、性别与患者相匹配的 HC 作为研究对象，于疫情稳定期（2022 年 3 月前）通过 PHQ-9、GAD-7、PSS-10、PCL-5 及 CIS 测量其抑郁、焦虑、应激水平及感知新冠影响，并对部分患者开展半结构化访谈。在上海大规模疫情爆发后（2022 年 5 月后）采用上述量表及领悟社会支持量表、简化应对方式问卷、罗森伯格自尊量表进行随访。采用方差分析比较三组新冠爆发前后心理状况的差异，采用主成分分析法对相关性强的因素进行降维，并通过多重线性回归分析随访心理障碍主成分的影响因素。使用内容分析法对质性资料进行编码分析。

结果 共有 49 例 FES、73 例 CHR 及 73 例 HC 完成基线测评，其中 20 例 FES、42 例 CHR 和 43 例 HC 完成随访测评，10 名患者接受访谈。方差分析结果显示，基线 FES 和 CHR 的各项心理障碍严重程度高于 HC，而随访时组间差异消失，FES 的抑郁（P=0.043）、焦虑（P=0.039）、压力（P=0.001）及创伤后应激障碍（P=0.015）程度在大规模疫情爆发后显著减低，CHR 和 HC 的上述心理状况几乎无显著变化，但所受新冠影响程度显著升高（CHR：P=0.020；HC：P<0.001）。主成分分析显示，基线心理障碍（抑郁、焦虑、应激）、随访心理障碍及积极因素（社会支持、积极应对策略、自尊）各提取出一个因子。控制基线心理障碍的多重线性回归显示，感知新冠影响对各组随访心理障碍严重程度均有正向预测作用，消极应对方式对 FES 的随访心理障碍有正向预测作用（P=0.001），积极因素对 CHR（P<0.001）和 HC（P=0.009）的随访心理障碍有负向预测作用。访谈资料针对新冠影响和应对策略共编码 125 个参考点，涵盖情绪困扰、人际关系、消极应对等 7 个主题的 15 个方面，其中 FES 患者的消极应对策略较突出。

结论 新冠疫情爆发对首发精神分裂症的心理障碍有一定保护作用。消极应对策略是 FES 疫情爆发后心理障碍的风险因素，而社会支持、积极应对策略、自尊等积极因子则是 CHR 和 HC 的保护因素。三组不同的变化机制提示：在新冠疫情中，需根据精神疾病严重程度采取针对性预防及治疗措施。

关键字：COVID-19；精神分裂症；临床高危综合征；心理障碍；混合研究方法

精神分裂症和心衰之间的遗传相关性研究

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目的 本研究利用全基因组关联分析(GWAS)数据进行研究，鉴定精神分裂症与心衰之间的遗传多效性位点，探讨两者共病的潜在的遗传机制

方法 本研究的 GWAS 数据来自由精神病基因组联盟和心衰分子流行病治疗靶点联盟。其中，精神分裂症 GWAS 数据来源于 76,755 例精神分裂症患者和 243,649 例正常人群对照，心衰 GWAS 数据来源于 47,309 例心衰患者和 930,014 例正常对照。首先，本

研究利用连锁不平衡分析方法来证实在精神分裂症与心衰之间是否存在遗传关联；其次，本研究运用条件分层 QQ 图和富集倍数图来检验二者共病的基因富集，其中富集倍数图可以作为条件分层 QQ 图的一种补充方法来评估交叉形状的基因富集情况；次之，研究运用遗传基因多效性统计学方法：条件错误发现率(condFDR)和联合错误发现率(conjFDR)，检验与两种疾病显著关联的基因位点和与两种疾病同时显著关联的基因位点。最后，通过 FUMA 网站对所发现的易感位点进行功能注释。

结果 （1）连锁不平衡分析方法显示精神分裂症与心衰之间存在不显著的基因关联(rg=-0.01, se=0.04, P=0.70) ；（2）条件分层 QQ 图显示精神分裂症和心衰之间存在显著的基因富集，当精神分裂症作为条件表现型时，两者之间存在更大程度的富集。（3）当 condFDR<0.01 时，研究发现 292 个位点与心衰条件相关，而在反向 condFDR 分析中，21 个位点与精神分裂症条件相关，当 conjFDR <0.01，研究发现有 11 个位点同时与精神分裂症和心衰显著性相关，其中 8 个位点在之前未曾报道过。其中，5 个位点在精神分裂症和心衰中具有相同的作用方向，而 6 个具有相反的作用方向。（4）conjFDR <0.01 时，精神分裂症和心衰的共享位点中共有 103 个位点，其中主要位于内含子(n = 86, 83.5%)、和基因间(n =8, 0.08%)区域，仅有 0.03% (n = 3)位于外显子和 ncRNA 内含子(n = 4，0.03%)。

结论 本研究发现精神分裂症和心衰之间存在遗传多效性，利用条件错误发现率发现 292 个位点与心衰条件相关，21 个位点与精神分裂症条件相关，并且在联合错误发现率中发现有 11 个位点同时与精神分裂症和心衰显著性相关，其中 5 个位点具有相同的作用方向，而 6 个具有相反的作用方向。结果提示二者之间存在复杂的遗传机制。

关键字：精神分裂症，心衰，遗传多效性，条件错误发现率，全基因组关联分析

精神分裂症患者单个核细胞中 TRPV1 受体及氧化应激水平与表观调控的相关性研究

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目的 1.探讨精神分裂症患者外周血单个核细胞中 TRPV1 受体及氧化应激相关指标（ROS、NAD+/NADH、Sirt3、SOD2），外泌体中相关 miRNA（miRNA-21、miRNA-135a、miRNA-146a、miRNA-199 等）的表达改变；2.探讨上述指标与精神症状及认知功能的相关性；3.探讨上述指标之间的相关性。

方法 （1）样本收集：本研究为横断面研究，按照《美国精神障碍诊断与统计手册第 5 版》诊断标准纳入精神分裂症患者 50 例，并招募与之匹配正常对照 50 例。详细收集入组人员性别、年龄、受教育程度、病程、药物使用情况等人口学信息；（2）量表评估：采用阳性症状量表与阴性症状量表(PANSS)评估患者精神症状严重程度,采用认知功能简明评测量表(BACS)评估入组人员认知功能；（3）分子生物学实验：采用蛋白免疫印迹法检测外周血单个核细胞中 TRPV1 受体和 SIRT3、SOD2 蛋白表达量，采用流式细胞术对细胞内 ROS 水平进行检测，用显色法测定 NAD+/NADH 比值及含量，用实时荧光定量检测外泌体中 miRNA 含量；（4）统计学方法：采用协方差分析进行受检测生物学指标组间差异比较，采用偏相关分析对受检测生物学指标与 PANSS 评分、BACS 评分做简单相关性分析，采用多重线性回归分析 PANSS 评分和 BACS 评分的影响因素，采用二元 logistics 回归分析复发次数的影响因素。

结果 1.精神分裂症患者与正常对照组之间外周血单个核细胞 TRPV1、氧化应激途径中的分子的表达存在差异，精神分裂症患者存在 TRPV1 表达的下调；精神分裂症患者 TRPV1 与氧化应激途径中的分子之间的表达存在相关性；2.精神分裂症患者与正常对照组血清神经来源外泌体中相关 miRNA 表达水平存在差异；3.上述因子表达与患者组中语言记忆、代币运动、语义流畅性、字母流畅性、符号编码测试以及伦敦塔等认知功能表达存在相关性，通过协方差分析控制性别、年龄、受教育程度等混杂因素后，与正常对照组相比，上述因子的表达改变仍存在统计学意义。

结论 精神分裂症患者外周血中存在 TRPV1 受体、氧化应激指标及外泌体中 miRNA 的表达异常，这些改变与精神分裂的症状和认知功能受损存在相关性，并在一定程度上影响了精神分裂症的复发次数，表明 TRPV1 受体及氧化应激系统可能参与了精神分裂症的发生发展，有望成为潜在的治疗靶点。

关键字：精神分裂症；TRPV1；氧化应激

辣椒素改善早期生活应激引起的神经元凋亡和行为缺陷

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目的 精神分裂症是一种严重的精神疾病，终生患病率约为 0.7%，其特征是阳性症状(妄想、幻觉、思维障碍)、阴性症状(快感缺乏、社交退缩、思维贫乏)和认知功能障碍。细胞凋亡是解释精神分裂症的重要机制之一。与凋亡基因相关的危险等位基因最近被发现与精神分裂症有关。对精神分裂症患者死后颞叶皮层的研究发现，Bcl-2 降低，Bax/Bcl-2 比值升高。早期生活压力对大脑发育有着深远的影响，并与精神分裂症有关。母亲分离(MS)是一种早期生活压力的动物模型，它破坏了正常的母子互动，被认为是啮齿动物的一个强大的压力源。因此，MS 大鼠模型可以作为探索精神分裂症神经生物学基础的有力工具。瞬时受体电位香草样蛋白 1 (TRPV1)是一种钙透性阳离子通道，属于跨膜蛋白的瞬时受体电位(TRP)家族。8-甲基-n -香叶酰-6-非酰胺(capsaicin, CAP)是辣椒属植物辣椒中的主要成分，是一种常用的 TRPV1 药理激动剂。在中枢神经

系统中，CAP 具有保护神经元和改善认知的功能。

方法 采用 Wistar 大鼠出生后 24 小时母鼠分离(MS) (PND9)作为 ELS。行为试验前进行 CAP (1mg/kg/天)腹腔注射预处理，为期 1 周。行为测试包括开放场、新物体识别、巴恩斯迷宫测试和脉冲前抑制(PPI)测试。western blotting 和免疫荧光染色检测 TRPV1 的表达。TUNEL 检测神经元凋亡，western blotting 检测细胞凋亡相关蛋白。

结果 与对照组相比，MS 大鼠表现出类似精神分裂症症状的行为缺陷和认知障碍。MS 降低 TRPV1 的表达，导致促凋亡蛋白(bax、caspase3、cleaved-caspase3)增加，抗凋亡蛋白(bcl2)减少。辣椒素治疗可逆转多发性硬化症的神经和行为损害。

结论 ELS 暴露可能导致成年期海马和前额叶皮层 TRPV1 表达降低，神经元凋亡增加，认知功能受损。持续低剂量辣椒素可改善神经元凋亡和认知功能。我们的结果为辣椒或辣椒素作为预防精神分裂症的膳食补充剂的未来临床试验提供了证据。

关键字：精神分裂症、母婴分离、凋亡

首发未治疗精神分裂症患者结构共变网络改变

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目的 探究首发未治疗精神分裂症患者结构共变网络的改变，以及这种改变与临床症状的关联。

方法 本研究共纳入 121 例首发未治疗精神分裂症患者和 246 例健康对照，采用阳性和阴性症状量表（Positive and Negative Syndrome Scale, PANSS）对所招募精神分裂症患者进行临床症状的评估，并计算五因子模型得分（包括阳性，阴性，瓦解，兴奋和抑郁），采集结构磁共振影像数据，提取与大规模功能网络（默认模式网络、背侧注意网络、额顶控制网络、躯体运动网络、腹侧注意网络和视觉网络）相关的种子点体积，使用基于种子点的偏最小二乘相关法构建结构共变网络，使用 Fisher Z 转换比较精神分裂症患者与健康对照各网络的结构共变差异，使用皮尔逊（Pearson）相关分析探索各网络整合性与PANSS五因子得分的关系，并使用错误发现率（FDR）法对相关分析结果进行多重比较矫正。

结果 在所有网络中，偏最小二乘相关分析均发现了显著的结构共变模式（默认模式网络：r = 0.68,p <0.001；背侧注意网络：r = 0.58,p <0.001,额顶控制网络 r = 0.62,p <0.001；躯体运动网络 r = 0.73,p <0.001；腹侧注意网络 r = 0.73,p <0.001；视觉网络 r = 0.81,p <0.001；），且各结构共变网络的分布与功能连接网络的分布相似。与正常对照相比，精神分裂症额顶控制网络（z = 2.38,p = 0.008）和视觉网络（z = 2.77,p = 0.002）的结构共变减弱，其余网络结构共变程度与正常对照无显著差异。此外，相关分析显示背侧注意网络和腹侧注意网络的整合性与PANSS阴性因子分以及瓦解因子分存在负相关关系（背侧注意与阴性因子：r = -0.21,p = 0.04; 背侧注意与瓦解因子：r = -0.23,p = 0.01; 腹侧注意与瓦解因子：r = -0.24,p = 0.01），以上相关关系未通过 FDR 矫正。

结论 首发未治疗精神分裂症患者的额顶控制网络、视觉网络结构共变下降，精神分裂症患者的阴性、解离症状越严重，结构共变网络整合性越差。

关键字：精神分裂症；磁共振成像；结构共变网络；偏最小二乘相关

精神分裂症患者非周期性脑电信号与不同维度认知损害的相关性

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目的 近年来越来越多的研究发现电生理信号的非周期参数（1/f 斜率）在健康人群中与各种神经认知和生理因素有很强的相关性。然而尚无研究非周期参数是否与精神分裂症（SCZ）的认知表现相关。本研究旨在探讨 SCZ 脑电图非周期性参数及其与不同维度认知障碍的关系。

方法 我们控制年龄和受教育年限纳入 19 名 SCZ 患者和 21 名健康对照（HC），使用精神分裂症患者认知能力评估量表（BACS）测量认知功能，并分别 5 分钟采集闭眼和睁眼静息脑电图信号并提取出功率谱密度（PSD），通过算法得到各电极处的 1/f 斜率，先后在全脑及前、中、后三个脑区进行平均，最后，采用 Spearman 相关检验不同分区 1/f 斜率与认知评估分数之间的关系。

结果 SCZ 在大脑中部睁眼状态下的 1/f 斜率显著高于 HC（F1,31=10.207，P=0.003，η2 =0.248）。然后我们评估了 1/f 斜率是否与 BACS 总分相关：在 HC 中，BACS 总分与全脑平均 1/f 斜率呈显著负相关（r=-0.45，P=0.043）。然而，在 SCZ 中， BACS 总分与前（r=0.59，P=0.007）和后部（r=0.61，P=0.006）的 1/f 斜率呈显著正相关，与中部弱相关（r=0.49，P=0.035），两组人群中的相关性也达到了显著差异（前 P<0.001，中 P= 0.0036，后 P=0.033）。而在 BACS 的不同维度认知领域，HC 中语言学习分数与睁眼记录下 1/f 斜率在前（r=-0.68，P=0.001）和后部（r= -0.44，P=0.047）表现出显著负相关；工作记忆与后部的 1/f 斜率呈显著负相关（r=-0.49，P=0.023）。在 SCZ，全脑平均 1/f 斜率与注意力和信息处理速度呈正相关（r=0.53，P=0.023）；言语学习在前（r=0.57，P=0.007）和后部（r=0.54，P=0.006）与 1/f 显著正相关，均与 HC 有显著差异（前 P<0.001，后 P=0.00426）；而运动速度与三个分区的 1/f 斜率均呈高度相关（前 r=0.56，P=0.014，中 r=0.54，P= 0.018，后 r=0.62，P=0.005）。

结论 SCZ 更“陡峭“的 1/f 斜率可能与更快的处理速度有关，表现为简单认知任务的表现增强；但同时也降低神经系统的适应性和效率，限制了复杂任务中

的学习能力，即 1/f 斜率对高水平认知障碍损害更敏感。

关键字：精神分裂症，认知功能，脑电图，功率谱密度，1/f 斜率

Decoupling of Amygdala-salience Circuit Associated with Negative Symptom in Adolescents with Early-onset Schizophrenia

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Objective Early-onset schizophrenia (EOS) is remarkably characterized by more prominent negative symptoms associated with emotion or affect relevant deficits (i.e., affective flattening, inappropriate affect or social withdrawal), which has been demonstrated as a cardinal contributor to the poorer outcome in this subtype of schizophrenia. The present study aimed to explore the functional characteristic of the affect circuits including the negative affect circuit, positive affect circuit and the salience circuit, and its relationship with the negative symptoms in EOS patients.

Methods Totally 106 adolescents with schizophrenia and 67 age, gender and education well-matched healthy controls were recruited and underwent resting-state fMRI scanning. Functional maps across the key regions in the negative affect circuit, the positive affect circuit and the salience circuit were obtained in both groups.

Results Compared to the HC group, the EOS group demonstrated significantly decreased functional connectivity of amygdala with the key regions of salience circuit including the bilateral insula, anterior cingulate cortex and putamen. Further correlation analysis revealed a significant association between the decoupled amygdala-salience circuit and the poor rapport. In addition, both drug-na?ve and drug-treated EOS patients showed the decoupling between amygdala and salience circuit, although the latter group only showed decreased functional connectivity of the right amygdala with the putamen.

Conclusion Our findings reveal that the amygdala, as the core emotion brain, is decoupled with the salience circuit in the adolescents with schizophrenia. The decoupled amygdala-salience circuit possibly underlying the biased salience to negative stimuli is associated with the poor rapport referring to lack of interpersonal empathy, openness in conversation and sense of closeness, interest or involvement with the others in EOS patients. Our findings reveal that the amygdala, as the core emotion brain, is decoupled with the salience circuit in the adolescents with schizophrenia. The decoupled amygdala-salience circuit possibly underlying the biased salience processing to negative stimuli is associated with the poor rapport referring to lack of interpersonal empathy, openness in conversation and sense of closeness, interest or involvement with the others in the EOS patients. The present study suggests that the emotional salience processing may be critical for the development of negative symptoms such as poor interpersonal communication frequently observed in adolescents with schizophrenia. Importantly, the same finding of the decoupled amygdala-salience circuit in both drug-na?ve and drug-treated patients implies a potentially biological target for the current and future antipsychotic treatment.

关键字：early-onset schizophrenia, negative symptoms, emotional processing, affect circuit, fMRI

Sex-specific Differences of Gut Microbiota in Patients with Schizophrenia and Its Correlations with Symptom Severity and Neurocognition

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Objective Previous studies have indicated significant differences in gut microbiota composition between patients with schizophrenia (SZ) and normal controls (NCs). There are a few studies focused on sex differences in gut microbiota, however, the sex-specific correlations between gut microbiota and symptom severity and neurocognition in patients with SZ are still remain unclear.

Methods We performed fecal 16S rRNA sequencing in 68 SZ patients and 68 NCs to analyze the composition of gut microbiota. All subjects were divided into four groups to explore sex- and disease- related differences, including the female and male SZ groups as well as the female and male NC groups. The Positive and Negative Syndrome Scale (PANSS) and the MATRICS Consensus Cognitive Battery (MCCB) scores were used to assess symptom severity and neurocognition in SZ patients, respectively.

Results The sex-related differences of gut microbiota at genus level were only found in the comparison between the female and male NC groups. The abundance of Meganomas and Roseburia were increased in the male NC group and the abundance of Bifidobacterium, Anearostipes and Lactobacillus were decreased in the male NC group. Moreover, the disease-related differences of gut microbiota at genus level were the increased abundance of Eubacterium in the female SZ group compared with the female NC group, as well as the decreased abundance of Eubacterium in the male SZ group compared with the male NC group. We conducted a correlation analysis between sex-specific differences of gut microbiota and cognitive scores (including PANSS and MCCB scores) in SZ patients. In male SZ group, we found that the abundance of genus Corynebacterium and Lachnospira were negatively correlated with PANSS scores, while the abundance of genus Mogibacterium, Desulfovibrio, Lactobacillus and Coprococcus were positively correlated with PANSS and MCCB scores, respectively. In female SZ group, we found the abundance of Mogibacterium was negatively correlated with PANSS nagetive score while it was positively correlated with Fluency score. And the abundance of genus Desulfovibrio was negatively correlated with the TMT, HVLT.R and BVMT.R score.

Conclusion At genus level, we found that the abundance of Collinsella, Ruminococcus, and Desulfovibrio were increased in both the female and male SZ groups, compared to the female and male NC groups, respectively. The study showed correlations between gut microbiota and symptom severity and neurocognition in SZ patients and further suggested the role of the sex factor in the process of gut dysbiosis.

关键字：Schizophrenia, gut microbiome, sex differences, PANSS, MCCB

Oxidative Stress and Its Correlation with Cognitive Function in Schizophrenia Patients: A Systematic Review and Meta-analysis

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Objective This systematic review and meta-analysis aimed to compare the oxidative stress (OS) level between schizophrenia (SZ) patients and healthy controls (HCs) and analyze the correlation between OS factors and cognitive function in SZ patients.

Methods The PubMed/MEDLINE, Web of Science, and the Cochrane Library electronic databases were systematically searched from inception through July 20, 2023. Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines were used to conduct a systematic literature search of case-control studies to assess the association between the OS level and cognitive function in SZ patients.

Results Sixteen studies met inclusion criteria comprising data from 4798 participants (2670 with SZ and 2128 were HCs). The quality of the included literature assessed by the Newcastle–Ottawa scale was generally high. The meta-analysis showed that the level of SOD (SMD=-1.069, 95%CI=-1.890, -0.247, P=0.011), GSH-px (SMD=-2.171, 95%CI=-3.616, -0.727, P=0.003) and TAS (SMD=-1.153, 95%CI=-2.137, -0.168, P=0.022) were significantly lower in SZ patients than in HCs, whereas the NO level was higher in SZ patients than in HCs (SMD=1.130, 95%CI=0.304, 1.955, P=0.007). However, heterogeneity among some of studies was high. The SOD level was negatively associated with immediate memory (r'=-0.100, 95%CI=-0.181, -.018, P = 0.017) and cognitive factors of PANSS scale (r'=-0.105, 95%CI=-0.199, -0.10, P = 0.031) in SZ patients.

Conclusion The levels of antioxidant factors in SZ patients are lower than in the HCs. The SOD level is negatively correlated with cognitive function in SZ patients. These biological processes may be targets for the treatment of SZ.

关键字：schizophrenia, oxidative stress, biomarker, cognition, meta-analysis

长未治疗非情感性精神障碍患者的家庭因素分析

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目的 探讨长期未治疗（病程≥5 年）非情感性精神障碍患者未治疗期(DUP) 的家庭影响因素。

方法 采用一般资料调查表、阳性与阴性症状量表(PANSS) 、简明精神症状评定量表(BPRS)、自制未治疗家庭因素量表、 以及疾病家庭负担量表((FBS) 对 197 例长期未治疗的非情感性精神障碍患者的疾病严重程度、起病形式、未治疗相关家庭因素以及因疾病给家庭带来的负担进行评估，对照组为相同病程±1 年的 197 名宁夏严重精神障碍管理治疗项目管理库中的非情感性精神障碍规律服药患者。

结果 长期未治疗非情感性精神障碍患者 DUP 的中位数为 8(5，17) 年，其中男性 8(5，24) 年，女性 8(6，18) 年，男女比率差异无统计学意义(P ＞ 0. 05) 。研究组的起病形式($\chi 2$ =81.45，P=0.000) 、家属对患者的关心程度(t =12.76，P =0.000) 、疾病对家庭娱乐活动的影响(t = 10.35，P = 0.000) 以及疾病对家庭成员心理健康的影响(t =5.53，P = 0.01) 两组间存在统计学意义。Logistic 回归分析发现，起病形式是长未治的的危险因素之一，起病形式越慢，未治疗的时间就越长(O R ＝13，68 95% CI =7.19～ 27.04)) ; 家属对患者的关心程度(O R = 0.33， 95% CI = 0.50 ～ 0.87) 是 DUP 的保护性因素。

结论 影响长未治非情感性精神障碍患者 DUP 的因素是多方面的，但起病形式及家属对患者的关心程度是主要因素。另外，教育水平和智力、获取信息途径、社会心理学的发展等多个因素相联系，这些因素会影响患者去寻求帮助和治疗的途径以及时间。本研究未发现 DUP 在性别、发病年龄、家族史及临床特征方面的差异，而以往的研究结果也未针对这些方面得到一致结论，故需要对这些方面进行深入研究。

结论 长未治非情感性精神障碍患者的 DUP 受多种因素的影响，且关系较为复杂，DUP 越长预示着患者的临床疗效就越差。通过对非情感性精神障碍患者 DUP 的影响因素进行分析，可以采取更有针对性的预防和干预措施，缩短患者的 DUP，改善患者的预后。

关键字：长未治疗;非情感性精神障碍； 家庭因素; Logistic 回归

中国精神分裂症患者代谢综合征患病率 Meta 分析

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目的 系统评价中国精神分裂症患者代谢综合征的患病率，为精神分裂症患者代谢综合征的防治决策提供依据。

方法 计算机检索 CNKI、VIP、WanFangData、CBM、PubMed、EMbase、Web of Science 和 The Cochrane Library 中有关中国精神分裂症患者代谢综合征患病情况的横断面研究，检索时限均从建库到 2022 年 5 月。由 2 位研究者独立筛选文献、提取资料并采用 JBI 患病率的质量评价工具评价纳入研究的偏倚风险后，采用 Review Manager 5.3 软件进行 Meta 分析。

结果 共纳入 80 个研究，包括 29922 例患者，合并代谢综合的患者共 8562 例。随机效应模型的 Meta 分析结果显示，精神分裂症患者代谢综合征的患病率为 30.0%［95%CI（27.0%，33.0%）］。亚组分析显示，男性精神分裂症患者代谢综合征的患病率为 31.0%［95%CI（27.0%，34.0%）］，女性精神分裂症患者代谢综合征的患病率为 34.0%［95%CI（30.0%，38.0%）］，略高于男性，但两组差异无统计学意义（P＝0.20）；精神分裂患者代谢综合征患病率在 2013～2015 年开始升高，其后几年一直处于较高水平。

结论 我国精神分裂症患者代谢综合征的患病率高达 30.0%，一直处于较高水平，过去近 20 年无明显改善。合并代谢综合征可增加精神分裂患者罹患多种躯体疾病风险。因此，临床工作中，医务人员需及早识别精神分裂患者代谢综合征风险，对精神分裂症患者进行全面评估，采取适当干预措施预防和治疗代谢综合征以改善精神分裂患者疾病预后，提高精神分裂患者的生活质量，促进其社会功能的恢复。

关键字：代谢综合征；中国精神分裂症；患病率；Meta 分析

精神分裂症风险区域 1p36.23 的功能变异对 RERE 的分子调控机理研究

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目的 精神分裂症（Schizophrenia，SCZ）是一种病因未明的，具有高遗传力的重性精神疾病。目前，关于 SCZ 的遗传学研究——全基因组关联分析，共找到 280 多个 SCZ 风险基因座，其中包括 1p36.23。本研究旨在找到 1p36.23 区域真正的致病遗传变异并且对遗传变异的致病机理进行深度解析。

方法 通过功能基因组学的方法，结合大脑染色质免疫共沉淀测序数据，表达数量性状基因座数据以及基因表达数据，找到 1p36.23 区域具有功能后果的遗传变异（rs159961 和 rs301792）以及遗传变异影响的基因 RERE。通过双荧光素酶报告基因实验，凝胶迁移实验等对找到的遗传变异（rs159961 和 rs301792）进行功能验证。开展基因编辑，转录因子敲低，凝胶迁移等实验深度解析功能遗传变异 rs159961 和 rs301792 调控 RERE 表达的分子机制。利用细胞和动物实验研究，探索 RERE 表达紊乱对神经系统发育的影响。

结果 位于 SCZ 风险区域 1p36.23 的两个遗传变异（rs159961 和 rs301792）处于转录活跃区域并且影响转录因子的结合。双荧光素酶报告基因实验以及凝胶迁移实验证实 rs159961 和 rs301792 具有等位基因特异的调控功能以及结合转录因子的能力。同时 rs159961 影响转录因子 REST 在此处的结合。表达数量性状基因座结果显示，rs159961 和 rs301792 与 RERE 表达显著相关，当敲除 rs159961 和 rs301792 所在区域，敲低转录因子 REST 表达后，RERE 的表达均有变化。RERE 的表达上调与 SCZ 风险增加之间显著相关，当在小鼠神经干细胞以及大鼠神经元中过表达 RERE 后，小鼠神经干细胞增殖分化情况以及大鼠神经元的树突棘密度、复杂度均有变化。除此之外，当过表达 RERE 后，神经元的突触蛋白 GRIN2A 在转录以及蛋白水平都降低。转录组测序差异基因也主要富集在与神经发育以及与 SCZ 相关的通路上。

结论 功能遗传变异 rs159961 和 rs301792 通过影响 RERE 的表达，使得 RERE 表达上调，影响神经发育，进而参与 SCZ 的发生。

关键字：精神分裂症，风险遗传变异，1p36.23，rs159961，rs301792，RERE

有氧运动干预对精神分裂症患者的有效性和可行性：系统回顾和荟萃分析

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目的 系统评价有氧运动干预在精神分裂症群体的有效性和可行性。

方法 检索中国知网、维普、万方、中国生物医学文献数据库、PubMed、Cochrane Library、EMBASE、Web Of Science 数据库建库至 2023 年 3 月有关精神分裂症患者运动干预的随机对照试验。以阳性与阴性症状量表（Positive and Negative Symptom Scale，PANSS）及分量表作为主要结局指标，阴性症状量表（Scale for Assessment of Negative Symptoms，SANS）、体质量指数(Body Mass Index，BMI)等作为次要指标，采用 R4.1.0 和 Stata14.0 进行 meta 分析。

结果 31 项研究，共计 2 431 例精神分裂症患者被纳入。基于 17 项研究的网状 meta 分析结果显示，有氧运动可能是降低精神分裂症患者 PANSS 总分最有效的措施。与常规治疗相比，结合有氧运动干预可改善患者的 PANSS 总评分（MD= -5.06，95%CI: -5.74，-4.39）、SANS 评分（MD= -7.64，95%CI：-9.47，-5.80）、以及 BMI（MD= -1.54，95%CI：-1.89，-1.19）。同时，干预时长的亚组分析结果显示，在 PANSS 总评分上，干预 2 个月更合适（MD=-5.7，95%CI: -6.89，-4.51），140 分钟<每周运动总时长≤260 分钟更合适（MD= -8.59，95%CI：-12.93，-4.25）。对比试验组和对照组的依从率发现，有氧运动干预联合常规治疗与单独常规治疗之间差异无统计学意义。

结论 有氧运动干预是缓解精神分裂症患者症状的有效措施，在住院患者中具有较好依从性。

关键字：有氧运动干预；精神分裂症；Meta 分析；

阳性与阴性症状量表；阴性症状

童年创伤、心理弹性与精神分裂症患者静息态脑功能网络连接的相关性研究

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目的 本研究目的是希望了解在精神分裂症患者中童年创伤、心理弹性与大脑功能网络连接的关系，从而有助于更好地了解精神分裂症患者的大脑功能网络特点。为此本研究分析了童年创伤、心理弹性与静息态功能磁共振中默认网络（default-mode network，DMN）及突显网络（Salience Network，SN）功能连接的关联，并探索这种关系对患者临床症状的影响。

方法 通过纳入病程在 3 年内、发作期、近 3 月未用药的精神分裂症患者（SZ 组）86 例及健康对照组（HC 组）90 例，使用磁共振采集静息态功能磁共振（rs-fMRI）数据以及一般人口学资料、童年创伤量表（CTQ-SF）、心理弹性量表（CD-RISC）。在两组之间比较了 4 个先验定义的 DMN 种子(内侧前额叶、左右侧外侧顶叶皮层和后扣带回)以及 5 个先验定义的 SN 种子（前扣带回、左右侧脑岛、左右侧杏仁核）和大脑的所有其他体素之间基于种子点的功能连接。使用两独立样本的 t 检验比较两组间功能连接的显著差异，再进一步探究童年创伤和心理弹性与 DMN 和 SN 中静息态脑功能网络连接的相关性。在观察到显着关联的情况下,使用有调节的中介模型来明确童年创伤与脑网络功能连接的关联是否能介导童年创伤对 SZ 患者临床症状严重程度的影响，且探索心理弹性是否在此过程中存在调节效应。

结果 ①DMN 的种子点中，SZ 组的左侧外侧顶叶皮质与右侧外侧顶叶皮质的功能连接较 HC 组增强，后扣带回的功能连接表现出多组的显著异常。SN 的种子点中，前扣带回、左侧脑岛、左侧杏仁核、右侧杏仁核同样能在两组间发现存在多组功能连接异常。 ②CD-RISC 总分与 SN 内前扣带回/后扣带回之间的功能连接存在正相关关系，独立样本 t 检验发现该功能连接在 SZ 组与 HC 组间存在显著差异。 ③后扣带回/左侧眶额皮质的功能连接在 CTQ 量表总分与 PANSS 量表阳性症状评分的关系之间存在中介作用。

结论 ①精神分裂症患者与健康人群在默认网络及突显网络的功能连接中存在显著差异。 ②心理弹性与精神分裂症患者脑功能网络的改变关系密切。 ③童年创伤可能通过改变大脑网络功能连接的介导影响了精神分裂症患者的阳性症状严重程度。

关键字：精神分裂症；默认网络；突显网络；童年创伤；心理弹性

Identification of Immune-related Markers in Peripheral Blood of Schizophrenia Using Bioinformatic Methods and Machine Learning Algorisms

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Objective This study aims to identify peripheral diagnostic markers to improve the diagnosis of schizophrenia.

Methods Four datasets of schizophrenia patients' blood or serum samples were downloaded from the GEO database and merged and de-batched for the analyses of differentially expressed genes (DEGs) and weighted gene co-expression network analysis (WCGNA). The CIBERSORT algorithm was adopted to analyze immune cell infiltration. Machine learning algorithms including random forest, least absolute shrinkage and selection operator (LASSO), and support vector machines - recursive feature elimination (SVM-RFE) were used to screen and validate immune-related hub gene(s) of schizophrenia. An animal experiment was performed to validate the expression of the hub gene(s).

Results DEG analysis and WGCNA analysis yielded 317 schizophrenia-related key genes by comparing with the DEGs. The enrichment analyses on these key genes indicated a strong correlation with immune-related signalling pathways. The CIBERSORT analysis revealed differences in eosinophils, M0 macrophages, resting mast cells, and gamma delta T cells. By comparing with the immune genes obtained from online databases, 95 immune-related key genes for schizophrenia were screened. Furthermore, CLIC3 was screened out as an immune-related hub gene of schizophrenia since it was the shared gene of the results of the three machine learning algorithms. In the rat brains, the protein expression of CLIC3 in several brain regions was found to be related with schizophrenia and can be regulated by an antipsychotic drug risperidone.

Conclusion Using various machine learning algorithms together with an animal experiment, this study has screened immune-related genes of schizophrenia and found that CLIC3 might be a promising peripheral diagnostic biomarker for schizophrenia.

关键字：schizophrenia; peripheral immune-related markers; WGCNA; CIBERSORT; LASSO; random forest; support vector machine; CLIC3.

虚拟现实的路径整合任务：一项评估精神分裂症空间能力的新型工具

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目的 开发虚拟现实技术下的空间能力测试系统：路径整合实验，用于评估精神分裂症患者的空间能力，探索不同路径整合策略的精神分裂症患者的精神症状与神经认知功能。

方法 于2021年1月-2021年12月在西南某专科医院纳入精神分裂症患者79名。采用阳性和阴性症状诊断量表评估精神分裂症的精神症状，MATRICS成套认知测试评估精神分裂症的神经认知，虚拟现实路径整合实验评估精神分裂症的空间能力。运用SPSS26.00对所有数据进行正态分布检验，并采用单因素方差分析比较三种路径整合策略的精神分裂症的症状与认知表现。

结果 路径整合实验导航策略分类结果显示，地图策略有40人，路径策略有16人，紊乱策略有21人。方差分析结果提示，三种路径整合策略的精神分裂症患者在阴性症状（F=17.344，P<0.001），信息处理速度（F=22.098，P<0.001），注意/警觉（F=7.753，P=0.001），空间工作记忆（F=9.770，P<0.001），词语学习（F=11.562，P<0.001），视觉学习（F=11.212，P<0.001），推理及解决问题能力（F=7.450，P=0.001）和总神经认知（F=38.336，P<0.001）等方面差异存在统计学意义。事后检验显示，地图策略患者的信息处理速度、空间工作记忆和神经认知总分明显优于路径策略，而的视觉学习差异却无统计学意义（均P<0.05）；地图策略的患者除了阳性症状以外，所有的精神症状和神经认知均好于紊乱策略（均P<0.05）；路径策略的患者只有信息处理速度和神经认知总分好于紊乱策略（均P<0.05）。

结论 基于虚拟现实的路径整合实验的空间能力受损可能是精神分裂症患者认知功能受损的灵敏指标，地图策略的患者认知功能最好，路径策略次之，紊乱策略最差。

关键字：精神分裂症；虚拟现实；空间能力；路径整合策略

CBT研究协作组

Effect of Mindfulness-based Cognitive Therapy in The Intervention of Obsessive-compulsive Disorder

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Objective Mindfulness-based cognitive therapy(MBCT) is effective for the clinical symptoms of obsessive-compulsive disorder(OCD) patients, however, the neural mechanism is poorly understood. In this study,we compared the changes of resting spontaneous neural activities in OCD patients before and after MBCT intervention , exploring the basis of neuroimaging of MBCT intervention in patients with OCD.

Methods Ten weekly group MBCT sessions (2 h each) were conducted with 20 OCD patients. Resting-state functional magnetic resonance imaging was used, along with clinical before and after ten-week MBCT intervention. The amplitude of low-frequency fluctuations(ALFF) , fractional amplitude of low-frequency fluctuations (fALFF) and degree centrality (DC) approach were used to explore spontaneous neural activities. We analyzed the correlation of clinical symptoms with the different value by Pearson correlation analysis before and after MBCT intervention.

Results Compared with before treatment, after ten-weeks of MBCT intervention, the total scores of Y-BOCS, thinking factor scores, behavioral factor scores, HAMD and HAMA scores were significantly reduced in OCD patients, and the differences were statistically significant (P<0.05); the average reduction rate of Y-BOCS was (50.55±24.63) %. At the same time, ALFF value of bilateral inferior temporal gyrus and right inferior frontal gyrus decreased significantly, fALFF of value left parietal gyrus and right paracentral lobule, and DC value of bilateral middle temporal gyrus, left fusiform gyrus, left suproccipital gyrus and right apex gyrus were significantly decreased(P<0.05, corrected for GRF); and positively correlations between DC value of left fusiform gyrus and Y-BOCS total score reduction rate (r=0.61, P=0.027).

Conclusion After MBCT treatment, the clinical symptoms of OCD patients were significantly reduced, suggesting that MBCT can effectively improve the clinical symptoms of OCD patients. The spontaneous neural activities of default network and frontoparietal control network were significantly reduced in patients with OCD. The DC value of the left fusiform gyrus can initially predict the efficacy of MBCT intervention in patients with OCD.

关键字：Mindfulness-based cognitive therapy; Obsessive-compulsive disorder; Amplitude of low-frequency fluctuations; Fractional amplitude of low-frequency fluctuations; Degree centrality

Application of DBT-based Psychotherapy in

Chinese People with Affective Disorders Implementing Suicidal and Non-suicidal Self-injury

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Objective The present research aims to expand upon existing literature pertaining to the effectiveness of DBT-based psychotherapy. Specifically, the application of DBT-based treatment was examined as a predictor of lowering suicidal risks and severities in Chinese patients with mental health problems.

Methods Twenty-one participants who were chosen from psychiatric outpatient clinics of First Affiliated Hospital, College of Medicine, Zhejiang University, were asked to participate in the study. Participants were randomly assigned to two groups: They received drug therapy combined with the DBT-based treatment (research group) or drug therapy only (control group). Participants underwent a baseline assessment at the beginning of the study. They were then given twelve weeks of treatment and were followed up for another twelve weeks to observe the efficacy of treatments. A total of seven assessments were performed every four weeks during the study. Baker Suicide Ideation Inventory (BSI), Beck Depression Inventory?-II (BDI), Baker Self-Rating Anxiety Inventory (BAI), and Beck Hopelessness Scale (BHS) were used to assess the effectiveness of treatments.

Results According to the collected data, participants showed significant improvement in reducing depression levels, anxiety levels, and hopelessness after the intervention. By the end of the study, the score of suicide risk was 14.91±21.62 for the research group and 41.30±25.76 for the control group at the endpoint. Scores of suicide risk significantly decreased for both groups of participants, but the treatment combining DBT reduced the suicide risk score substantially more than the medicine-only treatment($F=8.508$, $P=0.009<0.05$).

Conclusion This study suggests that DBT-based psychotherapy can significantly reduce the risk of suicide in participants with affective disorders. There is an apparent applicability in the Chinese population.

关键字：DBT, suicide, affective disorders, non-suicidal self-injury

Prevalence and Risk Factors of Persistent Subclinical Positive, Negative and Depressive Symptoms of Psychotic-like Experience Among Left-behind Adolescents Living in Rural China

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Objective Due to the unstable long-term relationship with parents, left-behind children have more psychological and behavioral problems. However, few studies have focused on major psychiatric sequelae of parental separation among left-behind children and specifically, on persistent psychotic-like experiences (PLEs). This study aims to examine the prevalence and risk factors of persistent subclinical positive, negative and depressive symptoms of PLEs among left-behind children.

Methods During 2014 to 2016, we annually followed up students from 5 secondary schools in the rural Xiangxi Region, Hunan Province selected randomly. For each school, all students from the 7th grade, the first year of the secondary school were recruited, with social and demographic information collected. The Community Assessment of Psychic Experiences (CAPE) was used to measure psychotic-like experiences. The Trauma History Questionnaire (child version) was used to assess experiences of previous traumatic events. The attachment relationship between adolescents and their parents or peers was assessed by using the short version of the Inventory of Parent and Peer Attachments (IPPA).

Results A total of 1265 adolescents have completed items of all assessments over the three waves with 41.5% had left-behind status. The prevalence rate of persistent positive, negative and depressive experience among the left-behind children is 21.7%, 21.5% and 9.5% respectively, much higher than the non-left behind. The effect of being left-behind on negative experience and depressive experience remained after controlled for the demographic characteristics and children's perception of their families' socioeconomic conditions.

Conclusion The persistency of negative and depressive experience is more common in the left-behind children. Given this increased risk for the adulthood mental disorders, screening for PLEs could be an important mental health assessment of adolescents. Although adolescents and their caregivers may dismiss or be unable to recognize negative and depressive symptoms, their identification provides opportunities for targeted preventative interventions.

关键字：Psychotic-like experiences; Left-behind Adolescents

依恋模式与青少年非自杀性自伤的关系：情绪调节困难的中介作用

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目的 探讨青少年心境障碍伴非自杀性自伤（Non-suicidal Self-injury，NSSI）患者的依恋模式、情绪失调及其与非自杀性自伤行为的关系。

方法 采用横断面研究设计，以青少年心境障碍伴 NSSI 患者、青少年心境障碍不伴 NSSI 患者与健康青少年为研究对象，对其进行问卷调查，内容包括：一

般资料调查表、青少年自伤行为问卷、亲密关系经历量表、情绪调节困难量表。使用 SPSS26.0 与 MPlus8.3 对数据进行统计分析。

结果 共纳入青少年被试 215 例，心境障碍伴 NSSI 组 84 例，心境障碍不伴 NSSI 组 33 例，健康对照组 98 例。三组在家庭结构、家庭经济压力方面未见统计学差异（P>0.05），在性别、年龄、是否独生子女方面差异显著（$\chi 2/F$ =16.07~35.77，P<0.001）。（1）依恋模式的组间差异：三组依恋类型分布具有显著统计学差异（$\chi 2$=68.46，P<0.001），两个临床组中淡漠型占比最高（48.8%、48.5%）；健康组中安全型占比 60.8%。两个临床组的依恋回避得分分别高于健康组； NSSI 组的依恋焦虑分别高于另外两组（F=38.54、7.53，P<0.01）。（2）依恋与 NSSI 的关系：在控制性别、年龄、独生子女后，恐惧型、淡漠型、专注型依恋个体发生 NSSI 的风险分别是安全型的 31.73 倍、9.68 倍、3.91 倍。依恋回避、依恋焦虑均与 NSSI 行为显著正相关（P<0.001，r= 0.45、0.26）。（3）情绪调节困难在依恋维度与 NSSI 关联中的作用：除情绪觉知外，情绪调节困难量表的结果整体表现为 NSSI 组>不伴 NSSI 组>健康组（F=29.59~88.24，P<0.001）。情绪调节困难分别在依恋回避和依恋焦虑与 NSSI 行为关系间起到部分和完全中介作用，中介效应分别占总效应的 54.4%、73.3%。

结论 青少年心境障碍伴 NSSI 患者的依恋模式多见淡漠型、恐惧型依恋，依恋回避程度相比依恋焦虑更突出。情绪调节困难是依恋回避/焦虑与 NSSI 相关的重要中介因素。

关键字：依恋，非自杀性自伤，青少年，情绪调节困难，心境障碍

正念训练对大一新生学校适应的影响

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目的 大学生活是学生从青春期过渡到成年早期的一个十分关键的阶段。尤其对于初入大学校园的新生，需要面对很多的适应问题，包括学习、校园生活、人际关系以及职业选择等方面。本研究旨在了解大一新生正念水平和学校适应的现状，进一步探究二者之间的关系，并验证在国内的文化背景下，正念训练对大一新生学校适应的干预效果，为提升大一新生的学校适应水平提供切实可行的干预方案。

方法 本研究分为两个部分，研究一从吉林省某高校 2022 级大一新生中取样，通过问卷调查法，采用《五因素正念量表(FFMQ)》和《中国大学生适应量表(CCSAS)》对 587 名学生进行问卷调查。研究二从研究一被试学校适应得分处于后 27%的大一新生中，按准入标准，从中选取 60 名被试。采用随机对照设计，将被试随机分配到实验组、积极对照组和消极对照组中。实验组进行为期八周的正念训练，积极对照组进行为期八周的团体辅导，消极对照组不进行任何干预。前测成绩同研究一，干预完成后立即进行后测，干预结束后的两个月进行延后测。均采用与前测相同的测验工具对三组被试的学校适应水平进行测定，并使用 SPSS26.0 对结果进行分析。

结果 本研究结果如下：在研究一中，大一新生的学校适应水平总平均分约为 173 分，该结果低于《中国大学生适应量表(CCSAS)》的理论中值 180 分；大一新生的正念水平总平均分约为 109 分，该结果低于《五因素正念量表(FFMQ)》的理论中值 117 分。在研究二中，实验组进行为期八周的正念训练后，学校适应得分显著高于消极对照组。

结论 (1)大一新生的正念和学校适应均处于中等偏下水平（相比于量表的理论中值）。(2)女生在学习适应维度上的得分显著高于男生；男生在人际适应维度上的得分显著高于女生；文史专业学生在情绪适应维度上的得分显著高于理工专业的学生。(3)女生在觉察维度上的得分显著高于男生；文史专业学生在不行动维度上的得分显著高于理工专业学生。(4)大一新生的正念水平与学校适应总分及其各维度呈正相关，大一新生的正念水平可以正向预测其学校适应水平。(5)正念训练能够显著提升大一新生的学校适应水平。

关键字：正念训练；学校适应；大一新生

Cognitive-behavioral Therapy for Patients with Somatoform Disorders: A Pilot Preliminary Study in A Chinese Culture Context

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Objective Cognitive-behavioral therapy (CBT) for somatoform disorders(SFD) is understudied in China. Western findings may not be necessarily applicable in Chinese culture context, and further trials are needed. This study evaluated preliminary efficacy of CBT for Chinese SFD patients based on the cultural adaptation revision of the CBT manual, relative to treatment-as-usual (TAU), in terms of somatic symptoms, illness-related distress, quality of life, social function, and family burden.

Methods This 24-week, single-blind randomized controlled trial was conducted with two parallel groups comparing a CBT-based intervention in addition to usual care (CBT+TAU) with usual care alone (TAU). Seventy patients with SFD received either CBT+TAU or TAU alone. The CBT+TAU group received 12 weekly individual CBT sessions based on the CBT manual for SFD, given from week 1 to week 12, each session lasting 50 minutes. The CBT manual was developed based on the cognitive behavioral model of medically unexplained symptoms,

customized for the Chinese culture. Self-screening Questionnaire for Somatic Symptoms (SQSS) is the primary outcome, which is a self-rated questionnaire that includes 4 dimensions. The SQSS was locally developed with strong cultural relevance to the Chinese population. Secondarily, the following were applied: PHQ-15 (Patient-Health-Questionnaire-15) and the WI (Whitely Index); GAD-7 (General Anxiety Disorder-7); HAMD-17 (Hamilton Depression Rating Scale-17); Family Burden Interview Schedule (FBIS); Sheehan Disability Scale (SDS); and the Short Form of Quality-of-Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q-SF).

Results 59 participants completed the assessments from baseline to 24 weeks, with 27 (77.1%) and 32 (81.7%) participants respectively in the CBT+TAU and TAU groups at 24 weeks. The dropout rates of the two groups were similar (P = 0.16). All the analyses were intention-to-treat. The main effect of time was found for all the assessment scale both groups from baseline to 24 weeks by the generalized linear mixed-effects model analyses. At 24 weeks, Group showed a significant main effect based on SQSS total scores (F = 6.268, P = 0.013), specifically negative perception (F = 6.268, P = 0.013) and illness behavior (F = 6.062, P = 0.015), and the WI total scores (F = 8.872, P = 0.003). Time × group interaction was significant only based on the HAMD (F = 4.100, P = 0.007). Each of the assessment scales indicated that CBT+TAU had a significantly larger effect than did TAU alone. The response was defined as the total scores SQSS reduction rate greater than 30% between the baseline and 24th week. Response rates were 60% (21/35) and 37% (13/35), respectively in the CBT+TAU and TAU groups.

Conclusion CBT combined with TAU for SFD in a Chinese culture context has potential efficacy, particularly in terms of improvement of dysfunctional cognitions, depression and illness behavior.

关键字：cognitive-behavioral therapy, Chinese culture context, somatoform disorders, randomized controlled trial

Cognitive Function Among COVID-19 Survivors in The Subacute Phase During The Epidemic of Omicron Variants in China

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Objective After the Chinese government relaxed prevention and control measures in December 2022, the impact of COVID-19 on cognitive function in the Chinese population is still unknown. Besides, few studies focused on the effects of omicron variants on cognitive function. We aim to identify the impact of COVID-19 on cognitive function in the subacute phase (< 3 months) in a large Chinese population and its risk factors during the epidemic of omicron variants.

Methods This is a large-scale nationwide smartphone-based online assessment of cognitive function in people across China from January 15 to 29, 2023. Socio-demographic characteristics and COVID-19-related factors of participants were collected. Two smartphone-based online neuropsychological tests, the Integrated Cognitive Assessment (ICA) and the Number Ordering Test (NOT), were used to assess cognitive function.

Results Among the 9663 participants (effective rate 91.0%), 8905 (92.2%) were COVID-19 survivors. COVID-19 survivors had poor performance in most results of ICA and NOT ($p < 0.05$), but only the accuracies of ICA were lower in COVID-19 survivors than uninfected participants controlling for socio-demographics ($p < 0.05$, partial $\eta 2 \leq 0.001$). After the initial recovery, 5832 (65.5%) COVID-19 survivors reported inflexible thinking and 5419 (60.9%) reported slowed information processing speed. Females, older age, low education level, living in Northwest China, and having insomnia after recovery were significantly associated with longer reaction time and lower accuracy in ICA and a lower NOT total score (range, absolute value of β 0.023–0.430, $p < 0.05$). Ethnic minorities, higher body mass index, underlying diseases, longer duration of infection, slowed subjective information processing speed, and inflexible thinking after recovery were associated with poor performance in certain neuropsychological results ($p < 0.05$).

Conclusion After the relaxation of control measures in China, most COVID-19 survivors had cognitive complaints and poor objective cognitive function in the subacute phase of COVID-19. Females, older age, low education level, living in some areas, and insomnia after recovery were associated with objective cognitive impairment. Appropriate prevention and intervention measures should be taken to reduce COVID-19-related cognitive impairment.

关键字：Cognitive function; COVID-19; Risk factors; Omicron variant; Subacute phase; Chinese

童年期创伤和大学生精神病样体验：心理弹性的调节和中介作用

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目的 既往研究表明童年期创伤是青少年精神病样体验的一个风险因素，而心理弹性是预防精神病样体验发生的一个保护因素。然而，目前关于心理弹性在童年期创伤和青少年精神病样体验之间的发挥的作用仍不清楚。

方法 于 2021 年 1 月，对山西省某高校的在校大学生开展网络调查。采用儿童期创伤问卷（CTQ）、10 条目版 Connor-Davidson 心理弹性量表（CD-RISC-10）、简式版社区心理体验评估问卷（CAPE-P8）和自编一般资料问卷分别考察参与者的童年期创伤、心理弹性水平、精神病样体验频率和社会人口学特征。采用 PROCESS 程序考察心理弹性在儿童期创伤和精神病

样体验间的调节作用和中介作用。

结果 大学生精神病样体验与童年期创伤呈显著正相关（r=0.32,p<0.001），与心理弹性呈显著负相关（r=-0.28, p<0.001）；心理弹性与儿童期创伤的交互项效应值为-0.07，95%置信区间为-0.10~-0.04。这说明心理弹性在童年期创伤与大学生精神病样体验间存在显著的调节作用，简单斜率分析显示心理弹性水平越高，童年期创伤对精神病样体验的正向效应越弱；心理弹性在童年期创伤与大学生精神病样体验间存在部分中介作用，中介效应值为 0.06，95%置信区间为 0.05~0.08。

结论 这些发现表明心理弹性在童年期创伤和精神病样体验间起着重要作用。加强心理弹性有助于预防和干预大学生的精神病样体验。

关键字：童年期创伤；精神病样体验；大学生；调节作用；中介作用

认知行为治疗对强迫症静息态大脑自发活动及功能连接影响的疗效机制研究

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目的 采用病例对照研究与治疗前后对照研究探讨认知行为治疗对强迫症的疗效，并从大脑静息态功能连接角度进一步探讨认知行为治疗对治疗强迫症的疗效预测。

方法 以意向参与 CBT 治疗的 OCD 患者 57 例与性别、年龄、右利手匹配的 50 例 HC 为研究对象，Y-BOCS、OCI-R、BDI-II、BAI、SDS 对患者的强迫症状严重程度、强迫症状类别、焦虑抑郁程度、功能损害程度进行治疗疗效评估及前后对照研究。采集所有被试静息态功能磁共振数据比较 CBT 组 ALFF、fALFF、ReHo 与 HC 的差异。结合本研究 ALFF、fALFF、ReHo 值显著差异脑区，选取右侧角回、双侧额中回、左内侧额上回、左背外侧额上回、左侧顶上回、右侧楔前叶为感兴趣区，对 8 周治疗有效 OCD 组（n=25）、治疗无效 OCD 组（n=16）和 HC 组进行基于种子区的全脑功能连接分析，进一步探索静息态功能连接对 CBT 治疗强迫症的疗效预测。

结果 1、治疗 4 周、8 周后，治疗组 Y-BOCS 总分及分量表、BDI、BAI 、OCI-R 、SDS 得分均有改善，差异有统计学意义（P＜0.05）。2、以左侧额中回作为种子点进行 FC 分析，8 周治疗有效组左侧额中回与右侧脑岛、右侧三角部额下回、右侧补充运动区 FC 增强。与小脑 Crus 2 区与小脑 Crus 2 区 FC 减弱。3、以右侧额中回作为种子点进行全脑 FC 分析，8 周治疗有效组右侧额中回与左侧中央后回、左侧中央前回、左内侧额上回 FC 增强。4、以右侧角回作为种子点进行全脑 FC 分析，8 周治疗有效组右侧角回与右侧颞中回 FC 减弱。

结论 （1）CBT 治疗在减轻强迫症状、焦虑、抑郁情绪及功能损害方面都有显著疗效。（2）OCD 患者存在广泛的局部内在自发活动差异，涉及额叶、顶叶、颞叶、枕叶及小脑等广泛脑区，其中顶上回、额中回、楔前叶、背外侧额上回、角回等脑区自发活动的异常可能与治疗疗效相关。（3）治疗有效组 OCD 患者主要存在额顶网络功能的异常，其中左背外侧额上回与左侧额中回、左侧顶上回功能连接减弱可能预示 CBT 治疗有效。（4）左侧顶上回、右侧楔前叶局部脑区自发活动增强是区分治疗无效患者的潜在影像学靶标。治疗无效组患者主要存在默认网络功能异常，右侧楔前叶与左侧角回、左侧额中回功能连接增强可能预示 CBT 治疗无效，另外右侧楔前叶与右侧小脑 Crus1 区、右侧小脑 Crus2 区功能连接增强也可能预示 CBT 治疗无效。

关键字：强迫症；认知行为治疗；疗效预测；脑功能连接

A Comparative Study of Neural Mechanisms with Selective Serotonin Reuptake Inhibitor Versus Cognitive Behavior Therapy in Depression.

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Objective Major depressive disorder (MDD) is a mental disease characterized by decreased interest, lack of pleasure and impaired cognitive function. The main treatment methods of MDD include cognitive behavior therapy (CBT) and selective serotonin reuptake inhibitor (SSRI).Most previous studies focused on the neuropathological changes of MDD after single treatment. Few studies directly explore the similarities and differences between CBT and SSRI.This study aims to compare the difference between CBT and SSRI in the neuroimaging mechanism of MDD.

Methods 88 treatment-seeking adults with depression were randomized to 6 weeks of SSRI or CBT treatment. At baseline and 6 weeks, participants completed resting-state functional magnetic resonance imaging and structural magnetic resonance scan and clinical assessments. Voxel based morphometry (VBM), the amplitude of low-frequency (ALFF), and the functional connectivity (FC) were used to test whole brain change for the effects of different treatment.

Results The results of VBM analysis show that there is no significant difference in the volume of cerebral gray matter in MDD patients after CBT. In SSRI group,the gray matter volume of left cerebellum, left lingual gyrus (LG), left middle occipital gyrus (MOG) and bilateral superior parietal gyrus decrease ($p < 0.005$, GRF correction). Compared with CBT group, the gray matter volume of left MOG in SSRI group decreased after intervention ($p< 0.001$, GRF correction).The results of ALFF analysis showed that the ALFF values of left LG, right middle frontal gyrus (MFG) and right AG decreased significantly in patients with MDD after CBT. There was no significant

difference in SSRI group. Compared with CBT group, the gray matter volume of superior occipital gyrus (SOG) and right middle frontal gyrus (MFG) in SSRI group decreased after intervention. The results of FC analysis showed that compared with SSRI, the functional connections between right SOG and left parahippocampal gyrus, right posterior cingulate gyrus (PCC), right anterior central gyrus, left middle frontal gyrus and right superior frontal gyrus were increased in CBT group after intervention. The functional connection of the right MFG and the right superior frontal gyrus (SFG) is decreased ($p < 0.001$, GRF correction).

Conclusion SSRI treatment mainly affects the volume of gray matter in MDD patients, mainly involving the parietal lobe, inferior occipital lobe, and cerebellum. CBT has a regulatory effect on the brain functional activities of MFG, right AG, and left LG in MDD patients.

关键字：cognitive behavior therapy, selective serotonin reuptake inhibitor, Major depressive disorder ,neural mechanisms

失眠认知行为治疗五大技术疗效因子及其治疗感受的质性研究

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目的 从患者视角出发，研究失眠认知行为治疗（Cognitive Behavior Therapy-Insomnia, CBTI）五大技术，睡眠卫生教育，睡眠限制，刺激控制，放松训练，认知治疗的疗效相关因素及治疗感受。

方法 运用质的研究方法，对上海市精神卫生中心 21 例失眠伴抑郁、焦虑症状患者开展连续 8 次的结构化失眠认知行为治疗（CBTI），分别于第 2、4、8 次治疗结束时对患者进行半结构式访谈，并采用主题分析法对访谈资料进行编码，提取相关主题。

结果 CBTI 五大技术对失眠症状均有改善效果，体现在失眠症状减少、睡眠效率提高、情绪好转等方面；疗效相关因素包括：养成良好睡眠习惯，调整睡眠环境，减少无效躺床时间，规律作息，建立正向联结，强化条件反射，降低焦虑，改变睡眠不良认知以及药物偏见，形成良性循环等；治疗感受包括：前期体验糟糕，睡眠限制难以执行，产生头晕等不良体验，执行刺激控制时难以离开床，放松训练和睡眠日记需要长期坚持，付出努力和耐心，不同类型放松训练体验不同，认知改变需要经验内化，自我反省，后期治疗获益颇多，治疗体验好转，睡眠计划执行难度降低。

结论 CBTI 治疗中的五大技术对睡眠均有帮助，患者治疗体验各不相同，患者会产生负面感受，需重视患者情绪变化及在执行过程中的困难，给予鼓励支持并帮助解决困难，提高患者治疗认同以及睡眠方案执行力度，认知改变需要针对性。

关键字：慢性失眠障碍，失眠认知行为治疗，质性研究，疗效因子，治疗感受，焦虑，抑郁

影响失眠患者数字化失眠认知行为治疗选择的因素

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目的 前人的随机对照临床试验证实，数字化失眠认知行为治疗（e-CBTI）在失眠障碍的治疗中与传统失眠认知行为治疗效果相当。然而，e-CBTI 在真实世界中应用的影响因素尚不清楚。本研究旨在明确影响失眠患者 e-CBTI 选择的因素，为疗法在临床推广提供实证证据。

方法 本研究在门诊和社区共收录 18-65 岁失眠患者 756 名，年龄均值为 36.56±12.73 岁，64.8%为女性。其中 605 名患者选择参与 e-CBTI 治疗，151 名不参与。研究通过结构化临床访谈，对失眠患者的失眠症状、精神障碍、其他睡眠障碍及自杀自伤进行他评。应用卡方检验 logistic 回归对数据进行分析。

结果 女性(66.6% vs. 57.6%, $p = .04$)更倾向于选择 e-CBTI。注意力(88.4% vs. 75.5%, $p < .001$)、社会功能(64.5% vs. 53.0%, $p = .01$)、情绪(65.8% vs. 56.3%, $p = .03$)和积极性受损(83.2% vs. 75.5%, $p = .03$)的患者更倾向选择 e-CBTI。共病广泛性焦虑障碍的患者选择 e-CBTI 的可能性更高(13.3% vs. 6.0%, $p = .01$)。终身曾有自杀意念(15.3% vs. 5.3%, $p = .01$)和自伤行为(4.7% vs. 0.7%, $p = .02$)均提高 e-CBTI 选择的可能性。将以上变量及性别、年龄、地域纳入多重 logistic 回归分析，社会功能受损以及终身曾有自杀意念仍解释 e-CBTI 的选择。

结论 失眠的日间症状，而不是夜间核心症状，影响 e-CBTI 的选择。终身曾有自杀意念是驱使失眠患者选择远程非药物干预，如 e-CBTI，作为求助手段的最重要因素。本研究提示了在真实世界治疗中失眠日间功能受损和自杀意念在治疗选择中的重要预测作用。

关键字：失眠认知行为治疗，数字化，日间功能受损，自杀

Efficacy and Executive Function of Solution Focused Brief Therapy on Adolescent Depression Combined with FNIRS

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Objective To explore the efficacy and executive function of solution focused brief therapy (SFBT) on adolescent major depressive disorder (MDD).

Methods A total of 129 adolescent patients with depression who came to the outpatient clinic underwent screening 12 months since November 2021, of whom 28

received solution-focused brief therapy (SFBT group) and 25 received pcychodynamic psychotherapy (AC group). For the SFBT group, subjects received solution-focused therapy , which helps clients change by constructing solutions. The technique includes the search for pre-session change, miracle and scaling questions, exploration of exceptions, use of a one-way mirror and consulting break, positive feedback and home assignments. For the AC group, subjects received various types of modern psychotherapy with short-term psychodynamic psychotherapy, a brief, focal, transference-based therapeutic approach which helps patients by exploring and working through specific intra-psychic and interpersonal conflicts. Short-term psychodynamic psychotherapy is characterized by the exploration of a focus, which can be identified by both the therapist and the patient. The SFBT group and AC group received different intervention modalities, and the participants in the two groups remained consistent in the duration of a single intervention (40-60 minutes/session). But the interval between each intervention was not fixed, for it was decided by the therapist and patient discussion. Executive function was screened with VFT by fNIRs while depressive and anxiety symptoms were assessed by the Patient Health Questionnaire (PHQ-9) and Generalized Anxiety Disorder-7（GAD-7) at baseline (T0), at the time of the third intervention (T3), the sixth intervention (T6), and the 10th intervention (T10).

Results Demographic and clinical characteristics The demographic characteristics of subjects in each group are presented in Table 1. The SFBT group included 9 males and 19 females (mean age = 15.11 years; SD = 1.42). The AC group included 5 males and 20 females (mean age = 14.80 years; SD = 1.41). Both groups showed no difference in age , gender or education ($P > 0.05$). No statistically significant differences among treatment groups were found with respect to medicine treatment. Clinical data The PHQ-9 was employed to assess the severity of depression in the SFBT group and AC group. A 2 (group: SFBT group, AC group) * 4 (time point: T0、T3、T6、T10) two-way mixed ANOVA was conducted to examine the effect of SFBT on participants. The results showed that the main effect of time point was significant [$F(3,49)=9.865$, $P < 0.001$,$\eta 2=0.377$], meaning that PHQ-9 scores decreased after therapy in all participants (see Table 2). The main effect of Group was not significant [$F(1, 51)=2.293$, $P=0.1$）

Conclusion SFBT might improve depressive and anxiety symptoms as well as executive function of adolescent depression.

关键字：Solution focused brief therapy；adolescent；Major depressive disorder；Functional near-infrared spectroscopy；

The Effect of Virtual Reality Based Attentional Bias Modification Training on Attentional Bias of OCD Patients: A Pilot Study

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Objective The purpose of this study was to develop and explore the effectiveness and suitability of virtual reality based attentional bias modification training to adjust the clinical symptoms and attentional bias of patients with obsessive-compulsive disorder, so as to optimize the clinical intervention program.

Methods A total of 31 OCD patients were selected from Beijing Anding Hospital from December 2021 to March 2023. Patients were divided into ABM group and control group used blocked randomization, in which ABM group was treated with conventional therapy plus VR-based ABM training twice a week for 4 weeks, while control group was treated with conventional therapy. The demographic data, symptoms and emotion of the two groups of subjects were collected at baseline and 4 weeks. Eye movement technology was used to measure the characteristics of attentional bias using free browsing and visuospatial working memory task paradigm. Finally, 8 patients in the ABM group and 8 patients in the control group completed all treatment. Independent sample t-test and chi-square test were used to analyze the differences in demographic data and clinical scales between different groups. Repeated measures analysis of variance and paired sample t-test were used to study the changes of clinical scales and eye movement before and after intervention. At the same time, VR indicators for description of statistics, to explore the suitability of VR-based ABM.

Results After 4 weeks of intervention, the ABM group showed a higher reduction in OCD symptoms and anxiety numerically, but there was no statistical difference. In the characteristics of attentional bias, there was no significant improvement. The patients in the ABM group reported that the tasks of the VR-based ABM training program were moderate in difficulty, and it could induce obsessive-compulsive symptoms and anxiety to a moderate degree. No adverse reactions were observed.

Conclusion In this study, we found that VR-based ABM training can improve OCD patients' OCD symptoms and anxiety, but there is no change in the characteristics of attentional bias. In the future, we should enlarge the sample size, improve research design, explore the mechanism of attention bias in OCD patients, further improve the ABM training program and optimize the clinical treatment program.

关键字：Obsessive-compulsive disorder; attentional bias; attentional bias modification training; virtual reality; working memory load

早发型强迫症丘脑亚区结构与功能连接的磁共振研究

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目的 早发型强迫症（EO-OCD）患者往往具有特定的临床和生物学特征。大量研究也发现 EO-OCD 患

者存在丘脑结构改变以及特异的丘脑-皮质连接模式，而这些改变与其临床特征与认知功能损害有关。但由于丘脑结构的异质性，其病理生理学机制仍不清楚。因此本研究通过比较不同 AAO 的成人强迫症患者丘脑亚区结构和功能连通性的差异，从结构到功能来阐述 EO-OCD 可能的病理生理学机制。

方法 对所有参与者进行人口学资料采集、临床评估以及磁共振数据采集。丘脑进行自动分割后，对 EO-OCD 组、晚发型强迫症（LO-OCD）组及健康对照（HCs）三组丘脑各亚区体积和功能连接进一步统计分析。

结果 1、三组间双侧内侧前额叶丘脑（mPFtha）、右侧尾颞丘脑（cTtha）、右侧外侧前额叶丘脑（lPFtha）体积存在显著差异。事后分析发现与 LO-OCD 患者相比，EO-OCD 患者上述亚区体积呈增大的趋势，但校正后均无统计学差异；与 HCs 组相比，EO-OCD 患者左侧 mPFtha 体积显著下降。2、全脑功能连接分析结果显示三组间双侧 mPFtha、双侧喙颞丘脑（rTha）、右侧枕丘脑（Otha）、双侧 cTtha、左侧 lPFtha 的功能连接存在显著差异。事后分析发现与 LO-OCD 组、HCs 组相比，EO-OCD 患者均表现左侧 mPFtha 与右侧颞中回、右侧眶部额下回之间的功能连接增强；右侧 mPFtha 与左侧颞上回、左侧颞中回、右侧颞中回、右侧中央前回、右侧中央后回之间的功能连接增强；左侧 rTha 与右侧眶部额下回、右侧中央前回、右侧颞中回之间的功能连接增强；右侧 rTha 与右侧颞上回之间的功能连接增强；右侧 Otha 与左侧颞中回、左侧中央前回之间的功能连接增强；双侧 cTtha 与左侧中央旁小叶之间的功能连接增强；左侧 lPFtha 与右侧眶部额下回、右侧颞中回之间的功能连接增强。3、EO-OCD 患者 mPFtha 的结构和功能异常之间存在一致性，增大的右侧 mPFtha 体积与增强的右侧 mPFtha-右侧枕中回的功能连接之间呈显著正相关。

结论 1、EO-OCD 患者丘脑亚区体积呈增大趋势；2、mPFtha/cTtha 与感觉运动皮层连通性增强可能是早期发病的普遍性特征；3、mPFtha/rTha/Otha/lPFtha 与额颞叶连通性增强提示早发型患者认知功能受损。而 mPFtha 亚区的结构和功能连接异常可能是其结构性基础。

关键字：早发型强迫症，丘脑亚区，丘脑-皮层环路，结构磁共振成像，静息态功能磁共振成像

基于图卷积网络的 ADHD 辅助诊断分类及生物标志物获取

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目的 利用图卷积神经网络实现注意力缺陷多动障碍（ADHD）的高分类准确率，同时识别疾病潜在生物标志物。

方法 基于二分假设框架，利用图卷积神经网络对脑网络进行高级特征提取。同时，利用图卷积神经网络在拓扑空间中对节点进行交互，从而发现更多可解释的大脑功能障碍模式。以往研究表明，大脑边缘网络与 ADHD 症状高度相关，因此本研究选择从边缘网络获取生物数据，并进行分析。首先，从大脑边缘网络的 11 个脑区获取低频波动幅度(ALFF)和功能连接（FC）数据。先前研究通常将多模态数据进行堆叠或者在特征处理后进行拼接，导致对每个模态的内在信息理解不足，不能充分利用每个模态的特异性。因此，在特征选择阶段，我们使用支持向量基—特征消除算法（SVM-RFE）对两种模态数据进行特征选择操作，并选择训练数据的前 50 个特征构建多模态图网络，从而充分发挥每个模态的信息作用。其次，在特征提取阶段，将第一阶段构建的多模态图网络送入图卷积网络。由于一层图卷积的接收范围被限制在单跳邻居，导致不能从更广泛的节点探索更复杂的功能交互能力。考虑到图结构以及数据特点，我们采用两层图卷积网络提取生物数据的高级特征。为了监督提取的高级的特征，我们将特征在使用图卷积网络进行节点重建的同时，使用全连接网络对其进行分类监督，并设置 MSE 损失和交叉熵损失对网络进行训练。最后，在分类阶段，我们使用特征提取阶段所提取的高级特征，在两种假设下计算对应的变异得分，变异分值越低，则该假设越可靠，从而得到测试数据的标签。

结果 在公开数据库 ADHD-200 验证提出方法的性能。与现有方法相比，我们的方法具有更高的准确率。其中，在多个子库数据集（NYU、NI、KKI 等数据集）上达到了 95%以上的准确率。为了寻找可靠的生物标志物，我们对选择的特征进行 P 值分析，发现丘脑、海马、海马旁回、杏仁核和嗅皮质等脑区的 P 值小于 0.05，这与相关文献的研究结果一致。

结论 分类高准确率证明了图卷积神经网络在特征提取的有效性。同时，找到 P 值小于 0.05 的脑区和相关研究结果一致。其有效证明多模态数据的使用和图网络有助于发现生物标志物，为 ADHD 的进一步研究提供了重要的线索。

关键字：注意力缺陷多动障碍，二分假设框架，图卷积神经网络，生物标志物

Preliminary Efficacy of A Cognitive Behavioral Therapy-based Smartphone App for Smoking Cessation in China: A Randomized Controlled Pilot Trial

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Objective The overall prevalence of cigarette smokers in China is very high, and China's total cigarette

consumption makes up more than 40% of the world's consumption. In view of the lack of smoking cessation services and social support in China and the effectiveness of mobile phone applications (apps) for quitting smoking in other countries, we carried out a smartphone-app-based smoking cessation trial in China. The purpose of this study was to evaluate the efficacy of a cognitive behavioral therapy (CBT) based smoking cessation smartphone app among smokers seeking treatment in China.

Methods We conducted a randomized controlled, virtual pilot clinical trial in China between February 23, 2021, and June 27, 2021. Eligible participants were randomly assigned to the smoking cessation app intervention group or the control group in a ratio of 1:1. The intervention group received the CBT smoking cessation intervention using smartphone app and the control group received a thank-you message. The intervention was 4 weeks, and the patients were followed up for 4 weeks. The primary outcome was self-reported continuous smoking abstinence at week 4 after the quit date. The secondary outcomes included self-reported 7-day point prevalence of smoking abstinence, reduction of the number of cigarettes smoked per day at weeks 1, 2, 3, and 4, and program acceptability.

Results 973 people were recruited to quit smoking, of whom 262 completed basic information, 56 were excluded, 206 were randomized and included in the final analysis. There were 189 men (91.7 %) and 17 women (8.3%), with an average age of 34.46 ± 7.53 years old, and an average daily smoking rate of 15.93 ± 7.10 cigarettes/day. We found 30/101 participants (29.7%) in the intervention group and 7/105 participants (6.7%) in the control group reported continuous smoking cessation after the quit date at week 4 (OR = 5.92, 95% CI: 3.78-9.26, P ＜ 0.001). The 7-day point prevalence abstinence rate after 1, 2, 3, and 4 weeks was 42.6% to 46.5% in the intervention group, and 18.1% to 26.7% in the control group. Compared to the control group, continued smokers consumed 1.5-3.0 fewer cigarettes/per day in the intervention group. The overall program got positive user feedback with high satisfaction rate (75.9%) and an average user version Mobile Application Rating Scale (uMARS) score of 3.46.

Conclusion Our pilot study provided preliminary evidence that the CBT-based smoking cessation smartphone app led to improved smoking quit rates vs control in Chinese smokers. The study demonstrated the CBT-based smartphone app may be an effective and feasible digital treatment model to help smokers quit, which may improve smoking cessation service quality and accessibility in China.

关键字：Smartphone app; Smoking cessation; Cognitive behavioral therapy; Program acceptability; Randomized controlled trial; China

Aberrant Spontaneous Neural Activity and Resting-State Functional Connectivity in Young Adults with Subclinical Social Anxiety Disorder and The Modification after Cognitive-Behavioral Intervention

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Objective This study aimed at identifying aberrant spontaneous neural activity and resting-state functional connectivity (FC) in young adults with subclinical social anxiety disorder (SAD) and the modification after cognitive-behavioral intervention.

Methods Twenty-six college students with subclinical SAD and 26 matched healthy controls were recruited and scanned with resting-state functional magnetic resonance imaging (rs-fMRI). Subjects with subclinical SAD took ten-session cognitive-behavioral intervention and post-intervention rs-fMRI. We conducted amplitude of low-frequency fluctuation (ALFF) and seed-based FC analyses to detect brain functional alterations. Aberrant ALFF and FC values were extracted from subjects with subclinical SAD before and after the intervention. Linear mixed effect models were conducted to examine the change of aberrant ALFF and FC after intervention and the correlation with social anxiety levels.

Results During resting-state and compared to the healthy controls, ALFF values in subjects with subclinical SAD were statistically significant lower in three clusters. One cluster distributed in the left insula with the peak t value, as well as the left putamen, the left orbitofrontal cortex (OFC), and the left anterior cingulate cortex (ACC); the other two clusters distributed in the left lateral prefrontal cortex (PFC), with peak t value in the left middle frontal gyrus Brodmann Area (BA) 47 and BA 44, respectively. Statistically significant increased FC to the left insula was identified in one cluster, distributing in the bilateral OFC and gyrus rectus, the left ACC, and the left caudate. Linear mixed effect model showed negative correlation between ALFF of the left insula cluster and the social anxiety level ($\beta = -0.001$, $P = 0.024$). ALFF values of the left middle frontal gyrus BA 47 ($\beta = 0.127$, $P = 0.009$) and BA 44 ($\beta = 0.173$, $P = 0.006$) clusters were statistically increased after the intervention.

Conclusion Young adults with subclinical SAD exhibited spontaneous neural hypoactivities and resting-state FC enhancements within the cortico-limbic or cortico-striatal circuitry of SAD, mainly involving the left insula, striatum, lateral PFC, OFC and ACC. The abnormal spontaneous hypoactivities of the left lateral PFC, a previous reported reappraisal associated brain area, could be modified by cognitive-behavioral intervention.

关键字：Subclinical social anxiety disorder; Resting-state functional magnetic resonance imaging; Amplitude of low-frequency fluctuation; Functional connectivity; Cognitive-behavioral intervention

Effectiveness of Group Interpersonal Psychotherapy for Parents of Children with Autism Spectrum Disorder：a Preliminary Study

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Objective As a key part of promoting and supporting their children's recovery who have been diagnosed with autism spectrum disorder (ASD), parents are under constant pressure from social prejudice, family obligations, and interpersonal conflict, and are more prone to experience emotional disturbance. This study examined the effectiveness of group interpersonal psychotherapy (IPT-G) in improving parents' emotional well-being and enhancing their social support.

Methods A total of 24 parents were involved in the study and randomly assigned to the IPT group or the Email group. The IPT group participated in 90-minute sessions once a week, whereas the Email group studied weekly online materials. Both interventions lasted six weeks. Outcomes assessed included depressive symptoms (assessed using the Patient Health Questionnaire - 9), anxiety symptoms (assessed using the General Anxiety Disorder - 7), and social support levels (assessed using the Social Support Revalued Scale). Ten participants from each group were eventually included in the statistical analysis.

Results For the IPT group, the score of depression decreased by 5.10 ($p = 0.011$), the score of anxiety decreased by 4.80 ($p = 0.007$), and the social support score increased by 2.80 ($p = 0.037$) after the intervention. No significant pre- and post-intervention difference was found in the Email group. Between-group differences in levels of depression, anxiety, or social support were not significant. six-week IPT-G showed effectiveness to alleviate symptoms of depression and anxiety as well as enhancing social support in parents of Autistic children.

Conclusion This finding broadens the scope of IPT treatment by demonstrating the efficacy of IPT-G for parents of children with ASD. Further studies can benefit from focusing on the assessment of parent-child attachment repairing, longer intervention, larger sample size, and greater diversity of participants.

关键字：IPT-G, parents of autistic children, depression, anxiety, social support

基于 CBT 的戒烟技能培训对中国医务人员戒烟知识和戒烟干预利用率的影响：一项随机对照试验

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目的 我国目前有超过 3 亿吸烟者，医务人员在提供戒烟服务中起到非常重要的作用，但我国医务人员的戒烟相关知识相对欠缺，在临床实践中也很少使用标准的戒烟干预方法。微信作为国内使用最为广泛的社交媒体，被越来越多的应用于医疗保健行业以促进大众的健康。本研究通过微信对医务人员进行戒烟技能的线上培训，旨在探索该方式能否提高医务人员对戒烟知识的掌握及促进医务人员在临床工作中对标准戒烟干预方法的运用。

方法 本研究是一项在 2020 年 10 月至 2022 年 5 月进行的平行、单盲、两臂随机对照试验，包含 8 周的微信戒烟技能培训和 26 周的随访。共招募 1887 名来自全国不同级别医疗机构的医务人员，并以 1:1 的比例随机分配到微信戒烟培训组（n=942）和对照组（n=945）。两组均收到纸质版戒烟培训教材《科学戒烟：理论与实践》。微信戒烟培训组定期通过微信接收培训的关键内容和在线学习视频链接，以在 8 周内完成教材的学习；对照组仅定期接收感谢信息，并被提醒自行学习培训教材。在培训结束后的 1 周、4 周、12 周和 26 周对医务人员在临床工作中使用标准化戒烟干预方法的情况进行随访。主要结果指标是医务人员在随访期间自评的戒烟干预的整体利用率（提供戒烟干预的患者数/就诊的吸烟患者数）。次要结果包括医务人员对戒烟知识的掌握情况，对标准戒烟干预方法的使用率，以及接诊吸烟患者中的戒烟比例。研究数据采用意向性分析原则进行处理。本试验已在 ClinicalTrials.gov 上注册（编号 NCT03556774）。

结果 共有 1028 名医务人员完成了 8 周的培训（微信戒烟培训组 509 人，对照组 519 人）。26 周随访时，微信戒烟培训组的标准化戒烟干预的总体利用率为 13.72%，略高于对照组的 12.58%，但差异不显著。培训后，两组医务人员在戒烟知识的掌握上均有显著提升（$p < 0.01$），且微信戒烟培训组在“戒烟准备”和“戒烟的非药物治疗”方面的知识掌握优于对照组（$p < 0.05$）。与基线相比，26 周随访时医务人员在戒烟干预方法的使用上均有显著提高（$p < 0.01$），但两组间无显著差异。在 26 周随访时，两组接诊的吸烟患者的戒烟比例没有显著差异。

结论 在中国，医务人员标准化戒烟干预的应用率很低。基于微信的戒烟培训干预以及定期提醒医务人员自学培训教材均能增强医务人员对戒烟知识的掌握及在临床工作中使用标准戒烟干预方法的比率。

关键字：微信戒烟；医务人员

Resting-state Functional Connectivity of The Amygdala Subregions Predicts Treatment Outcome for Cognitive Behavioral Therapy in Obsessive-compulsive Disorder at 4-month Follow-up

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Objective Cognitive-behavioral therapy (CBT) is considered the first-line treatment for obsessive-compulsive disorder (OCD). However, the underlying neural mechanisms through which CBT exerts its effects in OCD remain unclear. This study aims to investigate whether the improvement of clinical symptoms in OCD patients after CBT treatment is associated with changes in resting-state functional connectivity (FC) in the amygdala subregion, and whether these changes can serve as potential predictors

of long-term treatment efficacy.

Methods We collected resting-state functional magnetic resonance imaging (rs-fMRI) data from 57 OCD patients and 50 healthy subjects at baseline. In the patient group, rs-fMRI was also obtained after completion of an 8-week CBT treatment. A whole-brain resting-state functional connectivity analysis was conducted using the amygdala subregion as the seed point. We analyzed the functional connectivity patterns in relation to long-term clinical outcomes to elucidate the long-term efficacy of CBT in OCD patients.

Results Treatment response was found to be associated with reduced resting-state functional connectivity between the left lateral basal amygdala and left superior temporal gyrus at baseline. These changes in functional connectivity were positively correlated with the severity of OCD symptoms as measured by the Yale-Brown Obsessive Compulsive Severity Scale (Y-BOCS). Moreover, the area under the receiver operating characteristic (ROC) curve for the functional connectivity between the left lateral basal amygdala and left superior temporal gyrus at the end of treatment was 71.3% and 67.7% for the effective-ineffective and remitted-unremitted groups, respectively. At the 4-month follow-up, the area under the ROC curve for the effective-ineffective and remitted-unremitted groups was 70.8% and 77.0%, respectively. The results of the longitudinal analysis showed that the functional connectivity of the effective and remission groups tended to normalize after treatment.

Conclusion These findings suggest that brain functional activity in patients with OCD can predict treatment response to CBT, and longitudinal changes in relevant brain functional activity following CBT treatment are associated with treatment response in OCD.

关键字：obsessive-compulsive disorder；cognitive behavioral therapy；amygdala subregions；functional connectivity

正念水平在降低校园欺凌引发的非自杀性自伤中的作用

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目的 探究三者关系，分析正念水平在校园欺凌与非自杀性自伤行为之间的中介作用，为提升儿童青少年的正念水平，有效降低该群体非自杀性自伤行为发生率，减少校园欺凌带来的负面影响提供有效参考。

方法 本研究对云南省两地区共5970名儿童青少年进行基于人群的横断面调查。使用《Olweus 欺凌问卷中文版》评估儿童青少年校园欺凌行为，《五因素正念觉知量表》（FFMQ）测量其正念水平，《青少年自我伤害行为问卷修正版》（MASHS）测量其 NSSI 行为，广泛性焦虑障碍量表-7(GAD-7)和患者健康问卷-9(PHQ-9)评估其焦虑和抑郁情况。

结果 正念总水平与自伤行为(OR=0.97,95%CI:0.97-0.97)、反复自伤(OR=0.98,95%CI:0.97-0.99)及严重自伤(OR=0.98,95%CI:0.98-0.99)风险降低相关；校园欺凌与自伤行为(OR=2.13,95%CI:1.82-2.49)、反复自伤(OR=2.02,95%CI:1.61- 2.54)及严重自伤(OR=2.33,95%CI:1.73-3.13)风险增加相关。正念的五个维度中，正念观察、正念不判断与自伤行为增加相关；正念描述与自伤行为和反复自伤风险降低相关；正念觉知行动与自伤行为和严重自伤行为风险降低相关。正念总水平对校园欺凌与自伤行为之间具有显著的中介作用，占总关联的 34.0%，正念水平的五个维度中，正念观察、正念描述和正念觉知行动起到了重要的中介作用，分别占 0.5%，14.2%和 46.7%。反复自伤与校园欺凌关联中，正念水平起完全中介作用，维度中只有正念描述起完全中介作用。严重自伤与校园欺凌关联中，正念总水平具有显著中介作用，占总关联的 12.0%，维度中只有正念觉知行动起中介作用，占比为 14.4%。

结论 校园欺凌行为同 NSSI 存在正相关，正念水平在校园欺凌与 NSSI 的关联中有着显著的中介作用。对于遭受校园欺凌的儿童青少年来说，通过正念练习课程等提高其正念水平的干预可能是一种有效的方法。

关键字：非自杀性自伤行为；校园欺凌；正念水平；心理健康

Characteristics of Pain in Patients with Depressive Disorder in Shandong Province

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Objective Analyzing pain characteristics and influencing factors in depressive disorder patients in Shandong Province.

Methods In the 2015 mental disorders survey in Shandong Province, we chose 871 depressive disorder patients. Employing 1:1:1 matching by gender, age group, and residential area, we formed a high-risk control group(n=825) with positive screening results but no mental disorders, and a low-risk control group(n=825) with negative screening results. In 2020, 1848 participants were surveyed: 515 in the study group, 633 in the high-risk group, and 700 in the low-risk group. Among them, 206 met the criteria for depressive disorders and were classified as the current depressive group, while the remaining 1642 were

classified as the non-depressive group. Within the study group, 140 met the criteria for depressive disorders and were labeled as the unremitting group, while the remaining 375 were classified as the remitted group. Information was collected from the above-mentioned population using a self-designed general information questionnaire, clinical data questionnaire, 12-item general health questionnaire(GHQ-12) and additional risk assessment questions, Structured Clinical Interview for DSM-IV Axis I Disorders, Global Pain Scale(GPS), Quality of Life Questionnaire(QLQ), Pittsburgh Sleep Quality Index(PQSI), and Montreal Cognitive Assessment(MoCA).

Results The GPS score was significantly higher in the current depressive group than the non-depressive group($t=13.12$, $P<0.01$). The study group had a higher GPS score compared to the high-risk and low-risk control groups($F=59.26$, $P<0.01$). The unremitting group had a higher GPS score than the remitted group($t=8.81$, $P<0.01$).The stepwise regression analysis in the study population showed positive correlations between GPS score and physical illnesses, current depression, employment, GHQ-12 score, and PSQI score($\beta=0.11$, $t=5.77$, $P<0.01$; $\beta=0.09$, $t=3.57$, $P<0.01$; $\beta=0.05$, $t=2.33$, $P<0.05$; $\beta=0.13$, $t=5.22$, $P<0.01$; $\beta=0.23$, $t=9.17$, $P<0.01$), and negative correlations with QLQ score and MoCA score($\beta=-0.19$, $t=-7.59$, $P<0.01$; $\beta=-0.04$, $t=-2.19$, $P<0.05$). In the study group, GPS score positively correlated with comorbid physical illnesses, female gender, rural area, and PSQI score($\beta=0.10$, $t=2.64$, $P<0.05$; $\beta=0.08$, $t=2.13$, $P<0.05$; $\beta=0.09$, $t=2.42$, $P<0.05$; $\beta=0.20$, $t=3.95$, $P<0.01$), and negatively correlated with depressive remission and QLQ score($\beta=-0.13$, $t=-2.69$, $P<0.05$; $\beta=-0.26$, $t=-5.35$, $P<0.01$).

Conclusion Depressive patients experience increased pain. As depression improves, pain tends to decrease. Risk factors for pain include physical illnesses, current depression, employment, poor mental health, and sleep quality, while protective factors include good quality of life and cognitive function. In depressive patients, risk factors for pain include comorbid physical illnesses, female gender, rural area, and poor sleep quality, while protective factors include depression remission and good quality of life.

关键字：Depressive disorder; Pain; Control study; Epidemiological investigation

New Version of Application for Smoking Cessation: A Qualitative Study of User Experiences

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Objective Smartphone applications (Apps) are good platform for digital therapy. However, their application in smoking cessation is limited. Here, we developed a smoking cessation APP based on cognitive behavioral therapy (CBT) to help Chinese smokers quitting smoking more easily and effectively. We upgraded the initial version of the application according to the feedback from users of pilot clinical study. The current research aims to collect users' comments on this new version of smoking cessation APP for guiding the further upgrading and improvement.

Methods It is a qualitative study of semi-structured interviews. Seven participants with smoking behaviors (male, 29-49 years old) were recruited and formed a focus group. After participants tried the new version of the application, the evaluation of this APP was collected including the themes about emotion, interaction, function and user interface (UI). We conduct thematic analysis based on qualitative data.

Results In general, users appreciate the APP's value and define the APP as the anchor/backbone of their cessation. The upgraded application shows more emotional support/care, warm interaction between people, active/customized interventions, and more attractive content and intuitive UI. Furthermore, users have provided some valuable suggestions for the app.

Conclusion The study introduces the specific feedback and suggestions of smoking users about the functions of the CBT-based smoking cessation application. This information is critical for future application development.

关键字：Smartphone app; Smoking cessation; Cognitive behavioral therapy; China

Effectiveness and Adaptability of Acceptance and Commitment Therapy for Depressive Disorders: A Meta-analysis Study

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Objective Acceptance and Commitment Therapy(ACT) is a representative therapy in the third wave of the cognitive-behavioral tradition, aiming to help individuals consciously and fully engage with the present moment and improve their emotions by considering their values to maintain or change their behavior. Its core principles share many similarities with traditional Chinese culture. The aim of the present article was to systematically evaluate the intervention effect of acceptance and commitment therapy(ACT) on depressive disorder and its adaptability in China.

Methods A computer-based search was conducted in Web of Science Core Collection, Pubmed, EMBASE, Cochrane Library, PsycINFO, CNKI, WanFang and WeiPu full-text databases (up to July 25,2022). Outcome indicators are depression index and follow-up depression index. The data from the eligible studies were analyzed using Stata 17 software, conducting heterogeneity tests on all indicators using the I2-value.

Results After screening, a total of 11 RCTs involving 962 participants with depression were included. The result of the random-effects model analysis indicated that ACT significantly reduced depression levels in patients

with depressive disorders (SMD=-1.06, 95%CI: -1.45, -0.67; P＜0.001), and demonstrated a certain maintenance effect (SMD=-0.72，95%CI：-1.19,-0.25;P=0.003). Furthermore, the intervention effect in the Chinese population was significantly higher than that in the European population (SMD=-1.02, 95% CI: -1.34, -0.70; P＜0.001), as shown by the results of the random-effects model. The fixed-effects model indicated that ACT significantly improved the level of psychological flexibility in patients (MD=4.84, 95%CI: 2.71,6.96; P＜0.001). All differences were statistically significant (P＜0.05).

Conclusion The results show that ACT not only improves depression levels and psychological flexibility in patients but also demonstrates a certain maintenance effect. Moreover, it is more applicable to the Chinese population.

关键字：Acceptance and Commitment Therapy，depressive disorder，adaptability，meta-analysis

Intervention Study of Acceptance and Commitment Therapy for Depressed Adolescents with Somatic Symptoms

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Objective Somatic symptoms are highly prevalent among individuals with depression.Research has shown that Acceptance and Commitment Therapy(ACT) is promising for addressing somatic symptoms, but there is limited research in this area. In this study, we designed a more realistic, two-week ACT program to investigate the effectiveness of ACT in treating depressed adolescents with somatic symptoms.

Methods A randomized controlled trial was used in this study. 60 adolescents diagnosed with depression were randomly divided into a study group and a control group (30 patients each). The control group received medication treatment, while the study group received five sessions of ACT in addition to medication treatment. The participants in both groups were assessed using SDS, PHQ-15, AAQ-II and AFQ-Y8 at baseline and post-treatment.

Results After the two-week intervention, the study group showed significant reductions in SDS, PHQ-15, AAQ-II and AFQ-Y8 scores compared to baseline (P＜0.01). The study group also demonstrated significantly lower scores in SDS, PHQ-15 and AFQ-Y8 compared to the control group (P＜0.01), while the total score difference in AAQ-II between the two groups was not significant (P＞0.05). The total score differences in AAQ-II, SDS, PHQ-15 and AFQ-Y8 were significantly and positively correlated (P＜0.01).

Conclusion Psychological flexibility is significantly associated with levels of depression and somatic symptoms. The two-week ACT program can effectively reduce somatic symptoms and depression levels in adolescents with somatic symptoms and depression, while also improving their psychological flexibility. However, this study also suggests that a two-week intervention period was insufficient to produce behavioral changes.

关键字：Acceptance and Commitment Therapy，depressive disorder，adolescent，somatic symptoms，RCT

认知行为疗法与非自杀性自伤行为：基于人群的随机对照试验的伞形评价

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目的 认知行为疗法（cognitive behavioral therapy，CBT）能有效治疗抑郁症，也常被用来治疗非自杀性自伤行为。但目前有关 CBT 治疗非自杀性自伤行为的效果结论不一。本研究拟综合 CBT 对非自杀性自伤行为治疗效果的 meta 分析证据，采用伞形评价的方法进行疗效评估，为非自杀性自伤行为者的心理治疗的选择提供科学依据。

方法 检索 Pub Med、Web of Science、The Cochrane Library、万方、CNKI 数据库发表的 CBT 用于非自杀性自伤行为者治疗的 Meta 分析，检索语言及时间不限。由两名研究者根据纳入标准和排除标准先进行文献独立检索及评估，然后使用 AMSTAR 对纳入文献的方法学进行质量评估。

结果 最终共纳入 5 篇质量合格的文献。分析结果显示，采用 CBT 治疗后的重复自伤人数低于常规治疗后重复自伤人数（OR=0.66, 95%CI：0.58, 0.76）。其中，CBT 对成年人非自杀性自伤行为的疗效优于对照组（OR=0.66, 95%CI: 0.57, 0.76），但对未成年非自杀性自伤行为的疗效和对照组无统计学差异（OR=0.63, 95%CI: 0.33, 1.19）。CBT 对非自杀性自伤行为的短期疗效（OR=0.58, 95%CI: 0.47, 0.73）、中期疗效（OR=0.76, 95%CI: 0.67, 0.88）和长期疗效（OR=0.44, 95%CI: 0.29, 0.67）均优于对照组。

结论 认知行为疗法对成年人非自杀性自伤行为的治疗效果显著，能够有效降低成年人重复自伤行为的发生，且具有一定的长期疗效。认知行为疗法对未成年人非自杀性自伤行为的治疗效果仍需要开展深入研究。

关键字：认知行为疗法；非自杀性自伤行为；伞形评价

生活方式干预对于二代抗精神病药物引起的体重增加的疗效研究

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目的 二代抗精神病药（氯氮平、奥氮平、喹硫平、利培酮）引起的体重增加是临床医生面临的一个主要管理问题。本文旨在探究生活方式干预对于改善二代抗精神病药物引起的体重增加的临床疗效。

方法 将纳入的 80 例服用氯氮平、奥氮平、喹硫平或利培酮的患者，按照随机分组分为常规治疗组与生活方式干预组。常规治疗组进行常规的药物治疗，具体药物选择不做规定，全部按照患者临床特征、疾病需求及个人偏好选药。生活方式干预组除进行常规药物治疗外，对患者的生活方式进行干预：告知患者调整饮食，从现有饮食中减少 500-1000 千卡/天，并将膳食脂肪减少到能量摄入的 30%; 运动干预包括每周 150 分钟的中等强度(最大心率的 55%-69%)运动，持续 8 周。治疗前和治疗 2 周、6 周、8 周时测量腰围、体重、甘油三酯、空腹血糖和胰岛素水平。

结果 治疗前，两组患者人口学特征及腰围、体重、甘油三脂、空腹血糖及胰岛素水平差异无统计学意义。在第 2 周、6 周、8 周时，生活方式干预组的腰围、体重、甘油三脂、空腹血糖及胰岛素水平明显明显低于常规治疗组，差异有统计学意义（P＜0.05）。

结论 生活方式干预可能是对二代抗精神病药物引起的体重增加及糖脂代谢的一种行之有效的干预方式。

关键字：生活方式干预；二代抗精神病药；体重增加

Dynamic Interaction Relationship between Depressive Symptom and Psychosocial Function in Remitted Major Depressive Disorder: A Follow-up Study.

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Objective Exploring dynamic interaction relationship between psychosocial function and depressive symptom in remitted patients with major depressive disorders.

Methods A follow-up study with an interval of 6 months was designed for one year (t1: baseline, t2: 6 months and t3: 12 months) . There are 119 remitted depressive subjects completing three times evaluation (age: 39.50±9.75 years, 77 females, 79 recurrences). All participants completed a self-administered questionnaire, Beck Depression Inventory (BDI) and Generic Quality of Life Inventory(GQOL-74). GQOL-74 was used to assess psychosocial function(F), including physical function (PhF), psychological function (PF), social function (SF). SPSS 28.0 was used for descriptive statistics. Mplus8.8 was used to conduct cross-lagged panel model (CLPM) analysis to examine the relationship between BDI score and psychosocial function. CLPM controls the autoregressive effect of each variable by setting stability coefficient, which is considered the best method to test the direction of "pure" effect between variables, indicating the overall degree of prediction of one variable on another.

Results There was no significant differences among gender and recurrence rate between the missing subjects and the completed subjects. 119 subjects were used for CLPM. BDI score decreased from t1 to t3 (t1: 3.99±2.84; t2:3.02±3.02; t3:2.45±2.67). There was a moderate correlation between BDI score, three kinds of function and total average score of psychosocial function at three time point. The result showed that the bidirectional relationship between Ft1 and BDIt2, Ft2 and BDIt3, BDIt1 and Ft2, BDIt2 and Ft3, but comparison of standardized cross-lagged path showed that the absolute effect of Ft1→BDIt2 is larger than that of BDIt1→Ft2 ($p < 0.05$) , the absolute effect of Ft2→BDIt3 is larger than that of BDIt2→Ft3($p < 0.01$). There were the bidirectional relationship between PhFt1 and BDIt2, PhFt2 and BDIt3, BDIt1 and PhFt2, BDIt2 and PhFt3, PFt1 and BDIt2, PFt2 and BDIt3, BDIt1 and PFt2, BDIt2 and PFt3, SFt1 and BDIt2, SFt2 and BDIt3, BDIt1 and SFt2, BDIt2 and SFt3 in further analysis. However, comparison of standardized cross-lagged path showed there is no significant differences between the absolute effect of PhFt1→BDIt2 ($p>0.05$), BDIt1→PhFt2($p=.051$), PFt1→BDIt2 ($p>0.05$) and BDIt1→PFt2 ($p>0.05$), and that the absolute effect of SFt1→BDIt2 is larger than that of BDIt1→SFt2 ($p<0.05$) , the absolute effect of SFt2→BDIt3 is larger than that of BDIt2→SFt3($p < 0.01$).

Conclusion BDI score of remitted major depression patients showed linear decreasing trend in one year. Total psychosocial function, physical function, psychological function and social function have reciprocal influence on BDI score, but social function has most obvious influence on the change of BDI score.

关键字：remitted major depressive disorder, psychosocial function, cross-lagged panel model analysis, dynamic interaction relationship

认知行为疗法治疗强迫症的系统评价再评价

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目的 强迫症是一种慢性心理障碍，典型症状为反复发作的强迫观念或强迫行为，对个体的认知能力和社会生活质量造成严重的影响。认知行为疗法是强迫症的主要心理治疗方法，能够持续缓解强迫症状，与临床药物联合使用还可以有效提高药物治疗效果，促使患者早日康复。认知行为疗法对强迫症的治疗效果的系统评价或 meta 分析较多，但研究结果仍存在差异。本研究拟对认知行为疗法治疗强迫症的系统评价或 meta 分析结果进行综合评价，为强迫症患者的临床治疗和干预提供证据支持。

方法 选取 PubMed、Cocharne library、Web of Science、Embase、中国知网、万方数据库、中国生物医学文献数据库等 6 个数据库对自建库至 2023 年 6 月关于认知行为疗法治疗强迫症的系统评价/meta 分析进行检索。由两名研究员根据纳入标准和排除标准独立筛选文献并提取数据，并采用 AMSTAR 2 对纳入的文献进行方法学质量评价，使用随机效应模型合并效应值。

结果 共纳入 12 项系统评价或 meta 分析。其中，9 项研究的结果涵盖了对强迫症状的疗效评价，合并效应量 SMD=-1.87, 95%CI [-3.58,-0.16]；4 项研究的结果涵盖了对抑郁症状的评价，合并效应量 SMD=-0.01, 95%CI [-0.24,0.22]；5 项研究结果涵盖了对焦虑症状的评价，合并效应量 SMD=-0.05, 95%CI [-0.28,0.17]；2 项研究结果涵盖了对不良事件发生的评价，合并效应量 OR=0.90, 95%CI [0.60,1.36]; 2 项研究结果涵盖了对辍学率的评价，合并效应量 OR=0.63, 95%CI [0.36,1.09]。

结论 认知行为疗法对强迫症患者具有一定的临床疗效，可有效减少患者的强迫症状。认知行为疗法尚不能有效降低强迫症患者的焦虑情绪和抑郁情绪，对因强迫症导致的不良事件及辍学事件的影响尚不明显。

关键字：认知行为疗法；强迫症；系统评价再评价

基于多模态结构磁共振成像技术探讨非自杀性自伤患者的冲动控制缺陷

谢雅 徐梓峰 杭亚明 张瑜敏 郎楠 郭姝林 赵丽萍 刘丛微 李祎升 杜鹏宇 王纯*
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目的 本研究基于多模态结构磁共振成像技术，对非自杀性自伤（NSSI）患者的自伤行为和冲动性进行联合研究，探讨 NSSI 患者的冲动控制缺陷和神经病理机制。

方法 本研究招募了 256 例 NSSI 患者和 159 例性别、年龄及受教育年限相匹配的健康对照(HC)，采用半结构化访谈的方法，采用渥太华自伤量表(OSI)评估被试的自伤严重程度，以 Barratt 冲动量表(BIS-11)和注意网络测试(ANT)评估被试的冲动控制水平，其中，磁共振成像数据来自 182 名 NSSI 患者和 95 名 HC。

结果 NSSI 患者与 HC 的 BIS-11 评分差异有统计学意义，运动冲动性(MI)与自伤严重程度的相关性最为显著。NSSI 患者在 ANT 方面的反应时间比 HC 更长。与 HC 相比，NSSI 患者的多个脑额-顶叶-颞叶区域的白质体积(WMV)和右侧背外侧前额叶皮层(dlPFC)的皮质厚度(CT)与其 BIS 评分显著相关。在中介效应模型分析中，MI 在右侧 dlPFC (95% CI = -7.974 ~ -0.091) 和右侧下顶叶(IPL) (95% CI = 0.119 ~ 5.665) 的 WMV 与自伤频率及症状严重程度之间具有显著的中介作用。

结论 本研究表明，右侧 dlPFC 和右侧 IPL 的 WMV 广泛结构改变与 NSSI 患者的冲动抑制缺陷有关，这可能预示着患者的 NSSI 症状严重程度将继续加剧。NSSI 具有复杂的神经基础，本研究结果为支持 NSSI 患者的早期干预提供了新的神经影像学证据，还需要包含更多样本量的纵向研究进行验证并复制。

关键字：非自杀性自伤，神经影像学，磁共振成像

Psychosocial Functioning Impairment and Altered Brain Functional Network Topology in Obsessive-Compulsive Disorder: A Comparison of Patients with and without Depressive Symptoms

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Objective Obsessive-compulsive Disorder (OCD) is associated with different degrees of psychosocial impairment, which can be exacerbated by the presence of depressive symptoms. However, limited research has explored the relationship between neuroimaging and psychosocial functioning in OCD. In this study, we employed graph analysis to investigate the association between neuroimaging, clinical features, and psychosocial functioning in patients with OCD, with a specific focus on the differential impact of depressive symptoms.

Methods A total of 216 OCD patients were divided into two subgroups based on the presence or absence of depressive symptoms, enabling comparison of psychosocial functioning between the groups. Resting-state functional MRI data were acquired from a subset of 106 OCD patients, along with 77 matched healthy controls (HC). We analyzed the topological characteristics of the whole brain and the cognitive-related subnetworks and performed Pearson's correlation analysis to further explore the relationship with psychosocial functioning.

Results OCD patients with depressive symptoms exhibited significantly greater impairment across all dimensions of psychosocial functioning compared to those with OCD alone. Graph analysis revealed more pronounced reductions in network efficiency within the whole brain, the Default Mode Network (DMN), and the Cingulo-opercular Network (CON) among patients without depressive symptoms. Furthermore, decreased nodal efficiency and degree centrality of the right superior temporal gyrus (STG) were found in OCD patients compared to HC and showed a positive correlation with psychosocial functioning.

Conclusion This study revealed that co-occurring depression symptoms resulted in greater impairment across all aspects of psychosocial functioning in OCD patients. Abnormalities in the functional integration of the whole brain, the DMN, and the CON in OCD patients may comprise the basis of cognitive deficits, while hypofunction of the right STG may affect the psychosocial functioning of patients through its role in emotion, intention perception, and insight.

关键字：obsessive-compulsive disorder, depressive

symptoms, psychosocial functioning, graph theory, cognitive-related network

The Effect of Virtual Reality Exposure on Acrophobia: A Resting-State FMRI Study

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Objective Acrophobia is a specific phobia with a high prevalence that severely affects the working life of patients, but the exact pathogenesis remains unclear. Exposure therapy is considered a classical treatment for acrophobia. In this study, resting-state functional magnetic resonance imaging (rs-fMRI) was used to examine the effects of different exposure methods on the brain activity of acrophobic patients and to find potential imaging indicators for the early identification and treatment of acrophobic patients.

Methods In this study, a total of 50 patients with acrophobia were recruited and randomly divided into an experimental group (25 patients) and a control group (25 patients) according to the different treatments, both groups were matched for gender and age. Both groups underwent rs-fMRI scans at baseline and after the use of different interventions, and then the imaging data were analyzed using a voxel-based degree center (DC) approach. The experimental group received virtual reality exposure therapy (VRET) and the control patients received traditional imaginal exposure therapy (IET) and the clinical outcomes of the two groups were compared. Clinical effects were compared using the Acrophobia Questionnaire, Attitude Towards High Questionnaire, Behavioral Avoidance Test, and Generalized Anxiety Disorder Scale Test to assess pre- and post-intervention differences related to changes in brain activity. A mixed-design repeated measures analysis of variance (ANOVA) was performed on both sets of imaging data to determine which brain areas were affected by the intervention and possible patterns of functional connectivity after VRET, and finally by exploring correlations between abnormally functionally connected brain areas and clinical symptom scales

Results After the intervention treatment, both VRET and IET groups showed abnormal DC values in the middle temporal gyrus (MTG). In addition, reduced functional connections from the right MTG to the right medial superior frontal gyrus (SFGmed.R) and the left MTG were found only after the VRET intervention in acrophobia patients. Abnormal brain areas were correlated with the scale, and a significant positive correlation was found between the difference in scores on the AQ avoidance scale and the MTG.R, indicating that higher activation of the MTG was associated with greater improvement in anxiety avoidance, suggesting better treatment effects.

Conclusion Our findings suggest that exposure therapy may modulate the activity of the default mode network (DMN) and primary visual cortex (PVC). Thus, there may be potential to help patients construct higher cognitive brain functions that can modulate brain activity in the emotion processing system. In addition, VRET activated more brain regions compared to IET. The results of this study help provide an imaging basis for the possible mechanisms of VRET's role in acrophobia and its subsequent treatment.

关键字：acrophobia, imagine exposure therapy, virtual reality exposure, fMRI, degree centrality

认知行为治疗焦虑症患者的临床分析

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目的 本文主要探讨认知行为治疗焦虑症患者的临床应用价值。

方法 在我院 2018 年 3 月至 2020 年 2 月期间所收治的焦虑症患者中选取 30 例作为此次研究对象，采用认知行为进行治疗，治疗时间为 12 周，使用汉密顿焦虑量表评估患者的治疗效果，使用生活满意度量表、生活质量综合评定问卷以及功能大体评定量表评估患者的生活满意度、生活质量情况以及社会功能。

结果 患者治疗前后的汉密顿焦虑量表评分、生活满意度量表评分、生活质量综合评定问卷得分以及功能大体评定量表评分明显优于治疗前（P<0.05），具有统计学意义。

结论 对于焦虑症患者而言，采用认知行为进行治疗，有助于改善患者的生活质量和社会功能，值得大力推广使用。

关键字：认知行为；焦虑症患者；治疗效果；汉密顿焦虑量表

催眠联合正念团体干预对抑郁症患者心理状态及躯体不适的临床改善效果分析

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目的 分析催眠联合正念团体干预对抑郁症患者抑郁状态及躯体不适的临床改善效果。

方法 选取 2022 年 6 月至 2023 年 1 月江苏省某三甲医院收治的伴有躯体症状的抑郁症患者 120 例作为研究对象，随机分为对照组与观察组，每组 60 例。对照组入院后常规接受治疗,和精神病护理，对患者进行心理引导；干预组采用催眠联合正念团体干预的方式进行干预：每周一下午由高年资护士对患者进行集体健康宣教，内容包括：抑郁症的临床表现、催眠正念冥想训练的意义及内容等相关知识等。周二至周五下午由 1 名心理咨询师和 1 名取得培训证书的护理人员一起给患者进行催眠联合正念冥想练习，每次时间为 30 分钟，共分为 4 个周期，每个周期时间为 1 周。练习结束后小组成员之间相互探讨，并对患者提出的问题进行答疑解惑。比较 2 组干预前后的心理状态[汉密

尔顿抑郁量表、汉密尔顿焦虑量表]、自杀风险[自杀风险评估量表]以及躯体不适的症状[躯体化症状自评量表]。

结果 干预前 2 组的汉密尔顿抑郁量表评分、汉密尔顿焦虑量表评分、自杀风险评估量表评分及躯体化症状自评量表评分比较，差异无统计学意义(P＞0.05)，干预第 2 周，干预结束后及干预后三个月 2 组的而汉密尔顿抑郁量表评分、汉密尔顿焦虑量表评分、自杀风险评估量表评分及躯体化症状自评量表评分均显著低于干预前；且干预组的汉密尔顿抑郁量表评分、汉密尔顿焦虑量表评分、自杀风险评估量表评分及躯体化症状自评量表评分显著低于对照组，差异有统计学意义(P＜0.05)。

结论 催眠联合正念团体干预可有效提高抑郁症患者的正念觉知水平，显著改善其负性情绪及躯体不适感，有效降低自杀行为，是一种有效的治疗手段，值得在临床医疗中广泛推广应用。

关键字：催眠联合正念团体干预；抑郁症；心理状态；躯体不适；自杀风险

社交隔离和孤独感与 2 型糖尿病患者微血管并发症发病风险相关性研究

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目的 社交隔离和孤独感已经成为心血管代谢疾病的重要社会心理风险因素。本研究旨在前瞻性地调查 2 型糖尿病患者的社交隔离、孤独感及二者交互作用与糖尿病微血管并发症的关联。

方法 我们的研究人群（总样本量为 24,297，62.2%为男性；平均年龄 60.0 岁）来自英国生物样本数据库，这是一项大样本队列研究。社交隔离和孤独感利用自我报告的问卷进行评估。糖尿病微血管并发症被定义为糖尿病视网膜病变、糖尿病神经病变和糖尿病肾病，通过关联的住院记录和死亡登记册来确定。

结果 在 12.5 年的中位随访期间，英国生物样本数据库记录了 5530 个微血管并发症病例。在多变量调整模型中，社交隔离（最多 vs 最少：HR：1.11；95%CI：1.03-1.20）和孤独感（有 vs 无：HR：1.13；95%CI：1.03-1.24）与发生微血管并发症的风险增加有显著关系。在微血管并发症的亚型中，社交隔离与发生糖尿病肾病（最多 vs 最少：HR：1.11；95%CI：1.01-1.22）和糖尿病神经病变（最多 vs 最少：HR：1.29；95%CI：1.10-1.51）显著相关。相比无孤独感的人群，感到孤独的 2 型糖尿病患者发生糖尿病肾病的风险显著增加（调整后的 HR:1.18；95%CI：1.04-1.32）。此外，二者之间存在显著的交互作用（P 交互=0.024），仅在有孤独感的个体中发现了微血管并发症与社交隔离之间的显著关联（P=0.041）。

结论 2 型糖尿病患者中，社交隔离和孤独感与微血管并发症独立并联合相关，仅在感到孤独的个体中，社交隔离与微血管并发症的风险存在显著的联系。我们的研究结果强调了加强社会联系的必要性，这是减轻 2 型糖尿病患者微血管并发症风险的潜在干预措施。

关键字：糖尿病微血管并发症，社交隔离，孤独感，英国生物样本数据库

机器学习方法构建抑郁发作患者的识别与评估模型研究

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目的 旨在探讨抑郁发作患者和健康人群在头面部特征和心率变异性特征方面的差异，探寻与抑郁水平相关的特征，并以机器学习方法构建基于多模态数据的抑郁发作识别和评估模型。

方法 本研究共纳入在院的 90 名抑郁发作患者作为研究组，同时以年龄、性别、受教育年限等人口学资料匹配纳入对照组 90 名。两组人群接受抑郁焦虑量表的评估。同时，用摄像头对两组进行正面录像，采用开源的面部行为分析工具进行视频处理，并分别计算其头部特征、面部特征点的运动速度、面部动作单元强度特征和眼睛特征。并采集两组的心率变异性数据，通过心电工作站自动分析得到相关特征。运用多元协变量分析，在控制年龄、性别、受教育年限的情况下，进行两组的差异性检验。以有差异的特征和人口学资料为自变量，分别以 SDS 标准总分、HAMD 总分为预测变量构建抑郁水平线性回归预测模型。最后，以有差异的特征和人口学资料为自变量，分别以逻辑回归、支持向量机、随机森林三种机器学习方法构建抑郁发作的二分类识别模型和严重程度的多分类评估模型。

结果 两组在头部特征、面部特征点的运动速度、面部动作单元强度特征、眼睛特征和心率变异性特征方面均存在显著差异 (Ps＜0.05-0.001)。AU07 平均强度、AU23 强度标准差和眼睛 Y 轴平均凝视向量与 SDS 标准总分均呈显著正相关(Ps＜0.05-0.01)。而受教育年限、AU06 强度标准差、AU14 强度标准差和心跳间期标准差与 SDS 标准总分均呈显著负相关(Ps＜0.001)；头部 Y 轴平均位置、AU06 平均强度、AU23 强度标准差、眼睛 Y 轴平均凝视向量和 HRV 超低频功率与 HAMD 总分均呈显著正相关(Ps＜0.05-0.001)。受教育年限、AU14 平均强度、AU06 强度标准差、HRV 低频功率和 HRV 高频功率与 HAMD 总分均呈显著负相关(Ps＜0.01-0.001)。在抑郁发作识别模型和抑郁严重程度评估模型中，采用随机森林方法效果均为最好，两个最佳预测模型的 F1 分数均为 0.967，准确率均为 96.7%。

结论 运用人工智能技术进行头面部特征检测可以用于客观评估抑郁发作患者的外在行为表现。本研究发现了可以衡量主观抑郁感受和客观抑郁水平的标志物，可用于高危抑郁人群的筛查。机器学习方法构建的抑郁发作识别和评估模型可以有效辅助医生识别和评估抑郁发作患者。随机森林方法在两个模型中均表现最佳，可供未来研究选择。

关键字：抑郁发作；机器学习；面部表情；心率变异性；识别和评估模型

Classification Model Based on Brain Gray Matter Volume and Function for First-episode Mild To Moderate Major Depressive Disorder: A Support Vector Machine Study

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Objective The current clinical diagnosis of mild to moderate major depressive disorder (MDD) mostly relies on psychiatrists' experiences and lacks neuroimaging biomarkers. In order to provide neuroimaging evidence for clinical diagnosis, our study constructs a classification model for mild to moderate MDD diagnosis by machine learning (ML) based on structural and functional magnetic resonance imaging data.

Methods Eighty-eight patients with first-episode untreated mild to moderate major depressive disorder (fMDD) and 84 healthy controls (HC) were recruited. 24-item Hamilton Rating Scale for Depression (HAMD-24) score at baseline was used to define the severity of fMDD. The gray matte volume from structural imaging and regional homogeneity from resting-state functional were calculated as features. For each modality, the classification models with minimal-redundancy maximal-relevance (mRMR) feature selection method and support vector machine (SVM) were developed respectively.

Results After 5-fold cross-validation, we calculated different classification results on GMV and ReHo, respectively. The best classification accuracy of 92.67% was achieved when the number of features was 24, 91.79% for fMMD and 94.67% for HCs when ReHo was used as the indicator. When GMV was used as the index, the best classification accuracy was 86.67%, the identification accuracy of fMMD was 89.96%, and the identification accuracy of HCs was 84.36% when the number of features was 11. In the ReHo-based model, the brain regions with high contributions were mainly distributed in the prefrontal, frontal, parietal, temporal and subcortical structures, including the dorsolateral prefrontal lobe, orbitofrontal cortex, anterior cingulate gyrus, posterior cingulate gyrus, caudate nucleus and shell nucleus; in the GMV-based model, the brain regions with high contributions were mainly distributed in the occipital lobe, subcortical structures, parietal lobe, including lingual gyrus, thalamus, hippocampus, posterior cingulate gyrus, talar gyrus and shell nucleus.

Conclusion In this study, we found that the application of ML method to construct a classification model based on brain GMV and ReHo indexes in patients with MMD may provide a basis for the selection of diagnostic classification for patients with MMD.

关键字：mild to moderate depression; machine learning; regional homogeneity; gray matter volume.

文化适应的认知行为疗法对抑郁症的疗效：一项系统评价和 meta 分析

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目的 确定文化适应的认知行为治疗（culturally adapted cognitive behavior therapy，CA-CBT）对治疗成人抑郁症的有效性。

方法 通过对 4 个数据库的搜索，确定了以 CA-CBT 为干预措施的、治疗成人抑郁症的随机对照实验。采用主题分析法对它们的文化适应过程进行了分析，并对具有所需数据的研究进行了 meta 分析。

结果 本综述共纳入 12 项研究，其中 10 项进入 meta 分析。12 项研究中有 5 项涵盖了医学研究理事会所建议的完整的文化适应过程，其余则只报告了部分过程。10 项研究的 meta 分析结果显示，相比等待名单等各种不同的对照组，CA-CBT 更能有效降低抑郁量表分数(SMD=-0.99,95%CI -1.21，-0.76)。亚组分析结果显示，当 CA-CBT 针对一个国家中的少数民族时，治疗效果大于针对非西方国家的大多数人口。此外研究还发现，自助形式的 CA-CBT 的效果大于个体形式的 CA-CBT。

结论 CA-CBT 被证明对治疗抑郁症至少有中等大小的效应，这支持继续发展 CA-CBT 的必要性。未来在开展 CA-CBT 研究的过程中，应注意增加与标准 CBT 的 RCT 研究数量，并报告完整的文化适应过程。此外，在确定干预形式时，研究者们可优先考虑自助形式的 CA-CBT。

关键字：文化适应；CBT；抑郁；疗效

思维导图改善无抽搐电休克疗前准备质量的实践

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目的 探讨思维导图在精神科无抽搐电休克病人疗前准备中的应用效果。

方法 选择 2022 年 1 月 1 日~2023 年 6 月 30 日我科住院的因各种原因进行无抽搐电休克治疗的精神科病人 374 例为研究对象，按照随机数字表法随机分成对照组（188 例）和观察组（186 例）。对照组实施常规的疗前准备，观察组应用思维导图的方式，引导医生、护士、护理员、病人落实疗前准备要求，比较两组无抽搐电休克病人疗前准备缺陷率、病人疗前准备相关知识知晓情况，负责接送工作人员疗前接送耗时、无抽搐电休克室工作人员对疗前准备的满意度。

结果 观察组病人疗前准备缺陷率低于对照组，

比较差异有统计学意义（P<0.05）；观察组病人疗前相关知识的知晓情况高于对照组病人，比较差异有统计学意义（P<0.01）；工作人员接送观察组耗时低于对照组，比较差异有统计学意义（P<0.05）；无抽搐电休克室工作人员对观察组病人疗前准备满意度高于对照组病人，比较有统计学意义（P<0.01）。

结论 应用思维导图的方式对精神科无抽搐病人进行疗前准备，能够降低疗前准备的缺陷率、提高病人疗前准备知识的知晓情况，降低工作人员接送耗时，同时能够保障无抽搐电休克病人疗前安全，值得临床推广应用。

关键字：思维导图；无抽搐电休克；疗前准备

山东省抑郁障碍患者生命质量的五年随访研究

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目的 研究山东省抑郁障碍患者生命质量的特点及五年间的变化，并对相关危险因素进行探讨。

方法 依托2015年山东省精神障碍流行病调查数据库，在具有符合匹配条件的对照组的情况下，按照1：1：1配对原则筛选并设立抑郁障碍组832例、高危组807名、低危组819名三个组别，2015年和2020年均使用中文版《DSM-IV轴I障碍用临床定式检查》(SCID-I/P)进行诊断和再诊断，并通过一般健康问卷（GHQ-12）、简易生命质量问卷、匹兹堡睡眠质量指数量表（PSQI）、功能大体评定量表（GAF）、儿童期创伤问卷（CTQ）、社会支持评定量表（SSRS）、整体疼痛评估量表（GPS）、蒙特利尔认知评估量表（MoCA）、简易应对方式问卷（SCSQ）和一般资料调查问卷进行评估。

结果 抑郁障碍患者5年前后生命质量均低于高危组和低危组；521例抑郁障碍患者5年后有379例（72.7%）缓解，142例（27.3%）未缓解。抑郁障碍缓解组5年前后的生命质量均高于未缓解组。高危组和低危组中2020年新发抑郁障碍患者生命质量均低于未发病者，其差异性在其发病前的2015年已经显现。三组队列5年间生命质量变化的影响因素依次为：PSQI差值、GHQ-12差值、抑郁诊断、现患抑郁障碍、GPS、SSRS、GAF、CTQ和SCSQ差值。

结论 本研究显示抑郁障碍患者生命质量低于一般人群，高生命质量的抑郁障碍患者更易缓解，低生命质量者更易患抑郁障碍。研究提示生命质量与抑郁障碍疾病诊断、睡眠质量、心理健康、疼痛、社会支持、社会功能、儿童期创伤、应对方式、共患躯体疾病等因素有关。

关键字：抑郁障碍；生命质量；危险因素；流行病学调查

焦虑障碍研究协作组

正念认知疗法联合度洛西汀治疗躯体形式障碍患者 焦虑症状的随机对照试验

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目的 本研究旨在评价正念认知疗法联合度洛西汀对改善躯体形式障碍患者焦虑症状的效果。

方法 本研究选用符合疾病和健康相关问题的国际统计分类第十次修订本（The International Statistical Classification of Diseases and Related Health Problems 10th Revision， ICD-10）诊断标准的躯体形式障碍患者 80 例，随机分为正念认知疗法联合度洛西汀治疗组（n= 38）和度洛西汀单药治疗组（n= 42）。治疗周期为 8 周，分别在治疗前、治疗后 2 周、4 周、6 周、8 周采用汉密顿焦虑量表（HAMA)评估患者焦虑症状改善的效果。

结果 联合治疗组 38 例，脱落 5 例；单药治疗组 42 例，脱落 3 例。重复测量方差分析结果显示，联合治疗组 HAMA 量表总分低于单药治疗组（F=4.20，P<0.05）；联合治疗组躯体性焦虑因子总分均值明显低于单药治疗组，两组间差异有统计学意义（F=5.75，P<0.05）；广义估计方程结果显示,联合治疗组的有效率明显高于单药治疗组（OR=6.01，95%CI：2.09~17.32）。

结论 正念认知治疗联合度洛西汀治疗躯体形式障碍的疗效优于单药治疗，故联合治疗可以作为治疗躯体形式障碍的一种推广模式。

关键字：正念认知疗法；度洛西汀；躯体形式障碍；焦虑症状；随机对照试验

ChatGPT 应用于精神医学研究进展的初步探讨

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目的 ChatGPT 是人工智能技术驱动的自然语言处理工具，能够通过理解和学习人类的自然语言来进行对话，并能根据聊天的上下文进行互动，JAMA 等权威期刊报道了 ChatGPT 显示其在诊断复杂医疗问题的巨大潜力，但在精神医学中的研究尚未见系统报道。系统综述 Chat GPT（Generative Pre-trained Transformer）在医学领域特别是精神疾病或心理障碍中的应用情况，并分析人工智能技术（Artificial Intelligence，AI）在精神医学领域的使用前景、研究进展和局限性，为将来有效合理使用人工智能技术帮助精神疾病患者探讨未来研究的方向和实践建议。

方法 使用 Chat GPT 为关键词，检索 PubMed 与精神医学相关的研究文献，并进行筛选和分类。我们使用系统性综述的方法分析研究文献，并进一步对 Chat GPT 在医学特别是精神或心理疾病中的应用情况进行总结。纳入标准为 ChatGPT 应用于精神医学或心理障碍的相关领域论文，排除标准为排除评论性文章、技术类文章等。

结果 根据纳入标准和排除标准，通过筛选共检索到 35 篇与 Chat GPT 在医学领域的应用相关的论文。结果发现 Chat GPT 在心理治疗、药物依从性管理、患者自助健康管理、医学教育和研究等多个领域具有显著的应用优势。其中，Chat GPT 在心理治疗中的使用较为广泛，多个研究表明使用 Chat GPT 进行在线心理治疗的效果不劣于传统的面对面（face to face）心理治疗。在药物管理方面，使用 Chat GPT 可以帮助患者更好地管理药物使用，改善药物治疗的依从性。此外，Chat GPT 在医学教育和研究领域中的应用也具有很大的潜力。

结论 通过系统综述及总结 Chat GPT 在医学特别是精神或心理疾病中的应用情况，并提出了未来研究的方向和实践建议。尽管 Chat GPT 在医学领域的应用前景非常广泛，但其应用也存在一些限制，例如不能替代医生的面对面诊断和身体检查。此外，由于 Chat GPT 的模型训练和推导需要海量的文本数据，使用不当可能会面临数据隐私保护的问题。将来需要更多的研究来探讨 Chat GPT 在精神医学领域的应用，并制定相关的标准和规范。

关键字：人工智能，ChatGPT，精神医学

Altered Brain Functional Connectivity in Panic Disorder and Its Potential in Diagnosis and Therapeutic Efficacy Prediction

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Objective Despite the correlation between panic disorder (PD) and neuroimaging alterations as well as current studies on imageological markers for efficacy prediction, little research has been conducted on degree centrality (DC). This study aimed to identify neuroimaging variables diagnosing and predicting the efficacy of paroxetine in PD.

Methods Imaging data from 54 outpatients with PD and 54 matched healthy controls underwent DC and functional connectivity (FC) analyses at baseline. Altered clinical scale scores and brain connectivity levels after 4-week paroxetine treatment were analyzed using support vector machine and support vector regression.

Results Patients with PD showed aberrant DC and FC values in the anterior cingulum (AC), particularly the temporal and occipital areas. After treatment with paroxetine, DC values increased in the calcarine cortex (CAL), lingual gyrus, and cerebellum IV/V with improved clinical symptoms. The combination of DC values in the right inferior temporal gyrus (ITG)/fusiform gyrus (FFG) and right inferior occipital gyrus (IOG)/FFG could differentiate patients with PD (sensitivity 92.59%, specificity 90.74%, accuracy 91.67%). Combining forms of DC values in the right CAL, the bilateral AC and left middle temporal gyrus at baseline could predict early-stage anxiety symptom remission.

Conclusion Patients with PD showed abnormal DC and FC values particularly in the limbic network, as well as in temporal and occipital regions. The baseline DC value of the right ITG/FFG and right IOG/FFG is considered as a potential diagnostic biomarker, and that of the frontal gyrus, temporal gyrus, and occipital gyrus may predict therapeutic efficacy.

关键字：Panic disorder; Degree centrality; Functional connectivity; Fear network

Virtual Reality Cognitive Behavior Therapy for The Treatment of Anxiety in Patients with Acute Myocardial Infarction: A Randomized Clinical Trial

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Objective : The presence of mental health conditions is common in people who have experienced acute myocardial infarction (AMI) and significantly disturbed the recovery of the patients. Providing timely and easy-access psychological interventions using virtual reality based cognitive behavior therapy (VR-CBT) have the potential to improve both the mental and physical symptoms. To examine the effectiveness of VR-CBT on anxiety symptoms for AMI patients administered to Intensive Care Unit (ICU) during the acute stage of AMI attack.

Methods In this single-blind, randomized clinical trial, participants administered to ICU due to AMI attack, and with anxiety symptoms(HAMA＞7) were continuously recruited from July 2022 through December 2022. Individual aged 18-75 years from Chinese Han population were randomly assigned (1:1) via block randomization to VR-CBT (in addition to usual mental support) or the control group (usual mental support). VR-CBT for around 30 min per day and over 1-week time.VR-CBT consisted of four modules and were delivered at the bedside over 1-week period. Assessments were done at baseline and immediately after treatment. The primary outcome measure was the change in anxiety symptoms from baseline to 1-week endpoint, assessed using the Hamilton Anxiety Rating Scale (HAM-A).

Results The trial was stopped for futility after 148 participants were randomly assigned, 70 to the VR-CBT group and 78 to the control group. An ITT analysis showed that the 1-week VR-CBT intervention significantly reduced the anxiety symptoms compared with the control on HAM-A score (B=-9.47, [95% CI, -11.98 to -6.96], P < 0.001, Cohen's d=-1.27 ([95% CI, -1.64 to -0.90]). Of the 70 participants who started the VR-CBT, 62 (88.6%) completed the full intervention. Cyber sickness was the main reported adverse event (n=5).Immediately after treatment, the scores of HAMA were lower than those before treatment in VR-CBT group, with statistically significant differences (P＜0.05). However, the scores of HAMA were higher after 1-week perido in the control group(P＜0.05)

Conclusion Our results indicate that VR-CBT can significantly reduce post-AMI anxiety at acute stage. To our knowledge, this study is the first to show that a timely VR-CBT is efficacious and deliverable at ICU for the treatment of anxiety in post-AMI patients.

关键字：virtual reality; cognitive behavior therapy; acute myocardial infarction; anxiety

Distinct Gray Matter Volume and Functional Connectivity in Obsessive-compulsive Disorder Patients

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Objective The pathophysiology of obsessive-compulsive disorder (OCD) is not clear due to the heterogeneity in the structural and functional neuroimaging studies. Therefore, this study aimed to investigate the distinct structure and functional connectivity pattern in the OCD patients.

Methods A total of 56 OCD patients and 41 healthy controls (HCs) were enrolled and underwent resting-state functional magnetic resonance imaging scanning. Firstly, Voxel-based morphometry was used to compare the differences in gray matter volume (GMV) between OCD patients and HCs. And then, the brain regions with significant different GMV were selected as the seeds to calculate the functional connectivity with the whole brain.

Results Compared with the HCs, the OCD patients showed lower GMV in right Temporal pole: superior temporal gyrus (Temporal_Pole_Sup_R) and Cuneus (Cuneus_R), left Calcarine (CAL_L), Middle occipital gyrus (Occipital_Mid_L), and Temporal pole: middle temporal gyrus (Temporal_Pole_Mid_L), and a higher GMV in the right putamen. Further, we find the functional connectivity of the CAL_L with left putamen and Frontal_Inf_Tri, and right thalamus, the ceneus with left Frontal_Mid, Frontal_Inf_Oper and Frontal_Inf_tri, and right Cerebelum, the putamen with right vermis and Cingulum_Ant were significantly increase in the OCD patients.

Conclusion These findings suggest the OCD patients have abnormal structural in the temporal and occipital regions, and abnormal connectivity in the parieto/occipital regions with the frontal regions. These results con-

tribute to an improved understanding of OCD pathophysiology.

关键字：obsessive-compulsive disorder， gray matter volume, functional connectivity, structural MRI, functional MRI

Relationships of Orexin A Levels in Plasma with Psychological Symptoms, Sleep Quality, Sleepiness, and Cognitive Function in Alzheimer's Disease: A Prospective Cohort Pilot Study

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Objective To explore relationships of orexin A (OXA) levels in plasma with psychiatric symptoms, sleep quality, sleepiness, and cognitive function in patients with Alzheimer's disease (AD).

Methods This prospective cohort study involved 60 AD patients from two hospitals and 60 healthy volunteers matched by age, sex and education level. OXA levels in plasma were determined by enzyme-linked immunosorbent assay and compared to scores on the Neuropsychiatric Inventory-Questionnaire (NPI-Q), Pittsburgh Sleep Quality Index (PSQI), modified Epworth Sleepiness Scale (mESS), and Mini-Mental State Examination (MMSE). Most volunteers (57) and patients (49) were again assessed one year later, and changes in OXA levels from baseline were compared to changes in scores.

Results At baseline, patients showed significantly higher OXA levels and scores on the NPI-Q, PSQI, and mESS than controls did; patients also showed significantly lower MMSE scores. Higher OXA level or lower MMSE score was associated with significantly higher risk of AD (OR 1.35, 95%CI 1.16-1.56; OR 0.35, 95%CI 0.17-0.75). The OXA decrease between baseline and one year later correlated positively with decline in scores on the NPI-Q, PSQI, and mESS, as well as with use of antipsychotics; but negatively correlated with the decline in MMSE score and with the use of benzodiazepines. Patients showing an OXA decrease, or younger patients were not more likely to worsen their MMSE score (OR 1.08, 95%CI 1.02-1.14; OR 0.84, 95%CI 0.73-0.97).

Conclusion OXA levels in the plasma of AD patients may be related to their psychological symptoms, sleep quality, sleepiness and cognitive function.

关键字：Alzheimer's disease; Orexin A; Psychiatric symptoms; Sleep; Cognition

乳酶生治疗男性酒精依赖患者急性期戒断症状及排便异常的随机对照研究

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目的 酒精依赖患者中酒精戒断症状的发生率高达 50%，且大部分发生在急性戒断期。我们前期基础研究发现酒精戒断会导致肠功能损害及病理改变；前期临床研究发现酒精依赖急性戒断期腹泻发生率明显升高，但随着戒断期的延长而自行缓解。基于既往脑-肠轴的研究发现，我们推测肠道内环境的变化可能有助于改善酒精戒断症状和排便异常。为此我们设计了该项研究，旨在探讨乳酶生治疗男性酒精依赖患者急性期戒断症状及排便异常的效果和安全性。

方法 本研究为真实世界研究，采用 Zelen′s 随机对照研究的设计。我们共纳入 64 名酒精依赖患者，包括研究组（n=29）和对照组（n=35）。其中对照组接受常规治疗（地西泮替代及对症治疗），研究组接受常规治疗的基础上加用乳酶生 1.35g/天，分三次口服治疗。我们采用自制调查表收集一般人口学资料、酒精使用相关资料及排便情况。在基线、治疗后 2 周时、3 周时，我们应用修订版临床酒精戒断症状评定量表（CIWA-Ar）、渴求视觉模拟量表（VAS）、焦虑自评量表（SAS）、抑郁自评量表（SDS）、匹兹堡睡眠质量指数（PSQI）量表来评估其戒断症状、渴求、焦虑、抑郁及睡眠情况。通过体格检查、血常规、血生化及心电图来评估安全性，并记录不良事件。

结果 研究组、对照组在治疗后 CIWA-Ar 评分、VAS 得分、SAS 得分、SDS 得分、PSQI 得分均较基线时明显下降，存在统计学差异（P＜0.05）；治疗 2 周时，研究组的腹泻发生率明显低于对照组，存在统计学差异（X2=7.504，P＜0.05）。基线时患者排便次数与 CIWA-Ar 评分（r=0.30，P＜0.05）、SAS 得分（r=0.26，P＜0.05）存在正相关。多因素 Logistic 回归分析发现，CIWA-Ar 评分是腹泻发生的危险因素（OR=1.304，P＜0.05），其中恶心呕吐（OR=1.637，P＜0.05）、出汗（OR=1.443，P＜0.05）、激越（OR=1.528，P＜0.05）是腹泻的主要影响因素；乳酶生使用是腹泻的保护因素（OR= -0.175，P＜0.05）。研究组、对照组的不良事件发生率分别为 58.6％、65.7%，无统计学意义（X2=0.063，P＞0.05）。

结论 男性酒精依赖患者急性戒断期戒断反应、焦虑程度可能是腹泻的主要影响因素，乳酶生能有效改善急性酒精戒断期的腹泻，且安全性良好。

关键字：酒精依赖 乳酶生 急性期戒断 腹泻 不良事件

Aberrant Functional Centrality Profiles During Rumination in Major Depressive Disorder

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Background Rumination has long been deemed essential in the psychopathology of major depressive disor-

der (MDD). A growing body of literature indicated that rumination corresponds to a specific network underpinning, which has been proposed to be related to the resting-state network abnormalities in MDD. However, the evidence supporting this notion to date was correlational in nature and indirect. Centrality is one of the fundamental features of a functional brain network. Characterizing network integrity profiles during active rumination in MDD may provide direct evidence for the network mechanisms of rumination and shed new light on the relationship between rumination and network abnormalities in MDD.

Methods Here, individuals with MDD (n = 45) and healthy controls (n = 46) completed a rumination state task during a magnetic resonance imaging (MRI) scan, in which they were induced into a continuous, active rumination state. The degree centrality (DC) was calculated to characterize network centrality profiles across all vertexes on the surface. Analyses tested the interaction effect between the group (MDD vs. HC) and condition (rumination vs. distraction). We further conducted Neurosynth, network functional connectivity, and correlation analyses to explore the network aberrations of the area showing significant interaction effects.

Results We found a significant interaction effect in the superior frontal gyrus (SFG), which is associated primarily with executive functions. The FCs between this region and the frontoparietal network (FPN), as well as the dorsal attention network (DAN), also showed significant interaction effects. Furthermore, its FC to the DAN is positively related to reflection in MDD patients.

Conclusions The SFG area may play a central role in the network mechanism underlying rumination in MDD. Our findings highlight the deficits in the cognitive processes may differentiate the neural underpinnings of rumination in MDD compared to healthy individuals.

关键字：major depressive disorder, rumination, fMRI, degree centrality, executive function

A Comparison of “not Just Right Experiences” in Obsessive Compulsive Disorder, Anxiety and Depressive Disorders, and Non-clinical Controls in China

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Objective To investigate the characteristics of “not just right experiences” (NJREs) in patients with obsessive compulsive disorder (OCD), anxiety disorders (ADs), or major depressive disorder (MDD), compared with those of healthy controls (HCs)

Methods 100 adults with OCD, 86 adults with ADs, 57 adults with MDD, and 60 HCs were enrolled in the study. The Not Just Right Experiences Questionnaire Revised （NJRE-QR), Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI) were used to evaluate clinical symptoms in patients with OCD, ADs, or MDD. The Obsessive Belief Questionnaire-44 (OBQ-44) was used to evaluate OC beliefs in the OCD patients. The HCs only received assessment using the NJRE-QR. Analysis of variance (ANOVA) and covariance (ANCOVA) were performed to compare the NJREs scores across the groups, while Pearson correlation and partial correlation analyses were used to examine the association between NJREs and other clinical features. The contribution of NJREs to predict OC symptoms was determined by multiple stratified linear regression.

Results Individuals with OCD had significantly higher scores for the number of NJREs than ADs, but not MDD. The severity of NJREs was also significantly higher in patients with OCD than those with MDD or ADs ($F = 5.234$, $F = 19.788$, respectively $P < 0.01$). All the clinical scores in the NJRE-QR were significantly higher than those in HC group. The number and severity of NJREs correlated significantly with the Y-BOCS total score ($r = 0.288$, $r = 0.392$, respectively, $P < 0.01$). NJREs showed an independent contribution to OC symptoms, which alone explained 10.5% of the variation ($F = 10.355$, $\triangle R2 = 0.105$; $P < 0.01$).

Conclusion NJREs are closely related to OC symptoms, with their severity discriminating between OCD patients and those with ADs or MDD. NJREs were more specific for OCD in the Chinese population and are therefore worthy of further study in the future.

关键字：obsessive compulsive disorder; anxiety and depressive disorders; not just right experiences; incompleteness;

基于 MAPK/ERK 信号通路探讨多巴胺能神经元调节惊恐障碍的分子机制

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目的 基于 MAPK/ERK 的信号通路来探讨多巴胺能神经元对 PD 发生发展的影响，为 PD 的治疗提供了新的靶点和新的治疗方向。

方法 将 SD 大鼠作为实验动物，使用 ALA 和 DSP-4 保护或破坏多巴胺能神经元，通过免疫荧光质检，探究多巴胺能神经元与惊恐障碍之间的关系，通过 SB203580 和 ANS 组抑制或激活 MAPK/ERK 信号通路，免疫组化、westernbolt、qRT-PCR 进行质检，使用高价十字迷宫实验来探究多巴胺能神经元中的 MAPK/ERK 信号对惊恐障碍的作用。

结果 ALA 灌胃和 DSP-4 腹腔注射 4 天后，经过免疫荧光实验观察到，相较于空白对照，DSP-4 组的多巴胺神经元明显减少，ALA 组的多巴胺神经元略有增加；随后进行同样的刺激，观察到 ALA 干预组的焦虑样行为显著减少，但 DSP-4 干预组的焦虑样行为显著增加，具有统计学意义（$P<0.001$）。腹腔注射 SB203580 和 ANS7 天后，观察到相较于对照组 SB203580 组的 MAPK 和 ERK 基因表达和蛋白量明显降低，而 ANS 组的 MAPK 和 ERK 基因表达和蛋白量明显增高，经过同样的刺激 7 天后，相较于对照组， SB203580 组

大鼠的焦虑样行为明显减少，ANS 组大鼠的焦虑样行为明显增加,具有统计学意义（P<0.001）。

结论 多巴胺能神经元和 PD 的发生紧密相关，多巴胺能神经元中 MAPK/ERK 通路在 PD 的发生发展中具有重要的作用，可能是 PD 的机制之一。

关键字：MAPK/ERK 信号通路、多巴胺能神经元、惊恐障碍

Wnt/β-catenin-CREB/BDNF-miRNA-223 Feedback Loop Regulates The Seizures in The Two Kinds of Depression Epilepsy Comorbid Rat Models

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Objective : Epilepsy is a common chronic neurological condition, and depression is one of the most crippling comorbidities frequently connected to epileptic patients. Here, we investigated the positive feedback regulation mechanism between the Wnt/β-catenin-CREB/BDNF-miRNA-223 signaling pathway in the pathogenesis of two kinds of depression epilepsy comorbid rat models and explored the underlying mechanism.

Methods qPCR, Western Blot, and Elisa were used to detect the expression of miRNA-223, brain-derived neurotrophic factor (BDNF), phosphorylated cAMP-response element binding protein (p-CREB), and phosphorylated -chain protein (p-β-catenin) in the hippocampus of two different types of depression epilepsy comorbid rat models. Rat neural stem cells were stimulated to differentiate into neurons in a vitro experimental paradigm, which was utilized to investigate the putative mechanism and the regulatory functions of miRNA-223, BDNF, p-CREB, and the Wnt/β-catenin signaling pathway. In vivo, two types of epileptic comorbid depression models and depressive comorbid epilepsy models were treated with the inhibitor of the Wnt/β-catenin signaling pathway (ICG001: 5 mg/kg, i.v.), which were used to explore the effect of Wnt/β-catenin signaling pathway in the pathogenesis of two kinds of depression epilepsy comorbid rat models through seizure severity score, tail suspension test (TST) and sucrose preference test (SPT).

Results Compared to the control group, the expression of miRNA-223, BDNF, p-CREB, and p-β-catenin in the hippocampus of two kinds of depression epilepsy comorbid rat models during seizures were significantly upregulated. There was a positive feedback regulation mechanism between the Wnt/β–catenin–CREB/BDNF-miRNA-223 signaling pathway and the overexpression plasmid pcDNA3.1-p-CREBSer133 revealed that the neurons were induced apoptosis in rat neural stem cell-derived neurons. Additionally, inhibiting the Wnt/β-catenin signaling pathway was able to down-regulate the expression levels of BDNF, p-CREB, and miRNA-223 in the hippocampus and alleviated seizures in the two types of depression epilepsy comorbid rat models.

Conclusion Our research demonstrated a positive feedback regulatory mechanism between the Wnt/β-catenin-CREB/BDNF-miRNA-223 signaling pathway, which can cause abnormal activation of the Wnt/β-catenin signaling pathway, resulting in the production of a significant amount of BDNF and neuronal apoptosis, thereby promoting the seizures of depressive and epileptic disorders.

关键字：Depression, Epilepsy, Wnt/β-catenin signaling pathway, miRNA-223

Association between Triglyceride Glucose Index and Suicide Attempts in Chinese Patients with Major Depressive Disorder

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Objective The association between triglyceride glucose (TyG) index and suicide attempts (SA) in major depressive disorder (MDD) is unclear. The aim of this study was to investigate the relationship between TyG index and SA in a Chinese population with MDD.

Methods This cross-sectional study enrolled 1718 MDD patients aged 34.9 ± 12.4 years from the First Hospital of Shanxi Medical University (Taiyuan, Shanxi Province, China) from September 2016 to December 2018. A history of SA was verified, and TyG index was calculated. Multivariable logistic regression analysis was used to estimate the association between TyG index and the risk of SA. Threshold effects were examined by a two-piecewise linear regression model. Interaction and stratified analyses were performed based on sex, education, marital status, comorbid anxiety, and psychotic symptoms.

Results Multivariable logistic regression analysis revealed that TyG index was positively associated with the risk of SA after adjusting for confounders (OR = 1.35, 95% CI: 1.04–1.75). Smoothing plots also showed a nonlinear relationship between TyG index and SA, with the inflection point of TyG index being 9.29. On the right of the inflection point, a positive association between TyG index and SA was detected (OR = 3.47, 95%CI: 1.81 to 6.66, P< 0.001), while no significant association was observed on the left side of the inflection point (OR = 1.14, 95%CI: 0.79 to 1.66, P = 0.476).

Conclusion TyG index is positively associated with a higher risk of SA in Chinese patients with MDD, especially in those with TyG index greater than 9.29.

关键字：Triglyceride glucose index, Suicide attempts, Insulin resistance, Major depressive disorder

Development and Validation of A Nomogram To Predict The Risk of Suicide Attempts in Patients

with First-episode Drug-na?ve Major Depressive Disorder

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Objective The aim of this study was to identify risk factors for suicide attempts (SA) and develop a model to predict SA in patients with first-episode drug-na?ve (FEDN) major depressive disorder (MDD).

Methods This was a cross-sectional study that comprised 1,718 people with FEDN MDD. All participants were randomly assigned to one of two groups: training (n = 1,204) or validation (n = 514). The LASSO method and multivariate regression analysis were used to determine risk variables in the training group. Then, overlapping features were chosen to screen the effective and appropriate risk variables for SA, and a nomogram including the selected risk factors in the training group was created. The C-index, calibration plot, decision curve analysis, and cumulative hazard analysis were then utilized to assess the discrimination, calibration, and clinical meaning of the nomogram. Finally, internal validation was employed in the validation group.

Results We contract a nomogram and validated it using easily available and cost-effective parameters to predict the incidence of SA in patients with FEDN MDD, including HAMD, HAMA, TSH, ATPO, and SBP. In training group, the area under the ROC was 0.805, with 95% CI: 0.776–0.838. In validation group, C-index was 0.846, with 95%CI: 0.812–0.876. The decision curve analysis showed that the model's prediction is more effective. Decision curve analysis of the training group and validation group showed that the predictive model was more effective in predicting the risk of SA in patients with FEDN MDD.

Conclusion We developed and validated a nomogram for the risk of SA among Chinese patients with FEDN MDD, which helps to identify people at high risk of SA early, thus contributing to effective prevention programs for suicide.

关键字：Nomogram, Suicide attempts, Major depressive disorder

Evaluation of The Efficacy of Group Cognitive-Behavioral Therapy for Anxiety in College Students Based on Wearable Sensor and Daily Mood Diaries

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Objective Anxiety is a prevalent psychiatric disorder, and most college students with anxiety symptoms are undiagnosed and inadequately treated. Wearable devices in conjunction with EMA collect sensor data to objectively characterize the behavioral and physiological characteristics of the user. GCBT efficacy assessment based on subjective symptom scales and objective indicators has the advantage of being timely and non-invasive. The development of evidence-based GCBT treatment needs to be based on reliable behavioral and physiological indicators and validated patient response measures.

Methods This was a cross-sectional and longitudinal study of college students with anxiety symptoms. We screened for anxiety symptoms by symptom scales, and participants who agreed to the GCBT intervention wore the Huawei 6 bracelet for 1 consecutive month and completed symptom assessments at baseline, after 4 weeks, after 8 weeks, and after 28 weeks. We used step count, heart rate, and sleep duration to extract a range of known and new digital biomarkers from the wearable device to describe physical activity and sleep. We used a mobile app to ask participants to assess their mood and status daily to describe mood changes and energy status. Digital biomarkers that differed before and after the intervention were identified using linear mixed models, and Spearman's correlation was used to examine the severity of anxiety symptoms and the relationship between anxiety symptom severity and digital biomarkers.

Results This study found that GCBT had both long-term and short-term efficacy on anxiety symptoms and concomitant insomnia symptoms in college students, and that improvement in anxiety symptoms was strongly associated with an increase in step count. Improvement in insomnia symptoms was associated with an increase in heart rate. The more severe the anxiety before the intervention, the fewer the steps and the faster the heart rate. When participants were in a better mood in the morning and evening, they took more steps; when they were energetic in the morning and evening, their heart rate was faster. Therefore, we hypothesize that digital biomarkers based on wearable devices and mobile apps could be effective indicators for tracking psychotherapy progress and efficacy assessment.

Conclusion This study found that the GCBT intervention showed both long-term and short-term efficacy on anxiety symptoms in college students. Improvements in heart rate and step count after the intervention in college students with anxiety symptoms were strongly associated with improvements in clinical symptoms. Therefore, we hypothesized that morning and evening heart rate, step count, mood, and energy may be cross-sectional objective indicators of GCBT treatment efficacy.

关键字：Anxiety, Group Cognitive-Behavioral Ther-

apy, Wearable Devices, Ecological Momentary Assessments, College Students

医学生焦虑抑郁对失眠的影响：3 年的追踪研究

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目的 疫情爆发和疫情后医学生的抑郁焦虑及失眠的情况，并探究抑郁焦虑对失眠的影响及三者的交叉滞后关系。

方法 采用失眠严重指数量表（ISI）、患者 健康问卷量表（PHQ-9）、7 项广泛性焦虑量表（GAD-7）对海南医学院临床和护理的同学进行间隔 3 年的追踪研究，利用逐步回归分析和交叉滞后回归分析法进行数据分析。 交叉滞后模型用于分析纵向数据，考察变量之间因果关系。如果 T1 抑郁或 T1 焦虑到 T2 失眠的交叉回归路径差异有统计学意义（P＜0.05），而 T1 失眠到 T2 焦虑或 T2 抑郁的交叉回归路径差异无统计意学义，则说明 T1 焦虑或抑郁能引起 T2 失眠的变化，焦虑或抑郁是失眠的原因，反之则相反失眠是抑郁或焦虑的原因。如果两条路径差异均有统计学意义，则说明失眠与焦虑和（或）抑郁互为因果关系。

结果 本研究分别计算各变量在 T1 和 T2 两个时间点上的平均数和标准差，再使用配对样本 T 检验确定两次施测之间是否存在显著差异，T2 焦虑抑郁和失眠水平都显著高于 T1。 相关分析表明，T1 抑郁 失眠与 T2 失眠（r ＝0.168 ，P＜0.01）、T1 焦虑与 T2 失眠（r ＝0.162，P＜0.01）均存在显著正相关，即 2020 年 3 月的焦虑抑郁水平与 2023 年 3 月份的失眠存在显著正相关。进一步回归分析结果显示，T1 抑郁和 T1 焦虑正向预测 T1 失眠，回归方程为: T1 失眠＝2.10+0.48*T1 抑郁+0.16*T1 焦虑；T2 抑郁和 T2 焦虑预测 T2 失眠，回归方程为: T2 失眠＝3.82+0.37*T2 抑郁+0.34*T2 焦虑。但交叉滞后分析结果显示，在控制了 T1 失眠后，T1 抑郁(β =0.09，p>0.01）、T1 焦虑(β =0.04，P>0.01）对 T2 失眠预测效应差异无统计学意义。

结论 T1、T2 两个时间点焦虑抑郁水平与失眠显著正相关，但 T1 抑郁和 T1 焦虑无法预测 T2 失眠。

关键字：抑郁 焦虑 失眠 追踪

经颅交流电刺激治疗广泛性焦虑障碍随机对照临床研究

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目的 探讨经颅交流电刺激治疗广泛性焦虑障碍患者的临床疗效。

方法 采用随机双盲的研究设计方法将符合基于 DSM-IV 的结构化临床访谈(Structured clinical interview for DSM-IV，SCID)的广泛性焦虑障碍患者随机分为真刺激组和伪刺激组。在不调整药物的基础上，进行为期 10 天经颅交流电刺激，每次刺激时长 40 分钟。以汉密尔顿焦虑量表(14-item Hamilton rating scale for anxiety, HAMA14)作为主要疗效指标。数据采用重复测量方差分析患者在治疗 5 天和治疗 10 天的焦虑严重程度，采用卡方检验的统计分析方法比较两个治疗组治疗有效率。

结果 共有 18 例广泛性焦虑障碍患者纳入此项研究，真刺激组 11 例，伪刺激组 7 例。在治疗 5 天后，真刺激组有 7 名患者的焦虑症状得到有效改善(63.6%)，伪刺激组有 1 名患者的焦虑症状得到有效改善(14.3%)，真刺激组的有效率高于伪刺激组($\chi2$=4.22, p=0.04)。在治疗 10 天后，真刺激组有 5 名患者的焦虑症状得到有效改善(63.6%)，伪刺激组仅有 1 名患者的焦虑症状得到有效改善(14.3%), 而两组之间的焦虑症状改善有效率无统计学意义伪(p=0.08)

结论 经颅交流电刺激能在短期改善患者的焦虑症状，但长期疗效需要大样本研究来探索。

关键字：广泛性焦虑障碍，随机对照试验，经颅交流电刺激

精准定位间歇性爆发式 θ 波刺激经颅磁方案治疗难治性抑郁障碍随机对照临床研究

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目的 探讨准定位间歇性爆发式 θ 波刺激经颅磁（ITBS）治疗难治性抑郁障碍患者的临床疗效。

方法 纳入来自湘雅二医院门诊或住院抑郁症患者，由两名经过一致性培训的精神科医师使用 MINI 访谈确定受试者符合当前抑郁发作（即满足 DSM-5 中抑郁障碍的抑郁发作），且受试者至少对一种足量足疗程（≥8 周）的抗抑郁药物治疗无效。通过数字随机双盲分组的方式将符合诊断的难治性抑郁患者分配到一天五次 ITBS 组或一天十次 ITBS 组（连续五天，每次 1800 次脉冲、间隔 50 分钟）。5 天 ITBS 治疗期间患者的基础治疗方案（原有药物治疗）不变。以汉密尔顿抑郁量表(17-item Hamilton rating scale for anxiety, HAMA17)及汉密尔顿焦虑量表(14-item Hamilton rating scale for anxiety, HAMA14)作为主要疗效指标。数据采用重复测量方差分析治疗 1 天和治疗 5 天后两个治疗组患者的焦虑、抑郁严重程度的变化。采用卡方检验的统计分析方法比较两个治疗组在治疗 1 天和治疗 5 天的焦虑和抑郁症状治疗有效率。

结果 共有 24 例广泛性焦虑障碍患者纳入此项研究，5 次/天组 12 例（有 1 例在治疗 1 天未完成量表评估），10 次/天组 12 例（有 1 例 HAMA 数据缺失）。在治疗 1 天后评估抑郁症状，5 次/天组有 3 名患者得到有效改善(25.0%)，10 次/天组有 1 名患者到有效改善(9.1%)，两组之间的有效率无统计学意义(p=0.59)。在

治疗 5 天后评估抑郁症状，5 次/天组有 7 名患者的到有效改善(63.6%)，10 次/天组仅有 3 名患者得到有效改善(25.0%), 而两组之间有效率无统计学意义伪(p=0.214)。在治疗 1 天后评估焦虑症状，5 次/天组有 3 名患者得到有效改善(25.0%)，10 次/天组有 1 名患者到有效改善(9.1%)，两组之间的有效率无统计学意义(p=0.59)。在治疗 5 天后评估焦虑症状，5 次/天组有 7 名患者的到有效改善(58.3%)，10 次/天组仅有 2 名患者得到有效改善(18.2%), 而两组之间有效率无统计学意义伪(p=0.089)。

结论 相比斯坦福刺激疗法（10 次/天，共 5 天），5 次/天治疗组更能有效改善抑郁焦虑症状，但是否具有统计学意义需要更大的样本进行探索。

关键字：itbs，焦虑症状，抑郁症状，随机对照试验

Risk Factors Associated with Depression and Anxiety Among The Chinese General Population after Retracting The Dynamic Zero-COVID Policy: A Network Analysis

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Objective :Recent studies have evidenced the negative psychological consequences of the COVID-19 pandemic and sociodemographic vulnerability among the general population, while limited information was available on which factors make the greatest contribution to psychological distress when these factors were considered concurrently. Our study aimed to investigate the pathways that underlie psychological distress in the context of retracting dynamic zero-COVID policy.

Methods We employed the mixed graphical model to construct the network of depression (PHQ-9), anxiety (GAD-7), and pandemic-related factors in a general population sample (N =1610) which were collected after retracting the dynamic zero policy in mainland China. To further explore the impact of sociodemographic factors on the network structure, we re-examined the network by adding sociodemographic variables. Additionally, we repeated the analyses in the second sample (N=620) which was collected in the same period to assess the replicability of the findings.

Results :The relationships between the pandemic factors (i.e., infective status and specific anxiety toward COVID-19) and anxiety and depressive symptoms exhibited a tendency to decrease after adding demographic variables, and income became the most important node and shared edge weights with all anxiety and depressive symptoms. These findings were replicable with the second sample. No significant difference in the network properties was detected between the two samples.

Conclusion :Income level, rather than the pandemic-related factors, acted as a vital role in the psychological distress of the general population, implying that livelihood issues may be the critical intervention targets for mental health during the post-pandemic period.

关键字：COVID-19; mental health; risk factors; network analysis

Posttraumatic Stress Symptoms in Healthcare Workers During The COVID-19 Pandemic: A Four-Wave Longitudinal Study

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Objective Posttraumatic stress symptoms of healthcare workers have become a significant public concern in the healthcare system that long COVID-19. It is less known how the pandemic impacts the HCWs' PTSS longitudinally and long-term risk factors for it.

Methods Four consecutive surveys were conducted among healthcare workers in China from 2019 to 2023 COVID-19 outbreaks. Multilevel mixed-effect models were used to examine longitudinal changes and risk factors. Network analysis was utilized to explore network centrality changes in PTSS symptoms.

Results HCWs' PTSS symptoms were increased over time during the COVID-19 pandemic. Being female, being nurse, working in the emergency department, working longer hours, less frequently going back home and having COVID-19 infection are risk factors of PTSS for HCWs; unmarried is the protective factor. Significant interaction between symptom changes and profession exists. PTSS networks showed that Avoidance of thoughts, Emotional-cue activity, Exaggerated startle response and Hypervigilance were the central symptoms during four waves. The global strength of the PTSS network grows over time, and nodal strength of Avoidance of thoughts, Loss of interest and Negative beliefs increased by COVID-19.

Conclusion The pandemic's impacts on healthcare workers vary by professions. PTSS symptoms exacerbate, reinforce each other, and persists with recurring waves.

关键字：Posttraumatic stress, network analysis, COVID-19

功能失调性态度、反刍思维和走神如何影响情绪记忆和非情绪记忆:对焦虑抑郁障碍机制与治疗的启示

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目的 情绪与非情绪记忆缺陷是抑郁焦虑障碍的重要症状之一，其形成可与功能失调性态度、反刍思维与走神这些认知因素相关。但以往研究较为单一，不同

认知因素的作用异同以及对于情绪和非情绪记忆的不同机制没有被充分调查。因此，本研究通过在非临床样本中探索认知因素:功能失调性态度、反刍思维与走神分别对于情绪与非情绪记忆缺陷的影响，为焦虑抑郁障碍认知病理化的发展、记忆缺陷的发生寻找线索，从而为以认知为靶向的焦虑抑郁治疗寻求针对性靶点。

方法 对一所综合大学的 123 名健康大学生开展功能失调性态度、反刍思维与走神的问卷调查，并通过 E-prime 软件进行以情绪面孔为材料的情绪记忆实验和以数字为材料的非情绪记忆实验，将问卷得分与两项实验正确率结果的关联分别进行分析。

结果 负性情绪面孔记忆缺陷与反刍思维、功能失调性态度有关（均 P<0.05），且功能失调性态度是负性情绪面孔记忆缺陷的显著预测因子。非情绪记忆缺陷与反刍思维、走神有关（均 P<0.05），而反刍思维对非情绪记忆缺陷有独立预测作用。

结论 与以往研究相符，情绪与非情绪记忆缺陷可能都与重复性思维导致认知资源分配不当相关，然而负性情绪面孔记忆可能更多与负性材料诱发的功能失调性图式干扰细节记忆相关，非情绪记忆可能更多与走神时任务无关思维干扰任务记忆有关。反刍思维作为两者共同的干扰因素，是具有较高价值的认知干预靶点，通过 rf–CBT(反刍为目标的认知行为治疗)等方式干预，可能更好地同时改善焦虑抑郁障碍患者的情绪与非情绪记忆缺陷。

关键字：功能失调性态度 反刍思维 走神 记忆 焦虑抑郁

Shared and Distinctive Dysconnectivity Patterns Underlying Pure Generalized Anxiety Disorder (GAD) and Comorbid GAD and Depressive Symptoms

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Objective The resting-state connectivity features underlying pure generalized anxiety disorder (GAD, G1) and comorbid GAD and depressive symptoms (G2) have not been directly compared. Furthermore, it is unclear whether these features might serve as potential prognostic biomarkers and change with treatment.

Methods This study compared the degree centrality (DC) of G1 (40 subjects), G2 (58 subjects), and healthy controls (HCs, 54 subjects) before treatment, as well as the DC of G1 or G2 at baseline with those after 4 weeks of paroxetine treatment. Additionally, the abnormal DC of G1 and G2 at baseline were used to predict treatment response using support vector regression (SVR) analysis.

Results At baseline, G1 and G2 exhibited lower DC in the left mid-cingulate cortex and vermis IV/V compared to HCs. Additionally, compared to HCs, G1 had lower DC in the left middle temporal gyrus, while G2 showed higher DC in the right inferior temporal/fusiform gyrus. However, there was no significant difference in DC between G1 and G2. The SVR analysis showed low mean square errors and significant positive correlations ($p < 0.0001$) between predicted and actual treatment responses in G1 or G2. After treatment, response patients in G2 showed lower DC in the right medial orbital frontal gyrus, while no change in DC was identified in G1.

Conclusion The G1 and G2 showed common and distinct dysconnectivity patterns and they could potentially serve as prognostic biomarkers. The DC in patients with GAD could change with treatment.

关键字：functional connectivity; depression; comorbidity; degree centrality; treatment response

Aberrant Activity of Fear Networks As A Potential Prognostic Biomarker in Patients with Panic Disorder Normalized by Pharmacotherapy

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Objective This study aimed to measure spontaneous neural activity in patients with panic disorder (PD) and its trajectory after pharmacotherapy and to determine whether it could serve as a predictor of treatment response.

Methods A longitudinal resting-state functional magnetic resonance imaging study was conducted on 54 drug-naive patients with PD and 54 healthy controls (HCs), utilizing regional homogeneity (ReHo) to measure spontaneous neural activity. Support vector regression (SVR) was used to predict treatment response to paroxetine treatment from abnormal ReHo.

Results At baseline, patients with PD had aberrant ReHo in the sensorimotor network, visual cortex, frontal-parietal pathway, and cerebellum compared to HCs. After four weeks of paroxetine treatment, a significant increase in ReHo was observed in the left fusiform gyrus, which had shown reduced ReHo before treatment. The increase rate of ReHo was positively correlated with the improvement rate of anxiety symptoms (Spearman's correlation, $rho = 0.385$, $p = 0.038$). The SVR analysis showed low mean square errors and significant positive correlations ($p < 0.0001$) between the predicted reduction rates and the actual reduction rates of the Hamilton Anxiety Rating Scale or Hamilton Depression Rating Scale scores.

Conclusion These findings suggested that patients with PD had abnormal spontaneous neural activities in the

fear networks. These abnormal spontaneous neural activities could be normalized with pharmacotherapy and serve as candidate predictors of treatment response in patients with PD to paroxetine.

关键字：panic disorder, regional homogeneity, resting-state functional magnetic resonance imaging, support vector regression, fear network

Common and Exclusive Spontaneous Neural Activity Patterns Underlying Pure Generalized Anxiety Disorder and Comorbid Generalized Anxiety Disorder and Depression

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Objective This study aimed to identify common and exclusive neural substrates underlying pure generalized anxiety disorder (GAD, G0) and comorbid GAD and depression (G1), assess whether they could assist in diagnosis and prediction of treatment response, and determine whether comorbid depression in GAD patients would change their neural plasticity.

Methods A longitudinal study was conducted, involving 98 patients (40 in the G0 group and 58 in the G1 group) and 54 healthy controls (HCs). The fractional amplitude of low-frequency fluctuations (fALFF), support vector machine, and support vector regression were employed.

Results The shared neural underpinnings across the two subtypes of GAD were hyperactivity in the right cerebellar Crus II and inferior temporal gyrus and hypoactivity in the right postcentral gyrus. The G1 group showed hypoactivity in the frontal gyrus, compared with HCs, and hyperactivity in the middle temporal gyrus, compared with the G0 group or HCs. These alterations could aid in diagnosis and the prediction of treatment response with high accuracy. After treatment, both the G1 and G0 groups showed higher fALFF than those before treatment but were located in different brain regions.

Conclusion Common and exclusive neural substrates underlying the two subtypes of GAD were identified, which could assist in diagnosis and the prediction of treatment response. Pharmacotherapy for the two subtypes of GAD recruited different pathways, suggesting that comorbid depression in GAD patients would change their neural plasticity.

关键字：resting-state functional magnetic resonance imaging; fractional amplitude of low-frequency fluctuations; generalized anxiety disorder; depression; comorbidity

Altered Resting-state Cerebellar-cerebral Functional Connectivity in Patients with Panic Disorder before and after Treatment

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Objective The study aimed to investigate the functional connectivity (FC) between the cerebellum and intrinsic cerebral networks in patients with panic disorder (PD), and to observe changes in the cerebellar-cerebral FC following pharmacotherapy.

Methods Fifty-four patients with PD and 54 healthy controls (HCs) underwent clinical assessments and functional magnetic resonance imaging scans before and after a 5-week paroxetine treatment. Seed-based cerebellar-cerebral FC was compared between the PD and HC groups, as well as between patients with PD before and after treatment. Additionally, the correlations between FC and clinical features of PD were analyzed.

Results Compared to HCs, patients with PD had altered cerebellar-cerebral FC in the default mode, affective-limbic, and sensorimotor networks. Moreover, a negative correlation between cerebellar-insula disconnection and the severity of depressive symptoms in patients with PD (Pearson correlation, $r = -0.424$, $p = 0.001$, Bonferroni corrected) was found. After treatment, most of the enhanced FCs observed in patients with PD at baseline returned to levels similar to those observed in HCs. However, the reduced FC at baseline did not significantly change after treatment.

Conclusion The findings suggest that patients with PD have specific deficits in resting-state cerebellar-cerebral FC and that paroxetine may improve PD by restoring the balance of cerebellar-cerebral FC. These findings emphasize the crucial involvement of cerebellar-cerebral FC in the neuropsychological mechanisms underlying PD and in the potential pharmacological mechanisms of paroxetine for treating PD.

关键字：panic disorder, cerebellum, functional connectivity, sensorimotor network, default mode network

尿液抗生素水平与青少年抑郁症早期发病风险的相关性研究

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目的 本研究将通过比较健康和青少年抑郁症患儿的尿液四种常见抗生素残留水平来评估尿液抗生素水平与青少年抑郁症之间的相关性，并旨在建立一个通过监测四种常见尿液抗生素水平来预测青少年抑郁症早期发病风险的有效模型，提高该疾病的早期发现和干预效率，降低发病率。

方法 招募 62 名参与者分为两组：32 名健康组和 30 名青少年抑郁症组。采集晨起空腹所有尿液样本，并通过液相色谱-串联质谱法（HPLC-MS）对尿液抗生素进行分析。本研究检测了四种常用抗生素阿奇霉素、磺胺二甲嘧啶、氧氟沙星和氨苄青霉素的尿液水平。

结果 与对照组相比，抑郁症患儿组尿液中阿奇霉素、磺胺二甲嘧啶、氧氟沙星和氨苄青霉素的水平显著升高；所有尿液抗生素水平均与 HAMA 评分(（阿奇霉素（r=0.402、P=0.0012）、磺胺二甲嘧啶（r=0.384、P=0.002）、氧氟沙星（r=0.390、P=0.002）和氨苄青霉素（r=0.461、P=0.0002））和 HAMD 评分(（阿奇霉素（r=0.383、P=0.0021）、磺胺二甲嘧啶（r=0.362、P=0.0004）、氧氟沙星（r=0.350、P=0.005）和氨苄青霉素（r=0.429、P=0.0005））)呈正相关；二元 Logistic 回归分析表明，阿奇霉素（OR=1.05，P=0.002）、磺胺二甲嘧啶（OR=1.22，P<0.001）、氧氟沙星（OR=3.79，P<0.001）、氨苄青霉素（OR=352.57，P<0.001）是青少年抑郁症患病的风险因素；ROC 曲线显示，这四种抗生素在尿液中的水平都能很好的预测青少年抑郁症（阿奇霉素 AUC 为 77.8%（95% CI：65.4%-90.3%）、磺胺二甲嘧啶 AUC 为 74.1%（95% CI：60.4%-87.7%）、氧氟沙星 AUC 为 77.2%（95% CI： 64.1%-90.4%）和氨苄青霉素 AUC 为 81.0%（95% CI：69.0%-93.1%）），且四种尿液抗生素水平联合预测对青少年抑郁症的诊断显示出最佳的预测准确性（AUC 为 81.4%，95% CI：69.0%-93.7%）。

结论 四种常用抗生素阿奇霉素、磺胺二甲嘧啶、氧氟沙星和氨苄青霉素的尿液残留水平与青少年抑郁症显著相关，均可作为青少年抑郁症患儿早期风险筛查的潜在生物标志物。联合四种抗生素在尿液中的水平对该疾病具有更好的早期发病风险预测性能

关键字：青少年抑郁症 抗生素 尿液 生物标志物 早筛生物标志物

Effects of Childhood Trauma on Brain Gray Matter Volume in Patients with Panic Disorder

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Objective A large number of studies have shown that childhood trauma is a vulnerable factor in the development of panic disorder (PD). In addition to symptomatological associations, empirical evidence suggests that childhood trauma can also have an impact on brain structure. However, whether this effect exists in people with panic disorder remains unclear. This study aimed to investigate the effects of childhood trauma on gray matter structure in patients with panic disorder.

Methods Volumes of gray matter in whole brain were measured using resonance imaging resting-state scans obtained from 73 patients with panic disorder and 43 healthy comparison subjects. Among the 73 patients, cluster analysis was conducted to classify them into 25 patients with panic disorder with a high level of childhood trauma (PD_HCT), and 48 patients with a low level of childhood trauma (PD_LCT) according to the degree of childhood trauma. Gray matter volume differences between panic disorder patients and healthy volunteers were identified using optimized voxel-based morphometry.

Results Compared with HC, patients with PD showed decreased gray matter volume in their right supplementary motor area. Compared with HCs, PD_LCT patients exhibited significantly decreased gray matter volume in the right precentral gyrus and the left inferior temporal gyrus. However, Gray matter volume in the cerebellum showed a trend of decrease between PD_HCT and PD_LCT.

Conclusion Childhood trauma significantly impacts brain gray matter volume in PD patients, suggesting that childhood trauma may be an important risk factor for the development of PD symptoms.

关键字：Panic Disorder; Childhood Trauma; Gray Matter Volume; Voxel-Based Morphometry

Machine Learning for Predicting Depression Risk Employing Personal Circumstances with Sleep Disturbances

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Objective Depression is a prevalent mental illness which is one of the leading causes of suicides. However, depression in general people is largely unrecognized or undiagnosed. Yet diagnostic biomarkers confirming depression in the early depressive episode are not achieved consistently. Machine learning (ML) methods could be used to generate translational biomarkers for the disclosure of premature depression, providing clinical advice for depression prevention timely.

Methods Six ML methods are investigated to identify the risk of human depression over a prediction of the patient health questionnaire-9 (PHQ-9) score using data variables covering socio-demographic characteristics,

health-related factors, sleep-related features, three sleep questionnaires that are the Pittsburgh sleep quality index (PSQI), the Epworth sleepiness scale (ESS), the STOP-Bang, and the 7-item generalized anxiety disorder scale (GAD-7) (optional).

Results The data is self-reported by 52,778 participants in the real world. Such data possesses lots of noise, from which two datasets are extracted containing 52,467 and 9,513 samples respectively for examining the effects of noise to model classifiers using ML methods. The experimental results show that large data, albeit noisy, can provide more information for classifiers to predict depression risk, overall improved by 1.000-2.000% in accuracy but decreased by 0.0200 or so in ROC-AUC. Classifiers with socio-demographics, sleep-related features, and sleep questionnaires achieved better ROC-AUC and accuracy than those only with socio-demographics and sleep-related features, which individually have around 5.000% improvement in accuracy and 0.1200 gain in ROC-AUC. The Gradient Boosting (GB) and eXtreme Gradient Boosting (XGBoost) obtained the comparable best performance, peaking at 80.133% for accuracy and 0.866 for ROC-AUC.

Conclusion The ML methods can be used to produce a biomarker for the prediction of the risk of depression with acceptable accuracy by employing easily-collecting information that is correlated less to PHQ-9. Results highlight the importance of potential biomarkers for early detection of depression to timely intervention before its deterioration.

关键字：Depression, machine learning, socio-demographics, sleep disturbances

Qualitative Study on Emotional Experiences in Patients with COVID-19 During The Early Stage of Wuhan Crisis

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Objective In the early stage of COVID-19 pandemic from December 2019 to March 2020, COVID patients endured huge mental stress combined with constant physiological pain. Here we summarised emotional experiences in patients with COVID-19 during the early stages of Wuhan crisis.

Methods We recruited COVID-19 patients with recovery and near discharge from Dawu County Hospital of Traditional Chinese Medicine in Xiaogan, Hubei from February 10th to March 5th, 2020. A semi-structured in-depth interview was conducted in a face-to-face manner using purposive sampling. The interview was recorded by video and audio, and then transcribed into words for analysis. Haase's adaptation of Colaizzi's empirical phenomenology method was used in this qualitative study.

Results Eighteen COVID-19 survivors were included. Three theme categories were obtained from data analysis, including negative emotions and sources, coping strategies and positive emotions and sources. COVID-19 patients adopted self-management strategies and re-ceived support from different roles when confronting high level of negative emotions.

Conclusion Early survivors of COVID-19 described both negative and positive emotional experiences with corresponding coping strategies being taken. The influence of the emotion sources differed at each stage of the disease. It also revealed risk psychological factors of the psychological impact in the post-illness phase. Still, large demand of psychological ser-vices existed for their emotional suffering, highlighting the need of enforced psychological evaluation and intervention as well as strengthened support on early stages of health crisis.

关键字：COVID-19; Isolated Inpatient; Survivors; Emotional experience; Qualitative research

Cognitive Impairment, Oxytocin Receptor Gene SNP (rs 237885) and Anxiety Trait in Panic Disorder

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Objective The study aimed to explore the relationship among cognitive function, oxytocin receptor (OXTR) gene polymorphisms, and anxiety trait in panic disorder (PD) patients.

Methods Eighty PD patients and 78 healthy controls (HCs) were eventually enrolled. The Panic Disorder Severity Scale–Chinese Version (PDSS-CV), Hamilton Anxiety Scale (HAMA-14) scale, and State-Trait Anxiety Inventory (STAI) were used to evaluate the severity of anxiety. Montreal Cognitive Assessment (MoCA), Brief Visuospatial Memory Test-Revised (BVMT-R), and other neurocognitive measures were performed to assess the cognitive function. The OXTR SNP (rs 237885) were detected for all participants.

Results We found that the cognitive function of PD patients was lower than HCs ($p < 0.05$). In PD patients, significant differences of OXTR SNP (rs 237885) distribution were found in orientation and delayed memory of MoCA ($p = 0.036$ and $p = 0.014$, respectively), and the score of BVMT-R, and delayed memory and language were negatively associated with STAI ($r = -0.26$, $p = 0.022$, $r = -0.22$, $p = 0.049$ and $r = -0.25$, $p = 0.023$, respectively). Moreover, PD patients alone displayed better delayed memory, abstract, language and total score of MoCA compared to PD patients with generalized anxiety disorder ($p = 0.030$, $p = 0.032$, $p = 0.018$, and $p = 0.039$, respectively).

Conclusion Our findings revealed that the relationship among cognitive impairment, SNP (rs 237885) of OXTR gene and anxiety trait, and provided a new perspective to the pathological mechanisms of cognitive impairment in Chinese PD patients.

关键字：Panic disorder; Oxytocin receptor; Cognitive impairment; Anxiety; Single nucleotide polymorphism

Functional Connectivity between The Cerebellar Vermis and Cerebrum Distinguishes Early Treatment Response for Major Depressive Episodes in Adolescents

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Objective The absence of biomarkers for predicting treatment response in adolescent mood disorder calls for further research. The vermis, a component of the cerebellum, is involved in mood disorder pathophysiology and relates to clinical symptoms and treatment outcomes. We investigated vermis functional connectivity (FC) as an early marker for treatment response identification.

Methods One hundred thirty-two adolescents with mood disoders including major depressive disorder or bipolar disorder, were recruited, who were experiencing a major depressive episode. All adolescents underwent baseline and 2-week treatment resting-state MRI scans. Hamilton Rating Scale for Depression (HAMD) assessments were completed to assess the severity of symptoms. Patients were divided into treatment-responsive (≥50% HAMD reduction, n=75) and treatment-unresponsive subgroups (n=57). Vermis FCs were compared between subgroups at baseline. And we compared the pre- and post-treatment FC differences within subgroups.

Results Higher vermis-left temporal lobe FC in treatment-responsive group compared to treatment-unresponsive group at baseline. The FC value showed positive prognosis for the efficacy, with the area under the curve (AUC) of 0.760 (95% confidence interval: 0.678-0.843, p<0.001)., suggesting higher vermis-temporal FC is benefit?to?improve treatment-response. Furthermore, post-treatment analysis showed significant increases in the vermis-right frontal lobe FC values between in all patients, suggesting that vermis-frontal FCs were independent of treatment-outcome.

Conclusion Our study revealed that the FC between the vermis and the cortex is not only associated with symptom alleviation but also predictive of treatment outcomes.

关键字：vermis; functional connectivity; major depressive episode; adolescent

首发精神分裂症患者外周血细胞计数与睡眠和精神症状的相关性

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目的 探讨外周血细胞计数与首发精神分裂症患者的睡眠质量及精神病性症状的相关性。

方法 纳入 2021 年 11 月至 2022 年 8 月安徽省精神卫生中心收治的首发精神分裂症患者 103 例（首发组）同时招募满足标准的健康人 57 例（健康对照组）为研究对象，采用阳性与阴性症状量表(Positive and Negative Syndrome Scale,PANSS)、匹兹堡睡眠质量指数量表（Pittsburgh Sleep Quality Index,PSQI）评估患者的症状及睡眠情况，同时检测两组炎症细胞，并计算中性粒细胞与淋巴细胞的比值（neutrophil-lymphocyte ratio,NLR）、单核细胞与淋巴细胞比率(monocyte-lymphocyte ratio,MLR) 、血小板与淋巴细胞比值（platelet-lymphocyte ratio、PLR）。使用 SPSS26.0 对调查数据进行差异性、相关性和回归分析。

结果 1）两组 PANSS 量表各因子评分、PSQI 量表中 PSQI 总分、入睡时间、睡眠质量评分及两组白细胞、中性粒细胞、单核细胞计数、NLR、MLR 差异均有统计学意义（P<0.05）；（2）Spearman 秩相关结果显示，淋巴细胞计数与 PANSS 总分（rs=0.224，P=0.023）、兴奋因子（rs=0.225，P=0.022）与阳性因子（rs =0.248，P=0.011）呈正相关，单核细胞计数与睡眠时间因子（rs =-0.205，P=0.037）呈负相关，PLR 与 PANSS 总分（rs =-0.224，P=0.023）、兴奋因子（rs =-0.229，P=0.020）、阳性因子（rs =-0.277，P=0.005）呈负相关，MLR 与兴奋因子（rs =-0.204，P=0.039）呈负相关。（3）通过多元线性回归分析，MLR 是兴奋因子的影响因素，其对兴奋因子有 8.1%的解释能力；单核细胞计数是睡眠时间因子的影响因素，其对睡眠时间因子有 2.2%的解释能力。（4）通过 ROC 曲线发现，MLR 和单核细胞计数无论单独检测还是联合检测方面上均可以影响首发 SCZ。

结论 在首发精神分裂症患者中，可能存在外周血象细胞的变化，并与精神病症状和睡眠障碍相关。

关键字：精神分裂症；外周血细胞计数；睡眠；白细胞；中性粒细胞与淋巴细胞比值；

伴或不伴感觉现象强迫症患者的静息态大脑自发活动研究

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目的 强迫症是一种常见的慢性精神障碍，症状表现多样，病因和致病机制不明。强迫症的异质性给临床诊疗带来了许多困难。感觉现象是强迫症的重要症状表现之一，对伴有感觉现象强迫症患者的临床特征和神经病理生理机制尚未阐明。对强迫症患者进行感觉现象评估和人口学及临床信息收集，通过核磁共振技术探索伴或不伴感觉现象强迫症患者脑自发功能活动差异，尝试阐释伴与不伴感觉现象的强迫症患者神经机制差异和共同点。

方法 纳入 69 名强迫症患者和 60 名健康被试，依托圣保罗大学感觉现象量表进行半结构化访谈明确患者是否存在感觉现象，并分为伴或不伴感觉现象的

两组。选择低频振幅（ALFF）、局部一致性（ReHo）、基于体素的形态学测量（VBM）进行比较，从脑自发功能活动中选择差异脑区为种子点进行全脑功能连接（FC）差异比较。分别进行强迫症患者组与健康被试的两两比较，伴感觉现象、不伴感觉现象组和健康被试三组间方差分析。并采用 Spearman 相关分析差异脑区特征值与存在感觉现象及临床特征的相关性。

结果 强迫症患者 69 人中伴感觉现象患者 45 人（65%），不伴感觉现象患者 24 人（35%）。与健康对照组相比，不伴感觉现象组在左侧角回、右侧楔前叶、双侧顶上回、左侧缘上回、左侧补充运动区 ALFF 值明显增加，在右侧角回、左侧顶上回、双侧中央前回、左侧额中回 ALFF 值明显降低。在左侧补充运动区、左侧额中回 ReHo 值明显增高，在右侧角回 ReHo 值明显降低。伴感觉现象组较不伴感觉现象组在右侧楔前叶、双侧中央前回中 ALFF 值明显增加，在左侧缘上回、左侧补充运动区和左侧颞中回 ALFF 值中明显降低。在右侧角回 ReHo 值明显增高，在左侧补充运动区 ReHo 值明显降低。其中与存在感觉现象相关的脑区有双侧中央前回、左侧补充运动区、右侧楔前叶、右侧角回、左侧缘上回、左侧颞中回。与 OCI-R 相关的有左侧中央前回、左侧补充运动区、左侧缘上回、左侧颞中回。与抑郁情绪相关的有左侧角回。

结论 感觉运动区的神经功能活动改变是伴或不伴感觉现象强迫症的重要特征，患者不同脑区功能活动存在共性改变和特征性差异。不同症状维度与感觉现象之间的联系存在差异，OCI-R 精神中和维度、排序维度及存在多种维度症状与感觉现象关系密切。对感觉现象神经机制的阐释有助于强迫症神经病理生理机制的研究。

关键字：强迫症；感觉现象；磁共振；

Applying Network Analysis To Investigate The Highly Influential Risk Factors in Self-injury: Core Self-evaluation Is The Central Node

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Objective Self-injury are severe mental health problem in adolescents. We used network analysis to explore the highly influential risk factors of self-injury among intrapersonal and interpersonal vulnerability factors in high school adolescents.

Methods Four hundred and fifty-six high school adolescents were recruited and completed a set of self-reported questionnaires on demographic information, attachment characteristics, core self-evaluation, NSSI and suicidality. Network analysis was used to examine the interrelations between pair of nodes. Network Comparison Tests were performed to investigate the differences between individuals with different gender and childhood parental migration experience.

Results Core self-evaluation was connected with attachment characteristics and suicidal ideation as bridge and are in central role in the network. Peer trust and peer communication were in high expected influence as well. We also found some significant differences between two gender groups, such as higher strength of core self-evaluation, peer trust in male and higher betweeness of peer alienation in female groups. Lastly, the significantly difference between groups with or without parental migration experience in attachment, core self-evaluation, suicidality scores were displayed but the interactive pattern of them seems comparable.

Conclusion The findings gave an initial insight of highly influential risk factors among intrapersonal and interpersonal vulnerability factors, indicating that core self-evaluation and peer attachment were central in the estimated network and highlighting the potential prevention and intervention of self-injury.

关键字：core self-evaluation; attachment; self-injury; childhood; parental migration experience; network analysis

A Detailed Hierarchical Model of Psychopathology in Chinese Clinical Sample: Based on The SCL-90-R Scale

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Objective The Hierarchical Taxonomy of Psychopathology (HiTOP) model is an impressive effort to overcome shortcomings (e.g. boundaries between disorders, frequent disorder co-occurrence, heterogeneity within disorders) of traditional diagnostic systems. HiTOP hews closely to existing data and construct the psychopathology classification system by empirical method. However, almost all of the quantitative empirical evidence were from western culture and built on traditional diagnostic categories. This study provides a detailed Chinese version of Hierarchical Model of Psychopathology - from symptoms based on SCL-90 up to the general factor.

Methods We explored the detailed hierarchical structure of the SCL-90-R scales in adult (N= 34222) and adolescent (N= 1973) clinical sample from Shanghai mental health center. The extended bass-ackwards approach were used to draw the detailed Chinese version of HiTOP model.

Results The Chinese hierarchical dimensional structure with a general factor at the top, 4 higher-order spectra dimensions (internalizing, externalizing, broad thought disorder and somatization and somatic anxiety) and 6 same subfactors (distress, somatoform, hostility, fear, psychosis and OCD) emerged in both adult and adolescent sample. In addition, adult sample contains another 2 subfactors: sleep and suicide and guilty. The location of somatization and somatic anxiety spectra is unique in Chinese sample. At the symptom level perspective, some item locations changed, loaded onto different subfactors in hierarchical structure instead of original SCL-90 subscales.

Conclusion These findings provide the first description of hierarchical structure of psychopathology in

Chinese sample and proved that the SCL-90 could be used to examine the hierarchical dimensional structure. Our effort represents an important step toward identifying reliable and detailed phenotypes of psychopathology and improving the usage and explanation of SCL-90 results.

关键字：The Hierarchical Model of Psychopathology; SCL-90-R; Chinese culture

基于中医辨证分型的惊恐障碍脑白质网络拓扑特征及其可塑性研究

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目的 基于图论分析，对比惊恐障碍（PD）患者和健康对照（HC）脑白质网络拓扑属性，分析不同中医证型 PD 患者脑白质网络拓扑特征差异，探索针灸调控 PD 脑白质网络可塑性作用。

方法 本研究分两部分。研究一：纳入 87 例 PD 患者及 50 例健康被试，扫描核磁，评估症状严重程度。构建全脑白质网络，基于图论分析计算全局及节点属性，分析 PD 患者和 HC 脑白质网络拓扑指标差异。根据中医证型将 PD 患者分为心胆气虚证、痰热内扰证和肾气不足证三组，对比三组被试脑网络拓扑指标差异。探讨有组间差异的拓扑指标与临床症状相关性。研究二：纳入 44 例 PD 患者进行针灸干预，采集治疗前后核磁数据。考察 PD 患者治疗前后脑白质网络拓扑指标变化。探讨治疗前后网络拓扑指标差异与临床症状变化相关性。

结果 研究一：全局水平上，PD 组脑白质网络平均最短路径长度、聚类系数降低，网络全局效率较 HC 组升高（P＜0.05）。肾气不足证患者脑白质网络全局效率高于痰热内扰证患者，小世界属性低于心胆气虚证患者（P＜0.05）。节点水平上，PD 患者恐惧网络脑区及运动皮质、纹状体和小脑内多节点最短路径长度降低，节点效率升高（P＜0.05）。肾气不足证患者双侧海马节点效率高于痰热内扰证和心胆气虚证患者，右侧海马节点最短路径长度低于痰热内扰证和心胆气虚证患者（P＜0.05）。PD 组壳核度中心性高于 HC 组（P＜0.05）。偏相关分析发现肾气不足证患者脑网络右侧海马节点效率与惊恐相关症状量表分呈正相关，痰热内扰证患者右侧海马节点效率与焦虑自评量表分呈正相关（P＜0.05）。研究二：针灸治疗 PD 有效率为 75.76%。针灸后 PD 患者脑白质网络全局聚类系数较治疗前升高；杏仁核节点效率较治疗前有升高趋势；颞中回、颞下回，楔叶节点效率较治疗前有下降趋势。恐惧网络脑区及运动皮质、纹状体内多个节点网络聚类系数较治疗前有升高趋势。

结论 PD 患者脑白质网络信息传递效率增高，抗风险能力降低。恐惧网络脑区以及运动皮质、纹状体和小脑在脑网络中信息交互作用增强。PD 不同中医证型患者脑白质网络拓扑特征存在差异，海马信息传递状态可能是肾气不足证区别于心胆气虚证、痰热内扰证的神经影像参考。针灸可调控 PD 患者脑白质网络拓扑特征，具体表现为提高脑网络抗风险能力以及对感觉脑区和杏仁核信息传递效率的双向调节趋势；提示 PD 脑白质网络拓扑属性具有可塑性。（焦虑障碍研究协作组）

关键字：惊恐障碍；脑白质网络；图论；中医辨证分型；针灸

内蒙古自治区特殊恐惧症的现况调查及相关因素分析

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目的 了解内蒙古自治区 18 岁及以上常住居民特殊恐惧症患病率及其分布特点，并探讨影响其相关因素。

方法 2019 年 5 月至 10 月对内蒙古 11 个盟市、41 个区县旗、246 个村居，14164 名 18 岁及以上常住居民者采用分层多阶段不等概率的复杂抽样方法进行抽样开展问卷调查。使用复合型国际诊断交谈表 3.0 作为诊断工具，根据美国精神障碍诊断与统计手册第四版（Diagnostic and Statistical Manual of Mental Disorders,DSM-IV）和疾病和有关健康问题的国际统计分类第十次修订本（The International Statistical Classification of Diseases and Related Health Problems 10th Revision,ICD-10）两套诊断标准对特殊恐惧症进行诊断。

结果 完成调查 12315 人，特殊恐惧症未加权的终生患病率为 3.34%（3.02%～3.65%），终生加权患病率为 2.76%（2.07%～3.44%）；12 月未加权的 12 月患病率为 2.68%（2.39%~2.96 %），加权患病率为 2.14%（1.51%～2.76%）。分居离婚者（OR=2.51，95%CI：1.21～5.22）、年龄在 50-64 岁者（OR =2.01，95%CI：1.10～3.68）、重性抑郁障碍患者（OR=12.36，95%CI：6.99～21.87）更易出现特殊恐惧症；而城市居住者（OR=0.66，95%CI：0.47～0.94）、高中教育经历者（OR=0.39，95%CI：0.24～0.64）不易出现特殊恐惧症。

结论 本研究显示城市，高中教育经历者不易患特殊恐惧症，是特殊恐怖症的保护因素。50-64 岁年龄者、分居离婚者、重性抑郁障碍患者更易患特殊恐惧症，是特殊恐怖症的危险因素。

关键字：特殊恐惧症；现况调查；相关因素

Direct Involvement of Estrogen Receptors in Hypocretin Gene Expression: A Possible Explanation for The Sex Difference in Depression

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Objective ：ypocretin is exclusively synthesized in the hypothalamus and distributes inputs to several areas of the brain, which may play an important role in depression. Our previous study showed hypothalamic-hypocretin-1 was increased in female depression compared to female controls in human lateral hypothalamus. Estrogen acts through its receptors, estrogen receptor α (ERα) and estrogen receptor β (ERβ), which are the nuclear transcriptional factors.

Methods ：We studied the possibility of a direct action of estrogen receptors on the expression of human hypocretin. To further explore the activation of ERs by hypocretin，we first investigated the potential presence of co-localization of the estrogen receptors (ERs) in hypocretin-immunoreactive neurons in the lateral hypothalamic area (LHA) in human and colocalization of nuclear ERs in hypocretin immunoreactive neuroblastoma SK-N-SH cells. We investigated the relationship between E2 and hypocretin in female rats. After we explored the regulating role of exogenous estrogen on hypocretin gene expression via ERs through Chromatin immunoprecipitation assay，Electrophoretic mobility shift assay and Luciferase assay.

Results ：In our study, we found that in clinical patients, Hypocretin-1 plasma level was significantly higher in female depression than female control, and ROC analysis revealed an optimal diagnostic value for plasma hypocretin-1 levels in female depressive patients. female depression estrogen receptors (ERα and ERβ) and hypocretin are co-localized in human lateral hypothalamus and PC12 and SK-N-SH cell lines. The estrogen receptor response elements (EREs) that exist in the hypocretin promoter region may directly regulate the gene expression of hypocretin, leading to increased hypocretin activity, the synchronicity of change of hypocretin and estradiol both in hypothalamus and plasma was verified in female rats. With the presence of estradiol, there is specific binding between recombinant human ER and the Hypocretin-ERE. Expression of ER combined with estradiol repressed hypocretin promoter activity through the ERE.

Conclusion ：we defined that estradiol may affect hypocretin neurons in the human hypothalamus via ER binding to the Hypocretin-ERE directly, which may thus lead to the sex-specific pathogenesis of depression.

关键字：Estrogen receptors, hypocretin, sex difference, depression

Correlation Analysis of Depression Cerebral Blood Flow with Depression Polygenic Risk Score and Depression Anxiety Severity

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Objective Cerebral blood flow(CBF) is closely related to the clinical phenotype of depression, but mechanism is still unclear, and genetics may play important role. So, we explored changes in CBF that are closely related to genetics and anxiety and depression symptoms.

Methods The general clinical data, 17-Item Hamilton Rating Scale for Depression (HAMD-17), Hamilton Anxiety Scale (HAMA), arterial spin-labeled magnetic resonance imaging and blood of 191 depression patients with were collected. Polygenic risk score (PRS) was calculated by weighted cumulative effect of alleles on depressive symptoms (threshold 0.005). The average CBF in 116 brain regions was calculated according to AAL116 template. The correlation between PRS for depression and HAMD and HAMA scores of depression patients was calculated.

Results PRS was significantly negatively correlated with the CBF of left parahippocampal gyrus, left amygdala, bilateral fusiform gyrus, cerebelum_4_5_L, cerebelum_6_R, cerebelum_8_L, bilateral cerebelum_9, cerebelum_10_L, vermis_1_2, vermis_7, vermis_8, vermis_9 and vermis_10 (|r|=0.150~0.201, P<0.05). HAMD-17 was significantly positively correlated with the CBF of left parahippocampal gyrus, left amygdala, cerebelum_4_5_L, cerebelum_8_L, bilateral cerebelum_9, cerebelum_10_L, vermis_1_2 , vermis_7, vermis_9, and vermis_10 (|r|=0.163~0.251, P<0.05). HAMA was significantly positively correlated with the CBF of left parahippocampal gyrus, left amygdala, cerebelum_4_5_L, cerebelum_8_L, cerebelum_9_L, vermis_7, vermis_9 and vermis_10 (|r|=0.153~0.239, P<0.05).

Conclusion The cerebellar CBF in depression, which is correlated with depression genetics risk, is closely related to clinical depression and anxiety severity.

关键字：depression, anxiety, polygenic risk score, cerebellum, cerebral blood flow

强迫症的血清抗神经元抗体及与认知功能关系的研究

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目的 本研究主要探讨强迫症的血清抗神经元抗体水平，并进一步分析抗神经元抗体与认知功能的关系。次要目的分析强迫症血清 IL-6、ASO、甲状腺激素水平的特点。

方法 共纳入 176 名受试，含强迫症组 74 人，共病组 60 人，健康对照组 42 人。收集受试者的人口学信息及临床资料。采集空腹静脉血进行抗神经元抗体、IL-6、ASO、甲状腺激素水平的测定；使用 MCCB 对

所有受试进行认知功能评估；采用 Y-BOCS 对强迫症组及共病组进行评分。比较上述指标，并进一步分析抗神经元抗体与强迫症认知功能的关系。

结果 1、三组受试在性别、年龄、受教育年限上无显著差异；强迫症组及共病组在病程、强迫思维得分、强迫行为得分、Y-BOCS 总分上无显著差异。 2、强迫症组抗神经元抗体阳性率为 13.5%，共病组为 21.7%，两组间阳性率无显著差异；未在健康对照组血清中检测出抗神经元抗体。强迫症组及共病组抗神经元抗体阳性率均显著高于健康对照组。 3、三组受试血清 ASO、aTPO、aTG、T4、FT4 水平上存在显著差异，两两比较后发现：强迫症组 ASO 高于共病组及健康对照组；强迫症及共病组 aTPO 及 aTG 水平均低于健康对照组；共病组 FT4 水平低于健康对照组。 4、强迫症组在工作记忆、处理速度、言语学习、视觉学习、推理及问题解决、社会认知以及 MCCB 总得分上显著低于健康受试者；在注意警觉、工作记忆、处理速度、MCCB 总得分上显著优于共病组。 5、强迫症组抗神经元抗体与年龄、首次发病年龄、推理及问题解决存在显著相关性。6、在强迫症组中，注意警觉、工作记忆、处理速度、视觉学习、MCCB 总分与强迫思维成负相关；社会认知与强迫行为成负相关；处理速度、社会认知、MCCB 总分与 Y=BOCS 总分成负相关；工作记忆、社会认知与首次发病年龄成负相关；言语学习与年龄成负相关。 7、回归分析结果：抗神经元抗体显著影响强迫症患者的推理及问题解决得分；强迫思维得分显著影响强迫症组注意警觉、工作记忆、处理速度、视觉学习； Y-BOCS 得分、首次发病年龄、性别显著影响社会认知。 8、年龄及首次发病年龄显著影响抗神经元抗体。

结论 1、强迫症患者血清中抗神经元抗体阳性率高于健康对照； 2、强迫症患者认知功能水平受损；抗神经元抗体阳性的强迫症患者推理及问题解决领域更容易受损； 3、年龄及首次发病年龄是强迫症患者抗神经元抗体阳性的危险因素。

关键字：强迫症；抗神经元抗体；认知功能；自身免疫

Study Progress in Functional Near Infrared Spectroscopy Imaging of The Depression Based on Emotion Recognition Disorder

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Objective Emotion recognition disorder is one of the prominent features of depression. The studies on the measurement of neural activities of patients with depression and other mental diseases using functional near-infrared spectroscopy (fNIRS) have increased significantly in recent years. A review of this technology can provide new evidence for clinical diagnosis and treatment of the patients.

Methods The paper comprehensively describes the main research results for fNIRS in face emotion recognition of patients with depression and healthy people.

Results Depression patients have difficulties in recognizing neutral and emotional faces in face emotion recognition, which is mainly manifested as low accuracy and long time spent in recognition. There was also selective activation in emotion-related brain circuits that differed from healthy control groups in response to different emotions. The prefrontal cortex plays an important role in the processing of facial emotional responses, and fNIRS has received increasing attention as a suitable research tool to measure this region.

Conclusion It proposed the main direction for the future study in this field using fNIRS, which will expand new ideas for the further understanding of the emotional processing of patients with depression and the clinical diagnosis.

关键字：Depression, Facial emotion recognition disorder, Functional near-infrared spectroscopy

A Simple Nomogram Model for Predicting Medical Adherence in Patients with Psychotic Disorders - Based on Drayd Database

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Objective The treatment compliance of psychiatric patients is related to the outcome of their illness. In order to improve the capacity for prevention and treatment of psychotic disorders, much research has focused on qualitative studies of the factors that influence treatment compliance. However, how to use these factors for precise assessment of patient compliance remains a topic of concern. There are a variety of methods for predicting treatment compliance, including direct patient observation, self-reporting, drug concentration determination, and electronic monitoring. Nomograms, recognized as intuitive and straightforward statistical tools for risk quantification, have found extensive application in clinical practice across a variety of conditions. Therefore we establish a predictive model for medication compliance in patients with psychotic disorders, in order to provide reference for early intervention in treatment compliance behavior.

Methods Clinical information of 451 patients with psychotic disorders who visited 35 Italian community mental health centers from December 2015 to May 2017 and stored in the Drayd database was downloaded and extracted. Lasso regression was used to screen the influencing factors of compliance in patients with mental disorders, and the logistic regression equation was used to establish the model. Bootstrap resampling was used for internal validation for 1000 times, and a line chart was drawn to predict the medication compliance of patients with mental disorders. The consistency index (C-index), Brier score, receiver operating characteristic (ROC) curve and decision curve were used to evaluate the model.

Results After deleting missing values, 432 patients with psychotic disorders were included, among whom the compliance was 61.3%. DAI10 score, BPRS score, multiple hospitalizations in one year, and previous use of long-acting injections were independent risk factors for treatment compliance in patients with psychotic diseases (all p value <0.01). The C-statistic of the nomogram model was 0.709 (95% CI: 0.652-0.766), the brier index was 0.215, the area under the ROC curve was 0.716 (95% CI: 0.669-0.763), and the decision curve analysis showed that applying this model between the threshold probabilities of 44%-63% could improve the clinical net benefit of patient.

Conclusion Low DAI10 score, high BPRS score, multiple hospitalizations in one year, and previous use of long-acting injections are independent risk factors for medication compliance in patients with psychotic disorders. The clinical prediction model for medication compliance behavior in patients with psychotic diseases has good sensitivity and specificity.

关键字： Prediction model; Psychotic disorders; Nomogram; Adherence

Disrupted Functional Connectivity Associated with Cognitive Impairment in Generalized Anxiety Disorder (GAD) and Comorbid GAD and Depression: A Follow-up FMRI Study

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Objective The follow-up study aimed to investigate alterations in voxel-mirrored homotopic connectivity (VMHC) in patients with generalized anxiety disorder (GAD), explore shared and distinct VMHC features in GAD patients with or without comorbid depression, and observe the changes in VMHC after a 4-week paroxetine treatment.

Methods Drug-na?ve GAD patients with or without comorbid depression (G1, n=40; G2, n=58, respectively) and healthy controls (HCs, n=54) underwent functional magnetic resonance imaging scans and clinical assessments at baseline and after treatment. VMHC and seed-based functional connectivity (FC) were respectively compared across the three groups to identify intergroup differences. Correlation analysis and support vector regression (SVR) were performed to examine the intrinsic relationships between VMHC and symptoms.

Results Compared to HCs, both patient groups showed decreased VMHC in the precuneus/posterior cingulate cortex/lingual gyrus and distinct abnormal VMHC, but no significant differences were observed when directly comparing the two patient groups. Seeds from abnormal VMHC clusters in patient groups had decreased FC. Cognitive impairment in G1 or all patients negatively correlated with VMHC in the precuneus/posterior cingulate cortex/lingual gyrus. The SVR analysis based on abnormal VMHC showed significant positive correlations ($p < 0.0001$) between predicted and actual treatment responses. However, no change was observed in VMHC or FC after treatment.

Conclusion Reduced VMHC in patients with GAD were responsible for their cognitive deficits and emotional dysfunction and has the potential to serve as a prognostic biomarker for GAD, regardless of comorbid depression. Seed-based FC analysis revealed a disrupted dynamic interplay among brain networks in GAD.

关键字： comorbidity; voxel-mirrored homotopic connectivity; support vector regression; precuneus.

Shared and Distinctive Neural Substrates of Generalized Anxiety Disorder with Or without Depressive Symptoms and Their Roles in Prognostic Prediction

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Objective The shared and distinctive neurophysiological mechanisms of generalized anxiety disorder (GAD) with or without depressive symptoms are obscure.

Methods This study enrolled 98 GAD patients [58 with depressive symptoms (G1 group) and 40 without depressive symptoms (G0 group)] and 54 healthy controls (HCs). Patients underwent clinical assessments and imaging scans at baseline and after four weeks of treatment with paroxetine. Support vector regression (SVR) based on abnormal regional homogeneity (ReHo) was conducted to predict treatment response.

Results Both patient groups showed higher ReHo in the middle/superior frontal gyrus compared with HCs. Furthermore, the G0 group exhibited decreased ReHo in the right cuneus/superior occipital/fusiform gyrus and cerebellum IV, while the G1 group had decreased ReHo in the bilateral postcentral/precentral gyrus. Compared to the G0 group, the G1 group had higher ReHo in the right superior cuneus/occipital gyrus and lower ReHo in the left superior

frontal gyrus. After treatment, the G1 group manifested higher ReHo in the right superior/middle temporal gyrus and angular gyrus compared to pre-treatment, while the G0 group exhibited lower ReHo in the left supramarginal gyrus. The SVR analysis performed well in predicting treatment response.

Conclusion This study found both shared and unique neural substrates in patients with GAD, with or without depressive symptoms, which may serve as biomarkers for predicting treatment response. The presence of comorbid depressive symptoms was associated with altered neuroplasticity in patients with GAD, resulting in differences in disease manifestation and treatment response compared to those with pure GAD.

关键字：general anxiety disorder; regional homogeneity; support vector regression; superior frontal gyrus; postcentral gyrus.

Enhanced Interhemispheric Resting-state Functional Connectivity of The Visual Network Is An Early Treatment Response of Paroxetine in Patients with Panic Disorder

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Objective This study aimed to detect alterations in interhemispheric interactions in patients with panic disorder (PD), determine whether such alterations could serve as biomarkers for the diagnosis and prediction of therapeutic outcomes, and map dynamic changes in interhemispheric interactions in patients with PD after treatment.

Methods Fifty-four patients with PD and 54 healthy controls (HCs) were enrolled in this study. All participants underwent clinical assessment and a resting-state functional magnetic resonance imaging scan at (i) baseline and (ii) after paroxetine treatment for 4 weeks. A voxel-mirrored homotopic connectivity (VMHC) indicator, support vector machine (SVM), and support vector regression (SVR) were used in this study.

Results Patients with PD showed reduced VMHC in the fusiform, middle temporal/occipital, and postcentral/precentral gyri, relative to those of HCs. After treatment, the patients exhibited enhanced VMHC in the lingual gyrus, relative to the baseline data. The VMHC of the fusiform and postcentral/precentral gyri contributed most to the classification (accuracy = 87.04%). The predicted changes were accessed from the SVR using the aberrant VMHC as features. Positive correlations ($p < 0.001$) were indicated between the actual and predicted changes in the severity of anxiety.

Conclusion These findings suggest that impaired interhemispheric coordination in the cognitive–sensory network characterized PD and that VMHC can serve as biomarkers and predictors of the efficiency of PD treatment. Enhanced VMHC in the lingual gyrus of patients with PD after treatment implied that pharmacotherapy recruited the visual network in the early stages.

关键字：panic disorder; interhemispheric connectivity; postcentral gyrus; fusiform gyrus; machine learning

正念认知治疗对广泛性焦虑障碍患者的疗效及童年创伤经历对其影响作用

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目的 探索正念认知治疗（Mindfullness based cognitive therapy, MBCT）对广泛性焦虑障碍（Generalized anxiety disorder, GAD）患者的疗效，同时探究童年期创伤经历对疗效的影响作用。

方法 本研究纳入广泛性焦虑障碍患者 55 人，随机分为线下 MBCT 组及线上心理健康教育组（Psychoeducation, PED），进行八周治疗。在治疗前、治疗 4 周及治疗 8 周收集贝克焦虑量表(Beck anxiety Inventory, BAI)、宾州担忧量表(Penn State Worry Questionnaire, PSWQ)及童年期创伤问卷（Childhood trauma questionare, CTQ）（仅基线）。采用混合线性模型（Linear mixed model, LMM）比较两组 BAI、PSWQ 分数下降的速率是否有差异；按照是否存在童年期创伤经历，将患者分为 4 组，比较不同组别 BAI 分数下降速率是否存在差异。同时将 CTQ 分为 5 个维度，即情感虐待（Emotional Abuse, EA）、情感忽视（Emotional Neglect, EN）、躯体虐待（Physical Abuse, PA）、躯体忽视（Physical Negelct, PN）及性虐待（Sexual Abuse, SA），按照 5 个维度分组进行比较。

结果 进行全分析集分析（Full-analysis-set, FAS），MBCT 组及 PED 组均为 24 人。根据 LMM 结果显示，两组焦虑分数下降速率无显著差异（P=0.85）；而 MBCT 组担忧分数下降速率显著大于 PED 组（P=0.04）。MBCT 伴 SA 组焦虑分数下降速率显著大于 MBCT 无 SA 组（P=0.01），PED 伴 SA 组（P=0.01）及 PED 无 SA 组（P=0.01）。MBCT 伴 EA 组焦虑分数下降速率显著大于 MBCT 无 EA 组（P=0.02），但与 PED 伴 EA 组（P=0.07）及 PED 无 EA 组（P=0.07）相比只存在增大趋势。在其余维度未见明显差异。

结论 MBCT 治疗能有效缓解 GAD 患者的担忧症状，但对焦虑症状的缓解与童年期创伤经历有关。MBCT 治疗对缓解存在童年期性虐待或情感忽视的 GAD 患者的焦虑症状可能更有效。

关键字：正念认知治疗；广泛性焦虑障碍；童年期创伤经历

与焦虑性抑郁症相关的社会心理因素

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目的 本研究旨在探讨儿童期不良经历、家庭功能、社会支持、人际问题、认知失调与焦虑性抑郁的关系。

方法 采用汉密尔顿焦虑量表、汉密尔顿抑郁量表- 17、家庭功能评定量表、儿童期创伤问卷、社会支持评定量表、人际关系综合诊断量表、功能失调性态度量表进行评定。焦虑抑郁定义为 HAMD - 17 中焦虑/躯体化因子分(包括 HAMD - 17 的 6 个项目：精神性焦虑、躯体性焦虑、胃肠道躯体症状、全身躯体症状、疑病和自知力)≥7 分。采用卡方检验、Mann - Whitney U 检验、距离相关和结构方程模型进行数据分析。

结果 2 / 5 的 MDD 患者存在共患焦虑，且在儿童虐待、家庭功能、社会支持、人际问题、功能失调性态度方面存在显著的组间差异。在这些因素中，人际关系(0.368)与 MDD 患者的焦虑关系最为密切，其次是认知失调(0.346)、儿童虐待(0.263)、家庭关系(0.258)、社会支持(0.265)。人际关系(95 % CI 0.192 ~ 0.543)和认知失调都(95 % CI 0.015 ~ 0.300)对抑郁症患者焦虑情绪有直接影响。且功能失调性态度介导了人际关系与 MDD 患者焦虑情绪的关系。

结论 心理社会因素与焦虑性抑郁显著相关。人际关系和功能失调性态度对焦虑性抑郁有直接影响，同时人际关系也通过功能失调性态度中介焦虑性抑郁的影响。

关键字：焦虑性抑郁障碍；儿童期虐待；认知失调；人际关系；社会支持

强迫症患者的脑电微状态特征研究

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目的 通过微状态研究方法，探索强迫症患者的脑电生理特征，从微状态的角度对强迫症患者的病理性全脑网络功能变化特点进行深入探究。

方法 本研究共纳入来自中南大学湘雅二医院门诊就诊的强迫症患者 48 例（伴焦虑强迫症患者 33 例，不伴焦虑强迫症患者 15 例），以及通过社交媒体招募的健康对照 52 例。临床症状评估工具分别使用耶鲁布朗强迫量表和汉密尔顿焦虑量表评估两组患者的强迫症状及焦虑症状严重程度。采集两组受试者的闭眼静息态脑电数据并进行微状态特征提取，通过协方差分析或独立样本 T 检验比较强迫症患者与健康对照组，以及伴与不伴焦虑的强迫症患者之间的微状态特征差异。随后通过偏相关分析和皮尔逊相关分析探索微状态特征与临床症状严重程度的关系。最终筛选关键的微状

结果 相较于健康受试者，强迫症患者微状态 C 向 B 的转换概率显著降低（p=0.034）。相关性分析发现，强迫思维因子得分与微状态 A 的持续时间呈显著负相关关系（r=-0.310，p=0.048），而与微状态 B 的发生频率（0.351，p=0.028）和微状态 C 向 B 的转换概率（0.390，p=0.013）均呈显著正相关关系。在基于上述两组受试者微状态特征所建立的机器学习模型中，SVMRFE 特征选择方法所得出的特征集结合 RBF SVM 算法所建立的机器学习模型分类表现最好，验证和测试的分类准确率分别为：66.29%和 66.21%。相较于不伴焦虑的强迫症患者，伴焦虑的强迫症患者全局场功率明显下降（p=0.007），微状态 A 的平均持续时间延长（p=0.041）、发生频率降低（p=0.038），微状态 B（p=0.045）和微状态 C（p=0.039）的发生频率同样明显降低（p=0.045）。相关性分析发现，微状态 C 的发生频率与汉密尔顿焦虑评分呈显著的负相关关系（r=-0.359，p=0.012），而微状态 B 向 D 的转换概率与汉密尔顿焦虑评分呈显著的正相关关系（r=0.292，p=0.044）。在机器学习分类尝试中，Boruta 所得出的特征集结合 RBF SVM 算法所建立的机器学习模型分类表现更好，验证和测试的分类准确率分别为：62.67%和 64.10%。

结论 强迫症患者的脑电微状态特征发生了改变，并且微状态特征的改变与强迫思维及焦虑症状密切相关，此外，微状态特征同样有希望作为区分强迫症及其临床特点的敏感指标，基于微状态特征的机器学习模型具有分类潜力。

关键字：强迫症；强迫思维；脑电微状态；特征选择；机器学习

单相抑郁和双相抑郁障碍患者认知及脑电功能研究

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目的 单相抑郁障碍(UPD)又称为重性抑郁障碍，与双相抑郁障碍(BPD)即双相情感障碍抑郁发作期的鉴别诊断是临床难题。本研究拟通过对 UPD 与 BPD 患者的认知功能及脑电生理特征差异的分析比较，深入探索两者病理机制差异。

方法 研究对象为 2019 年 12 月-2021 年 9 月在中南大学湘雅二医院门诊招募的符合 DSM-5 单相抑郁障碍或双相抑郁障碍诊断标准的受试者共计 140 例，其中单相抑郁障碍患者 70 例，双相抑郁障碍患者 70 例。我们比较了基线及各随访时间点两组间的临床数据和神经认知测验数据的差异及变化。同时对脑电数据进行四个方面的分析：1.通过频谱分析对全脑导联五个频段（δ-γ）的平均功率进行了比较，探索两者脑电功率

之间的差异；2.使用 EEGLAB 微状态分析工具箱对微状态特征进行提取，并比较两者的脑电微状态特征差异；3.使用静息态脑电数据计算基于功率包络相关的功能连接矩阵，从而构建全脑功能网络，用以探讨两组之间的静息态脑功能网络差异；4.对于任务态脑电数据，通过 ERPLAB 工具箱对 N450 成分和 SP 成分的振幅及潜伏期特征进行提取，进而研究单、双相抑郁障碍患者的情绪冲突处理功能差异。

结果 静息态脑电微状态分析结果：UPD 比 BPD 组的微状态(A-D)单位时间内发生次数减少，且平均持续时间延长(P<0.05)。未发现两者微状态时间涵盖百分比和转换类别存在差异(P>0.05)；静息态脑电功能连接分析结果：在全频段两组间功能连接比较中，UPD 组存在一个功能连接增强的子网络，其中属于背侧注意网络的额下回后部出现频次最高（12 次）。在 β 频段比较中，UPD 组同样存在一个功能连接增强的子网络，属于突显网络的左侧缘上回出现的频率最高（6 次）。面对情绪刺激时 UPD 组在左侧额叶(P=0.018)、右侧额叶(P=0.003)和额叶中间部(P=0.001)的 N450 振幅均显著高于 BPD 组，UPD 组在额叶中间部的 N450 潜伏期短于 BPD 组(F=7.64，P=0.032)。

结论 本研究发现，BPD 组的认知功能损害更严重且治疗改善较差，而 UPD 患者情绪冲突功能存在更为严重的功能失调；此外，在静息态脑电特征的分析比较中我们发现，多个频段的绝对功率、微状态特征及功能连接特征在两组患者中表现出了不同的特点，表明脑电生理特征有潜力成为 BPD 与 UPD 患者的鉴别指标。

关键字：单相抑郁障碍；双相抑郁障碍；早期鉴别；脑电；脑电微状态；脑电功能连接；面孔-词情绪任务；事件相关电位

焦虑性抑郁障碍的结构磁共振研究进展

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目的 重性抑郁障碍（MDD）是一种有着多种亚型的严重精神疾病，其中焦虑性抑郁障碍（AMDD）是最为常见的一种。AMDD 往往表现出更频繁的抑郁发作、更严重的症状、更差的结果和治疗反应及更高比例的自杀企图。MDD 伴有或不伴有焦虑可能存在神经机制差异，因此，需要开发针对 MDD 患者焦虑等情绪症状的可行治疗方法，这对改善这些患者的预后至关重要。磁共振成像（MRI）技术目前已广泛应用于焦虑及抑郁患者的大脑结构和功能影像方面的研究。本文将从结构 MRI 方面对 AMDD 进行综述。

方法 遵循 PRISMA 指南筛选文献，根据 PICOS 标准：研究焦虑性抑郁抑郁症患者（与健康对照组，MDD 组相比）疾病特异性神经改变的 MRI 研究。

结果 结果表明，焦虑性抑郁在前额叶皮层和边缘区(杏仁核、海马体、纹状体)存在明显结构改变。其中前额叶皮层灰质体积减少，尤其是背外侧前额叶及眶额回皮层；大多数研究显示杏仁核体积与 MDD 及健康对照组相比无明显差异；海马体的结构变化存在差异性报道，海马体体积减少是 AMDD 与 nAMDD 共同特征改变，但海马体是否是区分两者的关键，至今仍未达成共识；尾状核皮层下体积显著增大、中央后回灰质体积增加，且均与焦虑评分呈正相关；个别文献也对梭状回、脑岛、前扣带回、颞叶、枕叶、顶叶和楔叶等皮质得出了厚度变薄的研究结果。

结论 本篇综述为焦虑性抑郁症的神经病理学研究提供了证据。综上所述，萎缩的前额叶可能是抑郁和/或焦虑患者皮层和皮层下改变的常见模式，焦虑性抑郁患者更低的前额叶灰质体积与其更严重的症状密切相关。此外，中央后回与尾状核结构变化有可能用于区分焦虑性与非焦虑性抑郁。对于抑郁症患者焦虑症状的早期识别有助于确保有效的、有针对性的治疗，以改善长期的心理健康和缓解认知问题。

关键字：抑郁症；焦虑性抑郁；结构磁共振

犬尿氨酸通路与伴焦虑痛苦、伴忧郁特征抑郁症亚型的相关性研究

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目的 探究犬尿氨酸通路与抑郁症两亚型伴焦虑痛苦、伴忧郁特征的相关性

方法 本研究为横断面观察性研究，共纳入 174 名抑郁障碍患者，按照 DSM-5 分别区分为伴/不伴焦虑痛苦以及伴/不伴忧郁特征，分别通过 2 组比较、伴/不伴两特征的 4 组间比较以及相关性分析探究犬尿氨酸通路代谢指标与焦虑痛苦、忧郁特征两特征之间的联系以及在不同的各亚组中与其他代谢指标的联系。

结果 伴焦虑痛苦较不伴焦虑痛苦的患者具有更高的 3HK/KYN 比值、KYNA/KYN 比值及更低的 KYN/TRP 比值，而 KYNA/QA 比值没有显著差异；而伴/不伴忧郁特征组间 KYN 通路相关指标均无显著性差异。伴/不伴焦虑痛苦 x 伴/不伴忧郁特征的四组组间比较提示，IDO 酶活性在仅伴焦虑痛苦不伴忧郁特征与同时不伴两种特征的两组间存在显著差异，且仅伴焦虑痛苦与仅伴忧郁特征的两组间脂质代谢指标存在显著差异。相关性分析进一步确认了焦虑痛苦与脂质代谢通路的联系，但 KYN 通路的改变未表现出与脂质代谢通路的显著相关性。

结论 伴焦虑痛苦的患者可能较不伴该特征的患者具有更高的 KMO、KAT 酶活性及更低的 IDO 酶活性，而不伴有 KYNA/QA 两条下游通路的失衡；伴或不伴忧郁特征与犬尿氨酸通路的联系相对较弱。

关键字：犬尿氨酸 抑郁障碍 焦虑痛苦 忧郁特征

思维反刍和炎症因子在单、双相抑郁发作中的

作用

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目的 通过纵向研究设计，探究思维反刍在不同疾病抑郁发作状态下的变化轨迹及其在抑郁症状变化中的预测作用。另外，通过结合炎症指标，进一步揭示思维反刍在抑郁发作中的重要临床意义。

方法 本研究为纵向队列研究，样本来源于中南大学湘雅二医院精神障碍门诊，数据收集时间为2020.09 至 2023.06，共计纳入重性抑郁障碍、双相情感障碍及健康被试 291 人。采用反刍反应量表(RRS)、汉密尔顿抑郁评定量表(HAMD)、汉密尔顿焦虑评定量表(HAMA)和杨氏躁狂量表（YMRS）对重性抑郁障碍、双相情感障碍进行思维反刍、抑郁症状严重程度和焦虑症状严重程度的测量和比较，从而探究思维反刍在两种不同抑郁发作状态下的分布情况及其与抑郁、焦虑症状随时间变化的关系。通过炎症指标 IL-1、IL-6、TNF-α 等的测量，进一步揭示思维反刍与主要炎症指标的关系及其在抑郁、焦虑发作中的作用。

结果 通过进行基线、2 周、8 周和 6 月四个时间点抑郁、焦虑症状和思维反刍的测量发现，即便在控制抑郁症状的前提下，仍存在基线、2 周、8 周双相情感障碍抑郁发作组在思维反刍总分、强迫思考及反省深思显著高于单相抑郁发作组（P＜0.05）。思维反刍在 2 周和 8 周严重程度在两个疾病组随时间的减分要低于抑郁、焦虑症状的减分（P＜0.05），且进一步预测了 6 月各组抑郁、焦虑严重程度。另外，通过分析炎症指标发现，整个病程中，思维反刍与 IL-6 的水平密切相关，共同影响着两组疾病抑郁发作的治疗结局。

结论 思维反刍在单、双相抑郁发作状态下的严重程度存在差异，并能够分别预测不同疾病分类中的抑郁发作和临床转归；随着原有疾病治疗的变化，思维反刍的严重程度表现出与情感障碍疾病主要症状缓解不一致的特点，并预测了后期抑郁、焦虑的严重程度；思维反刍与炎症因子共同影响着抑郁、焦虑症状的治疗结局。

关键字：思维反刍，抑郁发作，炎症因子，预测

自尊和情绪调节在童年创伤和成年后心理健康的关系的作用：一个有调节的中介模型

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目的 儿童期创伤 (CT）与成年人的心理健康问题相关。我们研究了自尊（SE）和情绪调节策略（认知重评（CR）和表达抑制（ES））是否及如何影响 CT 和成年人的心理健康问题的关联。

方法 我们通过一项横断面调查对全国范围内 6057 名成年人（39.99%为女性，中位年龄=34 岁）进行了调查。通过广泛性焦虑障碍量表（GAD-7）、患者健康问卷抑郁量表（PHQ-9）、儿童期创伤问卷（CTQ）、自尊量表（SES）和情绪调节问卷（ERQ）评估焦虑、抑郁、儿童期创伤、自尊和情绪调节策略。多元线性回归和偏差校正百分位 bootstrap 法被用来评估自尊的中介效应，阶层式回归分析和亚组分析被用来研究情绪调节策略（CR 和 ES）的调节效应。

结果 在校正了年龄和性别之后，我们发现：（1）SE 在 CT 和成年后的抑郁症状的关系（间接效应=0.05，95% CI： 0.04-0.05，36.2%被中介）、以及 CT 和成年后的焦虑症状关系（间接效应=0.03，95%CI：0.03-0.04，32.0%被中介）中发挥了部分中介作用；（2）CR 调节了 CT 和 SE 之间的关系；（3）ES 通过 SE 调节了 CT 和成年后的心理健康问题的关系，并且当 ES 增加时，CT-SE 和 SE-成年心理健康问题的关联更强。

结论 SE 在 CT 和成年后的心理健康问题的关系中发挥着部分中介作用。此外，ES 通过 SE 加重了 CT 对成年后心理健康的负面影响。情绪表达训练等干预措施可能有助于减少 CT 对成年后心理健康的不利影响。

关键字：儿童期创伤；情绪调节；心理健康；调节，中介； 自尊

惊恐障碍患者中伴有广场恐怖障碍的相关性分析及预测因素

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目的 既往的研究发现，无论是否伴有广场恐怖，惊恐障碍都有特定的发病特点和临床特征，对惊恐障碍患者的研究没有发现这些特征与广场恐怖之间的相关性。因此，应重视对广场恐怖患者临床特征的评估，本研究旨在调查伴有广场恐怖症的惊恐障碍的特点和临床特征并比较伴或不伴有广场恐怖症的惊恐障碍患者之间的差异，并最终探索伴有广场恐怖症的惊恐障碍的预测因素。

方法 招募了 90 名诊断为 DSM-5 的 PD 患者和 99 名健康对照（HCs）。收集 PD 患者和 HC 的社会人口学信息，采用状态特质焦虑量表（STAI）评估焦虑症状的状态和特征，采用中文版惊恐障碍严重程度量表（PDSS-CV）和患者健康问卷 15 项躯体症状严重程度量表（PHQ-15）评估 PD 患者惊恐和躯体症状的严重程度， HC 分别在入组后完成了躯体症状的评估。采用独立样本 t 检验，以比较 PD 与 AG 组和非 AG 组之间在 PDSS-CV、STAI、PHQ-15、SF-36、CGI 方面的差异。PDSS-CV 与其他临床变量之间的相关性用 Pearson 的偏相关系数进行评估。最后，采用逐步法进行复杂样本数据逻辑回归分析，以明确上述 PD 与 AG 的相关因素。

结果 在社会人口学信息方面，包括年龄、性别、婚姻、教育水平和职业状况，PD 患者有 AG 组和无 AG 组与 HC 组之间没有显著差异（均 P>0.05）。患有广场恐怖症（AG）的 PD 患者与没有广场恐怖症的人相比，

显示出更高的 PDSS-CV、GGIS 和 STAI 特质得分（所有 P<0.05）。有 AG 的 PD 组中基线 PDSS-CV（r=0.534，p<0.001）较高的 STAI 状态（r=0.38，p<0.001）和 PHQ-15（r=0.478,p=0.003）得分，但 SF-36 得分较低（r=-0.675，p<0。001）与较高的基线 PDSS-CV 总分有关，但我们的研究结果没有显示无 AG 的 PD 组的 PDSS-CV 分数、STAI 状态分数、PHQ-15 和 SF-36 分数之间有这种相关性（所有 P>0.05）。回归分析结果表明，PDSS-CV 分数及 STAI 状态分数是 PD 伴有 AG 患者的决定因素（P<0.05）。

结论 伴有 AG 的 PD 患者具有较高的状态焦虑、特质焦虑和恐慌相关症状得分。此外，伴有 AG 的 PD 患者基线 PDSS-CV 分数与 STAI 和 PHQ-15 分数呈正相关。PDSS-CV 分数和 STAI 分数是其共病 AG 的独立预测因素。

关键字：惊恐障碍；广场恐怖症；相关性；因素

不同程度焦虑强迫症患者终纹床核的影像学研究

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目的 强迫症与焦虑症状具有密切的关系，但很少有研究将高焦虑与低焦虑强迫症患者进行比较，探索其异质性。终纹床核（BST）参与对不可预测、模糊不清的威胁作出持续的焦虑反应，它同时也是强迫症深部脑刺激治疗的重要靶点之一。因此本研究以 BST 为感兴趣区域，比较不同程度焦虑的强迫症患者在脑功能与结构上的差异，探索 BST 在强迫症病理生理学模型中的作用。

方法 本研究共纳入 44 例高焦虑强迫症（HO 组）患者，41 例低焦虑强迫症（LO 组）患者，37 例健康对照（HC 组）并采集了人口学、临床症状学和静息态核磁共振成像数据。对三组被试的影像学数据进行基于种子点的低频振幅分析、功能连接（FC）分析以及基于体素的形态学分析。

结果 三组在年龄，性别，受教育年限方面均无显著差异。强迫症患者中，HO 组在贝克焦虑量表，贝克抑郁量表，耶鲁-布朗强迫量表（Y-BOCS）总分、强迫思维、强迫行为和强迫症症状分类量表修订版（OCI-R）总分、强迫思维、排序、精神中和的得分均显著高于 LO 组。在病程，OCI-R 清洗、检查、囤积方面，HO 组与 LO 组无显著差异。三组双侧 BST 的低频振幅与灰质体积均无显著组间差异。在 FC 比较中发现，左侧 BST 与右侧小脑II区、VI区，左侧角回，左侧小脑VIII区的 FC 存在显著组间差异；右侧 BST 与右侧楔前叶，左侧角回，右侧中央前回，左侧中央旁小叶的 FC 存在显著组间差异。事后分析发现，HO 组中右侧 BST 与右侧中央前回 FC 显著高于 LO 组以及 HC 组，LO 组与 HC 组之间无显著差异；在其他 FC 的比较中均有 LO 组显著低于 HO 组以及 HC 组，HO 组与 HC 组之间无显著差异。相关分析发现，右侧 BST 与左侧角回的 FC 在 LO 组中与 BDI 得分、病程显著相关；右侧 BST 灰质体积在 HO 组中与 Y-BOCS 强迫行为得分显著相关，在 LO 组中与 Y-BOCS 强迫思维得分显著相关。

结论 1、低焦虑强迫症患者可能存在较严重的强迫行为问题，其症状严重程度可能存在一定的掩盖与低估。2、低焦虑强迫症患者终纹床核灰质体积减少，顶叶-边缘功能连接降低，可能表示这部分患者更多使用情绪抑制的策略。3、不同程度焦虑强迫症患者 BST-感觉运动区功能连接模式存在差异，可能表示高焦虑强迫症患者需要执行强迫行为以消除或减少焦虑，而低焦虑患者的强迫行为与焦虑并没有密切联系，两者具有不同的神经生理机制与症状模式。

关键字：强迫症，焦虑，终纹床核，核磁共振成像

未服药强迫症患者基于预测编码模型的脑岛结构及协变分析

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目的 探讨未服药强迫症（OCD）患者脑岛亚区与全脑其他脑区皮层厚度的协同变化及疾病严重程度、病程对结构协变的调节作用，试图从脑结构协同变化角度为预测编码模型对强迫症的阐释提供生物学依据。

方法 采集并分析了 58 例未服药 OCD 患者与性别、年龄相匹配的 84 例健康对照者 3.0T 3D T1 结构像扫描，使用 Freesurfer 软件分析了基于 HCP-MMP1.0 模版划分的脑岛亚区的皮层厚度、皮质体积、皮层表面积和局部脑回指数；采用两独立样本 t 检验，纳入年龄、性别、颅内总体积作为协变量，对强迫症组及健康对照组的形态学指标进行统计分析；利用 Surfstat 软件进行基于脑岛各亚区的结构协变分析,并进一步探索强迫症病程及严重程度对结构协变的影响。

结果 （1）相较于健康对照左侧无颗粒区皮质体积更大及颗粒过渡区皮层厚度较小；（2）基于种子点的皮层厚度协变连接的组间比较中，强迫症患者左颗粒亚区与右尾侧前扣带回皮层厚度协变连接、右颗粒过渡区与右扣带回峡部皮层厚度协变连接增强，右颗粒过渡区与右中央旁回过渡至后扣带回皮层厚度协变连接减弱。（3）在病程及严重程度对脑岛亚区结构协变的影响中，我们发现强迫思维分量表及 YBOCS 总量表得分对左颗粒区与右后扣带回的协同性起负向调节作用，病程对左颗粒区与左吻侧前扣带回、右颗粒过渡区与左吻侧前扣带回/内侧眶额叶皮层厚度协变连接起正向调节作用。

结论 未服药强迫症患者脑岛颗粒及颗粒过渡区在大脑中存在广泛的协变脑区，病程及症状严重程度对 OCD 患者脑岛亚区与后扣带回、吻侧前扣带等结构皮层厚度的协同变化具有调节作用。

关键字：强迫症；皮层厚度；脑岛亚区；结构协变

连接

Lymphocyte Subsets As Diagnostic Neuro-inflammatory Biomarkers for Generalized Anxiety Disorder: A Proof-of-Concept Study Based on Machine Learning

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Objective There is an urgent need for biomarkers in the diagnosis of generalized anxiety disorder (GAD). Evidence has converged on activation of the inflammatory response system as a fundamental mechanism underlying GAD. The aim of this study was to diagnose GAD based on lymphocyte subsets.

Methods Lymphocyte subsets in GAD and healthy controls (HCs) were measured and the correlation between clinical characteristics and immunological parameters were analyzed. Logistic regression was applied to determine whether lymphocyte subsets could be used as diagnostic predictors of GAD. Machine learning techniques were applied for the classification of participants with GAD and HCs.

Results Compared with HCs, lymphocyte subsets in GAD patients were significantly altered. Receiver operator characteristic (ROC) curve analysis showed that the area under the curve (AUC) of CD3+CD4+ T cell%, CD3-CD16+ 56+ NK cell count, CD3-CD16+56+ NK cell%, CD4+/CD8+ T cell ratio and CD4-/CD8- T cell% was 0.9492±0.01, 0.8587±0.02, 0.8585±0.02, 0.8557±0.02 and 0.8531±0.02 for GAD patients, respectively. The classification results by machine learning showed an accuracy of 95.00±2.04% using weighted ensemble-L2 methods in distinguishing GAD from HCs.

Conclusion Lymphocyte subsets were useful tools for diagnosing GAD and machine learning was a very effective method for differential diagnosis of GAD.

关键字：generalized anxiety disorder, lymphocyte subsets, diagnostic biomarker, machine learning

青少年心境障碍患者尿酸相关的认知损害模式及神经影像机制研究

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目的 现有研究表明，嘌呤能系统可能与心境障碍的病理机制相关，且尿酸作为嘌呤能系统的代谢终产物，有研究提示其与心境障碍患者的认知损害存在关联，但具体机制及关系尚不明确。本研究关注尿酸代谢紊乱相关的青少年心境障碍患者认知改变模式及其神经影像学机制，针对伴或不伴高尿酸血症的患者，应用静息态功能磁共振成像手段探索与心境障碍抑郁发作患者认知功能相关的脑区自发活动改变特征，为今后进一步探索嘌呤代谢系统参与青少年心境障碍的病理机制提供理论基础，为提高临床防治水平提供客观生物学标记。

方法 入组 340 例目前为抑郁发作的南京医科大学附属脑科医院早期干预科住院 12～18 岁的心境障碍患者，依据是否有高尿酸血症（高尿酸血症定义为男性>420 umol/L，女性>360 umol/L ）将患者分为伴高尿酸血症组和不伴高尿酸血症组。完成所有受试者临床信息采集、重复性成套神经心理状态测验(RBANS)及静息态功能磁共振扫描。去除 4 例由于 C 反应蛋白水平过高不可用的外周血尿酸数据，最终入组伴高尿酸血症组 91 例，不伴高尿酸血症组 245 例。在 Matlab 软件上对磁共振原始数据预处理，使用 DPABI 软件计算并提取各组研究对象的 mALFF 值并比较两组患者全脑脑区自发活动的差异。利用 SPSS 软件进行独立样本 t 检验，比较伴高尿酸血症组、不伴高尿酸血症组之间重复性成套神经心理状态测验(RBANS)的差异。患者外周血尿酸水平与特异性脑区 mALFF 值做 Pearson 相关分析。

结果 1）伴与不伴高尿酸血症组的的重复性成套神经心理状态测验(RBANS)中注意力项目总分存在显著差异（t=-2.675，p=0.008）。2）相对于伴高尿酸血症组，不伴高尿酸血症组患者的左侧中央后回（p=0.001 ,GRF 校正）mALFF 值下降。3）两组患者左侧中央后回 mALFF 与外周血尿酸水平呈正相关（r=0.267，p=0.000）。

结论 伴与不伴高尿酸血症的心境障碍抑郁发作患者存在认知功能差异，且左侧中央后回的自发活动与心境障碍抑郁发作患者的尿酸水平存在相关性，尿酸可能参与心境障碍抑郁发作患者认知损害的神经病理机制。

关键字：心境障碍；认知功能；静息态功能磁共振；中央后回

一种基于弥散张量成像的强迫症患者脑白质纤维束新型追踪研究

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目的 强迫症（Obsessive-Compulsive Disorder, OCD）是一种以强迫思维和/或强迫行为为主要临床表现的精神障碍，弥散张量成像（Diffusion tensor imaging, DTI）技术已揭示出 OCD 患者大脑白质微结构的广泛异常。随着 DTI 分析技术的进步，近年来对 OCD 的脑白质研究不再局限于传统的体素分析方法，更多研究开始使用基于纤维束追踪的分析方法探索 OCD 白质微结构的改变。本研究采用基于解剖结构的纤维追踪（ Tracts Constrained by Underlying Anatomy,

TRACULA）探究 OCD 白质微结构改变的特征，以及这些白质异常与临床症状的相关性，以期验证并补充强迫症的病理机制假说。

方法 纳入 48 名无合并症 OCD 患者（含 19 名未用药患者）和 39 名健康对照进行磁共振扫描，采集 T1 加权结构像和 DTI 图像，并采用耶鲁-布朗强迫量表、汉密尔顿焦虑量表 14 项版本、汉密尔顿抑郁量表 17 项版本评估 OCD 患者的临床症状。采用 TRACULA 标准处理流程提取 42 条白质纤维的部分各向异性分数（fractional anisotropy, FA）、平均扩散率（mean diffusivity, MD）、径向扩散率（radial diffusivity, RD）等弥散参数指标。采用协方差分析（年龄和性别为协变量）对纤维束的弥散参数指标进行组间比较。对组间差异显著的纤维束（$p<0.05$），将其弥散参数与临床量表评分进行偏相关分析（年龄和性别为协变量）。未用药 OCD 患者与健康对照的亚组分析方法同上。

结果 与健康对照相比，OCD 患者有 30 条纤维 FA 降低、22 条纤维 MD 升高、36 条纤维 RD 升高；未用药 OCD 患者右侧听辐射的白质纤维 FA 降低，右侧下纵束 FA 降低且 RD 升高，右侧钩束 MD 和 RD 升高。偏相关分析发现 OCD 患者胼胝体嘴部 RD 升高与耶鲁-布朗强迫量表评分间存在正相关关系；未用药 OCD 患者白质弥散改变与临床症状间无显著相关关系。

结论 本研究基于 DTI 技术，采用 TRACULA 追踪白质纤维，探究强迫症患者白质微结构改变。研究结果揭示 OCD 在钩束、下纵束等皮质-纹状体-丘脑-皮质环路外脑区存在白质微结构改变，且首次发现未用药 OCD 右侧听辐射白质纤维的弥散异常。钩束的弥散异常提示额叶-边缘系统环路可能在 OCD 病理机制中具有重要作用。

关键字：强迫症；白质微结构；弥散张量成像；TRACULA；

EEG Characteristics and Brain Function Analysis of Different-course Patients with Generalized Anxiety Disorder

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Objective Generalized anxiety disorder (GAD) is a common and disabling disease, which duration of the illness is closely related to its prognosis.?Without timely and effective treatment, brain function of patients would be impaired. But few studies have reported the duration of the disease with the results of cognitive impact based on electroencephalogram (EEG) to explore the impairment on brain function.

Methods Resting-state EEG analysis was performed in 34 patients with GAD. The patients were divided into long-course group and short-course group. Then, EEG features in each frequency band were extracted (including univariate power spectral density (PSD), fuzzy entropy (FE), and multivariable functional connectivity (FC)). These features were evaluated by three previously validated machine learning methods to test the accuracy of classification criteria.

Results Features extraction analysis showed significantly decreased PSD and FE in the long-course group, especially in alpha 2 band. Moreover, FC analysis indicated that the connection between the left and right hemispheres decreased in the long-course group. The machine learning results suggested that the accuracy rate of long and short course of disease was reasonable on the basis of 6 months.

Conclusion The brain function of patients with long course of disease is more obviously impaired, which is of great significance for early diagnosis and treatment.

关键字：electroencephalogram (EEG); power spectrum density (PSD); fuzzy entropy (FE); functional connectivity (FC); brain function; machine learning

Abnormal Local Activity and Functional Connectivity of The Putamen in Obsessive Compulsive Disorder

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Objective The putamen plays a critical role in the development of obsessive-compulsive disorder (OCD). The primary objective of this study was to examine the resting-state regional activity and functional connectivity patterns of the putamen in individuals diagnosed with OCD.

Methods To achieve this, we employed resting-state functional magnetic resonance imaging (rs-fMRI) to collect data from a sample of 38 OCD patients and 50 healthy control participants. Through the utilization of a regional amplitude of low-frequency fluctuation (ALFF) analysis and a correlation-based functional connectivity (FC) approach, we aimed to investigate alterations in both the local activity and long-range connectivity of the putamen in individuals with OCD.

Results Compared to controls, the patients group demonstrated decreased ALFF in bilateral putamen. The right putamen also displayed decreased FC with the left inferior gyrus (IFG), bilateral precuneus extending to calcarine, and the right middle occipital cortex extending to the right middle temporal cortex. However, for the left putamen, the FC alterations were not significant after Gaussian random field (GRF) correction ($P > 0.05$) at voxel level or cluster level. The decreased connectivity between the right patumen and the left IFG was negatively correlated with YBOCS Obsession Scores.

Conclusion This study aimed to reveal the putamen changes in resting-state activity and connectivity in OCD

patients, highlighting the significance of aberrant ALFF/FC of the putamen is a key characteristic of OCD.

关键字：obsessive-compulsive disorder/putamen/resting-state fMRI/the amplitude of low-frequency fluctuation/functional connectivity

强迫症患者纹状体结构与功能的磁共振影像学研究

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目的 皮层-纹状体-丘脑-皮层环路（CSTC）异常是强迫症病理机制的经典假说。纹状体（包括尾状核、伏隔核和壳核）作为 CSTC 环路中的核心交通脑区，在强迫症神经生物学机制中发挥重要作用。既往针对强迫症纹状体的研究纳入受试对象常存在用药、合并症等混杂因素干扰，研究结果难以揭示强迫症本质的病理生理基础。本研究拟纳入大样本、未用药、无合并症的强迫症患者，基于多模态磁共振成像技术，从结构和功能两个角度探索强迫症患者纹状体的改变特征。

方法 纳入 92 名未用药、无合并症的强迫症患者和 90 名年龄、性别相匹配的健康对照，进行磁共振扫描，采集 T1 加权结构像和静息态功能像。使用 FreeSurfer 软件对结构像进行纹状体的自动分割。提取双侧尾状核、伏隔核、壳核体积值，通过协方差分析（年龄、性别、颅内总体积为协变量）进行组间比较。以双侧尾状核、伏隔核、壳核作为种子点，构建体素水平的全脑功能连接图。使用 SPM 软件通过双样本 t 检验（年龄、性别、头动为协变量）进行纹状体功能连接的组间比较。

结果 结构分析发现：与健康对照相比，强迫症患者双侧尾状核体积减小（左侧：未校正 p=0.039；右侧：未校正 p=0.013），但组间差异经多重比较校正后不显著。功能连接分析发现：（1）与健康对照相比，OCD 患者纹状体（包括左侧尾状核、左侧伏隔核、右侧伏隔核和左侧壳核）与内侧前额叶皮质功能连接升高；（2）OCD 患者右侧伏隔核与左侧枕中回功能连接较健康对照升高。

结论 本文研究结果揭示 OCD 功能连接异常除 CSTC 环路内的前额叶-纹状体外，还涉及 CSTC 环路外脑区。本研究通过新兴的精神影像学手段从脑功能网络角度验证了强迫症的 CSTC 环路机制假说，并进一步扩展了强迫症的 CSTC 环路模型。

关键字：精神影像 强迫症 纹状体 静息态脑功能连接

社会支持对焦虑和抑郁的影响：自我和谐的中介作用

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目的 焦虑和抑郁是最常见的心理障碍，探究焦虑和抑郁的心理影响因素能够为其干预和治疗工作提供理论依据和技术指导。社会支持被认为可以促进个体的身心健康，自我和谐指内部的协调一致以及自我和经验的协调。本研究旨在探索社会支持对焦虑和抑郁症状的影响，以及自我和谐在其中的中介作用。

方法 在 2022 年 4 月至 2023 年 3 月之间，对本医院心理治疗门诊的 1933 名成人患者，采用一般资料调查表、7 项广泛性焦虑障碍量表、9 项患者健康问卷、社会支持评定量表、自我和谐量表进行调查。

结果 门诊患者焦虑和抑郁的发生率分别为 87.38%，90.02%。其中 83.76%的患者焦虑和抑郁共病。焦虑、抑郁与社会支持、自我和谐均呈负相关（均 P<0.001）。社会支持对抑郁和焦虑具有显著的预测作用（均 P<0.001），自我和谐在社会支持预测焦虑症状（β=-0.187,P<0.001）和抑郁症状（β=-0.224,P<0.001）中具有显著的中介效应，中介效应大小分别为 87%和 66%。

结论 社会支持能够预测焦虑和抑郁水平，且通过自我和谐水平影响焦虑、抑郁症状。因此提高患者的社会支持情况、通过心理治疗等干预手段提高门诊患者的自我和谐水平、减少内心冲突对缓解焦虑和抑郁症状都具有重要意义。

关键字：社会支持，自我和谐，焦虑，抑郁

Network Analysis of Suicide Ideation and Depression-anxiety Symptoms Among Chinese Adolescents

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Objective The co-occurrence of depression and anxiety among adolescents is common and associated with suicide ideation (SI). The present study aimed to investigate the symptom-level relationship between SI and comorbidity of depression and anxiety.

Methods A network analysis of depression and anxiety symptoms of 716 adolescents (PHQ-9 ≥ 5 and GAD-7 ≥ 5) was conducted using R. The participants were grouped into the SI group and the non-SI group. Their depression-anxiety symptom networks were compared between the two groups.

Results "Restlessness", "Sad mood", and "Trouble relaxing" were the most prominent central symptoms in the depression-anxiety symptom network, and "Restlessness", "Nervousness", and "Reduced movement" were the bridge symptoms in this network. "Sad mood" was found to be directly related to "Suicide ideation" with the highest variance. The network structure was significantly different in properties between adolescents with SI (SI group) and

those without (non-SI group), with “Restlessness” and “Sad mood” exhibiting significantly higher influence in the network of the SI group than that in the non-SI group.

Conclusion Restlessness and sad mood might be targets for the intervention of depression-anxiety symptoms among adolescents with suicide ideation.

关键字：suicide ideation, depression, anxiety, adolescent, network analysis

老年精神病学组

Preliminary Analysis of Volume-based Resting-state FMRI Characteristics of Successful Aging in China

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Objective Resting-state function MRI (rs-fMRI) research of successful aging can deeply understand the aging mechanism from a different perspective from aging related disease. rs-fMRI research were used to analyze the brain function characteristics of successful aging.

Methods Totally 47 usual aging (UA) individuals and 26 successful aging (SA) individuals underwent rs-fMRI scans and neuropsychological tests. Volume-based rs-fMRI data analysis was performed with DPASF to obtain ALFF, ReHo, DC, and VMHC.

Results The SA group showed increased ALFF in right opercular part of inferior frontal gyrus (IFGoperc.R) and right supramarginal gyrus; increased ReHo in right middle temporal pole gyrus and decreased ReHo in left superior frontal gyrus and middle occipital gyrus; increased DC in right medial orbitofrontal gyrus and pulvinar part of thalamus; decreased DC in left fusiform gyrus and right medial frontal gyrus; increased VMHC in right medial orbitofrontal gyrus; and decreased VMHC in the right superior temporal gyrus, right and left middle temporal gyrus, right and left triangular part of inferior frontal gyrus. ALFF in IFGoperc.R were found to be significantly correlated with MMSE scores (r=0.301, p=0.014) and ages (r=0.264, p=0.032) in all subjects, which could be used to distinguish the SA (AUC=0.733, 95% CI: 0.604-0.863) by ROC analysis.

Conclusion The brain regions with altered fMRI characteristics in SA group were concentrated in frontal (6 brain regions) and temporal (4 brain regions) lobes. ALFF in IFGoperc.R was significantly correlated to cognitive function and ages, which could be used to distinguish the SA.

关键字：Successful aging, Resting-state fMRI, ALFF, ReHo, DC, VMHC

上海市嘉定区社区老年人焦虑、抑郁状况及其相关因素调查分析

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目的 了解上海市嘉定区老年人焦虑抑郁状况及其相关危险因素，为后期制定针对性干预方案提供依据。

方法 采用自行编制调查表及焦虑自评量表（SAS）、抑郁自评量表（SDS）调查 2022 年某社区已

经建立居民健康档案的 60 岁及以上的 1023 名老年人的焦虑、抑郁现状,采用多因素 logistic 回归分析方法分析社区老年人焦虑、抑郁的影响因素。

结果 社区老年人焦虑检出率为 2.7%，抑郁检出率为 1.5%。社区男性老年人 SDS 得分显著高于女性（p<0.05）。≥80 岁社区老年人 SDS 得分显著低于≥60 岁且＜80 岁的老年人（p<0.01）。吸烟、饮酒的社区老年人 SAS、SDS 均显著低于不吸烟及不饮酒的老年人（p<0.01）。患冠心病、糖尿病及脑卒中的社区老年人 SAS、SDS 均显著高于未患冠心病、糖尿病及脑卒中的老年人（p<0.05）。患高血压的社区老年人 SDS 得分显著高于未患高血压的老年人（p<0.05）。做过手术的社区老年人 SAS 得分显著高于未做过手术的社区老年人（p<0.01）。多因素 Logistic 回归分析结果显示，老年人焦虑抑郁的相关因素均是冠心病和糖尿病。

结论 社区老年人具有一定程度的焦虑、抑郁症状，应注重合并躯体疾病的老年人，尤其是冠心病与糖尿病。 【基金项目】上海市嘉定区卫生健康委员会第五批医学重点学科建设精神病学方向(2020-jdyxzdxk-17)

关键字：社区；老年人；焦虑；抑郁

Exploring Variations in Cerebrospinal Fluid Volume Among Remitted Geriatric Depression, Mild Cognitive Impairment, and Healthy Aging: Insights From Magnetic Resonance Imaging

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Objective Both remitted geriatric depression (RGD) and amnesic mild cognitive impairment (aMCI) are common conditions in the elderly and are associated with cognitive and affective changes. Understanding the neuroanatomical differences among these groups can provide valuable insights into the underlying mechanisms of these conditions. This study aimed to investigate the differences in brain tissue volumes among individuals with RGD, aMCI and healthy aging controls (HCs).

Methods Participants were recruited with the inclusion criteria for the RGD group included a history of geriatric depression with complete remission at the time of enrollment and the aMCI group consisted of individuals were determined by clinical assessments and standardized cognitive tests. Healthy aging without a history of psychiatric or neurological disorders were included as the control group. All participants underwent T1-weighted structural magnetic resonance imaging (MRI) scans using a standardized imaging protocol. The images were processed using CAT 12 software to extract total brain gray matter, white matter and CSF volumes. Statistical analyses were performed to compare the volumes among the three groups.

Results The analysis included a total of 322 participants, with 93 RGD, 88 aMCI and 141 HCs individuals. No significant differences were found in total brain white matter and gray matter volumes among three groups ($p > 0.05$). However, there was a significant difference in CSF volume ($F = 14.022$, $p < 0.001$). Post-hoc analysis using pairwise comparisons with Bonferroni correction revealed that the RGD group had the smallest CSF volume (242.27 mm3), followed by the control group (261.53 mm3), while the aMCI group had the largest CSF volume (278.26 mm3) (RGD vs. aMCI $p < 0.001$, RGD vs. HCs $p = 0.005$, aMCI vs HCs $p = 0.023$).

Conclusion This study provides evidence of differential CSF volume among individuals with RGD, aMCI and HCs. The smaller CSF volume in the RGD group suggests potential neurobiological changes associated with geriatric depression. The larger CSF volume observed in the aMCI group may reflect neurodegenerative processes or compensatory mechanisms. These findings contribute to our understanding of the neuroanatomical alterations associated with different cognitive and affective states in older adults, and highlight the potential utility of CSF volume as a neuroimaging marker for these conditions. Further research is warranted to explore the clinical implications and longitudinal changes in CSF volume in these populations.

关键字：remitted geriatric depression, amnesic mild cognitive impairment, neuroanatomical differences

A Neuromarker for Deficit Syndrome in Schizophrenia From A Combination of Structural and Functional MRIs

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Objective Deficit schizophrenia (DS), defined by primary and enduring negative symptoms, has been proposed as a promising homogeneous subtype of schizophrenia. It has been demonstrated that unimodal neuroimaging characteristics of DS were difference from non-deficit schizophrenia (NDS), however, whether multimodal-based neuroimaging features could identify deficit syndrome remains to be determined.

Methods Functional and structural multimodal magnetic resonance imaging of DS, NDS and healthy controls were scanned. Voxel-based features of gray matter volume, fractional amplitude of low-frequency fluctuations and regional homogeneity were extracted. The support vector machine classification models were constructed using these features separately and jointly. The most discriminative features were defined as the first 10% features with the greatest weights. Moreover, relevance vector regression was applied to explore the predictive values of these top-weighted features in predicting negative symptoms.

Results The multimodal classifier achieved a higher accuracy (75.48%) compared with the single modal

model in distinguishing DS from NDS. The most predictive brain regions were mainly located in the default mode and visual networks, exhibiting differences between functional and structural features. Further, the identified discriminative features significantly predicted scores of diminished expressivity factor in DS but not NDS.

Conclusion The present study demonstrated that local properties of brain regions extracted from multimodal imaging data could distinguish DS from NDS with a machine learning-based approach and confirmed the relationship between distinctive features and the negative symptoms subdomain. These findings may improve the identification of potential neuroimaging signatures and improve the clinical assessment of the deficit syndrome.

关键字：deficit schizophrenia, structural and functional MRIs, machine learning

Interaction of APOE Genotype and Amnesia Mild Cognitive Impairment on Gray Matter Volume in Brain Structural Alterations

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Objective The APOE gene is known to be associated with increased risk for Alzheimer's disease (AD), and its different allelic variants ε4 has been shown to modulate the susceptibility to cognitive decline and neurodegenerative changes. The present study aimed to investigate the interaction effect of APOE genotypes and cognitive impairment on gray matter volume (GMV) in the brain.

Methods Participants included 195 individuals categorized into four groups based on their APOE genotype (ε4 carriers and ε4 non-carriers) and amnesia cognitive status (aMCI and healthy controls). High-resolution structural magnetic resonance imaging (MRI) scans were obtained for all participants and the toolbox CAT 12 was performed to measure GMV in all brain regions.

Results The results revealed that individuals with the ε4 allele exhibited significantly decreased GMV in bilateral hippocampus and parahippocampal gyrus, right middle temporal pole, left superior frontal gyrus, and left posterior cingulate gyrus compared to those without the ε4 allele in aMCI group (GRF correction, threshold set at voxel $p < 0.001$, cluster $p < 0.05$). This ε4 allele effect on GMV was not observed in the healthy control group. A significant interaction effect for APOE genotypes and group on GMV was found in bilateral hippocampus and parahippocampal gyrus.

Conclusion The findings suggest that the presence of the APOE ε4 allele may exacerbate the neurodegenerative changes associated with aMCI specifically in the hippocampus and parahippocampal regions. The hippocampus and parahippocampal gyrus is known to be involved in memory encoding and retrieval, and its structural alterations have been linked to early stages of AD. The interaction between APOE genotypes and aMCI in this region may represent a potential mechanism underlying the increased vulnerability to cognitive decline in ε4 carriers with aMCI.

关键字：APOE Genotype，amnesia Mild Cognitive Impairment，gray matter volume

Frequency Band Specificity Alteration of Neural Activity in Deficit Schizophrenia: A Resting-state FMRI Study

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Objective Deficit schizophrenia, a subtype of schizophrenia, is characterized by a distinct clinical profile characterized by enduring negative symptoms and a lack of response to antipsychotic medications. Previous resting-state functional MRI studies have identified the spontaneous brain activity pattern of DS. However, most of these studies focused on the standard frequency band (0.01-0.08Hz) without considering the potential influence of different frequency bands of brain signal activity. This study aimed to investigate the frequency-specific abnormalities of amplitude of low-frequency fluctuations (ALFF) in DS patients compared to non-deficit schizophrenia (NDS) and healthy controls (HCs).

Methods A sample of 225 subjects including 57 DS (age 50.79±8.48 years), 76 NDS (age 49.79±7.75 years) and 92 healthy controls (age 50.60±7.94 years) were recruited in this study. Clinical assessments were conducted by the Brief Psychiatric Rating Scale (BPRS) and subtypes of schizophrenia were determined based on negative symptom profiles using Schedule for Deficit Syndrome (SDS). The functional MRI data were calculated using the DPABI toolbox and standardization process were performed for frequency bands in each group respectively. Specifically, we analyzed the aberrant changes in ALFF in two frequency bands (slow-4 and slow-5) and explored their associations with clinical symptoms.

Results Compare with healthy controls, the schizophrenia subjects showed significantly difference ALFF in fusiform, temporal pole, hippocampus, rectus, calcarine, caudate, angular and middle cingulum in full frequency band. The main effects of schizophrenia subgroup were located in the brain regions including middle temporal pole, super frontal gyrus, fusiform, infer temporal gyrus, thalamus and caudate. The main effect of the frequency bands of ALFF revealed the brain regions including frontal lobe/medial frontal gyrus and rectus. Furthermore, the interaction of subgroup and frequency bands on ALFF in significantly altered region was in right putamen. A negative correlation was observed between the ALFF in the right putamen and BPRS scores ($r=-0.297$) in NDS group, while the right middle temporal pole and SANS in DS ($r=-0.429$) both within the slow-5 frequency band.

Conclusion This study provides insights into the

relationship between schizophrenia subtype and frequency-specific characteristics derived from fMRI data. The results suggest that the slow-5 band appears to be more responsive to subtle differences in DS and NDS subgroups comparisons. Identification of frequency-specific patterns can contribute to a better understanding of the neural mechanisms underlying primary negative symptoms in schizophrenia.

关键字：Frequency Band, Deficit Schizophrenia, Resting-state fMRI

Gut Microbiota Regulates Depression, in A Manner Mediated by Antibiotic Resistance Genes

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Objective To explore the potential role of antibiotic resistant genes (ARGs) on the drug efficacy in major depressive disorder treatment.

Methods We collected samples from 63 depressed patients and 30 healthy controls for metagenomic sequencing. The characteristics of the microbiota, functional characteristics and ARGs difference between the two groups were analyzed. The effect of differential characteristics on treatment was analyzed by Cox models.

Results We found different microbiota composition and functional changes in patients with depression relative to HC. We obtained 30 differential KOs and their producers in 5 genera and 7 species by HUMAnN3. We found 6 KOs from Weissella_cibaria including Phenylalanine, tyrosine, and tryptophan biosynthesis (K01736), Homologous recombination (K03581), Glycolysis / Gluconeogenesis(K01223), Starch and sucrose metabolism (K02761) and Lactobacillus_plantarum including purine metabolism (K01952), Phosphotransferase system (K02757) are potentially coring functional mechanism of gut microbiota. Different metabolites including sphingolipids, pyrans, prenol lipids, and isoflavonoids also showed significance between MDD and HC. We detected 48 significantly different ARGs and a total of 5 ARGs up-regulated and 43 ARGs down-regulated in MDD compared to HC. Three ARGs had a significant effect on drug efficacy (ARG29, ARG105, and ARG111). Eggerthella, Weissella and Lactobacillus were correlated with different core ARGs, which indicated different mechanisms in affecting MDD.

Conclusions We found distinct microbiota profiles, including functional and metabolic differences, between MDD and HC. More importantly, we established a link between ARGs and depression as well as gut microbiota. The role of ARGs should be taken into account when understanding the relationship between depression and gut microbiota.

关键字：gut microbiota, depression, antibiotic resistance gene, metabolite

老年抑郁症静息状态大脑皮层神经振荡时空模式研究

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目的 通过 EEG 静息态频谱分析技术，探索 LLD 患者低频和高频振荡的频谱能量、EEG 拓扑分布模式及固有脑连接模式。

方法 纳入 LLD 患者 39 例及健康老年人 40 例，采用简易精神状态检查（Mini Mental State Examination，MMSE）及汉密尔顿抑郁量表 17 项（Hamilton Depression Rating Scale，HAMD-17）评估总体认知功能和抑郁严重程度。使用 EGI 64 导联电极帽采集 5 分钟静息闭眼状态脑电，采用 MATLAB 2016 和 EEGLAB 14.0 进行离线脑电数据预处理，采用频谱分析及功能连接方法进行脑电数据分析，测量所有被试在感兴趣频段（delta、theta、alpha 和 beta）的功率谱能量及功能连接指标。两组患者功率谱能量及功能连接指标采用两样本独立 t 检验，将年龄、受教育程度及精神科药物使用纳设为协变量，并采用错误发现率法（FDR）对 p 值进行校正。

结果 （1）频谱分析：①1-3Hz delta 频段能量上，LLD 组与 NC 组在 FCz、Pz、Oz 的能量差异无统计学意义（所有 $p>0.05$）；②4-7Hz theta 频段能量上，LLD 组在 Oz 的能量大于 NC 组，差异具有统计学意义（Oz：LLD 组 1.000μV2，NC 组 0.820μV2，$t=2.154$，$p=0.036$）；③8-12Hz alpha 频段能量上，LLD 组在 Oz 的能量大于 NC 组，差异具有统计学意义（Oz：LLD 组 1.820μV2，NC 组 1.350μV2，$t=1.954$，$p=0.04$）；④13-30Hz beta 频段能量上，LLD 组的 FCz 能量大于 NC 组，差异具有统计学意义（FCz：LLD 组 0.540μV2，NC 组 0.440μV2，$t=1.954$，$p=0.03$）。（2）连通性分析：两组被试在 delta、theta、alpha 的加权相位滞后指数（wPLI）差异均未见统计学意义（均 $p>0.05$）；在 beta 频段，LLD 组左顶叶-前额区，左顶叶-右颞枕区的功能连接值 wPLI 明显低于 NC 组。

结论 LLD 患者存在以枕区 theta、alpha 为主的低频振荡及额区 beta 高频振荡能量增高特点，提示 LLD 患者枕区皮层低频活动抑制增强及额区皮层过度活跃，以及左顶区为主的 beta 高频振荡功能连通性下降。

关键字：老年抑郁症，静息态脑电，频谱分析，连通性分析

合肥地区 65 岁以上老年人痴呆现状调查及影响因素分析

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目的 人口老龄化已经成为我国乃至全世界面临的严峻问题，拟对合肥地区老年人痴呆状况进行调查，并探讨与老年人痴呆相关的影响因素。

方法 本次调查为安徽省人口健康基金会发起的公益行动，于 2022 年 9 月 6 日至 10 月 12 日以合肥某社区为试点，以 65 岁及以上老年居民作为调查对象，记录其居住及生活方式、吸烟饮酒史、慢性躯体疾病史等，采用老年抑郁量表（GDS）、痴呆简易筛查量表（BSSD）对抑郁和认知功能状况进行评估。BSSD 量表按照不同教育程度分组，以文盲组 BSSD 评分≤16 分，小学组 BSSD 评分≤19 分，中学组 BSSD 评分≤22 分，考虑为痴呆筛查阳性。GDS 量表以≥11 分考虑为轻度抑郁，≥21 分为中重度抑郁。计划目标调查人数 500 人，以年龄为因素，采用分层抽样的方法，由社区办对其进行通知，最终共调查老年人 342 人（68.4%），调查中途退出 6 人，年龄不符合条件者 5 人，共收回有效问卷 331 份（96.8%）。

结果 （1）一般资料：男性 143 人（43.2%），女性 188 人（56.8%）；65~74 岁 209 人（63.1%），75~84 岁 106 人（32.0%），≥85 岁 16 人（4.8%）；（2）痴呆检出率：痴呆阳性者 28 人，阳性率为 8.5%，患病率高于我国精神卫生调查 65 岁以上老年人数据（5.6%）；（3）影响因素：女性痴呆的患病率是男性 2 倍多（10.2% vs 4.9%）；85 岁以上老年人 43.8%伴有痴呆，远高于 65~74 岁（6.2%）及 75~84 岁人群（7.5%）；丧偶者发生痴呆风险较已婚者高（17.1% vs 5.6%）；独居老年的痴呆风险较与子女居住者、与老伴居住者高（14.5% vs 13.8% vs 4.2%）；此外，老年人中 13.0%存在轻度抑郁，1.8%存在中重度抑郁，合并抑郁老年人痴呆患病率显著高于不合并抑郁者（24.5% vs 4.7%）（均 $P < 0.05$）。

结论 合肥地区老年人痴呆检出率较高。基于调查结果，建议应加强科普宣教，开展认知功能评估，构建痴呆筛查与干预服务体系，强化专业服务能力培训，建立老年人脑健康档案等。此外，亦应多关注老年人抑郁状况，鼓励寻求抑郁症治疗。 【基金项目】安徽省省属公立医疗卫生机构引进高层次人才奖补；2019 年度国家临床重点专科能力建设项目；安徽省人口健康基金会阿尔兹海默病公益行动项目

关键字：老年人；痴呆；合肥；影响因素

Associations of Adverse Childhood Experiences with Common Psychiatric Disorder in Later Life：Results From The China Mental Health Survey

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Objective Associations between adverse childhood experiences (ACEs) and common psychiatric disorders among older Chinese individuals have not been well reported. The objectives of this study are to examine the prevalence of ACEs and the associations of ACEs with common psychiatric disorders among older adults in China.

Methods The study used data from the China Mental Health Survey (CMHS), a nationally representative epidemiological survey, which used computer-assisted personal interviewing (CAPI) to examine community-based adult psychiatric disorders and associated risk factors. Finally, 2317 individuals aged 60 years or over were included in the CMHS. The national prevalence of ACEs in older adults were estimated and logistic regression were used to analyse the association between ACEs and past-year psychiatric disorders.

Results Prevalence of ACEs among older adults in China was 18.1%. The three most common types of ACEs were neglect (11.6%), domestic violence (9.2%), and parental loss (9.1%). This study proved the association between ACEs and common past-year psychiatric disorders in older adults. ACEs increased the risk of past-year psychiatric disorders in older adults. After adjustment for age, sex, marital status, employment status, education, rural or urban residence, region, and physical diseases, the association between ACEs and past-year psychiatric disorders were still significant.

Conclusion ACEs are linked to an increased risk for past-year psychiatric disorders in older adults. ACEs may have long-term effects on older adults' mental well-being. Preventing ACEs may help reduce possible adverse health outcomes in later life.

关键字：Adverse childhood experiences; psychiatric disorder; mental health; older adults

阿尔茨海默病患者炎症因子在胶质纤维酸性蛋白与认知功能关系中的中介作用

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目的 阿尔茨海默病（Alzheimer's disease，AD）是中枢神经退行性疾病之一，以进行性认知功能损害为特征，已经成为全球性的公共卫生问题。本研究主要观察星形胶质细胞标志物胶质纤维酸性蛋白(glial fibrillary acidic protein，GFAP)与炎症因子指标水平在 AD 患者与认知功能正常老年人之间的差异，分析 GFAP、炎症因子指标水平与认知功能之间的关系，探讨星形胶质细胞标志物与炎症因子指标水平在 AD 患者起病中的作用。

方法 纳入符合入组标准的 AD 患者 50 例作为研究组，认知功能正常老年人 50 例作为对照组，比较研究组和对照组 MMSE、MoCA 评分差异，血清炎症因子与 GFAP 水平差异；分析 GFAP、炎症因子水平与认知功能水平的相关性；分析 GFAP 水平与炎症因子水平相关性；探讨炎症因子水平在 GFAP 水平和认知功能水平间的作用。

结果 AD 组和 NC 组在 MMSE、MoCA 评分之间存在显著性差异，差异有统计学意义（均 $P<0.001$）；AD 组血清炎症因子 IL-1β、IL-6、TNF-α 及 GFAP 水平均高于 NC 组，差异具有统计学意义（均 $P<0.001$）；

AD 组患者血清 IL-1β、TNF-α、GFAP 水平与 MMSE 评分及 MoCA 评分均呈负相关（均 P＜0.01）；线性回归方程结果显示，血清 IL-1β、TNF-α、GFAP 水平可以解释 MMSE 评分 64.5%的变化量，可以解释 MoCA 评分 63.3%的变化量；AD 组血清 GFAP 与炎症因子 IL-1β、TNF-α 呈正相关，与 IL-6 无明显相关性；中介效应模型结果显示炎症因子 IL-1β、TNF-α 介导了 GFAP 水平与 AD 患者认知功能之间的关系。

结论 AD 患者存在反应性星形胶质细胞标志性蛋白 GFAP 水平升高，炎症因子 IL-1β、IL-6、TNF-α 水平升高；GFAP 水平，IL-1β、TNF-α 水平与认知功能存在负相关；炎症因子 IL-1β、TNF-α 介导了 GFAP 与 AD 患者认知功能之间的关系。

关键字：阿尔茨海默病，认知功能，星形胶质细胞，炎症因子

银杏叶提取物对 APP/PS1 小鼠星形胶质细胞、神经炎症、PI3K/AKT/NF-κB 通路作用的研究

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目的 阿尔茨海默病（Alzheimer’s disease，AD）是中枢神经退行性疾病之一，以进行性认知功能损害为特征。银杏叶提取物(Ginkgo biloba extract，GBE)作为中医药制剂品种之一，在 AD 等神经退行性疾病中也显示出神经保护作用。本研究以 APP/PS1 转基因小鼠作为动物模型，探讨 GBE 对其行为学、星形胶质细胞、神经炎症、PI3K/AKT/NF-κB 通路等的影响。

方法 以 APP/PS1 转基因小鼠作为动物模型，将实验鼠分为 5 组，每组 10 只，Control 组(正常组小鼠，生理盐水)、 Blank 组(AD 模型组小鼠，生理盐水)、GBE 低剂量组（AD 模型组小鼠+剂量 1.5 ml/kg），GBE 中剂量组（AD 模型组小鼠+剂量 3ml/kg），GBE 高剂量组（AD 模型组小鼠+剂量 6ml/kg）。使用生理盐水，GBE 灌胃，每日 1 次，连续 4 周。干预 4 周后进行行为学测试，包括旷场实验，Morris 水迷宫测试。行为测试后对小鼠脑组织进行取材，取静脉血。HE 染色观察海马区神经元细胞，免疫组化观察海马区星形胶质细胞，Western Blot 法、实时荧光定量 PCR 法比较各组小鼠海马组织内 PI3K/AKT/NF-κB 通路相关蛋白表达水平及 mRNA 表达水平差异，Elisa 法比较各组小鼠血清炎症因子水平的差异。

结果 GBE 可以改善 APP/PS1 小鼠旷场实验的水平穿格次数，中央格停留时间，Morris 水迷宫测验的逃避潜伏期，平台穿越次数；HE 染色显示 GBE 能够保护 APP/PS1 小鼠神经元，高剂量组神经元细胞数量较多，少数细胞形态变形，整体排列紧密，结构完整；免疫组化结果显示GBE高剂量组能明显抑制反应性星形胶质细胞；Western blot、qRT-PCR 结果显示 GBE 可调节 APP/PS1 小鼠 PI3K/AKT/NF-κB 信号通路，ELISA 检测结果显示 GBE 可以降低 APP/PS1 小鼠神经炎症。

结论 GBE 可保护 AD 小鼠神经元免于受损，改善认知功能，可能与抑制星形胶质细胞过度激活、调节 PI3K/AKT/NF-κB 通路、降低神经炎症有关。

关键字：阿尔茨海默病，银杏叶提取物，认知功能，星形胶质细胞，炎症因子

青岛市 65 岁以上居民老年痴呆现况调查报告

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目的 调查青岛市 65 岁以上居民老年痴呆检出率及相关风险因素

方法 通过分层抽样方式进行调查，采用 AD8 痴呆早期筛查问卷、简版社区痴呆筛查表（CSI-D）作为调查老年痴呆筛查工具。老年痴呆筛查阳性相关因素分析采用单因素分析，对单因素分析中有统计学意义的相关因素采取 Logistic 回归分析.

结果 老年痴呆初筛阳性人数 3412 人，初筛阳性检出率为 64.24%。性别、年龄、文化程度、职业高血压、类风湿关节炎、脑血管疾病、椎间盘疾病、缺血性心脏病、个人收入、家庭收入、饮酒都会影响老年痴呆的阳性检出率。女性患老年痴呆的可能性是男性的 1.36 倍；随着年龄的增长，患老年痴呆的风险逐渐增加，居民患老年痴呆的可能性分别是 65-69 岁居民的 1.38 倍、1.85 倍、2.1 倍、2.5 倍；老年痴呆随文化程度的增加阳性检出率下降，小学、初中、高中/职高/中专、大专/本科患老年痴呆的可能性分别是不识字或者识字很少群组的 38.7%、28.8%、24.2%、12.2%；农民和非农民职业之间的老年痴呆阳性检出率具有显著差异，农民是非农民的 2.34 倍；丧偶群体更易患老年痴呆风险更高，是已婚群体的 1.75 倍；患有慢性病群体老年痴呆风险更高，是无慢病群体的 1.34 倍;高血压、类风湿关节、脑血管疾病、椎间盘疾病、缺血性心脏病，患老年痴呆风险更高；老年痴呆随收入的增加患病风险逐渐下降，高收入家庭患老年痴呆的风险更低。 有饮酒史和饮酒的人相比于不饮酒的更低，患病风险分别是饮酒的 78.3%、75.4%。

结论 老年痴呆初筛阳性检出率为 64.24%。其中女性的阳性的检出率高于男性；随着年龄的增长老年痴呆的阳性检出率呈现出递增的趋势；随着文化程度的提高老年痴呆的阳性检出率呈现出先下降后上升的趋势，尤其是不识字和识字很少群体阳性检出率最高；在不同的职业类型人群中，农民群体是老年痴呆阳性检出率最高的群体；丧偶群体的老年痴呆阳性检出率相较于其已婚、未婚和离异群体阳性检出率更高；患有慢性的居民比普通居民检出率高，不同类型的慢性病阳性检出率不同，脑血管疾病阳性检出率最高；饮酒同不饮酒或有既往饮酒史的人群性检出率更高；吸烟同不吸烟或有既往吸烟史群体的阳性检出率无明显差异；身体状况与老年痴呆阳性检出率呈正比，身体状况越差，阳性检出率越高。

关键字：老年痴呆、痴呆相关风险因素

Altered Patterns of Dynamic Functional Connectivity of Brain Networks in Deficit and Non-deficit Schizophrenia

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Objective Deficit schizophrenia (DS) is considered as one of the subtypes of schizophrenia. This study aims to investigate the altered patterns of dynamic functional network connectivity (dFNC) in patients with DS and Non-deficit schizophrenia (NDS) and further explore the associations with clinical symptoms and cognitive impairments.

Methods 70DS, 91NDS, and 120matched healthy controls (HCs) were enrolled. The group ICA was used to segment the whole brain into 91 principal components. Then the Stanford functional network template was used to identify six brain functional networks. GIFT was used to explore the dynamic functional connectivity (FC) of each network. Finally, partial correlation analysis was used to explore the correlations between altered dFNC and clinical symptoms and cognitive functions in DS and NDS patients.

Results Four dynamic states were identified by k-means clustering method. In the group comparisons of dFNC, DS and NDS showed the common alterations of network FC compared to HCs in state2, state3 and state4. Furthermore, compared to NDS, DS showed increased FC between sensorimotor network and default mode network in state1 and decreased FC within auditory network in state4. The mean dwell time of state1 and state2 in DS and the mean dwell time of state1 and state3 in NDS were longer than that in HCs. The mean dwell time of state4 in DS and NDS was shorter compared to HCs. Compared to NDS, DS had longer mean dwell time of state2 and shorter mean dwell time of state3. Correlation analysis showed that the frac time and mean dwell time of states were correlated with negative symptoms and cognitive impairments in DS.

Conclusion The present study demonstrated the distinctive altered patterns of dFNC in brain networks in DS and NDS patients. The associations between altered dFNC and clinical symptoms and impaired cognition revealed the specific neuroimaging mechanism underlying the pathogenesis of DS.

关键字：deficit schizophrenia; dynamic functional network connectivity; group ICA; neurocognition

绝经前和绝经后女性血清 γ-谷氨酰转肽酶与动脉硬化之间的关系

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目的 探讨绝经前和绝经后女性血清 γ-谷氨酰转肽酶（GGT）与动脉硬化之间的关系。

方法 随机选取 2019 年 1 月至 2021 年 1 月在南京梅山医院体检中心接受过 baPWV 检查和血清 GGT 测定的女性体检者 309 例，根据是否绝经，分为绝经前组（n=135）和绝经后组（n=174）。收集研究对象的基线资料，并采用臂踝脉搏波传导速度（baPWV）评估动脉硬化程度，baPWV≥1400cm/s 定义为存在动脉硬化。根据三分位数分别将绝经前和绝经后女性分为低、中等和高水平 GGT 亚组，采用二元 Logistic 回归分析模型评估 GGT 和动脉硬化之间的关系。

结果 绝经后组 GGT 水平、baPWV 值和动脉硬化比例高于绝经前组（均 P＜0.05）。单因素二元 Logistic 回归分析显示，绝经前女性 GGT 与动脉硬化之间的相关性无统计学意义（P＞0.05），而绝经后女性 GGT 与动脉硬化呈正相关关系（P＜0.05）。控制混杂因素后，多因素二元 Logistic 回归分析结果显示，绝经后女性 GGT 与动脉硬化呈正相关关系（OR=1.08，95%CI：1.02～1.14，P＜0.05），GGT 高水平组发生动脉硬化风险是低水平组的 4.21 倍（OR=4.21，95%CI：1.56～11.42，P＜0.05），而绝经前女性 GGT 水平与动脉硬化间相关性无统计学意义（P＞0.05）。

结论 血清 GGT 水平与绝经后女性动脉硬化呈正相关关系，临床中需要重点关注绝经后女性的血清 GGT 水平，为其动脉硬化的早期发现和干预提供依据。

关键字：γ-谷氨酰转肽酶；动脉硬化；臂踝脉搏波传导速度；绝经

The Causal Relationship between Circulating Biomarkers and The Risk of Bipolar Disorder: A Two-sample Mendelian Randomization Study

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Objective To identify susceptible biomarkers for the development of bipolar disorder, we conducted a Mendelian Randomization (MR) design to screen circulating proteins for the potential risk of bipolar disorder systematically.

Methods We performed a two-sample Mendelian randomization (MR) analysis to estimate the causality of 4782 human circulating proteins on the risk of bipolar disorder. 376 circulating biomarkers were selected in MR estimation (4406 circulating proteins with less than 3 SNPs were excluded) with 5,368 European descents. GWAS meta-analysis of the potential role of all-cause bipolar disorder arose from the Psychiatric Genomics Consortium (41,917 cases, 371,549 controls).

Results After IVW and sensitivity analysis, 4 circulating proteins having causal effects on bipolar disorder were identified. ISG15, as a key player in the innate immune response, decreased the risk of bipolar disorder causally (OR=0.92, 95% CI=0.89-0.94, P=1.46e-09). Furthermore, MLN decreased the risk of bipolar disorder causally (OR=0.94, 95% CI=0.91-0.97, P=1.04e-04). In addition, SFTPC (OR=0.91, 95% CI=0.86-0.96, P=4.47e-04) and VCY (OR=0.86, 95% CI=0.77-0.96, P=8.55e-03) presented a suggestive association with bipolar disorder.

Conclusion Our findings indicated that ISG15 and MLN showed evidence of causality in bipolar disorder and provided a promising target for the diagnosis and treatment of diseases.

关键字：circulating proteins, bipolar disorder, mendelian randomization, causal effect

行为变异型额颞叶痴呆患者岛叶亚区的结构和功能连接改变特征

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目的 行为变异型额颞叶痴呆（bvFTD）是最常见的早发性痴呆之一，目前在我国患病率不详。bvFTD 早期表现为情绪、行为异常和执行功能下降，症状可能与脑功能失调相关。既往研究认为岛叶参与情绪处理，在执行功能中具有“守门人”的关键作用。岛叶并不是单一脑区，是由不同亚区组成，然而岛叶亚区结构与功能的改变及其与症状关系在 bvFTD 中并未充分研究。

方法 本研究于 2011 年至 2017 年于北京大学第六医院记忆门诊招募 26 名 bvFTD 患者，在社区招募性别、年龄、教育程度匹配的健康对照。所有被试完成标准的神经心理评估及影像学检查。岛叶亚区采用 Human Brainnetome Alta 进行分割，分割后的岛叶亚区作为感兴趣区（ROI）进行功能连接分析。计算被试 ROI 的灰质体积，ROI 外部和内部功能连接，分析结构、功能与神经心理评估相关性。

结果 与健康对照相比，bvFTD 患者认知、执行功能存在显著下降，神经精神症状评估存在显著上升。bvFTD 患者所有岛叶亚区体积均存在明显萎缩，腹侧和背侧无颗粒岛叶萎缩更严重；与左侧脑区相比，右侧脑区岛叶亚区萎缩程度更重。患者 ROI 外部及内部功能连接显著下降，各 ROI 的外部功能连接结果存在特异性，但所有 ROI 与前、中扣带功能连接结果则表现具有一致性。bvFTD 患者功能连接减少与执行功能下降存在相关性。

结论 bvFTD 岛叶亚区结构、功能改变具有特征性，岛叶亚区在不同脑网络中发挥作用且与症状相关，因此岛叶结构和功能的损伤可能是 bvFTD 症状产生的重要神经靶点。

关键字：行为变异型额颞叶痴呆 岛叶 亚区 功能连接

上海市某区社区精神分裂症患者生活质量及其影响因素

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目的 了解上海市虹口区社区精神分裂症患者生活质量，并探索其影响因素。

方法 选取上海市虹口区 120 名门诊就诊社区康复的精神分裂症患者为研究对象。采用自编问卷、精神分裂症患者生活质量量表（SQLS）、阳性与阴性症状量表（PANSS）、自尊量表（SES）、社会支持评定量表（SSRS）、药物依从性量表（MARS）、社交回避及苦恼量表（SAD）、疾病家庭负担量表（FBI）等评估患者生活质量及相关可能影响因素，并通过线性回归分析探索其影响因素。

结果 多元线性回归分析显示，性格特征（95%CI：-5.933~-1.430，p=0.002）、同住人（95%CI ：-29.204~-14.386，p<0.001）和疾病家庭负担（95%CI：0.442~1.045，p<0.001）是精神分裂症患者生活质量的主要影响因素。

结论 社区精神分裂症患者生活质量与多种因素存在相关，包括性格特征、同住人和疾病家庭负担等，这为制定改善社区患者生活质量的干预方案提供了参考依据。

关键字：社区； 精神分裂症；生活质量；影响因素

神经炎症因子在改良电痉挛治疗老年抑郁症伴发自杀观念的疗效预测作用研究

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目的 探讨基线白细胞介素 1β（interleukin 1β，IL-1β）和白细胞介素 6（interleukin 6，IL-6）水平对改良的无抽搐电休克治疗(non-convulsively Modified electroconvulsive therapy, MECT)老年抑郁症患者自杀观念疗效的预测作用。

方法 本项目纳入老年抑郁症患者共 58 例，所有患者均伴有自杀观念，进行 5-8 次 MECT 治疗，采集患者治疗前、治疗后 2 周的血液标本及人口学资料、临床症状评估资料，测定基线 IL-1β 和 IL-6 水平，分析基线 IL-1β 和 IL-6 水平与临床症状疗效的关系。

结果 MECT 治疗 2 周末有效组患者 31（53.4%）例，无效组患者 27（46.6%）例，相较于无效组患者，有效组患者基线 IL-6 水平较高（P＜0.05）。单因素 Logistic 回归分析结果示：男性患者相较于女性患者不易治疗有效（OR＝0.323；95% CI：0.107-0.973；p ＜0.05），而较高的基线 IL6 水平的患者更易于治疗有效，差异具有统计学意义(OR =9.240; 95% CI: 2.704-31.575; P< 0.001)。而比较两组的基线 HAMD-17 总分、年龄、

起病形式、首发/复发及精神病家族史情况，结果显示两组间均无明显差异（P 均＞0.05）。且多因素 Logistic 回归模型分析显示：男性(OR = 0.147; 95% CI: 0.025-0.874; P＜0.05)和较高的基线 IL6 水平(OR = 17.261; 95% CI: 2.966-100.44; P＜0.05)是治疗有效的独立影响因素。

结论 血清 IL-6 在老年抑郁症伴自杀症状的患者体内呈高水平，与 MECT 治疗老年抑郁症患者疗效好具有一定的关系,可用于抑郁症患者预后的预测。

关键字：神经炎症因子；改良电痉挛治疗；老年抑郁症；自杀观念

癌症人群中睡眠时间和全因死亡率的关系

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目的 本研究通过使用 NHANES 数据，研究睡眠时间对癌症患者的影响，从而为癌症幸存者提供睡眠建议参考意见。

方法 利用本研究基于美国国家健康和营养调查（National Health and Nutrition Examination Survey，NHANES）数据库，分析了 1253 名癌症参与者的健康数据。本研究的主要结局为全因死亡率。采用 Logistic 回归模型分析不同睡眠时间与全因死亡率的关系。

结果 1.癌症患者中出现抑郁症状的患者总计 147 人，平均年龄为 58.78±14.34 岁，平均的 BMI 为 29.77±7.44，平均睡眠时间为 6.31±1.85 小时，未出现抑郁症状的癌症患者总计 1106 人，平均年龄为 66.38±13.72 岁，平均的 BMI 为 28.57±6.09。平均睡眠时间为 7.09±1.37 小时。 2.癌症患者中睡眠时间在 7-8 小时时，其 12 个月时的累计死亡率约为 0.32%，24 个月时约为 2.00%，36 个月时约为 4.75%，48 个月时约为 6.33%，60 个月时约为 9.81%。睡眠时间小于 7 小时的患者 12 个月时的累计死亡率约为 0.30%，24 个月时约为 6.45%，36 个月时约为 10.14%，48 个月时约为 13.13%，60 个月时约为 17.74%。睡眠时间超过 8 小时的患者 12 个月时的累计死亡率约为 0.32%，24 个月时约为 6.16%，36 个月时约为 12.13%，48 个月时约为 16.70%，60 个月时约为 19.68%。 3.在多因素 logistic 回归分析中显示，相比于睡眠时间在 7-8 小时的癌症患者，睡眠时间的减少和增加与全因死亡率增加有关（OR=1.97，95%CI 1.34, 2.91，P<0.001），（OR=1.44，95%CI 1.01, 2.07，P=0.048）。

结论 睡眠时间与全因死亡率呈 U 型关系。在癌症幸存者中，睡眠时间少于 7 个小时或睡眠时间超过 8 个小时都会增加全因死亡率。过度的睡眠不意味着更长的生存期。因此，保证睡眠时间在 7-8 小时左右对延长癌症幸存者的生存期具有明显作用。

关键字：睡眠 癌症

双相躁狂患者在不明确情境下的风险决策功能损害研究

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目的 决策能力损害是双相障碍（bipolar disorder，BPD）患者的特征性表现。双相躁狂患者即使达到临床缓解，其决策能力损害依然存在。过分参与可能带来痛苦后果的高风险决策活动是双相躁狂（bipolar disorder-mania，BPD-M）患者的特征性症状之一。本文研究了双相躁狂患者在不明确情境下的风险决策功能损害。

方法 入2022年度在淮安市第三人民医院就诊的30 例双相躁狂患者为研究组，以性别、年龄、受教育年限为条件 1:1 匹配 30 名健康人为对照组，使用爱荷华博弈测试（Iowa Gambling Task, IGT）测评受试对象在风险不明确情境下的决策功能，使用 SPSS 26.0 统计软件对上述数据进行检验分析。

结果 研究组 IGT 净得分显著低于对照组(P<0.05)，在第 1~3 区间的冒险分数无显著差异，在第 4 和第 5 区间研究组得分高于对照组，差异具有统计学意义(P<0.05)；5 个区间的冒险得分进一步行两因素重复测量方差分析，发现组内主效应不显著(P＞0.05)，组间主效应显著(P<0.05)；组内和组间交互作用显著(P<0.05)。

结论 不同于健康常人的低风险有利决策倾向，在风险不明确情境下，双相躁狂患者几乎不考虑全局和利益最大化，而是盲目追求眼下的高利益，对其伴随的高风险更是缺乏正确认识，从而多选择高风险不利决策，即使在遭遇失败后也很少及时进行学习反思，难以在失败中吸收经验。

关键字：双相躁狂，社会认知损害，爱荷华博弈测试

Identifying Risk Factors To Predict Violent Behaviour in Community Patients with Severe Mental Disorders: A Retrospective Study of 5277 Patients in China

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Objective Patients with Severe Mental Disorders (SMD) have a higher risk of violent behaviour than the general population. The study aimed to investigate the predictive factors for the occurrence of violent behaviour in community SMD patients.

Methods The cases and follow-up data were collected from SMD patient Information Management system in Jiangning District, Jiangsu Province. The incidence of violent behaviours was described and analyzed. Logistic regression model was used to examine the influencing factors for violent behaviours in those patients.

Results Among 5277 community patients with

SMD in Jiangning District, 42.4% (2236/5277) had violent behaviours. The stepwise logistic regression analysis revealed that the disease-related factors (including disease type, disease course, times of hospitalization, medication adherence, past violent behaviours), the demographic factors (age, male sex, unmarried, educational level, economic and social living status), and the policy-related factors (like free treatment, reward instead of subsidy, family physician services, and community interviews) were significantly related to the violent behaviours in community SMD patients. After gender stratification, we found that male patients with unmarried status and with a longer course of disease were more likely to violent. However, we found that female patients with lower economic status and educational experience were more likely to violent.

Conclusion Our results suggest that community SMD patients had a high incidence of violent behaviour. The findings may provide valuable information for policymakers and mental health professionals worldwide taking a number of measures to reduce the incidence of violence in community SMD patients and to better maintain social security.

关键字：Severe Mental Disorder; violent behaviour; risk factors; community psychiatric management physicians

首发精神分裂症患者糖脂代谢与血清瘦素/脂联素分析

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目的 探讨首发精神分裂症患者与健康人群糖脂代谢的差异性。

方法 选取 2021 年 1 月-2023 年 3 月湖州市第三人民医院住院的首发精神分裂症患者 80 例为研究组。另选取同期年龄、性别等与之相匹配的 80 例健康体检人群作为对照组，通过比较两组的糖脂代谢指标及血清瘦素及脂联素水平，分析首发精神分裂症患者糖脂代谢特点。

结果 研究组的空腹血糖（FGLU））为（4.83±0.52）mmol/L，对照组为（4.71±0.46）mmol/L，两组无统计学差异（P>0.05）；研究组的甘油三酯（TG）、 高密度脂蛋白（HDLC）指标均分别为（1.18±0.38）mmol/L、（1.18±0.30）mmol/L，对照组的 TG 和 HDLC 指标分别为（1.15±0.21）mmol/L、（1.73±0.42）mmol/L，两组的 TG 指标无统计学差异（P＞0.05），两组的 HDLC 有统计学差异（P＜0.05）。研究组的瘦素水平为（11.61±1.19）ng/mL，对照组的瘦素水平为（11.21±1.04）ng/mL，两组无统计学意义（P>0.05）；研究组脂联素水平为（5.54±3.66）ug/mL，对照组脂联素水平为（4.19±2.21）ug/mL，两组存在统计学差异（P＜0.05）。

结论 首发精神分裂症患者存在脂代谢异常，其 HDLC 指标低于正常人，而脂联素的指标高于正常人，持续关注上述指标，能够评价患者代谢水平，且为患者后续治疗提供重要信息依据。

关键字：首发精神分裂症； 糖脂代谢； 瘦素 ；脂联素

Sex Differences of Cognitive Function Trajectories and Their Determinants in Older Adults: Evidence From The Chinese Longitudinal Healthy Longevity Survey

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Objective To examine sex differences in cognitive trajectories of a nationally representative sample of older people living in China, and to explore potential determinants of these trajectories.

Methods The study included 2,230 women and 2,171 men, who were cognitively healthy and aged over 60 at the first observation from the Chinese Longitudinal Healthy Longevity Survey (CLHLS) based on the 2008 - 2018 cohort. Cognitive function was measured using the Chinese version of the Mini-Mental State Examination (MMSE). Group-based trajectory modeling was used to identify potential heterogeneity of longitudinal changes over the 10 years. Logistic regression was used and to investigate associations between baseline characteristics (age, education, fertility history, sleep length, physical activity, and health status and behaviors) and trajectory classes.

Results Three trajectories (labelled as stable, slow decline, and rapid decline) were identified according to the changes in MMSE scores for both females and males. For the female, both the slow and rapid decline groups accounted for a larger proportion (14.7% and 11.0% respectively) than the male decline groups (8.1% and 6.6% respectively), and the female had a lower baseline MMSE score with a faster decline. In the multivariable logistic regression analyses, age, education, age at first birth, physical activity, hearing impairment, and baseline MMSE score were significantly associated with cognitive decline both in the female and male groups compared to the stable ones. For the female subjects, currently exercising, overweight/obese, and sleeping over 9 hours were also associated with the cognitive decline trajectory.

Conclusion The female older adults had an overall more serious cognitive decline than their male counterparts. The potential determinants of cognitive decline identified in this study could be considered for developing specific intervention strategies aimed to promote a healthy brain and prevent cognitive decline in different sexes, especially in low-income and developing countries.

关键字：cognitive decline; group-based trajectory model; sex differences; CLHLS; risk factors

老年抑郁患者周围神经损伤的初步探索研究

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目的 探讨老年抑郁患者，相比正常老年和阿尔茨海默病患者的周围神经感觉运动受损的情况。

方法 选取上海市精神卫生中心老年科自2023年03月01日至2023年05月30日住院的患者，符ICD-10诊断标准抑郁障碍的老年患者（Late life depression,LLD）38例；阿尔茨海默病（Alzheimer disease,AD）患者36例，以及认知功能正常（Normal control,NC）的上海社区老人55例。LLD组、AD组、NC组均使用Nicolet EDX肌电图仪完成正中神经运动、感觉传导，腓总神经运动传导、腓肠神经感觉传导的检测。同时收集患者的性别、年龄、文化程度、BMI、躯体疾病、认知功能等一般资料。所有数据及统计分析通过SPSS26.0版本软件处理，设P0.05)。 2、感觉神经功能比较：三组间感觉神经传导潜伏期的差异有统计学意义(正中神经 F=11.92,P<0.05; 腓肠神经F=10.81,P<0.05)，其中LLD组、AD组均大于NC组；三组间腓肠神经感觉传导速度的差异有统计学意义(F=3.48,P<0.05)，其中LLD组小于NC组，差异具有统计学意义(P<0.05) 。3、运动神经功能比较：三组间正中神经运动传导潜伏期的差异有统计学意义(腕F=19.16,P<0.05;肘F=9.46,P<0.05)，其中疾病组均大于NC组；三组间正中神经运动传导速度的差异无统计学意义(F=2.80,P>0.05) 。三组间腓总神经运动传导潜伏期的差异有统计学意义(踝 F=12.04,P<0.05; 膝F=8.47,P<0.05)，其中膝部LLD组、AD组均大于NC组，踝部LLD组大于NC组，差异具有统计学意义;三组间腓总神经运动传导速度的差异有统计学意义(F=14.4,P<0.05)，其中AD组小于NC组，差异具有统计学意义 (P<0.05)。所有组间比较结果都控制性别、年龄、受教育程度、BMI、躯体疾病等变量。

结论 老年抑郁患者和阿尔茨海默病患者具有相似而又不同的周围神经感觉传导和运动传导受损:老年抑郁患者周围神经感觉、运动传导受损与疾病机制的关系有待进一步研究。

关键字：阿尔茨海默病；老年抑郁症；周围神经

Intrinsic Capacity Impairment Increased The Mortality Risk Among Older Chinese Adults: A Cohort Study Based on The Chinese Longitudinal Healthy Longevity Survey (CLHLS)

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Objective Based on a cohort from the Chinese Longitudinal Healthy Longevity Survey (CLHLS), we aimed to evaluate the relationship between intrinsic ability (IC) impairment and mortality risk among older Chinese adults.

Methods We conducted a prospective analysis based on 5596 participants above 65 years old from the CLHLS at baseline (in 2014), and as a 4-year follow-up (till 2018), 2224 participants (39.7%) died. IC score included 48 indicators and was divided 5 domains—psychological, cognitive, vitality, sensory, and locomotion—and individuals who received higher scores had more severe disabilities. A hazard regression model was used to examine the association between baseline IC score and the risk of mortality after adjusting for sociodemographic data.

Results After controlling for several confounders (age, sex, occupation, etc.), we discovered individuals whose IC scores increased by one point had a 9.6% (HR=1.096, 95%CI=1.090-1.103). The highest score group was used as the reference for an examination of the IC score's categorical variate, which revealed a positive link between the IC score and mortality risk, with the risk of mortality growing as the IC score increasing (p<0.001). Additionally, the domain scores for psychological, cognitive, vitality, and locomotion all showed that the higher score had a higher risk of mortality (p<0.001).

Conclusion For older individuals, having the well intrinsic ability may decrease the risk of mortality as they age. Concentrating on the functional approach to healthy aging could be a useful method.

关键字：Intrinsic capacity; mortality risk; older Chinese adults; cohort study.

Antidepressant Effect of Bright Light Therapy on Patients with Alzheimer's Disease and Their Caregivers

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Objective As a non-pharmacologic treatment, bright light therapy (BLT) is often used to improve affective disorders and memory function. In this study, we aimed to determine the effect of BLT on depression and electrophysiological features of the brain in patients with Alzheimer's disease (AD) and their caregivers using a light-emitting diode device of 14000 Lux.

Methods A 4-week case-control trial was conducted. Neuropsychiatric and electroencephalogram (EEG) examination were evaluated at baseline and after 4 weeks. Demographic and clinical variables were compared and analyzed between the different groups using t test for continuous variables and a chi-squared test for categorical variables. Pearson's correlation was used to determine the correlation between electrophysiological features, blood, and the cognitive assessment scale.

Results In this study, 22 admitted patients with AD and 23 caregivers were recruited. After BLT, the Hamilton depression scale score decreased in the fourth week. Compared to the age-matched controls of their caregivers, there was an increase in spectral power at the lower delta and theta frequencies in the AD group. After BLT, the EEG power of the delta and theta frequencies in the AD group

decreased. There were no changes in blood amyloid concentrations before and after BLT.

Conclusion In conclusion, a 4-week course of BLT significantly suppressed depression in patients with AD and their caregivers. The effect of BLT on changes in EEG power can be potentially used as efficacy assessment indicators of therapy.

关键字：bright light therapy, Alzheimer's disease, depression, EEG, biomarkers

Clinical Hallmarks and Peripheral Immune Factors of Antipsychotic-Induced Constipation in Schizophrenia

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Objective Constipation is a common adverse reaction of antipsychotic treatment in schizophrenia. This study explored the prevalence, risk factors and immune factors in antipsychotic-induced constipation.

Methods A total of 159 schizophrenia patients were divided into constipation and non-constipation groups based on Rome IV constipation criteria. The Positive and Negative Syndrome Scale (PANSS), Constipation Assessment Scale (CAS), Bristol Stool classification Scale(BSS) were used for evaluation. Afterwards, 44 C patients and 44 NC patients underwent the ProcartaPlex test for the detection of peripheral immune factors.

Results The incidence of constipation was 35.2% (56pm 159). Among the 88 patients, the serum IL-10 level in the constipation group was significantly higher than that in the non-constipation group. the equivalent dose of clozapine was negatively correlated with IL-1β. The logistic regression analysis indicated that IL-10 as a significant predictor of constipation.

Conclusion The relatively high prevalence of antipsychotic-induced constipation should drive clinicians to be more alert of the condition. In particular, clozapine use necessitate careful surveillance for constipation. Our findings also point to an inflammatory basis in antipsychotic-induced constipation,peripheral immune factor IL-10 may be related to the occurrence of constipation.

关键字：Antipsychotics; Clozapine; Constipation; IL-10; Peripheral immune factors; Schizophrenia.

综合医院痴呆患者抗精神病药物使用情况变化趋势的研究分析

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目的 超过 90%的痴呆患者出现过痴呆的精神行为症状，抗精神病药物药物常用于痴呆中精神病和激越等的治疗。但使用抗精神病药物会增加痴呆患者认知能力下降、脑血管事件和死亡等风险。各国食品药品管理部门均曾发布相关安全警告，但我国尚缺乏痴呆中抗精神病药物使用情况变化的相关研究。本研究旨在了解综合医院中痴呆患者抗精神病药物使用情况的变化趋势及相关因素。

方法 本研究采用重复横断面研究方法对综合医院就诊的痴呆中抗精神病使用情况的变化趋势进行研究。研究对象：在一大型综合医院就诊的痴呆患者。纳入标准：2009 年 1 月 1 日到 2021 年 12 月 31 日就诊的痴呆患者；排除标准：精神分裂症、双相情感障碍、偏执型精神障碍患者。研究方法：A 数据检索：检索医院 HIS 系统中痴呆患者的相关数据；B 数据集成：人口学资料、痴呆类型、用药情况等；C 数据分析：通过 SPSS Statistics 22.0 和 R version 4.1.2 进行统计分析，对抗精神病药物使用的相关因素进行回归分析。

结果 从 2009 年到 2021 年痴呆患者合计 35218 例，男性 48.8%，女性 51.2%，年龄为 18 岁-110 岁。每位患者仅取第一年就诊数据，共计 20866 人，男性 50.2%，女性 49.8%，平均年龄（71.79±12.57）岁，其中，阿尔茨海默病占比最高（64.3%），其次是血管性痴呆（14.7%）。2009 年到 2021 年痴呆患者人数逐渐增加，但抗精神病药物的年度使用率则总体呈下降趋势，其中使用率最高的是奥氮平，其次是喹硫平。抗痴呆药物使用率呈增加趋势，以多奈哌齐为主，其次为美金刚。抗抑郁药物使用率也呈增加趋势。其它合并药物中，使用率最高的是镇静催眠药物，其次是降脂药。抗精神病药物药物合并美金刚、胆碱酯酶抑制剂+美金刚、抗抑郁药、降脂药使用率有增多趋势，合并镇静催眠药物、镇痛药使用率有减少趋势。回归分析显示，抗精神病药物的使用与年龄（≥75 岁）、女性、混合性痴呆、阿尔茨海默病、路易体痴呆、亨廷顿病、美金刚、抗抑郁药物、抗癫痫/心境稳定剂、镇静催眠药物、抗帕金森病药物呈正相关，与血管性痴呆、轻度认知功能障碍、胆碱酯酶抑制剂、抗焦虑药、降脂药、镇痛药呈负相关。

结论 痴呆患者抗精神病药物使用率总体呈下降趋势，有利于减少其不良影响。鉴于相关安全警告，痴呆中抗精神病药物的替代涉及胆碱酯酶抑制剂、抗焦虑药物、降脂药等的联合使用。

关键字：痴呆；抗精神病药物；重复横断面研究

首发老年抑郁症患者认知功能损害特征分析

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目的 探讨首发 LOD 患者认知功能损害与临床症状的相关性；探讨首发 LOD 患者与正常受试者的认知功能差异，分析首发 LOD 的认知功能损害特征。

方法 选取 2021 年 1 月至 2022 年 5 月就诊于首都医科大学附属北京安定医院的首发老年抑郁症患者共 30 例，均符合美国精神障碍诊断与统计手册第五版（DSM-5）抑郁障碍诊断标准，同时招募性别、年龄、教育文化水平匹配的健康志愿者 30 例作为健康对照组。通过自编一般情况问卷收集人口学资料和临床资料，应用汉密尔顿抑郁量表（HAMD）、患者健康问卷（PHQ-9）进行临床症状评估。应用简易精神状态检查（Mini-Mental State Examination ，MMSE）、蒙特利尔量表（Montreal Cognitive Assessment ，MoCA）、成套神经心理状态测验（Repeatable Battery for the Assessment of Neuropsychologieal Status，RBANS）对两组被试进行认知功能评定。采用两独立样本 t 检验比较两组间 RBANS 总分及各因子分、MOCA 总分。应用 pearson 相关分析方法分析 LOD 组 HAMD 总分、各因子与各认知领域损害的相关性。

结果 1、病例组共 30 例，对照组 30 例（剔除 3 例，最终 27 例），两组年龄、性别、文化程度均无统计学差异（P＞0.05）。首发 LOD 组 RBANS 总分、即刻记忆因子分、视觉空间因子分、延迟回忆因子分、言语功能因子分、注意力因子分均低于对照组，两组间差异有统计学意义（p＜0.05）。2、LOD 组临床症状与认知功能相关分析结果显示：LOD 组患者焦虑躯体化症状与数字广度呈负相关（r=-0.440，p=0.008）；LOD 组患者认知障碍与词汇学习呈负相关（r=-0.342，p=0.032）；LOD 组患者认知障碍与故事复述呈负相关（r=-0.307，p=0.049）；LOD 组患者认知障碍与即刻记忆因子呈负相关（r=-0.390，p=0.017）；LOD 组患者睡眠障碍与图画命名呈负相关（r=-0.376，p=0.020）。

结论 首发 LOD 患者的认知功能损害涉及记忆力、注意力、视空间能力、执行功能、言语功能五大领域；焦虑躯体化症状越突出，患者注意力损害越明显；患者失眠越重，言语功能损害越明显。

关键字：首发老年抑郁症；认知功能损害；

热休克蛋白 Hsp90 在阿尔茨海默病模拟细胞中作用机制的研究

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目的 本项目旨在通过体外细胞实验研究方法探讨明确热休克蛋白 90（Hsp90）及下游靶蛋白受体相互作用蛋白激酶 1（RIPK1）与阿尔茨海默病（AD）的关系。

方法 将小鼠海马神经元 HT-22 细胞经 Aβ25-35 处理，建立 Aβ25-35 诱导的 AD 细胞模型，引起神经元细胞凋亡的增加。Aβ 导致细胞 caspase-3、Bcl-2、Hsp90、淀粉样前体蛋白（APP）、早老素 1（psen-1）蛋白的水平表达异常增加。用 Hsp90（siHsp90）干扰片段和 Hsp90 过表达质粒分别处理 Aβ 诱导的 HT-22 细胞后，可有效干预 APP 和 psen-1 蛋白的表达。总之，在神经元细胞遭 Aβ 损伤后，Hsp90 诱导的 RIPK1 高表达可导致 APP 和 psen-1 蛋白表达量增高。APP 和 psen-1 蛋白表达量增高是 AD 患者的重要病理生理表现。这些结果表明 Aβ 通过 Hsp90/RIPK1 途径介导的 APP 和 psen-1 蛋白表达量增高诱导了 HT-22 细胞凋亡。

结果 与对照组相比，Aβ25-35 组抑制了 HT-22 细胞活力，不同浓度的 Aβ25-35 作用 HT-22 细胞 24h 后，细胞存活率呈剂量依赖性逐渐下降，差异有统计学意义。Aβ25-35 损伤持续一定时间后促使细胞凋亡，抗凋亡蛋白 Bcl-2 表达量降低、凋亡蛋白 caspase-3 蛋白表达量增高、APP、psen-1 蛋白表达量异常增加。siHsp90 作用 Aβ25-35 损伤的 HT-22 细胞后，与 Aβ25-35 组相比，Aβ25-35+siHsp90 组促进细胞活性，降低其凋亡率，同时 Bcl-2 表达量增高、caspase-3 蛋白表达量降低、APP、psen-1、RIPK1 蛋白表达量降低。

结论 本项研究模拟了与 AD 相关的病理过程，并提出 Hsp90/RIPK1 可能是 AD 的发病机制之一。本项工作可为 AD 的防治提供新的理论依据。

关键字：阿尔茨海默病；Aβ25-35；Hsp90；HT-22 细胞；RIPK1

丁酸钠通过促进自噬和抑制炎症改善阿尔茨海默病模型的病理

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目的 探究丁酸钠（Sodium butyrate，NaB）对阿尔茨海默病（Aizheimer's disease，AD）病理模型的自噬和炎症的影响及其作用机制。

方法 使用 Aβ25-35 作用于 PC12 细胞建立体外 AD 模型，通过 NaB 对体外 AD 模型和小胶质细胞 BV2 进行处理，分组设置分别为：PC12 细胞、PC12 细胞+Aβ25-35、PC12 细胞+Aβ25-35+NaB；BV2 细胞、BV2 细胞+Aβ25-35、BV2 细胞+Aβ25-35+NaB。使用蛋白质印迹法、免疫荧光、EdU 染色法法评估自噬通路及炎性蛋白标记物的表达。

结果 丁酸钠可以促进 AD 模型细胞的增殖，降低 Tau 蛋白过度磷酸化水平。丁酸钠可以抑制小胶质细胞的炎症反应，降低炎症反应标志物 NLRP3（148.313±0.973 vs.113.291 ±1.218，t=38.91，P<0.001）的表达。同时，丁酸钠促进小胶质细胞中自噬通路相关蛋白（包括 Beclin-1、LAMP-1 和 LC3II/I）的表达，激活了小胶质细胞的自噬反应。

结论 丁酸钠可以通过促进小胶质细胞的自噬反应和减少炎症反应来改善阿尔茨海默病模型的病理。

关键字：阿尔茨海默病、炎症、自噬、丁酸钠、

NLRP3

阿尔兹海默病患者睡眠节律紊乱与肠道菌群的相关性研究

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目的 初步探讨阿尔兹海默病（AD）患者、伴或不伴睡眠节律紊乱的 AD 患者和认知正常的老年人群之间肠道菌群的组成特点，并探究其菌群组成及其代谢是否存在差异。

方法 纳入首次诊断为 AD 的患者作为实验组（AD 组）共 46 例；根据有无睡眠节律紊乱将 AD 组分为 AD 伴睡眠节律紊乱组（SD 组）22 例和 AD 不伴睡眠节律紊乱组（NSD 组）24 例。同时期招募来本院进行体检的与 AD 组相匹配的认知正常老年人作为对照组（CN 组）共 31 例。收集所有被试者的粪便样本进行 16S rRNA 高通量测序并进行多样性、结构和功能特征分析，并寻找各组的物种标志物。

结果 1.AD 组的匹兹堡睡眠质量指数（PSQI）评分、Epworth 嗜睡量表（ESS）评分、神经精神症状问卷（NPI）评分之间互相存在正相关关系（r＞0，P＜0.05）。2.AD 组与 CN 组、SD 组与 NSD 组肠道菌群的 Alpha 和 Beta 多样性无统计学差异。AD 组与 CN 组在纲、目、科、属、种水平上菌群组成存在差异；SD 组与 NSD 组在目、科、种水平菌群组成具有差异（P＜0.05）。3.AD 组和 CN 组比较分别具有 8 个和 5 个特征菌属。SD 组与 NSD 组比较，SD 组具有 Peptostreptococcales-Tissierellales（目）和摩根氏菌属的特征菌属，NSD 组具有梭菌_UCG_014 目及下属的梭菌_UCG_014 科和梭菌_UCG_014 属，消化链球菌科，肠杆菌属，毛螺菌科 ND3007 组等 6 个特征菌属。4.AD 组和 CN 组在 D-谷氨酸和 D-谷氨酸代谢（P=0.047）、糖鞘脂的生物合成-乳酸和新乳胶系列（P=0.020）、萘降解途径（P=0.040）这 3 条代谢通路上存在差异；SD 组与 NSD 组在 KEGG 代谢通路无显著差异（P＞0.05）。转换为 GMM 代谢模块和 GBM 代谢模块后，AD 组和 CN 组分别在色氨酸降解模块、琥珀酸盐消耗模块等 10 个 GMM 代谢模块和 γ-羟基丁酸降解模块、色氨酸降解模块等 6 个 GBM 代谢模块存在差异（P＜0.05），而 SD 组和 NSD 组在乳糖和半乳糖降解模块和 3,4 二羟基苯乙酸合成模块存在差异（P＜0.05）。

结论 AD 患者的睡眠节律紊乱与认知功能和精神行为症状相关，AD 患者以及存在睡眠节律紊乱的 AD 患者均具有其特定的肠道菌群，肠道微生物群及其代谢通路的变化可能与 AD 及其睡眠节律紊乱相关。

关键字：16S rRNA，肠道菌群，阿尔茨海默病，睡眠，昼夜节律

Exploring Symptom Structure and Antidepressant Response in Major Depressive Disorder: A Factor Analytic Approach

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Objective Major depressive disorder (MDD) is a heterogeneous clinical syndrome that is increasingly recognized as comprising multiple symptom factors. However, the optimal factor structure and its role in predicting the response to drug treatment in MDD remain unclear.

Methods We performed the 17-item Hamilton Depression Rating Scale (HAMD-17) and Hamilton Anxiety Rating Scale (HAMA) on a large sample of MDD patients and obtained 31-item scores for each patient at baseline. We then evaluated the symptom factor structure using exploratory and confirmatory factor analysis. Additionally, we analyzed changes in the factor scores of MDD patients after 2, 8, and 12-26 weeks of antidepressant treatment. Finally, we established logistic regression equations for predicting depression remission after 12-26 weeks of antidepressant treatment in MDD patients.

Results Using a data-driven method in 360 MDD patients, we identified an 8-factor model representing somatization, depression, sleep, anxiety, libido, insight, appetite, and suicide factors, respectively. Depression, suicide, and sleep factor scores showed the greatest changes during antidepressant treatment, while somatization and anxiety factors showed moderate changes. The appetite, libido, and insight factor scores showed the smallest changes. Multivariate logistic regression analysis identified age (p = 0.005), education (p = 0.021), sleep (p =0.044), libido (p =0.039), and appetite factor (p =0.007) at baseline as independent predictors for symptom remission after 12-26 weeks of antidepressant treatment. The accuracy rate was 92.1% in 38 MDD patients with complete remission and 85.7% in 14 MDD patients with non-remission.

Conclusion The 8-factor model has a good fit and clinical interpretability in MDD. Factor scores may provide a powerful tool for antidepressant response analysis in MDD patients.

关键字：major depressive disorder, symptom structure, exploratory factor analysis, confirmatory factor analysis, prognostic prediction

首发、复发老年抑郁症患者载脂蛋白 E 基因、血清代谢指标的对比分析

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目的 比较首发与复发老年抑郁症患者在 APOE

基因多态性、血清代谢指标上的差异。

方法 选取2016 年 7月至 2018 年 3 月在河北省第六人民医院住院治疗的 122 例老年抑郁症患者作为研究对象，其中首发老年抑郁症患者组 54 例，复发老年抑郁症患者组 68 例。对两组患者 APOE 基因多态性、血清同型半胱氨酸、胱抑素 C、脂联素水平进行比较。

结果 复发组同型半胱氨酸水平（Z=-2.095，P=0.036）、携带 APOE-?4 等位基因的概率（X2=5.708，P=0.017）高于首发组，差异具有统计学意义；两组在胱抑素-C（Z=-0.446，P=0.656）、脂联素水平（Z=-1.778，P=0.075）方面不具有显著差异。首发组各因素之间无显著相关性；复发组胱抑素-C 与同型半胱氨酸（r=0.291，P=0.016）、BMI（r=0.285，P=0.019）呈正相关；多因素 logistic 回归分析结果显示 APOE-?4 等位基因（OR=3.927，95%CI：1.088，14.176）、同型半胱氨酸（OR=1.100，95%CI：1.021，1.186）是老年抑郁症复发的危险因素。

结论 复发老年抑郁症患者 APOE-?4 等位基因携带的频率、血清同型半胱氨酸水平更高，且该等位基因、血清同型半胱氨酸可能是老年抑郁症复发的危险因素。

关键字：老年；抑郁症；复发；APOE 基因多态性；胱抑素 C；同型半胱氨酸；脂联素

Depressive Symptoms in Alzheimer's Disease Associated with Structural and Functional Alternations of Amygdala-Frontal Circuit: A Multimodal Neuroimaging Study

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Objective Depressive symptoms commonly occurred in Alzheimer's disease (AD), however, the pathophysiology and neurological basis of depressive symptoms in AD are unclear. Abnormal amygdala-frontal functional connectivity (FC) and disrupted white-matter microstructure of uncinate fasciculus (UF) connecting the amygdala and frontal brain regions have been suggested to underlie emotional dysregulation in major depressive disorder. However, little is known about functional and structural alterations in the amygdala-frontal circuit in AD patients with depressive symptoms (ADD). We investigated the alterations of amygdala-based functional connectivity and the white matter microstructure of uncinate fasciculus and their relationship in ADD.

Methods In the present study, fifty ADD patients, fifty AD patients without depressive symptoms (ADND), and fifty matched healthy controls (HC) were examined using resting-state functional magnetic resonance imaging (rs-fMRI) and diffusion tensor imaging (DTI). The bilateral amygdala was used as the seed in whole-brain functional connectivity analysis. Automated fiber quantification (AFQ) was used to calculate diffusion parameters including fractional anisotropy (FA), axonal anisotropy (AD), and radial diffusivity (RD) along the trajectory of the bilateral UF. In addition, correlation and mediation analyses were performed to explore the potential effects of structural and functional deficits in the relationship between depressive symptoms and cognitive function in ADD.?

Results We found that ADD group showed decreased bilateral amygdala FC with the left orbital part of the inferior frontal gyrus (IFG) compared to the ADND and HC group. Moreover, ADD group showed significantly lower FA in nodes 66–77 of the left UF and higher RD in nodes 6–14 of the left UF than the ADND group. The correlation analysis results showed that FC between the amygdala and IFG and FA of left UF (nodes 66–77) was significantly correlated with depressive symptoms measured by Geriatric Depression Scale. Notably, the mediation model demonstrated that FA of the left UF (nodes 66–77) mediated the relationship between depressive symptoms and?cognitive function in AD.

Conclusion Our study shows that decreased amygdala-frontal FC and disrupted white matter microstructure of the UF are observed in patients with ADD and are associated with depressive symptoms. This finding suggests that functional and structural alterations in amygdala-frontal circuit may underlie emotional dysregulation in ADD.

关键字：Alzheimer's disease;depressive symptoms;functional connectivity;white-matter microstructure; amygdala-frontal circuit

虚拟现实技术（VR）联合正念减压疗法对老年抑郁症患者疗效研究

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目的 探讨后疫情背景下虚拟现实技术（VR）联合正念减压疗法对老年抑郁症患者疗效的影响。

方法 将 2023 年 1 月～2023 年 4 月于本院老年心理科治疗的 150 例老年抑郁症患者作为研究对象，按随机数字表法分为三组，对照 1 组采用常规药物治疗，对照 2 组采用药物治疗联合正念减压疗法，实验组在对照 1 组的基础上予以 VR 联合正念减压疗法，各 50 例。三组均治疗 8 周，比较三组好转率、脱落率。治疗前后，采用汉密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD）、五因素正念度量表（FFMQ）、自我效能感量表（GSES）、蒙特利尔认知量表（MoCA）、社会功能缺陷筛查量表（SDSS）、治疗中需处理的不良反应症状量表（TESS）进行评定，比较两组患者的治疗效果、自我效能感的提高程度、社会功能及认知功能的改善程度及不良反应。

结果 对照 1 组、对照 2 组、实验组的脱落率分别为 10%、14%、6%，三组间脱落率比较无差异（P＞0.05）。实验组好转率（100.00%）高于常规药物治疗组（67.87%）与药物+正念减压组（83.63%）（P＜0.05）。与治疗前比较，三组治疗后 HAMD、HAMA 分值均显

著下降，其中实验组的 HAMD、HAMA 分值均低于对照 1 组与对照 2 组（P＜0.05）；治疗后三组患者 FFMQ、GSES、MoCA、SDSS 评分均显著升高，且实验组的 FFMQ、GSES、MoCA、SDSS 分值均显著高于对照 1 组与对照 2 组（P＜0.05）。

结论 VR 联合正念减压疗法在后疫情背景下改善老年抑郁症患者的抑郁状态、焦虑状态、社会功能及认知功能，尤其在提高自我效能感等方面具有积极的意义。

关键字：老年抑郁症；正念减压；虚拟现实

电子化认知训练对伴轻度认知障碍的老年抑郁症患者的脑功能的影响

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目的 探究认知训练对于伴轻度认知障碍的老年抑郁症患者的认知功能、抑郁症状以及脑功能的影响。

方法 我们搜集了目前已发表的研究轻度认知障碍患者的认知训练及脑电图相关的文献，综述了认知训练对于轻度认知障碍患者的认知功能以及脑功能的影响。

结果 脑电图（EEG）节律与认知功能相关，可以辨别轻度认知功能障碍（MCI）与正常认知功能之间的脑功能网络的差异，既往研究发现，MCI 患者脑电图的 δ、α1、α2、β2、γ 波段的小世界指数（SW）存在差异，而 α2 波段的 SW 可能反映了认知恢复的标志，静息态下 δ、θ 波的全域同步（GFS）较低，而对于经过认知训练后患者的脑电图检测更多是分析事件相关电位（P2、P3、N2）的差异，并且我们发现既往的研究得出了不同的结果，有的研究发现，在认知训练治疗 2 个月后，足部对视觉刺激的反应时间缩短，同时枕部区域的 P2 潜伏期降低，运动皮层区域的 MRCP 振幅降低，还有研究发现，在多领域的认知训练后 P3 振幅显着增强，未发现 P2、N2 与认知训练有显著相关。

结论 根据既往的研究，我们发现通过认知功能训练对轻度认知障碍患者的记忆功能由轻到中度的改善，而基于记忆功能的改善可以对其他多领域包括工作记忆等领域以及脑功能网络起到激活作用，然而认知功能训练对于伴轻度认知障碍的老年抑郁症患者脑功能以及认知功能的不同领域的改善还有待进一步研究。

关键字：轻度认知障碍；脑电图；认知训练

Rare Genetic Variations of The Retrograde Endocannabinoid Signaling Pathway in Chinese First-episode Drug-na?ve Major Depressive Disorder: An Exploratory Study

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Objective Major depressive disorder (MDD) is a common and severe mental disorder. It's etiology and pathogenesis remain elusive. Emerging researches have reported that the retrograde endocannabinoid (eBC) pathway was involved in the pathophysiology and genetic levels. Therefore, we aimed to investigate potential gene mutations and the underlying mechanism in the eCB pathway of Chinese Han MDD.

Methods All patients were diagnosed by the Structured Clinical Interview for DSM-IV Disorders (SCID). Firstly, genomic DNA sequencing used exome capture was performed and low-frequency variants and rare mutations (Minor allele frequencies < 0.05) related to depressive phenotypes (HP:0000716) were filtered. There were 146 variants specific to the patients. Then, enrichment analyses on the set of 146 genes were run to investigate which selected genes were enriched in the Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway. We found several gene variations in the retrograde eBC signaling pathway as the most significantly enriched pathway. To explored the biological function of the eBC pathway, protein-protein interaction network (PPI) analysis was performed. Finally, how the genetic mutation affects the function of this pathway was preliminarily explored by literature retrieval.

Results A total of 96 first-episode drug-na?ve MDD patients and 62 Health Control (HC) was recruited in this study, and we identified 15,637 SNPs of variant genes, 972 of which were related to depressive phenotype. There are only a small number (146, 15.02%) gene mutations in MDD patients compared to HC. The retrograde eBC signaling pathway, containing 37 gene mutations, has a potential association with MDD. About 57.14% of MDD patients (n=56) had mutations in this pathway. Among them, DDC and GLRB gene mutations involved in the largest number of patients (involved in 5 patients respectively). Seven hub genes were vitally related to mitochondria function including complex I (NDUFS4, NDUFV2, NDUFA2, NDUFA12, NDUFB11), protein (PARK7) and enzyme (DLD) in eBC pathway largely regulated in mitochondria oxidative stress. Besides, other gene variants involved include: 1) synapses metabolism (STXBP1, VAMP2); 2) proteins regulated neurotransmitters (GNB3, GNAO1, STXBP1, SLC1A3, SLC16A2); 3) and receptors associated with glutamic acid (GLRB), gamma aminobutyric acid (GABRB2, GABRB3), and 5-hydroxytryptamine (HTR2A).

Conclusion This study has found gene variations profile in first-episode Chinese Han MDD and the possible genetic mechanisms of the retrograde eBC pathway. Although our study is limited by small sample size, and the potential function is mainly deduced based on reviewing literature to explain the molecular mechanism of the eBC pathway, it still provides a possible key role of eBC gene mutations for the pathogenesis of MDD. Our preliminary study suggests that the gene mutations of eBC pathway could be potential etiological factors associated with the pathogenesis of MDD.

关键字：Major depressive disorder, Whole Exome sequencing, retrograde endocannabinoid signaling

Examining Mediators of The Associations of Social Isolation with Depression and Anxiety Among Adults Aged 65 Years and Older in Ningbo, China

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Objective Depression and anxiety are the most frequent emotional problems experienced by older adults; however, little is known about the associations of social isolation with depression and anxiety in China.

Methods A cross-sectional study of 6,664 community-dwelling older adults (aged 65 years or older) in Ningbo, China was performed. Depression, anxiety, and social isolation were self-reported and measured using the Patient Health Questionnaire-9 item, the 7-item Generalized Anxiety Disorder scale, and relevant social isolation scales. Logistic regression and Karlsson–Holm–Breen mediation models were used to estimate the associations of social isolation with depression and anxiety. The population attributable risk percentage (PAR%) was calculated for the risk factors of depression and anxiety.

Results Overall, 12.67% of the participating older adults had experienced social isolation, and 4.83% and 2.63% had experienced depression and anxiety, respectively. Overall, those who had experienced social isolation were 1.77 times and 1.66 times more likely to have depression and anxiety, respectively, than were those who had not experienced social isolation in a multivariate logistic regression (all P values < 0.001); in a subgroup analysis, these associations were significant only in women. The PAR% related to social isolation was as high as 10.66% and 9.03% for depression and anxiety, respectively. Sleep disturbance mediated 9.98% and 10.61%, and physical inactivity mediated 6.27% and 7.05% of the association of social isolation with depression and anxiety.

Conclusion Social isolation was found to play an important role in depression and anxiety among older adults in China, suggesting the need for effective and feasible interventions to eliminate social isolation in this population.

关键字：Social isolation; Depression; Anxiety; Elderly; Mediators

阿尔茨海默病患者延续性护理研究进展

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目的 随着人口老龄化不断加剧，阿尔茨海默病患病人数不断增加，且阿尔茨海默病患者的康复治疗所需时长较久，患者出院后中断相应的医护人员支持及康复治疗手段，无法更好的满足其出院后的需求。因此，其社区或居家护理问题亟需解决，出院后的健康教育、用药依从、康复训练等问题是延续性护理研究中干预的重点。本文就近年来阿尔茨海默病的延续性护理现状及发展趋势进行综述。

方法 随着人口老龄化不断加剧，阿尔茨海默病患病人数不断增加，且阿尔茨海默病患者的康复治疗所需时长较久，患者出院后中断相应的医护人员支持及康复治疗手段，无法更好的满足其出院后的需求。因此，其社区或居家护理问题亟需解决，出院后的健康教育、用药依从、康复训练等问题是延续性护理研究中干预的重点。本文就近年来阿尔茨海默病的延续性护理现状及发展趋势进行综述。

结果 阿尔兹海默病通过国内外延续护理模式指导护理人员对阿尔兹海默病患者进行干预。国外阿尔兹海默症包括：引导护理（GC）、老年人应急护理（ACE）、延续性护理干预（CTI）、APN 延续护理性护理模式(APN)；国内阿尔茨海默病延续护理现状包括：家庭延续性护理、“互联网+”延续性护理干预模式、医院-社区-家庭护理模式、电话随访。

结论 阿尔兹海默病的延续性护理需要从入院到出院进行护理干预，适应精神卫生服务的发展。细化解读国家法律法规和政策措施，进一步发展和推进医院、社区的 AD 患者信息同步化、系统一体化整合等措施，多学科合作讨论和制定统一规范的延续护理操作流程，充分调动医院、社区、家庭三方合作，保证 AD 患者的个性化延续护理有效开展，从而延缓 AD 患者的疾病进程，提升患者的生活质量。

关键字：阿尔茨海默病；延续性护理；综述；

中老年人简易认知评估测验的常模构建与筛查认知障碍患者效能的诊断性研究

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目的 构建我国中老年人简易认知评估测验（Hong Kong Brief Cognitive Test, HKBC）评分的常模，为确定用于辅助识别认知障碍患者的标准分界值。

方法 2019 年 9 月至 2021 年 12 月在华北、东北、西北、中南、西南以及华东地区招募 2505 名认知正常的 40 岁及以上中老年人作为常模构建的研究对象，采用多项式回归模型分析 HKBC 评分与年龄、性别、生活区域和受教育程度之间的相关性，构建 HKBC 原始分和 T 分（HKBC-T）的常模。在记忆门诊队列中纳入 224 例认知障碍患者（包括 156 例轻度认知损害患者

和 68 例阿尔茨海默症患者）和 93 例认知正常老人作为受试者作为诊断性研究中的研究对象，根据受试者工作特征曲线，计算 HKBC-T 区分认知障碍患者和正常老人时的 AUC、灵敏度、特异度和约登指数，确定最佳界限值。

结果 多项式回归模型结果显示，HKBC 评分与年龄（SE = 0.007, β = -0.067, P<0.001）呈负相关，年龄越大评分越低；与受教育程度（SE = 0.016, β = 0.280, P<0.001）呈正相关，受教育程度越高评分越高；与性别和生活区域无显著相关关系（p>0.05）。根据不同年龄和受教育程度，构建了 HKBC 原始分与 HKBC-T 的常模，以及 T 分的转换方程。诊断性研究结果显示，HKBC-T 在区分认知障碍患者和正常老人时的 AUC 值为 0.85，具有较好的区分度。根据 HKBC-T 诊断认知障碍的最佳界限值为 45 分（<=45 分，灵敏度为 0.914，特异度为 0.667）。

结论 HKBC 评分与年龄和受教育程度有关，转换后标准分 45 分是区分认知障碍患者和正常老人的最佳界限值，提示 HKBC 常模具有较好的实用价值。

关键字：简易认知评估测验；常模；认知障碍；界限值

Potential of Psilocybin for Treating Treatment-resistant Depression: A Drug-to-drug Comparison

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Objective This review aims to compare psilocybin with new antidepressants (SSRIs, SNRIs) and esketamine in terms of molecular mechanisms, efficacy, and safety in treating depression, in order to investigate the potential of psilocybin in treating TRD.

Methods We searched Embase, PubMed, Web of Science, and Cochrane Library from inception up until April 30, 2023. Searches were performed without year of publication restriction, but the language was restricted to English.

Results Molecular mechanisms of antidepressants: The mechanism of action of SSRIs is based on the serotonin system, which selectively inhibits the reuptake of 5-HT in the cell membrane and presynaptic membrane, and its molecular target is the serotonin transporter (SERT). Long-term administration of SSRIs reverses hippocampal atrophy and enhances neuronal plasticity in patients with depression. There are three main views on the mechanism of psilocybin in treating depression. Transformative Experiences: Taking psilocybin can lead to mystical experiences that lead to profound shifts in attitudes and emotions. Suggestibility: After taking psilocybin, people may have a state of consciousness that is susceptible to suggestion, thereby improving the effect of psychotherapy. Neurophysiology: Psilocybin acts as an agonist of 5-HT2A receptors, increasing neuroplasticity and producing long-lasting neurobiological effects. Ketamine and esketamine, as noncompetitive antagonists of N-methyl-D-aspartate (NMDA) receptors, may alter glutamatergic neurotransmission and enhance neuroplasticity. Efficacy and safety: Unlike the new generation of antidepressants, psilocybin has a rapid onset of action, does not require frequent dosing, and has short-lived and mild side effects, which can lead to better adherence to medication. Many experiments have confirmed that psilocybin has long-term effects of relieving depression and improving mood, and it is safe and non-addictive. Restrictions on the use of psilocybin: The failure of psychedelics (such as psilocybin) to become a formal and widespread treatment may stem from stereotypes about psychedelics. Additionally, uncontrolled use of psilocybin may have adverse effects on individuals. Advantages of Using Psilocybin: Psilocybin has fast onset of action, significant curative effect, low medication frequency, mild adverse reactions, low toxicity, and will not cause dependence or addiction. Application scope: psilocybin exhibits potential in alleviating depression and anxiety symptoms in patients with life-threatening illnesses and TRD. It demonstrates rapid efficacy and, when combined with long-term safe psychotherapy, presents a promising option for relieving depression.

Conclusion Psilocybin has proven efficacy and safety as an antidepressant, performing well in comparisons with other antidepressant treatments. It offers rapid, significant, and long-lasting antidepressant effects, making it a promising approach for treating TRD.

关键字：Psilocybin, Treatment-resistant depression, Drug comparison

Mental Health Status of Medical Staff During The Large-scale Epidemic Phase of Novel Coronavirus Infection

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Objective To understand the pressure, mental health status of medical staff and analyze the role of social support in psychological problems during the large-scale epidemic phase of novel coronavirus infection.

Methods We investigated the psychological health of medical staff from December 19, 2022 to January 19, 2023 by using the general and epidemic data questionnaire, the perceived stress scale（PSS）, the self-rating Depression Scale（SDS）, the self-rating Anxiety Scale（SAS）, the Pittsburgh Sleep Quality Index（PSQI） and the Social Support Rating Scale（SSRS）. SPSS25.0 was used to analyze the difference, correlation and logistic regression of the survey data.

Results We received 364 valid responses, of which the majority felt stressed. The incidence of psychological problems in order of sleep disorder, depression and anxiety. These psychological problems have significant differences in gender, identity, occupation, income and working years. Social support is positively correlated with stress and depression, and negatively correlated with anxiety, and is an

influencing factor of stress and depression.

Conclusion During the large-scale epidemic phase of novel coronavirus infection, medical personnel generally feel high pressure, insomnia, depression and anxiety. Social support plays an important role in mental health status, and it is necessary to pay attention to the physical and mental health of women, nurses and medical students, and actively provide psychological support and humanistic care.

关键字：novel coronavirus; medical staff; mental health; stress perception; social support

免疫炎症和犬尿氨酸通路相互作用在电休克治疗精神分裂症中的作用及其与临床疗效相关性

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目的 有证据表明，免疫系统可以通过与犬尿氨酸通路相互作用调节 N-甲基-D-天门冬氨酸受体（NMDAR）从而参与精神分裂症的发生发展。犬尿氨酸通路的两种神经活性代谢物，犬尿酸和喹啉酸，分别是 NMDAR 的拮抗剂和激动剂。此外，通过对细胞因子 mRNA 的两步聚类分析，尸检和外周研究发现超过 40%的精神分裂症属于高炎症亚组且 KYN/TRP 显著升高并与细胞因子 mRNA 显著相关。电休克是治疗精神分裂症有效的物理疗法，然而其治疗机制尚未明确。鉴于抗炎可能参与电休克治疗精神分裂症，我们探索了不同炎症亚组电休克后犬尿氨酸通路代谢物的变化及其与临床疗效相关性。

方法 研究共纳入 30 名精神分裂症和 25 名健康对照者。双侧颞部电休克每周二到三次。阳性和阴性症状量表（PANSS）和蒙特利尔认知评估（MoCA）评估基线和随访时精神分裂症的精神病症状和认知功能。使用细胞因子的两步聚类分析将所有参与者分为高、低炎症亚组，并使用重复测量方差分析观察不同炎症亚组电休克后细胞因子基因表达和犬尿氨酸通路代谢物的变化。

结果 结果表明 32%的健康对照组和 60.7%的精神分裂症患者被划分到高炎症亚组，且高炎症亚组中精神分裂症的比例更高。与低炎症患者相比，高炎症患者的 IL-1β mRNA 和 IL-18 mRNA 升高。此外，与对照组相比，高炎症患者的 KYN/TRP 显著升高。电休克后，低炎症精神分裂症患者症状尤其是阴性症状改善更加明显且更多人达到缓解。精神分裂症患者电休克后 IL-18 mRNA 显著下降。然而，高炎症精神分裂症 IL-18 mRNA 和 IL-1β mRNA 显著高于低炎症精神分裂症患者。此外，反映炎症和犬尿氨酸通路代谢方向的 KYN/TRP 和 KYNA/TRP，在低炎症患者中明显降低，而在高炎症患者无变化。尽管没有达到统计学意义，缓解者的 IL-1β mRNA 和 KYN/TRP 低于非缓解者。值得注意的是，细胞因子 mRNA 与犬尿氨酸代谢物明显相关，且与电休克疗效相关。基线色氨酸和黄尿酸与基线 PANSS 评分呈负相关，而 KYNA/TRP 与基线阴性症状呈正相关。此外，电休克后犬尿氨酸、KYN/TRP 与 MoCA 分数负相关。因此，我们的研究结果进一步证明电休克可降低炎症，且炎症与犬尿氨酸通路的相互作用与电休克临床疗效相关。

结论 免疫炎症失调及其与犬尿氨酸代谢通路的相互作用参与电休克治疗精神分裂症，且与临床疗效相关。

关键字：精神分裂症、炎症、犬尿氨酸代谢通路、电休克

Genetic Pleiotropy Effects on Brain Functional Endophenotype for Deficit and Non-deficit Schizophrenia

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Objective Deficit schizophrenia (DS) is a clinically homogeneous subtype of schizophrenia (SCZ) characterized by persistent and primary negative symptoms. Few studies have explored the relationships between resting-state fMRI and polygenic risk scores of schizophrenia (PRS-SCZ) in DS. In this study, PRS-SCZ was calculated to assess the overall genetic risk of individuals, and further explores the potential associations related with resting-state fMRI, neurocognitive and biochemical features.

Methods Totally 81 DS and 91 non-deficit schizophrenia (NDS), as well as 120 healthy controls (HCs) were recruited in this study. Whole Exome sequencing was performed with blood samples, and PRS-SCZ was calculated according to the exon sequencing results combined with Genome-wide association studies (GWAS) data of SCZ. Resting-state fMRI, biochemical features and neurocognitive data were obtained from 33 DS, 47 NDS and 41 HCs. Differential brain regions of the amplitude of low-frequency fluctuation (ALFF) and regional homogeneity (ReHo) between DS and NDS patients were used as seed points in whole-brain functional connectivity (FC) analysis. The two-sample T-test was used to identified differential brain regions of DS and NDS in ALFF, ReHo, and FC. In addition, correlation analysis was used to detect the relationships of differential brain regions activities, neurocognitive and biochemical features with PRS-SCZ.

Results Compared to NDS and HC, DS owned the lowest PRS-SCZ. The ALFF was significant changed between DS and NDS in the left inferior temporal gyrus (ITG), left inferior frontal gyrus and right precuneus (PCUN). Furthermore, significant differences of ReHo in right middle frontal gyrus were found between DS and NDS. FCs were widely changed between DS and NDS, mainly concentrated in default mode network, including ITG, PCUN and angular gurus. Correlation analysis revealed that the ALFF of left ITG, the ReHo of right middle frontal gyrus, the FC value between insula and angular gurus, left ITG and right corpus callosum, left ITG and right PCUN, as well as the scores of Trail Making Test-B, were associated with PRS-SCZ in DS.

Conclusion This study demonstrated the altered

patterns of PRS-SCZ in DS and NDS. The associations between altered ALFF, ReHo, FCs and PRS-SCZ provided a potential neuroimaging-genetic perspective for the pathogenesis of DS.

关键字：deficit schizophrenia; polygenic risk scores; resting-state fMRI; Functional connectivity.

中老年抑郁与听力损失的双向关联分析——来自中国健康与退休纵向研究的证据

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目的 以往研究表明，抑郁可能是与年龄相关性听力损失（age related hearing loss, ARHL）相关的健康问题（如心、脑血管疾病等）的危险因素，纵向队列也表明听力损失可能会导致抑郁和失智。目前，尚无证据表明抑郁是否会导致听力损失。本研究利用中国健康与退休纵向研究 (the China Health and Retirement Longitudinal Study, CHARLS; http://charls.pku.edu.cn/pages/data/111/en.html) 的数据，测试了中老年成年人临床显著的抑郁症状（clinically significant depressive symptoms，CSDS）和听力损失之间的双向关联。

方法 本研究使用第 1 波（基线：2011 年）和第 3 波（2015 年）CHARLS 中基线年龄大于 45 岁的人口的数据来分析抑郁与听力损失之间的双向关联。 采用流行病学研究中心 10 项抑郁量表（CESD-10）评估抑郁症状；结合是否携带助听器及自我报告的听力下降来评估听力损伤。采用 Logistic 回归来探讨抑郁和听力损伤的双向关系，模型中回归了与因变量具有显著关联的协变量；采用中介分析来探讨哪些健康相关因素影响了抑郁对听力损失的纵向预测效应。

结果 在 3418 名没有基线听力损失的参与者中，基线抑郁与 4 年后听力损失的发生率增加有关（OR:1.51）。认知能力下降、相对较低的体重指数和患有关节炎部分介导了“抑郁-听力损失”的纵向关联，并解释了总效应中 24%的变异。在 4921 名没有基线抑郁的参与者中，基线听力损失与 4 年后抑郁的发生率增加有关（OR:1.37）。在对基线人口学因素、慢性病史和其他健康相关协变量进行调整后，双向关联仍然显著。

结论 抑郁可能会促进年龄相关性听力损伤的发展，反之亦然。对抑郁、认知能力下降和关节炎的干预可能会延缓年龄相关性听力损失的发生，并打破这些因素之间的恶性循环。

关键字：年龄相关性听力损失，抑郁症状，认知功能，关节炎，纵向设计

Dysregulation of LYN and RAB7A May Activate NF-κB Signaling Pathways To Promote The Progression of COVID-19-associated Late-onset Depression

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Objective There is a strong correlation between COVID-19 and late-onset depression (LOD), but more genetic research is needed to understand this link. This study aims to investigate potential gene interaction mechanisms by analyzing the altered expression of genes during SARS-CoV-2 infection that may contribute to LOD, using bioinformatic pathways.

Methods The study utilized three datasets: GSE76826, GSE164805, and a clinical sequencing dataset. To find key genes associated with the diseases, the researchers used WGCNA, functional enrichment, PPI network construction, and machine learning techniques. Additionally, potential drugs targeting the key genes were identified using the L1000 platform and SymMap database.

Results The study identified 1045 shared differentially expressed genes (Shared DEGs) associated with immune regulation, COVID-19, and LOD. Through bioinformatics methods, the researchers identified LYN and RAB7A as key genes closely associated with immune infiltration. Potential therapeutic agents targeting key genes were identified using molecular docking as perospirone.

Conclusion We identified LYN and RAB7A as key genes and perospirone as effective therapeutic agents to target them. The study also suggests that the aberrant expression of these genes may indirectly regulate T cells and neutrophils via the NF-κB signaling pathway to promote the progression of COVID-19-associated LOD.

关键字：Late-onset depression（LOD），COVID-19，bioinformatics , immune in?ltration，LYN，RAB7A

Exploration of Multidimensional Cognitive Differences in Late-onset Depressive Disorder and Mild Cognitive Impairment and Validation of FNIRS Imaging

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Objective Late-onset depression (LOD) and Mild cognitive impairment (MCI) patients, who are at high risk for Alzheimer's disease (AD), have become closely associated with each other. The pattern of cognitive impairment and its possible pathophysiological mechanisms are still unclear and further studies are necessary.

Methods A total of 46 patients with LOD, 13 patients with MCI and 14 normal controls (HC) were included in this study. General demographic data, clinical assessment scales, neuropsychological tests and fNIRS data were collected by trained researchers. All neuropsychological tests were integrated into six cognitive domains, including memory, information processing speed, visuospatial function, executive function, language function, and social cognitive function. The fNIRS spectral signals were pre-processed using MATLAB R2013b software

fNIRS_SPM toolbox to extract the β values for channels ch1-ch52.

Results 1、Between-group comparison of neuropsychological tests and cognitive functions:In particular, compared to the HC group, the LOD group showed a significant decrease in six cognitive domains; the MCI group showed a significant decrease in visuospatial function (P=0.021) and language function (P=0.023). In addition, patients in the LOD group had significantly lower memory (P=0.003) than those in the MCI group. 2、Results of fNIRS analysis:In channels ch3 (P=0.043), ch5 (P=0.037), ch7 (P=0.018), ch8 (P=0.046), ch10 (P=0.004), ch19 (P=0.014), ch21 (P=0.003), the LOD group had significantly lower β values were significantly lower than those in the HC group, and in the ch36 (P=0.036), ch48 (P=0.010) channels the LOD group had significantly lower β values than the MCI group. In addition, the differences in β values between the MCI and HC groups in the ch21 (P=0.010), ch46 (P=0.038), ch47 (P=0.043) channels were statistically significant. 3、Correlation of β values of each differential channel of fNIRS with clinical symptoms and cognitive function:The β-values of ch5, ch8, ch10, ch19 and ch36 in LOD group were correlated with cognitive function, HAMD-24 scores were negatively correlated with total MMSE score (r = -0.324, P = 0.028), total MOCA score (r = -0.407, P = 0.005), and visuospatial function (r = -0.342, P = 0.020) in the LOD. The MCI group showed a negative correlation between ch48 β values and visuospatial function (r = -0.622, P = 0.023).

Conclusion This study found differences in cognitive impairment between LOD and MCI patients, as well as varying levels of metabolic brain activity. Overall, LOD showed a wider range of cognitive impairment domains than MCI patients, with memory impairment being more significant, and overall cognitive function and visuospatial function being negatively correlated with the severity of depressive symptoms in LOD patients. Both the MCI and LOD groups showed significant decreases in visuospatial function and language function, which may be a common feature of cognitive impairment in both groups.

关键字：late-onset depressive disorder; mild cognitive impairment; cognitive function; near-infrared functional brain imaging

Comparison of Older Vs. Younger Age on Metabolic Variables and Potential Biomarker of Depression

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Objective Depression is a common disease in people of all ages, with a lifetime prevalence of up to 20%. It currently affects more than 350 million people worldwide, with the COVID-19 pandemic leading to a significant 28% increase in incidence. Depressive patients of different ages have significant differences in physical basis, inducing factors, clinical symptoms and disease outcomes, so it is necessary to carry out differential diagnosis and precise treatment for patients of different ages. There is no comparison of metabolic changes in patients with depression at different ages. The aim of this study was to observe metabolic changes in young and old patients with depression, and to find that it can be used as a characteristic biomarker for diagnosis of patients at different ages.

Methods A total of 96 participants were recruited for the study, including young and elderly patients with depression, as well as age-matched healthy controls. The metabolite concentration in subjects' plasma was measured by NMR metabolomics. Pathway analysis is used to observe metabolic pathways involved in differential metabolites. After stepwise regression analysis, the metabolites with the most significant differences were found for subsequent analysis. Receiver operating characteristic curve (ROC) analysis was used to quantify the diagnostic performance of individual metabolites in young and elderly patients with depression and screen potential diagnostic biomarkers.

Results Firstly, metabolic profiling showed that 10 metabolites changed significantly in the plasma of young patients with depression, and 8 metabolites changed significantly in elderly patients. Secondly, pathway analysis showed that metabolite abnormalities of depressed patients at different ages involved in amino acid metabolism and carbohydrate metabolism. Then, regression analysis found that the most important differential metabolites in the diagnosis between depressed patients and HCs included choline, isoleucine, citrulline and scyllo-inositol, lactate in younger and elderly, respectively. Finally, the receiver operating characteristic curve (ROC) analysis showed that isoleucine and scyllo-inositol had a high diagnostic ability (AUC＞0.7).

Conclusion There are different metabolic changes in patients with depression at different ages. Isoleucine and scyllo-inositol were recognized as the main potential independent biomarkers for the diagnosis of younger and elderly depression. This study provides a new idea for the differential diagnosis and precise treatment of depression.

关键字：depression, metabolomics, biomarkers, younger age, older age.

Hearing Loss and Cognitive Impairment Among Older Adults: Findings From The China Health and Retirement Longitudinal Study

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Objective Research findings on the association between hearing loss and cognitive impairment have been inconsistent. We aimed to examine this association and quantify the potential mediating effects of depression and social isolation.

Methods We used nationally representative data form the China Health and Retirement Longitudinal Study (CHARLS), a population-based cohort study. The study population comprised adults aged 60 and older who participated in at least two waves of the CHARLS. Cognitive function was measured based on four dimensions: orientation, computation, memory, and drawing. Hearing loss was defined according to self-reported data. We used logistic regression models to analyze the cross-sectional association between hearing loss and cognitive impairment. Cox proportional hazards models were used to examine the longitudinal association between hearing loss and cognitive impairment. We also conducted an in-depth analysis of the severity of hearing loss and its associated risk of cognitive impairment. Additionally, we calculated the percentage of excess risk mediated (PERM) by depression and social isolation.

Results In total, 7662 individuals were included in the cross-sectional analysis, and 5349 were included in the longitudinal analysis, with a median follow-up of 4.1 years (IQR 3 years). In the cross-sectional analysis, hearing loss was associated with cognitive impairment after adjusting all covariates (OR=1.66, 95%CI: 1.39-1.99). In the longitudinal analysis, the hazard ratio for cognitive impairment with hearing loss compared with no hearing loss was 1.38(95%CI: 1.14-1.68) after adjustment for demographics, socioeconomic factors, health-related behaviors. In the further analysis, we discovered that moderate or severe hearing loss had a strong relationship with cognitive impairment after adjusting covariates (HR=1.58, 95%CI: 1.25-2.00). Of the total association between hearing loss and cognitive impairment, 22.9% was mediated by depression and 3.4% by social isolation.

Conclusion Hearing loss is associated with cognitive impairment, providing fresh evidence that addressing hearing loss could help improve cognitive function.

关键字：Hearing loss, cognitive impairment, depression, social isolation, CHARLS

夜间缺氧对老年抑郁症患者客观睡眠、临床症状及认知的影响

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目的 老年抑郁症是老年人最常见的精神障碍之一，阻塞性睡眠呼吸暂停低通气综合征（OSAHS）属于与睡眠有关的呼吸障碍，在临床上两者常有共病。本文旨在探讨与不伴有 OSAHS 的老年抑郁症患者相比，伴有 OSAHS 造成的夜间缺氧对患者的客观睡眠、临床症状和认知的影响，从而为老年精神科临床工作提供参考。

方法 本文研究对象选取自 2020 年 1 月至 2022 年 10 月在安徽省精神卫生中心就诊的老年抑郁症患者，共入组 182 例，采用汉密尔顿抑郁量表 24 项版本（HAMD-24）、汉密尔顿焦虑量表（HAMA）及蒙特利尔认知评估量表（MoCA）对所有被试进行量表评估，使用多导睡眠描记术（PSG）收集所有被试的客观睡眠情况，观察以下指标：(1)睡眠进程指标：总睡眠时间（TST）、睡眠效率（SE）、睡眠潜伏期（SL）。(2)睡眠结构指标：非快速眼动睡眠 1 期、2 期、3 期时间（N1、N2、N3）及比例（N1%、N2%、N3%）、快速眼动睡眠期时间（RT）及比例（REM%）。(3)睡眠呼吸事件指标：呼吸暂停低通气指数（AHI）、平均呼吸暂停持续时间（MAD）、最长呼吸暂停持续时间（LAD）、平均血氧饱和度（MSaO2）、最低血氧饱和度（LSaO2）。根据有无睡眠呼吸暂停，将 88 例符合 OSAHS 诊断标准的老年抑郁症患者纳入共病 OSAHS 组，将 94 例无 OSAHS 的老年抑郁症患者纳入老年抑郁症组。采用 SPSS22.0 进行相关统计分析。

结果 1、共病 OSAHS 组的 TST、SE 短于老年抑郁症组，N1 和 N1%长于老年抑郁症组，N2 和 N2%、N3 和 N3%短于老年抑郁症组。2、共病 OSAHS 组 HAMD-24、HAMA 总分高于老年抑郁症组，MoCA 总分低于老年抑郁症组。3、MAD 是老年抑郁症患者发生重度抑郁的危险因素，MSaO2 是老年抑郁症患者发生重度抑郁的保护性因素。4、抑郁症病程、LAD 是老年抑郁症患者发生认知损害的危险因素，N3%、MSaO2 是老年抑郁症患者发生认知损害的保护性因素。

结论 共病 OSAHS 造成的夜间缺氧影响了老年抑郁症患者的睡眠，加重了情绪及认知损害。本文还分析了老年抑郁症患者发生重度抑郁和发生认知损害的影响因素，发现呼吸暂停持续时间越长、缺氧越严重，则抑郁症状越严重、认知损害越严重，抑郁症病程越长、慢波睡眠比例越少，认知损害越严重。故而，及早干预 OSAHS，纠正缺氧，有可能改善预后。

关键字：老年抑郁症 阻塞性睡眠呼吸暂停低通气综合征 多导睡眠监测

斯坦福谵妄评估量表的汉化及信效度评价

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目的 引进并汉化 Stanford Proxy Test for Delirium (S-PTD)谵妄评估量表；检测中文版 S-PTD 谵妄评估量表信效度；评价其在我国胃肠外科手术患者中的敏感度和特异度。

方法 依照 Brislin 模型对 S-PTD 谵妄评估量表进行双人翻译－回译、跨文化调适、预实验，最终形成中文版 S-PTD 谵妄评估量表。采用便利抽样方法，选取 2021 年 10 月至 2022 年 9 月江苏省某三级甲等医院 492 名胃肠外科手术患者，应用中文版 S-PTD 谵妄评估量表对患者进行评估，以精神疾病诊断分类手册第 5

版（DSM-V）为术后谵妄诊断金标准，根据受试者工作特征（ROC）曲线下面积（AUC）敏感性、特异性和约登指数评价中文版斯坦福谵妄量表诊断谵妄的效能并检测其信效度。

结果 中文版 S-PTD 谵妄评估量表汉化及信效度检验结果：中文版斯坦福谵妄评估量表共 12 个条目，总内容效度为 0.97，各条目内容效度为 0.78~1。经探索因子分析，共提取 3 个公因子，累计方差贡献率是 59.368%。量表评估者间信度 Kappa 值为 0.981。总的 Cronbach's α 系数为 0.827，各维度的 Cronbach's α 系数为 0.726~0.741，Guttman 折半信度为 0.738，重测信度为 0.783。中文版 S-PTD 谵妄评估量表敏感度与特异度：量表阈值为 3 分，ROC 曲线下面积为 0.853，灵敏度为 0.678，特异度为 0.935。

结论 中文版 S-PTD 谵妄评估量表具有良好的信效度，可供我国护士用于术后谵妄患者的筛查。中文版 S-PTD 谵妄评估量表在我国临床实境应用中灵敏度有待提高，特异度佳。

关键字：谵妄；量表研究；跨文化调适；信效度

The Motivation and Pleasure Deficits But Not Expressivity Affects Social Functioning Through Cognitive Function in Male Patients with Schizophrenia

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Objective This study aims to compare cognitive function and social functioning in male schizophrenia patients with deficit syndrome (DS) and non-DS, and to explore the associations among two different dimensions of negative symptoms (motivation and pleasure (MAP) and expressivity (EXP) deficits), cognitive function and social functioning base on a Structural Equation Model (SEM).

Methods The current study enrolled 161 male schizophrenia patients and 120 age- and education-matched healthy controls. The DS and non-DS group were categorized by the Chinese version of Schedule for the Deficit Syndrome (SDS). The psychotic and negative symptoms were evaluated by the Brief Psychiatric Rating Scale (BPRS) and the Brief Negative Symptoms Scale (BNSS). The Social functioning was measured by Scale of Social function in Psychosis Inpatients (SSPI). A battery of classical neurocognitive tests was used for assessing cognition including sustained vigilance/attention, cognitive flexibility, ideation fluency and visuospatial memory.

Results Our study indicated that DS patients performed worser in cognitive function and social functioning than non-DS patients. The SEM model demonstrated that MAP significantly affected social functioning through direct influence and mediation of cognitive function. However, our results found that EXP had little influence on cognitive function and social function.

Conclusion Our findings provided evidence supporting that DS may represent as a subtype of schizophrenia, and the MAP factor play a pivotal role to influence the cognitive and social functioning in schizophrenia patients.

关键字：Schizophrenia; Negative symptoms; Cognition; Social function; Structural equation model

Meta-Analysis of Structural and Functional Brain Abnormalities in Schizophrenia with Persistent Negative Symptoms Using Activation Likelihood Estimation

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Objective ：Persistent negative symptoms (PNS) include both primary and secondary negative symptoms that persist after adequate treatment, and represent an unmet therapeutic need. Published magnetic resonance imaging (MRI) evidence of structural and resting-state functional brain abnormalities in schizophrenia with PNS has been inconsistent. Thus, the purpose of this meta-analysis is to identify abnormalities in structural and functional brain regions in patients with PNS compared to healthy controls.

Methods ：We systematically searched PubMed, Web of Science, and Embase for structural and functional imaging studies based on five research methods, including voxel-based morphometry (VBM), diffusion tensor imaging (DTI), functional connectivity (FC), the amplitude of low-frequency fluctuation or fractional amplitude of low-frequency fluctuation (ALFF/fALFF), and regional homogeneity (ReHo). Afterwards, we conducted a coordinate-based meta-analysis by using the activation likelihood estimation algorithm.

Results ：Twenty-five structural MRI studies and thirty-two functional MRI studies were included in the meta-analyses. Our analysis revealed the presence of structural alterations in patients with PNS in some brain regions including the bilateral insula, medial frontal gyrus, anterior cingulate gyrus, left amygdala, superior temporal gyrus, inferior frontal gyrus, cingulate gyrus and middle temporal gyrus, as well as functional differences in some brain regions including the bilateral precuneus, thalamus, left lentiform nucleus, posterior cingulate gyrus, medial frontal gyrus, and superior frontal gyrus.

Conclusion ：Our study suggests that structural brain abnormalities are consistently located in the prefrontal, temporal, limbic and subcortical regions, and functional alterations are concentrated in the thalamo-cortical circuits and the default mode network (DMN). This study provides new insights for targeted treatment and intervention to delay further progression of negative symptoms.

关键字：persistent negative symptoms, schizophrenia, structural MRI, functional MRI, Meta-analysis

血浆淀粉样蛋白寡聚体水平与轻度认知损害患

者认知功能的关系及对其转归的预测作用

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目的 探索阿尔茨海默病（AD）患者血浆 AβOs 寡聚体水平与各领域认知功能之间的关系，及血浆 AβOs 寡聚体水平对轻度认知损害（MCI）预后的预测价值。从而探讨 AβOs 作为 AD 潜在生物标记物的临床转化价值。

方法 本研究共纳入 727 例被试，包括 286 例 AD 患者，260 例轻度认知损害患者（MCI）和 181 名正常对照。所有研究被试均完成全套的神经认知功能评估。128 例 MCI 患者完成了随访，随访时间平均为 44.44 月。采用多聚体检测系统（Multimer detection system, MDS）试剂盒检测血浆 AβOs 水平。采用单因素方差分析比较三组间 AβOs 水平的差异，Pearson 相关分析考察血浆 AβOs 水平与神经认知功能之间的关系。采用 COX 回归模型计算血浆 AβOs 水平与 MCI 向 AD 的转归的风险比。

结果 血浆 AβOs 在 AD 组（2.490.03 ng/mL），MCI 组（2.380.03 ng/mL）和 NC 组（2.170.04 ng/mL）中的差异具有显著性（AD vs NC, $p<0.001$; AD vs MCI, $p<0.05$），在疾病谱上呈现均值的连续性。血浆 AβOs 水平和总体认知水平呈负相关（$p<0.05$），与视觉空间记忆和注意力均呈负相关（$p<0.05$）。随访资料分析显示，血浆 AβOs 水平增高与 MCI 向 AD 的转化风险密切相关（HR=1.083；95% CI，1.032-1.137；$p<0.05$）。

结论 血浆中 AβOs 水平与总体认知功能、记忆及注意力相关，同时血浆 AβOs 水平对 MCI 向 AD 的转归有一定预测作用，提示血浆 AβOs 可能作为一项敏感的血液学生物指标识别疾病。

关键字：阿尔茨海默病，轻度认知损害，淀粉样蛋白，寡聚体，生物标记物，随访研究

靶向脂代谢识别阿尔兹海默病性痴呆的生物标志物

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目的 阿尔茨海默病性痴呆是最常见的痴呆类型，但目前临床仍以症状学诊断为主，缺乏经济便捷的早期识别标志物。本研究旨在利用聚焦于脂代谢的靶向代谢组学检测手段探究与阿尔兹海默病性痴呆相关的血浆代谢物。

方法 本研究是一项横断面研究，共招募 58 名阿尔茨海默病性痴呆的患者和 40 名匹配的老年对照。通过 MMSE 评估被试的认知功能，并采集所有被试的外周血。应用核磁共振的靶向代谢组学技术分析所有被试者血浆样本中的脂代谢物水平。应用 SIMCA 软件建立 PCA 和 OPLS-DA 模型，进而探究两组之间的代谢物差异。通过 t 检验和 VIP 值筛选在两组之间有显著差异的代谢物。通过协方差分析探究在校正性别、年龄和 BMI 之后在两组之间仍有差异的代谢物。最后利用 ROC 曲线评估代谢物的诊断能力，并通过偏相关分析探究代谢物与阿尔兹海默病性痴呆认知功能相关的代谢物。

结果 本研究共测量了所有被试者血浆中 151 个代谢物的水平。经过 $P<0.05$ 和 $VIP>1$ 的筛选，有 31 个代谢物在两组之间显示出显著的差异。通过协方差分析的校正，有 17 个代谢物仍显示出明显的差异（图 1）。这些代谢物中，L2TG 和 L3TG 单独诊断阿尔茨海默症的 AUC 分别为 0.718、0.781，17 个代谢物联合诊断的 AUC 为 0.879（图 2）。偏相关分析显示 L3PN, L3AB, L3PL, LDFC 和 LDPL 与所有被试者的 MMSE 总分、定向力和回忆能力成负相关。

结论 我们的研究发现阿尔茨海默病性痴呆患者体内存在显著的脂代谢紊乱。其中 L2TG、L3TG、L3PN, L3AB, L3PL, LDFC 和 LDPL 有可能作为阿尔茨海默病早期识别的生物标志物，提示脂代谢异常与认知障碍之间有密切的关联，是今后机制研究的重要方向之一。

关键字：阿尔茨海默病；痴呆；靶向代谢组学；生物标志物

Influencing Factors of Elderly Hospitalized Psychiatric Patients Complicated with Physical Disease: A Cross-sectional Study of 332 Patients in Guangzhou China

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Objective To investigate the influencing factors of the number of physical diseases in elderly hospitalized psychiatric patients.

Methods A total of 332 hospitalized elderly patients with mental illness were enrolled in this study. The number of combined physical diseases was divided into three groups, which were 0, 1~2, and≥3. Data collected included sociodemographic characteristics, depressive symptoms, anxiety symptoms, delirium status, social support, medication adherence, social functioning, ability to perform daily living, and swallowing function.

Results The sample included 64.2% of female patients, mainly concentrated in 60~69 years old (48.2%). The length of hospital stay of patients was mainly 15~30 days (55.7%), and the course of disease was mainly 2~10 years (38.3%). After adjusting for confounding factors such as gender, poor lifestyle habits, course of disease, length of hospital stay, psychiatric symptoms, depressive symptoms, anxiety symptoms, delirium, social functioning,

social support, and drug therapy compliance, we found that the number of physical disorders in elderly patients with mental illness was related to age, ability of daily living, and swallowing function. The increase of age, the decrease of the ability of daily living, and poor swallowing function contribute to a higher number of comorbid medical disorders in elderly patients with mental illness (P<0.05).

Conclusion According to the results, age, ability of daily living and swallowing function were the main influencing factors in the number of complicated physical diseases in elderly patients with mental illness. Future research should focus on improving the daily living ability and swallowing function of elderly patients with mental illness, in order to reduce the prevalence of other physical diseases in elderly patients with mental illness.

关键字：aged psychiatric patients; physical diseases; related factors

Cognitive Trajectories in Older Adults and The Role of Depressive Symptoms: A 7-Year Follow-up Study

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Objective Studies have extensively explored the association between late-life depressive symptoms and cognitive decline, yet the dynamic relationship between depression and long-term cognitive decline in a downtown community-dwelling elderly population remains unknown. The present study aimed to examine the relationship of different trajectories of cognitive changes and the mediating role of depressive symptoms in older adults.

Methods A community-based prospective cohort study of 394 older adults, with an average age of 71.8 years, was recruited in 2015 and has been reassessed every two years until 2021. Latent class growth analysis was used to model aging trajectories and Linear mixed-effect models for repeated measures were used to estimate the least squares mean changes of cognition between subjects with depression (DEP+) and without (DEP-) across all visits.

Results Three distinct cognitive trajectories were identified; the "successful aging" (SA) class being the largest, with the best and most consistent performance (n=229, 55.9%). The "normal aging" (NA) trajectory illustrated lower but stable cognition (n=141, 37.3%), while the "cognitive decline" (CD) group revealed a poor and declining cognition (n=24, 6.8%). While the factors associated with SA differed from those associated with CD, depression was a consistent factor across all trajectories. In comparison to the DEP- subgroup in the CD trajectory, the DEP+ group showed an increase in MoCA scores at visit 1 (P = .002) and visit 3 (P < .001) during the follow-up period, which was replicated in the NA trajectory yet did not reach statistical significance.

Conclusion Our research suggests that mild and decreasing depressive symptoms can be a reversible factor that might slow down the irreversible and pathological cognitive decline in the elderly. Therefore, we suggest that even mild depressive symptoms in the elderly should be monitored and detected.

关键字：cognitive decline, depressive symptoms, trajectory, elderly, community

淡漠与抑郁症状在认知障碍病程中的发展及其对认知功能的影响

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目的 本研究旨在探索淡漠与抑郁这两种最常见的精神行为症状，在轻度认知障碍与阿尔茨默病病程中的发展特点，及其对认知功能影响的独立性。

方法 本研究为横断面研究，从浙江大学医学院附属邵逸夫医院、湖州市第三人民医院、衢州市第三医院招募轻度认知障碍与阿尔茨海默病患者。使用神经精神问卷评估患者的淡漠与抑郁症状；使用简易精神状况量表（Mini-Mental State Examination, MMSE）评估总体认知功能，费城词语学习检测（The 12-Word Philadelphia Verbal Learning Test, PVLT）评估患者的记忆功能；使用痴呆严重程度量表（Clinical Dementia Rating, CDR）评估认知障碍的严重程度。

结果 共纳入 510 名轻度认知障碍与阿尔茨海默病患者，抑郁症状的发生率为 38.04%，淡漠症状的发生率为 24.71%。在控制性别、年龄、受教育时长、病程等因素后，根据 CDR 得分进行分层分析：在 CDR=0.5 的认知障碍患者中，抑郁的发生率为 25.85%，淡漠的发生率为 8.78%；抑郁与淡漠对于患者的 MMSE 评分无统计学意义的显著差异。淡漠对 PVLT 的即时记忆与长时自由回忆的得分存在统计学意义的显著差异。抑郁与淡漠的得分对 MMSE 得分无显著关联。在 CDR=1 的认知障碍患者中，抑郁发生率为 39.63%，淡漠发生率为 19.51%；抑郁（F（1，156）=4.516，p=0.035，η2=0.028）对患者的 MMSE 评分产生统计学意义的显著差异。抑郁得分可以显著预测 MMSE 得分（β=0.183，p=0.016）。在 CDR=2 或 3 的患者中，淡漠与抑郁的发生率均达 57.58%；淡漠（F（1，124）=11.906，p=0.001，η2=0.088）对患者的 MMSE 评分存在显著的统计学差异。在控制抑郁症状后，淡漠的得分可以显著预测 MMSE 的得分（β=-0.298，p=0.001）。

结论 淡漠与抑郁具有不同的临床轨迹，在认知障碍的轻度阶段，抑郁与认知功能存在显著关系；随着认知障碍病程的进展，抑郁的发生率相对稳定，而淡漠的发生率显著提高，在疾病中晚期阶段，淡漠的严重程度与认知功能的恶化存在密切的相关性。本研究提示区分这两种症状的重要性，其在认知障碍的进程中具有不同的影响，这对于认知障碍的预后与管理具有重要意义。

关键字：淡漠；抑郁；阿尔茨海默病；轻度认知障

碍

A Qualitative Study on The Cognition of "Internet + Nursing Service" and Demands of Patients with A Senile Mental Disorder

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Objective The objective of this study is to develop a comprehensive comprehension of the cognition and requirements of patients with senile mental disorders regarding the "Internet + nursing service." Furthermore, this study aims to establish a solid foundation for the successful implementation of precise and efficient nursing care within patients' homes.

Methods The phenomenological research method was employed to select a sample of 16 patients with senile mental disorders who had been discharged from a tertiary hospital in Tianjin between October 2022 and March 2023. Semi-structured interviews were conducted with the participants, and the data obtained were subjected to analysis using the Colaizzi content analysis method. The identified themes were further refined through the analysis process.

Results The requirements of patients with senile mental disorders regarding the "Internet + nursing service" were classified into three main themes: inadequate understanding of the "Internet + nursing service," varying levels of willingness to utilize it, and inconsistent willingness to pay for it. These patients expressed the need for a competent and reliable "Internet + nursing service," which encompasses the expertise of healthcare professionals, the quality of the Internet platform's services, and the content of the provided assistance. Additionally, these patients had high demands for psychological, emotional, and social support, as well as the desire for supportive relationships.

Conclusion Senile mental disorder patients exhibit a significant need for the "Internet + nursing service." It is crucial to promptly establish and execute an appropriate "Internet + nursing service" specifically designed for these patients. Attention should be given to addressing their psychological requirements in order to enhance their overall quality of life and well-being in old age.

关键字：senility; Mental disorder; Internet +; nursing; demands

老年精神分裂症自我管理能力对积极老化的影响：生活满意度的中介效应

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目的 了解老年精神分裂症积极老化现状，并探讨生活满意度和自我管理能力与积极老化之间的关系。

方法 纳选 2022 年 10 月-2023 年 4 月北京和哈尔滨两家三甲医院的老年精神分裂症患者共计 219 例。采用一般资料问卷、积极老化量表、生活满意度及精神分裂症自我管理量表对其进行调查。采用 SPSS26.0 进行 Spearman 相关分析和使用 Process v3.3 组件中的 Model 4 进行中介作用检验和 Bootstrap 分析。

结果 老年精神分裂症患者积极老化得分（57.37±1.46）分。Spearman 相关分析显示，老年精神分裂症患者积极老化与生活满意度和自我管理之间呈两两显著正相关（P＜0.05）。自我管理能力到积极老化的直接效应及中介效应的两条路径的 95%置信区间均不包含"0"，老年期精神分裂症住院患者生活满意度平在自我管理能力和积极老化之间的中介作用显著。

结论 老年精神分裂症患者与健康老人相比，积极老化水平处于低水平。积极老化受生活满意度和自我管理影响。生活满意度水平较高和自我管理能力较好的老年精神分裂症患者，其积极老化水平较高。生活满意度是老年精神分裂症患者自我管理能力与积极老化的中介变量。提示医护人员应关注生活满意度较低和自我管理能力较差的老年精神分裂症患者，开展老年精神分裂症患者健康自我管理讲座，学习健康管理相关知识，加强自我管理能力。并及时对患者实施心理干预，改善焦虑抑郁情绪，建立积极乐观的生活态度，提高其生活满意度，从而改善积极老化水平。

关键字：老年；精神分裂症；自我管理；积极老化；中介效应

Prevalence and Patterns of Insomnia Symptoms Among People Aged 65 and above in Guangdong Province, China

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Background Information on major depressive disorder (MDD) and subthreshold depressive symptoms (SDS) is rarely reported in south China. This study examines the prevalence rates and patterns of MDD and SDS of a large representative sample of adult residents in south China.

Methods The Guangdong Mental Health Survey was conducted on adults (over 18 years) from September to December 2021. Multistage stratified cluster sampling was used and face-to-face interviews were done with a two-stage design by trained lay interviewers and psychiatrists. A total of 16,377 inhabitants were interviewed using standardized assessment tools. Data were weighted to adjust for differential probabilities of selection and differential response.

Results The weighted prevalence rates of MDD and SDS were 2.5% (95%CI: 2.2%-2.9%) and 14.7% (95%CI: 14.0%-15.5%), respectively. Multinomial logistic regression analysis revealed that female, younger age, living in urban area, higher education, unmarried, irregular meal pattern, lack of physical exercise, chronic diseases, irregular napping pattern and short sleep were positively

associated with SDS. Besides, female, younger age, unmarried, irregular meal pattern, lack of physical exercise, chronic diseases, short sleep and poor mental health were positively associated with MDD.

Conclusion The prevalence of MDD in Guangdong province in 2021 is higher than in mainland China in 2013. Given the higher prevalence of SDS, and high burden of depression, it also offers valuable opportunities for policy-makers and health-care professionals to explore the factors affecting mental health in Guangdong province, especially during the COVID-19 epidemic

关键字：Prevalence, Major depressive disorder, Subthreshold depressive symptoms, Chronic disease, Guangdong province

老年精神科门诊患者痴呆前精神行为症状临床特征的初步探索

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目的 以阿尔茨海默病（Alzheimer's disease，AD）为主的痴呆，在我国快速老龄化现状下造成日趋严重的疾病负担。一旦出现认知减退，延缓疾病进程的干预手段极其有限，因此在认知减退开始前对风险人群进行早期识别和预防，对痴呆的干预具有重要意义。研究显示，包括抑郁焦虑、烦躁、易激惹、睡眠障碍等精神行为症状是可能的认知减退风险因素，然而少有研究在临床特征方面对其进行探索。本研究旨在探索痴呆前精神行为症状的临床特征，及其发展为认知减退的可能风险因素。

方法 本研究为回顾性研究，纳入 2022 年 8 月至 2023 年 3 月因记忆障碍至上海市精神卫生中心老年精神科门诊就诊的患者，通过简易精神状态检查量表（MMSE）、MoCA 量表和日常生活能力量表（ADL）评估认知功能和生活能力，老年抑郁量表（GDS）、焦虑自评量表（SAS）和神经精神症状问卷（NPS）评估情绪状态和精神行为症状。回溯门诊病历明确在出现记忆障碍前是否曾因其他原因就诊，并记录就诊原因、诊断、距离出现记忆障碍的时间（月）。对收集到的临床特征信息进行统计分析。

结果 共纳入有认知减退的患者 111 例，并根据是否因曾其他原因就诊分组，曾因其他原因就诊组共有患者 33 例（29.7%），不曾组 78 例（70.3%）。其中曾因情绪症状就诊 23 例（20.7%），出现情绪症状至记忆减退的平均时间为 52.61 月（SD＝80.89）；曾因睡眠障碍就诊 12 例（10.8%），出现睡眠障碍至记忆减退的平均时间为 122.55 月（SD＝162.15）；曾因精神行为症状就诊 14 例（12.6%），出现精神行为症状至记忆减退的平均时间为 105.64 月（SD＝197.45）。曾因其他原因就诊患者与不曾因其他原因就诊患者相比，受教育程度更高（p＝0.014），焦虑程度更高（p＝0.003），抑郁程度也更高（p＝0.003），而在年龄、性别、认知功能、精神行为症状严重程度方面无显著差异。

结论 有相当比例的患者在出现被意识到的记忆损伤前就已经存在焦虑抑郁、睡眠障碍、激越、猜疑等多种精神行为症状，其中焦虑抑郁最为突出，在临床工作中需提高警惕，密切关注此类患者的认知功能变化，及时干预。

关键字：痴呆，精神行为症状，早期识别，抑郁，焦虑

社区居住老年人中轻度认知障碍和跌倒的共同风险因素研究

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目的 调查是否有一组共同的风险因素可以预测社区老年人轻度认知障碍率和跌倒发生率的增加风险。

方法 采用与人口规模成比例的整群抽样（PPS 抽样）方法随机抽取选取中山市社区 60 岁以上人群 2013 人，使用 MMSE 量表、PD 量表、PHQ-9 量表及基本信息问卷调查。采用卡方检验进行 MCI 与跌倒事件的单因素分析，使用判别分析分析二者的共同风险因素。

结果 共有 230（11.4%）人过去一年内发生过跌倒事件，293（14.6%）人的 MMSE 量表筛查为阳性。一组共同的风险因素包括：性别、年龄、婚姻状况、教育程度、抑郁状态、帕金森病高危风险、手机使用情况、糖尿病、失聪。在区分跌倒者与非跌倒者组（77.1%）以及是否为轻度认知障碍人群（69.9%）有统计学意义（P<0.05）。当跌倒事件加入到轻度认知障碍的预测中时，判别分析的结果没有改变，然而预测因素中加入轻度认知障碍时，使跌倒事件检出率从 77.1%增加至 78.6%。

结论 有一组共同的风险因素会增加社区老年人群中轻度认知障碍与跌倒事件发生的风险，对于在临床实践过程中，识别这些因素可能比诊断轻度认知障碍或跌倒更为容易，当发现患者的这些风险因素后，医生能及时发现危险人群，早期实施干预措施。

关键字：轻度认知障碍；跌倒；社区；风险因素

进食障碍研究协作组

抑郁症中西医结合量表的修订与信度效度检验

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抑郁症（Major Depressive Disorders, MDD）是最常见的精神疾病之一，全球约有 3.5 亿 MDD 患者，据世界卫生组织估计 2020 年 MDD 所造成的疾病负担将占全球的 5.7%，将成为导致人类死亡和残疾的第二大疾病，而到2030年其造成的疾病负担将上升至第一位。目前已有研究者以证候要素为核心研制了 MDD 中医相关证候量表，西医临床上使用汉密尔顿抑郁症量表（Hamilton Depression Scale，HAMD）等诊断量表，为临床诊断与判断病情发展情况提供了有效的评估工具。然而 MDD 目前辅助诊断工具仍以国外量表为主，由于文化差异、国内医疗模式等因素，无法体现中国传统文化与中医辨证思维，而中医证候量表无法为西医诊断与治疗提供有效的评估和判断。近几年来，中西医结合治疗 MDD 已经成为未来主要治疗手段之一，但是目前临床仍缺乏中西医结合的抑郁症临床评价工具。本研究在前期研究基础上进一步完善，在中西医理论指导下结合 MDD 中西医基本特点，应用心理测量学、临床流行病学和循证医学等方法[8]，完善既能进行中医证候辨证，又能反映疾病严重程度的中西医结合量表，目的 完善中西医结合抑郁症量表及其信度效度检验。方法 对 702 例抑郁症患者进行测试，其中 210 例患者采用汉密尔顿抑郁量表进行效度检验，验证该系统的信度、效度。结果 中西医结合抑郁症量化评估系统由 43 个评估条目构成，分为 5 个因子，分别命名为：肝郁脾虚、肝郁气滞、心脾两虚、肾虚肝郁。肝胆湿热因子，各因子重测相关系数在 0.725-0.883 之间，总量表内部一致性克伦巴赫 α 系数 0.827，分半信度为 0.713。每个评估条目评分者信度 Kappa 系数 0.625-0.935（P<0.01）；效标效度：量表总分与汉密尔顿抑郁量表总分正相关 0.407（P<0.01）；因子分析结果 5 个因子与设计的结果大体一致，累计贡献率为 39.18%。结论 本研究中的中西医结合抑郁症量表具有良好的信度、效度，在临床上具有可操作性和实用性。

关键字：抑郁症；中西医结合；量表；信度；效度

Alteration of Structural Function of White Matter and White Matter-gray Matter Function Connectivity in Medicine-free Obsessive-compulsive Disorder

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Objective Obsessive-compulsive disorder(OCD) is a chronic mental illness, which structural and functional deficits in the brain's gray matter(GM) and white matter(WM). In addition to extensive research into the changes to GM function and WM structure in OCD, the changes of the functional of WM and WM-GM functional connectivity is still unknown.

Methods In this study, 52 medicine-free OCD and 39 healthy controls(HCs) were collected. We collected the diffusion tensor imaging(DTI) and functional magnetic resonance imaging(fMRI) data from all subjects in the resting state. Tract-based spatial statistics (TBSS), low-frequency amplitude (ALFF), ALFF/FA, and functional connectivity (FC) multimodal approaches were used to compare the regional structure and function of WM, function of GM, and WM-GM functional connectivity between OCD and HCs. The Pearson's correlation was used to examine the connection between imaging data and clinical measurements in OCD. We used support vector machine(SVM) to examine whether altered dual-modality imaging data could differentiate OCD from HCs.

Results Patients with OCD showed remarkably lower FA values of WM structure, including the superior corona radiata, anterior corona radiata, left posterior corona radiata, right superior longitudinal fasciculus, corpus callosum, fornix, and right anterior limb of internal capsule. The GM function were found significant decrease of ALFF values in the left postcentral gyrus and also founded the significant decrease of ALFF/FA values in left anterior thalamic radiation in WM structural-functional coupling. We also located anomalies in the WM-GM functional connectivity, as shown by lower FC values in left dorsal-lateral prefrontal cortex. Combination of all altered imaging indicators of brian region could discrimination OCD from HCs with an accuracy of 85.56%, a sensitivity of 97.44%, a specificity of 92.16%.

Conclusion The changes of WM functional and WM-GM functional connectivity at rest maybe crucial in the pathophysiology of OCD.

关键字：Obsessive-compulsive disorder; white matter structural-functional coupling; white matter-gray matter functional connectivity; support vector machine

Two Multimodal Neuroimaging Subtypes of Obsessive-compulsive Disorder Disclosed by Semi-supervised Machine Learning

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Objective Obsessive-compulsive disorder (OCD) is a common psychiatric disease characterized by obsession and compulsion. Currently, it is generally accepted that OCD is a highly heterogeneous disease with a diversity of symptoms, and distinct subtypes may have different treatment responses. Almost existing researches classify OCD as washing, checking, hoarding, etc based on dominant symptom presentation. However, the same subtype of OCD based on clinical symptom may have different mechanisms, furthermore, two or more subtypes may be present

in the same patient with OCD. Therefore, researchers attempted to classify different subtypes of OCD based on underlying biological mechanism rather than external clinical symptom.

Methods This study included 50 patients with OCD and matched 50 healthy controls (HCs) undergoing structural and functional magnetic resonance examinations. Voxel-based morphometry (VBM) and amplitude of low frequency fluctuations (ALFF) were used to assess gray matter volume (GMV) and neuronal spontaneous fluctuations, respectively. Euclidean distances were calculated for GMVs and ALFF values in patients with OCD and HCs respectively. As a multi-view learning method, similarity fusion networks (SNF) was used to integrate the GMVs and spontaneous neuronal activities through acquiring the shared and complementary information in multiple modalities. Heterogeneity by Discriminant Analysis (HYDRA), a semi-supervised learning, was used to classify the subtypes of OCD.

Results As a result, two robust subtypes were identified. Compared to HCs, these two subtypes of OCD exhibited opposing GMVs and ALFF values. In subtype 1, reduced gray matter volumes (GMVs) were observed in the left inferior temporal gyrus (ITG), right supplementary motor area (SMA), and right lingual gyrus. Additionally, an increased ALFF value was found in the right orbitofrontal cortex (OFC). On the other hand, subtype 2 exhibited increased GMVs in the left cuneus, left postcentral gyrus, right precentral gyrus, and left hippocampus, and a decreased ALFF value in the right caudate nucleus. In addition, these two subtypes exhibited negative correlations in structure-function differences.

Conclusion The current results identified two objective and reproducible subtypes of OCD based on underlying multimodal neuroimaging, and different subtypes of OCD exhibited contrasting patterns of GMVs and ALFF values compared to HCs. These findings may be important for precise clinical diagnosis and targeted treatment of OCD.

关键字：obsessive-compulsive disorder, multimodal neuroimaging, machine learning, subtypes

社会支持、人格特征与产后抑郁症的相关性研究

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目的 本研究将从社会心理因素的角度出发，通过对妊娠期妇女产前、产时和产后的情绪状况进行随访评估，探寻与产后抑郁症相关的预警因素，为 PPD 的早期干预提供理论指导和实践依据。

方法 采用一般情况调查表、社会支持评定量表（SSRS）和艾森克人格问卷（EPQ）对 2014 年 9 月至 2016 年 6 月在重庆医科大学附属第一医院、附属金山医院、附属大学城医院产检，孕周≥28 周的孕妇进行产前量表调查，同时采用爱丁堡产后抑郁量表（EPDS）于产后 42 天对纳入产前调查的产妇进行随访评估，将 EPDS 评分≥13 分的产妇作为抑郁筛查阳性人群，并由 2 名精神专科医生进一步访谈评估。

结果 本研究共有 408 名孕妇纳入产前调查，其中有 371 名孕妇在产后 42 天完成产后随访评估，调查的有效完成率为 90.93%。EPDS 总分≥13 且符合 SCID-I/P 抑郁症诊断标准的产妇有 60 例，产后抑郁症的检出率为 16.17%。研究显示：产后抑郁症组对支持的利用度因子评分低于非抑郁症的产妇（$P<0.05$），而 EPQ 总分和 N 维度评分显著高于非抑郁症的产妇（$P<0.05$）。

结论 产后抑郁症与患者社会支持和人格特征相关，早期识别产前危险因素进行有针对性的干预，对预防产后抑郁症的发生发展和降低疾病风险具有十分重要的意义。

关键字：产后抑郁症；社会支持；人格特征

White Matter Integrity Abnormalities in Healthy Overweight Individuals Revealed by Whole Brain Meta-analysis of Diffusion Tensor Imaging Studies

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Objective This study aimed to conduct a coordinate-based meta-analysis (CBMA) to investigate white matter (WM) abnormalities in healthy individuals with overweight or obesity.

Methods A systematic literature search using Web of Science and PubMed datasets was performed. Original investigations that used diffusion tensor imaging (DTI) to explore fractional anisotropy (FA) differences between healthy overweight/obese individuals and normal weight controls. The meta-analysis was conducted using the seed-based d mapping (SDM) software, employing stringent thresholds for significance. Sensitivity analyses and meta-regression analysis were also performed to examine the robustness of the results and explore potential associations with age and body mass index (BMI).

Results The analysis included five studies comprising 232 overweight/obese individuals and 219 healthy normal weight controls. The findings showed that overweight/obese individuals exhibited reduced fractional anisotropy (FA) in specific regions, namely the right superior longitudinal fasciculus (SLF), the splenium of the corpus callosum (CC), and the right median network, cingulum. Meta-regression analysis further revealed that these FA reductions were associated with age.

Conclusion These findings provided insights into the potential impact of overweight/obesity on cognition,

emotion, and neural functions, and highlighted the significance of early prevention and intervention for overweight on the basis of neuroimaging.

关键字：overweight, obese, white matter, diffusion tensor imaging, meta-analysis.

A Study on The Classification of Major Depression Based on Different Narrow Bands of Alpha Oscillation

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Background Neural oscillations coordinate brain function at multiple scales. The oscillatory components of different narrow bands in the same frequency band will each carry different frequency information and have different mechanisms of neural origin. Alpha oscillation is involved in the regulation of cognitive activity, acting as a functional inhibitor, and is frequency coupled with other oscillatory activities, with a strong labeling effect. Previous studies have shown that alpha oscillation is dysfunctional in depressed patients and associated with suicidal behaviour.

Objective This study proposes to investigate the classification of different narrow bands of alpha oscillation, combined with cognitive screening to find a more suitable narrow band for the classification of major depression.

Methods Thirty patients with major depression and 40 healthy controls were selected. The patients' basic information was recorded using a self-administered scale, the HAMD and HAMA assessed the degree of symptoms, the MCCB assessed the cognitive level of the patients, and the resting EEG was recorded for 5 minutes with eyes open and eyes closed. Multiple classification algorithms (DAC, KNN, NB, RF and SVM) were used to dichotomise the relative energy of different narrow bands in the alpha band of depressed patients and healthy controls (bootstrapping repeated 1000 times to test accuracy), to find narrow bands with high classification accuracy, and to combine the classification with the MCCB cognitive assessment results to see if the classification could be further improved. The accuracy of the classification can be further improved.

Results Frequency band comparisons revealed higher classification accuracy for depression and control at 7-8.5HZ and 10.5-11.5Hz compared to other narrow bands of alpha oscillations (see Figure 1), with further screening revealing the highest classification accuracy between the two groups at 8Hz and 10.7Hz. Of these, the 10.7Hz oscillation correlated with the patient's level of working memory (see Figure 2). classification accuracy after EEG combined with MCCB cognitive measures improved on a variety of algorithms, with the NB algorithm having the highest accuracy, which could reach 82%.

Conclusion Different alpha narrow bands have different classification accuracy for depression, which may represent different neurophysiological mechanisms behind them. EEG features combined with cognitive features can improve the classification accuracy of depression; NB has the highest classification accuracy for depression features among the commonly used classification algorithms (DAC, KNN, NB, RF and SVM).

关键字：1.major depression disorder，MDD 2. alpha oscillation 3.Machine Learning ， 4. MCCB

首发未服药抑郁症患者血清细胞粘附分子水平与皮质厚度的相关性分析

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目的 晚发抑郁症患者死后背外侧前额叶灰质中 VCAM-1 表达水平增高，该区灰质和白质中 ICAM-1 表达水平增加。且老年抑郁患者升高的血浆 sVCAM-1 水平与白质高信号和抑郁症状的严重程度呈正相关。但是，目前尚无研究探讨 MDD 患者的血清 sICAM-1 和 sVCAM-1 的水平及其与皮层厚度的相关性。本研究的目的是探索首发未服药的成人 MDD 患者的血清 sICAM-1 和 sVCAM-1 的水平及其与大脑皮层厚度异常的关系。

方法 纳入 98 名 MDD 患者以及 80 名年龄和性别相匹配的健康对照者，通过磁共振扫描获得 3DT1WI 图像。运用 FreeSurfer 软件分析测量全大脑皮层厚度，采用一般线性回归模型比较 2 组的皮层厚度，并测量了所有受试者的血清 sICAM-1 和 sVCAM-1 水平，将皮层厚度有差异的脑区与血清粘附分子水平及临床变量做相关性分析。

结果 与健康对照相比，MDD 患者的血清 sICAM-1 和 sVCAM-1 水平明显升高。并且经过多重比较校正，MDD 患者左额下回岛盖、右侧颞上沟后坡、右侧顶下小叶、右侧颞下回、右侧中央前回皮层厚度减少。右侧颞下回皮层厚度与血清 sVCAM-1 水平呈负相关。

结论 首发未服药的成人 MDD 患者存在的大脑皮层厚度减低，且与血清可溶性细胞粘附分子水平存在相关。

关键字：抑郁症，皮质厚度，可溶性细胞间粘附分子-1，可溶性血管细胞间粘附分子-1

Psychometric Properties of The Chinese Version of The Electroconvulsive Therapy Cognitive Assessment (ECCA): An ECT-specific Cognitive Screening Tool

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Objective The purpose of this study was to investigate the reliability and validity of the Chinese version of The ElectroConvulsive Therapy Cognitive Assessment (ECCA-C) in schizophrenia patients treated with Electroconvulsive therapy (ECT).

Methods The ECCA-C and the Montreal Cognitive Assessment (MoCA) were administered to patients with schizophrenia (SCH) undergoing ECT at three time points: pre-ECT (baseline), mid-ECT (before the fifth treatment), and post-ECT (one-week after treatment). The instruments were also administered to a sample of healthy subjects.

Results 85 patients with SCH and 70 age- and sex-matched healthy controls (HC) were recruited in this study. Overall, the SCH group had significantly lower MoCA and ECCA-C scores than the HCs (both p values < 0.001). The Cronbach's Alpha of the ECCA-C was 0.867 at baseline. The ECCA-C score of post-ECT was significantly lower than that of mid- and pre-ECT (p values< 0.001), while no significant changes in MoCA scores were found at these three timepoints (F = 1.857, p = 0.165). A cut-off score of 23 on the ECCA-C was found to best differentiate between SCH patients and healthy controls.

Conclusion The ECCA-C showed satisfactory psychometric properties and it may be a sensitive instrument than the MoCA to assess cognitive impairment associated with ECT.

关键字：Electroconvulsive therapy; schizophrenia; cognition; reliability; validity

Psychometric Properties of The Chinese Version of The Electroconvulsive Therapy Cognitive Assessment (ECCA-C) in Bipolar Depression

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Objective Electroconvulsive therapy (ECT) is an effective psychiatric treatment, but there may be related cognitive side effects. Existing cognitive screening tools often lack specificity in the assessment of cognitive impairment after ECT. The Cognitive Assessment of Convulsive Electroconvulsive Therapy (ECCA) was developed and validated in the current clinical environment, but the reliability and validity of the Chinese version of ECCA (ECCA-C) have not been studied in a large clinical sample.

Methods Patients with bipolar disorder (BD) who received ECT were assessed with ECCA-C and Montreal Cognitive Assessment (MoCA) before ECT treatment (baseline), before the 5th treatment, 1-week after treatment and 4-week after treatment. The instrument was also used in healthy controls.

Results A total of 94 BD patients and 66 age-and sex-matched healthy controls were included in this study. The MoCA and ECCA-C scores of the patients were significantly lower than those of the control group ($p < 0.001$). The Cronbach 's Alpha of ECCA-C was 0.887 at baseline. In BD patients, ECCA-C decreased significantly with ECT sessions, and this decrease was still observed 4-week after the end of ECT treatment ($F = 16.213$, $p < 0.001$), while there was no significant change in MOCA score at 4 measure time points. ($F = 0.179$, $p = 0.910$). In addition, a cut-off score of 25.5 on the ECCA-C was found to best distinguish between BD patients and healthy controls.

Conclusion ECCA-C has satisfied psychometric properties and may be a more sensitive tool than MoCA in assessing ECT-related cognitive impairment in BD patients.

关键字：Electroconvulsive therapy; bipolar disorder; cognition; reliability; validity

Cognitive Performance on MCCB of Adults Seeking Bariatric Surgery for Obesity

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Objective Cognitive impairment has been found in obese people, but the sub-field of cognitive function in obese people is still unclear. The purpose of this study was to identify the characteristics of MCCB cognitive function impairments in bariatric surgery candidates.

Methods 22 medication-free adolescents patients with a diagnosis of MDD, were compared with 22 age- and sex-matched healthy controls. Seven domains of cognitive function were assessed by MCCB, including the Wisconsin Card Sorting Task (WCST), Trail Making Test, Part-B (TMT-B), Digit Symbol Substitution Test (DSST) and Verbal Fluency Test (VFT).

Results The obesity group showed a significantly higher HDRS scores($p=0.005$) and HAMA scores($p<0.001$) when compared with the healthy controls (all $p<0.05$). obesity have poorer performance in the following subtasks performance: TMT-A, BACS-SC, WM-SS, and MAZES at $p < 0001$. Meanwhile, the following sub-tasks performance of CPT and BVMT-R at $p < 0.05$.

Conclusion The executive function of obese people is significantly impaired. The executive function of the obese population is impaired in a number of subdomains. The obese group had significant deficits in reasoning problem-solving and overall composite, as well as moderate processing speed and working memory impairments.

关键字： obesity, cognitive function, MCCB，depressed

Potential Role between Inflammatory Cytokines and Tie-2 Receptor Levels and Clinical Symptoms in Patients with First-episode Schizophrenia

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Objective Schizophrenia (SCZ) is associated with chronic low-grade inflammation, which may be involved in the underlying pathological mechanism of the disease and may influence patient prognosis. We evaluated the differences in serum cytokine and Tie-2 receptor levels between patients with first-episode SCZ and healthy controls and explored the correlation thereof with clinical symptoms.

Methods Seventy-six participants were recruited for the present study, including 40 patients with first-episode SCZ and 36 healthy controls. Positive and Negative Syndrome Scale (PANSS) and Brief Psychiatric Rating Scale (BPRS) scores, demographic data, and blood samples were collected at baseline. A hypersensitive Meso Scale Discovery (MSD) electrochemiluminescence assay system was used to measure cytokine and Tie-2 receptor levels. Spearman's correlation and stepwise linear regression were used to analyze the data.

Results Serum interleukin-1β and -4 levels were significantly increased, and Tie-2 levels were significantly decreased, in first-episode SCZ patients as compared to healthy controls. IL-1β levels were positively correlated with total BPRS scores, resistance subscores, and PANSS positive subscores. Furthermore, IL-1β levels were negatively correlated with Tie-2 receptor expression levels. Stepwise linear regression analysis demonstrated that IL-1β levels correlated positively with PANSS positive subscores and BPRS total scores. PANSS negative subscores, general psychopathology subscores, and PANSS total scores had positive effects on the Tie-2 receptor. Receiver operating characteristic (ROC) curve analysis showed that IL-1β and Tie-2 were highly sensitive and specific for predicting first-episode SCZ symptoms and achieving an area under the ROC curve of 0.8361 and 0.6462, respectively.

Conclusion Our results showed that patients with first-episode SCZ have low-grade inflammation. IL-1β and Tie-2 receptors may be important mediators between inflammation and vascular dysfunction in patients with SCZ and may underlie the increased cardiovascular disease in this population.

关键字：cardiovascular, first-episode schizophrenia, inflammatory cytokines, Tie-2

中国神经性贪食诊疗专家共识

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目的 ：神经性贪食是以反复发作的暴食和防止体重增加的补偿行为，以及对体形和体重过度关注为特征的一类进食障碍。神经性贪食患者存在紊乱的进食行为，导致电解质异常，胃肠道疾病、代谢和内分泌紊乱等躯体问题；其次也常共病双相情感障碍、抑郁症、物质使用障碍等多种精神障碍。近年来，我国神经性贪食的患病率呈逐年升高趋势，严重影响年轻女性的身心健康甚至生命。然而，目前在中国对于神经性贪食，乃至进食障碍不能早期识别和诊治，导致患者社会功能严重受损，病程迁延。因此，为解决这一困境，制定本共识。

方法 ：专家组通过讨论、收集、汇总一线存在的相关医学问题（共计 7 项问题），并以"eating disorders""bulima nervosa" "psychotherapy" "pharmacological treatment" "depression" "bipoloar disorder" "anxiety" "fluoxetine"为关键词，进行系统检索，召开第一轮会议对收集的 7 项热点问题进行分析，进一步筛选文献，剔除重复、动物实验、无法获取原文、与 7 项问题不相关的文献。第二轮会议对相关问题呈现现有的研究数据及推荐建议。

结果 ：在神经性贪食干预前，建议进行系统综合的评估（推荐强度 A），包括躯体症状评估、一般精神病理症状，进食障碍的精神病理症状评估。认知行为治疗作为神经性贪食的一线治疗选择（推荐强度 A）。药物选择方面，氟西汀作为强烈推荐的选择药物。此外，基于循证医学证据、国内外指南与专家共识、专家经验等，针对上述提出的 7 项临床所面临的问题，提出推荐意见。

结论 ：本共识在总结归纳目前相关证据基础上，提出评估方法和诊疗意见，通过制定本共识，为临床诊疗提供依据。

关键字：神经性贪食；心理治疗；药物治疗；指南

伴非自杀性自伤抑郁症患者认知特征与脑 fNIRS 研究

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目的 全面评估伴非自杀性自伤（NSSI）行为抑郁症（MDD）患者的认知功能损伤特征，检测患者额颞叶皮层功能连接及血清微量元素水平，探讨伴 NSSI 抑郁症患者认知功能损伤的神经生物学机制。

方法 根据 DSM-5 诊断标准，纳入伴 NSSI 成人抑郁症患者（NSSI 组）30 例，不伴 NSSI 成人抑郁症患者（不伴 NSSI 组）36 例，健康者（HC 组）35 例。采用 MARTICS 共识认知功能成套测验（MCCB）评估被试的认知功能；同时采用功能性近红外光谱成像（fNIRS）技术检测额颞叶皮层功能连接，检测外周血微量元素（铜、锌、铁、镁和铜蓝蛋白）的水平。分析

三组的认知功能、脑功能连接及微量元素水平的组间差异，并进一步分析其关联性。

结果 （1）认知功能结果：NSSI 组在信息处理速度、注意/警觉性、工作记忆、词语学习、视觉学习、问题和推理能力及社会认知等认知领域及总认知得分均低于 HC 组；NSSI 组的注意警觉性显著低于不伴 NSSI 组。(2）额颞叶功能连接结果：NSSI 组的双侧额颞叶皮层功能连接强度低于 HC 组，NSSI 组的左背外侧前额叶皮质（DLPFC）-右运动前皮层、右三角部-右运动前皮层间的功能连接强度低于 HC 组；NSSI 组的左三角部-右三角部、右三角部-右运动前皮层的功能连接强度低于不伴 NSSI 组。(3）血清微量元素结果：NSSI 组和不伴 NSSI 组的铜蓝蛋白均低于 HC 组；不伴 NSSI 组的镁低于 HC 组；两病例组间的血清微量元素未见统计学差异。（4）相关分析结果：在 NSSI 者组中，患者的工作记忆与双侧额颞叶皮层功能连接呈正相关，具体为工作记忆与左 DLPFC-左三角部、左 DLPFC -左运动前皮层间的功能连接呈正相关；社会认知与左 DLPFC -右 DLPFC、左 DLPFC -左运动前皮层及右 DLPFC -右三角部的功能连接强度呈负相关。此外，视觉学习与铜蓝蛋白水平呈正相关，左 DLPFC-右 DLPFC 功能连接与镁水平及铜蓝蛋白水平呈正相关；右 DLPFC -左运动前皮层功能连接与镁水平呈正相关。

结论 1. 抑郁症患者存在广泛而多领域的认知功能损伤，同时，伴 NSSI 抑郁症患者表现出更为显著的注意警觉功能损伤。2. 伴 NSSI 抑郁症患者存在双侧额颞叶、DLPFC、运动前皮层及三角部脑区间的功能连接强度及不对称性改变，可能是其特征性脑功能改变，其脑功能异常可能与镁水平异常及认知功能损伤密切相关。

关键字：抑郁症；非自杀性自伤；认知功能；近红外光谱成像；微量元素

中国神经性厌食诊疗的专家共识

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目的 神经性厌食是一种以自我饥饿、体重显著减轻和营养不良为特征的进食障碍。在所有精神疾病中死亡率最高，它会导致严重的精神病理症状和危及生命的医疗并发症。然而目前在中国，对于神经性厌食不能早期识别和诊治，导致病程迁延。为提高国内专业人员对神经性厌食的识别和诊治水平，制定本共识。

方法 在中华医学会心身医学分会进食障碍协作组的组织下，11 名医学专家组成员通过讨论、收集、汇总一线存在的相关临床问题，以“eating disorders”“anorexia nervosa”“nutrition therapy”“psychotherapy”“pharmacological treatment”“refeeding syndrome”为关键词进行系统检索和精筛，基于循证医学证据、国内外指南与专家共识、结合专家经验和相关文献总结，提出本共识。

结果 在神经性厌食干预前，建议进行系统综合的评估（推荐强度 A），包括躯体症状评估、一般精神病理评估和进食障碍精神病理评估。营养治疗是神经性厌食最重要的一线治疗方法（推荐强度 A）。心理治疗方面，家庭治疗是儿童和青少年神经性厌食的一线治疗方法（推荐强度 A），认知行为治疗作为成人神经性厌食的一线治疗方法（推荐强度 A）。药物治疗不建议作为治疗神经性厌食的单独或主要方法。

结论 本共识在总结归纳目前相关证据基础上，提出评估方法和诊疗意见，通过制定本共识，对临床诊疗提供依据。

关键字：神经性厌食；营养治疗；心理治疗；专家共识；指南

神经性厌食症肠道菌群研究

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目的 探讨中国神经性厌食症患者肠道菌群的特点。

方法 选取 2021 年 12 月至 2022 年 12 月在四川大学华西医院门诊及住院部就诊的未服药神经性厌食症患者 30 名作为研究对象，同期招募性别、年龄匹配的健康志愿者 30 名作为健康对照组。两组对象均采集大便样本用于 16SrRNA 基因测序，采用 QIIME2 软件、R 语言进行数据分析，检测大便样本的物种多样性及丰度，并采用线性判别效应分析方法来鉴定两组间具有显著差异的肠道菌群。

结果 Beta 多样性分析结果显示两组肠道菌群之间存在显著差异（Jaccard 距离：R2=0.019，P=0.043；unweighted UniFrac 距离：R2=0.026，P=0.019）。Alpha 多样性分析结果显示两组间 Faith’s PD 指数存在显著差异（P=0.043）。共鉴定出 16 个在两组间具有显著丰度差异的物种（P＜0.05）。1 个物种在健康对照人群中富集，为 YS2，15 个物种在神经性厌食症患者中富集，分别为互养菌门、互养菌纲、鞘脂单胞菌目、伯克氏菌目、产碱杆菌科、艰难杆菌科、鞘脂单胞菌科、肠球菌科、真杆菌属、萨特氏菌属、罗尔斯通氏菌属、Pseudoramibacter__Eubacterium 属、魏斯氏菌属、鞘氨醇单胞菌属、克里斯滕森菌属。

结论 神经性厌食症患者肠道菌群多样性和丰度与健康人群相比发生显著改变。提示肠道菌群可能参与了神经性厌食症发病的病因和病理生理机制。

关键字：神经性厌食症；肠道菌群

Diagnosis and Differentiation of Stable Mild Cognitive Impairment and Progressive Mild Cognitive Impairment Based on Degree Centrality and Directed Functional Connectivity

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Objective Stable mild cognitive impairment (sMCI) and progressive mild cognitive impairment (pMCI) were two subtypes of mild cognitive impairment (MCI). Early and effective diagnosis and differentiation between aMCI and pMCI were crucial for targeted early intervention and delay cognitive decline. The purpose of the study was to investigate the intrinsic dysconnectivity pattern of sMCI and pMCI based on degree centrality (DC) and directed functional connectivity (FC) to explore the common and specific neuroimaging mechanisms between sMCI and pMCI.

Methods Resting-state functional magnetic resonance imaging combined with DC analysis was used to investigate FC density of 42 sMCI, 31 pMCI, and 82 healthy control (HC). Seed-based directed FC was conducted based on the significant clusters found in DC. Furthermore, partial correlation analysis was conducted between the altered DC and directed FC values and cognitive function. Lastly, receiver operator characteristic analysis was used to evaluate the accuracy of abnormal DC and directed FC values in distinguishing sMCI from pMCI.

Results Compared to HC, pMCI and sMCI both showed increased DC in the left inferior temporal gyrus, left posterior cerebellum lobe (CPL), and right cerebellum anterior lobe (CAL) and decreased DC in the left superior frontal gyrus. Moreover, compared to sMCI, pMCI showed increased FC from right CAL to left inferior temporal gyrus (ITG), which was associated with episodic memory and executive function. In addition, the FC from right CAL to right ITG can discriminated sMCI from pMCI with sensitivity, specificity, and accuracy of 0.5806, 0.9512, and 0.828, respectively.

Conclusion In conclusion, the current study revealed sMCI and pMCI existed common and specific changes on DC and directed FC, which involved in cognitive function. More importantly, the FC from right CPL to right ITG can be used to effectively discriminate sMCI from pMCI.

关键字：stable mild cognitive impairment, progressive mild cognitive impairment, degree centrality, directed functional connectivity, support vector machine

生活事件、神经质人格对老年人轻度认知障碍的影响：抑郁或焦虑的遮掩作用

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目的 本研究以认知障碍发生危险及保护因素模型、心理应激系统模型理论和文献报道为基础，应用中介效应方法，探讨负性生活事件个数、神经质人格特质对老年人 MCI 的直接影响，进一步探讨焦虑或抑郁是否影响了负性生活事件个数、神经质人格特质与老年人 MCI 之间的关系及作用机制，从而为构建以社区卫生服务机构为基础，切实可行的早期评估和识别 MCI 老年人易感因素提供新思路。

方法 以在社区卫生服务机构就诊的60岁及以上老年居民为研究对象。采用方便抽样的方法，调查工具包括一般状况调查表，汉密尔顿焦虑量表，老年抑郁量表，艾森克人格问卷简式量表中国版，生活事件应激量表，基本生活活动能力量表，蒙特利尔认知评估量表。基于 SPSS 26.0，R 4.1.3 软件完成统计。首先利用频数和百分比对研究对象的人口学特征、负性生活事件个数、神经质人格、抑郁和焦虑进行统计描述。其次，通过卡方检验比较研究对象的人口学特征、负性生活事件个数、神经质人格、抑郁和焦虑的差异。最后，通过逐步回归法和乘积分布法验证神经质人格、负性生活事件的数量、抑郁、焦虑与 MCI 的中介效应关系。

结果 1.年龄、退休前工作性质、教育年限、脑卒中、冠心病、高血压，糖尿病、体质指数、抑郁和焦虑对 MCI 的影响具有统计学意义（$p<0.05$）。2.负性生活事件个数与是否有 MCI 之间总效应不显著（$p>0.05$）；相对于生活事件为0-1件时，当负性生活事件为4-8时，可以通过影响焦虑或抑郁的发生进而影响老年人 MCI。3.相对于神经质稳定，不稳定与是否有 MCI 之间的总效应不显著（$p>0.05$）；老年人高神经质人格可以通过影响焦虑或抑郁的发生进而影响 MCI。

结论 年龄、教育年限、体质指数、退休前工作性质、脑卒中、冠心病、高血压、糖尿病、抑郁和焦虑是 MCI 的影响因素。进一步明确，高负性生活事件个数和高神经质可通过焦虑或抑郁为中介发挥对轻度认知障碍的影响，焦虑或抑郁在其中起遮掩作用。

关键字：老年人，轻度认知障碍，遮掩效应

Effect of Fluvoxamine Maleate on Gut Microbiota in Children and Adolescents with Obsessive-compulsive Disorder with Gastrointestinal Symptoms

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Objective To clarify the structural characteristics of gut microbiota in children and adolescents with first untreated obsessive-compulsive disorder (OCD) with gastrointestinal symptoms. Compare the changes in gut microbiota before and after treatment with fluvoxamine maleate in children and adolescents with OCD accompanied by gastrointestinal symptoms, and identify significant differences in gut microbiota and their correlation with clinical efficacy.

Methods 1. A total of 30 children and adolescents with gastrointestinal symptoms with OCD were selected as the study subjects and evaluated for clinical parameters and collected the fecal samples. 2. All subjects were given sufficient treatment with fluvoxamine maleate for 12 weeks. CY-BOCS, HAMD, HAMA, GSRS, TESS, and CGI were retested after 4, 8, and 12 weeks of treatment. Fecal samples were collected again after follow-up, and 16S rRNA sequencing was performed on the samples before and after treatment. 3. By comparing the changes in gut microbiota of patients before and after treatment, as well as the severity of clinical symptoms such as compulsion, anxiety, and depression, the clinical efficacy and safety of fluvoxamine maleate in treating pediatric and adolescent OCD patients with gastrointestinal symptoms were clarified, and the impact of this drug on gut microbiota of pediatric and adolescent OCD patients with gastrointestinal symptoms was further explored.

Results 1. After 12 weeks of treatment with fluvoxamine maleate, gastrointestinal symptoms in patients with OCD (OCD12W) were significantly reduced ($P < 0.05$). 2. The diversity indexes of intestinal flora in OCD12W group were significantly increased (obs，$P < 0.05$；chao1，$P < 0.05$；ACE，$P < 0.05$；shannon，$P < 0.05$；simpson，$P < 0.05$). 2. The relative abundance ratio (F/B) of Firmicutes to Bacteroidetes in OCD12W group was significantly increased ($P < 0.001$). 3. The relative abundance of Ruminococcus ($q < 0.01$), Escherichia-shigella ($q < 0.01$) and other bacteria related to gastrointestinal symptoms in OCD12W group was significantly increased. 4. There was a correlation between the changes of clinical parameters and the abundance of specific bacteria in the intestinal flora in the OCD group ($P < 0.05$).

Conclusion 1. After 12 weeks of treatment with fluvoxamine maleate, the gastrointestinal symptoms of first-episode untreated children and adolescents with OCD were significantly improved, and the diversity of intestinal microbiota was significantly increased. 2. The disruption of intestinal homeostasis in first-episode untreated children and adolescents with OCD is related to a significant decrease in the relative abundance of bacteria such as Ruminococcus, which are closely related to gastrointestinal symptoms. 3. There is a correlation between the changes in clinical parameters and the abundance of specific species of gut microbiota in first-episode untreated children and adolescents with OCD.

关键字：fluvoxamine maleate; gut microbiota; children and adolescents; obsessive-compulsive disorder; gastrointestinal symptoms

Altered Gut Microbial Profile in Children and Adolescents with Obsessive-compulsive Disorder Treated with Selective Serotonin Reuptake Inhibitor

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Objective Obsessive-compulsive disorder (OCD) is a chronic disabling mental disorder characterized by repeated and persistent obsessive and/or compulsive behaviors. This study aims to explore the changes of gut microbiota in first-onset children and adolescents with OCD before and after selective serotonin reuptake inhibitor (SSRIs) treatment by Multiple omics analysis of 16SrRNA sequencing, metagomenomics and metabolomics, and to find potential biomarkers related to the efficacy of OCD and reveal its pathophysiological mechanism. It provides theoretical basis for the early diagnosis and prognosis of OCD.

Methods 1. Stool samples were collected from 26 first-episode untreated children and samples were collected again after 12 weeks of SSRIs monotherapy for OCD, which were evaluated for clinical parameters. 2. Fecal samples from 26 OCD0W and 26 treated with SSRIs for 12 weeks (OCD12W) were analyzed by 16S rRNA sequencing and metabonomic method based on UHPLS-MS. 3. Fecal samples from 14 Responders and 12 Nonresponders were analyzed by Illumina HiSeq sequencing platform using metagenomic high-throughput sequencing method. 4. Association analysis was performed on metagenomic and metabonomics analysis data to clarify the association between differential flora and differential metabolites.

Results 1. There was no significant difference in the diversity index of intestinal flora in patients with obsessive-compulsive disorder (OCD12W) after drug intervention compared with those in the pre-intervention group (OCD0W) ($P>0.05$). 2. The random forest model identified 13 specific bacteria as microbial markers in patients in the treatment effective group (Respond) and non-response group (Nonrespond), with AUC of 0.8274. 3. A total of 63 different metabolites were screened in the OCD0W-OCD12W group, among which the relative contents of neopterin and Sepiapterin, the intermediate products of folate biosynthesis, were significantly reduced in the OCD12W group ($P<0.05$); The metabolites involved in amino acid biosynthesis pathway such as fumarate, 2-oxyisovalerate and 3-dehydroquinic acid (DHQ) were significantly increased ($P<0.05$).

Conclusion 1. Short-term treatment with SSRIs can alleviate clinical symptoms, but fails to make the microbial ecosystem of children and adolescents with OCD close to healthy individuals. 2. Microbial markers can also predict treatment outcomes of children and adolescents with OCD. 3. The expression of intestinal microflora metabolites in OCD patients is disturbed, resulting in functional abnormalities of related metabolic pathways, which can be partially recovered by drug treatment. Neopterin, as a key factor of folic acid synthesis pathway, may be involved in the pathogenesis of OCD. 4. Abnormal metabolites of gut microbiota in OCD patients are mainly manifested in folic acid biosynthesis, prion disease pathway and amino acid metabolic network.

关键字：Gut microbiota; Obsessive compulsive disorder; Children and adolescents; Metagenomics; Metabonomics

Determination of The Cutoff Point for Smartphone Application-Based Addiction Scale for Adolescents: A Latent Profile Analysis

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Objective Problematic smartphone use (PSU) is the most prevalent form of problematic online behaviors (POB) among adolescents. The Smartphone Application-Based Addiction Scale (SABAS) is a brief screening tool for PSU, but its cutoff point remains unestablished. This study aimed to determine the optimal cutoff point for SABAS using latent profile analysis (LPA), and to investigate whether PSU screening captured problematic social media use (PSMU) and internet gaming disorder (IGD).

Methods We recruited 62,305 adolescents using cluster sampling. Validated questionnaires were used to assess PSMU, IGD, and mental health (depression, anxiety, sleep disturbances, well-being, resilience, and externalizing and internalizing problems). LPA and receiver operating characteristic curve (ROC) analyses were applied to determine the optimal cutoff point for SABAS. The sensitivity and specificity of using SABAS to detect PSMU and IGD were calculated.

Results LPA identified a 3-class model for PSU, including low-risk users (38.6%, n=24,388), middle-risk users (42.5%, n=26,885), and high-risk users (18.9%, n=11,932). ROC analysis demonstrated a cutoff point of 23 for SABAS (sensitivity: 98.1%, specificity: 96.8%). According to the cutoff point, 21.1% (n=13,317) were identified as PSU. PSU adolescents displayed higher PSMU, IGD, and worse mental health. PSU screening demonstrated a satisfactory ability to capture IGD (sensitivity: 86.8%, specificity: 84.5%) and PSMU (sensitivity: 84.5%. specificity: 80.2%).

Conclusion This study suggests that 23 is an optimal cutoff point for SABAS to detect PSU. 21% of the adolescents suffered from PSU. SABAS has been recommended as an initial screening tool to detect PSU, followed by targeted assessments for specific POB and mental health among individuals who screen positive.

关键字：Problematic smartphone use; Problematic social media use; Internet gaming disorder; Smartphone application-based addiction scale

Sleep Disturbance Mediates The Relationship between Problematic Technology Use and Psychotic-like Experiences: A Large Cross-sectional Study in 87, 302 Chinese Adolescents

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Objective Emerging studies report that problematic technology use (PTU) could be a new stressor for psychotic-like experiences (PLEs) among adolescents. However, the mechanism remains unexplored. This study of 87, 302 Chinese adolescents aimed to test: (1) the association of PLEs with problematic social media use (PSMU), problematic smartphone use (PSU), internet gaming disorder (IGD), and sleep disturbance; and (2) whether sleep disturbance mediated the relationship between PTU and PLEs.

Methods 16-item Prodromal Questionnaire, Smartphone-Application Based Addiction Scale, the Bergen Social Media Addiction Scale, the Internet Gaming Disorder Scale-Short Form, Pittsburgh Sleep Quality Index, and Strength and Difficulties Questionnaires were employed.

Results (1) The prevalence of clinically relevant PLEs, IGD, PSMU, PSU, and sleep disturbance was 18.1% (n=15, 837), 2.4% (n=2, 060), 1.5% (n=1301), 24% (n=21, 310), and 26% (n=23, 024), respectively. (2) Adolescents with PLEs demonstrated much higher PIU, mental distress, and sleep disturbance. PSU, PSMU, and IGD displayed moderate-to-large associations with PLEs, while sleep disturbance exhibited a substantial positive association with PLEs; (3) Sleep disturbance mediated 51.8% of the effect of PSU, 49.2% of the effect of PSMU, and 44.1% of the effects of the IGD on PLEs.

Conclusion Our study supported that PTU was closely associated with PLEs. The higher risk of PLEs among adolescents with PTU and sleep disturbances underscores the importance of formal assessments for PLEs in this specific population. Furthermore, targeted interventions for sleep disturbance might help reduce PLEs among adolescents with PTU.

关键字：Psychotic-like experiences; Problematic social media use; Problematic smartphone use; Internet gaming disorder; Sleep disturbance

自悯量表中文版在进食障碍患者中的信效度评价及初步应用

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目的 评估自悯量表中文版在进食障碍患者中应用的效度和信度，并对该量表在进食障碍患者样本中的应用进行初步分析。

方法 由 10 名相关领域专家完成内容效度评价；选取 136 名符合 DSM-5 进食障碍诊断的门诊及住院患者进行测查评价结构效度；以罗森伯格自尊量表（SES）、生活满意度量表（SWLS）、进食障碍检查自评问卷（EDE-Q 6.0）为效标评价效标效度；选择 20 名患者 2 周内重测，评价重测信度。采用单因素分析探究进食障碍患者自我同情的相关因素，并分析进食障碍亚型及精神疾病共病与自我同情的关系。

结果 各条目内容效度指数为 0.70～1.00，S-CVI/Ave 为 0.96，内容效度良好。探索性因子分析抽取 3 个因子，累积方差贡献率为 64.93%；验证性因子分析比较 3 因子及基于原量表理论的 6 因子模型，发现

6因子模型拟合指标更优（$\chi2/df=1.70$，RMSEA＝0.07，CFI=0.92，TLI=0.91），因子负荷更合理。自悯量表中文版与 SES 与 SWLS 的组内相关系数均为 0.31，与 EDE-Q 6.0 得分负相关（r=-0.32）。总量表的 Cronbach'α 系数为 0.85，6 个分量表的 Cronbach'α 系数在 0.82～0.89 之间。总量表重测信度为 0.80。追求更瘦的患者自悯量表总分均值为 16.15，低于不追求更瘦患者的 17.52（P<0.05）；不同亚型进食障碍患者的自悯量表总分及分量表分差异无显著性；进食障碍共病其他精神疾病的患者自悯量表总分低于无共病患者，自悯量表总分与共病类别数负相关（r = -0.37，P < 0.001）。

结论 自悯量表中文版在进食障碍患者中具有中等效度和高等信度，可为在我国进食障碍患者群体中开展相关研究提供临床测量工具。追求更瘦的进食障碍患者和共病其他精神疾病的进食障碍患者自我同情水平低。

关键字：进食障碍；自悯量表；效度；信度

伴混合特征抑郁发作患者炎症因子及脑血流动力学特征的研究

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目的 对伴混合特征抑郁发作（DMX）患者进行认知功能评估，血清炎症因子水平检测，额颞叶脑流动力学特征监测，探求 DMX 患者的认知功能损伤特点和血清炎症因子变化和脑血流动力学特征及其关系，探索 DMX 发生的风险因素。

方法 研究入组 30 例 DMX 患者（DMX 组），30 例不伴混合特征抑郁发作患者（nDMX 组），招募 30 例健康对照组。通过静息态近红外光谱成像监测被试额颞叶功能连接强度，采用流式细胞技术检测被试白细胞介素-2(IL-2)、IL-4、IL-6、IL-10、干扰素 γ（IFN-γ）、肿瘤坏死因子-α(TNF-α)浓度，采用成套神经心理学认知功能测试评估被试认知功能。综合并分析 DMX 患者在其三方面的相关性，并通过以上结果建立抑郁障碍患者伴混合特征的风险预测模型。

结果 （1）DMX 组及 nDMX 组在各认知维度及总认知得分上均低于对照组，三组间存在统计学差异。其中信息处理速度在 DMX 组和 nDMX 组间存在统计学差异；（2）三组在 IL-2，IL-4，IFN-γ 和 TNF-α 血清水平存在显著差异，DMX 组和 nDMX 组的浓度显著高于对照组；经校正后发现 DMX 组 IL-4 浓度显著高于 nDMX 组；（3）DMXIL-6 水平与词语学习得分呈显著负相关，IFN-γ 水平与词语学习得分呈显著正相关；（4）三组额颞叶脑功能连接值存在显著差异，经过校正后发现对照组额颞叶脑功能连接值最高，其次是 nDMX 组、DMX 组额颞叶脑功能连接强度依次递减；（5）DMX 组的血清 IL-2 水平与额颞叶功能连接强度呈负相关；（6）多因素 Logistic 回归分析发现，IL-4 和额颞叶功能连接强度与抑郁发作患者伴混合特征有关。

结论 （1）DMX 患者表现更重的认知功能受损，其中信息处理速度维度损伤更加突出，可能与炎症因子变化有关，抑郁发作伴混合特征患者表现更高 IL-4 水平。（2）DMX 患者额颞叶功能连接受损较 nDMX 患者更重，脑血流动力学改变与血清炎症因子变化相关。（3）IL-4 水平及额颞叶功能连接强度可能可能是 DMX 的潜在预测因子，可被作为临床中诊断及鉴别 DMX 患者的参考指标。

关键字：伴混合特征抑郁发作；认知损伤；功能性近红外光谱成像；脑血流动力学变化；血清炎症因子.

网络辨证行为团体治疗对贪食症的疗效研究

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目的 验证网络辩证行为团体治疗（G-DBT）用于贪食症治疗的可行性和有效性，为未来干预和研究提供参考。

方法 对比疫情前后分别开展的线下 G-DBT 和网络 G-DBT 对贪食症患者的疗效。在治疗前、治疗中第 4 周和第 8 周、治疗结束时（第 12 周）使用进食障碍检查量表（EDE-Q）评估暴食频率和进食障碍病理症状，使用巴瑞特冲动性量表（BIS-11）、情绪调节困难量表（DERS-16）评估冲动控制能力和情绪调节能力。使用重复测量方差分析检验两组的暴食次数和天数在治疗前后的差异；使用线性混合效应模型检验时间、治疗形式对 EDEQ 总分、BIS-11 总分和 DERS-16 总分的影响。

结果 纳入 53 名患者，线下组 24 名，网络组 29 名。基线评估时两组的人口学资料和各临床指标均无显著差异（p＞0.05）。治疗后患者的暴食次数和天数均明显减少（p＜0.001），无显著组间差异（p＞0.05）。EDE-Q 总分、BIS-11 总分和 DERS-16 总分在治疗后均显著下降（p＜0.05）。网络组的 DERS-16 总分在治疗后始终高于线下组（p＝0.047），其余量表分数均无显著组间差异（p＞0.05）。

结论 网络 G-DBT 对贪食症的疗效和线下 G-DBT 近似，能显著减少暴食，改善进食障碍相关病理症状、情绪调节能力和冲动控制能力，但对情绪调节能力的改善效果不如线下 G-DBT。

关键字：神经性贪食症 辩证行为治疗 技能训练团体 网络团体治疗

心理治疗预防抑郁症复发的效果：系统综述和网状荟萃分析

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目的 抑郁症非常普遍，平均十分之一的患者出

现抑郁症状。抑郁症反复发 作，会对患者生活产生重大影响。大部分经历抑郁症复发的患者，在工作效率和社交活动中都感到受限。药物治疗、心理治疗和两种干预措施的联合治疗可以防 止抑郁症在缓解期间复发。我们旨在比较多种心理干预在不同随访时间点预防抑郁症复发的效果。

方法 本篇系统综述和网状荟萃分析中，我们检索了 PubMed，Embase，PsycINFO(通过 Ovid 数据库)，和 Cochrane 图书馆数据库。对所有包含生存曲线或复发曲线的随机对照试验进行网状荟萃分析。主要研究结果是不同心理干预措施在相同的随访时间节点预防抑郁症复发的效果。对于从生存曲线或 复发曲线提取的二分类变量采用 95%可信区间计算比值比。

结果 本网状荟萃分析纳入 25 篇 RCT 研究，包括 2,871 名患者。基于正念的认知治疗首先表现出稳定的优于安慰剂的效果在随访的开始，即第 3 个月(OR=3.99; 95%CI 1.06-14.97)直至第 9 个月(OR=3.71, 95%CI 1.11-12.39); 并从第 15 个月(OR=3.75, 95%CI 1.25-11.24)开始直到第 21 个月(OR=1.67, 95%CI 1.18-2.36)明显比抗抑郁药效果好。认知行为治疗分别在随访的 3 个月 (OR=2.26，95%CI 1.31-3.90)、9 个月(OR=1.66，95%CI 1.10-2.51)、12 个 月(OR=1.56，95%CI 1.06-2.31)、15 个月(OR=1.54，95%CI 1.05-2.26)效果比常规治疗好;在随访的第 21 个月(OR=7.32，95%CI 1.72-31.04)和第 24 个 月(OR=9.84，95%CI 2.07-46.74)效果比安慰剂好。随访 15 个月后，行为激活治疗效果优于抗抑郁药(OR=3.12, 95%CI 1.02-9.55)，并且效果持续到第 24 个月(OR=4.80, 95%CI 1.22-18.91)。

结论 MBCT 相较于其它干预措施是最早起效，效果稳定持续 至随访第 21 个月。CBT 起效时间最长，但持续性效果不佳。行为激活疗法和人 际心理治疗在长期随访中预防抑郁症复发有效果。所有的心理干预均比非指导 性支持效果好。

关键字：心理治疗; 抑郁症; 复发; 网状荟萃分析

The Impact of Childhood Trauma on Perceived Stress and Personality in Patients with Obsessive-Compulsive Disorder: A Network Analysis

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Objective Obsessive-compulsive disorder (OCD) is a disease with considerable symptom heterogeneity. Childhood trauma is associated with the onset and development of OCD. Little is known about the role of childhood experiences in the development of OCD and the difference between OCD and healthy people. Network analysis provides the capacity to estimate complex patterns of relationships and the network structure can be analyzed to reveal core features of the network. The objective of this study was to use network analysis to explore the relationship between childhood trauma, personality, perceived stress, and symptom dimensions, and to find the difference between patients' and healthy people's network.

Methods Patients with OCD (N = 488) were recruited from a multicenter, cross-sectional study. Healthy volunteers (N = 210) were recruited by advertisements. All of them were assessed with the Obsessive-Compulsive Inventory – Revised (OCI-R), the Perceived Stress Scale-10 (PSS-10), the NEO Five-Factor Inventory (NEO-FFI) and the Early Trauma Inventory Self-Report Short Form (ETISR-SF). Network analysis was conducted to estimate the network of obsessive-compulsive symptoms, childhood trauma, personality and perceived stress. The network comparison test was performed on the networks of patients and healthy controls.

Results The network structure reveals the variation in relationships between the items. Strength is the absolute sum of a nodes' edge weights. The betweenness index provides information on how important a node is in the average pathway between other pairs of nodes. In patients' network, the obsession and the order behavior were the most important nodes among the OCI-R. The perceived stress showed the strongest strength centrality of all nodes and positive correlation with the obsession and neuroticism. The emotional abuse showed strong strength and betweenness. Network comparison test results indicated a statistically significant difference between network structure ($M = 0.35$, $p < 0.001$), and post-hoc analysis found five edges significantly differed between patients and healthy controls, mainly on obsession and washing behaviors.

Conclusion Childhood trauma might be an external event that activated symptoms, among which emotional abuse might play a more important role. The perceived stress showed higher centrality in patients' network, with a stronger connection with the obsession. From a network perspective, the obsessive thoughts and washing behavior were different among patients and healthy controls, which brought new understanding to the pathopsychological mechanisms of OCD.

关键字：Obsessive compulsive disorder; network analysis; Childhood trauma; perceived stress; personality

An Association Study of M6A Methylation with Major Depressive Disorder

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Objective To study the relationship between N6-methyladenosine (m6A) genes and Major Depressive Disorder (MDD).

Methods GEO database was used to obtain the chip data and clinical information of dataset GSE98793, and the differentially expressed m6A genes was found through the analysis of the differentially expressed genes between the MDD group and the healthy control group. Random Forest method was used for screening and modeling verification. After grouping by Unsupervised Clustering Algorithm, the

expression of differences between groups was calculated for further verification. The Principal Component Analysis method was used to verify again. The relationship between the differentially expressed m6A gene and immune cells、IL gene family、 NOD-like protein receptor family was calculated. Finally, the differentially expressed m6A gene was being analyzed separately.

Results The differentially expressed m6A genes were ELAVL1 and YTHDC2. Through Random Forest screening and modeling verification, they are closely related to MDD. Unsupervised Clustering Algorithm clustering further verifies the above results. Principal Component Analysis verified the reliability of the clustering results. ELAVL1 and YTHDC2 are closely related to immune cells、IL gene family、 NOD-like protein receptor family. Results of single gene analysis: Compared with YTHDC2, ELAVL1 was more closely related to MDD.

Conclusion Among all m6A genes, ELAVL1 is closely related to depression, and is an important gene regulating MDD.

关键字：Major Depressive Disorder(MDD), N6-methyladenosine (m6A) genes, ELAVL1 gene, YTHDC2 gene.

Study on The Changes in Circadian Rhythm Before and After Treatment and The Influencing Factors in Patients with Depression

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Objective The aim of this study was to investigate the circadian rhythms of patients with major depressive disorder (MDD) pre-treatment and post-treatment to analyse possible influencing factors.

Methods In this study, we recruited 154 patients in the acute phase of MDD from 10 psychiatric centers in the province. The patients were divided into a morning chronotype group (16–41 points), an intermediate chronotype group (42–58 points) and an evening chronotype group (59–86 points), according to the total scores obtained from the morningness–eveningness questionnaire (MEQ). They were treated randomly with antidepressants, either selective serotonin reuptake inhibitors or agomelatine, for 12 weeks and were evaluated using the MEQ, the 17-item Hamilton Depression Rating Scale (HAMD-17), the Hamilton anxiety scale, the Snaith–Hamilton pleasure scale, the multidimensional fatigue inventory (MFI-20) and the Pittsburgh sleep quality index at the baseline and then at 2, 4, 8 and 12 weeks. The results were analysed by Logistic regression analysis and repeated-measures analysis of variance.

Results The baseline detection rates for the evening, intermediate and morning types were 14.93%, 56.5% and 28.57%, respectively. HAMD-17 scores were significantly lower at weeks 2,, 4, 8, and 12 after treatment in patients with different concurrent phenotypes compared with those before treatment (P<0.05). MEQ scores also changed in patients with different chronotypes (P<0.05). At the end of week 12, the MEQ scores of those with early and intermediate chronotypes had shown a more stable state, and those with late chronotypes still showed a trend of continuous improvement. There were significant differences in age, whether depression was first-episode, medication type, baseline MEQ and baseline SHAPS in the chronotype change group compared with the post-treatment chronotype unchanged group (p<0.05). Logistic regression analysis showed that medication type (OR=0.869; 95% CI: [1.209–1.94]; P=0.047), baseline MEQ (OR=0.919; 95% CI: [0.874–0.967]; P=0.001) and baseline SHAPS (OR=1.113; 95% CI: [1.043–1.186]; P=0.001) were risk factors for improvement in circadian rhythm after treatment for depression.

Conclusion Circadian rhythm disturbances are common in patients with MDD and can be adjusted to a normal pattern with effective antidepressant therapy. The medication type, baseline MEQ and baseline SHAPS scores were the influencing factors for the recovery of circadian rhythm disorders.

关键字：major depressive disorder, morningness–eveningness questionnaire, circadian rhythm, chronotype, antidepressant

生物节律对抑郁症主要症状及临床结局影响的多中心、平行对照研究

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目的 分析抑郁症患者昼夜节律紊乱在治疗前后的变化，探讨不同时型对抑郁症疗效及对抑郁症常见症状维度的影响。

方法 在浙江省 10 家三级精神病专科医院，以固定数量、竞争性连续入组 180 例首发或 2 周内未用药的复发急性期抑郁症患者，根据清晨型与夜晚型问卷量表（morningness-eveningness questionnaire, MEQ)的分值分为早时型、中间时型及晚时型，随机接受阿戈美拉汀或选择性五羟色胺再摄取抑制剂（selective serotonin reuptake inhibitor, SSRI）抗抑郁治疗，在基线时、第 2、4、8、12 周末进行汉密尔顿抑郁量表-17 项（the 17-item Hamilton Depression Rating Scale, HAMD-17)、汉密尔顿焦虑量表(Hamilton anxiety scale, HAMA)、斯奈思-汉密尔顿快感量表(Snaith-Hamilton Pleasure Scale, SHAPS)、多维疲劳量表（multidimensional fatigue inventory-20, MFI-20）、匹兹堡睡眠质量指数（Pittsburgh sleep quality index, PSQI）测评和药物不良反应评定，对各指标在研究中的变化情况进行重复测量的方差分析。

结果 基线时，受试者中晚时型、中间时型和早时型的检出率分别为 14.93%、56.5%和 28.57%；在研究终点，上述时型检出率依次为 7.14%、53.90%和 38.96%。基线时的早时型患者低动力症状最严重，研究终点时的晚时型患者焦虑及抑郁症状最严重。在为期的 12 周

抗抑郁治疗期间，抑郁症的多项症状维度均有不同程度改善，但变化趋势不尽相同，其中快感缺失的恢复明显滞后，早时型患者中多见有快感缺失及睡眠障碍等症状残留。研究终点时，晚时型的缓解率最高，早时型抑郁症患者的治疗缓解率低于其他两组，但三组间差异无显著性。

结论 抑郁症患者的节律紊乱症状较为常见，可通过治疗加以调整。不同时型对抑郁症的不同症状维度及总体疗效均有影响，其中基线时早时型的抑郁症患者缓解率偏低，且常有睡眠障碍及快感缺失等症状残留。

关键字：抑郁症；生物节律；时型；快感缺失；低动力

神经性厌食患者的瘦素基因高甲基化及环境因素研究

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目的 明确瘦素（leptin,LEP）及基因甲基化水平在未经治疗的女性神经性厌食（anorexia nervosa，AN）患者及健康人群中的差异，并探究影响 LEP 基因甲基化水平的因素，探索影响 AN 发病可能得的环境因素。

方法 纳入符合入排标准的未治疗的 AN 女性患者 94 人及匹配的健康对照 43 人，对所有入组患者通过 EDI 及 EDE-Q 量表对进食障碍相关临床症状严重程度进行评估，通过早年创伤问卷简表(ETI-SF)、青少年生活事件量表（ASLEC）、家庭环境量表中文版（FES-CV）对影响 AN 患者症状的家庭环境及创伤性经历等因素进行评估，使用亚硫酸氢盐扩增子测序对被试的 LEP 基因甲基化水平进行分析。

结果 AN 患者 LEP 基因启动子区域平均甲基化水平高于健康对照（P=0.019），并与 AN 患者临床症状的严重程度（EDE-Q 总分）正相关（P=0.35，r=0.104），AN 患者 LEP 基因的甲基化 与 FES-CV 量表的亲密度（P=0.014，0.274，）、情感表达（P=0.027，0. 249，）及 ETI 量表的情感虐待(r=0.405，P=0.009)得分表现为正相关。

结论 AN 患者的 LEP 基因启动子区域甲基化水平高于健康人群； 不良家庭环境及创伤性经历通过改变 AN 患者 LEP 基因甲基化水平，进而影响患者的临床症状，为家庭治疗对 AN 患者的生活环境进行早期干预的科学性提供理论基础。

关键字：神经性厌食；DNA 甲基化；家庭环境；瘦素；情感虐待。

高中生进食障碍倾向研究：压力知觉、体形不满与体重自我评价的作用

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目的 为了解高中生群体的进食障碍倾向状况和风险因素，本研究基于国内外进食障碍心理危险因素的相关研究，拟探索进食态度与压力知觉、体型不满、体重评价的关系，以期进一步了解我国青少年群体进食障碍成因。

方法 本研究于 2020 年 12 月对佛山市 567 名高一学生进行了问卷调查，其中女生占比约 51%(289 人)。分别采用进食态度问卷(EAT-26)、压力知觉量表(PSS)、进食障碍量表-体型不满分量表(EDI-BD)评估进食态度、压力知觉水平和体型不满水平，并通过一般情况调查问卷获得体重评价信息。

结果 （1）把 EAT-26 量表得分大于 10 分的被试定义为有进食障碍倾向，高中生群体中进食障碍倾向的检出率为 14.5%，其中女生的检出率(20.1%)高于男生(8.6%)。这一检出率略小于过去国内相关研究(21.9%-25.1%)，这种差异可能是研究区域的经济收入水平差异导致的，过往研究表明经济发达地区的进食障碍检出率大于其他地区。（2）57.4%的高中生对自己的体重认知不准确，体重认知偏差上存在显著性别差异。21%体重正常的男性和 34.3%超重的男性倾向于低估自己的体重；与此同时，25.3%体重正常的女性倾向于高估自己的体重。（3）女性比男生表现出更高的压力知觉和体型不满，与过去研究结果一致。（4）多重线性回归分析显示，高压力知觉、高体型不满和自我评价超重对女高中生的进食障碍倾向具有预测作用；在加入了体重自我评价后，BMI 对进食障碍倾向不再具有预测作用。这一研究结果表明，相比于实际体重，体型不满取决于个体对自己的体重感知，并能进一步预测进食障碍倾向的发生。（5）体型不满在压力知觉、自我评价超重预测女高中生进食障碍倾向的路径中起部分中介作用，中介效应量为 50%。

结论 高中生群体中进食障碍倾向的检出率为 14.5%，女性的检出率高于男性。高压力知觉、高体型不满和自我评价超重是高中生进食障碍倾向的危险因素。提出体型不满中介模型，体型不满介导了压力知觉、体重自我评价对进食障碍倾向的影响。

关键字：进食障碍，体型不满，压力知觉，体重评价，青少年

神经性厌食患者肠道菌群特征的研究

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上海市精神卫生中心

目的 1.探索神经性厌食患者的肠道菌群结构（多样性、菌属组成等）与健康对照的差异。 2.探索神经性厌食患者及健康对照的肠道菌群结构与临床参数（如体质量指数〔Body mass index,BMI〕、进食障碍症状、情绪症状、功能性消化道症状等疾病相关病理学症状等）的关系。

方法 本研究于2022年2月至2023年2月期间，

从上海市精神卫生中心临床心理科住院部招募神经性厌食患者 41 人，并招募性别、年龄匹配的健康对照 46 人。使用 16S rRNA 基因测序检测患者及健康对照的肠道菌群多样性及种属分布情况，通过进食障碍检查自评问卷 6.0（EDE-Q 6.0）评估被试的进食障碍症状，通过贝克抑郁量表（BDI）和贝克焦虑量表（BAI）评估被试的情绪症状，通过胃肠道症状分级评分量表（GSRS）评估被试的功能性消化道症状，探索肠道菌群与各临床参数的关系。

结果 1.对于 alpha 多样性，患者组的 Shannon 指数显著高于对照组；对于 beta 多样性，两组在菌群组成方面存在明显差异。 2.在门的水平上，厚壁菌门、变形菌门等在患者组中显著富集；在属的水平上，Bacteroides、Blautia、Alistipes 和 Parabacterioides 等菌属在患者组中显著富集。 3.基于 Spearman 相关性分析，拟杆菌门与 BMI 正相关，与饮食限制负相关；变形菌门、厚壁菌门则与 BMI 呈负相关。螺旋体门与胃肠道症状正相关，拟杆菌门与胃肠道症状负相关。Prevotella 与进食障碍症状和病程负相关，与 BMI 正相关；Blautia 与进食障碍症状和病程正相关，与 BMI 负相关。

结论 神经性厌食患者的肠道微生物多样性显著升高，与健康对照的菌群结构差异明显，主要表现为厚壁菌门、变形菌门的显著富集，和拟杆菌门含量降低。部分菌群与进食障碍相关病理学症状存在显著相关性。

关键字：神经性厌食；进食障碍；肠道菌群；16S rRNA 基因测序

神经性贪食的功能磁共振成像研究进展：认知控制、奖赏加工、情绪处理及干预

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目的 神经性贪食（bulimia nervosa，BN），是以反复发作不可控制的暴食，并伴随防止体重增加的补偿性行为及对自身体重和体形的过分关注为主要特征的一类精神障碍。认知控制、奖赏加工、情绪处理是三个相互关联的神经心理过程，认知控制调节奖赏加工过程的同时也受情绪作用的调节。本文将就 BN 中认知控制、奖赏加工、情绪处理及干预这四个方面的 fMRI 研究进行综述，旨在总结实质性进展，为未来针对 BN 的干预措施提供启发。

方法 检索 PubMed、Web of Science、中国知网等数据库，英文数据库以" bulimia nervosa、fMRI、cognitive control、reward processing、emotional processing、intervention、neural mechanism"等为检索词，中文数据库以“神经性贪食” “功能磁共振成像”“认知控制”“奖赏”“情绪”“神经机制”等为关键词检索。

结果 BN 患者在执行各项反应抑制任务中通常表现为更高的行为冲动性、更快的反应速度和更高的错误率，反映了认知控制能力的下降，而这种能力的下降可能与一些大脑结构的激活异常有关，如纹状体、中央前回等；研究者们结合 fMRI 和各种奖赏敏感性任务，在 BN 患者和健康对照之间观察到大脑激活异常的区域包括前扣带皮层、后扣带皮层、腹侧纹状体和岛叶等；在完成情绪匹配任务的过程中，女性 BN 患者大脑楔前叶对愤怒和厌恶的面部表情的神经反应减弱，右侧杏仁核对愤怒的面部表情神经反应减弱，此外其内隐情绪调节能力存在不足，可能与前额叶控制回路灰质减少有关。经过药物治疗和心理治疗后前额叶和边缘系统的异常得到一定改善。

结论 fMRI 的纳入对推动 BN 的科研和临床进展意义重大，但是现有 BN 的 fMRI 各研究之间结果不一致的情况并不少见，这就导致人们很难得出关于 BN 神经生物学机制的明确结论，这可能是由于方法上的差异以及研究中对照组选择的差异。

关键字：神经性贪食 功能磁共振成像 认知控制 奖赏加工 情绪处理

累积生态风险对临床缓解抑郁症患者自尊的影响：一个三阶调节模型

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目的 生态系统理论认为心理行为发展受生物-心理-社会的多重因素累积风险的影响。本研究依据生态系统理论角，探索临床缓解抑郁症患者累积生态风险与自尊的关系，同时考察自动思维和应对方式的调节作用。

方法 纳入南京脑科医院医学心理科住院并达到临床缓解的抑郁症患者（HAMD-17≤7 分）117 名，完成生活质量综合评定问卷(GQOLI-74)、自动思维问卷(ATQ)和特征应对方式问卷（TCSQ）评估。对 GQOLI-74 问卷中的正向评价因子反向计分后换算成 Z 分数，负向评价因子直接换算成 Z 分数用，以指代相应风险。对各因子进行分类，其中睡眠与精力问题、躯体不适感、进食问题、性功能问题、运动感觉问题整合为身体健康风险；负性情绪、正性情绪匮乏、精神紧张度整合为情绪健康风险；社会支持匮乏、人际交往困扰、工作学习困扰、业余生活贫乏、婚姻家庭困扰整合为生活压力风险。为保留每个连续风险因素暴露强度的所有信息，汇总各风险因子的 Z 分数构建累积风险指数，越高说明累积风险程度越严重，从而提高统计功效。采用 GQOLI-74 问卷中自尊分量表评估自尊。ATQ 评估负性自动思维，得分越高反应负性自动思维越严重。TCSQ 评估应对方式，分为积极应对和消极应对，得分越高说明该应对方式越多。应用 SPSS28.0 和 Process4.0 完成数据分析。

结果 累积生态风险指数与自尊负相关（r=-0.523，p<0.01）。累积生态风险指数负向预测自尊（β=-0.200，t=-5.428,95%CI:-0.273～-0.127）。负性自动思维调节累积生态风险→自尊的关系（β=-0.152，t=-3.627，95%CI：-0.235～-0.069）。积极应对可正向调节自动思维的调节作用（β=0.073，t=2.317,95%CI:0.011～0.135）。三阶交

互项 F 检验显著（ΔR2=0.029，F=5.369，df1=1，df2=109，p=0.022）。消极应对可负向调节自动思维的调节作用（β=-0.159，t=-2.106,95%CI:-0.310～-0.009），三阶交互项 F 检验显著（ΔR2=0.024，F=4.434，df1=1，df2=109，p=0.038）。

结论 临床缓解抑郁症患者的累积生态风险与自尊间存在三阶调节作用，自动思维发挥二阶调节作用，应对方式起三阶调节作用。

关键字：临床缓解抑郁症，累积生态风险，自尊，调节模型

从上行外貌比较到青少年非自杀性自伤：被调节的中介机制

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目的 非自杀性自伤是严肃的学校卫生议题，国内青少年检出率达 31.4%，并且增大自杀风险。在网红经济流行的背景下，外貌对青少年成长的作用愈发增大，而研究显示外貌比较以及可能产生的身体不满意与自伤关系密切。本文目的 1：探究上行外貌比较通过身体不满意对青少年非自杀性自伤的影响。青少年阶段是自我价值形成的关键期，并且非常在乎他人的认可与尊重。本文目的 2：分析外表条件性自我价值对身体不满意中介前半段（以及直接路径）的调节作用和被接纳感对中介后半段的调节作用。

方法 对象为 6186 名非临床青少年样本，接受了《上行外貌比较量表》、《身体不满意量表》、《非自杀性自伤行为评定问卷》、《外表条件性自我价值量表》和《被他人接纳问卷》的调查。

结果 （1）上行外貌比较、身体不满意和非自杀性自伤两两显著正相关；（2）非自杀性自伤与外表条件性自我价值显著正相关、与被接纳感显著负相关；（3）上行外貌比较不仅直接预测非自杀性自伤（P<0.001）、还通过身体不满意间接预测非自杀性自伤（P<0.001）；（4）外表条件性自我价值正向调节上行外貌比较对身体不满意的作用（P<0.001），还正向调节上行外貌比较对非自杀性自伤的影响（P<0.001）；（5）被接纳感负向调节身体不满意对非自杀性自伤的预测作用（P<0.001）；（6）身体不满意的中介效应在高外表条件性自我价值且低被接纳感时最大，在低外表条件性自我价值且高被接纳感时最小，两者差异显著（P<0.001）。

结论 在上行外貌比较与青少年非自杀性自伤间存在被调节的中介机制，身体不满意发挥中介作用，外表条件性自我价值会增大身体不满意的间接影响，被接纳感可减弱该间接影响。

关键字：上行外貌比较；非自杀性自伤；身体不满意；外表条件性自我价值；被接纳感

智能手机应用程序在强迫症治疗中的应用进展：系统综述和元分析

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目的 当前，强迫症相关的心理治疗资源较少，且强迫症患者的依从性通常较低，只有部分强迫症患者能够完成整个周期的规范 CBT 治疗。随着移动设备的普及，便捷的智能手机应用程序给强迫症的规范化心理治疗带来了新曙光。手机应用程序让强迫症的干预不再受到时间、空间的限制，给患者带来了极大的便利。但目前尚不明确手机应用程序干预强迫症状的效果，因此本研究将系统性地回顾近年来智能手机应用程序在强迫症中的研究进展，并对研究结果进行元分析。

方法 本研究检索了 PubMed、PsycINFO、Web of Science、Embase databases、中国知网学术期刊数据库(CNKI)及万方学术期刊数据库，并使用 R 语言中的 meta 软件包对数据进行分析。

结果 纳入的文献中总共包含六个基于三种不同治疗技术（暴露练习、挑战不良信念、选择注意能力训练）的智能手机应用程序。所有应用程序均包含心理健康教育、定时打卡提醒功能以便提升患者的依从性。大部分应用程序（4/6）不再需要治疗师的协助，实现智能干预，并通过患者的自我评估监测其强迫症状的波动。仅有 1 款应用程序将干预和严肃游戏结合，让患者在任意休闲的时间可以拿出手机进行练习，合理利用了手机的便携性。但鉴于强迫症是一个慢性波动的疾病，患者需要不断巩固练习治疗中学到的技术，上述 6 款应用程序并不适合长程使用。因此未来的强迫症治疗应用程序应该在用户满意度、治疗联盟建立方面做的更加完善，如：增加对话机器人功能、创建病友交流论坛提升患者与应用程序的交互度，以期增加用户黏性。元分析结果显示：当前智能手机应用程序干预前后他评的强迫症状及自评强迫症状均有缓解，抑郁情绪、焦虑情绪也有所改善。亚组分析结果显示：有无治疗师参与，智能手机应用程序干预方式均能缓解患者的强迫症状，但有治疗师的参与能够提升治疗的疗效（Q=4.07，P=0.04）；传统 CBT/ERP 框架与严肃游戏干预均能缓解患者的强迫症状，两者并无统计学差异（Q=2.55， P=0.11）。

结论 当前智能手机应用程序能够有效缓解强迫症状、焦虑抑郁情绪。但仍需要开展更多高质量的随机对照试验为强迫症的智能手机应用程序干预方式提供更坚实的证据。同时，研究者们也仍需改进强迫症干预的应用程序，使之更符合强迫症患者的特点，并尝试加入第三浪潮的心理治疗方式，为强迫症患者提供更加方便、快捷、便宜的干预方式。

关键字：强迫症；手机干预；认知行为疗法；数字疗法

EEG Changes before and after Transcranial Magnetic Stimulation Treatment for Obsessive-Compulsive Disorder: A Systematic Review

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Objective This study aims to systematically evaluate the changes in electroencephalography (EEG) before and after transcranial magnetic stimulation (TMS) treatment for obsessive-compulsive disorder (OCD) and comprehensively analyze the existing relevant research to understand the effectiveness of commonly used EEG indices in assessing the efficacy of TMS for OCD treatment. By introducing the types and effectiveness of TMS interventions for OCD and their EEG indices, it provides new insights and more comprehensive evaluation criteria for future OCD treatment.

Methods Relevant articles on changes in EEG following TMS treatment for OCD were comprehensively searched in databases including PubMed, Web of Science, APA PsycINFO, and APA PsycArticles. Studies that met the inclusion criteria were selected for analysis.

Results Six studies met the inclusion criteria. Four studies used repetitive TMS (rTMS) for OCD treatment, while two studies used deep TMS (dTMS). The intervention targets included the orbitofrontal cortex, bilateral dorsolateral prefrontal cortex, right supplementary motor area, and medial prefrontal cortex-anterior cingulate cortex. In the TMS treatment group, 88 OCD patients responded to TMS treatment (75.21%), while in the control group, 5 patients responded (12.5%). After TMS treatment for OCD, different changes in EEG indicators were observed in different frequency bands. In the delta band, the power significantly increased after TMS treatment. In the theta band, the power could increase or decrease after TMS treatment, and there was a significant increase in functional connectivity and ERN. In the alpha band, the power could also increase or decrease after TMS treatment, and there was a significant increase in functional connectivity. In the beta band, the power, wave amplitude, and Z-score of the beta wave significantly decreased after TMS treatment, while there was a significant increase in brain functional connectivity. These findings suggest that TMS treatment for OCD can modulate brain activity to a certain extent.

Conclusion TMS treatment can significantly adjust patients' brain waves, especially in the theta, alpha, and beta frequency bands. Following TMS treatment, OCD patients showed enhanced theta band activity in the frontal lobe, decreased alpha band activity in the parietal and occipital lobes, and decreased beta band activity in the bilateral central-parietal-occipital areas. These changes are likely associated with improvements in cognitive control, attention, and response inhibition, leading to a reduction in OCD symptoms. This provides important clues for deepening our understanding of the neural mechanisms of TMS treatment for OCD.

关键字：Transcranial magnetic stimulation; Obsessive-compulsive disorder; Electroencephalography

强迫症治疗前后强迫信念、行为抑制/激活系统、童年创伤及执行功能的对照研究

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目的 通过探讨强迫症患者的强迫信念、行为抑制/激活系统、执行功能和童年创伤之间的相关性，以期探索强迫症及其治疗中的强迫症状及心理特征和执行功能特征的关系和影响。

方法 采用一般情况调查表，童年期创伤问卷（CTQ）进行调查、耶鲁布朗强迫量表（Y-BOCS）、行为抑制/激活系统量表（BIS/BAS）、强迫信念问卷（OBQ44）、执行功能失常问卷（DEX）、威斯康星卡片分类测验（WCST）、Stroop 范式、2-back 范式为研究工具测量，用 SPSS 进行统计分析。

结果 （1）强迫症组与健康对照组相比，在责任感/威胁评估信念和完美主义/确定感信念上无显著差异，在重要性/思维控制力信念中具有统计学意义，行为激活系统-驱力和行为抑制系统、抗拒得分存在显著差异。两组在情感虐待和躯体虐待存在明显的差异。（2）两组 WCST 和 Stroop 差异不显著，2-back 正确率和数字广度部分具有差异性，Y-BOCS 得分与 WCST 各指标之间均没有明显差异，但和 2-back 任务正确率、Stroop 反应时和数字广度相关。（3）情感忽视与行为激活-奖赏负相关，完美主义/确定感信念和躯体忽视正相关。行为激活-愉悦追求和重要性/思维控制力信念正相关。责任感/威胁评估信念、完美主义/确定感信念和重要性/思维控制力均负相关。（4）强迫思维、行为及总分有显著差异，患者在治疗前后与执行功能各指标之间均存在着显著性相关。（5）行为抑制和强迫行为、总分存负相关，重要性/思维控制力信念和强迫思维存正相关，执行功能中抗拒和强迫行为呈正相关。（6）强迫信念中的责任感/威胁评估信念因子和童年创伤中的情感虐待因子对 Y-BOCS 减分率具有显著影响。

结论 1、躯体虐待和情感虐待是强迫症发病的危险因素，经历躯体虐待程度越高的患者存在完美主义/确定感信念越强；经历情感忽视创伤的患者激活奖赏反应会降低。2、患者存在行为抑制功能缺陷，症状受行为抑制系统活跃程度的影响较大，是强迫症状态性指标。行为抑制系统与强迫信念各因子存负相关。患者随重要性思维控制力和愉悦追求的升高而产生强迫行为。3、强迫心理特质是导致执行功能异常行为的危险因素，在执行功能中的认知灵活性方面自我报告出现受损会早于行为测验的受损表现，而在执行功能的抑制和刷新功能受损。

关键字：强迫症，强迫信念，行为抑制/激活系统，执行功能，童年创伤

Modular-Level Brain Functional Alterations in Drug-Na?ve Patients with Obsessive Compulsive Disorder

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Objective The purpose of this study is to find characteristics of functional brain networks in association with the glutamatergic signal of the bilateral insula of OCD patients who have never taken medication.

Methods We recruited 30 drug-na?ve OCD patients and 30 healthy controls whose gender, age and education were 1:1 matched. Resting-state functional magnetic resonance imaging (fMRI) and proton magnetic resonance spectroscopy (1H-MRS) techniques were used to investigate the brain functional/neurometabolic changes of the OCD patients. Modular properties of brain networks were analyzed on fMRI data using a graph-theory approach. The glutamate + glutamine (Glx) concentrations in the bilateral insula were obtained using MRS. The correlations between intra-, inter-modular properties, the glutamatergic signal and the scores of Yale-Brown Obsessive-Compulsive Scale (YBOCS), Hamilton Depression Rating Scale (HAMD) and Hamilton Anxiety Rating Scale (HAMA) were evaluated using Spearman correlation analyses.

Results Compared with HC, drug-na?ve OCD patients' frontoparietal network (FPN) presented both within- and between-network dysconnectivity with the subcortical regions ($p<0.001$). There's a significant increase in the inter-modular connectivity between the visual (VIS) and default-mode networks (DMN), the sensori-motor(SM) and VIS ($p\leq0.001$). And the inter-modular connectivity in SM-VIS was negatively correlated with the YBOCS compulsions ($r=-0.390$, $p=0.033$). There was a positive correlation between the inter-modular connectivity between VIS-FPN networks and LPI Glx concentration ($r=0.383$, $p=0.037$).

Conclusion In drug-na?ve OCD patients, the brain network functional connectivity was disrupted especially in FPN and VIS. The inter-modular functional connectivity in VIS-FPN was correlated with the Glx level in the LPI.

关键字：OCD；modular-Level Brain Functional Alterations; glutamatergic signal

治疗对强迫症患者神经代谢水平的影响：基于质子磁共振波谱的系统综述和 Meta 分析

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目的 强迫症是一种广泛存在的慢性的精神疾病，给患者、家庭和社会带来了沉重的经济负担和精神痛苦。但是目前经过一线治疗，仍有 40%-60%的患者未达到治疗有效，对于强迫症治疗机制的研究就变得十分重要。虽然有越来越多的证据表明神经代谢状态的变化与强迫症（OCD）的病理生理学有关，但治疗如何影响 OCD 患者的这些代谢物水平仍然缺乏研究。质子磁共振波谱是目前唯一一种无创测量颅内代谢物浓度的方法，但目前该技术在强迫症治疗领域的研究结果尚不一致。本 Meta 分析的目的是基于质子磁共振波谱探讨一线治疗对 OCD 患者大脑代谢物水平的影响。

方法 我们在 Embase、Pubmed、Web of Science、Scopus 和 PsycINFO 数据库中进行文献检索，并由两位研究者独立筛选确认比较 OCD 患者治疗前后神经代谢物水平的质子磁共振波谱研究。纳入的研究中包括了两个主要感兴趣区（前扣带回（ACC）、尾状核）的五种神经代谢物（谷氨酸+谷氨酰胺（GLX）、N-乙酰天冬氨酸（NAA）、胆碱（Cho）、肌醇（mI）或肌酸（Cr））。采用随机效应 Meta 分析计算和汇总治疗前后的效应大小，并对治疗后显著变化的结果进行了进一步的药物与非药物、成年与未成年的亚组分析以及对于临床人口学信息的 Meta 回归。

结果 我们的 meta 分析纳入了 10 个研究（基线 n=188）。研究结果显示，治疗后尾状核中的 mI 水平显著降低（Hedge's g=-0.28，p=0.02；I2=20%）。治疗后，前扣带回中的 NAA 水平呈上升趋势（Hedge's g=0.44，p=0.06，I2=79.6%），在排除一项研究后，这种趋势变得显著（Hedge's g=0.41，p=0.03，I2=64.2%）。亚组分析显示，在认知行为疗法后，前扣带回中的 mI 水平显著增加。

结论 OCD 患者治疗后，前扣带回中的 NAA 水平增加，这可能表明神经元完整性得到恢复。

关键字：强迫症；质子磁共振波谱；治疗

Parental Struggles of Adolescents with Non-suicidal Self-injury on A Leave of Absence From School: A Qualitative Study

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Objective The prevalence of non-suicidal self-injury (NSSI) is higher among adolescents in. Teenagers' school education and lifestyle have changed since their leave of absence from school. Parents' experiences and coping of their child's NSSI in this particular background are rarely reported. Thus, this study aims to understand how parents navigate this challenging time, including the impact on family relationships and the parents' own emotional well-being.

Methods This is a phenomenological study. By purposive sampling, 19 parents of adolescents with repeated NSSI were recruited from a psychiatric ward in a mental health center in Guangdong, China. Semi-structured interviews were conducted and audio-recorded. Audio-recordings were transcribed verbatim and analyzed using thematic analysis.

Results Three themes were identified, including theme 1: the parents were in a predicament of emotional breakdown, ineffective coping, and imbalanced family caregiving; theme 2: parents tried to improve their self-cognition, make changes on communication and family environment actively; theme 3: strong sense of low self-efficacy and desire for support by multiple organizations.

Conclusion This study highlights the significant emotional distress and struggles faced by parents when their adolescent engages in NSSI during a leave of absence from school. The findings suggest that parents actively attempt to improve their coping strategies, but their self-efficacy is low, highlighting the need for additional support and resources. Mental health professionals, schools, and other organizations should provide support to parents and families dealing with NSSI.

关键字：Self-Injurious Behavior; Adolescent; Parents; a leave of absence from school; phenomenological study

中国青少年喂食与进食障碍患病情况及影响因素研究

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目的 喂食与进食障碍主要包括神经性厌食、神经性贪食以及暴食障碍等,该组疾病的临床特征是喂食或进食相关行为的持续性紊乱，进而引起食物消化和吸收的改变，从而损害躯体健康和社会功能。根据以往调查显示，该类疾病好发于青少年及年轻女性，并对患者身心健康造成严重损害，其中神经性厌食死亡率高达 5%～20%，进食障碍正成为我国一项严重的公共卫生问题。进食障碍的发病机制十分复杂，其病因复杂多样，目前仍未完全阐明，但目前已知的影响因素有生物、心理和社会文化因素等。青少年的健康关乎国家未来的发展，我国青少年饮食健康问题不容忽视。本文通过对中国青少年喂食与进食障碍的现状及影响因素进行分析总结,以期了解目前青少年患病的实际情况，并探索未知潜在影响因素，以便对患者进行早期的预测和干预,为未来临床治疗提供更多的思路和依据。

方法 通过阅读近10年相关文献并对其进行分析总结，本文就目前国内青少年喂食与进食障碍的患病情况以及影响因素的研究现状作一综述。

结果 目前国内缺乏对青少年喂食与进食障碍大规模的流行病学调查，已有的调查多为区域性调查，且多采用如 EDE-Q6.0、EAT-26、EDI 等自评量表，缺乏对疾病的诊断。使用不同的调查工具所得到的结果不同，但众多研究数据表明，进食障碍的发病率和死亡率呈不断上升趋势，其患病率接近 10%，进食障碍正在严重危害着中国青少年的身心健康。目前对进食障碍的影响因素研究更为细化，对家庭因素，情绪、人格、认知等心理方面因素研究较多，且涉及多种因素之间的相互影响研究，建立了中介变量模型，探索了生物-心理-社会因素综合影响效应。

结论 我国青少年进食障碍的患病率处于较高水平，且发病率和死亡率也在不断上升，青少年的健康正面临着严重威胁。目前对进食障碍影响因素的研究更注重生物-心理-社会因素的综合影响，未来可继续探究进食障碍潜在的危险因素及因素间的相互作用机制，进行更全面的评估。

关键字：青少年；喂食与进食障碍；患病现状；影响因素

精神康复协作组

血清脑源性神经营养因子水平与首发精神分裂症患者症状和疗效的相关性研究

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目的 探讨血清脑源性神经营养因子（BDNF）与首发精神分裂症（SCZ）症状及疗效的相关性。

方法 选取 2017 年 1 月至 2021 年 6 月至郑州大学第一附属医院就诊的首发未服药 SCZ 患者 142 例（SCZ 组）和同期的健康对照者 140 例（对照组），SCZ 组进行为期 12 周的随访，并在治疗前、治疗后采用阳性和阴性症状量表（PANSS）评定精神症状、采用认知功能成套测验（MCCB）评估认知功能、采用酶联免疫吸附法（ELISA）测定血清 BDNF 水平；对照组采用同样方法评估认知功能和测定血清 BDNF 水平。

结果 （1）SCZ 组血清 BDNF 水平[(6.68?1.84) ng/ml]低于对照组[(12.23?3.20) ng/ml] （P?0.05）。（2）相关性分析显示，治疗前 SCZ 组血清 BDNF 水平与 PANSS 评分中的阴性症状分呈负相关（r=-0.301，P?0.05），与认知功能领域中的注意及警觉性（CPT-IP）、工作记忆（WMS-III）和视觉学习（BVMT）的评分呈负相关（r=0.416、0.360、0.034；P 均?0.05）。（3）SCZ 组治疗前后比较显示，治疗后血清 BDNF 水平[(8.38?2.01) ng/ml] 高于治疗前 [(6.68?1.84) ng/ml]（P?0.05）；治疗后 PANSS 评分的各项评分均低于治疗前（P 均?0.05）；治疗后认知功能各领域的评分均高于治疗前（P 均?0.05）。（4）相关性分析显示，SCZ 组中治疗前血清 BDNF 水平与认知功能各领域评分中的 CPT-IP 变化值、WMS-III 变化值和 BVMT 变化值呈负相关（r=-0.184、-0.218、-0.178；P 均?0.05）；治疗后血清 BDNF 变化值，与阴性症状分变化值、一般病理分变化值和总分变化值呈正相关（r=0.327、0.200、0.361；P 均?0.05），与阳性症状分变化值之间无明显相关性；与认知功能领域评分中 CPT-IP 变化值、WMS-III 变化值和 BVMT 变化值呈正相关（r=0.200、0.262、0.339；P 均?0.05）。

结论 血清 BDNF 水平与首发 SCZ 精神症状、认知功能障碍及疗效均密切相关。

关键字：脑源性神经营养因子；精神症状；认知功能；疗效；首发精神分裂症

精神运动康复对稳定期精神分裂症患者社会功能的影响

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目的 通过与常规治疗效果的对比，探讨精神运动康复在促进稳定期精神分裂症患者社会功能恢复、改善症状及调节生物学指标方面的作用机制。为临床治疗提供更加全面的依据，有助于提高精神分裂症患者的生活质量和社会功能水平，减轻家庭经济负担。

方法 选取 120 例稳定期精神分裂症患者，随机分为干预组（n=60）和对照组（n=60）。对照组接受常规治疗，干预组在此基础上进行精神运动康复。治疗前、治疗 8 周、治疗 16 周时，分别采用阳性与阴性症状量表（PANSS）、个人和社会功能评定量表（PSP）进行评估，并在治疗前及治疗 16 周时测定血清脑源性神经营养因子（BDNF）水平。

结果 干预组共有 57 例患者完成全部研究，对照组为 58 例。经治疗，干预组 PANSS 总分及阴性症状分量表评分均有显著改善（P＜0.05），而阳性症状分量表及一般病理学分量表无明显改善（P＞0.05）；同时，干预组 PSP、BDNF 评估均优于对照组，呈现显著差异（P＜0.05）。重复测量方差分析及简单效应分析结果表明，精神运动康复对稳定期精神分裂症患者的 PANSS 阴性评分、PANSS 总分、PSP 评分和 BDNF 结果具有显著改善作用。在干预组中，这些指标在治疗 16 周时与对照组相比均有显著差异。然而，对于 PANSS 阳性评分和 PANSS 一般评分，干预组和对照组间的差异相对较小。

结论 本研究结果表明，精神运动康复对稳定期精神分裂症患者的社会功能具有显著改善作用，有助于提高患者的生活质量。这一结论为精神运动康复在精神分裂症患者康复治疗中的应用提供了有力支持。未来研究应进一步探讨精神运动康复的长期效果、持续效应以及生物学机制，为精神分裂症患者的康复治疗提供更多科学依据。

关键字：精神分裂症；精神运动康复；社会功能；脑源性神经营养因子

冥想对稳定期精神分裂症患者记忆的疗效观察

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目的 探讨冥想对稳定期精神分裂症患者记忆功能的疗效。

方法 采用随机数字法，选取 72 例符合入组标准的稳定期精神分裂症患者，分为冥想组和对照组，每组各 36 例。冥想组进行为期 24 周的冥想训练。采用阳性和阴性精神症状评定量表（PANSS）、简易精神状态检查表（MMSE）和韦克斯勒记忆量表第四版（WMS-IV）中文版对病人进行评定。治疗前和治疗 24 周后分别进行评定。治疗前和治疗 24 周后采集两组对象的外周血标本，检测人脑源性神经营养因子（BDNF）。

结果 两组患者的年龄、受教育年限、病程及住院时间等基础资料差异均无统计学意义（P＞0.05）。所有患者均使用单一抗精神病药物，两组间药量（折合成氯

丙嗪的相对效价）及用药种类比较均无统计学意义（P＞0.05），具有可比性。入组时两组间 PANSS、MMSE、WMS-IV 等量表评分差异均无统计学意义（P＞0.05）；在基线时，两组间血清 BDNF 检测结果差异无统计学差异（P＞0.05）。在冥想组和对照组的不同时间点上，对各项指标进行重复方差分析（详见表 2）。MMSE 总分、MMSE 即刻与延时得分在时间主效应、分组主效应以及时间×分组的交互项方面均表现出显著的统计学差异（P＜0.05）。而在 PANSS、WMS-IV 总记忆商、听觉记忆指数、视觉记忆指数、即刻记忆指数、延迟记忆指数得分以及 BDNF 结果中，时间主效应和时间×分组的交互项方面也呈现出显著的统计学差异（P＜0.001）。进一步的简单效应分析结果显示：当以分组作为自变量进行效应分析时，在干预 24 周后，冥想组的 PANSS 得分低于对照组（P＜0.001），而 MMSE、WMS-IV 等量表评分以及 BDNF 检测结果均高于对照组（P＜0.05）。当以时间作为自变量进行效应分析时，24 周后冥想组的 PANSS 评分低于研究前（P＜0.05），而 MMSE、WMS-IV 评分以及 BDNF 结果均高于研究前（P＜0.05）。

结论 冥想对稳定期精神分裂症患者具有显著的记忆功能改善作用，可能与其提高 BDNF 水平有关。

关键字：冥想；稳定期精神分裂症；记忆功能；人脑源性神经营养因子

接受慢性抗精神病药物治疗的男性精神分裂症患者性激素、脑源性神经营养因子与认知障碍的相关性

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目的 脑源性神经营养因子（BDNF）与性激素之间的复杂相互作用与精神分裂症（SCZ）的发病机制有关。然而，BDNF 和性激素之间的这些相互关系对慢性抗精神病药物治疗的男性（CATM）SCZ 患者的认知功能和临床表现的影响尚待研究。

方法 比较 120 名患有 SCZ 的 CATM 患者和 120 名健康对照组的卵泡刺激素（FSH）、黄体生成素（LH）、雌二醇（E2）、孕酮（P）、睾酮（T）和泌乳素（PRL）的血清浓度。精神分裂症症状通过阳性和阴性综合征量表测量，认知通过神经心理学测试测量。采用酶联免疫吸附试验（ELISA）测定 BDNF 和性激素水平。

结果 患者组的 T、PRL 和 LH 水平显著高于健康对照组，而 E2 水平显著低于健康对照组。分析还发现，在整个样本中，E2 水平和 BDNF 水平、BDNF 水平和数字消除时间之间呈正相关。我们发现，在患有 SCZ 的 CATM 患者中，PRL 水平与阴性症状评分之间存在显著相关性。

结论 本研究首次全面评估了 CATM 组与对照组相比 LH、PRL 和 T 水平升高以及 E2 水平降低的情况。本研究的另一个令人兴奋的发现是，E2 水平和 BDNF 水平，以及 BDNF 水平和 DCT，在合并的受试者中显著且正相关。

关键字：BDNF；临床症状；认知功能；精神分裂症；性激素

缺陷型精神分裂症患者海马亚结构萎缩与注意功能障碍无关

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目的 缺陷型精神分裂症 (DS) 被认为是精神分裂症谱系中的一个独特疾病实体。探讨 DS 的海马亚结构异常以及与这种精神分裂症亚型的独特症状的关联。海马结构异常是精神分裂症患者神经影像学研究中最有力的发现之一。然而，没有研究检测到缺陷型精神分裂症（DS）特有的区域海马异常的可能性，以及与该精神分裂症亚型的独特症状的相关性。

方法 本研究比较了 33 名 DS 和 39 名无缺陷精神分裂症（NDS）患者以及 38 名健康受试者的海马亚场容量。在 MRI 扫描当天，通过 PANSS 评估临床症状，通过神经认知电池评估认知。使用 FreeSurfer 7.2.0 对自动海马分割进行预处理。所有统计分析均使用 SPSS 17.0（SPSS Inc.，Chicago，IL，USA）进行。参与者的人口统计学、临床特征和神经认知评估分数以平均值±标准差 (SD) 的形式呈现。首先使用 Welch 检验检查数据集的方差同质性。通过单因素方差分析 (ANOVA) 和事后成对比较分析比较 DS、NDS 和 HC 组的人口统计学和临床特征的平均值，而通过独立样本 t 检验 比较 DS 和 NDS 组之间的精神病症状得分的差异。使用控制受教育年限和体重指数 (BMI) 的协方差分析 (ANCOVA) 在各组之间比较海马亚区体积，并使用 Bonferroni 校正对多重比较进行调整。除 COWAT 外的认知得分通过 ANCOVA 控制受教育年限和 BMI 进行组间比较，并使用 Bonferroni 校正对多重比较进行调整，而 COWAT 结果通过 one-way ANOVA 与 Bonferroni 校正进行比较。构建多元线性回归模型来研究海马亚区体积是否与认知测试分数相关。$p < 0.05$（两侧）。

结果 通过控制受教育年限和 BMI，并使用 Bonferroni 进行多重比较校正，在 DS 患者中，右侧海马 CA1 头部萎缩与注意力缺陷、左侧海马尾部萎缩与类别流畅性差以及海马分子层头部萎缩与注意和选择性抑制差相关。但是经过多重比较矫正后以上显著性消失。

结论 研究海马次区域萎缩模式对于深入了解 DS 认知缺陷的病理生理学具有重要意义。

关键字：缺陷型精神分裂症；海马亚结构体积；神经心理评估

中国慢性精神分裂症伴缺陷综合征患者颞叶和岛叶皮质变薄与阴性症状和注意力受损相关

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目的 精神分裂症的临床异质性使得阐明其神经生物学具有挑战性。缺陷型精神分裂症的概念是减少精神分裂症异质性的有益尝试。越来越多的证据表明，缺陷型（DS）和非缺陷型（NDS）精神分裂症之间存在重要差异，表明 DS 可能是一个单独的疾病实体。

方法 我们的目的是在中国样本中使用 FreeSurfer 来确定 DS 与 NDS 和健康对照（HC）相比的特定皮层厚度变化。此外，我们研究了大脑皮层厚度的变化对 DS 患者的负面症状和注意力缺陷的可能贡献。共有 142 名受试者（48 名 HC、50 名 NDS 和 44 名 DS）接受了 MRI 扫描，并完成了精神病理学严重程度和认知量表的评估。Kolmogorov–Smirnov 检验用于检验数据的正态性，并且连续变量是正态分布的。使用方差分析（ANOVA）比较 HC、DS 和 NDS 组之间的人口统计学数据，使用双样本 t 检验比较患者组之间的临床症状，同时使用 ANOVA 评估 HC、DS、NDS 组认知测试得分之间的差异。我们使用 FreeSurfer 的一般线性模型来比较三组之间皮质厚度的差异（DS 与 HC、NDS 与 HC 以及 DS 与 NDS）。皮质厚度与 PANSS 阴性症状评分和 DCT 相关，年龄、体重指数（BMI）和受教育年限作为对照变量。分别对 DS 组和 NDS 组进行相关分析。为了校正多重比较，我们使用了排列测试（蒙特卡罗模拟）。为了确定症状测量、神经认知评估评分和皮层厚度之间的相关性，我们计算了 Spearman rho，并使用 Bonferroni 校正进行了多次比较。P 值设置为 0.05。

结果 与 HC 相比，DS 和 NDS 患者在右侧脑岛表现出常见的皮质变薄，而 DS 患者在左侧缘上区域的皮质变细最为明显。

结论 我们还发现，DS 患者颞叶和岛叶皮质变薄与阴性症状和注意力受损相关。DS 患者特定脑区皮质变薄和特定临床和认知症状相关。

关键字：缺陷型精神分裂症；大脑皮质厚度；阴性症状；神经心理评估

加速双频重复经颅磁刺激对精神分裂症患者事件诱发电位 P300，眼动及认知功能的影响

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目的 观察加速双频重复经颅磁刺激对治疗稳定的精神分裂症患者事件诱发电位 P300，眼动和认知功能的影响

方法 入组 45 例治疗后稳定的精神分裂症患者，随机进入真刺激或伪刺激组，应用英国 Magstim 重复经颅磁刺激治疗仪，对其进行 24 组加速间歇性 θ 爆发脉冲重复经颅磁刺激(accelerate intermittent theta-burst stimulation，AiTBS)，每组 4 次，共治疗 8 周。治疗前、治疗 4 周和治疗 8 周后对所有患者进行认知成套测验（MATRICS Consensus Cognitive Battery，MCCB）中的连线测验 、符号编码及动物命名流畅性测试，并进行事件诱发电位 P300 测试及探究性眼动检测。以阳性与阴性症状量表（Positive and Negative Syndrome Scale，PANSS）评估临床症状。

结果 两组患者年龄、病程、受教育程度、住院次数以及性别构成比均无差异（P 均＞0.05）。治疗前两组患者 PANSS 量表阳性症状分、阴性症状分均无差异（P 均＞0.05），治疗后 4 周、8 周刺激组患者阴性症状评分减少，而伪刺激组无变化。阳性症状评分在治疗后 4 周、8 周两组均无差异，且与治疗前相比无变化。治疗前两组患者 MCCB 测验中的连线测验 、符号编码、动物命名流畅性测试得分均无差异（P 均＞0.05），治疗后 4 周和 8 周，两组患者在以上测试中的得分随时间变化一致，符号编码、动物命名流畅性测试较治疗前得分有所提高，连线测试得分治疗前后无变化。治疗前 P300 波幅和潜伏期两组无差异（P 均＞0.05）。治疗后刺激组 P300 波幅无变化，而伪刺激组逐渐降低。P300 波幅的增加率与阴性症状分的减分率呈正相关，（Pearson 相关系数=0.39，P=0.007）。治疗后 P300 潜伏期两组无差异（P=0.88），且与治疗前相比无变化（P=0.25）。治疗前后两组患者探究性眼动检测凝视点数和反应性探索评分均无差异（P 均＞0.05），且治疗后均无变化。

结论 AiTBS 能够帮助稳定期的精神分裂症患者维持其原有的 P300 波幅水平，维持幅度与阴性症状的改善程度相关；患者认知缺损中信息处理速度方面可以通过学习而得到提升，但与 AiTBS 无关。AiTBS 对 P300 事件诱发电位的潜伏期、探究性眼动以及患者的阳性症状均无明显影响。

关键字：精神分裂症；加速双频加速重复经颅磁刺激；认知功能；事件诱发电位 P300；探究性眼动

探究综合心理治疗与干预对康复期精神分裂症患者社会功能的影响

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目的 探究综合心理治疗与干预对康复期精神分裂症患者社会功能的影响。

方法 选择进行日间康复的精神分裂症患者 100 例,分为对照组及观察组,分别采用常规治疗方法与综合心理治疗方式。

结果 观察组患者社会功能、康复状态均好高于对照组（P<0.05）。

结论 给予康复期精神分裂症患者综合心理治疗,有助于改善其社会功能、提升其康复状态。 精神分裂

症患者存在思维、情感、行为障碍，患者无法适应社会环境导致社会功能衰退。康复期精神分裂症患者要积极解决社会功能退化问题，需在进行精神类药物治疗控制病情的同时为其提供心理治疗干预。综合心理治疗可解决患者社交问题，降低患者心理压力，缓解其焦虑、抑郁等负性情绪，且在治疗过程中帮助患者重新回到社会生活中 1.方法 对照组药物治疗：医生为患者制定治疗方案，每天与患者交流了解病情变化，以调整用药方案。 观察组综合心理治疗：(1)院内治疗：医生根据每名患者症状情况制定药物治疗方案，期间要求患者保持良好的个人卫生习惯[1]。康复治疗过程中培养患者劳动思维改变懒惰习惯，让患者参与娱乐活动调动人际交流能力[2]。在治疗影响下帮助患者逐渐恢复社会功能，改善其退缩和被动行为，以提升其语言表达能力，进而恢复其自信心和人际交往能力。治疗期间组织患者进行小组认知疗法，每周 2 次，每次时间为 50 min。该疗法可鼓励患者表达自己想法释放心理压力，宣泄不良情绪改善其不健康的心理状态。通过改善患者思维调整行为习惯，告知其保持稳定的心理状态有利于控制病情，进而有效提升患者的治疗依从性。(2)家庭疗法：联合患者家属共同参与进行综合心理治疗，每周进行 2 次心理干预解决行为问题。干预前让家属了解精神分裂症相关知识，以及药物治疗与心理治疗的目的。心理治疗过程中帮助患者了解引发疾病的因素，以预防复作，为患者预防病情波动的技巧[3]。指导家属与患者沟通方式，配合患者康复，指导家属帮助患者减少精神刺激的方法[4]。告知患者按时按量服药培养药物管理能力，指导患者对自身疾病有正确的认知，能掌握自身疾病症状并进行识别，指导患者建立良好的生活习惯能提升机体免疫力。该疗法可提升患者社交能力，让其学会如何思考、与他人相处，怎样向家属寻求帮助、处理琐事等[5]。(3)家庭康复训练：通过医务人员组织郊游活动，指导家属协同患者完成一些体力活动，以提升患者基本劳动能力尽快融入集体。

关键字：康复期精神分裂症;综合心理治疗；心理状态

基于虚拟现实的线索暴露疗法对降低甲基苯丙胺使用障碍者心理渴求的干预研究

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目的 探索基于虚拟现实的线索暴露疗法、及其与厌恶疗法相结合，对降低甲基苯丙胺使用障碍者心理渴求有效干预范式。

方法 从湖南省某强制隔离戒毒所招募男性甲基苯丙胺使用障碍（methamphetamine use disorder，MUD）者，最终纳入符合干预条件的 89 名被试，完成基线心理评估后，采用随机对照的研究方法，将被试随机分到三个组：线索暴露组（CET 组，30 人）、线索暴露结合厌恶组（CETA 组，29 人）、中性场景对照组（NS 组，30 人）；所有被试在接受戒毒所常规康复的基础上，参加干预研究。CET 组反复暴露于吸毒场景与中性场景匹配的虚拟现实（virtual reality，VR）环境；CETA 组反复暴露于吸毒场景与厌恶场景匹配的 VR 环境；NS 组则反复暴露于中性场景的 VR 环境。干预频率为每周 2 次，持续 8 周，共 16 次。干预结束后，对三组被试进行渴求评估、心理评估等后测评估。

结果 ① 主要结果：在戒断渴求方面，相比基线，干预后 CET 组、CETA 组的戒断渴求值均有显著降低（$p<0.05$），而 NS 组的戒断渴求值前后测无明显变化（$p>0.05$）；且在后测中，CET 组的戒断渴求值显著低于 NS 组（$p<0.05$）。在线索渴求方面，相比基线，干预后三组的线索渴求值均显著降低（$p<0.05$）。在注意偏向方面，相比基线，干预后 CET 组、NS 组对 MA 相关图片刺激的反应时有显著降低（$p<0.05$），但 CET 组、CETA 组在后测中仍表现出对 MA 相关图片刺激与中性图片刺激反应时明显的差异（$p<0.05$）。② 次要结果：相比基线，干预后三组被试的戒毒自信心均有显著提高（$p<0.05$）；干预后 CETA 组的毒品拒绝自我效能感水平显著增加（$p<0.01$），且在后测中显著高于 NS 组的效能感（$p<0.05$）。在焦虑情绪上，后测中 CET 组的广泛性焦虑量表得分显著低于 NS 组的得分（$p<0.05$）。

结论 基于 VR 的线索暴露疗法及其与厌恶疗法的结合，可能是降低 MUD 者心理渴求的有效干预范式，这为该干预范式应用于 MUD 的临床治疗提供了一定的依据，但尚不能确定其对注意偏向的效果。仍需大样本的纵向干预研究来进一步验证其有效性。

关键字：甲基苯丙胺使用障碍；心理渴求；虚拟现实；线索暴露疗法

自适应认知训练软件改善稳定期精神分裂症患者认知功能的有效性研究

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背景 精神分裂症患者普遍存在认知功能受损。对于稳定期精神分裂症患者，认知功能下降会使其生活质量下降和社会功能受损。现有精神分裂症认知训练软件无法实现个体化治疗，进而治疗依从性差，疗效不稳定。 **目的** 探索自适应认知训练软件改善稳定期精神分裂症患者认知功能的有效性。

方法 本研究为交叉设计的随机对照研究，于 2022 年 5 月至 2022 年 10 月期间共入组 80 例稳定期成年精神分裂症患者。被试按 1:1 随机分配至 A 组和 B 组，A 组先接受为期 2 月的干预，完成 2 个月干预后再进行 2 月常规治疗；B 组先进行 2 月常规治疗，随后进行2月干预。干预手段为自适应认知训练软件，要求被试在 2 个月干预期间每周完成 5 次，每次约半小时。研究在基线，入组后 2 个月（第一阶段）和入组

后 4 个月（第二阶段）进行数据采集。主要结局指标为精神分裂症认知功能成套测验（MCCB）总分的改善，次要结局指标为 MCCB 的七个因子（信息处理速度、注意/警觉、工作记忆、言语学习、视觉学习、推理和问题解决、社会认知）分数的改善。研究使用一般线性回归建立混合效应模型检验结局指标的有效性。

结果 两组被试在基线人口学特征、疾病严重程度（CGI 和 PANSS 评分）、用药情况、病程和基线认知功能（MCCB 评分）均无显著差异。在控制年龄、性别、教育水平、婚姻状况、是否服用氯氮平、患病时长、基线 MCCB 总分、基线 CGI 评分和 PANSS 分数后，训练干预相比于常规治疗能够得到更高的 MCCB 总分（B=2.7, p=0.004）。在 MCCB 的因子分中，训练干预相比于常规治疗的言语学习（B=3.2, p=0.016）和视觉学习（B=3.5, p=0.022）分数更高，其余因子无显著差异。对主要结局指标，不同阶段对 MCCB 总分存在显著影响，第二阶段相较于第一阶段能够得到更高的 MCCB 总分（B=2.9, p=0.002）；MCCB 基线总分对治疗后 MCCB 总分也存在显著影响，MCCB 基线评分越高，治疗后 MCCB 总分越大（B=0.77, p<0.001）。

结论 为期 2 月的自适应认知训练软件能显著改善稳定期精神分裂症患者的认知功能。

关键字：精神分裂症，认知训练，精神康复

新型冠状病毒感染的慢性精神分裂症患者外周血液学指标的改变及风险因素研究

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目的 新冠病毒感染患者常表现有血液系统异常，主要表现为白细胞减少，淋巴细胞减少，凝血功能异常，严重威胁患者健康。本研究通过回顾性研究，比较长期住院的慢性精神分裂症患者新型冠状病毒感染后的血常规变化以及影响因素,为及时发现和采取干预改善预后提供参考依据。

方法 这是一项回顾性研究，收集我院 120 例在 2022 年感染新冠病毒的慢性精神分裂症患者感染前后最近的血常规和血生化数据，以及我院未感染新冠病毒的慢性精神分裂症患者 60 例血常规和血生化数据，通过 t 检验、协方差分析等比较两组间各变量的区别。研究内容还包括社会人口学和抗精神病用药情况。

结果 新冠病毒感染患者年龄较大(P<0.05)，BMI 较低(P <0.05)。在控制了性别、年龄、BMI 等因素后发现，感染与非感染的主要症状相似新冠病毒感染患者使用化痰药的比率较高(P<0.05)，白细胞计数、淋巴细胞计数、血红蛋白较低(P 均<0.05)。虽然没有差异，但 c 反应蛋白在新冠病毒感染患者中升高，红细胞在未感染患者中较低。

结论 长期住院的慢性精神分裂症患者在感染新冠病毒后出现血常规的部分变化，贫血和感染的风险增加，提醒我们要对感染者进行相应的干预,通过寻找影响外周血象的临床影响因素，形成对临床治疗、用药和护理的指导。

关键字：精神分裂症；新冠病毒；血常规；白细胞

精神障碍与文艺创作关系的框架研究

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目的 考察精神障碍与文艺创作之间的影响并总结一般规律。

方法 精神障碍与文艺创作之间存在多种影响，不同文艺名人提供了相应例子。用“框架”的形式归纳这些例子，使得相应影响成为一般规律。

结果 总结出两者间有 5 种关系，分别为 5 个框架： “精神障碍影响文艺创作”框架。其中有益影响 7 条，为：加剧与现实的冲突、推动走上独特的人生道路、帮助形成鲜明个性、高度投入的创作状态、具有丰富奇特的心理现象、帮助形成特别的审美和表达方式、以创作来缓解精神障碍从而促使创作、在病态社会中挽救艺术生命。有害影响 5 条，为：与现实的激烈冲突而失去社会支持、边缘化或极端化而失去精神成长机会、损害创作素养或阻止了潜在的提升、扰乱创作状态、自杀或缩短艺术生命。 “文艺创作影响精神状况”框架。其中有益影响 5 条，为：安顿内心和实现自我接纳、理性思考和精神成长作用、幻想补偿作用、升华以超越现实痛苦的作用、缓解压力和精神冲突的作用。有害影响 5 条，为：过度投入的创作活动对生活的扭曲、对独特价值的推崇使得与现实有更多冲突、为获得灵感，促使与现实发生更多冲突、为促进创作将自己置于某种精神状态中、过于激进的精神探索导致人生观发生崩塌。 “共因”框架指的是精神障碍和文艺创作被共同的原因联系起来，有 3 条，为遭遇创伤和荒谬、渴望有所成就而奋斗、渴望进入极端体验。 “共果”框架指的是精神障碍和文艺创作被共同的结果联系起来，有 1 条，为精神障碍和文学创作共同造成声誉。 “中介因素”框架指的是精神障碍和文艺创作之间有一些中介因素，因为中介因素的不同一方对另一方会产生不同的影响，有 3 条，为社会认可、文学志向、社会包容。

结论 精神障碍和文艺创作都是复杂的难以把握的现象，与其研究二者在总体上“有多大的联系”，不如用举例子和概括例子的方式来说明“有什么样的联系”。文艺创作与精神障碍之间关系异常复杂。精神障碍能直接有益或有害于创作，作为独立事业的文艺创作也能直接有益或有害于精神健康，一些中介因素的不同会导致两者间产生不同影响，有一些精神追求能让人在导向精神障碍的同时推进创作，而两者常常因为都能带来名声而被联系起来。

关键字：精神障碍；文艺创作；关系；框架

Investigation on The Psychosomatic Health Status of Medical Staff Supporting Wuhan During The COVID-19 Pandemic

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Objective By studying the physical and mental health status of medical staff in Wuhan during the COVID-19 epidemic, this paper aims to understand the physical and mental health status of medical staff in front of epidemic prevention and provide data for improving the coping ability of medical staff in major emergencies.

Methods Each medical staff filled in the "Daily Report of Psychosomatic Health" through the mobile phone, including: age, gender, body temperature, physical symptoms, sleep status, mental and working status, exercise status, etc. The team of psychiatrists combined online and offline psychological interventions such as : online Balint lectures, offline supportive psychotherapy, cognitive behavioral therapy.

Results 1. During the period of supporting Wuhan, medical staff reported an average daily sleep disorder rate: 22.8% (difficulty falling asleep: 12.9%, early awakening: 7.9%, multiple types of sleep disorders: 1.7%, others: 0.3%),the average daily rate of sleep disorders reported by men: 15.7%, women: 26.8%,the number of days that female reported sleep disorders were significantly higher than male, accounting for 50% of the anti-epidemic date (22/44 days), 2. There was no significant statistical difference between the age group and sleep status (P>0.05), 3. During the period of supporting Wuhan, the average daily rate of poor mental status reported by medical staff: 1.0%, average daily rate of male self-reported poor mental state: 0.4%, women: 1.2%, age =35 years: 0.5%, 4. The data we have collected indicates that most of time exercise does not reduce the occurrence of sleep disorders.

Conclusion The incidence of sleep disorders among front-line medical staff that supports the fight against the epidemic in an environment where the COVID-19 is concentrated is higher, and female indicate more sleep disorders than male, the integrated organization and management model and the timely intervention of the psychiatrists is effective protection for the mental and physical health of medical. workers.

关键字：Psychosomatic Health， Medical Staff，COVID-19 Pandemic

The Neural Correlates of The Social Perception Dysfunction in Schizophrenia: An FMRI Study

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Objective Patients with schizophrenia show deficits in facial emotion recognition and emotional intensity assessment and exhibit structural and functional irregularities in specific brain regions. In this study, we aimed to examine differences in active brain regions involved in processing the Emotion Intensity Recognition Task (EIRT), which can serve as an indicator of emotion recognition and ability to perceive intensity, between individuals with schizophrenia and healthy controls. Our purpose was to investigate dysfunctional brain regions and investigate the role of the amygdala in social cognition deficits in patients with schizophrenia by focusing on alterations in amygdala activity linked to facial emotion recognition.

Methods Twenty-two individuals who received a diagnosis of schizophrenia according to DSM-IV criteria and 27 healthy controls participated in an MRI scan while completing the emotion intensity recognition task (EIRT). Behavioral and MRI data were collected and analyzed.

Results Behavioral results showed that patients with schizophrenia performed poorly. It showed that subjects with schizophrenia made significantly more errors in recognizing surprise, happiness, sadness, fear, and neutral expressions, and patients with schizophrenia exhibited significantly slower response times in recognizing happy facial expressions. Imaging results showed that schizophrenia patients found hypoactivation in several inferior parietal and temporal regions, in the cerebrum and anterior cingulate; and decreased amygdala activation in individuals with schizophrenia was associated with impaired recognition of fear in facial expressions.

Conclusion In schizophrenia patients, facial emotion processing deficits are emotion-specific (surprise, happiness, sadness, fear, and neutral expressions). Hypoactivation in several inferior parietal and temporal regions, in the cerebrum and anterior cingulate, was thought to contribute to symptom formation in schizophrenia. Reduction in amygdala activation in schizophrenia patients was associated with impairment of the fear-emotional process.

关键字：Schizophrenia; Social cognition; Functional magnetic resonance imaging; Emotion; Facial affect recognition; Amygdala

社交技能训练在慢性精神分裂症患者中的应用研究

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目的 探讨社交技能训练在慢性精神分裂症患者社会认知功能康复治疗中的效果。

方法 将 100 例慢性精神分裂症患者随机分为实验组和对照组各 50 例，对照组仅接受医院的常规抗精神病药物治疗，实验组在接受常规抗精神病药物治疗的基础上接受为期 8 周的 SST 干预，采用小组治疗形式，总共 1 6 次，每周 2 次，每次 4 5 分钟。干预前后使用社交技能评定目录（Social Skills Checklist ，SSC）、社交回避及苦恼量表（Social Avoidance and Distress Scale ，SAD）阴性症状量表(Scale for the Assessment of Negative Symptoms ，SANS)评估患者的社交技能受损

严重程度、社交回避及苦恼严重程度、阴性症状严重程度。

结果 实验组和对照组完成实验人数分别为48例和47例。社交技能训练干预前和干预后，实验组SSC得分分别为17.45±4.72和15.35±4.51，对照组得分分别为18.08±4.69和17.89±4.60，干预后社交技能受损程度较干预前改善，差异有统计学意义（p＜0.05），干预后实验组社交技能受损程度较对照组轻，差异有统计学意义（p＜0.05）；干预前后实验组SAD得分分别为19.27±4.74和16.40±4.56，对照组得分分别为19.57±4.25和18.27±5.04，干预后社交回避及苦恼程度较干预前改善，差异有统计学意义（p＜0.05），干预后实验组社交回避及苦恼程度较对照组轻，差异有统计学意义（p＜0.05）；干预前后实验组SANS得分分别为58.67±7.79和55.27±7.20，对照组得分分别为59.02±7.70和58.89±7.62，干预后阴性症状严重程度较干预前改善，差异有统计学意义（p＜0.05），干预后实验组阴性症状严重程度较对照组轻，差异有统计学意义（p＜0.05）。

结论 社交技能训练能够有效的提高慢性精神分裂症患者的社交技能水平、缓解患者的社交回避和苦恼程度，改善患者的阴性症状，能够帮助慢性精神分裂症患者的提高生活质量。

关键字：精神分裂症；社会认知；社交技能训练；精神康复

深部经颅磁刺激（DTMS）在难治性精神分裂症中的应用

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目的 精神分裂症中约1/5至1/3的患者对两种或两种以上的抗精神病治疗具有耐药性，被称为“难治性精神分裂症（treatment-resistant schizophrenia, TRS）”[1]。尽管氯氮平及电休克治疗作为进一步干预TRS的手段，但TRS发病机制复杂，干预疗效有限，且部分患者不能耐受药物的不良反应及认识损害，需探索新的治疗技术。深部经颅磁刺激（Deep Transcranial Magnetic Stimulation, DTMS）作为一种新型的无创脑神经调控技术，较常规经颅磁刺激治疗，其刺激脑区更深（约2-3倍）更广（约10-20倍），已获得FDA批准用于治疗难治性抑郁症、强迫症和吸烟成瘾。本综述旨在探索DTMS对难治性精神分裂症患者的疗效及安全性

方法 在PubMed上搜索关键词“schizophrenia”、“Deep transcranial magnetic stimulation”，对深部经颅磁刺激治疗难治性精神分裂症的相关文献进行检索（截至2023年6月），主要评定指标是阴性症状评定量表（SANS）、阳性和阴性症状量表（PANSS）、幻听评定量表（AHRS）、临床总体印象量表（CGI）；并对检索到的文献进行系统综述和荟萃分析。搜索到5项关于DTMS治疗TRS的随机对照研究，涉及87名患者[2-6]。

结果 在该荟萃分析中，关于TRS阴性症状的研究，采用H1型线圈，刺激频率为20Hz（高频），强度为120%MT（运动阈值），串刺激时间为2s，间隔20s，42串，共1680脉冲，20次治疗。结果提示高频DTMS刺激患者左侧背外侧前额叶（LDFPC）可显著改善阴性症状。仅1项研究未发现DTMS真假刺激间的显著差异，预测与样本量少以研究组基线时阴性症状更重有关。关于TRS幻听症状的研究，采用的是H1型线圈，刺激患者的左侧颞顶叶皮层，频率为1Hz(低频)，强度为110%MT，共刺激600个脉冲，持续10min，共进行10次-20次治疗，结果表明低频刺激对改善患者的幻听症状有效，然而该结论还未形成共识，有待进一步研究。以上研究患者均未出现任何不良反应。

结论 DTMS刺激采用H1线圈，运用高频20Hz刺激左侧背外侧前额叶治疗TRS阴性症状有效，运用低频1Hz刺激左侧颞顶叶皮层治疗TRS幻听症状有效。DTMS治疗均未出现不良反。

关键字：深部经颅磁刺激；精神分裂症；阴性症状；幻听

Histidine Metabolic Pathway Contributes To Clozapine-induced Sialorrhea Based on Non-targeted Metabolomics

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Objective Clozapine-induced sialorrhea (CIS) is one of the most common side effects of clozapine use, while the mechanism remains unclear.

Methods A total of 51 schizophrenia patients taking clozapine were selected. Among them, 32 had sialorrhea, and 19 had no sialorrhea. Saliva metabolites were identified using ultra-high-performance liquid chromatography-MS/MS (UHPLC-MS/MS), and the differences in saliva metabolites in each group were analyzed through qualitatively searching HMDB, KEGG, and self-built databases, combined with multivariate statistics. After further evaluation by receiver operating characteristic curve (ROC) analysis, the screened differential metabolites were enriched and topologically analyzed.

Results The biomarkers potentially related to CIS

included 37 differential metabolites involving 17 metabolic pathways, mainly histidine metabolism (P<0.05, impact=0.50), pyrimidine metabolism (P<0.05, impact=0.08), and β-alanine metabolism (P<0.05, impact=0.06).

Conclusion Our study indicates that histidine metabolic pathway may contribute to the mechanism of CIS.

关键字：clozapine; sialorrhea; histidine metabolism; metabolomics; mechanism

双相情感障碍患者自杀意念与脑灰质体积形态及前额叶各代谢物水平的研究

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目的 通过分析有自杀意念的双相情感障碍患者脑灰质体积形态及前额叶各代谢物水平的相关性，旨在为临床指导预防患者自杀。

方法 选取 2019 年 6 月至 2021 年 12 月在新疆维吾尔自治区人民医院临床心理科门诊及住院诊治 BD 患者 40 例，根据自杀意念自评量表（SIOSS）评分为 2 组，22 例 BS 伴自杀意念患者（SIOSS≥12 分）为观察组，18 例 BS 不伴自杀意念患者（SIOSS＜12 分）为对照组。分析两组患者的脑灰质体积形态及前额叶各代谢物水平的相关性。

结果 两组的右侧颞中回和右侧颞上回、左侧尾状核和左侧豆状壳核、侧枕中回和左侧枕上回和右侧中央后回、右侧顶上回和右侧楔前叶的脑区的被试灰质体积比较，有统计学意义（P<0.05）。观察组患者的差异脑区提取灰质体积值在脑区右侧颞中回和右侧颞上回、左侧尾状核和左侧豆状壳核、侧枕中回和左侧枕上回均低于对照组，比较无统计学意义（P＞0.05）。观察组患者的脑区右侧中央后回和右侧顶上回和右侧楔前叶比值低于对照组（P<0.05）。两组前额叶'H-MRS 各代谢物 NAA/Cr、Cho/Cr 与 Glx/Cr 比值比较，无统计学意义（P＞0.05）。观察组患者的左侧前额叶 mI/Cr 比值低于对照组，而右侧前额叶 mI/Cr 比值高于对照组（P<0.05）。前额叶各代谢物 NAA/Cr、Cho/Cr、Glx/Cr 与 SIOSS 评分无相关性（P＞0.05），而 mI/Cr 与 SIOSS 评分呈正相关性（P<0.05）。

结论 有自杀意念的 BD 患者右侧前额叶肌醇代谢水平增高，左侧降低，以及 mI/Cr 与 SIOSS 评分呈正相关性。

关键字：双相情感障碍；自杀；脑灰质；前额叶；代谢物

焦虑抑郁障碍患者的心率变异性分析和自主神经功能研究

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目的 观察焦虑障碍、抑郁障碍、焦虑抑郁共病患者的心率变异性特点和自主神经系统功能情况，分析自主神经系统的活性和平衡性与焦虑抑郁情绪之间的联系，发现可能影响患者焦虑抑郁情绪的生物学指标。

方法 收集 2023 年 1 月-2023 年 6 月来门诊就诊的首发或复发的焦虑障碍、抑郁障碍及焦虑抑郁共病患者的一般人口学资料，用心率变异分析系统 SA-3000P 检查患者的心率变异性和自主神经系统功能，收集频率领域指标总能量（TP）、低频（LF）、高频（HF）、低频与高频比值（LF/HF）及时间领域指标心率变异标准偏差（SSDNN）、连续性差异的平方根（RMSSD）、心率（HR），以 HAMA、HAMD 评估患者的临床症状严重程度。

结果 收集了 130 例患者，其中男 49 例，女 81 例，病程（13.98±15.99）月，文化程度（9.92±4.66）年，TP、LF、HF 值（分别为 974.74±1274.86、404.91±596.50、324.71±407.11）均小于正常范围，差异有统计学意义（均 P＜0.01），TP 与 HAMA 正相关（r=0.379,P=0.002），LF/HF 与 HAMD 负相关（r=-0.335,P=0.04）。

结论 焦虑抑郁障碍患者的交感神经功能、副交感神经功能和自主神经系统的活性均下降；焦虑情绪与自主神经系统的活性有关，抑郁情绪与自主神经系统的平衡性有关，这可能由于自主神经支配的内脏系统与情绪之间相互作用，这与中医的整体观念、心主神明理论一致。

关键字：焦虑障碍 抑郁障碍 焦虑抑郁障碍 心率变异性分析 自主神经功能 心主神明

中国精神分裂症相关现象学研究的综述

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目的 系统地检索和筛选中国精神分裂症相关现象学研究，评估其内容和质量，总结中国精神分裂症现象学研究的现状。

方法 本研究遵循系统评价和元分析优先报告条目(PRISMA)的标准，从中、英文数据库检索期刊文章。中文数据库包括中国知网、万方、维普和台湾华艺线上图书馆；英文数据库包括 PubMed、Web of Science、Scopus 和 EMBASE。检索式为："精神分裂症 AND 现象学"（中文）以及"schizophrenia AND phenomenology AND (China OR Hong Kong OR Macau OR Taiwan)"（英文）。检索时间截至 2023 年 6 月 22 日。纳入分析标准：(1)采用现象学分析方法；(2)研究对象与中国精神分裂症患者相关；(3)实证原始研究文章（排除综述、评论类文章）；(4)可获取全文。

结果 共检索到中文文章 150 篇，英文文章 77 篇。去除重复文献 125 篇，审阅标题和摘要后删除 71 篇，全文检索和审阅后删除中文文章 1 篇（已撤稿）、英文文章 2 篇（分别开展于印度尼西亚和马来西亚）。最终纳入分析的中文文章 23 篇，英文文章 5 篇。在中文文章中，有 12 篇针对患者，研究主题包括：服药依从性、

复发经历、社区融合、长期住院，以及不同干预措施（包括保护性约束、共情护理、社会认知交互训练训练、支持性干预）；1 篇涉及患者和家属，研究手机短信干预的真实体验；其余 10 篇针对家属，研究应对决策、照护体验，以及面对患者在疫情期间住院的心理体验。分析方法方面，3 篇采用解释现象学方法，1 篇采用 Giorgi 五步分析法，3 篇采用类属分析法，1 篇采用内容分析法，其余 15 篇采用 Colaizzi 七步分析法。英文文献中，3 篇针对患者，研究主题包括性需求、就医经历和生育忧虑；1 篇涉及家属的慢性悲伤体验。上述 4 篇文章均遵循描述现象学原则，采用 Colaizzi 七步分析法。最后 1 篇文章针对父母-患者亲子对，研究成年精神分裂症患者针对父母的暴力，遵循解释现象学原则，采用内容分析法。

结论 中国精神分裂症现象学研究数量较少，研究对象大多为患者家属，研究主题涉及疾病相关经验的不同侧面，包括就医、服药、住院、康复、复发以及性和生育相关经验。分析方法涉及描述现象学和解释现象学，以 Colaizzi 七步分析法为主，研究质量参差不齐。

关键字：精神分裂症、现象学

精神分裂症患者童年创伤与心智化水平间的关系

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目的 神经素质-应激模式观点认为，童年创伤经历可能使得个体发展为精神分裂症更为易感，增加精神分裂症发病的风险和患者病程严重度风险，影响患者的功能预后。研究证实，早年的创作经历会影响患者社会认知功能。心智化是一种明确地或含蓄地把自己或他人的行为解释为有意义的一种心理过程，涉及反思、心理理论和共情等高级认知加工过程。本研究试图探讨疾病稳定期精神分裂症患者童年创伤经历与心理智化与水平间的关系，为患者认知功能的康复治疗提供依据。

方法 采用方便取样，对三家精神疾病专科医院住院和门诊的 160 名疾病稳定期精神分裂症患者，以及 104 名健康正常者作童年创作问卷（CTQ）和心智化量表（MentS）评估，分析患者早年创作经历对心智化功能水平间的影响。

结果 Mann-Whitney U 分析显示，与正常者相比，精神分裂症患者 CTQ 总分（37.21±9.71 vs 45.55±14.23,P=0.000）及其躯体虐待（7.05±2.25 vs 8.47±3.57,P=0.003）、情感虐待（5.87±1.72 vs 7.45±3.74,P=0.001）、性虐待（5.65±1.89 vs 7.22±3.71,P=0.000）、躯体忽视（9.90±4.03 vs 12.01±4.04,P=0.000）和情感忽视（8.76±2.91 vs 10.53±3.55,P=0.000）评分均增高；MentS 总分（100.22±10.77 vs 96.71±14.97,P=0.024）及其自我心理化因子分（27.61±5.35 vs 25.79±6.20,P=0.012）减低，差异具有显著统计学意义。Spearman 相关分析显示，患者 CTQ 总分与 MentS 总分（r=-0.324，P=0.000）及其自我心理化（r=-0.286，P=0.000）、他人心理化（r=-0.221，P<0.005）和动机心理化（r=0.226，P<0.004）因子分均呈负相关，具有统计学意义，控制年龄、性别、受教育年限、病程、PANSS 评分及抗精神病药物剂量后，这种相关性仍存在。

结论 精神分裂症患者早年的创作经历较多，其疾病稳定期的心智化水平较低，患者早年创作水平越高，其心智化水平则越低，提示精神分裂症患者早年的创作经历对心智化功能水平具有影响，对创伤经历的心理干预，可能在患者认知功能康复治疗中具有积极意义。

关键字：精神分裂症；童年创伤；心智化；相关性

首发未用药精神分裂症患者执行功能异常与病情严重程度及病程的相关性研究

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目的 精神分裂症（schizophrenia，SP）患者的认知功能缺损对其社会功能具有巨大的影响，本研究目的是通过对患者进行威斯康星卡片分类测验（WCST）评估精神分裂症患者的执行功能是否异常。同时探究各项执行功能与精神分裂症患者病情严重程度和病程的相关性。

方法 对 19 例首发未用药 SP 患者及 53 例性别、年龄相匹配的健康对照（health control, HC）进行威斯康星卡片分类测验，计算正确应答数、完成分类数、总错误数、非持续性错误数和持续性错误数。同时根据 BPRS 得分将 SP 患者分为轻、中、重三组，“轻度”指 BPRS 总分 31 分以内，“中度”指 41 分以内，“明显”指 53 分以内；根据病程长短将 SP 患者分为小于 12 周，12-48 周，48 周以上三组。首先分别对 SP 患者和 HC 组上述测试的 5 项结果进行单样本 T 检验，计算两组差异性；另外，根据 SP 患者轻、中、重病情三组采用方差分析和事后检验计算认知结果的差异性；采用皮尔逊相关分析计算上述认知测试结果与病情严重程度及病程的关联性。

结果 SP 组和 HC 相比，正确应答数、完成分类数、总错误数、非持续性错误数和持续性错误数结果均有显著差异性（p＜0.01）。方差分析和事后检验发现 HC 与轻度 SP 相比结果均未见显著差异（p＞0.05）；HC 与中、重度 SP 相比，测试结果均有显著差异（p＜0.01）；仅发现 sp 患者轻度和重度相比，正确应答数（p=0.016）、总错误数（p=0.014）和持续性错误数（p=0.005）有显著差异；上述测试结果与病程无相关（p＞0.05）；正确应答数（r=-0.189 p=0.014）、完成分类数（r=-0.156

p=0.042）结果与病情严重程度为负相关；总错误数（r=0.196 p=0.011）和持续性错误数（r=0.1875，p=0.022）结果与病情严重程度呈相关。

结论 精神分裂症具有明显的执行功能障碍，且执行功能障碍严重程度与病情轻重水平有关，与病程无关。

关键字：精神分裂症，执行功能，病程，病情

首发精神分裂症患者一年内发生抗精神病药物治疗无效的比率和预测因素

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目的 自知力的概念用于表示精神分裂症和其他严重精神障碍患者认识自己的疾病并参与治疗的倾向。多项研究证明自知力会显著影响精神分裂症患者的服药依从性，但是否能够影响首发精神分裂症患者的短期疗效和长期预后尚无定论。

方法 本研究在中国四个省市六家医院纳入了580 名首次发作的精神分裂症患者，被随机分配到利培酮、奥氮平或阿立哌唑组进行为期一年的随访。删除掉基线期 PANSS 不完整数据以及 PANSS 总分<60 分的患者，本次共计纳入 553 名被试的数据进行分析。对于抗精神病药物治疗无效的定义我们采用了PANSS减分率小于 50%为药物治疗无效的概念。自知力的评估采用 PANSS 量表 G12 条目，分数越高，自知力越差。我们使用 COX 回归分析估计人口统计学变量和自知力水平与首发精神分裂症患者发生抗精神病药物治疗无效结局的关联；Kaplan-Meier 曲线用于估计一年随访期间抗精神病药物治疗无效的时间。

结果 在一年随访期内，共有 52.4%（290）名被试发生了药物治疗无效。其中 Kaplan-Meier 结果显示在第一个月的随访时发生抗精神病药物治疗无效的累积概率骤然增高，随后出现平缓的增长。COX 回归分析显示年龄、性别、受教育程度以及 BMI 和药物治疗无效无显著相关性，但基线期自知力受损的严重程度仍然和一年随访期间抗精神病药物治疗无效正相关（RR=1.15, P=0.027）。

结论 年龄、性别、受教育程度以及 BMI 并不能预测一年期内药物疗效反应，但基线期的自知力是可以更好的预测药物治疗反应。首发精神分裂症患者基线期自知力越差，未来发生药物治疗无效的风险越高。因此，关注首发精神分裂症患者的早期自知力水平，对于一年期内药物疗效的预测有一定的作用。

关键字：首发精神分裂症 药物疗效 自知力

慢性精神分裂症患者认知功能和静息态脑镜像同伦功能连接的相关性研究

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目的 探讨经抗精神病药物治疗后病情稳定的慢性精神分裂症患者认知功能的特点及其与静息态脑镜像同伦功能连接（voxel-mirrored homotopic connectivity，VMHC）之间的相关性。

方法 选取 15 例慢性精神分裂症患者（患者组）和 15 名健康志愿者（对照组），采用阳性与阴性症状量表（PANSS）评定患者的精神症状，采用可重复的神经心理状态评定量表（RBANS）评估患者的认知功能。患者组与对照组均进行静息态功能磁共振（rs-fMRI）扫描，应用基于 VMHC 方法进行数据分析，采用独立样本 t 检验比较组间差异，并计算患者组与对照组差异脑区 VMHC 值与 RBANS 及 PANSS 量表各项评分的相关性。

结果 与对照组相比，患者组在即刻记忆（t=-2.853，P=0.008）、视觉空间/结构（t=-2.107，P=0.044）、言语功能（t=-5.576，P=0.000）、注意（t=-7.108，P=0.000）及总分（t=-5.354，P=0.000）均显著低于对照组。与对照组相比，患者组左侧枕上回及右侧楔叶 VMHC 值降低（P<0.05）。患者组左侧枕上回（r=0.612，P=0.015）及右侧楔叶（r=0.612，P=0.015）VMHC 值均与 RBANS 中视觉空间/结构呈正相关，而与 PANSS 各项评分均无相关性。

结论 在静息状态下，慢性精神分裂症患者左侧枕上回及右侧楔叶双侧半球间的镜像同伦连接存在异常，且与视觉空间/结构功能有相关性。

关键字：精神分裂症；认知功能；镜像同伦连接

有氧运动对慢性精神分裂症患者认知功能及静息态脑功能局部一致性的影响

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目的 探讨有氧运动对慢性精神分裂症患者认知功能及静息态脑功能局部一致性（ReHo） 的影响。

方法 选取 40 例病情稳定的慢性精神分裂症患者为研究对象， 随机分为试验组与对照组（n=20），对照组患者在住院期间给予常规抗精神病药物治疗和健康宣教，试验组在此基础上进行为期 5 个月的有氧运动干预。分别于干预前后采用阳性与阴性症状量表（PANSS）和可重复的神经心理状态评定量表（RBANS）对患者进行评估，并进行静息态功能磁共振（rs-fMRI）扫描， 应用基于 ReHo 的方法进行影像学数据分析。干预前后对比采用配对 t 检验，组间对比采用独立 t 检验，并将 ReHo 值变化与 PANSS 和

RBANS 评分进行相关性分析。

结果 有氧运动干预后，试验组阴性症状分、一般精神病理症状分、和 PANSS 总分均显著低于对照组（P＜0.05），试验组即刻记忆、延时记忆及 RBANS 总分也显著高于对照组（P＜0.05）。有氧运动干预后试验组右侧颞中回 ReHo 值较前减低（AlphaSim 校正，P＜0.05），但与 RBANS 及 PANSS 各项评分均无相关性。

结论 有氧运动疗法对慢性精神分裂症患者的精神症状和认知功能均有积极的改善作用，同时发现有氧运动后患者右侧颞中回局部一致性减低。

关键字：精神分裂症；认知功能；有氧运动；局部一致性

长程重复经颅磁刺激治疗对一例不典型孤独症儿童脑血流灌注的影响

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目的 孤独症谱系障碍(Autism spectrum disorder.ASD)又称自闭症，是一种起病于婴幼儿时期的神经发育障碍，是常见的儿童精神障碍类疾病，临床特征以社交障碍为主，伴随语言障碍、感知异常及认知缺陷等”[1]。孤独症根据典型的核心症状进行定义，包括典型的孤独症，也包括不典型孤独症。不典型孤独症与孤独症的区别在于起病的年龄，或不能满足孤独症的全部三条诊断标准。发育损害只在 3 岁以后才表现出来；因其症状不典型，容易延误诊断或误诊为精神发育迟缓，错过最佳的干预时期。本个案探究发现对于大龄非典型孤独症儿童给予长程 rTMS 治疗，仍然能够改善患儿认知理解、强迫思维和注意力及脑血流灌注（ECT），且未发生任何不良反应。

方法 多靶点循环 rTMS 治疗，每周 5 次，30 次为一个疗程，休息 4 周继续第二个疗程，2014 年 11 月-2017 年 2 月共实施治 rTMS 治疗 380 次。

结果 患者不自主走动，强迫思维、认知理解等临床症状有改善，能坚持上学，总体比治疗前进步很大。2017 年 2 月 23 日复查影像学脑灌注（ECT）显现：对比前片（2014-11-13），原脑内多发性局灶性放射性分布缺损部位，左侧眶额、右额前、左侧 Broca 区、双侧颞极、左侧枕叶次级视皮质区改善。

结论 rTMS 作为一种无痛、无创、安全、有效的神经调控手段，对各年龄段 ASD 患者可能仍然有效，值得进一步研究探讨。

关键字：rTMS ASD 血流灌注

Effects of Yoga for Schizophrenia on Negative Symptoms, Positive Symptoms and Quality of Life: A Meta-analysis.

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Objective This meta-analysis was performed to evaluate the efficacy of yoga on positive and negative symptoms and quality of life in patients with schizophrenia.

Methods Major databases were screened through 21 July 2022. RCTs comparing yoga to NBI were analyzed according to PRISMA guidelines. The methodological quality of the included studies was assessed with the Cochrane risk-of-bias tool (RoB 1). The outcomes were the short-term and long-term effects of yoga on negative symptoms and positive symptoms as well as the improvements in quality of life.

Results We included 16 studies (N=1012). Overall, the meta-analysis (random-effects model) for yoga showed a significant effect (SMD = -0.61, 95% CI: -1.09 to -0.14) on negative symptoms with a medium effect size based on Cohen’s rule, a medium effect (SMD = -0.41, 95% CI: -0.66 to -0.17) on positive symptoms, and a small effect (SMD = 0.33, 95% CI: 0.05 to 0.61) on quality of life. Notably, in the long term, there was no significant effect on negative symptoms (SMD = 0, 95% CI: -0.54 to 0.55) but a medium effect on positive symptoms (SMD = -0.37, 95% CI: -0.72 to -0.01).

Conclusions Yoga has a medium effect on reducing negative symptoms for acute treatment; moreover, there is a medium effect on positive symptoms for long-term treatment in schizophrenia. Yoga also has a small effect on quality of life, indicating that yoga could be a promising intervention for reducing symptoms and improving quality of life in the treatment of schizophrenia.

关键字：schizophrenia/yoga/negative symptoms/positive symptoms/quality of life/meta-analysis

The Potential of Saccades Eye Movement As A Trait Biomarker for Schizophrenia: Using An Integrated Eye Movement Score

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Objective Abnormalities in eye movements can be one of the most remarkable neurophysiological biomarkers of schizophrenia, particularly for saccade behavior. The purpose of this study was to investigate the use of an integrated eye movement measurements based on abnormal

prosaccades and antisaccades to discriminate between patients with schizophrenia and healthy individuals.

Methods : A training set of 64 controls and 64 stable schizophrenia cases recorded a series of eye movements, test predictive validity was then examined using eye movement data from new 21 stable schizophrenia cases and 21 control subjects. Eye movement measures were recorded during prosaccades and antisaccades tasks. In a stepwise method of discriminant analysis, eye movement measurements have been collected to create an integrated eye movement score.

Results : In two saccade tasks, several measures in patients with schizophrenia differed from controls. The discriminant analysis resulted in four eye movement measures, including the primary saccade gain and the amplitude during 8° distracter paradigms of the prosaccade test, the error rate and the corrected error rate of the antisaccade test. The integrated eye movement score based solely on these saccade behaviors achieved perfect separation of the 64 schizophrenia patients from 64 control subjects with 84.2% accuracy, its predictive validity on novel cases and control subjects was 86%. The integrated eye movement score was correlated with age and work hours in patients, with different correlation patterns in the four eye movement measures used.

Conclusion : Our integrated eye movement score with high classification accuracy between patients with stable schizophrenia and healthy control, and suggests saccades as a trait and easily obtainable biomarker for diagnosis of schizophrenia. Investigating significant differences in saccade measures and their pathological neural circuits will be beneficial to understanding the early identification and treatment of schizophrenia in the future.

关键字：Biomarker, classification, prosaccades and antisaccades, eye movement, schizophrenia.

青少年认知行为疗法对青少年非自杀性自伤的干预

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目的 非自杀性自伤行为(non-suicidal self-injury,NSSI),是指个体在无自杀意图情况下做出故意、直接、反复伤害自己身体的行为。NSSI 与多种精神疾病密切相关,是自杀的重要预测因素。NSSI 不仅伤害身体还影响青少年人际交往功能,给社会公共健康带来严峻挑战。因此,讨论认知行为疗法对大学生 NSSI 其心理行为问题的预防和干预具有重要的现实意义。探讨青少年认知行为疗法对青少年非自杀性自伤(NSSI)干预的效果。

方法 选取西安市精神康复科以及心理科2022年1月—2023年6月门诊上的60例有非自杀性自伤行为青少年为研究对象，随机分为对照组与研究组，各30例；对照组给予常规干预，研究组给予认知行为疗法，评价两组干预前后的非自杀性自伤行为及功能状况、焦虑及抑郁情况。采用汉密尔顿焦虑量表14项、汉密尔顿抑郁量表24项、情绪调节策略量表(ERQ)、渥太华自伤问卷(OSI)以及自制的一般情况调查表。

结果 干预6个月后，研究组无明显组织损伤的自伤行为得分、有明显组织损伤的自伤行为维度得分及非自杀性自伤行为总分均低于对照组，差异有统计学意义(P<0.05)。干预6个月后，研究组的利己社交、自我负强化、情绪表达维度得分及非自杀性自伤功能状况总分均低于对照组，差异有统计学意义(P<0.05)。干预6个月后，研究组汉密尔顿焦虑量表14项与汉密尔顿抑郁量表24项评分均低于对照组，差异有统计学意义(P<0.05)。

结论 认知行为疗法可有效减轻非自杀性自伤青少年的非自杀性自伤行为，减少非自杀性自伤行为动机，缓解焦虑与抑郁。

关键字：非自杀性自伤；认知行为治疗；组织损伤

益气散聚方治疗精神分裂症伴代谢综合征的临床研究

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目的 研究益气散聚方治疗精神分裂症伴有代谢综合征的临床疗效。

方法 收集64名精神分裂症伴有代谢综合征患者，随机分为干预组（32例）和对照组（32例），干预组在常规治疗基础上给予益气散聚方治疗，对照组在常规治疗基础上给予安慰剂，疗程均为12周。在基线、干预4周、干预8周和干预12周时间点分别检测干预组和对照组患者的空腹血糖、空腹三酰甘油、体重指数。

结果 干预组和对照组空腹血糖时间主效应（F=4.982，P=0.004）、组别主效应（F=4.465，P=0.004）、时间×组别交互效应（F=3.225，P=0.031）均有统计学意义。两组在干预8周（F=8.103，P=0.006）和干预12周（F=6.807，P=0.011）的空腹血糖差异有统计学意义。干预组和对照组三酰甘油时间主效应（F=4.622，P=0.010）、组别主效应（F=4.383，P=0.040）、时间×组别交互效应（F=4.508，P=0.011）均有统计学意义。两组在干预8周（F=7.603，P=0.008）和干预12周（F=8.218，P=0.006）的三酰甘油差异有统计学意义。两组体重指数时间主效应（F=1.833，P=0.176）、组别主效应（F=0.524，P=0.472）、时间×组别的交互效应（F=2.853，P=0.082）均无统计学意义。干预组空腹血糖12周与8周、4周、基线的差异（t=2.894，P=0.007；t=5.376，P=0.000 ；t=3.487，P=0.001）均有统计学意义，8周与4周、基线的差异（t=3.554，P=0.001；t=2.077，P=0.046）有统计学意义。干预组三酰甘油12周与4周、基线的差异（t=2.884，P=0.007；（t=3.733，P=0.001）有统计学意义，8周与4周、基线的差异（t=2.592，P=0.014；t=3.915，P=0.000）有统计学意义。干预组体重指数12周与8周、4周、基线的差异（t=2.190，P=0.036；t=2.679，P=0.012；t=2.476，P=0.019）有统计学意义，8周与4周、基线的差异（t=1.058，P=0.298；t=1.923，P=0.064）

无统计学意义。

结论 益气散聚方治疗 8 周后可改善精神分裂症伴有代谢综合征患者的空腹血糖和三酰甘油，体重指数的改善相较缓慢

关键字：精神分裂症，代谢综合征，益气散聚方，空腹血糖，三酰甘油，体重指数

病程期间持续天气情况与抑郁症短期预后的关联

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目的 探索性地分析抑郁症病程中天气的总体情况与抑郁症短期预后的关联。

方法 数据来源于两项智能手机的完全远程随机临床试验（NCT00540865，NCT01808976）中产生的天气数据及疾病相关数据。病程中天气的总体情况的计算方式是根据已采集的每日中每小时的云层覆盖量、露点、湿度、温度的四分差、平均值、中位数及标准差及每日总降水量，计算其平均值。使用病人健康状况问卷(PHQ-9)评估抑郁症患者抑郁严重程度，使用患者总体临床印象量表 (CGI)来评估抑郁症患者病情总体情况，频率为每周一次，使用 Pearson 相关分析检验病程中持续气候因素和抑郁症病情的相关关系。

结果 本研究共纳入 148 名抑郁症患者。相关性分析结果表明，病程中每日每小时云层覆盖量四分差的平均数与第 2 周的 PHQ-9 呈现负相关关系(相关系数 $r = -0.18$, $p = 0.03$, $df = 146$), 病程中的每日总降水量的平均值与第 4 周的 CGI 评分呈现正相关关系(相关系数 $r = 0.18$, $p = 0.049$, $df = 112$), 病程中的每日露点平均值与第 8 周的 CGI 评分呈现正相关关系(相关系数 $r = 0.42$, $p < 0.001$, $df = 68$), 病程中的每日露点标准差的平均值与第 8 周的 CGI 评分呈现负相关关系(相关系数 $r = -0.354$, $p < 0.01$, $df = 68$), 病程中每日平均温度的平均值与第 8 周的 CGI 评分呈现正相关关系(相关系数 $r = 0.39$, $p < 0.01$, $df = 68$)。

结论 在一定范围内，病程中越大的云层覆盖量与越严重的抑郁疾病程度有关，越高每日降水量、越高的日平均温度及越高的每日露点值与越好的总体临床印象相关。局限性：本文仅为相关性分析。由于患者主要居住于美国的纽约州和加利福尼亚州，且本研究的随访周期仅为 12 周，故气候等信息的代表性不高。

关键字：气候持续情况，抑郁症，短期预后

天气与抑郁症患者病情的关联

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目的 探索性地分析天气与抑郁症患者抑郁严重程度、患者总体临床印象及功能障碍的关联。

方法 采用来自两项基于智能手机的完全远程随机临床试验（NCT00540865，NCT01808976）中实时收集的天气数据及患者病情相关数据。天气数据主要包括每日中每小时的云层覆盖量的四分差、平均值、中位数及标准差，每日中每小时的露点的四分差、平均值、中位数及标准差，每日中每小时的湿度的四分差、平均值、中位数及标准差，当日的总降水量，每日温度的四分差、平均值、中位数及标准差。病人健康状况问卷(PHQ-9)用于评估抑郁症患者抑郁严重程度，患者总体临床印象量表 (CGI)用于评估抑郁症患者病情总体情况，席汉氏功能障碍量表(SDS)用于评估患者的功能障碍，使用 Pearson 相关分析检验基线时的气候因素和抑郁症病情相关关系。

结果 本研究共纳入 129 名抑郁症患者。每日中每小时的露点的中位数和 CGI 分数呈现出正相关关系(相关系数 $r = 0.23$, $p < 0.01$, $df = 127$)，每日中每小时温度的中位数和 CGI 分数呈现出正相关关系(相关系数 $r = 0.21$, $p = 0.01$, $df = 127$)。

结论 基线的露点和温度与抑郁症临床总体印象呈现正相关，即在一定范围内，露点越高，温度越高，抑郁症总体印象越优。局限性：本研究仅为相关性分析。

关键字：露点，温度，降水量，抑郁症

失眠与脑源性神经营养因子的因果关系：两样本孟德尔随机化研究

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目的 采用两样本孟德尔随机化方法研究失眠对脑源性神经营养因子(brain-derived neurotrophic factor, BDNF)的因果关系。

结果 根据上述参数，共筛选出 38 个与失眠显著相关的SNP，设置逆方差加权法结果显示失眠与BDNF(逆方差加权法：β=-3.95，95%CI：-6.38～-1.52，p=0.001)存在因果关联(加权中位数法：β=-3.50，95%CI：

-0.34～-6.66，p＝0.03)。经逆方差加权法和 MR-Egger 估计的 Cochran's Q 统计量，工具变量未见显著异质性(p＞0.05)。MR-Egger 回归的截距项趋于 0，未显示存在水平多效性(p＞0.05)。MR-PRESSO 检验亦未发现纳入的 SNP 存在潜在多效性或异常值。

结论 本研究利用孟德尔随机化的方法发现失眠能影响 BDNF，失眠会导致外周血 BDNF 含量减低。

关键字：失眠，脑源性神经营养因子，孟德尔随机化

三级公立精神专科医院康复科从业人员现况调查

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目的 在全国三级公立精神专科医院开展康复科从业人员的调查，了解精神康复科从业人员的现状和需求，为今后专科机构内精神康复人才队伍建设、精神康复工作规范化与质量控制、精神康复医学的发展、教育以及相关政策制定等提供基础性数据。

方法 全国范围内，精神专科医院的数量超过 1000 家，但这些医院在地域的分布上并不均衡。本调查利用便利抽样法，选取位于 31 个省、市、自治区中设立康复科的三级公立精神专科医院。按此标准，在西藏自治区未能抽取到目标医院，共有 43 家医院入选并反馈。2022 年 5 月 5 日—6 月 1 日，本课题组对这 43 所三级公立精神专科医院康复科从业人员进行问卷调查。通过医院信函的方式将该调查情况传达至各精神专科医院，由医院指定康复科或医务科的 1 名负责人填写，作答完毕后立即提交，共发放 43 份调查问卷，收回有效问卷 43 份，有效率为 100%。

结果 本调查中，精神康复科从业人员包括精神康复科医师、康复治疗师、护理人员、心理治疗师、其他专业人员五类。调查结果显示，43 家医院共有 1499 名精神康复科从业人员。其中精神科医师共 181 名，占比 12.1%，康复治疗师共 197 名，占比 13.1%；护理人员共 709 名，占比 47.3%，心理治疗师共 185 名，占比 12.3%，其他专业人员共 127 名，占比 15.2%。精神科医师年龄构成主要集中在 31～40 岁，占比 44.2%；执业医师占比 91.2%；以本科受教育程度和主治医师为主；仅有 13.7%的精神康复科医师临床类别为康复相关专业。康复治疗师年龄构成主要集中在 20～40 岁，占比 79.7%；以本科受教育程度和初级职称为主。护理人员年龄构成主要集中在 20～40 岁，占比 69.6%；本科受教育程度和大专及以下人数占比接近；职称构成方面，以主管护师、护师为主。心理治疗师年龄构成主要集中在 31～40 岁，占比 50.8%；以本科受教育程度和中级职称为主。

结论 三级公立精神专科医院精神康复科从业人员主要存在整体学历水平偏低，职称建设体系缺失，专业相关度低的问题。所以在精神康复需求不断提升的今天，需要医院和相关部门重视精神康复人才队伍建设，精神卫生领域的康复从业人员培养应与所要求的特殊岗位能力相衔接，完善康复从业评价标准，体现康复工作特点，畅通康复从业人员职业晋升制度，以期推动精神康复的高质量发展，使精神疾病患者可以恢复社会功能，实现全面康复，早日重返社会。

关键字：精神康复；康复从业人员；康复服务

伴有焦虑症状的青少年双相抑郁患者腹内侧前额叶质子磁共振波谱研究

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目的 探讨伴有焦虑症状的青少年双相抑郁患者(Adolescent Bipolar Depression,ABD)的神经代谢改变，进一步明确青少年双相抑郁患者的焦虑症状的病理生理机制。

方法 对 36 例青少年双相抑郁患者采用汉密尔顿焦虑量表（14-item Hamilton Anxiety Rating Scale,14-HAMA）评估并分组，有焦虑症状组 20 例，无焦虑症状组 16 例。采用汉密尔顿抑郁量表（24-Hamilton depression scale,24-HAMD）评估抑郁症状的严重程度，并进行质子磁共振波谱(1H-Magnetic Resonance Spectroscopy,1H-MRS)成像扫描，比较 2 组患者的腹内侧前额叶(Ventromedial Prefrontal Cortex,vmPFC)神经代谢水平的差异。

结果 与无焦虑症状组相比，有焦虑症状组 ABD 患者的 mI/Cr 值升高（P＜0.05）。此外，有焦虑症状组的 Cho/Cr 和 HAMD 评分呈正相关性，表明膜磷脂分解代谢水平可能与更严重的抑郁情绪有关；mI/Cr 和病程呈负相关性（P＜0.05），表明病程时间越长 mI 水平越低。

结论 ABD 患者的焦虑症状可能与 mI 水平升高有关，未来可以进一步从神经胶质细胞功能变化研究 ABD 患者焦虑症状的病理生理机制。

关键字：青少年双相抑郁；焦虑症状；质子磁共振波谱

Implementation Effect and Patient Demand of Community Rehabilitation Peer Support for Patients with Severe Mental Illnesses in Ningbo Based on The Interview Method

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Objective To investigate the effect of community rehabilitation peer support for patients with severe mental illness in Ningbo. Qualitative analysis was used to explore the implementation effect, advantages and disadvantages of activities, so as to put forward strategies and methods to optimize community rehabilitation activities for patients with severe mental illness. To provide relevant theoretical and practical guidance for improving community rehabilitation of them.

Methods Methods The interview outline was designed by ourselves. 31 individuals who participated in peer activities, such as mental health staff, workers in occupational therapy stuff, doctors and patients, were randomly selected as the research objects. The interview lasted for one month, sorted out audio materials for 580.8 minutes, and formed an interview record manuscript of 119154 words. In view of the current situation and feedback of peer activities, the summary content analysis method was used for qualitative research.

Results Results The results of the interview showed that most of the implementation areas had difficulties in the early stage. After a period of time, the difficulties decreased and the benefits were prominent. The patients said that they participated in community rehabilitation activities and their sense of shame decreased. Family members provide support, and peers are more willing to participate in community rehabilitation. Strengthening publicity can help solve the recruitment problem. Patients who participate in activities hope to enrich the content and form of activities. Multi sectoral participation is conducive to the smooth implementation of the activities. Some experience has been gained in community rehabilitation activities, however, there are still many challenges.

Conclusion This study found that the implementation effect of community rehabilitation for patients with severe mental disorders is good, and the promotion of community rehabilitation for patients with mental disorders needs to be improved. If we further understand the needs of patients and their families, it may be more beneficial for peer activities. At the same time, professionalization of the project implementation team, diverse forms of activities, and multi departmental collaboration may be more beneficial for project implementation and development.

关键字：Severe mental illness, Community rehabilitation, Peer support, Interview method, Investigation.

Pathological Networking of Gray Matter Dendritic Density and Conventional Brain Imaging Metrics in Obsessive-compulsive Disorder

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Objective The pathogenesis of obsessive-compulsive disorder (OCD) may involve altered dendritic morphology, but in vivo imaging of neurite morphology in OCD remains limited. Such changes must be interpreted functionally within the context of the multi-modal neuroimaging approach to OCD. The purpose of this study is to examine whether dendritic morphology is altered and associated with with other brain structural metrics in OCD in pathological networks.

Methods Using multi-modal brain imaging, we compared neurite microstructure and classic morphometries between 108 unmedicated OCD patients and 108 healthy controls. We searched the whole brain for regions exhibiting altered morphology in OCD and examined whether a pathological brain network constructed by metrics representing these alterations emerged. We also analyzed correlations between brain metrics and clinical symptoms and evaluated the effectiveness of different brain metric configurations for distinguishing OCD patients from healthy individuals.

Results Our results revealed reduced neurite density in the right lateral occipitoparietal regions of OCD patients, completely mediating the impairment of anatomical connectivity between these regions and others. We also observed altered gray matter volume, thickness, gyrification, and white matter diffusivity in various regions, including the prefrontal, medial parietal, cingulate, and fusiform cortices. These brain metrics were interconnected into a pathological brain network associated with OCD symptoms. Additionally, the neurite density metric exhibited high discriminatory power in distinguishing OCD patients from healthy controls, and the entire pathological brain network also exhibited excellent discriminative classification properties.

Conclusion Our findings underscore the utility of in vivo imaging of gray matter dendritic density in future OCD research and development of neuroimaging-based biomarkers. They also endorse the concept of connectopathy, providing a potential framework for interpreting the associations between various OCD-symptom related morphological abnormalities.

关键字：Obsessive-compulsive Disorder, Multimodal brain imaging, Neurite density

强迫症的决策信心及其神经机制

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目的 验证并明确强迫症的决策信心缺陷，并初

步探究强迫症决策信心缺陷的神经机制。

方法 本研究为病例对照研究，两组被试在性别、年龄、受教育年限和 IQ 上相匹配。行为学实验纳入 36 名强迫症和 36 名健康对照被试，实验任务为重复决策情景下的随机点运动决策（randomized dot motion, RDM）任务。影像学实验纳入 16 名强迫症和 15 名健康对照被试，采用 fMRI 扫描技术，实验任务也为重复决策情景下的 RDM 任务。采用 YBOCS、HAMD-17、STAI、OBQ-44 和 FOCI 量表评估被试的临床特征。

结果 在行为学实验中：（1）两组被试在初次决策信心上的差异不显著（t=-0.245, p=0.807）。但在重复决策信心上两组的差异显著（t=-3.487, p<0.001），强迫症的重复决策信心显著低于健康对照。（2）两组在信心提升上存在显著的差异（F=4.116, p<0.05），强迫症的信心提升显著低于健康对照。（3）两组的初次决策信心和重复决策信心均与强迫和抑郁程度显著负相关，但信心提升与各临床症状的相关均不显著。在影像学实验中：（1）两组被试在初次决策信心（t=-0.572, p=0.572）和重复决策信心（t=-0.274, p=0.188）上的差异均不显著。（2）两组在信心提升（t=-2.274, p<0.05）上存在显著的差异，强迫症的信心提升显著低于健康对照。（3）在初次决策信心相关的脑区中，强迫症在右侧主要视觉皮层（Brodmann: 17; peak: x=-22.5, y=+82.5, z=-10.5; size=69 voxels）(均为 MNI 空间坐标)的激活程度显著低于健康对照。（4）在重复决策信心相关的脑区中，强迫症在左侧楔前叶（Brodmann: 7/31; peak: x=+1.5, y=+79.5, z=+43.5; size=72 voxels）的激活程度显著低于健康对照。

结论 强迫症的决策信心功能存在显著的异常，表现为明显的信心不足。但这种不足更多地体现在重复决策信心中，与强迫较低的信心提升有关。决策信心与症状程度显著负相关，而信心提升不受症状程度影响，这表明信心提升异常可能是强迫症普遍存在的稳定缺陷。右侧主要视觉皮层和左侧楔前叶是强迫症决策信心异常的敏感脑区，其中左侧楔前叶与强迫症的信心提升缺陷可能有着紧密的联系。

关键字：强迫症，决策信心，重复决策，楔前叶，病例对照

Deficits in Key Brain Network for Social Interaction in Individuals with Schizophrenia

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Objective Individuals with schizophrenia show impairment in social functioning including difficulties in social interaction with others. This study aimed to explore whether individuals with schizophrenia has deficits in key social-interaction brain regions and has abnormal functional connections in key brain networks for social interaction.

Methods 30 SZ patients were recruited from Shanghai Mental Health Center and 30 age-, gender-, and education-matched healthy controls (HC) were recruited via advertisements. The T1-weighted images and resting-state fMRI data were acquired on a 3T Siemens Verio MR scanner. 8 key brain regions in the social brain network were defined as region of interest (ROI) and clinical symptoms of SZ patients were measured by Positive and Negative Symptom Rating Scale (PANSS). FreeSurfer 6.0.0 was used to process T1 MRI images. Independent sample t test was used to compare the ALFF, fALFF, ReHo values of ROI between SZ patients and HC. After FDR correction, the brain regions with significant abnormal ALFF, fALFF, ReHo values were obtained and conducted Pearson correlation analysis with PANSS scores. Altered FCs of ROI between SZ patients and HC were calculated by time series in R 4.3.0.

Results Between SZ group and HC group, no differences were found in gender, age, education (Ps > 0.05).Compared with HC, the SZ group had significantly increased fALFF in bilateral caudate (right:t(58)=2.732, PFDR=0.045; left:t(58)=2.708, PFDR=0.045), bilateral putamen (right:t(58)=2.717, PFDR=0.045; left:t(58)=2.506, PFDR=0.045), bilateral pallidum (right:t(58)=2.629, PFDR=0.045,, left:t(58)=2.518, PFDR=0.045). Besides, the SZ group showed decreased fALFF in insula (right:t(58)=-3,082, PFDR=0.045; left:t(58)=-2,608, PFDR=0.045). Other than these regions, the SZ group also showed increased ReHo in right inferior parietal (t(58)=2.827, PFDR=0.031). No significant correlation was found between fALFF/ReHo of ROI and clinical symptoms after FDR correction. As to altered ROI-based FCs between SZ patients and HC, SZ patients showed significantly decreased FC between R.lateral orbitofrontal and L.amygdala(t(58)=3.726, PFDR=0.012). However, FC between R.lateral orbitofrontal and L.amygdala was not correlated with the clinical symptoms.

Conclusion Deficits in key brain area for social interaction such as increased activations in bilateral dorsal striatum (including caudate, putamen and pallidum) and right inferior parietal as well as decreased activations in bilateral insula was found in individuals with schizophrenia. No significant correlation between brain network activation and clinical symptoms was found in this study. Since amygdala and OFC were identified as crucial components in reward network and emotional salience network, the decreased orbitofrontal-amygdaloid functional connectivity reflected the abnormal connection in key brain network for social interaction in SZ.

关键字：schizophrenia; social interaction; brain network

精神分裂症患者的负性情绪语音识别能力、源监测功能及精神症状的关联分析

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目的 精神分裂症患者的源监测功能、噪声掩蔽下的中性语音识别能力和听觉情绪韵律的辨别方面均存在缺陷。本研究旨在探索精神分裂症患者在噪声下的负性情绪语音识别能力是否和其源监测功能有关，以及二者与患者精神症状的关联。

方法 54 名精神分裂症患者和 59 名健康对照完成了言语源监测任务、噪声下负性语音识别任务（目标伪句以悲伤、愤怒、恐惧和厌恶的韵律由专业演员读出，患者需要在不同噪声水平下复述听到的目标句）以及阳性和阴性综合征量表（PANSS）。本研究使用偏最小二乘回归的多变量分析（Partial least squares, PLS）来探索源监测（外部来源/内部来源/新来源的归因错误和响应偏差）和噪声下四种负性情绪语音识别与精神症状之间的关联。

结果 精神分裂症患者中，源监测各指标（尤其是外部来源的响应偏差）的线性组合与语音识别降低的线性组合呈正相关，尤其是与愤怒情绪诱导的语音识别降低有关。此外，两个负性情绪（主要包含愤怒、悲伤）语音识别降低的主成分与两个精神症状的主成分（主要包含阴性症状、自知力缺乏和焦虑抑郁）分别相关，而这两对主成分一共解释了情绪诱发的语音识别的下降与精神症状之间关联的总方差的 50.4%。

结论 与健康对照相比，精神分裂症患者更倾向于将外部来源语音归因为内部来源/新来源信息，并且与这种源监测异常相关的、由愤怒情绪诱导的语音识别降低主要与患者阴性症状有关。这些发现有助于了解精神分裂症的精神病理学，并有可能为精分的临床康复提供可能的干预视角：即通过最大限度地减轻精分患者情绪语音识别的下降来改善患者的阴性症状。

关键字：语音识别，噪声掩蔽，言语韵律，源监测，精神分裂症，精神症状，情绪

苍白球体积预测强迫症正念认知行为疗法疗效

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目的 正念认知行为疗法（mindfulness-based cognitive therapy, MBCT）是一种治疗强迫症的有效方法，但仍有部分患者反应不佳，探索有效预测疗效的生物标记物可以辅助治疗方案的选择，节省医疗成本。作为一种潜在的生物标记物，大脑形态学特征具有良好的稳定性与可靠性，在预测疗效上具有良好的应用前景。本研究旨在探索使用强迫症患者大脑形态学指标预测正念认知行为疗法的疗效，由于以往的大样本研究证明了强迫症患者存在苍白球和海马的体积异常，因此本研究主要关注苍白球和海马的预测效果。

方法 32 名强迫症患者在基线接受了磁共振扫描，随后其中 16 名患者接受了 10 周的正念认知治疗，另外 16 名接受了 10 周的心理教育。我们使用患者基线的苍白球和海马体积预测正念认知行为疗法和心理教育的疗效(耶鲁-布朗强迫量表减分率)。

结果 (1)正念认知疗法的疗效显著高于心理教育；(2)苍白球体积可以有效预测正念认知疗法和心理教育的疗效(r=0.395, P=0.025)，而海马体积则无法进行预测(r=0.126, P=0.493)。

结论 苍白球体积可能是预测正念认知疗法对强迫症疗效的一种有效生物标记物。

关键字：强迫症；正念认知行为疗法；疗效预测；苍白球

强迫症反应抑制缺陷：来自眼动的证据

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目的 反应抑制能力受损是强迫症的核心认知缺陷之一，在强迫症状的维持与发展中起到了重要的作用。传统的行为学指标(如：正确率，反应时)在描述临床症状时缺乏特异性和准确性，本研究旨在通过眼球追踪技术开发特定的眼球运动指标以此进一步理解与评估强迫症的反应抑制缺陷。

方法 本研究招募了 31 名强迫症患者和 32 名匹配的健康对照完成反向眼跳任务(Anti-saccade task)，并记录了任务过程中的眼球运动。

结果 (1)强迫症患者在反向眼跳试次中比健康对照组表现出了更高的错误率，而在朝向眼跳试次中与健康对照没有显著差异，强迫症患者与健康对照组在反向眼跳试次和朝向眼跳试次中的潜伏期无显著差异；(2)强迫症患者表现出了更多的眼跳次数和更低的首次眼跳准确性；(3)强迫症患者比健康对照表现出了更多首次眼跳潜伏期小于 80ms 的试次数以及更高的初始注视位置偏移率；(4)使用机器学习的方法，根据上述眼动指标对强迫症患者和健康对照进行分类，分类准确性达到 72.38%。

结论 在传统的行为学指标的基础上，我们发展了新的眼球运动指标，进一步揭示了强迫症的冲动性(更高的预期效应)和反应抑制缺陷(更多的眼跳次数和更低的眼跳准确性)，并且这些眼动指标可以有效区分强迫症患者和健康对照。这些眼动指标不仅对于进一步探索强迫症反应抑制缺陷及临床干预具有重要的意义，也为强迫症的临床评估与诊断提供了一种可能的生物标记物。

关键字：强迫症；反应抑制缺陷；眼球追踪；机器学习

基于腹侧被盖区与背外侧前额叶功能连接的精准、加速 iTBS 缓解阴性症状的个案报告

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目的 精神分裂症阴性症状具有高度致残性，对患者的学习能力、工作能力、人际交往及表达能力等都有严重的影响。目前药物治疗对于改善患者阴性症状的疗效并不理想。其中重复经颅磁刺激（repetitive transcranial magnetic stimulation，rTMS）是最为广泛使用的无创神经调控技术。其中加速间歇性 θ 波脉冲刺激（intermittent theta burst stimulation，iTBS）也是目前最为希望改善阴性症状的一种刺激模式。除此之外，对于刺激靶点的选择也更加倾向于使用功能磁共振精准刺激目标脑区。在本案例中首次使用腹侧被盖区（ventral tegmental area, VTA）在左侧 DLPFC 内功能连接最正相关点作为刺激靶点的方式，并使用精准、加速 iTBS 改善精神分裂症患者的阴性症状。

方法 我们招募了一名 24 岁病情稳定、以阴性症状为主的精神分裂症患者。进行 2 周（10 天）进行精准、加速 iTBS（单次序列 1800 次脉冲（10 分钟），rMT90%，每天 4 次，间隔 50 分钟，约超过 3 小时 10 分钟），根据患者基线时采集的功能磁共振影像，靶向刺激左侧 DLPFC 内与 VTA 功能连接最正相关点。并在治疗前后进行 PANSS、SANS 及 CAINS 的临床症状的评估以及 MCCB 认知评估。

结果 在接受四天（16 个序列）的治疗后，患者自述有想玩竞技类游戏（如：DOTA2）的想法，患者近几年都未有过此类想法，并在当晚参与了两局游戏。在第五天时患者与治疗师反应，自己有想与人开玩笑的冲动。在接受六天治疗后患者自述有想看电影的想法并且在交流时表情变化较治疗前更加丰富且适切。本案例中当使用 PANSS-阴性症状量表及 SANS 对阴性症状进行评估时发现治疗后阴性症状减少 25%左右，而当使用CAINS两因素模型量表进行评估时各项维度均减少 33.3%。

结论 证明加速 iTBS 靶向刺激 VTA 与 DLPFC 功能连接最正相关的点可以有效的缓解患者的阴性症状。但是仍需要进行随机对照试验进一步验证这种刺激模式的确切疗效。

关键字：iTBS，精神分裂症，阴性症状

中国精神康复政策 30 年（1994-2023）发展史

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目的 本文以史为镜，旨在通过总结归纳近 30 年国内中央和地方精神康复政策的发展历程，反映精神康复现状，为今后精神康复政策制定和发展提供指导。

方法 作者通过检索国务院、民政部、国家及地方卫生与健康委员会等政府网站，以及国家法律法规文件、电子期刊等数据库并配合相应的手工检索，对 1994 年至 2023 年 4 月国家及地方省市颁布的精神康复政策进行系统回顾，并进行归纳、分析和总结。

结果 近 30 年来，国家先后出台了 23 部精神康复相关政策，特别是健康中国行动开展以来，精神康复相关政策密集出台，包括 2017 年《关于加快精神障碍社区康复服务发展的意见》、2020 年《精神障碍社区康复服务工作规范》、2021 年《关于积极推行政府购买精神障碍社区康复服务工作的指导意见》和 2023 年《关于开展“精康融合行动”的通知》等，政策不断发展和完善，凸显出全方位、具体化的特点。在国家政策的指导和支持下，我国正逐渐建立精神卫生专业机构、社区康复机构及社会组织、家庭相互支持的精神障碍社区康复服务体系。国家政策从强调重型精神障碍患者的社区管理、减少肇事率，到广泛关注常见重型精神疾病的检出、管理、规范治疗、康复训练、庇护性就业等全方位服务。此外，特殊时期的精神心理问题，如灾后心理援助和康复、重大公共卫生事件后的精神心理康复政策也得到完善，并在相关领域发挥重要作用。老年精神障碍患者、儿童孤独症患者、智力残疾等特殊人群的精神康复体系也不断健全。各地方政府响应中央以建设“社会化、综合性、开放式”的精神障碍社区康复服务体系为目标，积极推动国家政策实施。同时因地制宜，探索具有地方特色的康复模式。北京市、上海市重视日间照料机构、职业康复站等社区精神卫生康复机构的建设和补贴。湖南省积极探索精神障碍社区康复会所模式并取得显著成效。广东省率先推广精神疾病医院-社区一体化防治康复模式，并积极与香港社区精神康复组织机构进行合作交流。

结论 近30年中央和地方的精神康复政策不断完善，但国内精神康复领域方兴未艾，需要国家政策的持续支持、社会资源的优化配置、人才队伍的不断建设和社会大众的广泛参与，共同助力实现健康中国行动的宏伟目标。

关键字：精神康复；发展；政策；健康中国

Efficacy and Safety of Intermittent Theta Burst Stimulation Versus High-frequency Repetitive Transcranial Magnetic Stimulation for Patients with Treatment-resistant Depression: A Systematic Review

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Objective Intermittent theta-burst stimulation (iTBS), which is a potential repetitive transcranial magnetic stimulation (rTMS), can produce 600 pulses to the left dorsolateral prefrontal cortex (DLPFC) in a stimulation time of just over 3 minutes. The objective of the current systematic review was to compare the safety and efficacy of iTBS and high-frequency (≥ 5 Hz) rTMS (HF-rTMS) for patients with treatment-resistant depression (TRD).

Methods Randomized controlled trials (RCTs) comparing the efficacy and safety of iTBS and HF-rTMS were identified by searching English and Chinese databases. The primary outcomes were study-defined response and remission.

Results Two RCTs (n=474) investigating the efficacy and safety of adjunctive iTBS (n=239) versus HF-rTMS (n=235) for antidepressant treatment among adult patients with TRD met the inclusion criteria for this systematic review. No group differences were found regarding the overall rates of response (iTBS group: 48.0% versus HF-rTMS group: 45.5%) and remission (iTBS group: 30.0% versus HF-rTMS group: 25.2%) (all Ps>0.05). The rates of discontinuation and adverse events such as headaches were similar between the two groups (all Ps>0.05).

Conclusion The antidepressant effects and safety of iTBS and HF-rTMS appeared to be similar for patients with TRD, although additional RCTs with rigorous methodology are needed.

关键字：Intermittent theta burst stimulation; high-frequency rTMS; treatment-resistant depression; systematic review

青少年抑郁患者近红外光谱成像特征及基于虚拟现实的眼动脱敏与再加工干预研究

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目的 本研究利用近红外脑功能成像技术(fNIRS)分析抑郁症青少年脑功能特征与认知功能的关联。并探究基于虚拟现实的眼动脱敏与再加工疗法(EMDR)对抑郁发作青少年的疗效及机制。

方法 研究一纳入 61 名抑郁症及 29 名健康青少年，用计算机化 Das-Naglieri 认知评估系统及 fNIRS 检测两组青少年的认知功能及静息态下额颞叶功能连接及网络属性。比较两组被试认知功能及近红外光谱成像特征的差异，分析抑郁症青少年认知功能与近红外光谱成像特征的相关关系。研究二纳入 54 例青少年抑郁发作患者，分为干预组和等待组，用自主研发基于虚拟现实的 EMDR 治疗对干预组进行每周 2 次，每次 30 分钟，共 12 次的治疗，等待组不做任何与 EMDR 相关的治疗。对两组被试干预前后的认知功能及近红外光谱成像特征进行重复测量方差分析，探究 EMDR 对青少年抑郁发作患者的疗效及机制。

结果 (1)与健康青少年相比，抑郁症青少年在计划、同时性加工、注意、继时性加工以及总认知领域均存在损伤(p<0.05)。 (2)抑郁青少年的全局效率显著低于健康青少年(p=0.035)；且平均最短路径显著高于健康青少年组(p=0.027)。(3)抑郁青少年全局效率与总认知存在显著正相关，平均最短路径与继时性加工、总认知领域存在显著负相关(p<0.05)。 (4)干预后，两组患者的汉密尔顿抑郁量表(HAMD)、继时性加工和总认知领域的组别×时点交互作用有统计学意义(p<0.05)。简单效应分析显示，干预后两组被试 HAMD 分数均显著降低(p<0.01)，干预组的继时性加工和总认知领域分数干预后显著提升(p=0.001, 0.001)；干预后干预组的 HAMD 分数显著低于等待组(p<0.05)，继时性加工和总认知领域分数显著高于等待组(p =0.010, 0.005)。 (5)干预后两组患者全局效率与最短效率的组别×时点交互作用有统计学意义(p<0.05)。简单效应分析显示，干预后等待组的全局效率与干预前相比显著下降(p=0.016)；干预后 EMDR 干预组的平均最短路径显著低于等待组(p=0.003)。

结论 (1)与健康青少年相比，抑郁症青少年存在认知功能损伤，主要表现为计划、同时性加工、注意、继时性加工不同领域均存在损伤。(2)与健康青少年相比，抑郁症青少年存在脑功能异常，主要表现为全局效率更低且平均最短路径更长，提示抑郁症青

关键字：认知功能，眼动脱敏与再加工疗法，青少年抑郁症，近红外脑功能成像

VR 化认知训练改善抑郁患者工作记忆的近红外脑功能成像研究

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目的 应用近红外光谱脑功能成像技术，比较分析抑郁症患者(Major Depressive Disorder, MDD)与健康对照(Healthy control, HC)在工作记忆及额颞叶脑功能指标的差异，并探索基于虚拟现实(Virtual Reality, VR)技术的认知训练对抑郁发作患者工作记忆的疗效及机制。

方法 研究一，纳入 52 例成人 MDD 和 30 名 HC。采用 Stroop、2-back 及任务转换范式评估其工作记忆的抑制、刷新和转换功能，并用数字广度测试评估其工作记忆广度。结合近红外脑功能成像检测受试者静息态下的额颞叶脑功能，分析 MDD 患者工作记忆损伤和额颞叶脑功能异常之间的相关关系。研究二，纳入 57 例成人抑郁发作患者，分为 VR 训练组(29 例)和等待组(28 例)，选取 VR 系统中的工作记忆模块对训练组进行 20 次训练（3 次/周，30 分钟/次），等待组不参与工作记忆的相关处理。训练前后分别检测其工作记忆和静息态下额颞叶脑功能。

结果 （1）与 HC 相比，MDD 组的 Stroop 和任务转换反应时更长，任务转换正确率更低，数字广度顺背、倒背得分和总分更低(均 p<0.05)。 （2）MDD 组的局部效率和集群系数显著低于 HC(均 p<0.05)。局部效率与数字广度顺背分数呈显著正相关(r=0.329, p=0.017)。集群系数与数字广度顺背分数及总分呈显著正相关(r=0.315, p=0.023; r=0.281, p=0.044)。 （3）两组患者 Stroop 和 2-back 正确率、数字广度倒背得分及总分的组别×时点交互作用显著(均 p<0.05)。组别上，干预后训练组的 Stroop 正确率、数字广度倒背得分和总分显著高于等待组(均 p<0.05)。时点上，干预后训练组数字广度倒背得分和总分显著提高(均 p<0.01)，而等

待组 2-back 正确率显著下降(p=0.011)。（4）两组患者局部效率和集群系数的组别×时点交互作用显著(均 p<0.01)。干预后训练组的局部效率和集群系数显著提升(均 p<0.05)，且显著高于等待组(均 p<0.05)。

结论 （1）MDD 患者的工作记忆存在损伤，且可能与额颞叶网络的局部效率和集群系数异常相关。（2）VR 认知训练能提升抑郁发作患者的工作记忆，可能是通过改善额颞叶网络拓扑属性，提升局部信息传输效率，进而帮助患者恢复工作记忆。

关键字：抑郁症，工作记忆，近红外光谱脑功能成像技术，认知训练

成人透明隔腔异常导致癫痫的 CT 影像研究

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目的 观察成人透明隔腔的异常导致癫痫的 CT 影像研究。

方法 临床选择 2020 年 1 月-2020 年 6 月在本院接受诊治的透明隔异常引发的癫痫病人 30 例，进行颅脑 CT 检查，评估成人透明隔异常导致的癫痫 CT 影像特征分析。

结果 成人癫痫 30 例，发生透明隔腔异常 18 例，CT 影像学特征为两侧脑室后角、体部、前角之间腔隙呈长方形且增宽，呈现脑脊液样密度影，脑室和两侧壁相隔，边界锐利清晰。其中透明隔囊肿 10 例，CT 影像学特征为两侧脑室之间出现一囊状腰鼓形脑脊液样密度影，具有一定的张力，壁薄，向外膨胀，宽度超 10mm。12 例伴有 Vergae 腔，CT 特征为后穹窿间、胼胝体下缘、两侧脑室后角之间出现脑脊液样三角形密度影，尖端向前，二者相通。透明隔腔伴有颅内其他病变或先天性发育异常者 14 例，其中 2 例松果体钙化，2 例小脑蚓发育不全，2 例脑积水，3 例软化灶，1 例苍白球钙化，蛛网膜囊肿 3 例，小脑萎缩 1 例；癫痫组发生透明隔腔异常 18 例，健康对照组发生透明隔腔异常 2 例，两组比较，差异有统计学意义（X2=19.20，P<0.05）。成人癫痫 30 例，其中男性 22 例，发生透明隔腔异常 16 例，女性 8 例，发生透明隔腔异常 2 例，差异有统计学意义（X2=5.57，P<0.05）。成人癫痫年龄 25-40 岁 18 例，发生透明隔异常 15 例，年龄 41-69 岁 12 例，发生透明隔腔异常 3 例，差异有统计学意义（X2=10.21，P<0.05）；病程<10 年 17 例，发生透明隔腔异常 5 例，病程超过 10 年 13 例，发生透明隔腔异常 13 例，差异有统计学意义（X2=15.29，P<0.05）。

结论 癫痫的发生与透明隔异常有一定的相关性，透明隔异常说明精神障碍病变病人脑部存在一定的异常发育情况。

关键字：影像特征；脑 CT；癫痫；透明隔异常

抑郁症患者治疗后社会功能康复与功能磁共振的相关性研究

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目的 探索与社会功能障碍和功能康复相关的神经影像学机制，为抑郁症的治疗干预提供新的依据。

方法 共纳入 47 例抑郁症患者和 71 例健康受试者。基线时进行功能磁共振的扫描，另外分别在基线和药物治疗 3 个月后（急性期）应用汉密尔顿抑郁量表（HAMD）、抑郁症状快速自评量表（QIDS-SR16）、汉密尔顿焦虑量表（HAMA）、席汉残疾量表（SDS）和生活质量与满意度程度问卷（Q-LES-Q-SF）评估受试者的抑郁症状、焦虑症状、社会功能及生活质量。人口学资料及临床特征对比采用独立样本 t 检验或卡方检验。使用比率低频振幅（fALFF）指标测量脑功能与基线功能水平、急性期功能改善程度的相关性，在此基础上进一步使用功能连接（FC）指标反映脑网络改变与社会功能康复的相关性。

结果 抑郁症患者与健康对照的大脑 fALFF 存在广泛的显著性差异；在抑郁症患者组中，右侧楔前叶/中央前回/后扣带回（r=0.615，P＜0.001）及双侧舌回（r=0.597，P＜0.001）的 fALFF 与基线 SDS 总分显著正相关，且该区域的 fALFF 值与 SDS 工作/学业评分、SDS 社交生活评分、SDS 家庭生活/家庭责任评分正相关，与 Q-LES-Q 总分负相关，而与 HAMD、HAMA 或 QIDS-SR16 总分无相关性；进一步对 fALFF 与功能改善的相关分析结果表明，右侧前扣带回/副扣带回的 fALFF 与 3 月末 SDS 的减分量呈显著的正相关（r=0.538，P＜0. 001），而与 3 月末 HAMD 减分量、HAMA 减分量、QIDS-SR16 减分量均无显著的相关性；以右侧前扣带回/副扣带回作为种子点的全脑 FC 相关分析结果显示，右侧前扣带回/副扣带回与左侧丘脑之间的 FC 与 SDS 减分量显著正相关（r=0.605，P＜0.001）；控制变量后进行偏相关分析，结果表明该脑区的 FC 独立地与 SDS 减分量相关，而与 HAMD、HAMA 或 QIDS-SR16 减分量无关。

结论 右侧楔前叶/中央前回/后扣带回及双侧舌回的自发神经活动与抑郁症患者的功能水平、生活质量相关；右侧前扣带回/副扣带回的神经活动以及右侧前扣带回/副扣带回与左侧丘脑之间的连通性与急性期社会功能改善程度有关；默认模式网络（DMN）和巴贝兹环路的功能改变可能分别是功能障碍和功能改善的神经生物学机制。

关键字：抑郁症；药物治疗；随访；社会功能；生活质量；功能磁共振

抑郁症患者治疗后社会功能康复的影响因素及其与特定/残留症状的关系

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目的 探讨抑郁症患者药物治疗后社会功能的恢复情况以及特定/残留症状发生率，分析社会功能康复与残留症状的关系，并探索能预测急性期及远期功能康复的因素。

方法 共纳入 54 例抑郁症患者。分别在基线和药物治疗 1 月、2 月、3 月、6 月、9 月和 12 月后应用汉密尔顿抑郁量表（HAMD）、抑郁症状快速自评量表（QIDS-SR16）、汉密尔顿焦虑量表（HAMA）、席汉残疾量表（SDS）评估受试者的抑郁症状、焦虑症状、社会功能，根据 SDS 评分定义社会功能是否缓解，报告功能缓解率及残留症状发生率；以 3 月末及 12 月末社会功能是否恢复作为因变量，应用多元 Logistics 逐步回归分析功能恢复的影响因素。

结果 54 例抑郁症患者均完成了 3 个月的随访，其中 27 例完成了为期 12 月的随访，2 例在 12 月时复发；急性期治疗后（3 月末），70.4%（38/54）的患者达到症状缓解，46.3%（25/54）的患者达到功能缓解，42.6%的患者（23/54）的症状和功能均缓解；12 月末（远期），除去 2 例复发患者外，92%（23/25）的患者实现了症状缓解而只有 64%（16/25）的患者达到功能缓解，两者均缓解的患者占 60%（15/25）；特定症状/残留症状发生率排名前三位的是睡眠障碍、认知问题以及精力不足，发生率最低的残留症状是自杀意念；睡眠障碍在整个治疗过程的发生率都高于 80%，且在 1 年内没有明显的下降；社会功能恢复的患者各种残留症状的发生率均显著低于功能未恢复的患者（P＜0.05），睡眠障碍在两组患者中的发生率都很高；Logistics 回归结果表明，共病焦虑（B=-1.973，OR=0.139，P=0.031）和治疗后残留兴趣减退症状（B=-4.650，OR=0.010，P＜0.001）是 3 月末功能康复的危险因素；而工作状况—全职（B=5.095，OR=163.2，P=0.019）、基线 SDS 总分（B=-0.296，OR=0.744，P=0.035）以及急性期是否临床缓解（B=4.520，OR=91.86，P=0.058）是 12 月末功能恢复的预测因素。

结论 抑郁症患者功能障碍的改善滞后于症状的缓解；睡眠障碍是最常见的残留症状；早期积极完全地改善症状是减少疾病所致功能残疾、提升生活质量水平的重要环节，积极参与有建设性活动是保护远期功能的有效措施。

关键字：抑郁症；社会功能；残留症状；随访

正念训练对康复期精神分裂症患者注意功能的影响及机制探究

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目的 （1）观察应用正念训练干预前后，康复期精神分裂症患者正念水平和注意功能的变化。（2）监测正念训练前后康复期精神分裂症患者的视觉 P300 波幅变化，以视觉 P300 波幅指标为切入点，探究正念训练改善患者注意功能的内在生理机制。

方法 从河南省郑州市某精神疾病专科医院的封闭管理病区中招募 80 名符合入组标准的康复期精神分裂症患者，根据性别和年龄进行分层随机分组。实验组接受 4 周 8 次的正念训练和精神科常规护理，对照组仅接受常规护理。有效样本量共 67 名（对照组 33 人，实验组 34 人）。在正念干预前后分别评估两组患者的正念水平（正念五因素量表，FFMQ）、注意功能（持续操作测验-相同配对版，CPT-IP）及 P300 波幅（使用润杰 WJ-1A 型医用事件相关电位仪）。使用 SPSS 21.0 软件和 PROCESS 3.0 插件进行统计分析。

结果 （1）干预前两组组间比较：实验组和对照组患者在性别和年龄等一般资料上无显著差异（P>0.05）。正念干预前，实验组和对照组患者在五个正念子维度、正念水平总分和注意功能平均 d 值上均无显著差异（P>0.05）。（2）干预前后两组组内比较：正念干预后，实验组患者的四个正念子维度分及正念水平总分显著提升（P<0.05），注意功能平均 d 值显著增大（P<0.001）；对照组患者的正念水平总分及注意功能平均 d 值较干预前均无显著差异（P>0.05）。（3）干预后两组组间比较：正念干预后，实验组患者的五个正念子维度分及正念水平总分高于对照组（P<0.01），注意功能平均 d 值高于对照组（P<0.001）。（4）干预前后 P300 波幅变化比较：正念干预前，两组患者的 P300 波幅无显著差异（P>0.05）；正念干预后，实验组患者的 P300 波幅显著增大（P<0.001），对照组患者的 P300 波幅无显著变化（P>0.05）；干预后实验组患者的 P300 波幅显著大于对照组患者（P<0.01）。（5）P300 波幅的中介效应分析：相比于对照组，视觉 P300 波幅中介了正念训练对实验组患者注意功能的影响（95%CI[0.15，0.57]，中介占比 45.83%）。

结论 （1）正念训练可以改善康复期精神分裂症患者的正念水平和注意功能。（2）通过正念训练，患者的视觉 P300 波幅增大，中介了正念训练对注意功能的影响，提示 P300 波幅是正念训练改善注意功能的一个生理机制。

关键字：正念训练；精神分裂症；注意功能；P300；机制探究

心理行为干预对慢性精神分裂症的康复效果

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目的 探讨综合性心理行为干预对慢性精神分裂症的康复效果。

方法 对 64 例慢性精神分裂症患者根据其意愿被分为对照组和研究组。在精神药物剂量不变的情况下，对照组结合简单娱乐活动及支持性 心理治疗，研究组结合综合性心理行为干预，疗程 12 周。综合性心理行为干预，措施如下 ①文体娱乐活动训练 指导患者参加集体文娱活动，逐渐有计划地安排带有提高学习和竞技性质的参与性内容。②阳性强化行为疗法 针

对病人的操作性行为和社会活动，以“代币奖励”强化训练。病人的目标行为一旦出现，即给予适宜的奖励。③社会交往技能训练 教病人学会如何正确地表达乐意、肯定的感受或不乐意、否定的感受，如何正确地作出积极请求和寻求帮助等技能的训练，以及训练怎样选择时机和方式。治疗者作示范，患者之间相互练习对话。④认知替代疗法，第一步，帮助患者认识自己的病态表现，症状给自己带来什么不良后果。第二步，进一步解释患者的精神症状，并将症状表现概念化，第三步，反复将患者的临床问题和精神症状进行概念化，并用合理的概念化的思维 替代，建立新的认知模式。第四步，布置治疗性作业，让患者用新的思维和行为模式去应对日常生活，使新的良好的认知模式得到检验和强化。⑤家庭干预。

结果 疗程结束后，研究组有效率 64．5% ，而对照 组 21．2% ；研究组简明精神病评定量表(BPRS)、阴性症状量表(SANS)、社会功能评定量表(DAS)和生活质 量量表(QOL)评分优于对照组(P＜0．05 或 0．01)

结论 提示综合性心理行为干 预(包括文体娱乐活动训练、阳性强化行为疗法、社 会交往技能训练、认知替代疗法及家庭干预等) 能 有效改善对慢性精神分裂症的阴性症状及社会功 能，提高生活质量。

关键字：精神分裂症 阴性症状 心理行为干预

数字化认知功能训练改善稳定期精神分裂症患者认知功能效果的初步评价

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目的 探索数字化认知训练对精神分裂症患者认知功能及社会功能改善的临床效果，为精神分裂症患者康复治疗提供研究证据。

方法 采取前后对照研究设计，符合入组的稳定期精神分裂症患者入组。受试者入排标准：入组标准为①根据 DSM-5 标准诊断精神分裂症；②年龄 18-50 岁；③入组前 2 月无症状波动；④PANSS 评分：P1、P2、P3、N1、N4、N6、G5、G9 各≤3 分。排除标准为：①既往或当前存在可能影响认知功能的疾病；②目前服用认知促进剂；③近 6 月曾行 MECT 治疗或 rTMS 治疗。受试者将进行数字化认知功能训练，训练包括 13 个任务，居家进行但通过后台进行监督。训练频率为每周 5 次，每次 30 分钟，共 8 周。对干预前后受试者的认知功能和社会功能的变化值进行统计分析，分析指标包括：(1)总体认知功能及认知分领域得分变化。(2)社会功能得分变化。总体认知功能采用中国简版神经认知成套测验（C-BCT）评估，社会功能采用社会和职业功能评估量表（SOFAS）评估。统计采用配对 t 检验对训练前后的认知及社会功能标化 T 分差值进行比较，采用独立样本 t 检验对一般人口学资料和基线认知水平进行分析，统计学显著性 P<0.05 认为统计学显著。

结果 从 2021 年 12 月到 2023 年 2 月，47 名受试者完成训练及干预前后的神经心理测评。首先，干预前后的患者的认知功能变化：总分（采用 C-BCT 评估，标准化 T 分差值=3.147，P=0.03）、信息处理速度（采用连线测试评估，标化 T 分差值 ＝2.505，P＝0.017）、工作记忆（采用数字广度评估，标化 T 分＝3.081，P＝0.004）改变达到显著性水平；其次，干预前后患者的 SOFAS 的改变达统计学显著（标化 T 分=1.534，P＝0.0136）。另外，训练后认知得分改善组与非改善组的患者在性别、年龄、婚姻、工作状态等一般人口学资料以及基线认知水平上差异未达统计学显著（标化 T 分=0.087，P=0.437）。且得分增长与训练依从性无显著相关（r=0.0148）。

结论 8 周的数字化认知功能训练能够在一定程度上改善稳定期精神分裂症患者的认知功能，但尚不能引起社会功能的显著变化。数字化认知训练对稳定期精神分裂症是一种潜在的非药物干预方式，未来值得更加严谨的实验设计进一步验证。

关键字：数字化认知训练、精神分裂症、认知功能、社会功能、精神康复

团体绘画对伴有自杀意念的女性抑郁症患者正负性情绪的研究

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目的 探讨团体绘画对伴有自杀意念的女性抑郁症患者正负性情绪的影响。

方法 选择 2022 年 06 月 01 日至 2022 年 10 月 31 日南京医科大学附属脑科医院精神科女病房收治的诊断符合抑郁症诊断标准且符合纳排标准（纳入标准：①符合 ICD－10 关于抑郁症诊断标准，HAMD≤35 分并伴有自杀意念的轻中度抑郁症患者；②年龄 18-60 岁；③患者自愿参加并签署知情同意书；排除标准：①伴精神发育迟滞、脑器质性疾病者或药物不良反应者；②存在听觉、视觉等感知障碍者；③电休克患者；④正参加其他研究者。脱落退出标准：有 2 次或连续 2 次未参加绘画课程即视为脱落）的患者 60 例，以病区分组，精神科一病区对照组 30 例和精神科二病区干预组 30 例。对照组给予常规抗抑郁治疗护理，包含疾病和药物相关知识宣教和心理护理等。干预组在对照组的基础上采用团体绘画干预。比较两组干预前后自杀意念自评量表及正负性情绪量表评分情况。

结果 干预后两组自杀意念自评分值均较干预前明显降低，且干预组明显低于对照组，差异均有统计学意义 (P＜ 0.05)。干预后两组正性情绪得分明显升高，负性情绪得分明显降低，且干预组较对照组，差异均有统计学意义 (P＜ 0.05)。

结论 采用团体绘画干预可有效改善伴有自杀意念的女性抑郁症患者负性情绪，提高正性情绪，降低其自杀意念程度。

关键字：抑郁症；团体绘画；正负性情绪；自杀意念

作业治疗对慢性精神分裂症患者康复效果的临床应用价值研究

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目的 比较常规心理干预和作业治疗对慢性精神分裂症患者康复效果的差异，并分析作业治疗的疗效。

方法 选取 2020 年 1 月至 2022 年 12 月期间收治的 60 例住院慢性精神分裂症男性患者，按照简单随机数字表法，按照 1:1 分组原则分为对照组和研究组，每组 30 例。两组患者均接受常规抗精神病药物治疗 8 周，对照组接受常规心理干预，研究组接受作业治疗。使用阳性与阴性症状量表（PANSS）评估患者的临床精神症状，记录总分、阳性量表分、阴性量表分和一般精神病理分；使用 MATRICS Consensus Cognitive Battery（MCCB）评估患者的认知功能，该测验包括 7 个维度 10 个分测验，记录总分及言语流畅性评分（CF）、连线测验评分（TMT）、符号编码评分（SC）、数字序列评分（DS）、空间广度评分（SS）、言语记忆评分（HVLT-R）、视觉记忆评分（BVMT-R）、迷宫测验评分（NAB-Mazes）、持续操作能力测验评分（CPT-IP）、情绪管理能力评分（MSCEIT-ME）；使用住院精神分裂症生活质量量表（SQLS）评估患者的生活质量。记录治疗前、治疗 8 周后各指标变化。

结果 治疗前，研究组和对照组各指标比较差异无统计学意义（P>0.05）。治疗 8 周后，两组 PANSS 总分及各分量表得分、SQLS 评分均低于治疗前，MCCB 总分及各分测验得分均高于治疗前，差异有统计学意义（P<0.05）。研究组治疗 8 周后的 PANSS 总分、阳性症状分、阴性症状分和一般精神病理分等低于对照组，差异有统计学意义（P<0.05）；MCCB 总分及言语流畅性（CF）、连线测验（TMT）、符号编码（SC）、数字序列（DS）、空间广度（SS）、言语记忆（HVLT-R）、情绪管理能力（MSCEIT-ME）等 7 个分测验评分高于对照组，差异有统计学意义（P<0.05），在处理速度、工作记忆、学习记忆、认知功能和社会认知等 5 个维度上的改善较对照组显著；研究组 SQLS 评分低于对照组，差异有统计学意义（P<0.05）。

结论 作业治疗在改善慢性精神分裂症男性患者临床症状、提升认知功能和提高生活质量方面有良好的效果。

关键字：作业治疗，慢性精神分裂症，PANSS，MCCB，SQOL

Clinical Characteristics of Neuropsychiatric Systemic Lupus Erythematosus Patients with Demyelination: A Large Cohort Chinese Study

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Objective Systemic lupus erythematosus (SLE) is an autoimmune disorder and frequently involves multiple organs. The neuropsychiatric system is one of the most severely affected sites. A considerate proportion of patients with neuropsychiatric systemic lupus erythematosus（NPSLE）suffer from demyelination. In this study, we aimed to compare the demographic and clinical characteristics between neuropsychiatric systemic lupus erythematosus with demyelination (NPSLE-D+) and extra-demyelination neuropsychiatric systemic lupus erythematosus (NPSLE-D-) in a large cohort.

Methods A total of 84 cases of NPSLE (42 NPSLE-D+ patients and 42 NPSLE-D- patients) diagnosed at Peking University People's Hospital during 2015 to 2022 were included in our study. Patient demographic data, clinical characteristics and laboratory parameters were analysed.

Results There is no significant difference in neuropsychiatric symptoms between NPSLE-D+ and NPSLE-D- group. Comparatively, NPSLE-D+ patients had an younger age at disease onset and diagnosis, and consciousness disorders were more common in NPSLE-D+. Besides, the level of Urine protein, dsDNA, ANA, ANuA and ACA were higher in NPSLE-D+ patients. In NPSLE-D+ group, low WBC and low C3 were more common than those in the NPSLE-D- group. Also, age at NPSLE-diagnosis, time from disease onset to NPSLE-diagnosis, high dsDNA, low WBC, high titer of ANA, high ANuA and high ACA were independent risk factors for the development of NPSLE-D+ patients.

Conclusion Our study revealed demographic, clinical and laboratory differences between the two phenotypes, which will be helpful for understanding of the disease.

关键字：neuropsychiatric SLE, demyelination

Causal Associations of Tea Intake with COVID-19 Infection and Severity

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Objective COVID-19 has caused millions of deaths and is an ongoing threat to global public health. In ancient China, local outbreaks of infectious disease were common; hence, herbal or other natural medicines were developed to deal with illnesses. One of these herbal medicines was tea. Now, drinking tea has become a habit worldwide, and its health benefits have been acknowledged. Through its anti-inflammatory, immunoregulatory, and antioxidant proper-

ties, tea protects against type 2 diabetes, obesity, cardiovascular conditions, cancer, and immune-related diseases .Tea ingredients can effectively inhibit SARS-CoV-2 infection at adequate concentrations. It is not known whether tea intake could impact the susceptibility to COVID-19 or its severity. We aimed to evaluate the causal effects of tea intake on COVID-19 outcomes.

Methods We performed genetic correlation and Mendelian randomization (MR) analyses to assess the causal associations between tea intake (N = 441,279) and three COVID-19 outcomes (SARS-CoV-2 infection, hospitalized COVID-19, and critical COVID-19, N = 1,086,211-2,597,856).

Results The MR analyses indicated that genetic liability to tea intake confers a causal effect on decreasing SARS-CoV-2 infection (OR: 0.87, 95% confidence interval (CI): 0.78-0.97, P = 0.015). However, genetic liability to tea intake did not have a causal effect on hospitalized COVID-19 (0.84, 0.64-1.10, P = 0.201) or critical COVID-19 (0.73, 0.51-1.03, P = 0.074). MR sensitivity analysis showed no evidence of directional pleiotropy or heterogeneity, indicating the robustness of the main results.

Conclusion Our study reveals a causal link between tea intake and a decreased risk for SARS-CoV-2 infection, highlighting the potential effect of tea drinking in the control and prevention of COVID-19 transmission and infection.

关键字：Tea intake; COVID-19; Mendelian randomization

青少年情感障碍社会化康复：一种基于长程陪伴的多元干预方案

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目的 为了满足青少年情感障碍群体的特殊康复需求、弥补现有社会化康复资源的不足，我们报道一种基于长程陪伴的人本疗愈方式——为处于休学期的情感障碍青少年个性化定制专业的干预方案，淡化精神疾病标签，在安全舒适的环境中获得陪伴和成长，最终完成社会化康复。

方法 杭州绿汀小屋共居计划自 2021 年 10 月启动，旨在为 14-20 岁因情感障碍休学的青少年提供至少一个月的长程社会化康复服务。参与共居计划的孩子集体生活在一个四层小楼，每期共有 6-8 个人一同参与，同时配备 3-5 个康复陪伴者，和孩子建立一对二的陪伴关系，组织一系列团体活动。本项目为每个孩子定制匹配五个维度的服务，包括身体健康、情绪功能、家庭关系、社交功能、自我价值。项目采用多元心理干预方法。在核心的陪伴服务上，依托于依恋理论，与孩子建立安全、信任的依恋关系。在此基础上，我们参考认知行为疗法、接纳承诺疗法、优势取向理论、人本主义心理治疗、复元理论等，在和孩子的日常交互和团体活动中，给孩子提供专业的心理干预。同时，我们借鉴环境疗愈的理念，为孩子提供安全、接纳、多元、去病化的家庭式环境，也提供了朋辈支持的社交环境。最后，项目为孩子的家庭提供一系列的延伸服务，包括家庭系统咨询、家庭互助团体和亲子陪伴课堂。

结果 共居计划启动一年多以来，已顺利开办为期 16 个月的活动，深度服务 60 余个情感障碍青少年及其家庭。据小屋档案记录统计和陪伴者反馈，在小屋的所有参与者中，约 67%的孩子在情绪功能和社交功能的改善上有显著变化，约 30%在身体健康、家庭关系、自我价值维度有显著变化；在小屋居住满 5 个月及以上的参与者中，几乎在所有维度上都有显著变化。

结论 相较于医院对生物医学的强调、传统心理咨询难以和青少年建立治疗同盟关系，小屋共居计划对现有社会化资源进行了重要补充，为处于休学期的情感障碍青少年提供了陪伴式疗愈的成长之路。实践证明，这种模式能适应于该群体及其家庭的特殊需求，对帮助孩子恢复能量、回归社会具有积极的作用。但该项目开设时间较短、样本人数有限，对于不同类型的情感障碍青少年的影响尚未充分评估，仍有待进一步探索和实践。

关键字：青少年情感障碍，社会化康复，长程陪伴，多元干预

精神分裂症康复期患者自我污名成因的解释现象学研究

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目的 精神疾病患者的社会融入困难一直是精神科医生以及临床心理治疗师需要解决的问题，患者在康复期会出现对出院的焦虑以及对于重新融入社会的恐惧与退缩。既往研究倾向于对患者的公众污名进行分析与解释并给予一定的指导，但忽视了患者的自我污名对社会融入的影响。本研究意在为医疗机构对精神疾病患者的康复阶段提供一定的心理支持建议，为患者提供更有针对性的心理咨询与治疗方案。提升患者对疾病的接纳能力，增加患者在康复过程中的自我效能，改善患者社会认知与自我认知。

方法 本研究通过两名临床精神科主任医师以及内科主任医师会诊筛选，最终选取 26 名精神分裂症患者为样本。通过对既往文献梳理拟定访谈提纲，采用半结构式访谈法对患者进行人均不少于 50 分钟的访谈。经过对谈话内容的整理以及信效度校验，采用解释现象学分析法，对患者有关自我污名的成因进行分析。

结果 所选取样本中有23名患者均有一定程度自我污名现象存在。其中，自我污名成因围绕以下四点原因生成：1.发病时对家庭、社会带来消极影响的羞耻感。2.社会支持资源减少带来的自我否定。3.社会舆论直接或间接的污名化暗示。4.对病情复发的焦虑。本研究还发现，自我污名化会影响患者在院期间的康复以及出院后的用药情况，进而导致其复发率增加。并且部分自我污名患者会对住院治疗产生依赖以回避融入社会所

带来的心理压力。

结论 精神分裂症康复期患者的自我污名现象存在较为普遍，并且起因较多。但是，社会层面的排斥是精神分裂症康复期患者在准备融入社会时最大的障碍；解释现象学分析的质性研究方法不仅能够发现患者的焦虑状态，同时也能够分析其焦虑的来源；质性研究能够更加直观与真实的获取患者的状态以及意识内容，降低既往利用客观问卷、量表对患者测查时所产生的结果掩饰性与伪装性。

关键字：精神分裂，解释现象学分析，精神疾病康复，自我污名，社会融入

趋势季节模型对精神专科医院住院人数预测的有效性分析—以某精神专科医院为例

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目的 应用趋势季节模型，对某精神专科医院的住院人数进行短期预测，为决策管理提供参考依据。

方法 使用SQL语言提取某精神专科医院2016～2022年住院人数，分析2016～2021年数据的季节和线性变化趋势，建立趋势季节模型预测住院人数，2022年数据用于验证模型的预测效果。

结果 该精神专科医院住院人数是同时存在直线趋势和季节波动的时间序列，2016～2021年住院人数整体呈下降趋势，1、2季度为住院的高峰期，3、4季度为住院的低谷期。针对2020年“新冠”疫情导致的数据异常点，分两次对2022年住院人数进行预测：第一次采用2016～2021年原始数据进行预测，2022年全年住院人数的预测值为2123人次、相对误差13.30%，各季度的相对误差分别为14.77%、14.28%、13.73%、9.84%；第二次采用2016～2021年修匀后的时间序列重新进行预测，全年住院人数的预测值为2293人次、相对误差6.38%，各季度的相对误差分别为5.54%、5.77%、8.97%、5.48%。

结论 对同时存在季节和线性变化趋势的住院人数数据，使用趋势季节模型能够对其进行有效预测，对异常数据进行修匀后，可进一步提升预测效果。

关键字：精神专科；住院人数；趋势季节模型；预测

精神分裂症患者康复影响因素的质性研究

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目的 探索精神分裂症患者及照顾者中影响精神康复的相关因素，了解康复过程规律，构建符合本土文化背景的康复规律理论模型。

方法 本研究采用立意抽样的方法，对符合入组标准的精神分裂症及相关障碍患者及其照顾者进行访谈。采用半结构化访谈，根据访谈大纲，以开放和半开放问题了解被访谈者的主观体验和感受。按照资料信息达到饱和的要求，每次访谈时间约60-90分钟。访谈内容进行录音及现场笔记，尽可能详细和准确地记录访谈内容和情境。访谈结束后立即将录音和笔记整理为电子稿，以便进一步分析和整理。数据分析采用质性研究中扎根理论的方法，对访谈资料进行开放编码、主轴编码、选择编码，归纳提取出影响精神分裂症患者康复的影响因素。运用三角测量法检验编码的一致性。

结果 在访谈的30名患者及20位照顾者中，经过对访谈资料进行开放编码、主轴编码、选择编码，发现影响精神分裂症患者康复的积极因素有患者自我效能高和良好的支持系统，阻碍因素有患者自我效能低、负性环境压力和症状及副作用的干扰。从照顾者角度，影响精神分裂症患者康复的积极因素有患者自我效能高和良好的支持系统，阻碍因素有患者自我效能低、负性环境压力和症状及副作用的干扰。

结论 精神分裂症患者的精神康复不仅仅是追求症状的改善，还需要从疾病、环境和个体发展角度，总结康复规律，制定康复策略，并争取来自家庭、社区、社会等多方面的支持。

关键字：精神分裂症；精神康复；质性研究；

非自杀性自伤青少年主要照顾者培训需求的调查研究

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目的 了解非自杀性自伤青少年主要照顾者的培训需求，分析其影响因素，为后期制定针对性的干预措施提供一定的实践指导。

方法 采用横断面调查方法对广州市某三甲医院精神科2022年10月至2023年4月就诊的120例非自杀性自伤的主要照顾者进行培训需求问卷调查。

结果 95（79.17%）例主要照顾者有培训需求，培训需求主要有如何打开孩子的心扉、孩子发生自伤行为时能做什么、如何帮助孩子应对压力等；每周一次每次一小时的频率，通过微信推文和专家讲座的培训方式需求大。影响非自杀性自伤患者主要照顾者培训需求主要与年龄因素有关($P<0.05$)，年龄越大的主要照顾者对培训需求越小。

结论 照顾者对NSSI的相关专业培训存在较高需求，相关部门应以照顾者需求为导向提供更精准的培训。建议医疗卫生机构多与学校联合进行专业的心理健康教育，提高照顾者预防、识别子女心理行为问题的能力，并在针对伴有NSSI患者的家庭中，进行更有针对性的心理护理服务。医疗卫生机构应主动联合学校进行专业的心理健康教育，提高照顾者预防、识别子女心理行为问题的能力，并在针对伴有NSSI患者的家庭中，进行低耻辱和高保密性干预形式的心理护理服

务。

关键字：非自杀性自伤 照顾者 培训需求

基于微信平台+小程序的健康教育干预在精神分裂症患者管理中的初步研究

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目的 探讨微信平台+小程序对精神分裂症患者的线上管理效果。

方法 本研究包含两部分：1.小程序的构建：通过查阅国内外相关文献，收集整理精神分裂症患者管理的相关文献资料，为小程序的研发提供理论依据。参考市面上已有的医疗健康管理类小程序以及结合临床医生及患者的建议，确定小程序的功能模块。2.选取在汕头大学精神卫生中心门诊就诊并且诊断为精神分裂症的患者极其家属为研究对象，按照就诊日期的奇偶数划分为实验组（n=30）和对照组（n=30）。对照组患者给予常规的健康教育及电话随访，观察组在常规健康教育干预的基础上，采用微信+小程序进行健康管理，干预过程中，参与者可凭借微信小程序学习科普知识、在线咨询，医生通过手机应用程序给予患者建议。分别在干预前（入组时）、干预后 3 个月、6 个月时，对两组患者的服药态度（DAI）、服药依从性(MMAS-8)、病耻感（ISMI）、精神症状（PANSS）、自我管理能力（SSMIS）、生活质量(WHOQOL-BREF)、精神分裂症疾病知识水平（KASI）进行评价，同时在入组时及干预结束（6 个月）之后分别评估家属的病耻感（ASS）、照顾负担以及精神分裂症疾病知识水平。以 t 检验或卡方检验进行统计分析。

结果 1.微信小程序的设计：小程序分为医生端和患者端，医生端包括“个人中心”、“我的患者列表”、“患者随访记录”、“发布订阅内容”、“新建测评量表”、“用药提醒”、“复诊提醒”、“消息管理”；患者端包括“我的档案”、“用药签到”、“待办事项”、“发起咨询”。试验结束后进行患者及家属的小程序使用满意度调查。2.干预前两组患者的服药态度（DAI）、服药依从性(MMAS-8)、病耻感（ISMI）、精神症状（PANSS）、自我管理能力（SSMIS）、生活质量(WHOQOL-BREF)、精神分裂症疾病知识水平（KASI）的评分差异无统计学意义(P＞0.05) ，干预 3 个月、6 个月时观察组的 DAI、MMAS-8、SSMIS、WHOQOL-BREF、KASI 的评分均高于对照组，ISMI、PANSS 的评分均低于对照组；差异有统计学意义(P＜0.05)。家属的照顾压力及病耻感得分均低于入组时。

结论 基于微信平台和小程序对患者进行线上管理可以提高患者的服药依从性、生活质量，改善患者的精神症状，减少由于其病情引起的耻辱感、预防复发，并改善社会功能，值得社区推广。

关键字：精神分裂症，微信小程序，线上管理，健康教育

临床神经科学中的因果推断技术

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目的 推进精神病学数据分析从相关性到因果性的演进，提高研究的可解释性。

方法 1. 通过 PubMed 文献检索，了解临床研究、神经科学研究、神经病学研究与精神病学研究中因果推断技术应用的发展趋势；2. 以精神病学研究为例介绍因果推断的基本概念与方法；3. 综述临床神经科学中因果推断技术应用的现状，并给出精神病学研究中使用因果推断方法的建议。

结果 1. PubMed 检索显示，过去 30 年，因果推断技术在临床研究、神经科学研究、神经病学研究与精神病学研究中的应用呈指数型增长，因此使用因果推断技术提高精神病学相关研究的可解释性是发展趋势。2. 本研究基于 Robins 提出的潜在结果框架（Potential Outcome Framework）介绍了因果推断的基本概念和假设，区分了其在随机对照实验（RCT）与观测资料（Observational data）中的不同解读，并且使用正念干预精神分裂症的研究作为示例介绍如何在精神病学研究中使用因果推断技术以及如何解读分析结果。3. 通过综述临床神经科学中因果推断技术的应用现状，我们发现在临床神经科学研究中，具有坚实统计理论支撑的因果推断研究依然较少，大部分研究甚至无法正确将研究问题用因果推断的理论进行建模。

结论 基于对因果相关研究应用趋势的分析、因果推断基本概念的介绍以及因果推断在临床神经科学中的应用现状，本研究为未来临床精神病学研究中使用因果推断技术提出以下 4 点建议：具体包含（i）完整的因果问题的构建细节和因果模型的推理依据（可以用有向无环图 DAG 表示），包括：研究类型（是 RCT 还是观察性研究），明确定义的感兴趣因果效应（ATE 或 ATT），包括对治疗/干预/暴露/操作的清晰描述，混杂因素选择及其合理性，已知未观察到的混杂因素及其相关假设，以及观察到的结果（连续或二元等）；（ii）所有必要的假设以满足因果解读的条件，尤其是基于观测资料的研究，例如 Unconfoundedness、positivity 和 consistency 对于这项研究是否合理；（iii）因果估计过程的完整细节，包括统计方法和因果效应的效应大小，例如 ATE 或 ATT 或因果比值比的估计；（iv）对于（ii）中假设不成立的情况和不同模型估计算法的敏感性分析结果。只有明确这些必要的信息，读者才能复现和解读因果分析的结果，并更好地理解因果推断效力。

关键字：临床神经科学，因果推断，精神分裂症

感觉运动训练在提高慢性精神分裂症患者自我效能中的应用效果

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目的 探讨感觉运动训练对慢性精神分裂症患者认知水平、自我效能和日常生活能力的干预效果。

方法 选择 2022 年 4 月—10 月在苏州市某精神专科医院住院的患者作为研究对象，将 40 例患者以床号尾号分组，双号为试验组（20 例），单号为对照组（20 例），两组住院期间均予以工娱疗活动和健康教育，试验组在对照组基础上进行感觉运动训练，共 4 个训练模块，训练 10 周、共 30 次。 采用中文版简易智能状态检查表评定患者认知水平，采用自我效能量表评定患者自我效能水平，采用护士用住院患者观察量表评定患者病情和行为障碍，采用改良 Barthel 指数评定患者日常生活活动能力。

结果 干预后 10 周，试验组中文版简易智能状态检查表总分高于对照组，其中定向力、记忆力、注意力和计算力评分明显高于干预前，自我效能水平高于对照组，护士用住院患者观察量表因子分社会能力、社会兴趣、个人整洁高于对照组，而护士用住院患者观察量表因子分激惹、精神病性表现、退缩和抑郁低于对照组，改良 Barthel 指数评分进餐、穿衣、如厕除大便评分均高于对照组，其他评分无明显改变，其余，两组比较差异均具有统计学意义（P＜0.05）。

结论 感觉运动训练能提高慢性精神分裂症患者认知水平、自我效能和自我照护能力。

关键字：感觉运动训练；康复护理；慢性精神分裂症；自我效能

基于虚拟现实的平衡心理疗法辅助治疗强迫症疗效的研究

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目的 强迫症是一种以强迫思维和强迫动作的反复出现为主要特征，病因复杂、非常普遍的致残性心理疾病。强迫症会影响人的身心健康，破坏学习、工作等社会功能，造成人际关系问题。近年来针对强迫症的治疗，不同的方法都证明了治疗的有效性，但也存在不足和缺陷。因此，需要进一步改进和发掘新的治疗方法，以此来提高患者的治疗参与度及治疗效果。平衡心理治疗已被证明在惊恐障碍、广泛性焦虑障碍、抑郁等心理疾病治疗上存在有效性。近几年来虚拟现实技术在医疗领域广泛运用，本研究比较基于虚拟现实的平衡心理疗法与单纯平衡心理疗法治疗强迫症患者的强迫症状、焦虑、抑郁、社会支持和人际关系的疗效。

方法 本研究主要通过东南大学附属中大医院心身医学科官方公众号平台发布招募信息，根据门诊及住院部精神科医师筛选推荐，招募符合标准的强迫症患者。将符合入组标准的患者随机分为基于虚拟现实的平衡心理治疗组和平衡心理治疗组。试验组进行为期 8 周每周 1 次的基于虚拟现实的平衡心理疗法，对照组进行为期 8 周每周 1 次单纯的平衡心理疗法。本研究采用耶鲁-布朗强迫量表(Y-BOCS)、广泛性焦虑障碍量表(GAD-7) 、病人健康问卷抑郁自评量表(PHQ-9)、领悟社会支持量表(PSSS)、人际关系综合诊断量表（IRAS），来评估基于虚拟现实的平衡心理治疗的疗效。

结果 VR-BPT 组流失 1 人，BPT 组流失 2 人，最终每组各 15 人，两组患者都分别完成 8 次心理治疗。治疗前，两组患者在一般人口学资料和强迫症严重程度、焦虑、抑郁、社会支持、人际关系水平上均无统计学差异（P>0.05）。经过 8 周治疗后，VR-BPT 组和 BPT 组都能改善强迫症状、焦虑、抑郁，提高社会支持、人际关系水平（P<0.05）。经过 8 周治疗后，VR-BPT 组与 BPT 组强迫行为、GAD-7、PHQ-9 得分存在差异，具有统计学意义（P<0.05），强迫思维、PSSS、IRAS 的得分差异不具有统计学意义（P>0.05），但是在第 4 周治疗后，VR-BPT 组与 BPT 组 Y-BOCS 总分和强迫行为得分存在差异，具有统计学意义（P<0.05）。

结论 基于虚拟现实的平衡心理疗法和单纯平衡心理疗法都可以改善强迫症患者的强迫症状，焦虑、抑郁情绪，提高社会支持和人际关系水平，基于虚拟现实的平衡心理疗法对于强迫行为、抑郁、焦虑情绪的疗效优于单纯平衡心理疗法，其中对强迫症状的治疗起效更早。

关键字：虚拟现实技术、平衡心理疗法、强迫症

个案报道：以绘画治疗理念促进双相情感障碍患者的全病程管理

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目的 应用绘画艺术治疗理念干预和理解双相情感障碍患者，促进双相情感障碍患者的全病程管理，探讨绘画艺术治疗对患者心理机能等的促进作用。

方法 双相情感障碍治疗难度大，心理治疗等非药物治疗增加了双相情感障碍患者的有效治疗方式，其中心理治疗在双相情感障碍的治疗中占有越来越重要的地位。绘画治疗作为一种心理治疗的独特方式，从某种角度是比语言更能反映患者问题和内心世界的一种心理治疗技术。心理投射理论、斯佩里左右脑分工理论及弗洛伊德升华作用是绘画治疗主要的理论基础。本文通过对一例双相情感障碍患者 4 年的追踪，分别对患者在疾病急性治疗期、巩固治疗期、维持治疗期、功能康复期进行每次 60-90 分钟的绘画艺术干预活动，并阶段性进行汉密尔顿抑郁量表、杨氏躁狂量表、Morning side 康复状态量表、干预前后社会功能缺陷量表等量表的评估。

结果 本文对该例患者经过 4 年的追踪，结合精神科量表的评估，从艺术治疗角度分析患者疾病表现，展示如何通过艺术表达的方式更深入了解患者、促进患者临床康复、帮助患者进行疾病的全病程管理。并且可以促进患者的治疗依从性，增加医患关系，增加治疗黏着性。通过绘画治疗的推广有望给与双相情感障碍患者进行早期预防，全程、综合、预防复发、个体化治

疗理念开辟新的视角。

结论 绘画治疗是可以有效帮助双相情感障碍患者进行全病程管理。

关键字：艺术治疗，绘画治疗，双相情感障碍，非自杀性自伤，青少年

民族心理与精神医学学组

不同亚型的焦虑障碍患者生存质量比较

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目的 焦虑障碍常慢性化、病情易波动，对患者的生活造成明显的负面影响。焦虑障碍分为不同亚型，本研究目的是探究不同亚型焦虑障碍患者的生存质量有无差异。

方法 在精神专科门诊收集符合ICD-11中焦虑障碍（包含广泛性焦虑障碍、惊恐障碍、社交焦虑障碍、场所恐惧症、特定恐惧症、分离性障碍、选择性缄默症等）诊断标准的患者，要求首发、未用药，对符合入组标准的患者在用药前进行基线评估，包含人口统计学资料收集及评估、汉密尔顿焦虑量表（HAMA）评估及生存质量心理评估。生存质量心理评估量表分为健康满意评价、生活满意评价、心理感受质量、能力感受质量四个因子。

结果 （1）我们在门诊共收集到471例焦虑障碍患者，62.42%为广泛性焦虑障碍、23.35%为惊恐障碍、10.40%为社交焦虑障碍、2.55%为场所恐惧症、1.27%为特定恐惧症；（2）不同亚型的焦虑障碍患者基线总体生存质量未见明显差异（F=0.708,P=0.587）；不同亚型的焦虑障碍患者在心理感受质量（F=0.233,P=0.920）、能力感受质量（F=0.757,P=0.553）这两个因子方面未见明显差异；不同亚型的焦虑障碍患者在健康满意评价（F=2.935，P=0.020）、生活满意评价（F=3.064，P=0.016）这两个因子方面存在明显差异；（3）对于健康质量评价，评价得分从高到低依次为社交恐惧、场所恐惧、广泛性焦虑、特定恐惧、惊恐障碍。对于生活满意质量评价，评价得分从高到底依次为场所恐惧、惊恐障碍、广泛性焦虑、社交恐惧、特定恐惧。

结论 不同亚型的焦虑障碍患者总体生存质量虽然无明显差异，但在健康满意评价、生活满意评价这两个因子方面存在明显差异。

关键字：焦虑障碍，不同亚型，生存质量

焦虑障碍患者焦虑水平、述情困难与生存质量之间的关系

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目的 焦虑障碍是我国最常见的精神障碍，不同的焦虑水平、不同程度的述情困难是否会对焦虑障碍患者带来不同程度的影响呢？

方法 在精神专科门诊收集符合ICD-11中焦虑障碍（包含广泛性焦虑障碍、惊恐障碍、社交焦虑障碍、场所恐惧症、特定恐惧症、分离性障碍、选择性缄默症等）诊断标准的患者，要求首发、未用药，对符合入组

标准的患者在用药前进行基线评估，包含人口统计学资料收集及评估、汉密尔顿焦虑量表（HAMA）评估、多伦多述情障碍量表（TAS-20）评估及生存质量心理评估。其中生存质量心理评估量表分为健康满意评价、生活满意评价、心理感受质量、能力感受质量四个因子。

结果 （1）我们在门诊共收集到 471 例焦虑障碍患者，62.42%为广泛性焦虑障碍、23.35%为惊恐障碍、10.40%为社交焦虑障碍、2.55%为场所恐惧症、1.27%为特定恐惧症；（2）不同亚型的焦虑障碍患者基线焦虑水平（F=0.279，P=0.892）、述情困难（F=0.523，P=0.719）及总体生存质量（F=0.499，P=0.737）未见明显差异；（3）焦虑障碍患者的焦虑水平和述情困难与生存质量的各个因子/方面均有显著负相关关系（P<0.01）。焦虑水平对生存质量的效应部分通过述情困难程度介导，同时述情困难对生存质量的效应部分由焦虑水平介导。

结论 焦虑障碍患者焦虑水平和述情困难均会对生活质量带来负面影响，且焦虑障碍患者焦虑水平和述情困难之间有进一步的作用机制。这预示着焦虑障碍患者焦虑水平和述情困难之间存在着更为复杂的关系，它们相互影响并进一步影响到患者的生存质量。

关键字：焦虑障碍，焦虑水平，述情困难，生存质量

A Predictive Model for Experience of Side Effects in Psychotherapy

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Objective Psychotherapy has side effects that are inconsistent with treatment goals, but there is a lack of recognized evaluation tools for side effects in psychotherapy. Meanwhile, therapists lack sufficient understanding and evaluation of the harmfulness of psychotherapy. Therefore, the purpose of this study is to establish a predictive model that can predict the Experience of side effects in psychotherapy based on a self-designed scale.

Methods We designed the Psychotherapy Side Effects Scale (PSES) and released it online through an official WeChat account, where 420 visitors participated in the cross-sectional analysis. Machine learning methods are used to calculate the predictive model for side effects in psychotherapy. Seven machine learning-based algorithms were selected and trained by our dataset to build classification models. We leveraged the Shapley Additive exPlanations (SHAP) method to quantify the importance of each feature to the visitor categories.

Results Our study demonstrated the following: (1) Seven machine learning models were used to calculate the predictive ability of PSES one by one, and the results showed that the ROC values were all greater than 0.7. Among them, the prediction model based on Catboost had the best performance with an ROC value of 0.944. (2) In the the prediction model for 25 items, the SHAP values of "13. Makes me angry", "3. Makes me dependent on psychotherapy", and "1. Makes my mood low" ranked in the top three.(3)When other variables were integrated into the prediction model, the ROC decreased to 0.929, indicating a decrease in the effectiveness of the prediction model. This suggests that PSES has better evaluation ability and is less affected by other factors. (4) In the prediction model of psychotherapy side effects, the top five variables with SHAP values are "Number of sessions", "4.Makes me feel anxious (PSES)", "6. Makes me want to quit psychotherapy (PSES)", "13. Makes me angry (PSES)", "Number of therapists visited", and "Age of visitor".

Conclusion PSES has relatively stable predictive ability and can be used for clinical evaluation. The dual monitoring of the external characteristics of psychotherapy (the age, number, and frequency of treatment by the therapist) and the internal characteristics of treatment (the negative experience of the visitor) is conducive to the therapist's timely assessment and perception of the potential stress and harm that psychotherapy may bring.

关键字： Psychotherapy; Side effects; Predictive model; Machine learning

The Influence of Loneliness and Despair on The Non Suicidal Self Injurious Behaviors of Adolescents with Depressive Disorder: The Mediating Effect of Psychological Resilience

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Objective Non Suicidal Self Injury (NSSI) refers to the behaviors that deliberately, directly and without suicidal intention, harm their own bodies. Adolescents are an important transition period from children to adults, during which adolescents may have unstable emotional fluctuations, and are prone to extreme and extreme behaviors, Research has shown an increasing trend in the incidence of NSSI behavior among the adolescent population. The purpose of this study is to explore the influence of loneliness and despair on NSSI behavior in adolescent depressive patients and the mediating role of Psychological resilience in it, so as to provide some reference for reducing the risk of NSSI behavior in adolescent depressive patients.

Method 1012 adolescent depression patients with NSSI behavior from April 2022 to May 2022 were selected as the study subjects. Among them, there are 207 males and 805 females. The method, severity, and frequency of evaluating NSSI using the Self Injury Function Assessment Scale (C-FASM); The Beck Despair Scale (BHS) assesses the degree of despair; The Loneliness Scale (UCLA) assesses the degree of loneliness; The psychological resilience scale (CD-RISC) was used to assess the Psychological resilience of the subjects. The independent sample t-test was used to analyze whether there were differences between different sexes. Pearson correlation was used to analyze the correlation between the above scales. The Mediation package of R software was used to analyze and test the Mesomeric effect between despair, loneliness and the

frequency of NSSI behavior.

Result The results showed that the total UCLA score of 1012 adolescent depressive patients was (53.200 ± 6.004), the total BHS score was (30.08 ± 2.317), and the frequency of NSSI behavior was (4.387 ± 2.552), The total score of CD-RISC is (22.480 ± 7.802); There was a statistically significant difference in the total score of CD-RISC between different genders (t=3.035, p<0.05); The frequency of NSSI behavior is positively correlated with gender, UCLA total score, BHS total score, and negatively correlated with CD-RISC total score. The Psychological resilience of adolescents with depressive disorder partially mediates the frequency of NSSI behavior and feelings of loneliness and despair.

Conclusion (1) The frequency of NSSI behavior in adolescents with depressive disorder is positively correlated with the degree of loneliness and despair. (2) Psychological resilience plays a partial mediating role between the frequency of NSSI behavior and loneliness and despair. This study enriched the influence of despair, loneliness and Psychological resilience on non suicidal self injury, and provided a theoretical basis for the intervention of non suicidal self injury.

关键字：non-suicidal self-injury, despair, loneliness, psychological resilience, mediating effect

Gender Differences in Facial Emotion Recognition Among Adolescents Depression with Non-suicidal Self-injury

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Objective Despite the perception that healthy female are superior at emotional identification, it remains unclear whether gender-specific differences exist in adolescent depression and whether such specific differences in emotional recognition are associated with the most salient feature of adolescent depression---non-suicidal self-injury (NSSI).

Methods In this study, 1428 adolescents (1136 females and 292 males) with depression and NSSI were examined using the Facial Emotion Recognition Task, Patient Health Questionnaire-9 (PHQ-9), and Functional Assessment of Self-mutilation questionnaire (FASM).

Results Depressed females reported a significantly greater frequency of self-injurious behaviour and more severe depressive symptoms than males. Face emotion recognition was also significantly more accurate in females and was positively correlated with levels of self-injury and depression, whereas no such correlations were found in males. Among depressed adolescents, face emotion recognition is better in females and is associated with self-injurious behaviour.

Conclusion This study found that the greater susceptibility to depression and NSSI among adolescent females may stem in part from superior recognition and sensitivity to the negative emotions of others.

关键字：emotion recognition, non-suicidal self-injury, adolescent depression, gender

青少年抑郁症患者童年创伤、反刍思维与非自杀性自伤的患者：反刍思维的中介调节作用

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目的 非自杀性自伤（NSSI）在青少年群体中十分常见，已经成为社会日益关注的重要问题。虽现有证据表明童年创伤与 NSSI 有关，但相对较少的研究探讨了这种关系的潜在中介因素。根据情绪级联理论模型，NSSI 能够分散反刍与负面情绪级联的注意力。本研究探讨了反刍是否介导了童年创伤与 NSSI 之间的关系，为今后 NSSI 的治疗提供理论依据。

方法 使用中文版的自残量表、CTQ 儿童创伤期问卷和 RRS 反刍思维量表对青少年抑郁症患者（n=1019）进行评估。

结果 以 NSSI 为固定因子（NSSI＝1，无 NSSI＝2）的 Pearson 相关分析显示自伤的发生与情感虐待（r=0.151，p＜0.01）及性虐待（r=0.067，p＜0.05）成明显正相关，而与躯体忽视、躯体虐待之间无相关性；自伤与反刍思维成显著正相关（r=0.182,p＜0.01），并且与三因子得分呈显著正相关；这些结果具有统计学意义。反刍思维在青少年抑郁患者童年创伤和 NSSI 之间起部分中介作用（效应值=0.034），且在女性受试者中更为突出。

结论 童年创伤不仅直接影响青少年抑郁症患者的 NSSI 风险，而且通过反刍思维间接影响 NSSI 风险。童年创伤和反刍思维是青少年抑郁症患者出现 NSSI 的关键因素。

关键字：青少年，非自杀性自伤，童年创伤，反刍思维

Effects of Rumination and Emotional Regulation on Non-suicidal Self-injury Behaviors in Depressed Adolescents in China: A Multicenter Study

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Objective According to emotion cascade theory and response styles theory, emotion management disorder is one of the core causes of non-suicidal self-injury (NSSI). However, little is known about the effects of emotion regulation and rumination on NSSI behaviors in adolescents with depressive disorder.

Method In total, 1782 depressed adolescents who engage in non-suicidal self-injury behavior completed questionnaires on rumination, emotion regulation, and NSSI. Participants were recruited from the outpatient and inpatient wards of 14 hospitals across the country.

Results NSSI behavior frequency was positively correlated with rumination and negatively correlated with emotion regulation. In addition, emotion regulation has two dimensions: cognitive reappraisal and expression inhibition. Among them, cognitive reappraisal plays a partial mediating role in the relationship between rumination and NSSI, while the mediating role of expression inhibition is not significant, accounting for 9.97% and 4.05% of the total effect, respectively.

Conclusion Among adolescents with depression, rumination has a more direct impact on the frequency of NSSI behavior. In order to prevent NSSI behavior among adolescents with depression, we should pay attention to the adjustment and change of cognitive evaluation and consider the expression patterns of modern adolescents.

关键字：cognitive reappraisal, emotion regulation, NSSI, rumination, response inhibition

Relationship between Alexithymia, Loneliness, Mental Resilience and Non-suicidal Self-injury Behavior in Adolescents with Depression

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Objective To investigate the relationship between alexithymia, loneliness, mental resilience and Non-suicidal Self-injury (NSSI) and its mechanism.

Methods 326 adolescents with depression who met the DSM-5 criteria for depressive episodes were investigated using the Self-Injury Function Assessment Scale (FASM), the Toronto Alexymia Scale (TAS), the UCLA Loneliness Scale and the Simplified Mental Resilience Scale (CD-RS-10). The relationship between the variables and the possible moderated mediating relationship were analyzed.

Results Mental resilience was negatively correlated with alexithymia and its scores, loneliness and NSSI, while alexithymia and loneliness were positively correlated with NSSI. There were significant differences between the NSSI group and the non-NSSI group in the scores of each factor scale. Alexithymia is a risk factor for NSSI, while mental resilience is a protective factor for NSSI. Alexithymia can influence NSSI behavior through the mediating effect of psychological resilience, and loneliness can mediate the first half of this mediating model.

Conclusion This study explores a moderated mediation model to provide theoretical basis for future psychological intervention.

关键字：Non-suicidal self-injury behavior; Alexithymia; A sense of loneliness; Mental resilience

早发型和晚发型强迫症住院患者的临床特征及影响因素

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目的 探讨早发型和晚发型住院强迫症患者的临床特征差异及强迫症早发和晚发的影响因素。

方法 回顾整理 2012 年 3 月-2023 年 3 月南京脑科医院精神科 540 例住院强迫症患者的临床资料，包括性别、年龄、婚姻状况、学历、职业、起病年龄、首次就诊病程、强迫症状分类、家族史，共病其他精神疾病等，以起病年龄 18 岁作为分界值将患者分为早发组（≤18）和晚发组（＞18），比较两组间人口学资料及临床症状差异，使用二元 logistic 回归模型分析早晚发强迫症的影响因素。

结果 540 例患者中，男性 332 人（61.4%），女性 208 人（38.6%）。单身 378 人（70.0%），已婚 162 人（30.0%）。早发组 310 人（57.4%），晚发组 230 人（42.6%）。单一维度强迫症状患者 266 人（49.2%），存在 2 个维度强迫症状患者 191 人（35.3%），同时有 2 个以上维度强迫症状患者 83 人（15.3%）。家族史阳性 134 人（24.9），家族史阴性 406 人（75.1%）。共病其他精神疾病 151 人（27.9%），无共病其他精神障碍 389 人（72.1%）。同晚发组比较，早发组男性及单身占比更高（分别为 P＜0.001，P＜0.001），家族史阳性率及共病其他精神疾病比例更高（分别为 P＜0.05，P＜0.001），强迫症状种类与晚发组亦存在明显统计学差异（P＜0.05）。入组患者中,存在强迫思维症状者 300 人，存在检查类症状者 218 人，存在清洗类症状者 238 人，存在排序类症状者 44 人，存在仪式化症状者 43 人，与晚发组相比，早发组强迫思维、排序类、仪式化症状出现比例明显较高(分别为 P＜0.001，P＜0.01，P＜0.01)，检查类及清洗类症状出现比例相对较低（分别为 P＜0.01，P＜0.01）。以强迫症患者早发和晚发作为因变量，以性别、婚姻状态、情感障碍家族史、精神分裂症家族史、神经发育障碍家族史、共病情感障碍、共病神经发育障碍、共病精神病性障碍作为自变量进行二元 logistic 回归分析，结果提示共病神经发育障碍、共病情感障碍、有精神分裂症家族史、有强迫症家族史是早发强迫症的独立风险因素，其中共病神经发育障碍的早发组强迫症患者的核心影响因素。

结论 早发组强迫症患者中男性、单身、精神疾病家族史阳性及共病其他精神疾病比例高。共病神经发育障碍、有精神分裂症或强迫症家族史是住院早发组强迫症的高危因

关键字：早发型强迫症，晚发型强迫症，住院患者，回顾性分析

青少年非自杀性自伤行为的影响因素及相关研究

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目的 非自杀性自伤（NSSI）行为在青少年中发生率较高，是目前主要的公共健康问题之一。NSSI 行为常首发于青少年早期或中期，并且发生率在整个青少年阶段呈逐步上升趋势。NSSI 行为的发生不仅影响了青少年群体的身体健康，更影响了他们的心理发展。NSSI 行为并非某一单一因素引起，它主要受到社会环境因素、家庭因素以及个人因素的相互影响。本研究旨在调查合肥市青少年 NSSI 行为现状并探讨其影响因素，针对性了解合肥市中学生 NSSI 行为的同时，也为未来干预提供依据。

方法 采用随机整群抽样的方法对合肥市 5 所中学 7 431 名中学生进行问卷调查。采用青少年非自杀性自伤行为评定问卷、抑郁自评量表、儿童期虐待问卷和时间性快感体验量表分别评估青少年非自杀性自伤行为得分、抑郁症状、童年期虐待得分和快感缺失得分。比较不同人口学特征中学生的 NSSI 检出率差异，建立多因素 Logistic 回归模型分析相关因素与无 NSSI、偶发 NSSI 和反复 NSSI 的关联。

结果 1.中学生无 NSSI、偶发 NSSI 和反复 NSSI 的检出率分别是 70.4%、10.3%和 19.3%。2.不同性别、居住地、父母文化程度、主要扶养人、家庭经济情况、教养方式以及有无自快感缺失、童年期虐待及抑郁情绪的中学生存在 NSSI 行为检出率差异（均 P＜0.05）。3.无 NSSI、偶发 NSSI 和反复 NSSI 行为的青少年在快感缺失各因子得分和总分、童年期虐待各因子得分和总分、抑郁总分上有差异（均 P＜0.05）。 4.女生、居住于城镇、幼年时被寄养、存在童年期虐待、存在抑郁症状和快感缺失水平较高是青少年 NSSI 行为的危险因素（均 P＜0.05）。

结论 NSSI 行为的发生受多种因素影响。家庭和社会应从青少年人际关系的角度出发，为中学生创造安全和谐的环境，以减少其 NSSI 行为。

关键字：青少年；非自杀性自伤；影响因素

青少年心境障碍伴非自杀性自伤患者的依恋代际传递研究

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目的 探讨青少年心境障碍伴非自杀性自伤（Non-suicidal Self-injury，NSSI）患者的依恋模式在父母-子女代际传递中的发展路径。

方法 本研究采用横断面问卷调查，选取门诊及住院的青少年心境障碍伴非自杀性自伤患者及其父母为研究组受试者，青少年心境障碍不伴非自杀性自伤患者及其父母为临床对照组受试者，社会招募的健康青少年及其父母作为健康对照组受试者。对青少年和其父母分别施测，对青少年受试者的评估工具包括：一般资料调查表、亲密关系经历量表（ECR）、情绪调节困难量表（DERS）、简式父母教养方式量表（S-EMBU）和系统家庭动力学自评量表（SSFD），对父母的评估工具包括：一般资料调查表、亲密关系经历量表、情绪调节困难量表、简式父母教养方式量表。使用 SPSS26.0 与 MPlus8.3 对数据进行统计分析。

结果 本研究共纳入 74 例，其中青少年心境障碍伴非自杀性自伤受试者及父母 40 例，青少年心境障碍不伴非自杀性自伤受试者及父母 18 例，健康对照受试者 16 例。对父母依恋维度得分的组间比较发现，仅 NSSI 组的父亲在依恋回避维度上得分显著高于健康组父亲（F=5.12，P<0.01）。NSSI 组中父母与青少年依恋安全性之间的总对应率分别为 45.0%、37.5%。将所有家庭数据合并为一组，发现父母与青少年依恋安全性之间的总对应率分别为 56.8%、48.6%。而在比较三组父母之间的父母教养方式及情绪调节困难时，并未发现显著差异。相关分析显示，依恋的代际传递与父母教养方式和家庭气氛有关，与情绪调节困难则无显著相关。NSSI 组中青少年的依恋回避与父母情感温暖、家庭气氛、个性化显著负相关（r＝-0.73～-0.40，P<0.05），与父母过度保护显著正相关（r＝0.35~0.41，P<0.05）。对全部数据分析发现，父亲情感温暖、家庭气氛分别在父亲—青少年依恋回避与母亲—青少年依恋回避代际传递中的中介作用显著，中介效应分别占总效应的 58.5%、42.9%。

结论 青少年心境障碍伴非自杀性自伤患者组中父母-青少年依恋安全性的代际传递对应率在 37.5~45.0%之间。总体上父亲情感温暖及家庭气氛在依恋的代际传递中一定程度上起到中介作用，但 NSSI 者家庭中依恋代际传递的变异性较大，需要进一步研究。未来，建议针对青少年非自杀性自伤患者探索基于依恋的家庭治疗。

关键字：依恋，代际传递，非自杀性自伤，青少年，心境障碍

Gene-environment Interaction between Serotonin Receptor 3B (HTR3B) Gene and Social Support on Clinical Severity of Depression

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Objective Both the serotonin receptor 3B (HTR3B) gene and social support (SS) was found to be associated with major depressive disorder (MDD). However, it is still unclear whether their interactions will have an effect on MDD. This study aimed to investigate the potential impact of gene-environment interaction between HTR3B and SS on clinical symptoms of MDD.

Methods A total of 180 patients with MDD and 170 healthy controls were recruited. The polymorphism of rs1176744 in HTR3B gene were genotyped. The 24-item

Hamilton Depression Scale (HAMD) and the Multidimensional Scale of Perceived Social Support (MSPSS) were adopted to assess patients' symptoms severity and social support, respectively. Multivariate analysis of variance was used to analyze the gene-environment interaction.

Results The genotypic and allelic distributions of rs1176744 in HTR3B gene were significantly different ($\chi2$ = 12.20, P = 0.002; $\chi2$ = 9.973, P = 0.002, respectively) between patients and controls. The proportion of C carriers was significantly lower in patients than those in controls. The HAMD total score and the factor scores of retardation and sleep disturbance were significantly higher in patients with AA genotype of rs1176744 than those with AC genotype, as well as the significant higher factor scores of weight loss and feeling of despair than those with CC genotype. The total scores of MSPSS and HAMD were found to have a significantly negative linear association. There was significant interaction effect (F=3.661, P=0.028) of rs1176744 genotypes and social support on the severity of depression. At low levels of social support, individuals carrying CC genotype had significantly lower HAMD total scores than those carrying AA and AC genotypes.

Conclusion Our findings indicated that the polymorphism of HTR3B gene and SS may be associated with MDD and its clinical features. Low social support could interact with A allele of rs1176744 to increase the severity of depression.

关键字：HTR3B, social support, gene-environment interaction, depression, symptom

青少年抑郁障碍患者非自杀性自伤行为临床预测模型的构建

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目的 构建青少年抑郁障碍患者非自杀性自伤风险的临床预测模型，并对模型进行评价。

方法 本研究纳入郑州大学第一附属医院精神医学科符合入排标准的青少年抑郁障碍患者 316 例。根据《精神障碍诊断与统计手册》（第 5 版）第三部分非自杀性自伤的建议诊断标准，将患者分为伴 NSSI 组（n=202）和不伴 NSSI 组（n=114）。采用问卷收集患者社会人口学及影响因素资料（自制一般情况问卷、青少年自我伤害问卷、抑郁-焦虑-压力量表、冲动性量表、网络成瘾量表、青少年生活事件量表、简式儿童期虐待问卷、简式父母教养方式问卷）。通过单因素与多因素 logistics 回归分析，筛选影响青少年 MDD 患者 NSSI 行为的独立风险因素；基于 logistics 回归模型构建临床预测模型，绘制列线图；通过 ROC 曲线、校正曲线、临床决策分析曲线及临床影响曲线评估该模型的区分度、校准度及临床适用性。双侧检验 P<0.05 为差异有统计学意义。

结果 基于多因素回归分析模型构建的青少年抑郁障碍 NSSI 行为预测模型。该模型的受试者工作特征曲线（ROC）线下面积（AUC）为 0.965（95%CI 0.035-0.965），提示该模型可以较好区分出伴 NSSI 行为和不伴 NSSI 行为的患者；该模型校准曲线中，基于贝叶斯检验与该模型的实际曲线，均围绕理想曲线上下波动，提示预测模型预测 NSSI 行为风险与实际发生风险一致。临床决策曲线（DCA）显示，在阈值概率为 0～0.9 内，该模型曲线净收益高于简单模型曲线；临床影响曲线（CIC）显示，当风险阈值为 0.5 时，预测人数与实际发生人数比较接近，提示该模型具备一定的临床适用性。

结论 青少年抑郁障碍患者 NSSI 风险临床预测模型可以有效预测 NSSI 行为的发生，预测模型具有较好的区分度、校准度及临床适用性，能够识别高风险人群，并为采取干预性措施提供依据。

关键字：青少年 抑郁障碍 非自杀性自伤行为 临床预测模型

Berberine Improves Negative Symptoms and Cognitive Function in Patients with Chronic Schizophrenia Via Anti-infammatory Efect: A Randomized Clinical Trial

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Objective Based on the neuroinfammation hypothesis in schizophrenia and known anti-infammatory efects of berberine, the aim of the present study is to investigate the efcacy of berberine in treating negative symptoms and cognitive defcits in adult patients with chronic schizophrenia.

Methods Enrolled participants were randomized to receive berberine or placebo for 3 months. The Scale for the Assessment of Negative Symptoms (SANS), Trail-making Test A (TMT-A), Trail-making Test B (TMT-B), and Hopkins Verbal Learning Test (HVLT) were used to evaluate the negative symptoms and cognitive function at four-time points (baseline, 1st, 2nd, and 3rd month). Serum levels of interleukin- 1β (IL- 1β), interleukin-6 (IL-6), and tumor necrosis factor-α (TNF-α) were used as infammatory markers. 106 patients with per-protocol were analyzed, 56 in the experi- mental (berberine) group and 50 in the control (placebo) group.

Results From baseline to month 3, patients receiving berberine demonstrated a decrease in total scores on clinical scales SANS, TMT-A and TMT-B and showed a serum level reduction of IL- 1β, IL-6 and TNF-α comparing with patients in the control group (P <0.05). There were positive correlations between the change of serum IL- 1β level and the change of SANS (r = 0.210, P = 0.039), TMT-A (r = 0.522, P < 0.001), and TMT-B (r = 0.811, P < 0.001); between the change of serum IL-6 level and the change of TMT-A (r = 0.562, P < 0.001), and TMT-B (r = 0.664, P < 0.001); between the change of serum TNF-α level and the change of TMT-B (r = 0.472, P < 0.001) after berberine treatment.

Conclusion Berberine is an anti-infammatory agent

that can potentially mitigate the negative symptoms and cog- nitive defcits in patients with schizophrenia.

关键字：Berberine, Negative symptom, Cognitive impairment, Chronic schizophrenia, Infammation

新冠疫情解封后青少年和青年学生中传统霸凌和网络霸凌的流行率及其与心理健康的关联研究

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目的 本研究旨在新冠疫情限制解除后，探索青少年和青年学生中传统霸凌和网络霸凌的流行率，并探究其与心理健康（包括失眠、焦虑、抑郁和创伤后应激障碍）之间的关联。

方法 我们于 2022 年 12 月 14 日-2023 年 2 月 28 日，在四川省对中学、高中、大学中青少年和青年学生（N=82,873）进行了心理健康的在线调查。收集了有关传统霸凌、被网络霸凌、网络霸凌、COVID-19 感染、失眠、焦虑、抑郁和创伤后应激障碍症状的数据。通过逻辑回归等分析，探索霸凌行为与心理健康问题之间的关联。

结果 本研究显示，共有 28.3%的学生经历过霸凌，其中传统霸凌占 23.2%，被网络霸凌占 17.7%，网络霸凌占 8.1%。男性的霸凌检出率显著高于女性，而女性心理健康问题的患病率显著高于男性。传统霸凌、被网络霸凌和网络霸凌显著增加学生心理健康问题的风险，与传统霸凌的关联最为显著。与未经历霸凌的学生相比，经历过一种类型霸凌的学生出现失眠、焦虑、抑郁和创伤后应激障碍的风险分别为 1.46-2.08，1.75-2.58，2.18-2.72 和 2.11-2.79 倍；经历过两种类型霸凌的学生出现失眠、焦虑、抑郁和创伤后应激障碍的风险分别为 2.00-3.45，3.44-4.31，3.64-5.02 和 5.14-5.31 倍；经历过三种类型霸凌的学生出现失眠、焦虑、抑郁和创伤后应激障碍风险分别高达 4.89，11.42，11.52 和 15.48 倍。

结论 本研究结果提示，疫情解封后，青少年和青年学生中霸凌的检出率较高，且不同类型的霸凌对学生心理健康问题产生了显著且累积性的影响。应制定相关的教育和卫生政策，并提供相应的社会心理干预服务，对预防和减少学生的霸凌行为，促进青少年和青年学生的心理健康至关重要。

关键字：学生，传统霸凌，网络霸凌，心理健康

领悟社会支持对皖西地区孕产妇抑郁情绪的影响：焦虑与失眠的链式中介作用

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目的 探讨皖西地区孕产妇领悟社会支持与抑郁情绪的关系，分析焦虑、失眠在二者之间的作用，为预防孕产妇抑郁情绪提供建议与依据。

方法 选取在 2022 年 5 月-11 月居住在皖西地区的 6833 名孕产妇作为研究对象，采取一般资料问卷、爱丁堡产后抑郁量表(EPDS)、广泛性焦虑量表(GAD-7) 、阿森斯失眠量表(ASI) 、领悟社会支持量表(PSSS)进行自评问卷调查，调查孕产妇的抑郁、焦虑、失眠状况和社会支持水平。采用 SPSS26.0 统计学软件进行数据分析，皖西地区孕产妇人口学特征的抑郁检出率比较采用 x2 检验；采用 Pearson 相关性分析方法，分析孕产妇焦虑、失眠、领悟社会支持得分与抑郁得分的相关性；采用 AMOS23.0 结构方程模型探讨孕产妇领悟社会支持水平、焦虑、失眠及抑郁情绪四者间的联系。

结果 皖西地区 6833 名孕产妇抑郁量表得分为（9.20±4.92）分，抑郁情绪检出率为 52.83%。不同年龄段、家庭月均收入、孕产周期、是否伴有躯体疾以及怀孕情况的孕产妇抑郁情绪检出率差异均有统计学意义（x2=6.972、9.919、51.888、62.409、90.156、33.443、61.156，$p<0.05$）。Pearson 相关性分析结果显示：孕产妇抑郁量表得分与焦虑量表得分、失眠量表得分均呈正相关，与领悟社会支持量表得分呈负相关（r=0.572、0.482、-0.465，$p<0.01$）；焦虑量表得分与失眠量表呈正相关，与领悟社会支持量表得分呈负相关（r=0.479、-0.282，$p<0.01$）；失眠量表得分与领悟社会支持量表得分呈负相关（r=-0.281，$p<0.01$）。结果方程模型结果显示，孕产妇领悟社会支持水平对抑郁情绪的总效应值为-0.457，其中领悟社会支持对抑郁情绪的直接效应值为-0.292（95%CI：-0.317～-0.268），焦虑的中介效应值-0.106（95%CI：-0.121～-0.092），失眠的中介效应值-0.034（95%CI：-0.042～-0.027）及焦虑和失眠的链式中介效应值-0.024（95%CI：-0.028～-0.021）。

结论 皖西地区孕产妇领悟社会支持可能直接影响抑郁情绪，也有可能通过焦虑、睡眠质量的中介作用及焦虑和睡眠的链式中介作用间接影响抑郁情绪。

关键字：领悟社会支持、焦虑、失眠、抑郁、孕产妇

社区居民的抑郁、焦虑症状和健康促进生活方式关系的性别差异：基于网络分析的方法

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目的 过往研究者曾在临床群体中，探究典型抑郁、焦虑症状及其共变的性别差异。世界卫生组织提出一项精神健康促进的理念，建议发展预防心理疾病发生的策略时，纳入促进精神健康的保护性因素。依据网络分析的视角，精神病理现象是症状及风险、保护性因素相互作用的结果。本研究采用网络分析方法，在社区

样本中探究健康促进方式和焦虑、抑郁症状的共变网络，比较不同性别之间网络的结构、整体强度及边强度的差异，为促进社区心理健康，提升居民的生活质量提供具体建议。

方法 使用健康问卷抑郁量表（Patient health questionnaire, PHQ-9）、广泛性焦虑量表（Generalized Anxiety Disorder Scale, GAD-7）和健康促进生活方式量表（Health-promoting lifestyle profile-II, HPLP-II）分别测量上海市徐汇区的 2420 名居民（1411 名女性）的抑郁、焦虑症状和健康促进生活方式。基于图形高斯模型（Gaussian Graphical Model）建构网络，使用 R 软件包 Network comparison Test 比较不同性别间的网络差异。

结果 女性的 PHQ-9（t=3.618, p<0.001）和 GAD-7（t=2.721, p < 0.001）得分更高，HPLP-II 得分与男性无显著差异（t=-1.346, p<0.001）。网络分析的结果显示，男性和女性的网络结构的差异边缘显著（maximum difference=0.234, p=0.06），网络整体强度没有差异（global strength difference=0.298, p=0.31）。“坐立不安”和“能量缺乏”在女性网络中的强度中心度最高，“自杀意念”和“坐立不安”在男性网络中的强度中心度最高。“运动”和“压力管理”分别是女性和男性网络中最重要的健康促进行为。然而，在男性网络中，“压力管理”与“自杀意念”正相关。

结论 社区需要关注男性群体的“自杀意念”，提供相应的压力管理课程。女性群体的“精力缺乏”症状需更多被关注，因为该症状与其它症状会共同出现。倡导身体运动也有利于促进女性的心理健康水平。未来研究需进一步收集密集追踪数据，探究个体的症状及保护性因素的特征网络，发掘针对性促进心理健康的个性化生活方式。

关键字：抑郁，焦虑，健康促进生活方式，网络分析，性别差异

抑郁症患者的认知和情感共情特征

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目的 抑郁症（Major Depressive Disorder, MDD）是全球重要公共卫生问题，过往研究多关注精神分裂和自闭症群体的共情特征，关于 MDD 共情研究的结果存在较大差异。情感共情指理解他人的感受和情绪，认知共情指理解他人的想法、信念和意图。本研究区分不同严重程度的 MDD，探讨 MDD 患者的共情特征。

方法 使用汉密尔顿抑郁量表（Hamilton Depression Scale, HAMD-17）对上海市精神卫生中心门诊 MDD 患者进行评定，收集门诊 MDD 患者 90 例，其中轻度抑郁 15 例（7≤HAMD≤17）、中度抑郁 54 例（18≤HAMD≤23）和重度抑郁（HAMD≥24）。同期招募健康对照组（Healthy Control, HC 组）48 例。采用眼睛阅读心智任务（Reading the Mind in the Eyes Test，RMET）测量认知共情，采用多元共情任务（Multifaceted Empathy Test，MET）测量认知和情感共情。

结果 独立样本 t 检验结果表明，MDD 组的 RMET 总分（t=2.334, p=0.021）、RMET-消极词得分（t=2.070, p=0.040）均高于 HC 组，MET-积极情感得分（t=-2.913, p=0.004）低于 HC 组。对 HC 和不同程度的 MDD 进行单因素方差分析，发现 RMET 总分（F=3.004，p=0.033）和 MET-积极情感（F=4.052，p=0.009）均有显著差异，事后比较发现中度抑郁组的 RMET 总分高于 HC 组（t=2.01, p=0.021），重度抑郁组的 MET-积极情感低于 HC 组（t=1.625, p=0.018）。相关分析表明，HAMD 与 RMET-消极存在正相关（r=0.188, p=0.012），HAMD 与 MET-积极认知（r=-0.184, p=0.023）和 MET-积极情感（r=-0.239, p=0.008）存在负相关。

结论 MDD 患者在 RMET 中表现出更强的认知共情，具体为对包含消极情绪的眼神刺激的认知共情能力更强，且抑郁严重程度也与消极情绪的认知共情正相关，说明 MDD 患者存在过度心智化特征，对情绪的想象和推测过强。在 MET 中，MDD 患者对积极情绪的情感共情能力更弱，且积极情绪的认知和情感共情与抑郁严重程度负相关，说明 MDD 患者对积极情绪的感知较弱。

关键字：抑郁症，认知共情，情感共情，RMET，MET

中国文化背景下在成年人中使用 De Jong Gierveld 孤独量表：信度、效度、因子结构

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目的 孤独感被视为一个重要的公共健康问题，在国内外已有大量关于孤独感的研究，De Jong Gierveld 孤独量表是较常用的评估工具，但国内缺乏该量表在成年人群中的信效度研究。本研究以成年人为对象，旨在探究中文版 DJGLS（De Jong Gierveld 孤独量表）的心理测量特征和因子结构。

方法 本研究从天津市和上海市招募了 915 名年龄在 18 岁以上的被试，并请所有被试完成了中文版 DJGLS 问卷。使用 SPSS 23.0 和 Mplus 8.3 对数据进行信度、效度和因子结构分析。

结果 8 项中文版 DJGLS 的 Cronbach's α 系数为 0.841；子维度社会孤独和情感孤独的 Cronbach's α 系数分别为 0.853、0.683；Guttman 分半信度为 0.830；重测信度为 0.790。探索性因子分析结果显示，采用两因子模型（社交孤独和情感孤独）拟合效果最佳；验证性因素分析结果显示，$\chi 2/df$ =4.78，CFI= 0.976，TLI=0.962，RMSEA=0.064，SRMR=0.028，修正后标准化结构方程模型标准化回归系数取值范围为 0.604~0.806。两个因子的 AVE 值为 0.569、0.485，CR 分别为 0.867、0.737，表明具有良好的聚合效度；两个

因子的 AVE 平方根值分别为 0.754 和 0.696，均大于因子间相关系数绝对值 0.401，说明具有良好的区分效度。DJGLS-8 与孤独感总分之间的相关系数在 0.088~0.666（p<0.01）之间，各个条目与孤独感高度相关。

结论 两因子结构的 8 项条目中文版 DJGLS 具有很好的可靠性和有效性，可用于评估成年人的孤独感特征。

关键字：De Jong Gierveld 孤独量表；因子结构；信度；效度

Lnc-RNA GAS5 与 M1 型小胶质细胞极化关系的研究

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目的 酒精使用障碍（Alcohol use disorder，AUD）的发病原因十分复杂，并可能与多基因变异有关，慢性酒精摄入可导致大脑中基因网络表达的永久性改变。与非编码 RNA(non-coding RNA，nc-RNA)有关的表观遗传修饰和神经元可塑性在 AUD 研究中受到越来越多的关注。研究表明，酒精使用与糖皮质激素系统中的差异甲基化有关，这可能会影响压力和炎症反应性，并产生 AUD 风险。中枢神经系统中的主要免疫细胞为小胶质细胞，在神经损伤时，小胶质细胞被激活，激活后的小胶质细胞可以表现为两种不同的活化表型：M1 促炎型和 M2 抗炎型。研究显示，M1 表型主要分泌促炎细胞因子和趋化因子以及产生活性氧（ROS）来产生神经元毒性，从而对大脑产生有害影响。本研究的主要目的 一是探究 lnc-RNA GAS5 在体外细胞 AUD 模型中的表达情况；二是探讨在体外细胞 AUD 模型中 lnc-RNA GAS5 表达量变化与 M1 型极化的相关关系。

方法 通过基因测序筛选出在 AUD 与健康对照组相比中，差异表达较明显基因 GAS5。人源神经细胞（SH-SY5Y）进行传代培养，筛选适宜酒精浓度处理神经细胞，构建酒精处理组（Alcohol）。再分别构建 GAS5 敲减组（sh-lnc-RNAGAS5）及对照组(Vector)，qRT-PCR 检测以上三组 lnc-RNA GAS5 表达水平。将 SH-SY5Y 细胞与小胶质细胞(BV2)进行共培养，并分为对照组、酒精处理组、GAS5 敲减组、LPS 诱导组，qRT-PCR 检测 iNOS、IL-6、TNF-α 表达水平，免疫荧光及流式细胞术检测 iNOS 表达水平，从而发现 lnc-RNA GAS5 与小胶质细胞极化的关系。

结果 （1）qRT-PCR 显示 AUD 组 lnc-RNA GAS5 表达量相对于对照组显著升高（P<0.05），有统计学意义。（2）qRT-PCR 检测 iNOS、IL-6、TNF-α 表达量，相对于对照组，经 LPS 刺激后，M1 极化相关标志物表达最多，酒精处理后 M1 极化相关标志物表达次之，敲减 GAS5 后 M1 极化相关标志物表达减少。

结论 （1）lnc-RNA GAS5 在体外细胞 AUD 模型中表达量升高，可以推测 lnc-RNA GAS5 表达量与酒精使用障碍具有相关性。 （2）本研究中在体外细胞 AUD 模型中 lnc-RNA GAS5 表达量升高促进小胶质细胞 M1 型极化。

关键字：lnc-RNA GAS5；酒精使用障碍；M1 型极化；非编码 RNA

血浆 GDNF、FGF2 水平与酒精使用障碍关系的研究

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目的 本研究的目的，一是探究 AUD 患者与正常人血浆中 GDNF、FGF2 水平的差异；二是探究 AUD 患者血浆 GDNF、FGF2 水平与饮酒情况、心理渴求的相关性；三是探究 AUD 患者血浆 GDNF、FGF2 的变化与认知功能之间的相关性。

方法 研究纳入 30 例男性 AUD 患者作为病例组，30 例健康男性作为对照组，采集相关资料。使用宾夕法尼亚酒精渴求量表(PACS)评估病例组患者对酒精的心理渴求度。应用蒙特利尔认知评估量表(MoCA)对两组的认知功能进行评价。同时采集入组对象空腹外周静脉血，采用 ELISA 法测定血浆 GDNF、FGF2 水平，使用 SPSS 26.0 对数据进行整理分析。

结果 (1) 病例组血浆 GDNF 浓度为 547.27(449.47,665.04)pg/L，对照组血浆 GDNF 浓度为 732.62(666.17,920.23)pg/L，两组间血浆 GDNF 水平有显著差异(z=-4.243,P<0.001)。病例组血浆 FGF2 浓度为(534.47±115.74)pg/L，对照组血浆 FGF2 浓度为(437.97±124.14)pg/L，两组间血浆 FGF2 水平的差异有统计学意义(t=3.114，P=0.003)。(2)病例组血浆 GDNF 水平与饮酒年限(年)、平均每周饮酒频率(天)、每周饮酒量(标准杯)、PACS 评分没有相关性(P>0.05)；病例组血浆 FGF2 水平与饮酒年限(年)、每周饮酒量(标准杯)、PACS 评分没有相关性(P>0.05)，与平均每周饮酒频率(天)呈正相关(r=0.426,P=0.019)。(3)病例组 MoCA 总分为 (21.20±3.53) 分明显低于对照组 MoCA 总分(27.97±1.22)分，两组间 MoCA 总分存在显著差异(t=-9.933,P<0.001)。病例组血浆 GDNF 水平与 MoCA 总分呈正相关(r=0.367,P=0.046)，病例组血浆 FGF2 水平与 MoCA 总分没有相关性(P>0.05)。

结论 (1)本研究显示 AUD 患者血浆 GDNF 水平低于正常；AUD 患者血浆 FGF2 水平高于正常。 (2)本研究显示 AUD 患者平均每周饮酒频率越高，血浆 FGF2 水平越高。 (3)本研究显示 AUD 患者认知功能下降，且认知功能下降越重，血浆 GDNF 水平越低。

关键字：GDNF；FGF2；酒精使用障碍；心理渴求度；认知功能

酒精使用障碍大鼠海马、前额皮质中谷氨酸相关代谢物变化的研究

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目的 ①探讨与对照大鼠相比，AUD 大鼠海马与 PFC 谷氨酸浓度的变化；②探讨与对照大鼠相比，AUD 大鼠海马与 PFC 谷氨酰胺浓度的变化；③探讨与对照大鼠相比，AUD 大鼠相关行为学改变；④探讨 AUD 大鼠海马与 PFC 谷氨酸、谷氨酰胺浓度与行为学变化的相关关系。

方法 入组 Wistar 大鼠 30 只，分为 AUD 组和空白对照组。采用灌胃法进行 AUD 大鼠造模，时长 10 周。测定大鼠海马及 PFC 谷氨酸及谷氨酰胺浓度变化。采用柳田知司评分表和强迫游泳实验对大鼠进行行为学测试。

结果 1. 与对照组相比（PFC 1078.941±177.978μg/g，海马 989.125±200.763μg/g），AUD 组 PFC（1396.710±259.038μg/g，P=0.008）和海马（1252.5750±273.61μg/g，P=0.009）谷氨酸浓度升高。2.与对照组相比（PFC 3624.683±1266.853μg/g，海马 4330.485±1466.822μg/g），AUD 组 PFC（5428.889±1354.477μg/g，P=0.010）和海马（6419.374±1459.171μg/g，P=0.008）谷氨酰胺浓度升高。3.与对照组相比（柳田知司 4.44±2.01 分，强迫游泳不动时间 18.67±7.28s），AUD 组柳田知司（19.67±2.67 分，P<0.001）和强迫游泳实验停留不动时间（117.78±36.65s，P<0.001）明显增加。4.AUD 组大鼠海马和 PFC 谷氨酸及谷氨酰胺的变化与行为学改变进行相关性分析发现：海马（r=0.639，P=0.004）及 PFC（r=0.603，P=0.008）中谷氨酸浓度与强迫游泳不动时间呈正相关关系，海马（r=0.535，P=0.022）、PFC（r=0.526，P=0.025）谷氨酸浓度与柳田知司评分表分值呈正相关关系；海马（r=0.748，P=0.000）及 PFC（r=0.

结论 1.与对照组相比，AUD 组海马和 PFC 谷氨酸浓度均升高。2.与对照组相比，AUD 组海马和 PFC 谷氨酰胺浓度均升高。3.与对照组相比，AUD 组的柳田知司评分表分值和强迫游泳实验停留不动时间增加。4.4.PFC 与海马中谷氨酸与谷氨酰胺的浓度越高，AUD 大鼠的强迫游泳实验停留不动时间越长，柳田知司评分表的分值越高，

关键字：酒精使用障碍；谷氨酸；谷氨酰胺；柳田知司评分表（改良版）； 超高效液相色谱法

基于网络药理学联合实验验证探讨除烦益神合剂改善抗氧化应激反应和调节 VEGFA 水平治疗抑郁症的作用机制

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目的 通过网络药理学、分子对接及实验验证探讨除烦益神合剂（CFYS）抗抑郁作用及潜在机制。

方法 通过 TCMSP 和 TCM-ID，识别了 CFYS 的活性成分及其靶基因，从利 GEO 数据库中获得抑郁症患者中差异表达的基因，并筛选出与 CFYS 靶基因交叉的基因。通过 Cytoscape v3.9.1 软件构建 PPI 网络，通过 STRING 及 KEGG 筛选关键作用通路，利用 AutoDock vina 进行分子对接验证，并分析药物作用潜在通路靶基因对抑郁症的诊断效能。随后构建动物模型通过实验验证 CFYS 抗抑郁的作用机制。

结果 化合物和靶基因筛选共得到 113 种有效成分和 195 个靶基因。靶基因和抑郁症患者差异基因取交集后得到 37 个差异靶基因，其中基因 HMOX1、VEGFA 等是差异靶基因中的关键基因。差异靶基因 KEGG 富集后发现 Chemical carcinogenesis - reactive oxygen species 途径是 CFYS 抗抑郁的关键通路，同时发现 VEGFA 可能是抑郁症的关键 marker。实验验证发现 CFYS 能够显著改善抑郁模型大鼠的行为学指标，其中包括改善大鼠的抗氧化酶活性，降低 MDA 水平，提高 VEGFA 水平等，结果与网络药理学结果一致，提示烦益神合剂可能通过改善神经元的抗氧化应激反应和调节 VEGFA 水平发挥抗抑郁作用。

结论 CFYS 治疗抑郁症是多成分-多靶点-多途径的复杂过程，其可能主要通过改善神经元的抗氧化应激反应和调节 VEGFA 水平发挥抗抑郁作用。

关键字：除烦益神合剂；抑郁症；网络药理学；reactive oxygen species； VEGFA

Popular and Scientific Discourse on Antidepressants in Britain and China: A Corpus-based Study

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Objective Popular and professional media play a significant role in shaping the social construction of prescription medication. Different cultural and national contexts create significant variation in these constructions. This research looks at the social constructions of the five mostly frequently discussed antidepressants in China and Britain: fluoxetine, citalopram, sertraline, venlafaxine and duloxetine. We aimed to discover themes of importance in different national contexts and how Chinese and British people's understanding and attitudes towards their use of antidepressants have been influenced by such constructions.

Methods This research makes use of a corpus linguistics tool called Sketch Engine to discover patterns of discussions on antidepressants. Four corpora were built covering articles from 2007 to 2022: 1. A British news corpus including articles in UK national newspapers covered by the database of Nexis UK. The search criteria were set

as: “antidepress!” OR “anti-depress!” OR “SSRI!” or “SNRI!” AND “fluoxetine” OR “duloxetine” OR “venlafaxine” OR “sertraline” OR “citalopram” AND “depresi!”; 2. A British medical corpus using the database of Medline and the same search criteria as for the news corpus; 3. A Chinese news corpus including articles containing five names of antidepressants anywhere in the articles, extracted from the newspaper section in CNKI (China National Knowledge Infrastructure); This is because there are fewer Chinese news articles on antidepressants; 4. A Chinese medical corpus including articles containing five names of antidepressants in their titles, extracted from the academic journal section in CNKI. Frequency, collocation, keyword and paraphrase analyses were used in all four corpora to identify primary themes.

Results Findings suggest that in British news and medical journals, there was considerable focus on children and adolescents suffering from depression and an increase of suicide rates in association with the use of antidepressants by adolescents was highlighted. In comparison, Chinese medical journals focused more on depression in the older population and post-stroke depression. The use of antidepressants (e.g. in particular citalopram and the similar medication escitalopram) was represented as safe and efficient in treating depression in the older population. British news and medical journals constructed antidepressants as helpful in treating postnatal depression, insomnia and apnoea and pain. This was replicated in both Chinese news and medical journals.

Conclusion British and Chinese newspapers and medical journals put different emphasises on antidepressants in terms of its use, target patient groups, etc, but there are also similarities in the discussions on antidepressants. These findings should assist in evaluating the risks and benefits of antidepressants. Acknowledgement: This research is funded by British Academy/Leverhulme Small Research Grants (reference: SG2122\210988).

关键字：antidepressant, social construction, news, scientific journals, English, Chinese

面部表情识别辅助诊断广泛性焦虑的信效度研究

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目的 本研究运用面部动作编码系统（Facial Action Coding System, FACS），旨在将面部表情识别技术用于辅助诊断广泛性焦虑障碍（Generalized Anxiety Disorder, GAD）患者，验证其信效度，兼备创新性和科学性，为临床筛查提供有效快速的方式。

方法 采用 2（图片：负性/中性）×2（组别：GAD 患者/健康受试者）的设计。选取 30 名 GAD 患者和 30 名健康对照完成范式评估，依次呈现来自国际情感图片系统（International Affective Picture System, IAPS）的 20 张中性图片和 40 张负性图片，记录刺激图片呈现时受试者的面部表情。基于 FACS 来分析面部视频，依次进行面部定位、面部建模和面部分类，计算七种面部表情（愉快、中性、悲伤、害怕、厌恶、惊讶、愤怒、轻蔑），使用 SPSS 验证信效度和人口统计学的差异。

结果 （1）分半信度显示，平均相关值为 0.403。（2）组别对中性情绪、愤怒情绪和害怕情绪的主效应均显著。对于中性情绪，GAD 组比 HC 组呈现的中性情绪强度显著更低（$F = 4.792$，$p = 0.033$），当观看负性图片时，GAD 组比 HC 组产生的中性情绪显著更少（$p = 0.012$）。对于愤怒情绪，GAD 组比 HC 组呈现的愤怒情绪强度显著更高（$F = 6.201$，$p = 0.016$）。对于害怕情绪，GAD 组比 HC 组呈现的害怕情绪强度显著更高（$F = 6.201$，$p = 0.034$）。（3）图片对悲伤情绪和厌恶情绪的主效应显著，负性图片比中性图片诱发受试者产生的悲伤情绪强度显著更高（$F = 5.776$, $p = 0.019$），且厌恶情绪显著更高（$F = 5.074$, $p = 0.028$）。（4）GAD 组比 HC 组最近发生重大事件的比例更高（$\chi2 = 11.52$, $p = 0.001$）。（5）女性比男性出现更强烈的悲伤情绪（$t = 2.701$, $p = 0.010$）。（6）“不确定”能得到家庭支持比“能”得到家庭支持的受试者产生害怕情绪的强度显著更高（$F = 4.605$, $p = 0.005$）。

结论 本研究从面部表情的角度，编制用于辅助筛查 GAD 患者的工具，验证其信度和效度良好，为有效筛查 GAD 患者提供科学有效的方法。

关键字：广泛性焦虑障碍，面部表情，辅助筛查，信效度

内蒙古自治区恶劣心境流行病学调查及影响因素研究

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目的 分析内蒙古自治区 18 岁以上常住居民人群恶劣心境的患病率、人口学分布特点并探究可能的相关影响因素。

方法 2019 年采取多阶段分层不等概率的方法在内蒙古自治区的社区中至少居住 6 个月的 18 岁及以上居民为调查对象，使用复合性国际诊断交谈量表在计算机辅助个人访谈并采用面对面访谈的方式开展调查。

结果 共 12315 人完成调查，发现恶劣心境患者 243 人，其中加权后 12 月患病率为 1.52%（95% CI:1.16%-1.88%），加权后终生患病率为 1.81%（95% CI:1.39%-2.22%）。结果显示男性（OR=0.31，95%CI：0.19-0.50，P<0.001）、高中学历（OR=0.54，95%CI：0.31-0.91，P=0.024）、从不吸烟（OR=0.33，95%CI：0.19-0.59，P<0.001）、吸过很少几次烟（OR=0.07，95%CI：

0.01-0.59，P=0.016）是 12 月患恶劣心境的保护因素。而 50-64 岁（OR=2.68，95%CI：1.17-6.15，P=0.021；OR=2.68，95%CI：1.19-6.02，P=0.019）、分居离婚（OR=3.63，95%CI：1.46-9.05，P=0.007；OR=3.33，95%CI：1.41-7.85，P=0.007）是恶劣心境现患和终身患的危险因素。

结论 内蒙古自治区恶劣心境患病水平相对高于 2012 年全国精神疾病调查的水平，其中 12 月患病率男性、高中学历的居民、从不吸烟、吸过很少几次烟的居民四类人群可能不易患恶劣心境。50-64 岁的人群、分居离婚的居民两类人群，可能更容易患恶劣心境，应加强对这两类人群的重点关注及防控工作。

关键字：恶劣心境；患病率；流行病学调查；危险因素

亚临床强迫症状特点及风险因素研究：基于网络分析方法

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目的 探索亚临床强迫症状的特点、风险因素及核心风险因素模型，为强迫症的早期识别和干预提供建议，提升疾病转归，预防疾病迁延，更大程度地帮助强迫症患者改善生活质量及心理社会功能。

方法 本研究使用了问卷调查法，分层抽样，将不同层次高等院校大学生作为研究对象，采用一般情况调查问卷收集研究对象性别、年龄、家庭经济状况、病史等基本信息、使用中文版强迫症症状分类量表（修订版）（OCI-R）和耶鲁-布朗强迫量表（Y-BOCS）评估大学生的强迫症状类别及严重程度，使用艾森克人格问卷—神经质分量表、青少年负性生活事件量表（ASLEC）以及社会支持评定量表分别评定大学生的人格特质特点、负性生活事件状况及社会支持情况。采用 SPSS23.0 和 R 软件 4.1.3 进行统计分析。

结果 调查人数 1402 人，有效样本共有 1378 例，（1）亚临床个体共有 420 例，占比 30.5%。与正常组个体相比，亚临床强迫个体年龄较小、家庭经济状况较差、患者与父母间关系较差、负性童年经历及负性生活事件较为明显、家族精神病史更明确、社会支持较为缺乏。（2）亚临床强迫症状网络中，“精神中和”中心性最高。（3）回归分析表明年龄、社会支持对亚临床强迫症状发生起到显著的负向预测作用，负性生活事件和神经质对亚临床强迫症状发生起到显著的正向预测作用。（4）核心风险因素模型表明与其他节点联系最紧密的节点是“童年经历”、“与母亲关系”。（5）中介效应检验表明负性生活事件通过多重中介模型影响强迫症状严重程度：一是神经质的单独中介作用；二是社会支持的单独中介作用；三是神经质、社会支持的链式中介作用。

结论 “精神中和”可能是亚临床强迫症状网络的核心症状维度，负性童年经历、与母亲疏远的关系可能是亚临床强迫症状的核心风险因素，负性生活事件可以通过神经质和社会支持的多重中介模型影响强迫症状严重程度。

关键字：亚临床强迫症状，强迫症，风险因素，网络分析

超敏 C 反应蛋白与抑郁症严重程度关联性的性别差异及阈值效应研究

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目的 探究 CRP 与抑郁症严重程度的量效关系，及两者之间存在的性别差异。

方法 本研究使用电子病历系统数据，回顾性分析 2018 年 1 月至 2022 年 8 月在杭州市第七人民医院住院的 1099 例抑郁症住院患者。24 项汉密尔顿抑郁量表（24-item Hamilton Depression Rating Scale，HAMD）用于评估抑郁严重程度。超敏 CRP 水平经过对数转化为 InCRP。使用多元回归分析（Multivariate regression analysis）探索 InCRP 与 HAMD 评分的关联性，并调整年龄、性别、体重指数、糖尿病、高血压、过敏史、吸烟史、饮酒史、炎症性疾病或免疫性疾病史、雌激素水平等混杂因素。为了探究性别差异，进行了分层分析及交互作用分析。最后，使用广义加性模型（generalized additive model , GAM）探索两者之间的非线性关系，并调整潜在混杂因素。

结果 在男性中，InCRP 与抑郁严重程度之间存在着阈值效应，当 InCRP 水平小于 0.69（hs-CRP＜2.00mg/L）时，两者之间无显著相关性(P＝0.9572)；当 InCRP 水平大于 0.69 时，两者之间存在正相关关系，InCRP 每升高一个单位，HAMD 分数增加 6.63 分（95%CI, 2.56, 10.17）。而在女性中，未发现 InCRP 水平与抑郁严重程度存在相关性。对汉密尔顿抑郁量表相关症状条目进行因子分析显示，在男性中，无望与 InCRP 之间也存在阈值效应（InCRP>0.69, 调整后回归系数=2.11; 95%CI: 1.05, 3.18）。另外，升高的 CRP 水平与以下因子呈正相关：认知障碍（调整后回归系数=0.36; 95%CI: 0.07, 0.65）、日夜变化晚型（调整后回归系数=0.08; 95%CI: 0.00, 0.15）及迟滞（调整后回归系数=0.36; 95%CI: 0.12, 0.60）。

结论 结论：我们的研究发现在男性中 CRP 水平与抑郁严重程度之间存在阈值效应，界值点为 2mg/L。且 CRP 水平与抑郁核心症状、认知障碍及情绪节律变化的严重程度有关。未来抑郁症相关的抗炎疗法应考虑性别差异。同时，我们的研究支持将 CRP 作为抑郁症炎症的生物标记物，CRP 水平大于 2mg/L 的男性抑郁症患者可能对抗炎治疗更有效。

关键字：抑郁症；超敏 C 反应蛋白；阈值效应；性别差异

血浆超氧化物歧化酶和过氧化氢酶与双相障碍 I 型躁狂发作和抑郁发作的关系研究

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目的 探讨双相障碍 I 型患者躁狂发作和抑郁发作状态下血浆超氧化物歧化酶（Superoxide Dismutase，SOD）、过氧化氢酶（Catalase，CAT）的活性水平与对照组的差异；研究双相障碍 I 型躁狂发作患者与抑郁发作患者血浆 SOD、CAT 活性水平的差异；研究双相障碍 I 型躁狂发作和抑郁发作患者血浆 SOD、CAT 活性水平与其症状严重程度的关系。

方法 本研究采用病例-对照设计，对 53 例符合 ICD-11 诊断标准的双相障碍 I 型躁狂发作或抑郁发作患者（抑郁组 32 人，躁狂组 21 人）及 40 例健康对照组人员留取基本信息。使用汉密尔顿抑郁量表和 Young 氏躁狂量表进行评分，并于上午 6-9 点留取外周静脉血，测定并比较三组间血浆中 SOD、CAT 的活性水平，同时比较 SOD、CAT 活性水平的变化程度与症状严重程度即 HAMD、YMRS 量表评分的关系。

结果 （1）双相障碍 I 型抑郁组血浆 SOD 活性（53.97±6.78 U/ml）和躁狂组血浆 SOD 活性（55.04±6.68 U/ml）均低于对照组（63.93±3.70 U/ml）；抑郁组血浆 CAT 活性（94.53±19.33 U/ml）和躁狂组血浆 CAT 活性（96.54±19.58 U/ml）均高于对照组（53.58±7.35 U/ml）。以上差异均有统计学意义（$p<0.05$）。SOD/CAT 方面，抑郁组（0.60±0.16）和躁狂组（0.59±0.12）与对照组（1.22±0.18）相比均下降，其差异均具有统计学意义（$p<0.05$）。（2）抑郁组和躁狂组间的 SOD 与 CAT 活性水平均没有差异（$p>0.05$）；抑郁组和躁狂组间 SOD/CAT 没有差异（$p>0.05$）。（3）躁狂组的血浆 CAT 活性水平和 SOD 活性水平均与 YMRS 量表评分无明显相关（$p>0.05$）；抑郁组患者的血浆 CAT 活性水平与其 HAMD-24 量表评分间有相关关系（$r=0.627$，$p=0.00$），为正相关且有强相关性；抑郁组患者血浆 SOD 活性水平与其 HAMD-24 量表评分无明显相关（$p>0.05$）。

结论 （1）与对照组相比，双相障碍 I 型躁狂组和抑郁组的血浆 SOD 活性水平均明显下降，而 CAT 活性水平均明显上升。（2）双相障碍 I 型躁狂组和抑郁组之间的血浆 SOD 和 CAT 活性水平均没有明显差异。（3）抑郁组血浆 CAT 活性水平与其症状严重程度呈正相关

关键字：双相情感障碍，超氧化物歧化酶，过氧化氢酶

40-Hz Auditory Steady-state Response Is Correlated with The Severity of Persistent Auditory Verbal Hallucination in Patients with Schizophrenia

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Objective Persistent auditory verbal hallucinations (pAVHs) are one of the most severe symptoms of schizophrenia (SCZ). Yet, the mechanisms of neuroanatomical in pAVHs are still unknown. We aim to investigate whether pAVHs are related to the 40 Hz auditory steady state response (ASSR).

Methods We analyzed high density electroencephalography data that from 43 pAVHs patients (pAVH group), 20 moderate AVHs patients (mid-AVH group), 24 without AVHs patients (non-AVH group). Using the Positive and Negative Syndrome Scale (PANSS) hallucination P3 items and the Psychotic Symptom Rating Scale (PSYRATS) auditory hallucination score (AHS) to assess the severity of pAVH.

Results Fronto-central the 40 Hz ASSR power and inter-trial phase coherence (ITPC) were significantly lower in pAVH group than non-AVH group; There was no significant difference between the pAVH and mid-AVH group. The 40 Hz ASSR were significantly negatively correlated with the severity of pAVHs.

Conclusion The 40 Hz ASSR deficit is related to AVHs. These results have implications for the etiology of AVHs and provide potential avenues for therapeutic intervention of AVHs.

关键字：Schizophrenia; Auditory verbal hallucination; Auditory steady-state response; Electroencephalogram

儿童注意缺陷多动障碍核心症状对行为问题的影响：执行功能的平行中介作用

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目的 探讨执行功能的 2 个成分行为管理和元认知在注意缺陷多动障碍（ADHD）儿童核心症状与行为问题之间的平行中介效应，为 ADHD 儿童制定更为全面且有针对性的干预方案提供理论依据和实践启发。

方法 选择 2018 年 4 月-2021 年 4 月就诊于广州医科大学附属脑科医院的 102 名 6～12 岁 ADHD 儿童作为研究对象，使用自编一般情况调查表、中文版斯诺佩评估量表第 4 版（SNAP-IV，父母版）、执行功能行为评定量表（BRIEF，父母版）、长处和困难问卷（SDQ，父母版）进行调查。

结果 （1）ADHD 儿童总执行功能、行为管理、元认知明显受损的分别有 44.1%、30.4%、46.1%；存在行为问题高风险的 ADHD 儿童有 73.5%。（2）注意缺陷得分、多动-冲动得分、总执行功能复合分、行为管理指数、元认知指数及行为问题得分相互间均呈正相关。（3）注意缺陷正向预测行为问题（=0.294，$p<0.01$），行为管理和元认知在注意缺陷与行为问题之间起部分中介作用[总中介效应=0.417（95%CI=0.263～0.569），占总效应的 58.73%]。多动-冲动正向预测行为问题

（=0.223，p<0.05），行为管理在多动-冲动与行为问题之间起部分中介作用[总中介效应=0.409（95%CI=0.224～0.595），占总效应的 64.72%]。

结论 （1）ADHD 儿童多存在行为问题，执行功能明显受损。（2）ADHD 儿童的注意缺陷症状、多动-冲动症状、总执行功能、行为管理、元认知及行为问题间存在正相关关系。（3）注意缺陷通过行为管理、元认知的平行中介作用对 ADHD 儿童的行为问题产生影响；多动-冲动通过行为管理的部分中介作用对 ADHD 儿童的行为问题产生影响。

关键字：注意缺陷多动障碍；ADHD 核心症状；执行功能；行为问题

社会精神医学学组

校园自杀守门人培训有效性的研究

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目的 青少年自杀已是一个不可忽视的重要公共卫生问题，然而目前我国仍无系统化的守门人培训方案，本课题组前期制定了自杀守门人培训方案，旨在培训学校老师有关自杀的相关知识和技能，以提高教师对自杀风险的识别和干预能力。为了提升项目执行质量，并符合 ORBIT 模型指南，项目组开展了 2 阶段培训工作。本研究旨在探索生命守门人培训项目对被培训教师的自杀知识的健康素养、对自杀的歧视、对自杀的干预能力和意愿等方面的影响。

方法 本研究通过两个试验来评估自杀守门人方案的培训效果，其一是传统的面对面培训，另一个则是通过培训受训者开展培训的方法。培训点选在广东省的两所当地的职业学校。

结果 研究 1（传统的培训）发现受训者对自杀的歧视(β=-2.57, SE=0.54, P<.001)、自杀知识健康素养(β=1.70, SE=0.21,P<.001)和自杀干预的感知能力(β=6.97, SE=1.19, P<.001)和意愿(β=5.34, SE=0.81, P<.001)上均有所改善。研究 2（视频开展的对受训者开展培训）表明受训者对自杀的歧视和自杀干预的感知能力有显著变化，而自杀知识的健康素养和干预意愿并未有显著变化。这可能受到天花板效应的影响，如方差分析的混合效应分析发现自杀的健康知识素养和干预意愿的基线数据有显著的组间差异。更重要的是，在 1 个月随访的时候，30%的受训者识别并接触到有潜在自杀风险的学生，大概 70%的被识别出来的学生通过告知其父母而获得支持，64%有自杀风险的个体被建议接受专业的支持。

结论 我国青少年自杀守门人方案可提高受训者自杀相关知识的健康素养、自杀干预的感知能力和医院，并降低对自杀的歧视。未来仍需开展研究探索受训者学习到的知识和技术是否有长期持续效果，并需要检验守门人培训是否可以有效帮助到更多被老师们识别出来的有自杀风险的青少年，继而预防自杀行为。

关键字：自杀守门人培训，青少年，教师培训，干预效果

Comparing Rural Late-life Suicide with and without Mental Disorders in China: A Case?control Psychological Autopsy Study

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Objective Half of late-life suicide cases in rural China have no diagnosable mental disorder, yet little is known about the differences between older adults with and without mental disorders who commit suicide. Aims: To examine the differences between late-life suicide decedents with and without mental disorders in rural China and the differences between suicides and matched living controls.

Methods In this matched case–control psychological autopsy study, 242 suicide decedents and 242 living controls were enrolled from three provinces in rural China. Demographic characteristics, diagnosis of mental disorders, suicidal features, and psychological symptoms were collected. Logistic regression models were used to assess differences between decedents with and without mental illnesses and between each of those groups and matched living controls.

Results Suicides with and without mental disorders (122 vs. 120) had similar demographic features and suicidal characteristics. The independent factors related to mental disorders among suicide subjects were being left behind (OR=2.64, 95% CI: 1.08-6.44), severe depressive symptoms (OR=1.13, 95% CI: 1.05-1.20), and relatively low quality of life (OR=0.86, 95% CI=0.75-0.98). Depressive and hopeless symptoms were the two most prominent factors that differentiated the two groups of suicide subjects from living controls.

Conclusions Regardless of mental disorders, late-life suicides may be prevented by improving rural mental health services and public health measures. The former includes mandatory depressive symptom evaluation and effective rural?urban referral, and the latter includes pesticide restriction and first aid ability training of medical staff. Family/community-based social support networks should be established, especially for those with mental disorders.

关键字：Suicide, Older Adults, Mental Disorder, Psychological Assessment, Prevention Strategies

国内重复经颅磁刺激联合 SSRIs 类抗抑郁药物治疗老年抑郁疗效及安全性的 Meta 分析

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目的 通过 Meta 分析方法，系统评价国内重复经颅磁刺激联合 SSRIs 类抗抑郁药物治疗老年抑郁症的有效性和安全性及对认知功能的影响。

方法 通过计算机文献检索中国知网、中国万方医学、中国生物医学文献数据库、维普医药等中文数据库，检索时间均为 1985 年 1 月至 2023 年 6 月，使用“经颅磁刺激”、“重复经颅磁刺激”、“rTMS”“舍曲林”、“西酞普兰”、“帕罗西汀”、“氟西汀”、“氟伏沙明”、“抑郁症”、“抑郁障碍”、“认知功能”作为检索词并同时结合自由词和各数据库的主题词进行检索，再通过手工方式筛查纳入文献的参考文献，最后纳入随机对照试验，提取纳入文献的有关资料。提取纳入文献的有关资料，由两名评价者分别独立进行质量评价，所有文献是否纳入由两名评价者共同决定，如有不同意见通过讨论或经第三人裁定解决分歧。采用在 Cochrane 系统评价中质量评价标准 Jadad 量表，对所纳入的随机对照试验进行质量评价。采用 Cochrane 协作网提供 RevMan 5.3 软件及 Stata15.0 软件进行统计分析。

结果 最终纳入 12 个研究，共 1122 例患者。重复经颅磁刺激联合 SSRIs 类抗抑郁药物治疗老年抑郁症的总有效率比较[OR=3.51，95%CI（2.28，5.41），Z=5.71，P＜0.00001]，有统计学意义；重复经颅磁刺激联合 SSRIs 类抗抑郁药物治疗老年抑郁症结束时 HAMD 量表评定总分比较[OR=-4.57，95%CI（-5.71，-3.43），Z=7.88，P＜0.00001]，有统计学意义；重复经颅磁刺激联合 SSRIs 类抗抑郁药物治疗老年抑郁症结束时威斯康星卡片分类测验（WSCT）中正确应答为[OR=19.28，95%CI（18.20，20.37），Z=34.75，P＜0.00001]，有统计学意义；重复经颅磁刺激联合 SSRIs 类抗抑郁药物治疗老年抑郁症的不良事件总发生率比较[OR=1.22，95%CI（0.81，1.82），Z=1.95，P=0.34＞0.05]，无统计学意义。

结论 重复经颅磁刺激联合 SSRIs 类抗抑郁药物治疗老年抑郁症的临床疗效较显著，可明显改善抑郁症状，同时还能改善认知功能，治疗过程中的不良事件发生较少，治疗安全性高。

关键字：重复经颅磁刺激；老年抑郁症；SSRIs；认知功能；Meta 分析

“3.21”航空器飞行事故心理援助实践与思考

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目的 总结“3.21”东航 MU5735 航空器飞行事故心理援助经验，并提出一些思考，为今后的心理援助工作提供参考

方法 2022 年 3 月 21 日 14 时 38 分广西壮族自治区梧州市藤县发生了“3.21”东航 MU5735 航空器飞行事故，接到广西壮族自治区卫健委指派由广西脑科医院（广西卫生应急心理援助队承建与管理单位）组织我区心理援助专业人员到达梧州参加东航 MU5735 飞行器事故心理援助工作。1.快速响应、积极动员。到 3 月 22 日下午，共有 99 名心理援助人员到达。2.制定工作方案。广西卫生应急心理援助队迅速制定 3.21 东航 MU5735 飞行器事故的工作方案，组建队伍，明确目标人员，将目标人群分四类，并根据情况不断调整工作方案。3.参与心理援助人员情况。后续国家卫健委调派了北京安定医院西英俊等 3 位专家、广西区内 3 位专家，共计有 105 名人员参与了心理援助工作其中有精神科主任医师 9 人，精神科副主任医师 11 人，副主任药师 1 人，精神科主治医师 14 人，精神科住院医师 5 人，心理治疗师 10 人，国家二级心理咨询师 16 人，国家三级心理咨询师 39 人。4.工作措施。由于疫情防控需要，减少人员流动，心理援助工作队分别驻扎 20 个酒店和 1 个事发现场（祭拜点）。采取分片包干，明确主

体责任。每个队负责自己驻点酒店，通过心理援助者，政府工作人员、志愿者等组成的团队，关注需求，提供准确信息，给予实际帮助和照料，提供心理热线服务及网上自助心理训练和心理放松服务。必要时提供药物治疗。5.接受心理援助情况。心理援助队对 640 位遇难者家属开展心理评估，累计开展心理评估 5564 人次。对 397 位遇难者家属开展心理辅导，累计开展心理辅导 1966 人次。心理援助队对 579 位参与援救工作人员开展心理评估，累计开展心理评估 1754 人次。对 462 位参与援救工作工作人员开展心理辅导，累计开展心理辅导 856 人次。心理援助工作后的思考。1.持续开展心理危机干预培训有成效。2.充分利用传统文化习俗。3.建立和完善心理危机干预工作机制。4.建设心理危机干预的人员队伍体系。5.建设心理危机干预服务平台。6.开展心理危机干预的培训与宣传。7.建立心理危机干预的科研体系

结果 本次心理援助收到良好的效果，得到应急处置指挥部的表彰

结论 重大灾难事故心理援助可以较好稳定受灾人群的情绪，有利与社会的稳定

关键字：航空器 飞行事故 心理援助

社区未特定抑郁障碍患者转归的 4 年随访

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目的 对社区未特定抑郁障碍患者进行随访，了解转归，探索远期生活质量的影响因素。

方法 基于天津市心理健康调查随访研究，选取 2011 年确诊未特定抑郁障碍患者为病例组，无任何精神障碍诊断者对照组，于 2015～2016 年进行随访，采用临床定式检查患者版进行精神障碍诊断，使用简明健康状况调查问卷评估生命质量。

结果 共随访 102 例未特定抑郁障碍患者和 291 例健康对照，两组在年龄、性别、婚姻状况、受教育程度和职业等方面的差异均无统计学意义(P>0.05)。64.7%的观测病例在随访时无任何轴 I 精神精神障碍诊断；未特定抑郁障碍检出率为 8.9%（其中轻度抑郁障碍 6.9%，其他未特定抑郁障碍 2.0%）；未特定抑郁患者在随访时抑郁症/心境恶劣/躯体疾病所致心境障碍检出率为 11.8%，其他精神障碍检出率为 14.7%在控制社会人口学变量后，未特定抑郁障碍患者生理健康中的生理职能（B =-15.39, P=0.005）和一般健康状况（B =-6.90, P=0.033），以及心理健康（B =-3.75, P=0.002）及各维度下降风险高于正常对照。

结论 未特定抑郁障碍患者有一定比例会转归为其他精神障碍，且远期生活质量受到影响。有必要对这一人群采取干预措施，以提高生活质量和心理健康水平。

关键字：未特定抑郁；转归；生活质量；随访研究

基于智能手机、可穿戴设备和环境传感器的被动数据在抑郁识别中的应用

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目的 被动数据采集是一种低负担的非入侵性日常数据采集方法，可采集用户日常行为、生理等信息，其常见的数据收集平台为智能手机、可穿戴设备和环境传感器。被动数据目前被广泛应用于抑郁识别中，通过普遍便携设备收集用户日常信息以检测筛查抑郁相关症状，有望提高抑郁的识别率。本研究的目的是系统综述智能手机、可穿戴设备和环境传感器的被动数据在抑郁识别中的应用。

方法 检索以下数据库中截止至 2022 年 3 月 7 日相关的中英文文章：IEEE、Engineering Village、ACM 数字图书馆、PubMed、Embase、web of science、Cochrane 图书馆、万方数据、知网（CNKI）和维普数据库。根据纳入和排除标准，两位作者分别独立进行筛选，并提取研究信息、研究人群特点、数据收集和模型等相关信息。

结果 共检索到 13048 篇文章，经筛选后纳入 22 篇文献，涵盖 2900 名参与者。其中，15 项研究采用智能手机作为被动信息采集平台，4 项研究使用可穿戴设备，3 项研究使用环境传感器。72.3%的研究仅使用症状评估量表对抑郁组和非抑郁组进行分类，22.7%的研究则结合诊断分类系统和症状评估量表进行分类。使用智能手机的研究通过加速度计、屏幕、全球定位系统（GPS）、麦克风、蓝牙、光传感器、步数检测器和手机内嵌设备传感器等数据来评估抑郁症状，如情绪低落、兴趣缺失、焦虑症状、社交回避、活动减少、注意减退、精力减少、睡眠症状。可收集的被动数据包括身体活动、手机使用情况、位置、移动、睡眠、社交活动、日历、通话和消息日志以及文本情感功能。通过穿戴设备收集被动数据的研究捕捉到的抑郁症状包括情绪低落、活动减少、精力减少和睡眠症状，可收集的被动数据包括心率、环境光照、身体活动、燃烧的卡路里和睡眠等。使用环境传感器收集被动信息的数据包括步态、日常活动和位置数据，与活动减少、社交回避和昼夜节律紊乱症状有关。研究中所构建的抑郁识别分类模型的受试者工作特征曲线下的面积为 0.615-0.96。仅有 9 项研究考虑了用户隐私问题，其他 13 项研究未提及隐私问题，但提及了知情同意书签署的情况。

结论 在本研究中，我们回顾了通过智能手机、可穿戴设备和环境传感器收集被动数据构建抑郁识别模型的现有研究，总结了在抑郁症检测模型中使用被动感知数据的研究现状，并提出了未来的研究方向。

关键字：系统综述；抑郁症；被动信息采集；识别

儿童双相障碍共患其他精神疾病的调查

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目的 了解儿童双相障碍共患其他精神疾病的发生情况，分析有共患病患儿的临床特征，为临床诊疗提供参考。

方法 采用横断面研究和回顾性调查，纳入首次于北大六院儿童精神科门诊就诊或儿童精神科病房住院的，符合国际疾病分类第十版（ICD-10）双相障碍诊断标准的 18 岁以下儿童，共 75 人，进行调查和评定。内容包括：一般情况调查、学龄儿童情感障碍和精神分裂症问卷（K-SADS-PL）、儿童总评问卷（GAS）及简明儿童国际神经精神访谈（MINI Kid）（父母版）中文版评定。

结果 双相障碍儿童任一其他精神疾病的共患率为 52%，其中焦虑障碍共患率最高（41.3%），其次为抽动障碍（12%）、注意缺陷与多动障碍（6.7%）。有共患病的患儿首次双相障碍发作类型以抑郁发作为多，病程显著长于无共患病的患儿。有共患病的双相障碍患儿既往自杀行为发生率明显高于无共患病的患儿，但差异无统计学意义（17.9% vs. 5.6%，P>0.05）。有现患共患病的患儿住院次数显著多于现无共患病的患儿，GAS（最高、目前功能水平）评分显著低于现无共患病的患儿，且男性较女性住院次数更多。既往有共患病的患儿双相障碍发作次数显著多于既往无共患病的患儿，GAS（最高功能水平）评分也低于既往无共患病的患儿（均 P<0.05）。

结论 在我国双相障碍儿童中共患其他精神疾病的发生率很高，共患病对患儿的病程、病情严重程度、发作次数、社会功能等产生负面影响。及时诊断和积极治疗儿童双相障碍的共患病需得到更多的重视，以期更好地促进患儿的全面康复，改善患儿的社会功能。

关键字：儿童少年；双相障碍；共患病；横断面研究

正念减压对消防救援人员负性情绪干预研究

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目的 了解消防救援队员的负性情绪状况，探索正念减压对消防救援人员负性情绪的干预效果，促进消防救援人员心理健康。

方法 采用病人健康问卷一 9 (PHQ-9)、广泛性焦虑障碍量表(GAD-7)对某消防救援支队全体在岗 315 名一线队员进行筛查，符合下列任意一条为入组标准：① PHQ-9 量表评分≥5 分、且≤14 分者；②GAD-7 量表评分≥5 分、且 < 15 分者。排除标准：①有自杀风险者；②有重度焦虑或抑郁者（即 PHQ-9 量表评分≥15 分；GAD-7 量表评分≥15 分）；③排除重性精神疾患者；④排除主观不愿意参加正念减压训练者；⑤排除存在不能完成正念任务因素者。并签署知情同意书。在筛查基础上，选取 60 名有轻、中度抑郁或者焦虑状况者，用单纯随机抽样方法，随机分为干预组 29 名和对照组（延迟干预组）31 名，开展正念减压干预，并作效果评估。

结果 回收有效问卷量表 270 份，有效筛查率为 85.71%，270 名一线消防救援人员中，有轻度、中度、中重度和重度抑郁者分别为 37 人 (13.7%)、15 人（5.56%）、 11 人 （4.08%）。焦虑筛查有轻度、中度、重度焦虑者，分别为 36 人（13.33%）、14 人（5.19%）、6 人（2.22%）。采用正念减压干预后，干预组 PHQ-9 减分值为-2.000±1.773，对照组为-0.323±0.945，(t=-4.529，p<0.01)；GAD-7 干预组减分值为-1.414±1.722，对照组的减分值为 0.387±1.086，(t=-4.808，p<0.01)。

结论 需要关注消防人员的心理健康，采用正念减压干预能有效降低消防救援人员的轻-中度焦虑和抑郁状况，改善他们的负性情绪, 增强积极情绪以保持个体身心健康和提高生活质量。从而提高消防人员的抗压与应对能力。

关键字：正念减压； 负性情绪； 消防救援人员

吉林省精神科转岗医师执业状况及心理健康素养水平调查分析

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目的 自 2016 年以来，吉林省开始开展精神科医师转岗培训项目，截止目前，共开展六届。为了了解吉林省精神科转岗医师执业现状、精神科转岗医师心理健康素养水平，开展本次调查。

方法 本次调查采用线上调查方式，调查问卷包括一般信息表；国民心理健康素养问卷（陈祉妍，2019）。国民心理健康素养问卷包括三部分，第一部分判断题共 20 题，每题 5 分，总分值为 0-100 分，≥80 分为达标，评估内容围绕心理健康核心知识,即“心理健康素养十条”(国家卫健委,2018)；第二部分自我评估题，表述了被试在生活中应对心理问题的一些行为习惯和对心理健康的重视程度以及如何获得心理健康知识和如何寻求专业的心理帮助，共 8 题，均为 1-4 评分，总分值为 8-32 分，≥24 分为达标；第三部分案例分析题，共 2 题，≥28 分为达标；三部分均达标人数/总人数×100%为心理健康素养水平。

结果 2016 至 2021 年，吉林省共培养精神科转岗医师 369 人，360 人参与了问卷调查，其他 9 人因生病、退休等情况无法完成调查。结果显示：转岗后加注精神科的共 237 人（65%），完全转岗为精神科共 8 人（2.2%），目前从事精神科包括兼职人数 206 人（57.2%），从事精神卫生防治工作 123 人（34.1%）；在区（县）级执业 182 人（54.3%），社区卫生服务中心（乡镇卫生院）29 人（8.6%）；精神科转岗医师心理健康素养水平为 60.48%。

结论 1.自吉林省开展精神科医师转岗培训项目以来，极大程度缓解了我省精神卫生人才紧缺现状，提升了我省精神卫生服务能力。 2.吉林省精神科转岗医师心理健康素养水平较高，说明我省精神科转岗医师能够掌握常见精神卫生知识，对自身及他人均能获取或提供及时有效的心理支持和治疗，这也为促进我省居民心理健康素养水平的提升提供了支撑和保障。 3.目前吉林省精神科转岗医师加注人数、从事精神科人数相对较低，应积极鼓励在不放弃原执业范围的基础上增加注册精神卫生专业执业范围，提升我省精神卫生服务能力。 4.精神科医师转岗培训主要以基层医疗机构医师为主体，但吉林省基层医疗机构参加精神科转岗培训人数不多，开展精神疾病防治工作人数较少，应建立激励机制，鼓励更多的基层医疗机构医师参与精神科转岗医师培训项目，缓解基层精神专科力量不足现状。

关键字：精神科转岗医师 执业状况 心理健康素养

吉林省居民心理健康素养水平现状分析

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目的 了解吉林省居民心理健康素养水平及其影响因素，为促进吉林省居民心理健康素养水平的提升提供科学依据。

方法 采用分层多阶段抽样方法，根据吉林省人口统计年鉴，分层抽取 30 个区县、60 个街道（乡镇）、180 个居（村）委员会，在居（村）委员会抽取调查家庭，在每户家庭中随机抽取 1 名 18 岁以上常住人口作为调查对象。共抽取 10080 位居民开展居民心理健康素养调查。调查方法采用问卷调查，包括①一般人口学资料；②国民心理健康素养问卷（陈祉妍，2019），问卷分为判断题、自我评估题、案例题三个部分。第一部分判断题共 20 题，每题 5 分，以百分制计分,评估内容围绕心理健康核心知识,即“心理健康素养十条”(国家卫健委,2018)，总分值为 0-100 分；第二部分自我评估题，表述了被试在生活中应对心理问题的一些行为习惯和对心理健康的重视程度以及如何获得心理健康知识和如何寻求专业的心理帮助，共 8 题，均为 1-4 评分，总分值为 8-32 分；第三部分案例分析，两组案例得分直接加和，即为案例题总分。每一个被试心理健康素养达标需要同时满足下面 3 个条件：第一部分判断题总分≥80 分；第二部分自我评估题总分≥24 分；第三部分案例题总分≥28 分。计算公式为：居民心理健康素养水平（%）=（心理健康素养达标人数 /被调查人数）*100%。

结果 吉林省居民心理健康素养水平为 14.3%，较基础水平 12%高 2.3 个百分点，心理健康素养水平在不同性别、年龄、文化程度人群间存在明显差异（p<0.05）。随着年龄增长心理健康素养水平递减，农村心理健康素养水平低于城市，文化程度越高，心理健康素养水平越高。

结论 吉林省居民心理健康素养水平不高，有待进一步提升，建议加强心理健康相关知识普及，探索新的科普宣传策略，提升心理健康素养水平。

关键字：心理健康素养水平 国民心理健康素养问卷

舍曲林联合拉莫三嗪治疗在青少年抑郁症伴边缘型人格障碍特征患者中的疗效

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目的 探讨拉莫三嗪联合舍曲林治疗伴边缘型人格特征的青少年抑郁患者的疗效观察

方法 选取 2021 年 10 月～2023 年 2 月在我院门诊就诊的年龄在 12～18 岁之间的青少年患者，需伴有边缘型人格特征，共 40 例，采用随机数字表法分组，其中观察组 20 例，服用舍曲林联合拉莫三嗪治疗；对照组 20 例，服用舍曲林治疗。观察对比两组患者治疗前后汉密尔顿抑郁量表（HAMD）、心境障碍问卷(MDQ)、人格障碍诊断问卷（PDQ-4）、及治疗期间自残行为发生率。

结果 治疗 4、8 周后，患者的汉密尔顿抑郁量表（HAMD）、心境障碍问卷(MDQ)观察组均低于对照组（P< 0.05）；治疗期间，观察组患者的自残行为发生率低于对照组（P< 0.05）。

结论 青少年抑郁症的患病率有增高的趋势，特别是伴有边缘型人格特征的患者单纯服用抗抑郁药物效果不理想，此类患者治疗难度较大；情绪不稳定、人际关系不稳定、冲动、自伤自杀等多个维度的特征增加了治疗难度，很多患者伴有双相特征。拉莫三嗪为情感稳定剂之一，主要用于双相情感障碍中抑郁相的治疗，舍曲林联合拉莫三嗪治疗对于抑郁症伴边缘型人格障碍特征的青少年患者的抑郁症状有明显的改善作用，患者的情绪明显改善，情绪的稳定性更好，自残行为明显减少。但因为拉莫三嗪加量缓慢，需充分做好医患沟通。

关键字：抑郁症 青少年 边缘型人格障碍

精神卫生法后 10 年住院患者情况初步分析

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目的 精神卫生法实施十年，精神专科医院患者住院情况是否发生了变化，做一观察。

方法 精神卫生法实施前一年及实施 10 年后两个特定时间段的精神专科医院出院患者数、性别、年龄、住院次数、住院时间（天）、住院总费用、中（成）药费用及护理费用

结果 1)、2012 年出院患者 1595 例，其中男性 770 例，女性 825 例；2022 年出院患者 3332 例，男性 1503 例，女性 1834 例，出院患者 t 值 251.40，性别 t 值 216.739，出院患者数及性别两年间存在显著性差异。（2)、出院患者年龄比较：2012 年出院患者年龄区间 11-93 岁，平均 44.06±16.087；2022 年出院患者年龄区间 9-105 岁，平均 46.56±20.676，两组 t 值 166, 00,两组平均年龄有差异。（3）住院天数、次数、总费用、中成药费用、护理费用比较 住院天数（天）2012 年 41.79±28.574；2022 年 43.13±20.68，t 值 99.30；住院次数（次）：2012 年 6.86±11.623，2022 年 8.10±15.24，t 值 38.11；总费用（元）：2012 年 7715.72±4547.36，2022 年 20407±11889，t 值 97.55；中（成）药费用（元）：2012 年 141.03±254.06，2022 年 158.64±213.6，t 值 27.91；护理费（元）：2012 年 811.62±593.94，2022 年 2979.1±2302，t 值 73.48，两组平均住院天数、总费用及护理费用有差异，而中（成）药费用差异不大。

结论 在精神卫生法实施十年后出院患者人数增加，一方面说明更多的患者得到了精神卫生救助，另一方面也说明了居民在精神卫生服务的利用得到增加。研究显示，两组间患者年龄差异有显著性，且在 2022 年患者的年龄区间大，原因与 10 年间社会对老年及青少年的关注增加、本院开设老年病房及儿童病房有关，也说明了专科医院对精神病患者的救助能力明显提升。10 年间患者的住院次数有增加，说明家属及社区对有精神问题的患者在病情波动时能及时送医；资料显示住院天数也有明显差异，罗氏在精神卫生法实施 8 个月时报道精神卫生法的实施并没有缩短长期住院患者的住院时间和增加出院机会，经过 10 年的执行，时间上未缩短，

关键字：精神卫生法 出院患者

团体工作对提高社区精神障碍患者社交技能的效果研究

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目的 精神疾病的慢性化倾向使得社区精神障碍患者人际网络逐渐窄化、社会生活受困、诸多基本需求无法满足，患者普遍面临着与家人、朋辈、邻里、社区等诸多群体开展日常社会交往的困境。本文从社会支持理论视角出发，探讨专业的精神康复医务社工通过开展团体工作提升社区精神障碍患者社交技能、增进朋辈支持的可能性、有效性和必要性。通过专业医务社工干预，改善社区居家精神障碍患者的社交技能，完善生物-心理-社会治疗模式，促进其社区康复。

方法 采取年龄、性别分层，对于符合入组标准的某区在册精神分裂症患者采用随机抽样方法，招募社区精神疾病患者 40 人，随机分为实验组和对照组，各组 20 人。设计基本需求调查问卷，了解患者社交需求。两组在干预前使用“社交回避及苦恼量表”、“自尊感与安全感量表”进行前测，随后对实验组开展社工小组活动，共 8 次，每次 90 分钟。干预结束后，对于量表和访谈资料进行分析，问卷结果采用 SPSS 统计软件进行分析，访谈结果采取编码、综合、分类、概化等方法加以归纳。干预结束后 3 个月，对两组进行随访，通过再测，比较两组差异。

结果 团体干预前，两组无 SAD 量表总分及分量表评分差异均无统计学意义，干预治疗后，实验组得分明显低于对照组，3 个月后追踪调查，实验组得分亦低于对照组。

结论 通过本研究可看出，医务社工采取团体干预方法介入社区精神障碍患者的康复治疗，对于改善其社交技能起到了积极的效果，并对实验组进行追踪随访发现实验组被试的社会交往能力、正向社交情绪以及自尊水平上都有了较大的提高和改善。

关键字：社区精神障碍患者，团体工作，社交技能

关于精神分裂症照顾者苦痛与支持的质性研究

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目的 精神分裂症是一种发病率、复发率和致残率较高的疾病，对患者及家庭产生巨大影响。本文旨在以精神分裂症照顾者为研究着眼点，运用社会支持理论分析患者、照顾者、社区之间的交互关系，增进社会对该群体的了解与接纳；同时，通过医学人文视角探索为精神障碍患者的照顾实践提供一种更为完善而系统的社会支持方式的必要性和可能性。

方法 以精神分裂症照顾者为研究对象，包含患者父母、配偶、手足等。主要采取滚雪球法收集资料，共选取研究对象 50 名，其在性别、年龄、与患者关系、受教育程度、劳动能力、经济状况等方面均有差异，异质性较强。采取质性研究方法，其中以个别访谈、焦点小组为主要收集资料方法：①通过个别访谈，了解照顾者的深度主观体验、家庭结构关系、病耻感体验等；②通过焦点小组制定讨论主题，讨论挖掘精神分裂症照顾者关于精神疾病的认知程度、人际交往沟通、社会功能状态等。采用 Nvivo11 质性与混合研究分析工具整理和分析访谈、开放式调查问答、焦点小组讨论等资料内容。

结果 社会支持被认为是衡量精神分裂症照顾者负担轻重的最好预测者，精神分裂症照顾者长期以来承受着来自社会、群体、家庭等多方压力，社会支持网络单薄会对患者和照顾者生理和心理健康均产生不同程度的负性影响，反之则产生不同效应。本研究表明基于“互动取向”视角，精神分裂症照顾者在疾病确诊期、反复发作期、病情稳定期经历了不同的情绪体验和社交网络变化。基于“结构取向”视角，精神分裂症照顾者所接受的社会支持可分为非正式社会支持与正式社会支持，且社会支持的类型与网络是一个不断变化的过程，随时间推移照顾者所接受到的正式与非正式社会支持在内容、频率、种类等方面都会有所变换。基于“功

能取向”视角，精神分裂症照顾者所接受到的社会支持可分为表达性支持与工具性支持，在不同时期照顾者所感受到的占主导性的社会支持类型有较大变化，其对照顾者的物质与精神都会产生较大影响。

结论 “家庭”不仅是精神障碍患者照顾的核心力量，且较多参与到患者的康复诊疗活动，精神分裂症照顾者面临巨大有形压力和无形压力。对于照顾者而言，在利用好家庭内资源的基础上，充分发挥家庭外资源的作用，建立精神障碍患者和照顾者的“国家-社会-医院-社区-家庭”综合服务模式对提高患者和照顾者生活质量，助力患者尽早回归社会，重建照顾者的信心和希望具有积极意义。

关键字：精神分裂症照顾者；社会支持；苦痛体验

医学人文视角下关于精神障碍患者的污名研究

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目的 污名导致精神疾病患者背负巨大身心压力，本研究旨在从医学人文视角出发，以社区康复精神疾病患者为介入点，从日常生活领域着手，运用质性研究方法，以病痛叙述的形式探寻精神疾患群体的生存状况和内心世界，描述其在日常生活中遭遇的污名以及通过自主性的、互助性方式对抗歧视的策略，以期改善社会对于精神病人认知，减轻大众对于该群体歧视。

方法 研究选取两类对象：①社区康复精神患者60 人。入组标准是经专业精神科医生诊断并确诊，经治疗后达到精神医学康复标准，现居住在社区 6 个月以上，病情稳定，可正常沟通。②精神疾病患者家属 30 人。入组标准是与患者共同生活半年以上，可进行基本交流。采取质性研究方法，围绕精神疾患及相关群体日常生活层面，通过运用参与式观察、深入访谈和焦点小组方法收集其所遭遇污名以及应对策略的资料。正式访谈前，分别选取 5 名患者和家属进行预访谈，以完善问卷。通过录音法收集资料，运用定性数据分析软件对所获资料采取类别分析、挖掘主题。

结果 污名化后果不仅具有客观排斥性，在社会和群际现象中呈现出负性认知、情感拒绝和行为歧视，且具有主观感知性，患者因精神病人身份而对自我感到羞愧和耻辱，贯穿于患者求职、就医、治疗、康复全过程，对其心理状态、社会功能、治疗依从性、社会康复以及生存质量均产生危害。公众污名导致患者工作权利丧失、在婚恋领域普遍遭遇歧视、人际交往阻断。自我污名导致患者就诊意愿不足、面临治疗和康复困境。在日常生活实践中，患者和家属会通过选择不同策略来有效管理和控制关于精神疾病诊断及患者个人身份信息，试图寻求个人的运作空间和一定限度的自我实现。

结论 对于社区精神疾病患者而言，外显的精神症状可以通过药物治疗加以控制和消除，但内心关于精神疾病污名而造成的不安、痛苦与挣扎却难以一时祛除，唯有激发群体内在积极性与主动性，注重增能和赋权，改善其关于疾病和污名的认知，才能改变该群体受污名的处境。从医疗卫生专业人员角度而言，转变传统的精神卫生诊疗与服务模式，注重医护人员的医学人文和伦理道德训练，从“以疾病为中心”到“以患者为中心”转变，真正做到对患者的理解、接纳和共情才能降低对该群体的污名。从政府和社会角度而言，必须致力从制度性、结构性因素作出改变，推进关于精神卫生法制化进程，强化媒体对于精神疾病的正向报道，改善关于精神疾病的社会文化话语建构，从而减少社会污名和歧视。

关键字：精神疾病，公众污名，自我污名，病痛叙述

新冠流行期间集中隔离人员有焦虑、抑郁症状常见，女性、精神心理科就诊史和缺乏家庭支持可能是危险因素。

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目的 了解新冠肺炎疫情背景入境人员在集中隔离期的心理健康状况。

方法 选择 2020 年 10 月 1 日 － 2021 年 2 月 9 日集中隔离在上海的入境人员，采用患者健康问卷抑郁量表(PHQ-9)，广泛性焦虑障碍量表(GAD-7)、创伤后应激障碍检查表平民版(PCL-C)分别筛查评估他们的焦虑、抑郁及创伤后应激症状。用 T 检验和秩检验比较隔离第一天、第七天和第十四天的症状严重程度。采用 logistic 回归分析焦虑、抑郁和创伤后应激症状的影响因素。

结果 调查的 1262 人中，存在抑郁、焦虑和创伤后应激症状者的比率分别是 10.0%、7.3%、1.0% 。女性、有精神心理科就诊史、没有每天与家人联系者更易出现度焦虑、抑郁和创伤后应激的症状 (P ＜ 0.005) 。年龄、受教育程度，是否为学生这几个因素与焦虑，抑郁和创伤的症状评分无关。研究中已婚/同居者仅创伤症状评分低于独居者，而对抑郁、焦虑症状并无影响。在隔离第 1 天，焦虑、抑郁和创伤后应激症状最为明显。

结论 新冠流行期间集中隔离人员存在焦虑、抑郁症状常见。女性、精神心理科就诊史和缺乏家庭支持可能是影响焦虑、抑郁的危险因素。

关键字：新冠病毒；集中隔离 ；心理健康；焦虑；抑郁；应激

The Impact of Childhood Trauma on Adolescent Mental Health: Discrepancies in Parent-child Assessment

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Objective This study aimed to compare the clinical symptoms, family environment characteristics, and parent-child evaluation consistency between adolescents with a history of childhood trauma and those without a history of childhood trauma.

Methods The study included monitoring points in the Taizhou urban area, Yixing City, and Sheyang County. In each location, 1-2 junior high schools and 1-2 high schools were selected. A stratified cluster sampling method was used, and the participants included school students and their parents. A total of 837 adolescents with childhood trauma history and 2,197 adolescents without childhood trauma history were compared in terms of clinical symptoms, family environment characteristics, and parent-child evaluation consistency.

Results Firstly, adolescents with a history of childhood trauma exhibited more severe symptoms of depression, anxiety, stress, sleep disorders, self-harm behaviors, internet addiction, and food addiction. They also demonstrated more severe behavioral problems related to emotions, conduct, and peer interactions. Secondly, parents' evaluation of their children's behavior problems showed higher inconsistency compared to the self-evaluation of the children. Parents generally underestimated the severity of their children's behavioral problems. The greater the discrepancy in parent-child evaluation, the more severe the adolescents' symptoms of depression, anxiety, stress, insomnia, internet addiction, food addiction, and self-harm behaviors.

Conclusion Childhood trauma has a detrimental impact on adolescents, leading to severe psychological symptoms and behavioral issues. Additionally, parents often underestimate the severity of their children's behavioral problems, resulting in inconsistent evaluations. Recognizing the significance of childhood trauma and improving parental awareness of their children's difficulties are crucial for the mental well-being of adolescents.

关键字：Childhood trauma；Adolescent mental health；Parental assessment

Physical Activity and Mental Health in A Nationwide Sample of Psychiatrists in China During The COVID-19

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Objective This study aimed to investigate the association between physical activity (PA) frequency and level of mental health among psychiatrists in tertiary psychiatric hospitals.

Methods We conducted an online questionnaire among psychiatrists working in large psychiatric institutions across the country. We collected data including demographic factors, physical activity (PA) frequency, sleep status, quality of life, and so on. Mental health among psychiatrists was assessed using a Chinese version of the depression anxiety stress scale-21(DASS-21), including depression, anxiety, and stress symptoms.

Results A total of 3956 psychiatrists were included in the study, including 1594 males (40.29%) and 2362 females (59.71%). Among them, 1065 (26.92%) physicians reported having no PA, and 1804 (45.06%), 747 (18.88%), 276 (6.98%), 64 (1.62%) physicians reported seldom, sometimes, often, or almost every day having PA in the last year. In addition, the detection rates of depression, anxiety and stress symptoms were 26.92%, 24.39% and 11.25%, respectively. In the binary logistic regression, PA frequency (seldom, reference: No PA) was significantly associated with depression symptoms in all psychiatrists. PA frequency (often, reference: No PA) was significantly associated with stress symptoms in male psychiatrists. And PA frequency (seldom, reference: No PA) was significantly associated with anxiety symptoms in female psychiatrists.

Conclusion Higher PA frequency is associated with fewer symptoms of depression, anxiety, or stress, and increasing PA frequency may improve the mental health of psychiatrists. Funding: The study was supported by the National Clinical Key Specialty Project Foundation (CN), and the Beijing Medical and Health Foundation (Grant No. MH180924).

关键字：physical activity, depression, anxiety, stress, psychiatrists, psychiatric hospital, China, COVID-19

综合性量表与单一自杀史条目预测心理援助热线来电者不同时期自杀行为的效果比较

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目的 心理援助热线能为公众提供免费、便捷、有效的社会心理服务。识别高自杀风险者是心理援助热线运营中的重要挑战之一。本研究旨在比较中国最大的心理援助热线在运营中使用的两种常规自杀风险评估工具，对预测来电者在不同时间点内的自杀行为的效果。

方法 采用前瞻性队列研究，招募和随访了 8859 例北京市心理援助热线的来电者。基线时，采用两种策略用于分别筛查来电者的自杀风险。第 1 种，使用一个条目，评估来电者在过去 2 周内的自杀意念、自杀计划、自杀行为。第 2 种，使用综合的自杀风险评估量表，包括评估抑郁、无望感、压力等 12 个领域。受培训的研究助理使用电话随访来电者在基线入组后 1 年内的自杀行为（自杀未遂和自杀死亡）。

结果 来电者在 24 小时，30 天，180 天，1 年内实施自杀或自杀未遂的例数分别是 102 例，341 例，615 例和 802 例。筛查方式 1 和筛查方式 2 预测 24 小时，30 天，180 天，1 年内自杀行为的敏感度分别为 87.3%和 98.1%，68.9% 和 93.0%，56.3%和 88.1%，

47.9% 和 85.9%；特异度分别为 81.6%和 46.1%，82.8%和 47.1%，83.5%和 48.1%，83.6%和 48.7%；阳性预测值分别为 5.2%和 2.1%，13.8%和 6.6%，20.3%和 11.2%，22.6%和 14.3%；Youden 指数为 68.8%和 44.1%，51.7%和 40.1%，39.8%和 36.2%，31.6%和 34.6%。

结论 尽管关于近期自杀史的 1 条目能较好预测心理援助热线来电者在拨打电话后 6 个月内的自杀行为，但是综合的自杀风险评估量表在预测来电后的长期自杀行为上更具优势。并且，单一自杀史条目有更高的假阴性，可能使低成本社会心理干预服务无法尽可能多地覆盖目标人群。

关键字：自杀；心理援助热线；预测；自杀未遂；心理危机；评估

Rapid Reduction of Nurse-rated Suicidality Among Psychiatric Patients Shortly Following Hospitalization

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Objective Suicidality is a major reason for psychiatric hospitalization but there have been no studies of the short-term changes in suicidality following psychiatric admission, for example during the first three days after admitted, a period when medications and other specific therapies are not likely to have taken effect and the primary benefit is likely to be from hospitalization.

Methods A retrospective study of inpatients at risk for suicide was based on nurse-rated suicide assessments documented in medical records at a large psychiatric hospital in southern China. Suicidality was assessed with the Nurses' Global Assessment of Suicide Risk (NGASR) every day (1-3) following admission. Reduction of suicidality from first- to third-day were compared by using McNemar's Tests and T-tests, followed by logistic regression to identify correlates of having high risk on day 3.

Results The sample (n=562) showed a relatively high level of average suicidality (NGASR=9.2±3.3) at admission with 33.8% reporting a prior suicide attempt. Significant reductions in suicidality were apparent by the third hospital day compared to baseline with NGASR-5 change items score declining from 6.3±2.8 to 4.6±3.0 (p<.001, Cohen's d=.578), indicating a moderately large change. Compared with those unemployed, being currently employed was associated with greater reduction in likelihood of being at high-risk on day 3 (OR=.568, 95%CI [.361, .895], p=.015).

Conclusion This study demonstrates short-term substantial reduction in suicidality after only three days of hospitalization suggesting significant benefit from admission to a safe secure environment.

关键字：psychiatric hospitalization; suicide risk; primary psychiatric diagnosis; NGASR

Assessing The Effects of Electroconvulsive Therapy on Cognition in Adolescents and Young Adults with Depression Using The THINC-it Tool

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Objective Electroconvulsive therapy (ECT) is the most effective treatment for depressive disorders. However, the cognitive impairments resulting from ECT limit its clinical use. This study employs the THINC-it tool to assess cognitive function in patients with depressive disorders and its associations with efficacy.

Methods A total of 47 participants, chosen from hospitalized patients with depression who were receiving ECT, were enrolled in this study. The primary outcomes were measured using the 24-item Hamilton Depression Rating Scale (HAMD-24) and the THINC-it tool. Mann–Whitney U test and independent sample t-test were used for descriptive analysis. Paired samples t-test or Wilcoxon test was used to compare the differences in cognitive function changes. Covariance analysis and logistic regression analysis were used to analyze the data related to changes in cognitive function.

Results The response group was older (z = -2.218, P = 0.027) and did not have NSSI ($\chi 2 = 3.945$, P = 0.047). The HAMD-24 scores decreased significantly after treatment (t = 8.543, P < 0.01). The PDQ-D-5 score decreased significantly after ECT (t = 2.201, P = 0.033), and the TMT-B completion time of the response group was significantly shorter than that of the non-response group (F = 4.766, P = 0.035). Baseline 1-back correct responses were effective in predicting the treatment outcome (OR=1.124, P = 0.042).

Conclusion The patients who responded to the treatment had significantly better executive function after ECT. Baseline working memory levels may predict ECT efficacy, and further evaluation is needed to expand the sample size.

关键字：electroconvulsive therapy, depressive disorder, cognitive function, efficacy

青少年和成年早期抑郁症患者 ECT 治疗后自传体记忆损害与抗抑郁疗效的相关性

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目的 探究青少年和成年早期抑郁症患者 ECT 治疗后自传体记忆损害与抗抑郁疗效的相关性。

方法 选取在 2019 年 11 月-2023 年 2 月于广州市脑科医院住院治疗的 37 例均采用电休克治疗

（ECT）的青少年和成年早期抑郁症患者（14-25 岁）。治疗前后均采用汉密尔顿抑郁量表(HAMD)评分，计算减分率，以减分率为≥50%为界限，将患者分为有效组（22 例）和无效组（15 例）。37 例患者治疗前后采用自传体记忆量表（AMI-SF）评分，计算各项目减分率和总体减分率。最后使用 SPSS（Version 23.0）软件，采用配对 t 检验分析 ECT 前后自传体记忆的变化程度；采用 Pearson 相关系数分析患者接受 MECT 前后的抑郁症状改善水平和自传体记忆损害之间的相关性；另外采用独立样本 t 检验分析有效组与无效组之间自传体记忆损害的差异，当 P<0.001；t = 6.813, P<0.001; t = 7.405, P<0.001; t=10.012, P<0.001;t=6.135, P<0.001; t=10.083, P<0.001）。ECT 后受试者的抗抑郁疗效只与自传体记忆中的家庭成员因子有负相关性（r=-0.314，P=0.046）,与其余 5 个因子均无相关性（均 P>0.05）。与无效组相比，有效组的 AMI 减分率在家庭成员因子中更小（t=-2.180，P=0.042），在其余 5 个因子中均无差异（均 P>0.05）。logistic 回归模型中家庭成员因子有统计学意义（P=0.018），家庭因子得分每增加一分，ECT 治疗有效的概率减少 37.7%。

结论 青少年和成年早期抑郁症患者 ECT 治疗后抑郁症状明显改善，自传体记忆均有不同程度损害，且抗抑郁疗效与自传体记忆中的家庭成员因子损害呈负相关。ECT 记忆损害严重程度可能与抗抑郁疗效有关。

关键字：青少年；抑郁症；ECT；自传体记忆

无抽搐电休克治疗联合药物治疗与单纯药物治疗对重度抑郁症患者性激素的影响及与临床疗效的关系

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目的 探讨无抽搐电休克治疗（Modified electroconvulsive therapy，MECT）联合药物治疗和单纯药物治疗对重度抑郁症患者性激素及临床疗效的影响。

方法 采用回顾性研究的方法，收集 2016 至 2017 年在广州市惠爱医院住院治疗的重度抑郁症患者（n=71）人口统计学与临床资料，采用汉密尔顿抑郁 17 项量表（Hamilton Depression Scale-17，HAMD-17）评估患者在不同治疗方案前后抑郁情绪的变化情况，收集患者治疗前后性激素检测结果评估治疗对性激素的影响，采用 Person 相关性分析比较各项性激素对抑郁情绪改变的影响。

结果 （1）经过 MECT 联合药物治疗和单纯药物治疗后，MDD 患者的 HAMD 评分均明显下降，差异有统计学意义（t=15.33，P<0.001；t=14.10，P<0.001）；（2）MECT 联合药物治疗与单纯药物治疗组前后患者的 HAMD 评分、血清 PRL 水平、血清 E2 水平差值均有统计学差异（t=2.71，P=0.008；t=-2.11，P=0.039；t=-2.05，P=0.044）；（3）相关性分析显示两种治疗对于 HAMD 评分的影响与对于 E2 水平的影响呈负相关（Person 系数=-0.464，P<0.001）。

结论 MECT 联合药物治疗与单纯药物治疗均能明显改善 MDD 患者抑郁症状，但 MECT 联合药物治疗对抑郁症状的改善更显著。MECT 治疗联合药物治疗与单纯药物治疗方案对重度抑郁症患者抑郁情绪的改善作用与两种治疗方式对雌激素的影响有关。

关键字：无抽搐电休克治疗；药物治疗；重度抑郁症；性激素；临床疗效差异

The Prevalence of Turnover Intention and Influencing Factors Among Psychological Counselors: A National Observation.

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Objective In China, counseling teams face problems such as unstable professional teams, low education, and lack of training, among which unstable professional teams and human resource turnover are the main reasons affecting the development of counseling teams in China. Intention to leave can be a good predictor of staff turnover, so this study focuses on investigating counselors' intention to leave and its influencing factors.

Methods This study collected job-related information (turnover intention, job burnout, job satisfaction, depression, etc.) and personal information (age, marital status, having children, etc.) of 419 psychological counselors from 41 tertiary hospitals. And this questionnaire is filled out anonymously to protect the privacy of the participants.

Results A total of 419 counselors were included in this study, and about 1/5 of them had the idea of leaving their current jobs. There were significant differences in job satisfaction, job burnout, insomnia, depression and work intensity between the two groups of psychological counselors (turnover intention VS without turnover intention). Further binary logic regression analysis found that job satisfaction (OR=0.928, 95%CI=0.899-0.958), job burnout (OR=3.218, 95%CI=1.434-6.823), depressive symptoms (OR=1.060, 95%CI=1.004-1.120) and job intensity (OR=2.083, 95%CI=1.076-4.031) were the main factors affecting psychological counselors' turnover intention.

Conclusion About 1/5 of psychological counselors in China reported their intention to leave. Job satisfaction, depressive symptoms, job burnout and job load teachers affect the main factors of turnover intention, so policy makers and hospital managers need to be aware of these potential influencing factors. to solve the problem of high turnover intention of psychological counselors in China.

关键字：urnover intention;psychological counselors

精神科急诊过量服药自杀未遂患者的特征分析

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目的 自杀是精神科关注度颇高的话题，而自杀的早期识别及预防则更是重中之重。在自杀的预防中，相对较高比例的自杀未遂者采用了过量服药。本研究通过分析精神科急诊就诊的过量服药自杀未遂患者的特征，借此帮助识别可能的风险药物类别，并为自杀的预防措施提供依据。

方法 本研究采用回顾性分析，纳入了 2020 年 1 月至 2020 年 12 月在首都医科大学附属北京安定医院精神科急诊科就诊的过量服药自杀未遂病例。研究排除了仅用酒精或其他非药物进行自杀的病例。

结果 在 105 例过量服药患者中，排除非自杀企图（如误服）等 24 例，一共纳入 81 例企图过量服药自杀者。其中 72 例患者(88.9%)为女性；中位年龄为 24 岁(范围 13-72 岁)；对年龄进行分层发现≤20 岁组与 21-30 岁组占比最高（均为 29 例,35.8%），随着年龄增长，比例呈下降趋势，60 岁以上者仅 3 例（3.7%）。最常涉及的物质/药物类别是苯二氮卓类药物(n = 55, 67.9%)、抗抑郁药物(n = 38, 46.9%)和新型非苯二氮卓类药物(n = 25, 30.9%)，其次是心境稳定剂和抗精神病药物（均为 16 例，21.0%）。在药物种类上，多数服用超过 2 种药物（n=60,74.1%），其中服用 3 种及以上药物者 28 例（34.6%）。季节特征上，秋季（9-11 月）发生过量服药的比例最低（n=10,12.3%），而其它季节未见明显差异，占比均接近 30%。工作日及周末上，工作日服药比例相对更高。 57 例报告了具体过量服药的时间，其中接近一半在白天（8:00-19:00）服药（n=28,49.1%），其次是凌晨（0:00-8:00）服药（n=19,33.3%）和晚上服药（n=10,17.5%）。结局方面，不到 1/3 的患者选择急诊留观病房住院治疗（n=22,27.2%），大部分则选择门急诊随访。

结论 年轻女性是过量服药自杀未遂的高危人群，苯二氮卓类药物与抗抑郁药物则是精神科过量服药的最常见处方药。未来在自杀防治方面，除了需要限制处方药物包装大小外，还包括在开精神药物处方时仔细监测自杀行为，尤其是针对高危人群。

关键字：精神科；自杀未遂；过量服药

精神病人角色的适应与重构

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目的 生物医学中，精神病人是作为干预帮扶的对象和被动的客体，其话语表达与主体行动常常被忽视，本文在帕森斯“病人角色”概念基础上，从精神病人视角出发，试图探索出精神病人日常生活中的主体性。这是该群体回归社会、实现社会生活“常态化”的基础，对于实现精神卫生公共性具有重大意义。

方法 本研究选取 2021 年 3 月至 2022 年 6 月上海市 H 区在册精神病人 35 人，并进行深度访谈和观察

结果 精神病人在日常生活中呈现出适应角色和重构角色两种生存策略。适应角色表现为接纳医学治疗及康复、认识并享受疾病带来的额外获益。重构角色表现为语言上利己的病因解释、行动上顺应社会期待的多种努力，以期解构社会污名及结构性压力，其中，精神病人通过外化归因、文化归因、隐蔽化的表述形式对疾病进行建构和解释，采用规避、过渡、互惠策略展开日常行动。

结论 精神病人长期面临社会脱嵌及社会结构性压力，他们的生存现状犹如“戴着镣铐跳舞”，但这并不意味着精神病人失去主观能动性，被动承受加诸在身上的苦难，相反，“正常地活着”是这一群体的主观期待。在日常生活中，精神病人努力适应与重构角色，不断顺应社会期待做出自我调适，以期在污名环境中获得一定的生存空间。不可否认的是，宏观环境的调整和微观个体的努力推动了精神病人生存环境的改善，但附着于身的污名化标签却无法被撕掉，这是实现“正常人”身份的瓶颈和障碍。笔者认为，只有在更广泛的社会范围内倡导精神病人的主体性发挥，从根本上打破社会结构性、制度性的歧视枷锁，致力于精神病人生存和发展环境的改善，推动结构改变和微观行动的“双管齐下”，推进多部门联合“共同发力”，才能早日实现精神病人社会生活的“常态化”。

关键字：精神病人，生存策略，适应角色，重构角色

精神病人的家庭照护困境分析

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目的 本文在医学人文视角下，探索精神病人的家庭照护困境，了解照护者践行道德使命的动力，旨在为精神病人的家庭照护注入更多的支持和希望。

方法 本研究从上海市 H 区选取精神病人家庭照护者 20 名，采取质性研究方法，通过局外观察法和个案访谈法收集资料。

结果 精神病人家庭照护的困境来源于两方面：一是家庭照护文化的隐蔽性，主要体现在精神病人的病理性行为、照护双方对康复的不同认知、照护者理性与情感的纠葛以及不一致的生活习惯。二是社会支持的脆弱性，主要体现在互助团体的“有限性”、政策支持的“不到位”、社区随访的“专业性”及阳光心园的“精致性”。照护者践行道德使命的动力主要来自“在归因中内化责任”、“在关系中寻找意义”、“在互惠中寻找慰藉”三方面，

结论 家庭照护是精神病人走出家门、融入社会的重要环节。家庭文化的隐蔽性、社会支持的脆弱性使家庭照护者处于“边缘性”地位，加剧了家庭照护困境。如果说精神病人的生存是“戴着镣铐跳舞”，那么照护者的生活则是“背着十字架行走”。不能忽略的是，照护者对自我及疾病的认知、家庭照护伦理及患者的疾病康复状况是影响家庭照护持续推进的重要因素。笔者

认为，消解精神病人家庭照护困境需要从以下三个方面做出努力。个体层面，为照护者赋能，发挥他们的主体性和积极性，持续提升自我认知与学习、平衡家庭关系以及寻找社区资源的能力，深化个体对家庭伦理和道德责任的认知；社区层面，优化社区随访形式，通过陪伴式服务赢得精神病人家庭的认可与信任。积极发展社区支持性和替代性服务，为家庭照护提供“喘息服务”。加大社区宣传力度，缓解社会对精神病人及家庭的污名；政策层面，建立以家庭为中心的政策支持体系，从经济补贴、 心理疏导、喘息服务、自我发展等方面提供支持，缓解照料负担，提高家庭照护能力，强化家庭照护功能，提升精神病人整体家庭的生活品质和幸福指数。

关键字：精神病人，家庭照护，照护困境，照护动力

精神病患者延续性护理服务框架的构建

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目的 为精神病患者构建一个科学规范、可供推广的延续性护理服务框架。

方法 检索国内外与精神病患者延续性护理服务有关的指南及专家共识,以及课题小组讨论，初步制定精神病患者延续护理服务基本框架；回顾与精神病患者延续性护理服务有关的高质量相关的文献,确定精神病患者延续性护理服务条目内容；根据德尔菲法咨询问卷的基本格式制定函询问卷,通过两轮 26 名经验丰富的精神科医疗、护理专家以及社区卫生等相关领域专家咨询，结合 Likert 5 级评分制法、重要性排序完成条目筛选，对研究的初案进行修正,再根据专家的意见对方案进行进一步修订，建立精神病患者延续性护理服务框架。

结果 第一、二轮函询专家积极系数分别为 88.5% 和 92.3% ,专家权威系数（Cr）分别为 0.83 和 0.832，专家意见的总体协调系数（W）分别为 0.195 和 0.402（P<0.01）。最终确立了由角色功能、实施过程、服务内容、效果评价 4 项一级指标、14 项二级指标和 49 项三级指标构成的服务框架体系。

结论 通过德尔菲法构建的精神病患者延续性护理服务框架，是医院-社区机构-家庭一体化管理的延续护理模式，具有可靠性、科学性和权威性，实现精神病患者从医院顺利过渡到家庭，为今后精神病患者延续性护理的实施提供依据和参考。

关键字：延续性护理；服务框架；精神病患者；德尔菲法；构建指标

A Survey on The Mental Health Status of Chinese Researchers

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Objective The mental health of researchers is a concern worldwide. This research investigated mental health status of Chinese researchers and explored the moderating effects of perceived stress.

Methods The online survey platform “Survey Star” was used to create a questionnaire to be distributed to researchers, and 949 valid questionnaires were retrieved. The general information questionnaire, 10-item Perceived Stress Scale (PSS-10), Generalized Anxiety Disorder-7 (GAD-7), Patient Health Questionnaire-9 (PHQ-9), and Maslach Burnout Inventory General Survey (MBI-GS) were used for investigation. We performed Pearson’s correlation analysis to investigate correlations among variables. We used PROCESS to analyze the moderating effects of perceived stress.

Results Among the 949 participants, 570 (60.1%) had symptoms of depression and 431 (45.4%) had symptoms of anxiety. Low self-accomplishment was correlated with anxiety, perceived stress, and depression positively ($p < 0.05$). Perceived stress moderated the effect of low self-accomplishment on depression and anxiety.

Conclusion Researchers show a high detection rate of depression and anxiety symptoms. Perceived stress played a moderating role in the influence of low self-accomplishment on anxiety and depression.

关键字：Researchers; Depression; Anxiety; Job burnout; Perceived stress; Self-accomplishment

广东省老年人抑郁症状与慢性病的关联性研究

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目的 调查广东省老年人抑郁症状的流行情况，分析不同慢性病与抑郁症状的关联性，为老年慢性病患者人群心身健康问题的防治策略提供证据。

方法 利用广东省精神卫生中心于2022年开展的“广东省居民心理健康素养调查”的数据，采用多阶段分层整群随机抽样法，于广东省 21 个地级市抽取 8436 名年龄 60 岁及以上（区间为 60～101 岁，平均 67.8±6.2 岁）的老年人，收集其人口学资料、生活习惯和慢性病患病情况。抑郁症状的评估采用患者健康问卷抑郁量表（PHQ-9），以 PHQ-9≥5 分定义为存在抑郁症状，分数越高表明抑郁症状越严重。基于复杂加权估计，描述性分析广东省老年人抑郁症状流行情况，采用多因素二元 Logistic 回归模型分析抑郁症状和慢性病患病模式的关联性。

结果 经复杂加权，广东省老年人抑郁症状发生率为 11.9%。居住在乡村、拥有高中/中专/职高和大专

/本科学历是抑郁症状的保护因素，未婚和丧偶、饮食不规律、锻炼身体频率为 1-3 次/月是抑郁症状的危险因素。慢性病的检出率为 52.2%，仅患 1 种慢性病和同时患有 2 种及以上慢性病的检出率分别为 30.7%和 21.5%。慢性病患病数量和抑郁症状发生差异有统计学意义（P<0.001）。随着共患慢性病数量的增加，抑郁症状发生率也随之升高，未患、仅患 1 种、患 2 种及以上慢性病且出现抑郁症状的人群构成比依次为 8.1%、11.1%、21.6%。与健康老年人相比，患 1 种慢性病（OR=1.56, 95%CI:1.12-2.17）、同时患有 2 种及以上慢性病（OR=2.583, 95%CI:1.441-4.630）的老年人抑郁症状发生率较高。多因素二元 Logistic 回归分析结果显示，抑郁症状与心血管疾病（OR=1.575，95%CI: 1.024~2.423）、失眠（OR=2.455，95%CI: 1.581~3.813）、慢性胃肠炎/溃疡（OR=1.868，95%CI: 1.092~3.196）、高脂血症（OR=1.901，95%CI: 1.225~2.950）均存在关联（P<0.05）。

结论 广东省老年人抑郁症状患病率高，且与慢性病存在关联，罹患 1 种、同时患 2 种及以上慢性病老年人群，以及罹患心血管疾病、失眠、慢性胃肠炎/溃疡、高脂血症老年人是共患抑郁症状的高危人群，基层卫生保健需针对慢性病老年人群加强心身健康促进与康复策略的研究和干预。

关键字：老年人，抑郁，慢性病，失眠，心身健康

精神卫生专业人员对社区精神分裂症患者基于长效针剂管理模式的满意度调查研究

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目的 调查精神卫生专业人员对社区精神分裂症患者基于长效针剂管理模式的满意度及其影响因素，对现有模式进行经验总结和优化。

方法 基于“广东省抗精神病药长效针剂效果评估项目”，采用开放式问题与封闭式问题相结合的自编调查问卷，于 2023 年 3 月对省内 14 个地市的市级精神卫生管理人员、精神科医师、精防医生开展集中现场调查，描述性统计分析社区精神分裂症患者长效针剂管理模式对精神卫生工作的影响，以及精神卫生专业人员对该管理模式的满意度及相关影响因素。

结果 本调查回收有效问卷 257 份，调查人员包括市级精神卫生管理人员 14 人（5.4%），精神科医师 131 人（51.0%），精防医生 112 人（43.6%）；高级/副高级职称 41 人（16.0%），中级职称 124 人（48.3%），初级及以下职称 92 人（35.7%)。精神卫生专业人员在项目开展前和开展后总体满意/非常满意者占比分别为 50.5%和 61.1%；认可或非常认可该项目帮助工作人员获得了患者/患者家属的尊重者占 66.4%；认为参与该项目感受到了社会认可者占 57.69%；认为开展该项目帮助您与患者/患者家属建立良好关系者占 67.8%；认为开展该项目减轻对患者管理工作压力者占 47.6%；认可该项目有助于提升自身工作能力者占 63.5%；在对个人收入影响方面，认为无影响、导致收入增加和降低者分别占 87.98%、1.92%、10.1%。在使用长效针剂治疗观念方面，愿意或非常愿意主动向精神分裂患者介绍长效针剂者占 90.28%；在疾病什么阶段适合启用长效针剂治疗方面，认为在首次发病时、首次复发后、多次复发后和各阶段均适合者分别占 17.1%、9.7%、12.1%、58.0%；相较于 1 针/月针剂，认为 1 针/3-6 个月的长效针剂能够提供更多帮助者占 75.5%，且在提高依从性（81.3%）、降低照料者负担（75.9%）、提高患者生活质量（72.0%）、降低病耻感（66.9%）等方面均表认可。在阻碍方面，认为医患沟通比较困难、处理长效针剂相关的不良反应比较棘手、对长效针剂的疗效缺乏信心者分别占 58.0%、48.3%、41.3%。

结论 广东省精神卫生专业人员对社区精神分裂症患者基于长效针剂管理模式总体满意度超过半数，管理模式的推广还需加强面向医务人员和患者开展系统培训和宣教，政策制定者需结合相关阻碍进一步开展系统性调研，优化模式，提升医患满意度。

关键字：精神分裂症；长效针剂；精神卫生专业人员；管理模式；满意度

精神科护士自杀意念现况及相关因素调查

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目的 自杀是世界范围内的一个重大公共卫生问题，影响到个人和社区，而精神科护士是一个特别脆弱的群体。本研究旨在调查全国精神科护士自杀意念患病率以及可能的相关因素，从而为防临床精神科护士自杀提供一定指导。

方法 本研究属于横断面研究，自 2021 年 1 月至 3 月采用线上问卷调查方式进行。共 28 省份 41 家三级精神专科医院被纳入调查，期间参与问卷调查护士 10069 名，合格问卷 8545 份。除一般人口学资料外，抑郁、焦虑和压力量表（DASS）、Maslach 职业倦怠量表（(MBI-HSS）被用于评估被试者压力程度、焦虑、抑郁情绪以及职业状态。

结果 本次研究调查发现约 13.24%的精神科护士伴有自杀意念，且存在区域性差异，西部地区护士的自杀风险高于东部地区。此外，相对于单身及正常婚姻的被试者，离异或者丧偶的护士更可能采取自杀行为。并且处于新冠一线的护士具有高水平的自杀意念，而长期遭受言语暴力以及每天工作时间过长的护士群体也可能产生自杀想法。高自杀意念群体同样伴有高水平的焦虑、抑郁、压力情绪。最后面临职业倦怠的护士也表达出更多的自杀意念。

结论 研究发现精神科护士群体的自杀意念水平较高，值得重视。且与婚姻状态、地域、工作时长、职业倦怠、焦虑抑郁情绪有关。由于精神科护士面临病人的特殊性，需要关注具有高危人群的精神科护士的精神状态，定期对其精神状态进行评估。

关键字：精神科护士、自杀意念、职业倦怠

Comparison of The Efficacy of Fluvoxamine and RTMS in Treating OCD: A Randomized Open-label Clinic Study

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Objective We aim to explore the efficacy of low-frequency repetitive transcranial magnetic stimulation (rTMS) over the supplementary motor area (SMA) in treatment-free patients with obsessive-compulsive disorder (OCD) and compare it to Fluvoxamine treatment in OCD patients.

Methods According to the 5th Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), 41 patients with OCD were randomly assigned to the Fluvoxamine drug treatment group (n = 21) and active rTMS group (n = 20) with 10 sessions of 1 Hz active rTMS over SMA (20 min per session, five times per week). The therapeutic outcome was assessed using the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI). All data were analyzed using R version 4.1.2 software.

Results Demographic and clinical characteristics, as well as baseline scores on the Y-BOCS, BDI, and BAI, did not differ between the two groups. The rTMS therapy can improve OCD symptoms. The response rate in the completer sample was 41.7% (5/12) with rTMS and 60% (6/10) with fluvoxamine intervention. The declining BDI and BAI scores did not differ significantly between groups.

Conclusion Low-frequency rTMS over SMA may have a similar therapeutic effect as the medicated group for free-treatment OCD patients.

关键字：Obsessive-compulsive disorder, repetitive transcranial magnetic stimulation, free-treatment, fluvoxamine

Association between Tea Consumption and Subjective Cognitive Complaints Among Older Adults in Guangzhou

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Objective To explore the association between tea consumption and Subjective Cognitive Complaints(SCCs) among older adults in Guangzhou.

Methods A cross-sectional study involving older adults aged over 60 years was conducted between November 2020 and March 2021. The 9-item Subjective Cognitive Decline Questionnaire (SCD-Q9) was used to measure the SCCs. Information about tea consumption was self-reported. The univariate analysis was used to test the tea consumption relevant associated factors. Non-parametric test was applied to observe the association between tea consumption and SCCs. For further exploration, all participants were defined as the low score group and high score group. Multivariate logistic regression analysis was used to assess the association between tea consumption and high score SCCs.

Results A total of 717 participants were recruited from 14 communities in Guangzhou, with 282 participants having tea consumption. The univariate analysis revealed that age, gender, monthly income, residence, current smoking, current alcohol drinking, and physical activity and depression symptoms were related to tea consumption (P<0.05). Non-parametric tests showed that age, gender, education, monthly income, residence, BMI, depressive and anxious symptoms were associated with SCCs (P<0.05). Multivariate logistic regression analysis indicated that tea consumption (OR=1.46, 95%CI: 1.03-2.07), female(OR=2.15, 95%CI: 1.50-3.08), junior high school (OR=0.45, 95%CI: 0.27-0.76), senior high school (OR=0.49, 95%CI:0.29-0.82),college and above (OR=0.49, 95%CI: 0.26-0.93),depression symptoms (OR=1.20, 95%CI:1.10-1.31) were significantly associated with high score SCCs.

Conclusion Tea consumption was strongly associated with SCCs. Tea consumption may be a risk factor for SCCs.

关键字：tea consumption, subjective cognitive decline, older adults

重复故意自伤的精神病理因素影响路径研究

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目的 重复故意自伤行为（RDSI）是一种严重影响青少年身心健康的不良行为，对疾病负担影响突出。既往研究发现自伤相关因素多，但对自伤的影响路径尚不清楚；且由于 NSSI 与 SSI、自杀意念、自杀行为常共存，临床中难以严格区分，将非自杀性的自伤动机视为 RDSI 的核心特征存在较大风险，因此有必要针对不受动机类型及自杀意图限制的 RDSI 进行研究。本研究调查 RDSI 的基本特征，探索 RDSI 相关的精神病理因素及相应的影响路径，以期发现 RDSI 核心精神病理特征和作用机制，为 RDSI 的评估、预防、诊断、干预和进一步研究提供参考。

方法 对近一年至少有一次自伤行为的青少年住院患者进行调查，评估总自伤频率、NSSI 及 SSI 频率、非自杀性的自伤动机、自伤的成瘾特征，并计算非自杀性指数；使用相关量表分别评估儿童期创伤经历、应激事件、抑郁及焦虑、强迫、精神病质、自杀倾向、述情

障碍、睡眠质量、网络游戏、社交媒体、酒精及烟草使用情况。使用 SPSS 26.0 进行统计和分析；使用 AMOS 26.0 构建结构方程模型，探索各因素影响 RDSI 的作用路径。

结果 本研究纳入样本237例，平均年龄15.6岁。近一年 RDSI 的相关因素有年龄、成瘾特征、非自杀性的自伤动机、抑郁、焦虑、强迫、精神病质、自杀倾向、述情障碍、睡眠质量、近期应激、儿童期创伤；其中成瘾特征、自杀倾向是 RDSI 的独立相关因素。在影响路径中，成瘾特征及自杀倾向是其他因素影响近一年 RDSI 的唯二通路。成瘾特征对 RDSI 的直接效应为 0.39。自杀倾向对 RDSI 的直接效应为 0.16，另 35.3% 的效应通过成瘾特征中介。自伤动机对 RDSI 的总效应为 0.23，其中 75.8%通过成瘾特征中介，15.6%通过自杀倾向中介，另 8.5%的效应同时通过自杀倾向和成瘾特征中介。其它相互关联的因素主要通过成瘾特征、自杀倾向、自伤动机中的一个或多个因素的中介与自伤频率发生关联。

结论 本研究为 RDSI 相关精神病理因素的影响路径机制提供了实证研究证据，有助于更好的理解精神病理因素如何影响 RDSI。在临床中，针对 RDSI 除了应关注自伤频率、常见精神病理问题及自伤动机以外，更应关注其成瘾性特征和自杀倾向的评估；在防治中，不仅要关注 RDSI 相关的常规精神病理问题及非自杀性自伤动机，更需对自伤的成瘾性及自杀倾向进行认真评估，并针对性的研发和提供有效干预策略。

关键字：重复故意自伤行为；路径分析；精神病理因素；自伤成瘾特征；自杀倾向

自伤方式的因子构成及其精神病理相关因素分析

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目的 重复故意自伤行为（RDSI）近年来发生率远高于青少年人群中任何一种精神障碍，其表现形式多样、累及部位不一、相关因素较多。既往有关自伤方式归类的研究大多基于人为主观判断而非循证数据分析，且未深入分析自伤方式的不同类别及对应的相关精神病理因素。本研究基于实证数据对自伤方式进行归类并探索其对应的相关精神病理因素，为更客观、更科学的自伤方式归类及其危险因素识别提供依据，为临床制定针对不同自伤方式特定的预防、评估及干预策略提供参考。

方法 对近一年至少有一次自伤行为的青少年住院患者进行调查，使用相关工具分别评估自伤方式、自伤频率、非自杀性的自伤动机、自伤的成瘾特征、儿童期创伤经历、应激事件、抑郁及焦虑症状、强迫症状、精神病质、自杀倾向、述情障碍、睡眠质量、网络游戏及社交媒体使用、酒精及烟草使用情况。使用 SPSS 26.0 进行统计分析，并探索自伤方式的因子构成及其精神病理相关因素。

结果 1.本研究纳入样本 237 例，常见的前 3 种自伤方式是打自己、刺伤、切割；92.83%的患者曾采用过 4 种及以上的自伤方式。使用探索性因子分析将 11 种自伤方式归类为 2 个因子：因子 1 包括刺伤、切割、刻划、阻止愈合、吞药或其他、烧烫伤、其他方式，命名为“使用外部工具自伤”；因子 2 包括打自己、咬伤、拽掉毛发、摩擦皮肤，命名为“使用自身器官自伤”。2.使用外部工具自伤的相关因素有“性别、年龄、本人文化程度、自伤成瘾特征、自伤动机、非自杀性自杀倾向、抑郁、焦虑、强迫、精神病质、述情障碍、睡眠质量、社交媒体使用、网络成瘾、酒精使用、烟草使用、近期应激事件、儿童期创伤”；其中“自伤成瘾特征、自杀倾向、非自杀性自伤动机、睡眠质量、酒精使用、性别”为独立相关因素。使用自身器官自伤的相关因素有“年龄、本人文化程度、精神疾病家族史、自伤成瘾特征、非自杀性自伤动机、抑郁症状、焦虑症状、精神病质、自杀倾向、述情障碍、睡眠质量、社交媒体使用、网络成瘾、儿童期创伤”；其中“近期应激事件、焦虑症状、非自杀性自伤动机、年龄”为独立相关因素。

结论 RDSI 可分为使用外部工具自伤及使用自身器官自伤两种类型。使用外部工具自伤主要与自伤成瘾特征、自杀倾向、非自杀性自伤动机、睡眠质量、酒精使用有关，而使用自身器官自伤主要与近期应激、焦虑、自伤动机有关。临床中对于不同自伤类别的关注点及干预靶点应相应的有所区别。

关键字：重复故意自伤；自杀方式；因子分析；精神病理；相关因素

云南省强制戒毒人员自杀相关行为现况调查及相关性研究

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目的 1.调查云南省强制戒毒人员自杀相关行为发生率及其影响因素；2.研究抑郁与自杀相关行为的关系，以及冲动是否在此间存在中介效应；3.为戒毒人员自杀预防及危机干预提供有价值的见解。

方法 对云南省 1102 名强制隔离戒毒所戒毒人员进行横断面研究。评估工具：自编社会人口学问卷、患者健康问卷抑郁量表（PHQ-9）、Barratt 冲动性量表中文版（BIS-11-CV）、自编自杀相关行为问卷、Beck 自杀意念量表中文版（BSI-CV）。进行 logistic 回归，计算自杀相关行为影响因素的比值比（OR）及其可信区间（CI），建立结构方程模型（SEM）探索冲动性在抑郁和自杀相关行为之间的作用机制。

结果 1.一般情况：云南省强戒人员以男性、中青年、汉族、未婚、初中及以下学历为主要特征，使用毒品种类以苯丙胺和海洛因为主。55.8%的强戒人员检出

抑郁症状，14.2%存在中度及以上抑郁。2.自杀相关行为的发生率及影响因素：最近一周自杀意念、过去一年自杀意念、终生自杀意念、过去一年自杀计划和过去一年自杀未遂发生率分别为 29.9%、38.3%和 51.6%、6.6%和 5.2%。饮酒行为、常感到孤独、与家人关系差及慢性躯体疼痛都与自杀相关行为发生风险增加相关。中重度抑郁及高冲动性对所有自杀相关行为的发生都是独立的危险因素，中重度抑郁对过去一年的自杀计划影响最大（OR=2.968，95%CI:1.705-5.167），高冲动性对过去一年的自杀未遂影响最大（OR=2.276，95%CI:1.221-4.244）。3.中介作用：冲动在抑郁和一周自杀意念、一年自杀意念、终生自杀意念和自杀未遂之间发挥的中介作用所占比例分别为 9.62%、9.15%、6.05%和 15.56%。

结论 1.云南省强制戒毒人员抑郁和自杀相关行为检出率高，且二者密切相关，相关部门应予以重视，在药物脱毒同时，要加强对戒毒人员的心理评估、及时有效的危机干预。 2.冲动性在抑郁和自杀相关行为中起到部分中介作用，应重点关注存在抑郁症状的戒毒者的冲动性，对高冲动性进行相应的评估和治疗，以降低其自杀的危险性。 3.孤独感及与家人关系对戒毒人员自杀相关行为具有独立危险作用，在帮助戒毒者的时候，可以从社会支持方面入手。对既往饮酒及目前存在慢性躯体疼痛的戒毒者也应进行相应的评估和治疗，以期在一定程度上改善其心理健康水平。

关键字：强制戒毒人员；抑郁；冲动；自杀相关行为；中介作用

社会隔离与神经精神系统疾病：影响和机制

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目的 冠状病毒（COVID-19）大流行的一个明显后果就是人与人之间的互动减少，这种社会隔离（social isolation, SI）的状态会对人类健康产生不可忽视的影响。临床研究证明 SI 会导致神经精神疾病的发生发展。许多临床前研究也一直在探讨 SI 所致的行为学变化和其潜在的机制，但是由于研究间异质性较大，且人类的复杂性和动物模型研究结果存在翻译差距，导致我们对 SI 影响神经精神系统疾病的机制仍然知之甚少。

方法 在此我们就 SI 在不同年龄和不同动物模型中引起的神经行为学的影响及其可能机制进行系统综述。使用生物医学文献数据库 Pubmed 输入以下关键词“social isolation”或“social deprivation”或“maternal separation”（数据时间截止至 2023 年 1 月 30 日）。

结果 关于社会隔离的研究在逐年增多，并且可能是由于新冠的影响在 2019 年之后文献数量几乎翻倍。据报道在新冠大流行期间，由于保持身体距离、隔离或封锁而反复经历的社会隔离与焦虑和抑郁发病率的增加有关。关于社会隔离的动物研究存在很大的异质性，主要体现在动物的种属、性别、年龄、社会隔离的模式及其持续时间有很大差别。但是总的来说存在这样的规律：使用啮齿动物作为研究对象的最多；雄性动物研究较雌性研究多；长期慢性社会隔离较短期急性隔离多；在非人类灵长类动物身上进行的社会隔离研究主要在生命早期进行，这与在人类身上进行的临床研究类似，在啮齿动物身上进行的 SI 研究主要在幼年阶段进行。值得注意的是研究揭示早期 SI 引起的常见社会情感和认知缺陷，以及晚期 SI 引起的抑郁和焦虑的发生率增加，并且糖代谢在 SI 过程中发挥重要作用。

结论 本综述为 SI 导致神经行为学后果提供了有力证据，总结了社会隔离对人类造成的负面影响及其潜在机制，同时归纳了社会隔离在多种神经精神疾病动物模型中的应用，有助于衔接社会隔离的人类研究及动物研究，并为以后的研究提供潜在的方向，未来对社会隔离的研究可能会增加我们对神经精神疾病预防和治疗的知识。

关键字：社会隔离 神经精神疾病 动物模型 机制

基于自噬与炎症探讨褪黑素对青春期鼠模型抑郁样行为的调控作用

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目的 通过二代分子测序技术对褪黑素（MT）治疗组、模型组及对照组模型海马组织进行检测，探究药物治疗的可能靶点，通过生信分析预测出药物可能的作用通路并验证。通过给予通路激活剂 YS49，验证 MT 通过 PI3K/AKT/mTOR 信号通路调控炎症及自噬缓解 ELS 所致青春期抑郁小鼠抑郁样行为。

方法 （1）实验分为对照组（Con 组）、Model 组（MS+CUMS 造模）、MT 组（MS+CUMS 造模+腹腔注射高剂量 MT）和 MT+YS-49 组（MS+CUMS 造模+腹腔注射高剂量 MT 及通路激活剂 YS49），各组行为学测试后取海马组织，部分组织进行二代分子生物测序，通过 KEGG 及 GO 数据库分析，筛选出药物治疗可能的作用通路；采用 ELISA 法检测各组海马组织中 IL-1β、TNF-α、IL-6 含量；Western-blot 法、和 RT-PCR 检测 LC3II/I、Beclin-1 表达；采用 Western-blot 法检测各组海马组织 PI3K、p-PI3K、AKT、p-AKT、mTOR、p-mTOR 的表达水平。

结果 （1）各组行为学实验结果显示：与 Model 组相比，MT 组糖水偏好率显著上升，TST 与 FST 累积不动时间显著降低；MT+YS-49 组与 MT 组相比糖水偏好率下降，TST 与 FST 累积不动时间显著升高。对差异基因进行 GO 富集分析，发现调节自噬的分子过程参与了 MT 的作用，进一步进行 KEGG 富集分析，发现 PI3K/AKT 信号通路参与了 MT 的生物过程。（2）与 Con 组比较，Model 组、MT 组、MT+YS49 组 LC3II/I、Beclin-1 表达显著减少（P<0.01），IL-1β、IL-6、TNF-α 含量均显著升高（P<0.01）。与 MT 组比较，MT+YS49 组 LC3II/I、Beclin-1 表达显著减少，IL-1β、IL-6、TNF-α 含量显著升高（P<0.01）。（3）与 Model 组比较，MT

组 p-PI3K/PI3K、p-AKT/AKT、p-mTOR/mTOR 的表达水平显著降低（P<0.05）。与 MT 组比较，MT+YS49 组 p-PI3K/PI3K、p-AKT/AKT、p-mTOR/mTOR 的表达水平显著升高（P<0.05）。

结论 MT 可能通过 PI3K/AKT/mTOR 信号通路在抑郁症模型小鼠海马神经元中增加自噬，同时减少炎症因子的生成而发挥抗抑郁作用。

关键字：褪黑素；抑郁；自噬；早期压力应激；炎症

鲁拉西酮联合丙戊酸钠治疗双相抑郁的临床疗效研究

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目的 探讨鲁拉西酮联合丙戊酸钠治疗双相抑郁的临床疗效研究。

方法 选取 2022 年 3 月-2023 年 1 月收治的 80 例双相抑郁的急性期患者作为研究对象，用随机数字表法将其分对照组和观察组，各 40 例，对照组接受安慰剂联合丙戊酸钠治疗，观察组接受鲁拉西酮联合丙戊酸钠治疗，比较两组患者从基线到第 8 周的治疗疗效、抑郁症状、躁狂症状、治疗副反应、 认知功能等指标的变化。

结果 与安慰剂组相比，鲁拉西酮组的临床总有效率 95.00%高于对照组 72.50%（P<0.05）；比较 HAMD 评分，治疗前组间 P 值>0.05，治疗后，观察组 HAMD 评分低于对照组（P<0.05）；两组患者治疗前后 YMRS 差异无统计学意义，治疗后不良反应评分，差异无统计学意义（P>0.05）；两组患者治疗前 MoCA 相关指标差异无统计学意义（P＞0.05），治疗后两组 MoCA 评分均提升，且观察组 MoCA 评分(26.58±2.13)分高于对照组 MoCA 评分(23.35±1.98)分，差异有统计学意义(P＜0.05)。

结论 在这项涉及双相抑郁患者的短期研究中，患者用药后不良反应发生的总例数两组相近，两组患者均无轻躁狂及躁狂发作，鲁拉西酮组的患者抑郁症状改善更为明显，治疗效果理想，认知功能也有明显改善，说明鲁拉西酮在治疗双相抑郁时不会诱发躁狂发作，不会增加药物不良反应，且能更好的改善抑郁症状及认知功能，整体提升治疗疗效。

关键字：双相情感障碍 ；抑郁 ；丙戊酸钠；鲁拉西酮

社工免费咨询门诊常态化促进精神专科医院服务改善 ——以上海市某区精神卫生中心为例

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目的 当前对于医务社会工作者在精神健康领域可以发挥什么作用的讨论中，多集中于在社会工作介入社区康复和住院康复。而本院社工在实际工作中却发现，除了社区康复和住院康复之外，社工也应当介入门诊服务中。社工门诊在实践中被证明实现常态化是有必要的，而目前相关研究较少，本院在此方面做出了一些有益的探索，本研究则是对这一探索做阶段性回顾。

方法 本文以上海市虹口区精神卫生中心开设的社工咨询门诊作为研究对象，采取个案研究方法。收集资料的主要方法是参与式观察法，同时也用偶遇抽样的方法选取了 100 位门诊病人或者家属进行了简单访谈，另外回溯了自 2018 年 6 月以来的门诊记录。

结果 精神专科医院因其所服务的患者的特殊性，患者和家属在就诊过程中会问到医生很多医疗之外的问题，并且也会有倾诉的需求，而社工免费咨询门诊根据家属和患者的需求设立。本文以开设社工咨询门诊的上海市虹口区精神卫生中心为例，对其社工门诊进行了研究。发现社工免费咨询门诊的主要业务范围为政策咨询、情绪疏导、活动资源链接和社区康复机构转介。同时提出，尽管社工门诊还存在知晓率较低和门诊量过低等问题，但是对于精神专科医院的服务优化是一个有益的探索，也确实带来了诸多好处。

结论 本文介绍了我院社工咨询门诊近五年的探索发展，也分析了目前还存在的问题。可以发现，尽管社工咨询门诊目前知晓率低且使用率不高，还存在门诊医生、患者和家属不清楚社工能够提供何种服务；缺少制度保障和宣传力度不足等具体问题。但是也为我院提升患者就诊满意度和医生诊疗效率，全面提升医院服务优化和人文关怀做出了有益的探索。因此总体还是值得肯定。

关键字：精神卫生,社会工作,门诊

抑郁症患者大五人格特质和童年期创伤与自杀意念的关联研究

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目的 探究有、无自杀意念抑郁症患者、健康对照的大五人格特质、童年期创伤及生活事件的差异，明确大五人格特质、童年期创伤、生活事件等因素对抑郁症患者自杀意念的影响。

方法 127 例有自杀意念和 44 例无自杀意念的首发未服药抑郁症患者及 185 例健康对照纳入本研究。采用大五人格量表简化版（neuroticism extraversion openness five-factor inventory，NEO-FFI）、童年期创伤问卷-简版（childhood trauma questionnaire-short form，CTQ?SF）和生活事件单位（life event unit，LEU）分别评估所有被试的人格特质、童年期创伤经历和生活事

件。比较三组间一般资料、临床特征、人格特质、童年期创伤经历和生活事件的差异，并利用多因素 logistic 回归，分析抑郁症患者出现自杀意念的危险因素。

结果 NEO-FFI 中，有、无自杀意念组的神经质得分高于对照组，外向性、宜人性和责任感得分低于对照组（P<0.01）；此外，有自杀意念组的开放性得分低于对照组（P<0.01）；有自杀意念组的神经质得分高于无自杀意念组，外向性得分低于无自杀意念组（P<0.01）。CTQ-SF 中，有自杀意念组的情感虐待、躯体虐待、性虐待、情感忽略、躯体忽略得分和 CTQ-SF 总分均高于对照组（P<0.05）；无自杀意念组的情感忽略和 CTQ-SF 总分高于对照组（P<0.01）；有自杀意念组的 CTQ-SF 总分高于无自杀意念组（P<0.05）。LEU 中，有、无自杀意念组 LEU 总分均高于对照组（P<0.05）；有、无自杀意念组之间 LEU 总分无统计学差异。logistic 回归分析显示，抑郁症患者出现自杀意念与 HAMD-17 总分（OR=1.399，P<0.001）、神经质人格（OR=1.096，P=0.042）、躯体虐待（OR=1.523，P=0.012）有关联。

结论 严重的抑郁症状、高神经质和童年期躯体虐待经历可能是抑郁症患者出现自杀意念的危险因素。

关键字：抑郁症;自杀意念;人格;神经质;身体虐待;症状评估;危险因素

Trajectories of Mental Health Among University Students before and During Campus Lockdowns Due To COVID-19 Pandemic: A Three-wave Longitudinal Study in Shanghai, China

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Objective The campus lockdown due to the COVID-19 pandemic has had adverse effects on mental health among university students, but the heterogeneity in responses to campus lockdown is still poorly known. Hence, this study aimed to identify the potential distinct trajectories of general mental health and symptoms for depression, anxiety, and stress among university students before the COVID-19 pandemic and across the two lockdown time points in Shanghai, China, and to explore the associations between sociodemographic factors and mental health trajectory classes.

Methods We collected three-wave prospective data on university students' mental health in Shanghai (China) in 2022: (i) in February before the pandemic; (ii) in April at the initial COVID-19 campus lockdown; and (iii) in May amidst the citywide lockdown. Overall, 205 university students completed sociodemographic questionnaires, the General Health Questionnaire-12 items (GHQ-12), and the Depression, Anxiety and Stress Scale-21 items (DASS-21). Latent class mixed models (LCMM) were constructed to identify distinct trajectories of mental health and depressive, anxiety, and stress symptoms. Multinomial regression models were used to identify factors associated with status variation patterns.

Results Mean GHQ-12 scores were 8.49, 9.66, and 11.26 at pre-pandemic and lockdown T1 and T2, respectively. Mean scores for depression, anxiety, and stress were (5.96, 10.36, and 8.06), (7.13, 6.67, and 7.16), and (9.83, 7.28, and 11.43), respectively. Changing trends of numbers of participants with clinical symptoms were consistent with those of mean scores. LCMM fitted three distinct trajectory classes, respectively, for GHQ-12, depressive and anxiety symptoms, and four classes for stress symptoms. Participants in fair or poor peer relationships were more likely to belong to vulnerable trajectories concerning depressive, anxiety, and stress symptoms.

Conclusion This three-wave longitudinal study demonstrates that campus lockdown due to the COVID-19 pandemic had distinct effects on different emotional symptoms of university students and provides new evidence for the heterogeneity of mental health among university students across pre-pandemic and campus lockdowns. This study has expanded our understanding of the specific effect of the pandemic campus lockdown on university students' mental health and highlighted the importance of identifying vulnerable groups to provide targeted support and psychological services in future pandemics.

关键字：COVID-19; mental health; university students; trajectory analysis; campus lockdown

Changes in Sleep Quality and Stress Status of University Students During and after The COVID-19 Campus Lockdown in Shanghai, China

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Objective The outbreak of the COVID-19 has led to widespread campus lockdown and had profound psychological effects for university students. However, impacts of the COVID-19 campus lockdown on sleep and stress problems of university students have not been thoroughly investigated. Hence, this study aimed to explore the effect of the campus lockdown on the sleep quality and stress status of university students living in student dormitories during and after the COVID-19 pandemic in Shanghai, China, and to investigate the associations between sociodemographic factors and the sleep quality and stress status.

Methods Data on sleep quality and stress status were collected online as part of a longitudinal survey study investigating mental health of university students in Shanghai (China) in 2022: (i) in April at the initial COVID-19 campus lockdown (lockdown T1); (ii) in May amidst the campus and citywide lockdowns (lockdown T2); and (iii) in August after the COVID-19 lockdown lift. Overall,

227 university students (47.3% female) completed sociodemographic questionnaires and were assessed by the Insomnia Severity Index (ISI), and the 10-item Perceived Stress Scale (PSS-10). Repeated measures ANOVA were conducted to investigate within-subject change in ISI and PSS-10 scores between three data collection points. Pairwise McNemar's Tests were used to investigate changes in the proportion of participants meeting criteria for clinical insomnia and stress symptoms. Spearman's partial correlation analyses were carried out to explore associations between sociodemographic factors and sleep quality and stress status.

Results Longitudinal analyses showed that both of ISI and PSS-10 scores were significantly increased at lockdown T2 (ISI mean score: 7.3; PSS-10 mean score: 17.8) and decreased after COVID-19 lockdown lift (ISI mean score: 5.8; PSS-10 mean score: 14.5) compared to lockdown T1 (ISI mean score: 6.3; PSS-10 mean score: 15.9). Around 12.3% and 7.0% of the sample could be classed as clinically moderate and severe insomnia symptoms at lockdown T2 and after campus lockdown, respectively, compared to 10.1% at lockdown T1. About 77.7% and 57.3% of the sample could be classed as clinically moderate and high perceived stress levels at lockdown T2 and after campus lockdown, respectively, compared to 65.2% at lockdown T1. There were notably positive correlations between insomnia symptoms and sleep quality. In addition, both insomnia symptoms and sleep quality were markedly negatively associated with peer relationships.

Conclusion The current longitudinal study reveals that sleep quality and stress status among university students were adversely affected by the COVID-19 campus lockdowns and relieved due to lockdown lift. Those students with poor peer relationships are the most at risk of having sleep and stress problems. Our results highlight the importance of considering peer relationships in students' sleep and stress management.

关键字：COVID-19; sleep quality; stress; university students; campus lockdown

The Effect of Cognitive Behavioral Intervention on The Rehabilitation Process of Schizophrenic Patients

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Objective To reveal the impact of scientific cognitive behavioral interventions on the treatment process of schizophrenia patients through research.

Methods 80 schizophrenics diagnosed and treated in Qingdao Mental Health Center from March 2022 to March 2023 were selected by Stratified sampling. Grouping by drawing lots: The control group (40 cases) used traditional treatment methods, while the study group (40 cases) added cognitive behavioral interventions on top of conventional treatment. Compare the level of disease awareness, General Self Efficacy Scale (GSES), and changes in disease status before and after treatment between two groups of patients.

Results According to the evaluation results, the degree of disease awareness in the study group (80%) was higher than that in the control group (50%) after cognitive behavioral intervention, with a statistically significant difference (P<0.05). After cognitive behavioral intervention, the General Self Efficacy Scale (GSES) of the research group was significantly higher than that of the control group, with a statistically significant difference (P<0.05). After cognitive behavioral intervention, the BPRS score of the study group was lower than that of the control group, with a statistically significant difference (P<0.05).

Conclusion Cognitive behavioral intervention can improve the severity of the disease in patients with schizophrenia and promote their recovery. Cognitive behavioral interventions should be actively adopted during the treatment process to improve patient prognosis.

关键字：Schizophrenic；Cognitive behavioral intervention

青少年抑郁症患者父母的病耻感及其影响因素

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目的 探究青少年抑郁症患者父母的病耻感，并从家庭环境和教养方式等因素分析对其病耻感的影响。

方法 收集青少年抑郁症患者 54 名（青少年组）及其父母 50 名（父母组）的一般资料，青少年组评定抑郁自评量表（Self-rating depression scale, SDS）、简式父母教养方式（Short-Egma Minnen av Bardndosnauppforstran, S-EMBU）；父母组评定抑郁认知量表（Depression literacy Questionnaire, D-Lit）、中文版贬低-歧视感知量表(Perceived Devaluation-Discrimination Scale, PDD)、自尊量表 SES（The self-Esteem Scale, SES）、家庭环境量表中文版（Family Environment Scale Chinese Version, FES-CV）,采用 SPSS 26.0 软件进行 t 检验、F 检验、Pearson 相关分析、Spearman 相关分析、多元逐步线性回归等方法对青少年抑郁症患者父母的病耻感的影响因素进行分析。

结果 青少年组年龄中位数为 16 岁，病程中位数为 22 个月；父母组年龄平均数为 44.58 岁，父母组的 D-Lit 得分平均值为 9.56±0.408，青少年抑郁症患者的父母 PDD 量表得分均值为 33.26±1.066，在性别、民族、婚姻状况、文化程度、户口类型方面的差异无统计学意义（P＞0.05）；抑郁认知与病耻感呈负相关(t=-2.812,p=0.007)。中自尊水平的父母病耻感得分 36.22±8.307 高于高自尊水平的父母病耻感得分 31.59±6.628，差异具有统计学意义（t=2.162,p=0.036）；家庭环境中知识性与病耻感呈负相关关系，控制性与病耻感呈正相关关系；不同教养方式的父母病耻感无明显差异(F=0.462,P=0.633)；SDS 和情感温暖具有正相关关系（相关系数为-0.382，P＜0.05）。

结论 1.青少年抑郁症患者父母的病耻感水平较

高，应继续探索降低病耻感的对策，有利于青少年患者的诊疗。 2.自尊水平、家庭环境的知识性和控制性是青少年抑郁症患者父母的病耻感的影响因素，建议父母应维持一个高自尊水平、知识性较高、控制性较低的家庭环境关系。3.提高患者父母的抑郁认知可能降低病耻感

关键字：青少年抑郁症，抑郁认知，病耻感，家庭环境，教养方式

留守初中生自尊与焦虑情绪的关系：心理韧性和表达抑制的双重中介作用

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目的 探讨留守初中生群体的心理韧性水平和表达抑制在自尊与焦虑情绪之间的双重中介效应。

方法 采用儿童焦虑性情绪障碍筛查表（SCARED）、自尊量表（SES）、青少年心理韧性量表（RSCA）、情绪调节问卷（ERQ）对 820 名在校初中生进行问卷调查，对这一群体的焦虑水平、自尊感、心理韧性水平进行评价，同时分析其情绪调节策略。

结果 ①与非留守初中生相比，留守初中生的焦虑水平更高，自尊及心理韧性水平更低，更多的使用表达抑制策略（Ps＜0.01）；②自尊与心理韧性呈显著正相关（Ps＜0.01），与表达抑制呈显著负相关（Ps＜0.01），自尊、心理韧性与焦虑情绪呈显著负相关，表达抑制与焦虑情绪呈显著正相关（Ps＜0.01）；③心理韧性和表达抑制在留守初中生自尊与焦虑情绪之间起双重中介作用，其中介效应量分别占总效应的 26.81%和 15.30%，且二者的中介效应差异不显著。

结论 自尊既可以直接影响留守初中生的焦虑情绪，也可以通过心理韧性、表达抑制的双重中介间接影响焦虑情绪。这提示通过增强留守初中生的自尊感和心理韧性水平，同时鼓励或教会他们充分表达自己的情感，将有益于减轻焦虑情绪，促进他们的心理健康。

关键字：留守初中生；焦虑；自尊；心理韧性；表达抑制

5-羟色胺通路基因对默认网络关键脑区脑血流量的影响以及在抗抑郁剂早期疗效预测中的价值

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目的 采用影像遗传学方法，探讨 5-HT 通路多基因 SNPs 和抗抑郁剂治疗前基线期局部 CBF 的相互作用与早期疗效的关系，并进一步确认受 5-HT 通路基因影响的 CBF 变化对于早期疗效的预测的潜在价值。

方法 入组 22 例 RD 组和 22 例 NRD 组抑郁症患者，所有被试均接受抗抑郁剂治疗、2 周临床疗效评估、5-HT 通路多基因测序、pASL 功能像和 T1 结构像 MRI 扫描。采用协方差分析确定存在疗效×SNP 相互作用的脑区。基于上述统计结果，进一步选择存在交互作用的脑区 CBF 值进行相关性分析和疗效判别分析，以确定多位点综合效应对脑血流的影响及其对早期疗效的调控作用。

结果 11 个基因的 12 个 SNP 与 CBF 水平和早期疗效存在交互作用。左侧小脑后叶、右侧内侧额回、左侧颞中回的 CBF 水平和短期（2 周）或中期（6 周或 8 周）抗抑郁反应之间存在显著性相关。当综合受多个 SNP 影响的三个脑区 CBF，即右侧额内侧回（与疗效、HTR3D rs12493550 存在交互作用），右侧小脑后叶（HTR1A rs878567），和左侧楔前叶（TPH2 rs11178998），用于 ROC 分析时发现，综合指标在对 RD 和 NRD 患者进行分类时显示出更加优化的鉴别能力。

结论 基于 5-HT 通路多位点基因 SNP 与早期疗效交互作用主要体现在与情绪调控相关的多个脑区，主要以小脑后叶、额内侧叶和楔前叶等为主。上述基于通路遗传影像的 CBF 分析构建了基于 5-HT 通路基因多态性/抗抑郁剂疗效预测相关的脑功能异常模式，有助于更全面的分析和判断 MDD 早期疗效预测的神经影像学标记物。

关键字：5-羟色胺通路，单核苷酸多态性，局部脑血流量，影像遗传学，早期疗效预测

山东省精神科医师职业倦怠现状及其影响因素

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目的 本研究旨在调查了解山东省精神科医师职业倦怠情况，并比较不同人口学特征的精神科医师职业倦怠情况，探讨不同的社会人口学特征、医患关系情况以及不同执业经历、工作满意度等因素对山东省精神科医师职业倦怠现状的影响程度

方法 本研究采用自填式问卷以及访问式问卷进行现场调查。采用自行编制的山东省精神科医师职业倦怠情况调查问卷，问卷包括 Maslach 编制的 MBI-GS 职业倦怠测评量表、DDPRQ-10 量表、工作满意度量表对 550 名山东省精神科医师进行问卷调查。计量数据资料采用平均值标准差表示，计数资料用率表示。单因素组间比较采用卡方检验及 Fisher 确切概率法，非参数检验；多因素分析采用多元线性回归以及 Binary Logistic 回归。以 P＜0.05 为差异具有统计学意义

结果 （1）调查的山东省精神科医师中有 40.7%无职业倦怠，59.3%的精神科医师有职业倦怠，其中轻度倦怠 25.5%，中度倦怠 22.5%，重度倦怠 11.3%。山东省县级及以下精神科医师职业倦怠率为 65.25%。山东省省、市级精神科医师职业倦怠率为 52.99%。男精

神科医师中，职业倦怠率为 63.8%，女精神科医师中职业倦怠率为 54.2%，P 值<0.05。（2）职业倦怠各维度总体情况情感衰竭得分为 11.737.44，去人格化得分为 6.275.65，个人成就感得分为 11.288.77。（3）山东省精神科医师工作满意度总体得分 61.4115.57，内源性满意度得分 31.357.47，外源性满意度得分 30.068.30。（4）山东省精神科医师医患关系现状，总体得分为 30.596.70，医生的主观经验维度得分 5.271.84，患者行为的客观问题维度得分 13.703.47，患者行为和医生主观经验结合维度得分 11.613.42。（5）山东省精神科医师 19.82%未受到过语言攻击，80.18%受到过语言攻击；山东省精神科医师 35.09%未受到过人身攻击，64.91%受到过人身攻击。（6）Binary Logistic 回归分析是否受到攻击（以否为参照，是 OR=2.382）、医生主观经验 OR=1.363，患者客观行为 OR=1.064，医生主观经验与患者客观行为结合 OR=1.170，内源满意度 OR=0.804，外源满意度 OR=0.045。

结论 （1）山东省精神科医师职业倦怠过高。男精神科医师职业倦怠率高于

关键字：精神科医师 职业倦怠 影响因素

山东省精神卫生资源配置和公平性研究

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目的 本研究对山东省2020年精神卫生资源配置情况进行调查研究，从总体和区域的角度对资源配置公平性进行分析，为制定全省精神卫生服务体系发展规划提供数据基础和循证参考。

方法 对山东省所有提供精神障碍诊断治疗、心理治疗/咨询或精神康复服务的医疗卫生机构（包括卫健、民政、公安、残联等各部门或领域所属的机构）进行普查，通过问卷收集机构基本情况、人员配置、床位数量等资料。利用“每医师年诊治人次”和“每医师每年出院人数”两个指标分析门诊和住院服务利用情况的市际差异。采用洛伦兹曲线和基尼系数进行精神卫生资源配置公平性分析。通过比较 2015 年至 2020 年间机构总数、实有床位、精神科医师、专业人员配置、服务人次等指标的变化趋势进行配置投入与产出情况分析。

结果 截至 2020 年底,山东省有精神卫生医疗机构 436 家，其中综合医院 180 家，占 41.3%，精神病医院 119 家，占 27.3%。精神卫生机构主办单位以卫生健康部门为主，占 77.5%，其次为民营（17.9%）。精神科床位密度为 4.85 张/万人。精神科执业（助理）医师密度为 4.24 名/10 万人；精神科护士密度为 10.90 名/10 万人。不同地市服务利用情况差异明显，5 个地市（5/16）门诊和住院服务利用均不好。2015 年、2018 年及 2020 年精神卫生床位配置的基尼系数依次为 0.231、0.159、0.135，精神科医师配置的基尼系数依次为 0.189、0.173、0.094，配置逐步趋于公平。机构总数、实有床位、精神科医师、专业人员配置在 2015 至 2020 年间呈上升趋势；尤其是精神科医师数在 2018 年至 2020 年间涨幅最高。出院人次在 2015～2020 年间呈现稳步上升；总诊疗人次逐年上升。

结论 全省精神卫生服务能力明显提升。从公平性看，自 2015 至 2020 年以来，精神卫生床位资源及精神科医师数按人口分布公平性尚可，且逐步趋于更公平。从投入与产出来看，机构、床位、医师、专业人员配置在十三五期间不断增加，出院人次及总诊疗人次逐年上升。但与人民群众日益增长的服务需求相比，精神卫生资源总量仍相对不足，地区间资源布局有待进一步优化。建议重点支持省市县三级公立精神卫生医疗机构建设，提升机构精神卫生服务能力，利用紧密医联体和技术合作等形式，强化服务网络有效融合，完善双向转诊、人员流动和资源共享等工作机制，促进服务均质化、协同发展。

关键字：精神卫生，资源配置，公平性

树木—人格投射测验对评估初中生阈下抑郁的研究

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目的 通过对初中生进行抑郁量表及树木-人格投射测验，了解初中生阈下抑郁的现状。探索树木-人格投射测验用于评估初中生阈下抑郁的可行性，为推广树木—人格投射测验在学校应用积累经验。

方法 本研究采用随机抽样的方法，选取山东省威海市某地区初中生 850 名作为研究对象。对全体研究对象进行流调中心用抑郁量表（CES-D）测量和树木-人格投射测验，选出 CES-D 得分＞16 分的学生（n=272）进行汉密尔顿抑郁量表（HAMD）测量，HAMD 评分在 7-17 分（n=115）为阈下抑郁。将阈下抑郁组（n=115）与正常组（n=115）的 21 项树木绘画特征、树木-人格投射测验评分进行检验及回归分析。

结果 本研究初中生阈下抑郁总体检出率为 13.53%，性别无明显差异，但各年级检出率有显著差异。对全部 21 项树木绘画特征进行卡方检验，结果显示共有 7 项特征有统计学意义：树木过小（P=0.0001）、重复描绘树根（P=0.015)、枯树（P=0.002）、树木明显倾斜(P=0.039)、线条杂乱难以辨认(P=0.017)、笔迹过轻难以辨认(P=0.031)、结构残缺不完整（P=0.012)。回归分析表明，树木过小（p＝0.02，OR＝1.08），枯树（p＝0.005，OR＝1.02）、结构残缺不完整（p＝0.01，OR＝1.13）是阈下抑郁的独立危险因素。按照美国心理学家 Marvin 的解释体系对树木测验附分，阈下抑郁组评分与正常组评分有明显统计学差异（P=0.001），以评分≤4 分作为分界线，ROC 曲线的 AUC=0.78，敏感度 95%，特异度 65%。

结论 初中生的阈下抑郁检出率较高，需要引起重视。流调中心用抑郁量表（CES-D）结合树木—人格

投射测验用于初中生心理评估，具有较好的应用推广价值。

关键字：树木—人格投射测验，阈下抑郁，初中生

体力活动与维生素 D 缺乏对老年人认知障碍的影响研究

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目的 全球老龄化形势日益严峻，老年认知障碍群体快速扩张。体力活动和维生素 D 关联密切，二者本身以及二者的交互作用，可能在认知障碍的发生中发挥关键作用。本研究旨在评估体力活动和维生素 D 缺乏对老年人认知障碍的影响。

方法 研究通过多阶段随机法抽样，以≥60 岁老年人为研究对象，共纳入样本 2492（男 1207，女 1285）人，平均年龄 69.41±6.75 岁，并将数据完整者纳入分析。体力活动通过国际体力活动量表评估，以＜600MET-min/wk 为低水平体力活动标准。血清维生素 D 采用高效液相色谱串联质谱法测量，以 25-羟基维生素 D2/D3 浓度＜20ng/ml 为维生素 D 缺乏标准。认知功能通过三个子测试评估：CERAD 词汇学习测试（CERAD）评估即时和延迟学习能力，动物流畅性测试（AFT）评估语言流畅性；数字符号转换测试（DDST）评估信息处理速度和切换注意力。三个子测试均以小于得分的最低四分位数为认知障碍标准。统计分析采用 SPSS 进行卡方检验、秩和检验、交互作用分析、亚组分析和回归分析，以 α=0.05 为检验水准。

结果 低水平体力活动对认知障碍作用显著（三个子测试 OR=1.596、1.833、1.936）。维生素 D 缺乏对 AFT（OR=1.322）和 DDST（OR=1.619）反映的认知障碍作用显著，在 CERAD 中无统计学意义。低水平体力活动对维生素 D 缺乏作用显著（OR=1.232）。低水平体力活动和维生素 D 缺乏在 AFT（OR=0.662）和 DDST（OR=0.561）反映的认知功能障碍中有负向乘积交互作用，在 CERAD 中无统计学意义。亚组分析中：高水平体力活动条件下，维生素 D 缺乏对 AFT（OR=1.456）和 DDST（OR=1.934）反映的认知功能障碍作用显著，在 CERAD 中无统计学意义；低水平体力活动条件下，分析结果均无统计学意义。

结论 结果表明：低水平体力活动和维生素 D 缺乏均为老年人认知障碍的潜在危险因素；低水平体力活动是维生素 D 缺乏的潜在危险因素；体力活动与维生素 D 在对认知障碍的影响中可能相互拮抗；在高水平体力活动条件下，维生素 D 缺是老年人认知障碍的潜在危险因素。结果提示：建议老年人保持合理体力活动与维生素 D 水平；体力活动水平高的老年人应注意补充维生素 D，以预防认知障碍发生。

关键字：低水平体力活动；维生素 D 缺乏；老年人认知障碍

主动吸烟和不同场所密闭空间二手烟暴露与年轻人抑郁情绪的关系研究

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目的 年轻人抑郁情绪是被低估的社会公共卫生问题。主动吸烟和居家等各类室内环境二手烟暴露可能显著影响年轻人抑郁情绪。本研究旨在研制二手烟暴露评价工具、评估主动吸烟和不同场所密闭空间二手烟暴的对年轻人抑郁情绪的独立关联程度。

方法 研究采用流行病学调查设计，通过多阶段随机法抽样，以 18-35 岁的年轻人为调查对象，共纳入样本 4129 人（男 2021、女 2108 人），平均年龄 26.11±5.39 岁。人口学数据包括年龄、性别、种族、调查季节、兵役、教育、婚姻、家庭人数、贫困收入比、BMI、体力活动和当前健康状况。抑郁情绪通过 PHQ-9 评估，以评分≥5 为界定标准。主动吸烟和居家二手烟暴露通过访谈评估，以最近 5 天主动吸烟/家中接触二手烟为界定标准。密闭空间二手烟暴露采用研制的二手烟暴露量表评估，该量表 6 个条目分别评估 6 类场所二手烟暴露，以得分≥1 为界定标准。统计分析采用 SPSS 进行卡方检验、秩和检验检验、信度和效度分析以及二元逐步逻辑回归分析。

结果 二手烟暴露量表的标准化克隆巴赫 α 系数为 0.674，KMO=0.702。主动吸烟对抑郁情绪作用显著（OR=2.201，95%CI：1.735-2.353，P＜0.001）；调整混杂影响后 OR=1.593，95%CI：1.318-1.926，P＜0.001。居家二手烟暴露无统计学意义（P=0.108）。总二手烟暴露对抑郁情绪作用显著（OR=1.812，95%CI：1.565-2.097，P＜0.001）；调整混杂影响后 OR=1.399，95%CI：1.185-1.651，P＜0.001。在 6 类同场所中，调整混杂影响后的餐厅二手烟暴露（OR=1.732，95%CI：1.120-2.678，P=0.013）和车内二手烟暴露（OR=1.350，95%CI：1.102-1.652，P=0.04）对抑郁情绪作用显著，办公室、酒吧、家庭（包括在别人家）和其它密闭空间暴露无统计学意义（P=0.943，0.202，0.148）。

结论 二手烟暴露量表内部一致性、结构效度良好；主动吸烟和二手烟暴露是抑郁情绪的潜在危险因素；二手烟暴露危险性存在场所差异，仅与餐厅和车内有关。研究建议年轻人应主动避免吸烟和接触二手烟；在二手烟暴露无法避免的情况下调整心理预期，保持良好心态。

关键字：年轻人抑郁情绪；主动吸烟；二手烟暴露；暴露场所

The Association of Vitamin D Deficiency, Age and Depression in U.S. Adults: A Population-Based Cross-Sectional Analysis

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Objective Depression is an important public health burden, its risk of occurrence is associated with vitamin D deficiency and may also increase with age, while serum vitamin D levels are closely related to age. The purpose of this study was to evaluate whether vitamin D and age are associated with depression after adjustment for each other.

Methods We extracted data from NHANES 2013-2018, including demographic characteristics, depression level, vitamin D level, physical activity, and body measures. A total of 15,156 adults aged 20 years or older (mean age 49.81±17.67 years, 7,301 males and 7,855 females) were included. Depression was screened by PHQ-9. Vitamin D deficiency was defined by a serum vitamin D level <0.001). Vitamin D had a significant effect on depression (OR=0.776, 95%CI: 0.682-0.884, P<0.001), the effect remained significant after adjusted for confounding variables (OR=0.761, 95%CI: 0.663-0.874, P<0.001). Age was positively associated with depression (P<0.001) and had a significant effect on depression (OR=1.079, 98%CI: 1.032-1.128, P=0.001), the effect remained significant after adjusted for confounding variables (OR=1.092, 95%CI: 1.040-1.146, P<0.001). Age and vitamin D levels were positively correlated (P<0.001), and older age had a significant effect on vitamin D level (OR=1.526, 95%CI: 1.416-1.645, P<0.001), the effect remained significant after adjusted for confounding variables (OR=1.371, 95%CI: 1.263-1.487, P<0.001). In addition, the prevalence of depression was higher in females (2312/7855, 29.43%) than in males (1571/7301, 21.52%), and the difference was statistically significant (P<0.001).

Conclusions The results of this study suggested that vitamin D deficiency and older age are both associated with increased risk of depression, despite the fact that vitamin D deficiency was more prevalent in younger populations of our sample. These conclusions provide evidence for the view that "younger people are more likely to be vitamin D deficient" and contribute to scientific basis for early prevention of depression.

关键字：Age; Depression; Vitamin D Deficiency; NHANES

娱乐体力活动对糖尿病共病抑郁症影响的回顾性分析

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目的 糖尿病共病抑郁症是临床上常见的心身疾病。适度体力活动常被作为降低糖尿病患者并发抑郁症风险的非药物干预措施。然而，不同类型的体力活动可能对糖尿病共病抑郁症有不同方向和强度的影响。本研究旨在评估中等强度以上体力活动（MVPA）与体力活动的 4 个亚型：工作体力活动（WPA）、交通体力活动（TPA）、娱乐体力活动（RPA）和久坐行为（SB），对糖尿共病抑郁症的影响。

方法 研究共纳入 642 名（男 367、女 275 人）≥20 岁的糖尿病患者，平均年龄 63.54±12.08 岁，分为抑郁组与非抑郁组。协变量包括性别、年龄、种族/民族、教育、婚姻、收入贫困比和 BMI。患者的抑郁症通过 PHQ-9 筛查，以≥5 分为界定标准。体力活动通过基于国际体力活动量表的家庭访谈评估：MVPA、WPA、TPA 和 RPA 以 4METs 的中等强度体力活动为界定标准，SB 以＞600min/d 为界定标准。统计分析采用 Excel 和 SPSS 进行数据处理、卡方检验、秩和检验和二元逐步 Logistic 回归分析。

结果 抑郁组 195（30.37%）人、非抑郁组 447（69.63%）人。MVPA（P=0.949）、WPA（P=0.203）、TPA（P=0.299）和 SB（P=0.219）在两组间的差异无统计学意义。RPA 对糖尿病共病抑郁症有显著影响（OR=0.508，95%CI：0.347-0.742，P<0.001），在对混杂变量进行调整后，影响仍旧显著（OR=0.522，95%CI：0.356-0.789，P=0.002）。

结论 糖尿病患者并发抑郁症比例较高。在体力活动的各亚型中，仅娱乐体力活动是糖尿病共病抑郁症的潜在保护因素，可使糖尿病患者并发抑郁症风险降低 21%~64.4%。研究提示：非所有类型的体力活动都有益于糖尿病患者心理健康；体力活动不等同于运动锻炼，具心理效益可能归因于其娱乐属性。建议糖尿病患者多参与娱乐体力活动，以预防共病抑郁症的发生。

关键字：心身疾病；糖尿病共病抑郁症；不同类型体力活动；心理健康效益

The Association of Different Types of Physical Activity with Sleep Disorders: A Population-Based Cross-Sectional Analysis

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Objective Sleep disorders are a group important psychological and public health burden, which seriously endangers physical and psychological health. Physical activities are closely related to sleep disorders, while different types of physical activities may have different effects on sleep disorders. The aim of this study was to evaluate the association of different types of physical activity on sleep disorders independent from each other.

Methods We extracted data from NHANES 2017-2018, including demographic characteristics, sleep disorders and physical activity. A total of 4157 adults aged 20 years or older (mean age 51.05 ± 17.52 years, 2029 males and 2128 females) was included. Types of physical activity (work, transportation, recreational physical activity and sedentary behavior) were defined and assessed by the Global Physical Activity Questionnaire (GPAQ); sleep disorders were assessed by patient self-report in the Munich Chronotype Questionnaire (MCTQ). Chi-square test and Kruskal-Wallis tests was used to compare differences between groups; the associations of each type of physical activity and sleep disorder were analyzed through binary Logistic regressions.

Results 1) 1211 participants were found to have sleep disorders, accounting for 29.1% of the total sample size; 2) There were significant differences in work physical activity (OR=1.148, 95%Cl: 1.005-1.313, P=0.043), sedentary behavior (OR=1.432, 95%Cl: 1.197-1.713, P<0.001) and recreational physical activity (OR=0.795, 95%Cl: 0.695-0.909, P=0.001) among sleep disorders, the difference of transportation physical activity was close to significant (P=0.055). 3) After adjusted for confounding viables, work physical activity (OR=1.249, 95%CI: 1.126-1.385, P<0.001) and sedentary behavior (OR=1.524, 95%CI: 1.330-1.745, P<0.001) were positively associated with sleep disorders, while recreational physical activity (OR=0.776, 95%Cl: 0.700-0.860, P<0.001) was negatively associated.

Conclusions 1) There are no significant associations between transportation physical activity and sleep disorders. 2) Both work physical activity and sedentary behavior are potential risk factors for sleep disorders. 3) Recreational physical activity is a potential protective factor for sleep disorders. The results of this study revealed that in order to prevent sleep disorders, it is necessary to reduce physical workload, engage in more recreational physical activities, and reduce sedentary duration.

关键字：Different types of physical activity; Sleep disorders; NHANES

重复经颅磁刺激对伴有躯体疼痛的抑郁障碍患者疗效及认知功能的影响分析

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目的 分析重复经颅磁刺激对伴有躯体疼痛的抑郁障碍患者特点、治疗要点，评价重复经颅磁刺激对患者躯体症状的疗效、认知功能等方面的影响。

方法 选择我院心理康复科 2022 年 1 月-2023 年 3 月期间收治治疗的 92 例符合 ICD-10 抑郁障碍的诊断标准并伴有躯体疼痛的患者。按照随机数字表法分组治疗，对照组 46 例患者行单一用药治疗（度洛西汀肠溶胶囊或草酸艾司西酞普兰），观察组 46 例患者辅助重复经颅磁刺激治疗。4 周后比较 2 组患者的治疗情况，包括治疗效果、汉密尔顿抑郁量表 24 项（HAMD）、汉密尔顿焦虑量表(HAMA)、数字分级法（NRS）以及认知功能。应用 SPSS 软件包进行统计学处理并进行分析。

结果 治疗前，两组患者各项量表评分无显著差异。汉密尔顿抑郁量表 24 项（HAMD）、汉密尔顿焦虑量表(HAMA)、数字分级法（NRS）治疗 4 周后比较治疗前评分下降，观察组评分下降程度高于对照组，P<0.05；以简易精神状态检查表(mini-mental state examination, MMSE)评估患者的认知功能，观察组患者治疗 4 周后的认知功能评分明显高于对照组，P<0.05；治疗 4 周后，观察组患者的临床总有效率明显高于对照组，P<0.05。

结论 药物治疗基础上，辅助重复经颅磁刺激治疗伴有躯体疼痛的抑郁障碍患者效果显著，可快速缓解疼痛，改善认知功能。

关键字：重复经颅磁刺激；躯体疼痛；抑郁障碍 ；认知功能

不同类型身体活动对吸烟行为的影响

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目的 吸烟已成为重大公共卫生问题之一。吸烟会大大增加慢性呼吸疾病、恶性肿瘤、心脑血管疾病和糖尿病的患病风险，甚至还会缩短寿命。吸烟严重危害身体健康，而身体活动可能与吸烟有关，但是不同类型身体活动如何影响吸烟行为还不为人知。因此，本研究旨在辨别不同类型身体活动对吸烟的影响方向和程度。

方法 本研究以 2017-2018 年美国国家营养调查中分层抽取的 20 岁及以上代表性人群为样本，共 2015 人（男 1233 人、女 782 人，平均年龄 54.02±17.31 岁）。通过全球身体活动问卷评估身体活动，判断样本在近一周内是否进行过中等强度以上各类身体活动。通过烟草使用问卷判断样本现阶段是否吸烟。计数变量采用秩和检验，分类变量采用卡方检验。通过单因素分析后，分别以四种不同类型身体活动为自变量，以吸烟为因变量，作二元 Logistic 回归分析。每个自变量建立逐步回归模型，分别不调整其他变量、调整人口学变量和调整所有混杂变量。数据均采用社会科学统计软件包（SPSS）26.0 版进行分析。

结果 排除所有混杂变量后，中等强度以上工作身体活动与吸烟接近显著（P=0.053），比值比（OR）=1.135（95%Cl：0.999-1.289）。排除所有混杂变量后，中等强度以上娱乐身体活动与吸烟显著相关（P＜0.001），OR=0.729（95%Cl：0.639-0.832）。排除所有混杂变量后，通勤身体活动与吸烟显著相关（P＜0.001），OR=1.214（95%Cl：1.048-1.405）。排除所有混杂变量后，久坐行为与吸烟显著相关（P＜0.001），OR=1.363（95%Cl：1.154-1.611）。

结论 中等强度以上工作身体活动是吸烟的潜在危险因素，有中等强度以上工作身体活动的人最高可能会增加 28.9%吸烟的风险；中等强度以上娱乐身体活动是吸烟的保护因素；通勤身体活动和久坐行为是吸烟的危险因素。综上所述，日常应尽量适当进行娱乐身体活动，尽量避免中等强度以上工作身体活动和久坐行为，以减少吸烟行为发生的风险。此外，通勤身体活动也是吸烟行为的危险因素，提示我们应尽量避免创造可以吸烟的外界环境，进而降低吸烟行为的发生风险。

关键字：工作身体活动，娱乐身体活动，通勤身体活动，久坐行为，吸烟

COVID-19 大流行封锁期间与疫情前医疗机构自伤就诊人数的比较:一项荟萃分析

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目的 自伤是有意伤害自己的行为，如烧伤、切割、打击、抓挠或任何其他形式的自伤。COVID-19 大流行导致全球生活方式发生了变化，不仅损害人们的身体健康，还引发了一系列心理问题。封锁通常由政府或卫生当局作为应对公共卫生紧急情况的措施实施。该项世界范围内回顾性研究和荟萃分析，研究了 COVID-19 大流行封锁期前后自伤发生率的变化。

方法 对于这个荟萃分析，我们在 APA PsycInfo、Embase、PubMed、Web of Science、CNKI、万方和 VIP 上搜索了 2020 年 1 月 1 日至 2022 年 4 月 30 日之间发表的英文文献。包括在 COVID-19 大流行前后医疗机构就诊的自伤发生率数据的研究。进行质量评估和数据提取。用 RStudio 4.2.2 软件进行数据分析，以随机效应模型应用于荟萃分析来探究 COVID-19 大流行期间临床机构就诊的自伤发生率与大流行前相比的风险比值（OR)的变化。本研究已在 PROSPERO 注册.

结果 本研究总共纳入了 15 项研究，类型全部为回顾性队列研究，且属于观察性研究。自伤发生率变异的总体荟萃风险比值为 1.3863（95%CI，1.2051-1.5948，I^2 = 58.9%，p = 0.0020）。“急诊科类型”的亚组差异检验显示具有显著性（Q=11.34，df=2，P<0.0035）。此外，“样本平均年龄”亚组之间的风险比值异质性（常见效应模型）也具有显著性（Q= 7.32，df=2，P=0.0257）。

结论 我们的研究代表了一项全面的世界范围内回顾性研究和荟萃分析，研究了 COVID-19 大流行封锁期前后自伤发生率的变化。研究结果显示疫情的大流行与封锁是自伤发生的危险因素。我们的研究及结论在未来应对世界范围的重大公共卫生事件具有指导意义。

关键字：COVID-19，自伤，大流行，就诊率

青少年抑郁症患者的家庭功能与自杀意念的相关性研究

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目的 青少年抑郁进而出现自杀行为是全球重大公共卫生问题，其中患者的家庭因素对青少年抑郁的影响尤为显著。家庭功能通过家庭的亲密度和适应性来衡量；亲密度、适应性与家庭功能的发挥效果呈非直线相关，即过高或过低的适应性和亲密度均不利于家庭功能。本研究聚焦于家庭功能、抑郁症状严重程度及自杀意愿的相关性，探讨家庭功能对抑郁、自杀意念严重程度的影响。

方法 根据 ICD-10 诊断标准，随机纳入 558 名患有单相/双相抑郁障碍患者，年龄 13-25 岁。依据家庭亲密度与适应性量表中文版(FACESII-CV)评分将患者家庭功能分为平衡型组及非平衡型组。应用二元 logistics 回归分析明确家庭功能是否为自杀意念的危险因素，应用中介效应分析明确家庭功能、抑郁及自杀意念三者的关系。

结果 本研究共纳入 558 名患者，其中平衡型组 64 人，非平衡组 494 人。两组患者社会人口学资料进行比较，性别、年龄、体重指数、学历、家族史、吸烟饮酒史差异均无统计学意义(P 均＞0.05)。与平衡型组相比，非平衡组家庭的抑郁症患者，失眠症状更严重（P=0.004），抑郁(P=0.035)和焦虑严重程度显著升高(P=0.002)，自杀意念严重程度更高(P=0.012)。负性生活事件总分虽无显著差异，但受惩罚因子得分显著升高(P=0.006)。在非平衡家庭中，有自杀未遂(P=0.039)及 NSSI 行为的患者比列(P=0.001)显著高于平衡型家庭。进行 ETA 相关性分析，家庭功能与焦虑(r=0.128)、抑郁(r=.089)、失眠(r=0.120)、受惩罚事件(r=0.115)、自杀意念严重程度(r=0.107)呈显著相关性(P＜0.05)。通过二元 logistics 回归分析显示，家庭功能与自杀意念风险呈负相关(模型 1；OR=2.168，P=0.006)，将抑郁、焦虑、失眠症状、受惩罚因子分纳入协变量后，这种相关性则不显著(模型 2；OR=1.782，P=0.057)。通过中介效应分析，抑郁严重程度在家庭功能和自杀意念严重程度之间起到完全中介作用，效应值为 0.195，区间不包含 0，具有统计学意义。

结论 青少年抑郁障碍患者中，家庭功能不平衡的患者经历更多受惩罚事件，表现出更严重的抑郁、焦虑及失眠症状。家庭功能对青少年抑郁患者自杀意念的影响，完全通过抑郁的中介作用。家庭功能不平衡，导致抑郁症状加重，自杀意念风险进一步升高。

关键字：青少年 抑郁 自杀 家庭功能

Parenting Rearing Style, Childhood Trauma, Negative Life Events and Resilience: A Network Analysis

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Objective This study explores the dimensional associations among resilience and several factors, including parenting rearing style, childhood trauma, and negative life

events, in a large sample of college students, so as to discover the potential intervention targets of resilience.

Methods A total of 4761 participants took part in the study. Multiple linear regression analysis was used to explore associations among social demographic variables, parental rearing patterns, childhood trauma, negative life events and resilience. Network analysis was conducted among resilience, parental rearing patterns, childhood trauma and negative life events.

Results Three main pathways were discovered, including "learning pressure-emotional control pathway" , "emotional neglect-family support pathway" and "mother care-family support pathway". "Emotional abuse" was the core node of the estimated network.

Conclusion As a multi-system process, resilience can be promoted from several dimensions. Future interventions targeted on learning pressure, emotional maltreatment and maternal bonding would help to promote resilience in early adulthood.

关键字：Resilience, network analysis, college students

The Relationship between Sleep Problems and Suicidal Ideation in Youth Depression

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Objective Sleep problems may exacerbate the risk of suicide among youth depression, while it is unknown whether this association is independent of psychopathology. We aimed to investigate the relationship between sleep characteristics and suicide ideation among youth depression.

Methods This cross-sectional study recruited 576 participants (13–25 years old) at the Affiliated Brain Hospital of Guangzhou Medical University from January 2022 to May 2023. The patients were divided into suicidal ideation group and non-suicidal ideation group according to the Columbia Suicide Severity Scale (C-SSRS). Sleep and mental heath assessed by the Athens Insomnia Scale (AIS)、Hamilton Depression Rating Scale (HDRS) and Hamilton Anxiety Rating Scale (HARS). Logistic regression was used to determine the association between sleep problems and suicidal ideation.

Results Compared to non-suicidal ideation group , suicidal group exhibited more severe sleep problems, anxiety and depressive symptoms. Pearson correlation analysis showed that the total AIS score and its two factor scores significantly correlated with total scores of the anxiety symptom, depressive symptom and suicidal ideation respectively. Further logistic regression analysis revealed that the AIS factor score of daytime dysfunction (β=0.145; OR=1.156, 95% CI: 1.02,1.309; p=0.023) and previous hospitalization (β=0.748; OR=2.113; 95% CI: 1.336,3.342; p=0.001) were significantly associated with suicidal ideation after adjusting for demographic and depression and anxiety symptom severity.

Conclusion This study provides ample evidence to support that sleep disturbance specially daytime dysfunction is an independent risk factor for suicidal ideation. These findings highlight that interventions for sleep problems may provide an effective and efficient approach to reduce suicidal ideation among youth depression.

关键字：Youth depression; Sleep problems; Suicide ideation.

Different Parameters of Blue Light Exposure for Preventing Depression in Mice

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Objective Previous studies have demonstrated the therapeutic value of blue light therapy for treating depression. Yet the ideal light therapy parameters are not consistent. In the present study, blue light was prophylactically used to test the antidepressant effects of different light therapy parameters. This experiment explored the antidepressant effect of different duration（2 weeks or 3 weeks, or 4 weeks）, daily exposure time（2 hours or 3 hours or 4 hours）, and frequencies (0 Hz or 8 Hz or 40 Hz) of blue light therapy on improving depression-like behaviors.

Methods Adult male C57/BL6 mice at the ages of 7–8 weeks were used in the present study. Corticosterone-chronic restraint stress (Cort-Crs) depression model (Corticosterone was administered subcutaneously at a dose of 20 mg/ kg , Restraint of 2 hours/day, over 4 weeks) was performed as a stress model to study depression along with blue light therapy. The light sources in this experiment are blue light sources with three different frequencies, Its details are as follows: LED, wavelength = 462.8 nm, Tc ≥ 25,000 K, flicking frequency = 0 Hz or 8 Hz or 40 Hz, irradiation power density = 0.3 mW/cm2. Behavioral experiments including sucrose preference, open field, and tail suspension tests were assessed to evaluate the antidepressive effects of blue light therapy.

Results Cort-Crs procedure induced depression like behaviors. Prophylactic blue light therapy improves improved behavioral results. The optimal parameters of three weeks, three hours a day of prophylactic blue light therapy at 40 Hz shows the maximum antidepressant effects on anhedonia and behavioral despair, while a decline was observed from the optimum effects at other parameters.

Conclusion The results showed that 40 Hz light therapies are the most effective. The antidepressant effect of blue light at various durations was examined for the first time in this study. We found that three weeks of blue light therapy had the greatest antidepressant effect. Moreover, we also found that three hours of blue light therapy per day had the best efficacies. Our results reconfirmed blue light is the effective component of light therapy for treatment of depression. And we determined the optimal parameters of three weeks, three hours a day of prophylactic blue light therapy at 40 Hz shows the maximum antidepressant effects on anhedonia and behavioral despair, while a decline was observed from the optimum effects at other parameters.

关键字：depression, light expose, blue light, anhedonia, behavioral despair, light expose parameters, rhythmic light

非药物干预对中国青少年自杀及非自杀性自伤相关行为疗效的系统综述

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目的 系统评价非药物干预对中国青少年中具有自杀及非自杀性自伤相关行为的循证策略。

方法 通过 7 个外文数据库（Clinical Trial, CINAHL, Cochrane Library, EMBASE, PsycINFO, PubMed, Web of Science）及 4 个中文数据库（CNKI, WangFang, ScienceDirect, SinoMed, CEPS）进行检索，检索截至日期为 2023 年 1 月 31 日。以关键字包括自残、自我伤害、自毒、自杀、自杀未遂、自杀倾向、自我伤害行为等主题词结合自由词进行检索。纳入标准：1）自杀相关行为干预的随机和非随机对照试验 2）18 岁或 18 岁以下的中国青少年，排除标准为：1）综述、系统评价或荟萃分析 2）患有或确诊为精神疾病 3）无定量干预结果。提取文献内容，主要包括第一作者、研究和发表年份、研究省份、样本量、干预类型、干预时间、自杀相关行为类型、参与者平均年龄、男性比例、干预评估的主要、次要标准以及研究结果等信息。研究由两个团队的六名研究人员筛选（包括纳入研究的参考文献以及相关综述）并提取文献，交叉核对后以 Jadad 品质评量表进行评价，任何异议经过小组讨论所确定。

结果 总共检索了 16871 篇文献，涉及约 1751 名受试者的 19 篇研究符合纳入标准，针对具有自杀相关行为中国青少年的干预主要包括系统干预、认知行为疗法、以及心理治疗，而辅导、心理教育、基于活动的疗法联合认知行为疗法各有 1 篇研究报道。其中 3 项研究采用系统干预、5 项研究借助心理治疗报告了上述干预方法在减少自杀意念、非自杀性自伤行为、自杀念头、自杀未遂行为的发生次数、频率、严重程度方面均有效。但认知行为疗法在干预中更为常见，8 项研究报告了认知行为疗法显著减少了自杀意念、自伤行为问卷得分以及自杀想法发生次数。

结论 认知行为疗法对自杀及非自杀性自伤相关性行为的干预是常见且有效的，我们建议将认知行为治疗考虑作为具有自杀相关行为的中国青少年的首选干预方式。本文的局限性在于可纳入的文献数量相对较少、干预对象有限，且没有固定的标准来评估干预效果。未来更多研究应更针对于具有自杀相关行为中国青少年多种干预方式联合的比较，扩大干预样本量，为指导临床应用以及公共卫生提供更有说服力的数据支持。

关键字：中国 青少年 自杀 非自杀性自伤

2002-2020 年中国精神障碍死亡率变化趋势

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目的 我国精神障碍患者人数呈上升趋势，但对精神障碍死亡率的时间趋势和人群分布的研究较少。本研究旨在探讨我国精神障碍患者死亡率随时间的变化趋势及人群中的分布特征。

方法 本研究利用国家卫生和计划生育委员会出版的《中国卫生统计年鉴》获取了心理障碍的死亡率数据，利用年变化率（Annual Percent Change, APC）和平均年变化率（Average Annual Percent Change, AAPC）对死亡率的时间趋势进行了联接点回归分析（Joinpoint Regression）。利用泊松回归模型检验了与心理障碍死亡的人口层面的风险因素有关的变量。

结果 结果显示，在中国农村居民中，心理障碍的死亡率从 2002 年至 2020 年呈下降趋势（AAPC: -2.06%，95％ CI: -3.16％~-0.91％）。城市居民中的心理障碍死亡率在 2005 年至 2011 年之间下降（APC: -13.01%，95％ CI:-21.08％~4.13％）。从 2002 年至 2020 年，城市男性心理障碍死亡率下降，APC 为-2.71％（95％ CI: -4.52％~-0.71％）。2002 年至 2005 年和 2012 年至 2020 年，城市女性心理障碍死亡率增加，分别为 19.65％（95％ CI: 0.64%-42.32 ％ ） 和 6.16 ％ （ 95 ％ CI: 2.22%~10.33％）。年龄是心理障碍死亡的显著风险因素（OR=1.28，95％ CI: 1.23~1.32）。

结论 医疗和健康信息的传播，医疗和健康资源的投入，以及相关政策的修改和优化已使中国的精神障碍死亡率下降，对患有心理障碍的老年人、应给予更多关注。

关键字：精神障碍, 死亡率, 危险因素, 人群分布, 区域分布

基于 HFMEA 模型预防精神科患者非自杀性自伤行为的效果评价

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目的 分析基于 HFMEA 模型预防精神科患者非自杀性自伤的效果。

方法 采取整群抽样的方法，选取云南省某三级甲等精神专科医院 12 个精神科患者做为研究对象。对照组采取非自杀性自伤行为预防常规对患者进行干预；干预组应用和落实基于 HFMEA 模型预防精神科住院患者非自杀性自伤行为干预措施并进行效果评价，包括（1）成立 HFMEA 项目小组：对 HFMEA 模型的相关理论知识进行培训，同时对实施过程进行监控，拟定针对性的失效分析，制订并落实改进措施。（2）绘制非

自杀性自伤预防管理流程图：确定预防住院精神障碍患者非自杀性自伤行为共涉及 3 个主流程：发生前、发生时和发生后和 11 个子流程（3）识别失效模式及原因、决策树分析：失效模式的风险大小由 RPN 表示，其计算公式为严重度×发生率。RPN 分值≥8 分时，为高危模式，代表该失效模式对于系统的危害很大。通过决策树进行分析，对需要改进的潜在的失效点进行筛选。（4）制定非自杀性自伤患者管理的干预方案：落实患者风险评估及宣教；落实患者安全管理；健全考核体系，提升应急处置能力；指导多种途径的情绪宣泄方法（情绪宣泄技巧、不良情绪应对技巧、制定紧急的应对计划、尝试用其他行为代替非自杀性自伤的行为等）

结果 实施基于 HFMEA 模型进行前瞻性管理及预防后，患者非自杀性自伤的发生率由 7.41% 降为 1.57%，差异有统计学意义（P<0.05）；患者的满意度明显提高，差异有统计学意义。（P<0.05）。

结论 将 HFMEA 模型运用于精神科患者中，能有效控制工作中的潜在失效模式，降低患者非自杀性自伤的发生率，保障患者安全，值得临床推广和应用。

关键字：HFMEA 模型；精神科；非自杀性自伤

基于 Logistic 回归分析构建社区严重精神障碍患者肇事肇祸风险评估工具

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目的 通过 Logistic 回归分析获得社区严重精神障碍患者发生肇事肇祸的影响因素，建立预测社区严重精神障碍患者发生肇事肇祸风险预测模型。

方法 利用 2017 年 1 月-2019 年 12 月在江苏省严重精神障碍管理系统中登记在册的 28000 例的档案信息，通过 Logistic 回归分析获得社区严重精神障碍患者的肇事肇祸发生危险因素，以各危险因素的回归系数 β，建立列线图模型，并通过自助重采样进行验证。对各危险因素进行赋分，构建肇事肇祸风险评估工具。

结果 社区严重精神障碍患者肇事肇祸发生率为 7.15%。多因素 logistic 回归分析结果显示，男性，≤44 岁年龄组，病程≤14 年、高中及以下受教育程度、无业、有低保，诊断为精神分裂症，既往主要症状数量＞1 项、精神科就诊次数≥1 次/年、不同意参加社区管理和不同意参加社区康复活动及延迟诊断时长＜2 月是发生肇事肇祸的危险因素。并将以上因素纳入列线图模型，列线图模型 ROC 曲线下面积为 0.688（95%CI:0.563~0.726）。社区严重精神障碍患者发生肇事肇祸概率的校准曲线显示，列线图预测的概率与实际概率之间一致性较好。

结论 基于 Logistic 回归分析构建的社区严重精神障碍患者风险预测模型，经过验证显示模型有较好的预测效能，可用于评估社区严重精神障碍患者发生肇事肇祸概率。

关键字：严重精神障碍；肇事肇祸；Logistic 回归；预测模型

严重精神障碍患者参加社区卫生服务管理情况及其影响因素分析

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目的 了解无锡市社区严重精神障碍患者参加社区卫生服务管理情况及其影响因素。

方法 利用 2019-2021 年江苏省严重精神障碍管理系统中登记在册的无锡市严重精神障碍患者基础及随访档案信息，分析我市社区严重精神障碍患者的参加卫生管理服务情况，并采用 logistic 回归模型分析其影响因素

结果 共有 27 977 人纳入分析，参加社区卫生服务管理人数为 25744，管理率为 92.02%。多因素 logistic 回归分析结果显示，年龄 31~40 岁组(OR=0.532 ,95%CI:0.434~0.653)、年龄 41~50 岁组(OR=0.557 ,95%CI:0.468~0.663)、年龄 51~60 岁组(OR=0.746 ,95%CI:0.635~0.877)、年龄 >60 岁组(OR=0.840 ,95%CI:0.719~0.969)、病程 6~10 年组(OR=0.376 ,95%CI:0.307~0.461)、病程 11~15 年组(OR=0.312 ,95%CI:0.249~0.390)、病程 16~20 年组(OR=0.702 ,95%CI:0.529~0.932)、病程 >20 年组(OR=0.701 ,95%CI:0.514~0.957)、文化程度为大专及以上 (OR=0.719 ,95%CI:0.560~0.923)、在校学生(OR=0.565,95%CI:0.419~0.760)、无低保(OR=0.643,95%CI:0.572~0.723)、偏执型精神病(OR=0.159,95%CI:0.116~0.219)、分裂情感障碍(OR=0.513,95%CI:0.394~0.668)、有肇事肇祸情况(OR=0.553 ,95%CI:0.442~0.692)、不参加社区康复活动(OR=0.170 ,95%CI:0.101~0.284)是患者参加社区卫生服务管理的消极因素。职业为农民(OR=1.423，95%?CI:1.215~1.665)、丧偶(OR=2.355,95%CI:1.583~3.503)、离婚(OR=2.992,95%CI:2.093~4.278)则是患者参加社区卫生服务管理的积极因素。

结论 无锡市地区严重精神障碍患者卫生服务管理率相对较低，应该特别关注中青年、病程长、有肇事肇祸情况、大专及以上、学生、无低保等消极因素的严重精神障碍患者，进一步提升管理率。

关键字：严重精神障碍；社区卫生服务管理；?影响因素

血浆 MMP-9、TIMP-1 水平与酒精使用障碍关系的研究

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目的 本研究拟探讨 AUD 患者血浆 MMP-9、

TIMP-1 水平与饮酒情况、心理渴求程度与认知功能的相关关系。

方法 本研究共入组 AUD 患者 68 例（病例组），健康对照者 38 例（健康对照组）。采用蒙特利尔认知评价量表（MoCA）评估受试者的认知功能。采用宾夕法尼亚酒精渴求量表（PACS）评估 AUD 患者对酒精的心理渴求度。采用酶联免疫吸附法（ELISA）测定受试者血浆 MMP-9、TIMP-1 水平。

结果 （1）病例组血浆 MMP-9 浓度为 37.71（30.46,44.95）ng/ml，TIMP-1 浓度为 5.16（4.13,6.28）ng/ml，健康对照组 MMP-9 浓度为（30.64±7.52）ng/ml，TIMP-1 浓度为（7.00±1.32）ng/ml。与健康对照组相比较，病例组血浆 MMP-9 水平明显升高，TIMP-1 水平明显降低，差异有统计学意义（P＜0.001，Z=-4.256;P＜0.001，Z=-5.830)；病例组 MoCA 总分为 23.00（18.00,25.00）分，健康对照组 MoCA 总分为 29.00（28.00,30.00）分，病例组 MoCA 总分较健康对照组明显降低，差异有统计学意义（P＜0.001）。（2）病例组血浆 MMP-9 水平与 TIMP-1 水平呈负相关（r=-0.304,P=0.002)；病例组血浆 MMP-9 与周饮纯酒精量、PACS 评分成正相关关系(r=0.329,P=0.006;r=0.388,P=0.001)；与 MoCA 总分成负相关关系(r=-0.266,P=0.006)；与饮酒年限和和饮酒频率无相关性（P＞0.05）。病例组血浆 TIMP-1 与周饮纯酒精量、PACS 评分成负相关关系（r=-0.263,P=0.03;r=-0.332,P=0.006）；与 MoCA 总分成正相关关系（r=0.393,P＜0.001），与饮酒年限、饮酒频率没有相关关系（P＞0.05）。

结论 （1）AUD 患者的血浆 MMP-9 水平明显高于健康对照者，血浆 TIMP-1 水平明显低于健康对照者，认知功能明显低于健康对照者。（2）AUD 患者的血浆 MMP-9 水平越高，血浆 TIMP-1 水平越低，其周饮纯酒精量和心理渴求度越高，认知功能损害越重，MMP-9 与 TIMP-对 AUD 患者的酒精渴求和认知功能有影响。

关键字：MMP-9、TIMP-1、酒精使用障碍、心理渴求度、认知功能

感觉统合训练对孤独症儿童生活自理能力的干预效果：基于系统综述和 Meta 分析

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目的 我国目前儿童孤独症患病率呈现增长趋势，且与世界儿童孤独症患病率水平相接近。其中，大多数患儿缺乏生活自理能力，其结果一方面给家庭造成了沉重的生活负担，另一方面可导致患儿与社会严重脱轨，危害其身心发展。但是，现有治疗方案对改善孤独症患儿生活自理能力效果不佳。因此，寻找一种安全有效的干预措施来提高孤独症儿童生活自理能力、回归社会极为必要。感觉统合训练作为一种运动干预方式，是利用神经系统可塑性，通过训练刺激患儿前庭、本体感觉等方面，促进其功能的全面发展。目前国内外关于感觉统合训练对孤独症儿童干预效果的研究虽然丰富，但其对于孤独症儿童生活自理能力的疗效缺乏针对性和一致性。本研究运用循证医学的方法，对近年来国内外有关感觉统合训练对孤独症儿童干预效果的研究进行综合分析，并进一步针对该训练方式对孤独症儿童生活自理能力的疗效进行深入探讨，旨在为提高孤独症儿童生活自理能力提供更科学的治疗方案。

方法 通过检索中国知网、万方数据知识服务平台、PubMed 和 Web of Science 等国内外文献数据库，搜索有关感觉统合训练对孤独症儿童影响的研究，检索时限为建库至 2023 年 5 月。纳入文献的研究类型为孤独症儿童进行感觉统合训练的随机对照试验。采用软件 Review Manager5.3 和 STATA12.0 进行 Meta 分析。

结果 通过检索共搜集文献 303 篇，最终纳入文献 11 篇。Meta 分析结果显示：观察组感觉统合失调评分[SMD=11.62，95％CI（10.45，12.79）]高于对照组，且差异具有统计学意义（P＜0.001）。治疗有效率分析结果显示[SMD=4.08，95％CI（2.43，6.83）]，观察组疗效优于对照组，且差异具有统计学意义（P＜0.001）。孤独症儿童行为评定量表分析结果显示，观察组生活自理能力评分[SMD=-2.02，95％CI（-2.47，-1.56）]低于对照组，且差异具有统计学意义（P＜0.001），此外，观察组躯体运动能力、交往能力和语言能力等方面评分均低于对照组。通过漏斗图和 Egger 检验表明纳入各研究间不存在发表偏倚（P＞0.05）。

结论 感觉统合训练对孤独症儿童具有较好的临床疗效，不仅能提高其生活自理能力，还可改善其躯体运动、社交功能等方面，从而更好地促进患儿回归社会。因此，建议感觉统合训练作为一种儿童孤独症常规治疗方案应用于临床。

关键字：感觉统合训练；孤独症；生活自理能力；社交能力

基于 GEO 数据库筛选的 SERPINA3 在酒精使用障碍中的表达模式及机制研究

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目的 酒精使用障碍是世界公共卫生问题，复发率高，预后差。SERPINA3 参与神经炎症。我们对 SERPINA3 在酒精使用障碍中的作用仍知之甚少。本研究探讨 SERPINA3 在酒精使用障碍中表达模式及潜在机制。

方法 基于 GEO 数据库筛选酒精使用障碍相关的 DEG，利用 5 个靶基因预测网站预测 SERPINA3 的 microRNA。将 SERPINA3 按照中位数水平分为高浓度组、低浓度组，探究高低浓度组 SERPINA3 与酒精使用障碍患者临床指标相关性及预后的关系。（2）体内实验构建 SD 大鼠酒精依赖模型，RT-qPCR 对模型中 PFC、

海马中 SERPINA3、miR-137-3p、促炎因子及抗炎因子表达水平验证。（3）体外实验建立酒精暴露组细胞模型，双荧光素酶报告检测验证 miR -137-3p 对 SERPINA3 的抑制作用。回复实验验证上下游对神经炎症调控作用。

结果 筛选出 1 个 DEG。病例组 SERPINA3 浓度较健康对照组显著升高，高浓度的 SERPINA3 与吸烟、MCV、IL-6 呈正相关，与 HDL、ELANE 呈负相关。logistic 回归分析：MCV、HDL、IL-6、ELANE 有统计学意义。ROC 显示 SERPINA3 的 AUC 为 0.9662；随访 1 年，生存分析未发现 SERPINA3 高、低浓度组无事件生存期有差异。 RT-qPCR 、Western Blot 、免疫组化结果示模型组大鼠 SERPINA3 在前额叶皮质、海马明显增高；模型组大鼠 miR-137-3p 在前额叶皮质、海马均显著下降。前额叶皮质、海马促炎因子表达明显升高，抗炎因子表达显著下降。双荧光素酶报告实验结果示 miR-137-3p 能结合 SERPINA3 mRNA 3'UTR。敲减 SERPINA3，miR-137-3p 表达增加，促炎因子表达均明显下降。过表达 SERPINA3， miR-137-3p 表达下降，促炎因子表达明显升高。敲减 miR-137-3p ，SERPINA3 蛋白表达水平升高；RT-qPCR 结果示 SERPINA3、促炎因子表达显著升高；过表达 miR-137-3p ，SERPINA3 蛋白表达水平显著下降；RT-qPCR 结果示 SERPINA3 表达显著下降, 促炎因子表达下降；

结论 miR-137-3P 通过靶向 SERPINA3 影响酒精暴露介导的神经炎症。

关键字：酒精使用障碍；生物信息学；SERPINA3；miR-137-3p；神经炎症

双相情感障碍患者 Na-K-ATP 酶与氧化应激和睡眠质量的关联研究

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目的 近年来有研究发现，Na-K-ATP 酶功能异常可能与 BD 的发生发展有关。同时发现 BD 在急性期和发作间期都经常发生睡眠改变，睡眠改变也被描述为早于 BD 发病的特殊风险综合征，或是 BD 发病的直接前驱症状。有研究表明，BD 患者发生睡眠障碍机制可能与 Na-K-ATP 酶有关。在最新的研究发现氧化应激在 BD 的发展中也发挥着重要作用，增加的氧化应激过程引起神经可塑性、信号传导和神经递质摄取的改变可能参与了 BD 的发病机制。更有一些研究发现了氧化应激与 Na-K-ATP 酶之间也存在关系。但是目前关于 BD 患者 Na-K-ATP 酶数量以及活性改变还不明确，氧化应激指标（硫代巴比妥酸反应物 TBARSs）的变化在 BD 发病机制中代表的意义也没有统一的结论，且尚未有以人类为研究对象，来探讨睡眠与 Na-K-ATP 酶之间的关系的研究。因此，本课题尝试探讨在 BD 发病中 Na-K-ATP 酶和 TBARSs 水平变化趋势及 Na-K-ATP 酶与 BD 患者睡眠质量的关联。

方法 收集双相障碍患者 40 例，30 例健康对照组。采用 ELISA 检测受试者血浆 Na-K-ATP 酶水平和 TBARSs 水平，用 PSQI 来评估 BD 患者睡眠质量。比较病例组和对照组血浆 Na-K-ATP 酶和 TBARSs 水平差异；比较不同时相患者血浆 Na-K-ATP 酶水平差异。分析病例组 Na-K-ATP 酶水平与 TBARSs 水平和年龄、PSQI 总分相关性。

结果 （1）病例组血浆 Na-K-ATP 酶水平低于对照组；（2）病例组血浆 TBARSs 水平高于对照组；（3）病例组躁狂相患者血浆 Na-K-ATP 酶水平低于抑郁相患者血浆 Na-K-ATP 酶水平（4）病例组血浆 Na-K-ATP 酶水平与血浆 TBARSs 水平呈负相关；（5）病例组血浆 Na-K-ATP 酶水平与 PSQI 总分呈负相关；（6）病例组血浆 Na-K-ATP 酶水平与年龄呈正相关，病例组血浆 TBARSs 水平与年龄呈负相关。

结论 （1）血浆 Na-K-ATP 酶水平降低可能是双相障碍发生的机制之一；（2）血浆 TBARSs 水平升高可能是双相障碍发生的机制之一；（3）血浆 Na-K-ATP 酶水平进一步下降可能是导致躁狂相发生的影响因素之一（4）双相障碍患者血浆 Na-K-ATP 水平越低，其氧化应激效应越严重；（5）双相障碍患者血浆 Na-K-ATP 酶水平越低，其睡眠质量越差。（6）双相障碍患者发病年龄越小，其病情严重程度越重。

关键字：Na-K-ATP 酶；TBARSs；双相障碍；睡眠；相关性

深圳市三无流浪精神分裂症出院患者的回顾性分析

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目的 对近 3 年来深圳市三无流浪精神分裂症出院患者进行回顾性分析。

方法 以 2020 年—2022 年经深圳市精神卫生中心救治出院的1581例三无流浪精神分裂症患者为研究对象，通过电子病历系统进行回顾性探索。

结果 1581 例研究对象中，男性占比高于女性，年龄在 16~73 岁之间，外籍来源主要分布于湖南（11.89%）、广西（8.98%）、湖北（8.41%）。出院方式以救助站护送返乡为主。未明确分类的诊断类型比例逐年减少；出院处方中单一抗精神病性药物占比93.23%，联合用药处方逐渐下降。传染病感染率为15.31%，流浪女性组梅毒感染率高于流浪男行组（1.78% vs 0.52%），差异存在统计学意义（P＜0.05），不同性别组中乙肝、艾滋病疾病感染率无统计学差异（P＞0.05）。40--59 岁年龄段、肇事肇祸中、高风险是流浪精神分裂症感染传染性疾病的危险因素(OR =1. 726，95%CI =1. 299～2. 294)、(OR =1. 496，95%CI =1. 115～2. 005)。不同年份之间实际住院时长存在统计学差异（P＜0.05）。其中 2020 年与 2021 年实际住院时长差异无统计学意义（P=0.229），2020 年、2021 年均与 2022 年之

间差异存在统计学意义（P＜0.05）。

结论 本研究反映了近 3 年深圳地区，在特殊社会背景下三无流浪精神分裂症出院患者的现状。疾病诊断分型逐年细化；实际住院时长有延长趋势；出院处方合乎诊疗规范并且呈现多元化、个性化特点；40--59 岁年龄段以及肇事肇祸中、高风险是患传染性疾病的危险因素。因此，特殊人群的社会监管和救治不可偏废，努力推动流浪患者救治体系的完善。

关键字：精神分裂症；三无流浪；深圳；

Depression, Anxiety and Insomnia in Chinese Older Adults and Their Family Caregivers During The COVID-19 Pandemic An Actor-partner Interdependence Model Approach

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Objective China bears a heavy burden of disease due to its large population of older adults aged 65 or more, which accounts for 13.5% of the total population. China is already amongst the ageing societies and the burden of diseases has subsequently risen as a result. Sleep disturbance, depressive and anxiety disorders are relatively prevalent psychiatric conditions in late life. Mental health problems not only worsened older adults' quality of life and social function, but also increased caregiver burden. Multiple studies have examined the relationship between psychological distress and sleep problems in older adults and caregivers. But older adults-caregiver dyadic associations between psychiatric symptomatology and insomnia have not received adequate attention. Therefore, this study aimed to explore the dyadic effects of depression and anxiety on insomnia symptoms in Chinese older adults and their caregivers living in a community setting.

Methods Data were collected from 1507 pairs of older adults and their caregivers who were in the Guangdong Mental Health Survey in China. The 9-item Patient Health Questionnaire (PHQ-9), Generalized Anxiety Disorder module 7 (GAD-7), and Insomnia Severity Index (ISI) were used to measure depression, anxiety, and insomnia symptoms. Actor-Partner Interdependence Models (APIM) were used to determine whether anxiety or depression symptoms predicted individual or dyadic insomnia.

Results Older adults' and caregivers' depression and anxiety had significant positive correlations with their own and their caregivers' insomnia symptoms (all P<0.001). Actor effects were found between depression and insomnia symptoms in both older adults and caregivers (B=0.695, P<0.001; B=0.547, P<0.001, respectively), with one significant partner effects (B=0.080, P=0.007). Actor effects were also found between anxiety and insomnia symptoms in both older adults and caregivers (B=0.825, P<0.001; B=0.751, P<0.001, respectively), with one significant partner effects (B=0.097, P=0.004). However, the caregivers' depression and anxiety were not associated with older adults' insomnia symptoms in the APIM analyses.

Conclusion Older adults and their caregivers had an interrelationship between psychological distress and insomnia. Consequently, healthcare providers might consider involving dyads when designing programs to reduce insomnia and improve psychological distress for family caregivers.

关键字： Anxiety; actor-partner interdependence model; depression; insomnia; older adults; caregivers.

Physical Activity Level and Risk of Depressive Symptoms in Patients with Diabetes Mellitus

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Objective The aim of this study was to explore the cross–sectional association between physical activity level and depressive symptoms among patients with diabetes mellitus.

Methods In this study, the data was extracted from 2013-2018 National Health and Nutrition Examination Surveys (NHANES). The diabetes mellitus patients were determined by self-reported and 1889 subjects were selected finally. Depressive symptoms were assessed using the 9-item Patient Health Questionnaire (PHQ–9) , those with PHQ–9 ≥ 5 were defined having depressive symptoms. Global Physical Activity Questionnaire (GPAQ) were used to evaluated the level of physical activity , the total physical activity MET minutes per week < 600 is deemed not reached the sufficient physical activity. The information on physical activity participation were collected from three domains: activity at work, travel to and from places, recreational activities. Therefore, the physical activity level in different settings were analyzed respectively in addition to the total physical activity level. Univariate and binominal logistic regression analysis were employed to examine the association between depressive symptoms and physical activity.

Results The prevalence of depressive symptoms in diabetic patients was 33.9% (25.4% in men and 43.6% in women). The median physical activity level was 480 MET minutes per week, 47.3% of the subjects met the requirement of sufficient physical activity. In three domains, there was statistically significant difference only in recreational activities level between depression group and non–depression group (p < 0.001). Independent variables in regression model were screened by forward stepwise and gender, educational level, body mass index (BMI) and total physical activity were introduced into the model in the end. Based on the group not reached 600 MET minutes per week, participants meeting the requirement had lower odds of depressive symptoms (OR=0.78, 95% CI: 0.64-0.96).

Conclusion Male, higher BMI, higher level of education and sufficient physical activity were protective factors for patients with diabetes mellitus co-morbid depression. Among subjects with higher level of recreational activities, there were less patients with diabetes mellitus co-

morbid depression.

关键字：Diabetes Mellitus, Depression, Physical activity

2022 年末中国爆发新型冠状病毒期间医务人员的职业倦怠 及其关系：一项单中心横断面在线调查

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目的 2022 年末，中国新冠疫情防控政策发生调整后，新冠感染人数急剧上升。医务人员面临救治新冠患者和自身感染双重考验，这给他们带来极大的心理压力和职业压力。为此，调查研究短期内大批量新冠肺炎病人急剧增加对医务人员的职业倦怠影响，并分析相关关联因素，具有重要意义。

方法 2022 年 12 月 9 日至 2023 年 2 月 9 日对中国某三甲医院医务工作者进行在线问卷调查，收集人口学资料和职业倦怠情况。使用国际通用的马斯勒倦怠两边中文版（MBI-HSS）评估职业倦怠水平，涵盖人格解体、情绪衰竭和个人成就感降低 3 个维度。运用 SPSS 软件对相关数据进行分析。

结果 共 434 名医务人员完成了问卷调查，其中包括 161 名医生（37.1%）、215 名护士（49.5%）、22 名技师（5.1%）、17 药剂师（3.9%）和 19 名行政人员（4.4%）。近一半的参与者（48.6%）有高水平的情绪衰竭，其中近三分之一（29.4 %）有高水平的人格解体。人格解体后职业倦怠的独立决定因素为年龄和性别。年龄< 33 岁(OR 2.03；95% CI 1.15-3.56；P = 0.01)和女性(OR 0.33；95% CI 0.18-0.62; P = 0.01)更容易产生职业倦怠。此外，工作量的增加与人格解体（OR 2.37；95% CI 2.02-5.50；P = 0.04）和情绪衰竭（OR 1.89；95% CI 1.04-3.58；P = 0.03）相关。

结论 新冠肺炎集中大流行对职业倦怠，尤其是人格解体、情绪衰竭等维度产生了很大影响。低年龄和女性医务人员更容易产生职业倦怠。在为一线人员设计未来的职业倦怠预防计划时，应考虑到这些影响因素。

关键字：职业倦怠；新型冠状病毒；医务人员

老年人痴呆发作在听力正常人群和听力障碍人群中的差异

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目的 研究表明听力减退与痴呆发作相关联，本研究旨在探究老年人痴呆发作在听力正常人群与听力障碍人群的差异。

方法 本研究纳入 120 名不符合痴呆定义的老年人（年龄在 65-70 岁之间）接受听力测试，按听力损伤程度（包括正常范围、轻度损伤、中度/重度损伤）划分为 3 组，每组各 40 名老年人。对这些听力损伤患者长期随访后进行评估，分别于随访开始时，随访第 6 个月，第 12 个月，第 18 个月，第 24 个月取得 MMSE 评分，每次评估时需排除受试者中采取了听力改善措施的患者，对剩余受试者分别评估随访开始、随访中、随访后的认知状态。

结果 随访开始时不同听力损伤程度三组间数据分别为 27.45±1.23，27.4±0.94，27.2±0.77，三组间两两比较，p>0.05，差异无统计学意义。随访第 6 个月，3 组剩余受试者各 30 人，三组间数据分别为 27.27±1.10，26.73±1.03，26.88±0.81，p>0.05，差异无统计学意义。随访第 12 个月，3 组剩余受试者各 24 人，三组间数据分别为 27.16±1.03，26.8±1.11，26.5±0.52，其中第 1 组与第 3 组两两比较，p<0.05，差异有统计学意义。随访第 18 个月，3 组受试者各剩余 20 人，三组间数据分别为 27.1±0.74，25.9±1.37，22.7±1.16，p<0.05，差异有统计学意义。随访第 24 个月，3 组受试者各剩余 20 人，三组间数据分别为 25.9±0.99，22.8±1.03，19.5±0.85，p<0.05，差异有统计学意义。

结论 研究结果显示，老年人痴呆发作在听力正常人群和听力障碍人群中存在差异，听力受损者 MMSE 评分明显低于听力正常人群，且这种差异随着时间推移趋于明显，需进一步研究其因果关系，研究是否听力下降是导致痴呆症状发生的独立病因，从而为从改善听力损伤方面改善老年人痴呆症状的相关研究奠定理论基础。

关键字：老年人、痴呆、听力损伤、MMSE 评分

抗抑郁药物在英国新闻报纸和医学杂志中的社会构建 - 一项基于语料库的研究

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目的 本研究运用语料库语言学研究方法分析了抗抑郁药物在英国新闻报纸和医学杂志中的社会构建。由于各个国家具有不同的社会文化背景，抑郁症和抗抑郁药物在不同国家得到了不同的解读。本研究旨在揭示人们对此类疾病和药物的理解很大程度上依赖于各个国家媒体的宣传和构建，并集中介绍目前英国国内对抗抑郁药物的社会构建。

方法 研究使用了两个大型历时语料库，分别包括从 2007 年到 2022 年英国新闻报纸和医学杂志中对五种常用抗抑郁药物进行构建的文章，包括氟西汀，度洛西汀，文拉法辛，舍曲林和西酞普兰。语料来源于英国大型数据库 Nexis UK 中新闻报纸部分和专业医学数据库 Medline 中包括的核心英国医学杂志部分。所

用语料库检索软件为 Sketch Engine.

结果 研究发现在英国报纸中，儿童和青少年对抗抑郁药物的服用情况得到了极大的关注，特别是青少年服用抗抑郁药物和持续增高的自杀风险之间的联系应该得到社会的关注。另外，服用抗抑郁药物和其他方面的联系如对产后抑郁症的治疗，对睡眠问题如失眠，睡眠呼吸暂停和嗜睡病的影响， 以及对各类疼痛如纤维肌痛，神经性疼痛的抑制都进行了强调。最后，英国新闻报纸还强调了认知行为疗法在治疗抑郁症的过程中所起到的有效作用。新闻报纸中强调的以上问题在英国医学杂志中同样有充分的讨论。除此之外，医学杂志文章表明目前的抗抑郁药物对患者认知障碍恢复方面的作用还非常有限，在下一阶段需要将此问题作为治疗的明确目标。另外，英国医学杂志文章还强调，抗抑郁药物和非典型性（第二代）抗精神病药物的联合使用可以达到有效的止痛和防焦虑的效果。

结论 本研究结果可以进一步和中国国内新闻报纸与医学杂志对抗抑郁药物的构建进行对比，更为有价值的对比分析结果将使中英两国从事抑郁症研究和临床工作的专业人员，以及两国抗抑郁药物的使用者对这一现象有更加全面的认识和理解。 ? 本研究由英国国家学术研究院 (British Academy/Leverhulme Small Research Grants) 资助，项目编号为 SG2122\210988.

关键字：抗抑郁药物，社会构建，新闻媒体，医学杂志，英国

新冠疫情后期成都市居民睡眠状况调查及其影响因素分析

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目的 了解新冠疫情后期成都市居民睡眠状况及其影响因素。

方法 本研究于 2022 年 7-8 月采用多阶段分层整群抽样方法抽取成都市 6030 名 18 岁及以上常住居民进行线上问卷调查。研究使用成都市居民心理健康素养调查问卷，选取其中的人口社会学信息、睡眠状况、7 项广泛性焦虑量表（GAD-7）、9 项患者健康问卷（PHQ-9）部分，分析居民睡眠状况及其影响因素。应用 SPSS 26.0 软件进行数据分析。

结果 12.1%居民自我报告主观睡眠差，25.3%居民夜间睡眠效率低于 80%，4.8%居民近一月曾使用过安眠药物，12.2%居民存在日间功能障碍。整体睡眠不良率（包含以上任意一种问题）为 38.39%。女性整体睡眠不良率（39.70%）高于男性（36.30%），未婚（41.23%）高于已婚（37.78%），罹患慢性疾病（48.05%）高于未罹患慢性疾病（34.13%），同居超过半年人数＜3 人（40.74%）高于同居超过半年人数≥3 人（36.96%），差异均有统计学意义（$\chi2$=6.99, $\chi2$=4.45, $\chi2$=104.93, $\chi2$=8.51, 均 P<0.05）。整体睡眠不良率随月收入的增加、自评健康状态的降低呈升高趋势（趋势 $\chi2$ 值分别为 14.41 和-18.66，均 P<0.01）。整体睡眠不良人群 GAD-7、PHQ-9 得分均高于整体睡眠较好人群，差异具有统计学意义（t=-21.85, t= -22.53, P <0.01）。不同职业人群整体睡眠不良率也存在差异（$\chi2$=15.17, P<0.05）。多因素 logistic 回归分析显示，同居超过半年人数＜3 人（OR=1.157， 95% CI: 1.03~1.31）、罹患慢性疾病（OR=1.26，95% CI: 1.11~1.44）、自评健康状况一般（OR=1.86，95% CI: 1.60~2.15）、差或非常差（OR=6.00，95% CI: 3.76~9.58）与睡眠状况不良相关（均 P<0.05）；GAD-7、PHQ-9 每增加 1 分，整体睡眠不良率分别增加 9.10%、8.90%（均 P<0.001）。

结论 在新冠疫情后期成都市居民睡眠问题普遍存在，尤其是女性、伴有慢性疾病及情绪问题人群，而较多的同居人数对新冠疫情后期的睡眠不良起到保护作用。治疗慢性疾病、家人的陪伴、缓解不良情绪在长期面对慢性应激事件下可能有助于改善睡眠。

关键字：新冠疫情，睡眠，睡眠调查，影响因素

运动通过自噬抑制神经炎症改善小鼠抑郁样行为

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目的 抑郁症以情绪低落、快感缺失为主要临床表现，是一种常见的精神疾病，其病因不明确，反复发作，严重时会导致自残自杀行为。抑郁症的发病率呈逐年增长态势，预计到 2030 年将成为全球疾病负担的首要因素。目前针对抑郁症的临床治疗，靶向单胺递质的药物仍是抑郁症的首选，但是包括选择性 5-羟色胺再摄取抑制剂（SSRIs）在内的一线药物存在治愈率低、副作用大、治疗依从性差等问题。与此同时，抑郁症的长期治疗给社会带来沉重的公共卫生及经济负担，并且也给患者家庭造成沉重的负担。因此，寻求一种安全、高效的治疗方法显得尤为重要。近年来，研究人员发现运动不仅可以促进身心健康，还可以参与情感调控、缓解抑郁症状。抑郁症的运动疗法相对于药物治疗来说具有较强的自控性和经济性等特点，并且疗效较明显，已经被很多国家合组织推荐为抑郁症首选的防治手段。但目前游泳运动防治抑郁症的心理和生理机制尚未完全阐明。 本课题从动物层面探讨游泳运动对小鼠抑郁行为的影响，并从分子层面探究游泳运动的抗抑郁作用是否与自噬和神经炎症之间的相互作用有关。以期为运动的抗抑郁机制提供证据，为抑郁症的治疗提供新的靶标。

方法 通过糖水偏好、悬尾、旷场、高架十字迷宫等对小鼠进行行为学检测，观察其抑郁样行为。采用透射电镜、免疫印迹以及免疫荧光法观察自噬及炎症情况。

结果 慢性束缚应激（crs）导致小鼠出现抑郁样行为,而游泳逆转了 crs 诱导的抑郁样行为改变。游泳干预组的小鼠海马区 P13K/Akt/m TOR 通路以及自噬相关效应蛋白的水平上升。自噬激活则有 mtor 的下降，其他蛋白表达下降。慢性束缚应激（crs）使小鼠海马

中 NLRP3 炎症小体相关蛋白的表达量增加，游泳可以逆转这一现象。小鼠海马组织中自噬相关蛋白的水平变化与 NLRP3 炎症小体相关蛋白的水平变化成负相关。

结论 我们的研究结果显示，游泳运动可以改善 crs 小鼠的抑郁样行为。其发挥作用的机制可能是通过激活自噬相关的 P13K/Akt/m TOR 通路，进而缓解神经炎症。

关键字：抑郁症 运动 自噬 神经炎症

严重精神疾病患者的婚育状况及其后代的健康调查：一项自贡市横断面研究的初步结果

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目的 严重精神疾病（Severe mental illness, SMI）常会损害患者的社会功能和自理能力。通常，SMI 患者的家庭会承担起照料病人及其子女的责任。本研究拟对 SMI 患者进行家庭调查，旨在描述四川省自贡市 SMI 患者的婚育状况及其后代的健康状况，从而为这些弱势群体的护理和康复政策制定提供可靠的基础。

方法 对自贡市 18-60 岁 SMI（精神分裂症、分裂情感性精神障碍和双相情感障碍）患者进行横断面研究。我们用描述性流行病学方法分析了数据，并统计 SMI 患者后代身心疾病的总体患病率。

结果 本研究纳入自贡市管理的 SMI 患者 10,353 例；9,848 人回应，545 人拒绝调查，访到率 100%；共包括 9,266 名精神分裂症患者，39 名分裂情感性障碍患者和 543 名双相情感障碍患者。除了 3,538 名（35.93%）从未结婚的受访者外，9848 名受访者中有 4，750 名（48.23%）患有 SMI 的人正处于婚姻状态中。其他人则处于离婚、丧偶或其他婚姻状况。超过一半的 SMI 患者（55.29%）至少养育了一个后代。其 7，479 名后代中，63 人（0.84%）出生时患有先天性残疾或疾病，59 人（0.79%）诊断有身体疾病，154 名（2.06%）后代被诊断出患有精神障碍，精神分裂症、精神发育迟滞及心境障碍的患病率分别为 1.28%、0.28%、0.15%。

结论 这些研究结果提供了有关中国市级样本中 SMI 患者的婚育信息及其后代健康状况，大约一半的 SMI 患者完成婚育。由于我们只报告了初步结果，患者的精神疾病、家庭角色和养育方式之间的相互影响仍不清楚。这一特殊群体应得到更多的学术研究、社会关注及福利政策。

关键字：严重精神疾病、横断面研究、婚育状况、后代、患病率

广东地区精神专科医院护士连带病耻感水平和影响因素分析

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目的 描述广东地区精神专科医院护士连带病耻感水平，调查广东省精神专科医院护士连带病耻感的影响因素。

方法 采用方便抽样的方法，并以广东地区 16 间精神专科医院的护士为研究对象，采用问卷调查的方式，采用一般情况调查表、中文版 CASS 量表来测量其病耻感水平，并采用 t 检验、单因素方差分析比较社会人口学分组之间的病耻感水平差异。采用线性回归分析评估精神科护士连带病耻感水平的影响因素。

结果 共发放问卷 1260 份，回收有效问卷 1211 份，CASS 量表总分为（38.49±11.80）分，CASS 量表总分在工作部门（$F=3.065$, $P<0.05$）、医院所在地区（$F=10.31$, $P<0.05$）、医院级别（$F=7.44$, $P<0.05$）之间有统计学差异，住院部护士的病耻感高于门诊、急诊、行政管理岗位的护士。连带病耻感的总分在护士不同性别之间无统计学差异，但是 CAAS 量表中条目 13、14、15、17 四个条目的得分在护士性别之间有统计学差异，其中条目 1、11、12、14、19 在护士的学历之间有统计学差异，其中条目 10 在护士的职称之间有统计学差异。

结论 本研究结果显示广东省精神专科医院护士其 CASS 量表总分大于量表中点分数 38 分，提示广东省精神专科医院护士普遍存在精神疾病连带病耻感。在住院部工作的护士其连带病耻感水平高于其他人员。二甲医院和粤西地区精神专科医院护士的连带病耻感水平最高。本研究结果表示要重点关注住院部护士、二甲医院及粤西地区精神科护士的的连带病耻感，精神科护士的病耻感研究能为我国降低精神卫生人员连带病耻感提供科学证据，降低精神科护士连带病耻感，提高其工作效率和质量，减少职业倦怠，从而促进精神障碍患者全面康复。

关键字：精神科护士；病耻感；精神障碍；影响因素分析

上海市 H 区严重精神障碍患者及其监护人的养老困境和策略研究

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目的 严重精神障碍患者及其监护人的养老问题相较于一般家庭更加复杂，且近年来，精神障碍的患病率一直呈上升趋势。但是严重精神障碍患者及其监护人的养老问题一直处于各部门所管理的“真空地带”，为社会所忽视，相关研究也主要集中在农村空巢老人、失独老人等特定老年群体的养老问题探讨。因此，本研究采用焦点小组的形式，访谈了 8 位上海市 H 区的严重精神障碍患者监护人，了解这一长期被忽视的群体独特的养老体验和经历，探究他们的养老问题和所期

待的养老方式，为完善我国精神障碍养老制度提供相关思路，为相关政府部门的决策提供科学依据，推动精神障碍患者养老事业的高质量发展。

方法 采用焦点小组访谈的形式，深入了解 8 位严重精神障碍患者及其监护人的养老困境和他们所期待的养老模式，并用定性分析软件 NVIVO 进行文本的分析和编码，最终形成本文的研究结论。

结果 研究发现，严重精神障碍患者及其监护人的养老困境主要体现在：家庭经济压力大、严重精神障碍患者就医依从性差、严重精神障碍患者监护人心理压力大、严重精神障碍患者照护压力大、严重精神障碍患者监护人自身养老困难。严重精神障碍患者监护人所期待的养老方式包括：建立公立精神疾病家庭康养社区、建立公立精神疾病家庭康养机构、增加公立精神专科医院的养老功能、提供政府经济补助。

结论 严重精神障碍患者监护人根据自身家庭正在经历的困难或者未来可能遇到的养老困难而提出的养老方式，具备一定的代表性。但是依据目前的养老现状，其未来的落地实施还需要很长一段时间，它们的可行性也还需要探讨。未来严重精神障碍患者和监护人的养老可以从以下三个方向考虑：首先需要从顶层设计上重视这一弱势的特殊群体，依托于法律制度保障它们的权益，从上而下推进它们的养老进程；其次需要明确政府的责任主体，以某一政府部门为主，其余部门进行协调配合，集中资源为严重精神障碍患者提供高质量的养老服务，否则容易出现互相推诿的局面；最后应当倡导、鼓励民间力量建立社会组织，包括社工组织、公益组织等，为严重精神障碍患者家庭提供喘息服务等。

关键字：严重精神障碍患者及其监护人 养老困境 养老策略

网络精神病学组

《抑郁症中西医结合诊疗指南》制定的思考

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规范抑郁症中西医结合诊疗，发挥中西医结合治疗优势，是困扰神志病领域中西医结合工作的难题。通过规范抑郁症中西医结合循证和标准化工作，制定和发布《抑郁症中西医结合诊疗指南》，形成系统的中西医结合治疗方案，为临床提供客观、具体、且可操作的建议，从而指导临床实践。本文从制定背景、亮点、总结和展望等方面对《指南》进行解读，从而加强《指南》的落地、实践与推广。 本指南按照《世界卫生组织指南制定手册》、GB/T 1.1-2020《标准化工作导则》以及《中国临床实践指南报告规范（RIGHT 中医拓展版）》、《中国制订/修订临床诊疗指南的指导原则》（2022 版）等规则起草，并沿袭《抑郁症中西医结合诊疗专家共识》团体标准。主要框架包括：抑郁症的术语与定义、诊断、治疗、中西医结合预防与防复发、抗抑郁化学药物不良反应的中西医结合处理等内容，其中治疗包括：抑郁症急性期中西医结合治疗、抑郁症巩固期和维持期中西医结合治疗、中西医结合治疗抑郁症伴发症状、特殊人群抑郁症中西医结合治疗。 本指南以循证方法为基础，根据中西医结合的研究证据和专家经验，经过专家问卷、GRADE 评级方法及数次德尔菲法、团体共识法，对《抑郁症中西医结合诊疗指南》进行系统的归纳、总结、评价和推荐。

关键字：抑郁症；中西医结合；指南解读

基于过渡性空间理论青少年精神健康问题休学心理意义的质性研究

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目的 基于过渡性空间理论青少年精神健康问题休学心理意义的质性研究

方法 1.确定样本：目的抽样法，选取 2022 年 9 月—12 月某三级甲等医院青少年心理门诊复诊的青少年作为研究对象。 纳入标准：①年龄为 12~<18 岁；②精神健康问题休学后复学. 排除标准：精神分裂症、双相情感障碍等重性精神障碍。 样本量：以访谈内容重复出现且不再出现新的主题为止，一共纳入 17 例精神健康问题休学后复学的青少年。 2.资料收集及分析方法： 通过查阅文献、课题组成员讨论，初步拟订访谈提纲，开展预访谈， 根据访谈结果修改访谈提纲，再咨询 1 名心理治疗师和 1 名社会学教授确定最终提

纲。 ①您出于怎样的考虑决定休学？ ②您休学后的学习\生活是怎样安排的？ ③休学后您的感受是怎么样的？在不同时间有怎样的变化？④您的家庭在您休学后有怎样的变化？ ⑤您出于怎样的考虑决定复学？内心的想法、感受是怎么样的?1 对 1 半结构式个案访谈。访谈约 45~60 min,全部访谈内容录音。 访谈结束后，整理访谈记录，录入 Word 文档，归类整理。进行资料分类,编码,甄别。采用了 Colaizzi 分析法。当第 1 个访谈资料整理成文字后即开始资料分析工作,当访谈至第 17 个个案时,分析资料已无新的主题产生,即资料达到了饱和。

结果 ①休学是非常重大的决定，一体两面，既是不得已的中断，带着危机与痛苦，同时也提供了一个暂停休整的机会. ②休学期间自我掌控的生活状态,为青少年提供了一种“主观的全能感”,促进青少年调和内在的自我挫败感,自我力量得以加强. ③休学期间促进青少年呈现其具有激情和创造性的游戏\梦\故事,才会有内在幻想与现实冲突的调和，感受到生活的意义。 ④休学放慢了学习生活节奏,促进青少年真性自体的慢慢稳定,，以“真我”活出个人化的世界，体验到持续涌现的自我真实感受和个体的独特意义。 ⑤休学期间外部环境(家庭\学校\心理治疗)如果能够提供一个保护性的框架,可促进青少年自体发展；⑥休学期间的自我调整没有得到理解和支持,完全生活在主观全能感中，与客观现实毫无联系，又会促进其退行到自闭的自我中心的状态.

结论 休学为青少年提供了一个暂停休整的过渡空间。外部环境如果能够提供一个保护性的框架,可促进青少年自体发展；如果没有得到理解和支持,则可能完全在主观全能感中，与客观现实毫无联系，退行到自闭状态,并影响复学.

关键字：过渡性空间；青少年；精神健康；质性研究

在线正念心理治疗在大学生未治疗抑郁症中的应用

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目的 探讨在线正念为基础的两种心理治疗（正念减压 MBSR，正念认知治疗 MBCT）在抑郁群体的应用。

方法 入组未治疗的大学生抑郁症人群（70 名），随机给予 MBSR 或 MBCT 治疗 8 周。分别在基线、4 周末、8 周末进行抑郁（the 9-item Patient Health Questionnaire，PHQ-9)、焦虑（the 7-item Generalized Anxiety Disorder scale ，GAD-7)、睡眠情况（the Pittsburgh Sleep Quality Index PSQI) 的测试；在基线和 8 周末进行正念态度（the Five Facet Mindfulness Questionnaire，FFMQ)、自我关怀（the Self-Compassion Scale，SCS) 的测试。

结果 1. 八周线上干预后，两组（MBSR 和 MBCT 治疗组）各自的 PHQ-9, GAD-7, PSQI 总分均有显著降低。2. 八周线上干预后，两组间 PHQ-9, GAD-7, PSQI 的减分率没有统计学差异。3. 八周线上干预后，两组各自的 FFMQ、SCS 总分均有显著升高，组间 FFMQ、SCS 总分没有统计学差异。4. 八周线上干预，两组的脱落率没有统计学差异。5. MBSR 或 MBCT 治疗组，参与次数和每日训练时间均与 PHQ-9, GAD-7, PSQI 的减分率正相关。

结论 对于未治疗过的大学生抑郁症，MBSR 或 MBCT 治疗均能改善抑郁、焦虑和睡眠状况，且能提升正念态度和自我关怀的能力；因此，正念为基础的两种治疗方法均可以在学校进行广泛的应用。

关键字：抑郁症; 正念减压; 正念认知治疗

互联网+时代影视媒介在《精神病学》的教学改革的研究

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目的 在“互联网+”与教育的结合越来越紧密的时代背景下，我国教育改革不断深化；尤其近 3 年线下教学无法连续正常开展，互联网在临床医学教育领域中进一步广泛应用，并且已经取得了一定的成效，呈现出良好的发展态势。而对于精神病学的教学工作，如何将线上教学以及可通过互联网+获得的可利用资源相结合，并取得更好的教学效果，仍需进一步探讨研究。

方法 系统分析阐述影视媒介在精神病学教学应用的方式、效果和不足之处；系统分析阐述互联网+时代的精神病学教学模式变化，包括互联网+联合翻转课堂模式,互联网+联合 PBL 模式,互联网+联合 CBL 模式,互联网+联合 BOPPPS 模式,以及精神病学网络授课的效果及评价。

结果 总成绩方面应用影视媒介教学的实验组显著高于未应用影视媒介的对照组，对于教学方法和教学效果的评价实验组高于对照组，教学态度、教学内容等方面两组间无显著差异；网络教学的实验组在“注重学生思想品德、人文情怀等的培养”、“充分准备、重视教学”、“灵活使用各种教学手段辅助教学”，“注重与学生沟通交流互动”方面的课堂教学质量评价，总评价以及期末考试总成绩均高于传统教学的对照组。

结论 发现总体上学生认为精神病学在线教学具有灵活性、以学生为中心，资源共享性强等优点，且网络与线下教学的效果相当；但同时网络教学中存在的问题：缺乏互动、监管不足、网络卡顿、课堂评教机制不完善等，网络教学改革依然需要进一步的探索和发展。

关键字：互联网+ 影视媒介 精神病学 教学改革

A Discriminative Analysis of Bipolar Disorder and Depression Using Multiply Strategies of Machine Learning and Deep Learning on Resting State EEG

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Objective Bipolar disorder (BD) patients exhibit depressive episodes in at least 50% of cases, and its depressive severity is very similar to depression (DP) patients, which may result in high rate of misdiagnosis, inadequate treatment, and poor prognosis. The objective of this study is to develop a pipeline of discriminative analysis of BP and DP patients and compare the performance of multiply strategies of both traditional machine learning (TML) and deep learning (DL) on resting state EEG data.

Methods Resting state EEG data was acquired for each of 24 BD patients, 34 DP patients and 21 normal controls (NCs). For the first strategy, we computed 24 EEG features of 7 different categories, used the different combinations of 24 EEG features as input data of 3 classifies of TML, and finally obtained most distinctive channels and features. For the second strategy, we established a DL network based on CNN-LSTM, which directly input the preprocessed EEG data into the network to achieve end-to-end classification.

Results In the three-groups classification, the first strategy using a classifier of random forest (RF) with the combination of feature fusion achieved the best accuracy of 90.1%, in which the Hjorth and RQA features of the F3 and F4 channels showed higher importance. Moreover, the best accuracy of the second strategy using deep learning was further improved to 95.2%.

Conclusion Our results demonstrated the effectiveness of the proposed strategy and indicated that EEG can serve as a reliable indicator for diagnosis of BD and DP and distinguish between them.

关键字：Bipolar Disorder, Depression, Machine Learning, Deep Learning, Feature Extraction, CNN, LSTM.

社交媒体对传统人际交往方式的替代对精神心理的影响

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目的 社交媒体对传统人际交往方式的替代对现代人精神心理的影响

方法 通过文献检索，综述社交媒体对传统人际交往方式的替代对精神心理的影响

结果 社交媒体的兴起已经改变了我们与他人交流的方式。无论是通过微信、微博、抖音、Facebook、Instagram、Twitter 还是其他平台，社交媒体为我们提供了与全球各地的人们连接的机会。这种连接的便利性使得我们能够与亲朋好友保持联系，分享生活中的点滴，并且可以迅速获取信息和新闻。然而，社交媒体并不能代替真正的面对面交流和情感支持。 首先，社交媒体的交流方式存在着一定的限制。通过文字、图片或视频进行交流，虽然能够传达一些信息，但却无法完全表达情感和细微的非语言信号。面对面交流时，我们可以通过肢体语言、面部表情和声音的变化来更好地理解对方的情感状态。这种细微的交流和情感共鸣是社交媒体所无法提供的。 其次，社交媒体的交流往往是片面和表面化的。在社交媒体上，人们倾向于展示自己生活中的美好和成功，而掩盖了内心的困扰和挫折。这种表面化的交流容易导致我们对他人的生活产生不切实际的期望，并且会增加自己的焦虑和不安。而在面对面交流中，我们更容易展现真实的自我，接受和理解他人的困扰，从而建立起更真实和深入的情感支持。此外，社交媒体的交流也存在着信息过载的问题。在社交媒体上，我们每天都会接收到大量的信息和内容，包括来自朋友、家人、新闻和广告等。这种信息的过载容易导致我们感到压力和疲劳，同时也会分散我们的注意力。相比之下，面对面交流更加专注和集中，能够更好地满足我们的情感需求。 最后，社交媒体的交流往往缺乏深度和持久性。在社交媒体上，我们常常只是进行短暂的交流和互动，很少能够建立起真正的情感联系。而面对面交流则更容易建立起长久的友谊和支持网络，这对于我们的心理健康和幸福感至关重要。

结论 虽然社交媒体为我们提供了与他人连接的平台，但它并不能代替真正的面对面交流和情感支持。作为精神科专家和心理学专家，我强烈建议人们在日常生活中尽量保持面对面的交流和情感支持，以促进身心健康的发展。

关键字：社交、网络、心理健康、幸福感

青少年网络成瘾者动态脑局部活动的改变—网络成瘾对人际关系的调节作用

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目的 基于动态低频振幅的分析方法探讨青少年网络成瘾者动态脑局部活动的改变。

方法 纳入 44 例网络成瘾患者（IA 组）与 50 例年龄、性别、教育程度相匹配的健康对照者(HC 组)，采用磁共振设备进行静息态磁共振成像，将采集的两组影像学数据在 MATLAB 软件中进行两独立样本 t 检验，提取出异常活动脑区的 dALFF 值，采用两独立样本 t 检验对网络成瘾组和健康对照组进行临床资料的对比，网络成瘾组采用 Person 相关分析的统计学方法对网络成瘾 IAT 量表评分与 SCL-90 症状量表评分进行相关性分析。将采集的两组影像学数据在 MATLAB 软件中进行两独立样本 t 检验，提取出异常活动脑区 dALFF 值，与 IAT 量表评分及 SCL-90 量表中的各个因子分进行 Pearson 相关性分析。最后将网络成瘾组

IAT 评分、SCL-90 量表中的因子分和异常脑区的 dALFF 值在 spss26 统计学软件中采用 process4.1 插件进行调节效应分析，P＜0.05 认为调节效应存在。

结果 IA 组与 HC 组相比存在多个脑区信号局部动态活动的改变，动态 ALFF 值降低的脑区主要集中在颞下回、楔前叶、小脑后叶和小脑蚓部等区域，在动态低频振幅分析中，网络成瘾组左侧楔前叶 dALFF 值与 IAT 得分存在负相关（r=-0.403,P=0.008），在与临床量表中的相关性分析中发现，左侧小脑后叶（小脑VI区）的 dALFF 值与 SCL-90 量表中的人际关系敏感因子分（r=-0.314,P=0.034）和抑郁因子分（r=-0.342,P=0.033）存在负相关。

结论 青少年网络成瘾可能对其心理健康造成一定影响，网络成瘾的严重程度可能对青少年网络成瘾者小脑后叶和心理健康状况之间起到调节作用，未来可能为解释网络成瘾者伴有不同程度情绪问题等临床现象提供一些有用信息。

关键字：青少年; 网络成瘾; 功能磁共振成像; 动态低频振幅

Association of Cognitive Dysfunctions, Antioxidants, and Clinical Variables in Chinese Patients with Schizophrenia

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Objective Cognitive dysfunctions is a common and complex symptom of schizophrenia (SCZ) that may be related to clinical variables and antioxidants. This cross-sectional naturalistic study aimed to investigate the associated correlates of cognitive dysfunctions in Chinese patients with schizophrenia, including demographic and clinical characteristics and antioxidant levels.

Methods A total of 253 subjects were recruited for this study, including 133 schizophrenia patients and 120 health controls. Cognitive deficits were assessed using the MATRICS Consensus Cognitive Battery (MCCB). Clinical symptoms were evaluated using the Positive and Negative Syndrome Scale (PANSS). Analysis of covariance (ANCOVA) and $\chi 2$ test were used for comparisons between groups. A multiple logistic regression analysis was performed to assess the risk factors of cognitive dysfunctions with schizophrenia patients.

Results Compared to healthy controls, SCZ patients exhibited poorer cognitive performance in terms of speed of processing, attention/vigilance, working memory, verbal learning and memory, and visual learning and memory. In the SCZ group, PANSS total scores was negatively associated with all MCCB indexes (all $p < 0.05$), except for the attention/vigilance. PANSS-negative and PANSS-cognitive subscore were negatively associated with SoP score, Vrbl Lrng score, and Vis Lrng score (all $p < 0.05$). PANSS-excited subscore was negatively associated with WM score and Vis Lrng score (all $p < 0.05$). Serum ALB levels were significantly lower in SCZ patients [median (P25, P75): 42.45(39.82,46.10)] than that in HC subjects [median (P25, P75): 44.52(41.55,48.48); ($z = -2.418$; $p = 0.016$)]. Serum UA levels and SOD levels were significantly higher in SCZ patients than that in HC subjects (400.16±117.63 vs. 351.28±105.48umol/L, $F = 11.991$, $p = 0.001$; 162.94±21.00 vs. 133.22±33.91 U/mL, $F = 71.323$, $p < 0.001$). In SCZ patients, ALB levels were positively correlated with cognitive performance in five indexes of MCCB ($r = 0.172$-0.287, $p < 0.05$; Fig.2). Further, stepwise multiple regression analysis showed that ALB levels and PANSS-negative factor were independent contributors to SoP index, WM index, and Vis Lrng index. SOD levels (beta = 0.14, $t = 3.262$, $p = 0.001$) was independent contributors to AV index.

Conclusion Our study showed that Cognitive function decreased in patients with schizophrenia. The degree of cognitive impairment was closely related to serum ALB, SOD and clinical negative symptoms.

关键字：cognitive dysfunctions; schizophrenia; PANSS; antioxidants.

The Performance and Challenges of China's Telepsychiatry: A New Way of An Internet Hospital

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Objective With the development of network technology, the acceptance of telepsychiatry has been increased, which brings opportunities for the development of psychiatric Internet hospitals. However, the mode of diagnosis and treatment of mental illness has encountered many problems. We aim to introduce the appearance of a new medical mode for treating mental conditions—telepsychiatry—could be a potential way to address these challenges.

Methods We introduced a mobile platform and its unique characteristics, and the challenges it faces. Through the statistics of the number and characteristics of patients in the past five years, the potential role of this emerging service model in China's current mental health care system was explored.

Results The number of appointments has increased

every year over the past five years. The number of appointments for the whole year of 2020 increased significantly, with the growth rate as high as 150% compared with the previous year. It also worth noting that the number of patients increased by 196% in February 2020 that of those made in January, and was 6.4 times that of those made in the February of the previous year. Meanwhile, the number of registered physicians in February 2020 increased by 186% compared to January 2020. By the end of 2020, the psychiatric Internet hosted over 4,000 registered physicians with formal qualification certificates, and provided online mental health services to over 100,000 patient-users from 34 Chinese provinces. About 86.7% of service requests on the platform are cross-regional. Online users tend to be younger, and the proportion of underage users has continued to increase in the past three years. For example, in 2021, it increased by 90% compared with 2020 and by 501% compared with 2019. The use of psychiatric Internet hospitals has saved at least US$4 million, as well as 650,000 hours in transportation.

Conclusion Our data suggests that specialist Internet hospitals for certain diseases may be a potential development direction for Internet hospital services. The psychiatric Internet hospital could be applied to supplement the current mental health care system in China, which is especially meaningful for public health emergency management.

关键字：telepsychiatry; an Internet Hospital; performance; challenges.

基于扩散张量成像的青年网络游戏障碍脑网络研究

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目的 最近的证据表明，脑功能网络的组织异常与网络游戏障碍(internet gaming disorder , IGD)有关，但与 IGD 相关的脑白质结构网络改变尚不清楚。本研究的目的旨在探索 IGD 脑白质网络的组织变化特征。

方法 本研究招募了 47 名青年 IGD 被试和 34 名匹配良好的健康对照。被试磁共振数据采用无锡市人民医院医学影像科西门子 3.0-T 磁共振成像设备 Magnetom Trio Tim 进行采集，获取被试的 DTI 数据和高分辨率三维 T1-加权图像。被试的网络成瘾行为采用中文版的网瘾测试（Internet Addiction Test,IAT）进行评估。采用基于弥散张量成像和纤维跟踪的方法对被试的脑结构数据进行分析处理。分别采用基于网络的统计(network-based statistics , NBS)和图论分析的方法来评估脑白质网络特定拓扑特征的差异，并确定拓扑属性的潜在变化。此外，本研究还采用皮尔逊相关分析探讨了脑网络属性变化与网络成瘾严重程度之间的关系。

结果 NBS 分析分析确定了 IGD 组中三个独立的结构子网络。在患有 IGD 的青年中，皮质-边缘-纹状体结构连接网络的广泛改变:包括脑岛和负责视觉、听觉和感觉运动功能的子网络 1 网络连接增加;包括脑岛、纹状体和边缘区域的两个子网络 2 和子网络 3 的网络连接减少。皮尔逊相关分析显示，IGD 组中子网络 1 的平均分数各向异性加权连接强度与网络成瘾测试(IAT)分数之间存在显著的正相关。

结论 本研究加深了对 IGD 脑白质结构网络组织异常的认识，并强调了皮质-边缘-纹状体网络在理解这种疾病背后的神经生物学机制中的作用。

关键字：网络游戏障碍，皮质边缘纹状体网络，结构连接，DTI

Trends in Online Searching Towards Suicide Pre-and During, and Post The First Wave of COVID-19 Outbreak in China

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Objective COVID-19 may increase the risk of suicide, but the conclusion is still unclear. It was reported that online public searching was associated with their offline thoughts and behaviors. Therefore, this study was designed to explore the online search for suicide pre-, during, and post-COVID-19 in China.

Methods The keywords on suicide, COVID-19, unemployment, and depression were collected in 2019 and 2020 using Baidu Search Index (BSI). A time-series analysis examined the dynamic correlations between BSI-COVID-19 and BSI-suicide. A generalized estimating equation model was used to calculate the coefficients of variables associated with BSI-suicide. Granger causality was employed to investigate causality in the time series.

Results The BSI-suicide showed a significant increase (15.6%, P=0.006) from the fifth week to the ninth week, which was also the point of first wave COVID-19 outbreak. Time-series analysis between BSI-suicide and BSI-COVID-19 showed that the strongest correlation occurred at lag 1+ week and lag 2+ week. In the pre-COVID-19 model, only BSI-depression was highly associated with BSI-suicide (β=1.38, P=0.008). During the COVID-19 model, BSI-depression (β=1.77, P=0.040) and BSI-COVID-19 (β=0.03, P<0.001) were significantly associated with BSI-suicide. In the post-COVID-19 model, BSI depression (β=1.55, P=0.010) was still highly associated with BSI-suicide. Meanwhile, BSI-unemployment (β= 1.67, P=0.007) appeared linked to BSI-suicide for the first time.

Conclusion There was a surge in suicide-related online searching during the early stage of the first wave of the COVID-19 outbreak. Online suicide search volume peaked 1–2 weeks after the COVID-19 peak. The BSI of factors associated with suicide varied at different stages of the COVID-19 pandemic. The findings in this study are preliminary and further research is needed to arrive at evidence of causality.

关键字：COVID-19; Suicide; Online searching behavior; Social psychiatry

伴攻击行为的精神分裂症患者认知功能特点和脑功能的相关性研究

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目的 精神分裂症患者的攻击性行为是一个严重的公共卫生问题但目前攻击行为与认知功能之间的相关性尚不清楚。影像学研究发现伴有攻击行为的精神分裂症患者存在结构和功能的损伤，但结论不一。因此本研究旨在从神经认知功能的角度探讨伴有攻击性行为的精神分裂症患者的认知功能特点以及脑结构及功能的改变，为精神分裂症患者攻击行为的预测和干预提供准确的科学依据。

方法 招募44例精神分裂症患者和一般情况匹配的31例健康对照组（healthy control，HC），依据外显攻击行为量表(MAOS)评分≥5 分的患者定义为攻击组（N=22），其余患者定义为非攻击组（N=22）。所有被试均完成了一般信息的采集以及结构像和静息态功能MRI 扫描。2 名经过一致性培训的调查人员使用重复性成套神经心理状态测验（RBANS）测试患者的神经认知功能，使用阳性与阴性症状量表（PANSS）评定患者的精神症状。实验一对三组间人口学资料和临床资料、RBANS 评分进行比较，并对攻击组 RBANS 评分与 MAOS 评分进行关联性分析；实验二通过基于体素的形态学（VBM）和基于低频波动幅度(ALFF)方法将攻击组的灰质体积和脑局部功能与 RBANS 中言语功能量表做相关分析。

结果 实验一 ：（1）本实验三组研究对象在年龄、性别及受教育程度的人口学变量上差异无统计学意义。攻击组和非攻击组在 PANSS 阴阳症状总分无统计学意义但攻击组病程短于非攻击组（P＜0.05）。（2）RBANS 测试中，攻击组、非攻击组、健康对照组在即刻记忆、视觉、言语功能、注意力、延时记忆评分存在显著性差异（P＜0.001）。相对于健康对照组、攻击组，非攻击组言语功能评分较低（P＜0.05）。（3）攻击组 RBANS 测验各维度评分以言语功能与自我攻击有关，斯皮尔曼相关系数绝对值＞0.3，呈正相关关系。实验二：攻击组患者右侧颞下回、右侧梭状回 ALFF 值与言语功能评分呈正相关（P＜0.001），而未发现与攻击组患者灰质体积与言语功能评分有关。

结论 （1）相比于不伴有攻击性行为的精神分裂症患者，伴有攻击性行为的精神分裂症患者言语功能评分更高，并且言语认知功能评分与自我攻击相关。（2）伴攻击性行为的精神分裂症患者右颞下回、右梭状回局部脑区的功能异常与言语认知功能有关，提示其两者存有潜在的关联。

关键字：精神分裂症、攻击、神经认知、自我攻击、低频波动幅度

青少年网络成瘾对心理健康的研究 ——基于传统概率模型及贝叶斯算法的中介模型

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目的 青少年网络成瘾已成为不可忽视的社会问题，相关研究一直颇具热度；且其作为普遍视角下的心理健康影响因素，探索青少年网络成瘾具有理论和现实意义

方法 本研究选用2023年荆州市某中学学生群体作为被试，以方便取样方法共收集 385 份有效问卷，详细数据包括网络成瘾程度(IAT)、失眠严重指数(ISI)、广泛性焦虑障碍(GAD7)、抑郁自评量表(PHQ9)、一般心理健康问卷(GHQ12)等，采用 SPSS 23.0 及 Mplus 7.4 软件分析数据并构建结构方程模型，探索因子关系

结果 1)被试男女比 12：13，年龄分布 14.73 ± 5.61。网络成瘾(33.35 ± 17.51)、失眠(5.17 ± 4.92)、焦虑(4.47 ± 5.64)、抑郁(3.76 ± 4.87)及一般心理健康(2.40 ± 2.82)五个因素之间两两相关显著($0.323 \le r \le 0.851$，$p < 0.05$);2)以传统概率模型构建以网络成瘾程度为自变量，焦虑、抑郁、失眠为中介变量，一般心理健康为因变量的中介模型时，拟合度不好($\chi 2/df > 3$，RMSEA > 0.08, CFI < 0.9, TLI < 0.9, SRMR > 0.08)但结果显著，网络成瘾通过焦虑、抑郁及失眠的链式中介影响心理健康的路径显著($p < 0.05$)，网络成瘾直接指向心理健康的路径不显著($p > 0.05$)；3)以贝叶斯算法为基础，进行相同中介模型构建，模型收敛度好，PPP = 0.552，踪迹图及自相关稳定，分析结果中网络成瘾通过焦虑、抑郁影响失眠进而影响心理健康的路径显著($p < 0.05$)，但是网络成瘾并不直接关联心理健康($p > 0.05$)。

结论 1)传统概率为基础的极大似然比法和以贝叶斯算法为基础的分析，都能证明中介模型成立。但贝叶斯算法更有效解决统计过程中横断研究存在的多重共线性问题，模型在本研究更加精准。2)本研究网络成瘾并非直接预测心理健康因素，网络成瘾通过焦虑、抑郁影响睡眠进而影响心理健康，焦虑、抑郁及失眠起到完全中介作用，这对于理论研究和现实探索的方向具有重要意义。

关键字：网络成瘾 心理健康 中介 贝叶斯算法

Correlation of DNA Methylation and Family Factors on OCD and Symptoms Severity: Understanding The Role of TPH2 Gene

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Objective The etiology of obsessive-compulsive disorder (OCD) is not yet fully understood. Previous studies have shown that OCD was associated with TPH2 gene and a number of family factors. This study aimed to investigate the correlation of TPH2 gene methylation and family

factors (parenting styles, family environment, and family functioning) on OCD and its clinical severity.

Methods A total of 41 patients with OCD and 65 healthy controls were enrolled. DNA methylation levels at twelve sites in the promoter region of TPH2 gene were measured by the DNA inflight mass spectrometry system and polymerase chain reaction (PCR). Yale-Brown Obsessive Compulsive Scale (Y-BOCS) was used to assess the symptoms severity of the patients. Family styles, family environment and family functioning were measured by Egna Minnen Barndoms Uppfostran (EMBU), Family Environment Scale-Chinese version (FES-CV), and Family Assessment Device (FAD) scales, respectively.

Results DNA methylation levels at CpG site 5 of TPH2 gene were negatively correlated with the OCD onset and Expressiveness of FES-CV in patients, while positively associated with paternal favoring subject of EMBU. DNA methylation levels at CpG site 2 were positively correlated with maternal emotional warmth of EMBU in patients but negatively correlated with compulsive behavior scores and total scores of Y-BOCS. DNA methylation levels of CpG site 6, CpG site 7, and CpG site 9 were positively associated with Achievement and Organization of FES-CV, and Problem Solving of FAD, respectively. Obsessive thoughts were negatively associated with both paternal emotional warmth of EMBU and achievement of FES-CV, while positively associated with affective responsiveness of FAD.

Conclusion DNA methylation at CpG site 5 and site 2 in the promoter region of TPH2 gene may play a protective role in the onset and progression of OCD, respectively. The effect of family factors on OCD may be regulated through their impact on DNA methylation of TPH2 gene.

关键字：TPH2 gene, DNA methylation, Family factors, Obsessive-compulsive disorder

焦虑障碍患者与伴焦虑症状的抑郁障碍患者的临床症状与认知差异评估研究

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目的 研究发现，焦虑障碍和伴焦虑症状的抑郁障碍患者有类似的症状群，但其焦虑症状的严重程度及认知功能的差异尚不完全清楚。本文拟研究焦虑障碍患者、伴焦虑症状的抑郁障碍患者临床症状群的不同及认知功能的差异。

方法 166 名受试者（65 名焦虑症患者，41 名焦虑抑郁患者和 60 名健康对照组）完成了 MCCB 认知功能评估和 GAD-7、PHQ-9、HAMD、HAMA、BPRS 及 YMRS 量表评估。对三组受试者的临床症状量表分数和认知评估分数进行单因素方差分析，并分析各组受试者之间的临床症状和认知功能能力差异。

结果 （1）患者组与正常对照组在年龄、性别、教育年限等方面无显著差异。（2）伴焦虑症状的抑郁障碍患者 GAD-7、 PHQ-9 评分高于焦虑障碍患者有显著差异（P<0.05）。（3）而在认知功能方面，连线测验、符号编码、迷宫测验、情绪管理和持续操作测验中患者组和对照组有统计学差异(P<0.05)，说明焦虑障碍和伴焦虑症状的抑郁障碍患者在信息处理速度、注意/警觉性、推理和问题解决能力及社会认知方面较正常人有所下降。

结论 通过 GAD-7 评估，发现伴焦虑症状的抑郁障碍患者焦虑程度较焦虑障碍患者高，可值得进一步研究。MCCB 认知评估方面，两组在部分方面认知功能较正常人有所下降，可能说明焦虑障碍和伴焦虑症状的抑郁障碍患者认知功能受损在某些方面有所侧重。

关键字：焦虑；抑郁；认知功能

精神分裂症持续性幻听的个体化结构协变网络研究

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目的 在伴持续性幻听的精神分裂症患者中构建个体化结构协变网络，探究持续性幻听的结构网络特征。

方法 本研究纳入 90 名伴持续性幻听的精神分裂症患者（pAH 组）、55 名不伴幻听的精神分裂症患者（non-pAH 组）及 83 名性别和年龄匹配的健康受试者（HC 组）。本研究收集受试者的一般临床资料，进行临床评估，并采集 3D T1 结构像磁共振数据，构建个体化结构协变网络，探究三组受试者结构网络全局属性及局部属性的差异，在 pAH 组探究拓扑属性与临床症状的相关性。

结果 与 HC 组相比，两组患者左内侧额上回及左侧豆状核的度中心性及节点效率下降。与其他两组分别相比，pAH 组左侧颞上回颞极及右侧岛叶的度中心性下降，左侧颞上回颞极的节点效率下降。pAH 组归一化聚类系数及小世界性与 PANSS 阳性量表负相关。

结论 在结构网络中，幻听及非幻听患者均表现出左内侧额上回及左侧豆状核的信息传递能力下降。幻听患者的全局属性与临床症状存在关联，且仅幻听患者表现出左侧颞上回颞极及右侧岛叶的信息传输能力下降。持续性幻听的病理机制可能与结构病变的关联密切，本研究为探索持续性幻听的机制提供了宝贵证据，为临床早期识别及靶向干预提供了理论基础。

关键字：精神分裂症；持续性幻听；结构协变网络；个体化

首发抑郁症磁共振成像的研究进展

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目的 抑郁症的神经病理学机制尚未被完全阐明，本文将综述近几年首发抑郁症的神经影像学研究进展。

方法 本文将主要从静息态功能磁共振成像、结构磁共振成像和弥散磁共振成像这三个方面对首次发作的抑郁症患者的神经影像学研究中取得的进展进行综述。

结果 静息态功能磁共振的研究中，基于种子点的功能连接分析结果发现首发未用药抑郁症患者存在岛叶、前扣带、海马、杏仁核、小脑和丘脑等多个脑区的亚区与全脑其他体素之前存在功能连接的异常，且这些脑区间的功能连接异常与快感缺失、失眠、胃肠道症状之间存在显著相关。此外，前额叶皮质-杏仁核的功能连接变化还能够预测抗抑郁药物治疗 8 周效果。基于独立成分分析的结果发现，首发未用药抑郁症患者存在前默认网络内的功能连接增加以及后默认网络内的功能连接降低，且前默认网络的功能连接变化与反刍症状正相关，而后默认网络内的功能连接变化与自传体记忆的过度概括化呈现出负相关关系。此外，研究还发现首发未用药抑郁症患者还存在认知控制网络内功能连接异常，其中，双侧岛叶、右背侧前扣带皮层和右侧顶叶下小叶的网络内功能连接变化与认知障碍因子得分呈正相关。 结构磁共振研究发现，首发未用药抑郁症患者存在右侧背外侧前额叶与左侧额中回、海马、苍白球和丘脑的灰质体积降低，左侧丘脑和右侧岛叶的灰质体积增加。扣带回的灰质体积变化还与不同发病年龄有关，早发抑郁症患者组较晚发抑郁症患者组右尾侧前扣带和后扣带回的皮层厚度减少。此外，海马下托区和 CA3 区的灰质体积变化可以预测抗抑郁药物治疗的效果。 弥散磁共振研究发现，抑郁症患者存在包含眶额叶、海马、梭状回、岛叶和直回等结构脑网络的最短路径长度、标准化聚类系数、标准化最短路径长度和小世界属性降低，以及全局和局部效率的增加。从不同症状维度的角度出发的研究发现，抑郁症患者胼胝体膝部和右侧前放射冠的分数各向异性与自杀意念存在负相关关系。此外，研究发现含有精氨酸-谷氨酸二肽重复序列基因中的 rs301806 序列的首发抑郁症患者在丘脑前辐射、扣带、皮质脊髓束、额枕束、下纵束、上纵束、钩束、大钳和小钳的分数各向异性降低。

结论 首发抑郁症患者存在大脑静息态功能活动、灰质结构及白质完整性的异常。

关键字：抑郁症；磁共振成像；功能连接；分数各向异性

Neural Basis of The Attention Bias During Addiction Stroop Task in Methamphetamine-dependent Patients with and without A History of Psychosis: An ERP Study

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Objective Attentional bias plays an important role in sustaining various types of drug addiction. No prior studies examined methamphetamine (MA)-associated psychosis (MAP) relationships between ERP time course and performance on an addiction Stroop task in MA abusers. The aim of the present study was to determine whether MA abusers with (MAP+) or without (MAP-) psychosis exhibit alterations of the ERP during the addiction Stroop task.

Methods Thirty-one healthy controls (CTRL), 14 MAP-, and 24 MAP+ participants were recruited and completed the addiction Stroop task during EEG recording using 32 electrodes. Group variations were compared on measures of behavioral task performance and event-related potentials (ERP) of performance monitoring (N200, P300, N450). The Barratt impulsiveness scores were analyzed to investigate correlations with ERP changes.

Results MA-related word stimulus elicited a more negative N200 amplitude over left-anterior electrodes in MAP- abusers; furthermore, a positive association between the N200 amplitude and Barratt attentional scores and non-planning scores was observed, while no such differences were found in MAP+ abusers. There were no significant differences in reaction time (RT) and error rate between each group.

Conclusion This is the first study to examine psychosis relationships between ERP time course and performance on an addiction Stroop task in MA abusers with or without psychosis. These findings support the association between attentional bias measured by the MA addiction Stroop task and N200 component as well as indicate the possibility of using this cognitive task in combination with ERP technology to detect psychosis factors among abstinent MA abusers.

关键字：methamphetamine, methamphetamine-associated psychosis, addiction stroop task, attention bias, EEG

Impaired Source Monitoring Function in The Motor-to-sensory Transformation Meditates Auditory Verbal Hallucinations

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Objective Distinguishing reality from hallucinations requires efficient monitoring of agency. It has been hypothesized that a copy of motor signals, termed efference copy (EC) or corollary discharge (CD), suppresses sensory responses to yield the sense of agency; impairment of the inhibitory function leads to hallucinations. However, how can the sole absence of inhibition yield the symptoms of hallucinations? We hypothesize that selective impairments in functionally distinct signals of CD and EC during motor-to-sensory transformation cause auditory verbal hallucinations (AVHs).

Methods We designed a novel delayed articulation paradigm and recorded electroencephalography (EEG) to test our hypothesis. 19 schizophrenic patients with AVHs and 16 schizophrenic patients without AVHs (non-AVHs) were instructed to make different types of preparation according to different visual cues before articulating. One type of the visual cue was symbols that did not contain any linguistic information. Participants were asked to prepare to speak without knowing what to say (general preparation that would only induce CD). Another type of the visual cue was a syllable. Participants were asked to prepare to speak a specific syllable (specific preparation that would induce EC). Auditory probes (syllables) were presented during the last 400ms of each preparation stage to investigate the nature of motor signals by testing how distinct preparation stages modulate the perceptual responses to the auditory probes.

Results In both AVHs and non-AVHs, general preparation did not inhibit auditory neural responses. The patients' results during general preparation contrast with normal participants in which general preparation inhibited auditory neural responses, suggesting the impairment of CD in patients. Whereas specific preparation modulated auditory responses, the modulation was different between AVHs and non-AVHs. Specifically, preparing to speak a syllable (specific preparation) enhanced the auditory responses to the prepared syllable in non-AVHs, whereas AVHs showed enhancement in responses to unprepared syllables, opposite to the observations in the normal population, suggesting that the enhancement function of EC is not precise in AVHs.

Conclusion These results suggest that the interplay of distinct functional signals in the motor-to-sensory transformation balances the computational demands between executing and monitoring the top-down mental operations. The impaired monitoring function and intact generating function mediate the symptoms of AVHs.

关键字：Schizophrenia, Auditory verbal hallucinations, Sensorimotor integration, Agency, Internal forward model

吸烟对精神分裂症患者唾液犬尿喹啉酸和认知的影响

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目的 吸烟状况可能影响精神分裂症患者的认知功能。尼古丁影响犬尿喹啉酸(KYNA)、乙酰胆碱受体(??7 nAChR)和 n -甲基- d -天冬氨酸受体(NMDAR)拮抗剂的产生。尼古丁和 KYNA 都会导致精神分裂症患者的认知障碍。本研究旨在检测吸烟对精神分裂症患者认知的影响以及对唾液 KYNA。

方法 使用用高效液相色谱-串联质谱法测定了 215 名精神分裂症患者和 82 名健康对照者唾液中犬尿氨酸(KYN)和 KYNA 的水平。认知表现采用 MCCB 进行测量。

结果 吸烟患者的工作记忆、社会认知和 MCCB 总分较不吸烟患者、吸烟健康对照组和不吸烟健康对照组表现最差(均 $p < 0.006$)。精神分裂症患者 KYN ($F=11.78$, $p=0.001$)和 KYNA 水平($F=26.41$, $p<0.001$)均高于健康对照组。双因素方差分析显示，吸烟状况与诊断在 KYNA/KYN 有显著的交互作用($F=5.08$, $p=0.02$)。此外，吸烟者的唾液 KYNA/KYN 高于非吸烟者($F=5.35$, $p=0.02$)。较高的 MCCB 总评分与较高的唾液 KYNA 水平($t=-4.29$, $p<0.001$)、吸烟状况($t=-3.72$, $p<0.001$)和诊断($t=-9.73$, $p<0.001$)显著相关。

结论 吸烟可能通过影响 KYN 通路导致认知损伤，为尼古丁对精神分裂症患者影响的药理学机制提供了新的思路。

关键字：精神分裂症，吸烟，认知，犬尿喹啉酸，尼古丁

医务人员借助微信对精神病居家患者开展 ADR 监测处置的实践分析

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目的 探讨医务人员借助“微信+精神病居家患者”模式，对居家服药患者在线、远程开展 ADR 监测处置的实践效果。

方法 随机选取就诊于我院精神科门诊的长期居家服药的精神病患者，计 132 例，在 2022 年 6 月-2023 年 5 月一年间，医务人员对盲选其中的 66 例作为对照组，采取常规的窗口柜台现场用药指导、提醒药物可能的不良反应注意事项；对另外的 66 例作为观察组，采取常规窗口柜台现场用药指导、提醒药物可能的不良反应注意事项之同时，再借助微信平台持续开展远程药学科普、服务管理、药品不良反应监测、指导药品不良反应后的正确处置，对比两组服务效果差异。

结果 观察组患者在药师实施线上远程 ADR 监测服务管理之后，药物不良反应发生率低于对照组、药物不良反应相关知识知晓率、发生不良反应后的正确处置率、对医药学服务满意度等明显高于对照组，且 P

＜0.05，具有统计学意义。

结论 医务人员借助“微信+”模式，积极开展对精神病居家患者远程 ADR 监测、指导正确处置的服务管理，可明显降低不良反应发生率，提高不良反应知识知晓率、正确处置率，提升患者药学服务满意度，促进患者用药依从性、减少病情加重复发率等，值得医务人员借鉴推广、建议持续开展。

关键字：微信+精神病患者, ADR 监测, 精准药学服务 ,居家服药 , 家庭药师

The Effects of Vortioxetine on Symptomatic and Cognitive Function in Major Depressive Disorder: A Novel Measure From 1H-MRS.

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Objective To investigate the effects of the new multimodal antidepressant vortioxetine on cognitive function and brain metabolism in individuals with major depressive disorder (MDD), as well as the brain biochemical metabolic mechanism through which vortioxetine improves cognition.

Methods 30 patients with acute MDD and 30 healthy controls were enlisted for this study. Patients with MDD were given Vortioxetine for 8 weeks. The Chinese version of the MATRICS consensus cognitive function battery was used to test the patient's cognitive function (MCCB). 1H-MRS at 3.0 T was used to evaluate bilateral metabolite levels in the prefrontal cortex (PFC), anterior cingulate cortex (ACC), lentiform nucleus (LN), and thalamus. Finally, investigate the association between them using an independent sample T-test or a paired t-test. The severity of cognitive impairment in the MDD group, as well as the pace at which cognitive function improved before and after therapy, were measured using Cohen's effect D

Results The MDD group had significant differences in verbal learning (t=3.814, p <0.001), social cognition (t=3.475, p=0.001) and total cognition (t=4.042, p <0.001). And the MDD group has serious impairment in verbal learning (ESe=1.11), social cognition (ESe=1.06) and total cognition (ESe=1.23). Verbal learning (t=2.100, p=0.045), attention/alertness (t=2.281, p=0.030) and total cognition (t=2.516, p=0.018) were significantly improved before and after treatment. In the acute MDD group, the NAA/Cr ratio in the right thalamus (t=2.302, p=0.025), the Cho/Cr ratio in the right thalamus (t=2.187, p=0.033), and the NAA/Cr ratio in the left PFC (t=2.557, p=0.013) and the Cho/Cr ratio in the left ACC (t=2.288, p=0.026) are statistically different. The NAA/Cr ratio (t=2.338, p=0.026) in the right PFC before and after treatment showed a significant difference. After treatment, NAA/Cr metabolism was higher in the left PFC than in the right (t=2.524, p=0.017).

Conclusion By restoring the predominant NAA/Cr metabolic state in the left frontal brain area, vortioxetine may enhance cognitive performance. The frontal lobe-thalamus-cingulate gyrus loop may affect cognitive function in depressed individuals, including attention/alertness, language learning, and overall cognition.

关键字：major depressive disorder; 1H-MRS; cognitive function; biochemical abnormalities

Interrelationship of Serm Fasting Insulin Levels and Serm Sex Hormones Levels in Drug-naive First-episode Patients with Schizophrenia

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Objective Schizophrenia (SCZ) usually begins in early adult life. The underlying molecular mechanisms of SCZ remain unclear. There is evidence for the involvement of abnormalities in metabolic and endocrine systems in SCZ, even in drug-na?ve first-episode schizophrenia patients. However, the association between impaired regulation of glucose metabolism and serm sex hormones levels was not studied in SCZ.?This study was designed to evaluate the interrelationship between serm sex hormones levels and serm fasting insulin levels in drug-na?ve first-episode schizophrenia patients.

Methods The study protocol was approved by Ethics Committee of First Hospital of Shanxi Medical University, and written informed consents were obtained from the patients. Two hundred and twenty-three patients with drug-na?ve first-episode schizophrenia were recruited and their diagnostic eligibility was determined using the Structured Clinical Interview for DSM-IV (SCID). They were all drug-na?ve first-episode patients. The inclusion criteria included: 1) first episode of psychosis and drug-na?ve status; 2) 16-45 years of age; 3) duration of illness not more than five years; and (4) male or female. Patients also need to meet the following exclusion criteria: (1) abuse or substance dependence; (2) diagnosable organic brain disease or major medical somatic comorbidities; (3) pregnant, breast-feeding, menopausal women; (4) any history of menstrual cycle irregularity or endocrine disorder; (5) signs of hyperandrogenism, such as acne, hirsutism, and acanthosis nigricans; (6) currently receiving hormone replacement therapy or hormonal contraceptives; (7) pregnant or breastfeeding or postmenopausal women, or had given birth immediately before recruitment. Serm fasting glucose,serm fasting insulin, insulin resistance index (HOMA-IR), and serum sex hormones levels were measured.

Results We found gender-specific differences in serm glucose metabolism parameters with male patients having higher serm fasting glucose levels and serm fasting insulin levels and higher HOMA-IR than female patients (all p<0.05). Linear regression analysis adjusted for age, waist circumstance, and body mass index showed that serm testosterone levels were negatively associated with serm fasting insulin levels in men, while serm estradiol levels was negatively correlated with serm fasting insulin in women.

Conclusion Our findings confirm gender differences in serm fasting glucose levels and insulin levels at the onset of SCZ. Increased serm insulin levels may be associated with serm sex hormones levels in a gender-specific manner in drug-na?ve first-episode schizophrenia patients. Further longitudinal studies are warranted to better understand the role of metabolic dysfunctions and serm sex hormones levels in the pathogenesis of SCZ.

关键字：Schizophrenia; serm fasting insulin levels; serm Sex hormones levels

Efficacy of Low-dose Olanzapine in Combination with Sertraline on The Psychopathological Symptoms in Schizophrenia

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Objective Evidence for the efficacy of a low dose of olanzapine (OLA) in combination with antidepressants has been limited and without positive trials in first-episode patients with schizophrenia (SCZ). This study aimed to compare the efficacy in treating negative and depressive Symptoms between those first-episode patients with SCZ treated with a combination of OLA plus sertraline and those treated with OLA monotherapy.

Methods This study procedures and protocol were approved by Ethics Committee of First Hospital of Shanxi Medical University and all participants or their guardians signed written informed consent. Inclusion criteria included: (1) SCH confirmed by the Structured Clinical Interview for DSM-IV (SCID); (2) age of 15-45 years; (3) less than five years of disease duration; Exclusion criteria included: (1) major psychiatric illnesses diagnosis other than SCH; (2) current or a history of substance abuse except for nicotine and alcohol; (3) major baseline as covariates to somatic comorbidity; (4)abnormal values on routine biochemical tests.This was a 24-week, randomized, controlled trial. One hundred and ninety-six first-episode and drug na?ve patients with SCZ were randomized to receive low-dose OLA (7.5-10mg/day)combined with sertraline (50-100mg/day) (experimental group)or normal-dose OLA monotherapy (12.5-20mg/day) (control group). 98 individuals each group. Clinical symptoms were evaluated by the Positive and Negative Syndrome Scale (PANSS), and the depressive symptoms were evaluated by the Hamilton Depression Scale (HAMD). Psychosocial functioning was assessed by the Personal and Social Performance Scale (PSP).

Results In the intent-to-treat efficacy analysis, the experimental group had greater decreases in negative and depressive symptoms (pall < 0.01) and a greater increase in PSP total score compared with the control group (p < 0.01). Moreover, reductions in HAMD total score and PANSS negative subscore were associated with the improvements in psychosocial functioning from baseline to week 24, after controlling for baseline psychosocial function, age, and onset age.

Conclusion This study demonstrates that low-dose OLA in combination with sertraline had clinically meaningful improvements not only in the negative and depressive symptoms but also in psychosocial functioning in patients with first-episode SCZ, while not affecting positive symptoms.

关键字：Schizophrenia; Olanzapine ;Sertraline;Psychopathological symptoms;Efficacy

Safety and Tolerability of Low-dose Risperidone in Combination with Sertraline in First-episode Drug-naive Patients with Schizophrenia

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Objective Up to now, the treatment of schizophrenia (SZ) remains a challenge due to relapse after antipsychotic discontinuation and multiple adverse effects of antipsychotics. We hypothesized that a low dose of risperidone in combination with sertraline would reduce serious adverse effects without decreasing treatment response. This study aimed to examine the safety , tolerability and efficacy of low-dose risperidone combined with sertraline to reduce risperidone dose and serious adverse effects in first-episode drug-na?ve SZ patients.

Methods This study procedures and protocol were approved by Ethics Committee of First Hospital of Shanxi Medical University and all participants or their guardians signed written informed consent. 230 Eligible adult patients (18–45?years) with SZ diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV) and Structured Clinical Interview for DSM Disorders (SCID) were recruited.All patients were frst-episode medication-na?ve patients with SZ. The complete eligibility criteria were shown as follows: (1) male or female outpatients; (2) 18–45?years of age; (3) disease duration of SZ not exceeding 60?months; (4) antipsychotic na?ve; and (5) more than 9?years of education. Exclusion criteria were: (1) substance dependence except for nicotine; (2) major somatic-comorbidities; and (3) abnormal values on routine biochemical tests. A total of 230 patients with first-episode drug-naive SZ were randomly assigned to receive low-dose risperidone(2-3.5mg/d) in combination with sertraline (50-100mg/d)(experimental group) or regular-dose risperidone (4-6mg/d) (control group).115 individuals each group. The Positive and Negative Syndrome Scale (PANSS), Hamilton Depression Rating Scale (HAMD), and Personal and Social Performance Scale (PSP) were assessed at baseline and the end of the first, second, third, and sixth months. In addition, serum prolactin levels and extrapyramidal symptoms were measured at baseline and follow-up.

Results Repeated measures ANCOVA showed significant interaction effects of treatment by time on psychotic symptoms, as well as HAMD, PSP scores, prolactin levels, and extrapyramidal symptoms (all p < 0.05). Compared with the control group, the experimental group had greater decreases in PANSS total score and its subscores and HAMD score (all p < 0.01) and a greater increase in

PSP total score ($p < 0.01$). Notably, side effects were lower in the experimental group relative to the control group. Improvements in HAMD and PANSS total scores, changes in prolactin levels and gender predicted improvements in PSP from baseline to month 6.

Conclusion Our study suggests that low-dose risperidone in combination with sertraline was more effective for psychotic symptoms and psychosocial functioning, with significantly fewer adverse effects in patients with first-episode drug-na?ve SZ.

关键字：Schizophrenia; Risperidone; Sertraline; Adverse effects

Low-Dose Ziprasidone with Low-Dose Sertraline: Clinical Effect and Safety for First-Episode Drug-naive Schizophrenia Treatment

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Objective Although first-generation and second-generation anti-psychotic drugs proved effective on schizophrenia positive symptoms, none of them were shown effective in alleviating negative, affective or cognitive symptoms. This study aims to evaluate the clinical effect and safety of low-dose ziprasidone and sertraline treatment to first-episode drug-na?ve schizophrenia.

Methods 120 first-episode schizophrenia patients admitted in First Hospital of Shanxi Medical University were recruited in the study. Inclusion criteria: (1) diagnosed with schizophrenia according to DSM-V criteria; (2) right-handed, at age from 18 to 60 years with no less than 9 years of educational experience; (3) no more than 3 years since the onset of schizophrenia and without previous treatment; (4) PANSS score no less than 60. Exclusion criteria: (1) with severe heart, liver, kidney or brain diseases or other severe somatic conditions; (2) with a history of brain injury; (3) with a history of drug or alcohol abuse; (4) IQ test no more than 70; (5) comorbidity with other mental disorders; (6) with cardiac arrhythmia, sinus bradycardia or abnormal myocardial enzyme levels prior to admission; (7) women with pregnancy, lactation period or expectation of pregnancy; (8) uncontrollable severe destructive behaviors requiring emergent MECT. Drop-off criteria: (1) aggravated or unalleviated psychotic symptoms after 8 weeks of treatment; (2) severe side effects including QTc exceeding 485 ms, TdP occurrences, heart rate less than 50 bpm.120 first-episode drug-na?ve schizophrenia patients were randomly assigned into low-dose ziprasidone in combination with low-dose sertraline group (experimental group) or high-dose ziprasidone group (control group), 60 individuals each. Control group was administered 100-160 mg/d ziprasidone capsules, while experimental group was administered 40-80 mg/d ziprasidone capsules and 50-100 mg/d sertraline tablets orally. Positive and Negative Syndrome Scale (PANSS), Hamilton Depression Rating Scale (HAMD), Hamilton Anxiety Rating Scale (HAMA),and Personal and Social Performance Scale (PSP) were assessed at baseline and the end of the first, second, third, and sixth months. In addition, serum cardiac enzymes levels, heart rate and QTc interval were measured at baseline and follow-up.

Results Experimental group exhibits lower severity of depression symptoms, anxiety symptoms, and negative symptoms as well as greater increase in PSP total score compared with control group ($P<0.05$) from week 8 on. No significant difference in positive symptoms was observed between two groups ($P>0.05$). Experimental group also exhibited milder cardiac side effects ($P<0.05$) as demonstrated by enhanced cardiac enzymes, lowered heart rate and elongated QTc interval.

Conclusion Low-dose ziprasidone along with low-dose sertraline treatment leads to better clinical outcomes with less cardiac side effects for first-episode drug-na?ve schizophrenia patients.

关键字：Schizophrenia; Ziprasidone ;Sertraline;Clinical effect;Safety

Patterns and Prediction Models of Sleep Structure in 3 Types of Severe Mental Disorders

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Objective We investigated the variability of polysomnography (PSG) among different patients with 3 types of severe mental disorder (SMD), namely schizophrenia (SCZ), bipolar disorder (BD) and major depressive disorder (MDD), and constructed a prediction model.

Methods From March 2021 to February 2023, 100 patients with SCZ, 100 patients with BD, and 223 patients with MDD were recruited from First Hospital of Shanxi Medical University. All subjects met the diagnostic criteria of the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10). 16–45?years of age. General demographic data and PSG parameters were collected from each group of patients. Data were analyzed using R4.1.1 and subjected to one-way ANOVA, and correlation heat maps were drawn for variables that were significant for one-way analysis. Factors influencing the three SMDs were explored using LASSO and logistic regression, and nomogram models were constructed to visualize the results. The overall effect of the constructed regression models was evaluated using ROC curves, calibration curves, and decision curves.

Results The differences in sleep efficiency (SE), REM sleep latency (REML), N2%, and N3% among the three groups of SMD patients were statistically significant ($P < 0.05$), where the results of the two comparisons showed that there were differences in sleep efficiency and REM latency between SCZ and MDD ($P< 0.05$) in BD compared with MDD; and SE and N3% were statistically significant ($P < 0.05$) in SCZ compared with BD. there was no significant correlation between BMI and the duration of illness and sleep architecture. PSG parameters were found to be useful for AUC for identifying MDD and SCZ was 0.658 and for identifying MDD and BD was 0.6991. calibration curve with decision curve response model had

good clinical utility.

Conclusion Differences in PSG parameters exist among patients with SCZ, BD and MDD, and our prediction model can identify each of the three diseases from sleep structure, which could be of clinical value.

关键字：3 types of Severe mental disorder; Polysomnography; Sleep structure; Prediction model

Effect of Emotional Abuse on Suicide of Depressed Adolescents: The Mediating Role of Internet Addiction

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Objective People with depression appear to experience higher levels of emotional abuse (EA) and suicidal behavior. However, no studies have provided estimates of through what factors EA influences suicidal ideation (SI) in adolescents with depression. The present study examined the effects of internet addiction on the relationship between EA and SI in a Chinese adolescent depression population.

Methods 262 adolescents with depression (198 females) completed the evaluation of the Childhood Trauma Questionnaire-Short Form, Center for Epidemiologic Studies Depression Scale, the Internet Addiction Test, the Interpersonal Reactivity Index, Positive and Negative Suicide Ideation.

Results Female adolescent depressed patients were more likely to experience emotional abuse than males (83.03% vs.70.00%), and depressed adolescent patients who experienced EA scored significantly higher on SI, CESD score than the no EA group (all P<0.05). In addition, adolescent depressed patients with internet addiction were more likely to have suicidal ideation, and they scored higher on depressive symptoms and emotional abuse. Bivariate analysis found a significant positive association between internet addiction and EA (r=0.23, P<0.01). Empathy was positively correlated with Internet addiction (r=0.17, P<0.01), but not with EA and SI in our study. In addition, SI was significantly positively correlated with EA and internet addiction (r=0.46, P<0.01; r=0.25, P<0.01). After being processed by AMOS software, The structural model showed that internet addiction was a mediator of EA and SI (β=0.80, P<0.001; β=0.11, P<0.01), and empathic could strengthen this mediating effect of internet addiction (β=0.23, P<0.05).

Conclusion Internet addiction have an impact on SI in adolescents with depression who have experienced EA. In addition, empathy is also an important influencing factor of internet addiction. These findings remind that attention should be paid to the role of internet addiction and empathic in depressed adolescents. Contributing to the development of effective interventions to prevent suicidal behavior in depressed adolescent patients. At the same time, keeping depressed adolescents away from emotional abuse may help reduce their risk of suicide.

关键字：depression; emotional abuse; internet addiction; empathic; suicide

基于静息态功能磁共振成像对抑郁症脑自发神经活动的研究

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目的 结合静态和动态的分析方法探究抑郁症患者脑内自发的神经活动特征，并探究其局部脑区活动特征和脑区间功能连接特征与临床症状的关系。

方法 本研究纳入了自 2021 年 10 月至 2022 年 12 月于昆明医科大学第一附属医院精神科住院部随机招募的抑郁症患者 52 名，并通过社会招募与患者性别、年龄匹配的正常受试 33 名。采集所有受试的一般人口学资料和静息态功能磁共振成像数据，使用 RBANS 量表进行认知功能评定，并使用 HAMD-17 量表评估患者的抑郁症状，HAMD-17 量表分为焦虑/躯体化、体质量、认知障碍、阻滞、睡眠障碍 5 个因子。首先利用 DPABI 软件行静态和动态的低频振幅（ALFF）和局部一致性（ReHo）分析，然后将静态 ALFF 分析得到的差异脑区作为感兴趣区域，对其与全脑的静态和动态的功能连接进行探索性研究，最后使用 SPSS 软件进行相关分析。

结果 （1）与正常受试相比，抑郁症患者右侧颞下回的静态低频振幅（sALFF）和静态局部一致性（sReHo）增加，此外，还表现出右侧颞下回的动态低频振幅（dALFF）和动态局部一致性（dReHo）的变异性增加，而额边缘系统中的一些脑区（右侧回直肌、右侧豆状壳核）的 sReHo 减低。相关分析显示：右侧颞下回的 sALFF 值（r=-0.333，p=0.021）和 sReHo 值（r=-0.311，p=0.032）与 HAMD-17 量表的焦虑因子分呈负相关，右侧回直肌、右侧豆状壳核等脑区的 sReHo 值与发病年龄呈正相关（r=0.289，p=0.044）。（2）与正常受试相比，抑郁症患者右侧颞下回与左侧楔前叶、中央后回、顶上回、顶下缘角回、枕上回、枕中回的静态功能连接（sFC）增加，未发现两组存在右侧颞下回动态功能连接（dFC）模式的差异。相关分析显示,右侧颞下回与差异脑区的 sFC 值与发病年龄呈负相关（r=-0.360，p=0.011）。

结论 抑郁症患者存在与正常受试不同的自发脑功能活动模式，这些改变与抑郁症患者的临床特征密切相关。右侧颞下回的影像学改变特征可能在抑郁症的发病机制中具有潜在作用，可能为未来治疗抑郁症患者提供一个潜在的干预靶点。

关键字：抑郁症 低频振幅 局部一致性 功能连接 动态分析 静息态功能磁共振成像

重度抑郁症患者皮质微结构网络连接模式改变

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目的 重度抑郁症（major depressive disorder，MDD）是最普遍的精神疾病之一。特别是新冠肺炎大流行的影响，抑郁症的流行程度在不断增加。既往基于结构协方差网络的研究揭示了 MDD 中群体水平的异常结构连接。然而从个体水平上讨论 MDD 患者的结构网络拓扑改变的研究相对缺乏。最近提出的形态相似性网络（morphometric similarity network，MSN）分析方法可以通过从多模态图像中捕获多个形态测量特征来分析个体的脑区间结构连接。考虑到不均匀磁化转移成像（inhomogeneous magnetization transfer imaging，ihMT）检测髓鞘密度的高特异性和敏感性，这项研究我们将基于 MSN 整合扩散张量成像（diffusion tensor imaging，DTI）和 ihMT 来识别皮质形态相似性连接模式的改变，从皮质微结构改变的角度进一步地解释 MDD 的生物学机制。

方法 共纳入 79 例 MDD 和 74 例正常对照。采用 17 项汉密尔顿抑郁评定量表量化抑郁症状的严重程度。采用 VBM8、FSL 软件分别对 T1，DTI 和 ihMT 图像进行处理。获得 9 个特征图并构建每个被试的 MSN。采用特征路径长度（Lp）、聚类系数（Cp）、小世界性、全局效率（Eg）和局部效率（Eloc）对整体网络进行评估。通过计算节点效率（Ne）和节点局部效率（Eloc）来测量节点。并进行 rich-club 分析，计算两组的 rich-club 连接、feeder 连接和 local 连接。采用双样本 t 检验，检测拓扑性质的组间差异。最后，进行拓扑性质与临床测量之间的相关性分析。

结果 两组 MSN 都是小世界网络。与正常人相比，MDD 显示 Lp、Cp 显著升高，Eg 显著降低，而 Eloc 无差异。对于节点特征，左侧额下回、左侧后扣带回和左侧苍白球的 Ne 明显减少。右侧苍白球 Nle 明显降低，而左侧枕中回和左侧梭状回 Nle 增加。MDD 和 正常对照均表现出显著的富俱乐部结构。MDD 组的 rich-club 连接和 feeder 连接显著增加，local 连接显著减少。

结论 我们的研究结果表明，重度抑郁症患者的形态相似性网络的拓扑结构改变，这可能是重度抑郁症的潜在生物标志物，但与抑郁症状的严重程度无关。

关键字：重度抑郁症，形态相似性网络，皮质，结构网络

双相情感障碍临床特征与糖脂变化的性别差异及其相关性

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目的 双相情感障碍(bipolar disorder,BD)属于严重的精神疾病，常合并心血管疾病、糖尿病和肥胖症等疾病。目前研究缺乏糖脂代谢指标的相关研究及性别差异，故本研究调查 BD 患者临床特征与治疗前后糖脂变化的性别差异及其相关性。

方法 回顾性收集 BD 患者男、女各 78、37 例，分析其临床资料和血糖、血脂指标，其中临床资料包括：性别、年龄、起病年龄、受教育年限、病程、住院天数、精神病性症状、情绪稳定和抗抑郁药等，血糖包括空腹血糖（Glu）、糖化血清蛋白（GSP）、糖化血红蛋白（HbA1c），血脂包括总胆固醇（TC）、甘油三酯（TG）、高密度脂蛋白胆固醇（HDL）和低密度脂蛋白胆固醇（LDL）。

结果 1.治疗前两组患者在住院天数、伴有精神病性症状、TG、HDL 和抗抑郁药使用上的差异有统计学意义（P<0.05），其余指标的差异无统计学意义(P>0.05)。2.生化指标中，治疗后女性(5.13mmol/L)患者 TC 升高水平大于男性(4.63mmol/L)患者（F=25.50，P=0.01），女性患者 GSP(1.48mmol/L)（F=21.95，P=0.02）、HDL(1.74mmol/L)（F=49.63，P<0.01）水平升高，而男性(GSP:1.41mmol/L)(HDL:1.18mmol/L)患者降低；治疗前后 GLU、HbAlc、TG、LDL 的变化在组间差异无统计学意义(P>0.05)。3.相关分析结果显示：男性中 GLU 与情绪稳定剂（r=0.41，P<0.01）、LDL 与年龄（r=0.27，P=0.01）、HbAlc 与精神症状（r=0.27，P=0.01）呈正相关，GSP 与病程（r=-0.25，P=0.02）、HDL 与抗抑郁药使用（r=-0.25，P=0.02）呈负相关；女性中 GSP 与情绪稳定剂（r=-0.36，P=0.02）、HDL 与精神症状（r=-0.35，P=0.03）和抗抑郁药物使用（r=-0.47，P<0.01）均呈负相关，其余无明显的相关性（P>0.05）。

结论 双相情感患者治疗前后的糖脂类及相关因素存在性别差异，临床药物的使用影响两组间血糖、血脂水平。

关键字：双相情感障碍；性别；血糖；血脂；相关性

Prevalence and Related Factors of Severe Violence and Suicide Attempt in Emergency Patients of Psychiatric Department in Chinese Specialized Hospital

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Objective Serious violence and suicide attempts are on the rise. At present, there is a lack of cases of severe violence and suicide attempts in psychiatric emergency patients in China. This study explored the prevalence, disease distribution and correlation of severe violence and suicide attempts in psychiatric emergency patients in specialized hospitals in China.

Methods The general demographic data and blood biochemical indexes of patients admitted to the emergency department of psychiatry in the Affiliated Brain Hospital of Guangzhou Medical University from January 1, 2020 to December 31, 2022 were retrospectively investigated, and

the data were statistically described and analyzed. Attempted suicide is an act committed by suicide but not resulting in death. Serious violence is defined primarily as wounding with a controlled weapon or an act intended to injure without consequence. Biochemical indicators mainly include uric acid, creatinine and blood glucose.

Results In the past three years, the total number of emergency patients in the psychiatric department was 18502, and the annual number of patients was 5321, 7403 and 5776, respectively. The rates of attempted suicide and impulsive violence were 4.4% (818) and 1.9% (349), respectively. The age of suicide attempters was younger (30.5±16.5), and the age of serious violence was older (42.7±17.6). The rate of female suicide attempt (586,71.6%) was 2.5 times that of male suicide attempt (232,28.4%), and the rate of male impulsive violence (210, 60%) was 1.5 times that of female impulse violence (139,39.8%), the difference was statistically significant (P<0.05). The top three diagnoses of attempted suicide were depression (493,60.3%), bipolar disorder spectrum (164,20.0%), schizophrenia spectrum (73,8.9%), and the top three diagnoses of severe violence: Schizophrenia spectrum (143, 41%), bipolar disorder spectrum (92,26.4%), mental disorders (29,8.3%), the difference was statistically significant (P<0.05). The levels of uric acid, creatinine and blood glucose in patients with impulsive violence were higher than those in patients with attempted suicide (P<0.05). Binary Logistic results showed that impulsive violence was correlated with male, age and uric acid (P<0.05).

Conclusion The demand of emergency patients in psychiatric department is large. Suicide attempt is related to female and depression. Severe violence is associated with masculinity, schizophrenia, and increased uric acid levels.

关键字：Serious violence；Suicide attempts;psychiatric emergency;specialized hospital

Analysis of EEG Features and Study of Automatic Classification in Patients with First-episode Drug-naive Major Depressive Disorder

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Objective Major depressive disorder (MDD) is a high incidence and unknown mechanism disease, which lacks objective and sensitive indicators for clinical diagnosis. The specific electrophysiological indicators in patients with first-episode drug-na?ve MDD has not fully been investigated. Therefore, this study was to explore specific electrophysiological indicators and the role of them in clinical diagnosis of MDD using machine learning.

Methods Forty patients with first-episode drug-na?ve MDD and forty healthy controls were recruited for this study, and EEG data were collected from all subjects in the resting state with eyes closed for 10 minutes. The severity of MDD was assessed by the Hamilton Depression Rating Scale (HDMD-17). Three methods of feature selection including SVM-RFE, LASSO-LR, and PCA were used. Five classifier algorithms including DT, SVM, GBDT, KNN, NB were utilized to classify depressed patients.

Results In the left occipital region, the relative power in the alpha band was significantly lower(t=4.829, FDRp =0.01) and was significantly higher (t=-3.357, FDRp=0.01) in MDD group than that in HC group. In the right occipital region, the relative power in the delta (t=-4.934, FDRp=0.01) and theta (t=-4.007, FDRp=0.01) bands was significantly higher and was significantly lower in MDD group than that in HC group (t=6.142, FDRp=0.01). In the right parietal region, the relative power of the alpha band was significantly lower in MDD group than that in HC group (t=2.886, FDRp=0.03). Compare to HC group, the weighted phase lag index (wPLI) in the alpha band were significantly lower, but the wPLI in the gamma band were significantly enhanced in MDD group. There was no significant correlations between any EEG features and the HAMD-17 scales. In feature set of the relative power of ROI in each band, the highest accuracy of 88.2% was achieved using the KNN classifier while using PCA feature selection. In the explanatory model using SHAP values, the influence ranked in the top three features are: the relative power of alpha band in the left parietal region, the left occipital region and the right parietal region.

Conclusion Abnormal EEG neural oscillations may reflect an imbalance of excitation, inhibition and hyperactivity in the cerebral cortex in patients with first-episode MDD. Meanwhile, the machine learning proposed in combination with the feature selection algorithm revealed that the relative power of the alpha band in the left parietal region is expected to be an objective electrophysiological indicator of MDD.

关键字：major depressive disorder; electroencephalogram; machine learning; automated classification

Degree Centrality Changes in Acute Exacerbation of Chronic Schizophrenia Treated with Second-Generation Antipsychotics

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Objective Schizophrenia (SZ) is a group of chronic psychiatric disorders of unknown etiology, characterized by abnormalities in the thought, emotion, and cognitive functions. Resting-state functional magnetic resonance enables the non-invasive detection of spontaneous brain activity in the human brain. Degree Centrality (DC) is a reliable indicator of resting-state brain functional networks, reflecting the strength of functional connectivity in local brain regions. Second-generation antipsychotics (SGAs) have been commonly used to cure schizophrenia. However, fewer studies have investigated changes in functional brain

networks in patients with acute episodes of chronic SZ after treatment with SGAs.

Methods 60 subjects with acute episodes of chronic SZ and 53 age-/sex-matched healthy controls were recruited. The Positive and Negative Syndrome Scale (PANSS) was used to evaluate the clinical symptoms of SZ subjects. SZ subjects were treated with SGAs for 6 weeks starting at baseline and underwent MRI and clinical interview at baseline and after 6 weeks, respectively. We then divided SZ subjects into responding (RS) and non-responding (NRS) groups based on the PANSS scores (the reduction rate of PANSS ≥50%). DC was calculated and analyzed for correlation with clinical symptoms.

Results We found that after treatment with SGAs, SZ subjects showed significant improvement in clinical symptoms ($p < 0.001$), semantic fluency performance ($p = 0.002$) and increased DC values in left inferior parietal (two tails GRF correction, voxel $p < 0.001$, cluster $p < 0.01$, voxels number = 94). Noteworthy, we found increased DC in the left inferior parietal after treatment in the responding group, while no such change was observed in the non-responder group. Correlation analysis revealed that the degree of DC increase in the left inferior parietal after treatment was significantly and negatively correlated with change in excitement score ($r=-0.25$，$p=0.048$). And in the response group, the degree of DC increase in the left inferior parietal were positively related with change in negative score ($r=0.418$，$p=0.016$).

Conclusion Our study found that DC was changed in SZ subjects after treatment with SGAs and this correlated with clinical symptoms. This implies that DC in left inferior parietal may serve as a potential indicator of the efficacy of antipsychotic treatment in SZ. These findings provide new evidence for changes in brain function in patients with acute episodes of chronic schizophrenia.

关键字：Acute Exacerbation of Chronic Schizophrenia, Degree Centrality, Rest-state Functional MRI

Dynamic Effective Connectivity of Cerebellar Dentate Nucleus and Cognitive Impairments in Schizophrenia Patients Treated with Second-Generation Antipsychotics: A Longitudinal Rs-fMRI Study

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Objective :Cognitive impairment is one of the clinical features of SZ and may persist even in patients with chronic SZ after medication. Previous studies shown that dentate nucleus (DN) is an important structure connecting cerebellum to brain and is closely related to cognitive impairments in SZ. Dynamic effective connectivity (dEC) can provide directionality of functional network signaling dynamically and may be a new perspective to understand the pathogenesis of SZ. However, the characteristics of dEC of DN in SZ and the relationship with cognitive impairments are not yet fully understood.

Methods 60 subjects with acute exacerbation of chronic SZ and 53 age-/sex-matched healthy controls were recruited. The Positive and Negative Syndrome Scale (PANSS) was used to evaluate the clinical symptoms of SZ subjects. Symbol Digit Modalities Test (SDMT), Digital Span Test (DST) and Verbal Fluency Test (VFT) was used to assess the cognitive performance of SZ subjects. SZ subjects were treated with SGAs for 6 weeks from baseline and underwent MRI, clinical interview and cognitive tests at baseline and after 6 weeks. The coordinates of DN were determined by previous studies, and a sphere with radius of 6 mm was constructed to calculate the dEC of DN with whole brain voxels combining the sliding window method and Granger causality algorithm. We then performed a k-means cluster analysis of dEC to obtain several states that characterize dEC patterns of DN with other regions, and calculated the dwell time, frequency, and transitions of each state for each groups. Further, differences in dEC variability between groups as well as before and after treatment were compared, and correlation analysis was performed with clinical symptom and cognitive performance.

Results After k-means clustering, 3 dynamic states in which DN had influential effects on other regions and 4 dynamic states in which DN was influenced by other regions were obtained. In dynamic states with DN influenced by other regions, the frequency of pretreatment SZ was significantly higher in state 4 compared to HC ($t=2.050$, $p=0.043$) and the dwell time appeared to be longer ($t=1.974$, $p=0.051$). Variability analysis showed that the right inferior frontal gyrus of pretreatment SZ had a stronger effect on DN compared with HC. The effect of DN on inferior occipital gyrus became weaker in the treated SZ compared to HC. Notably, the degree of change in variability of dynamic influence of DN by inferior occipital gyrus in SZ subjects before and after treatment was negatively correlated with the degree of improvement in DST ($r=-0.258$, $p=0.047$) and depression factor scores ($r=-0.271$, $p=0.036$).

Conclusion From a dynamic perspective, these findings demonstrate the abnormal DN connectivity pattern in SZ patients and its association with cognitive impairment, providing new insights into the mechanisms of cognitive impairment in SZ patients.

关键字：Dynamic Effective Connectivity, Functional Magnetic Resonance, Dentate Nucleus, Acute Exacerbation of Chronic Schizophrenia, Second-generation Antipsychotics

Correlations Between Low Frequency Fluctuation and Cognition Performance in Bipolar Disorder Patients with Suicidal Ideation

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Objective Patients with bipolar disorder (BD) are at high risk of suicidal ideation (SI), and BD patients with suicidal ideation (BDSI) have shown marked abnormalities in spontaneous brain function. Cognitive impairment, on the other hand, is considered to be one of the core symptoms of BD. However, few studies have addressed the association between cognitive performance and abnormal spontaneous brain function in BDSI.

Methods In the current study, the MATRICS Consensus Cognitive Battery (MCCB) was used to assess cognitive performance in BDSI patients (n=20), BD patients without suicidal ideation (BDNSI) (n=24) and healthy controls (HC) (n=30). Their cognitive performance was then correlated with amplitude of low frequency fluctuation (ALFF) values obtained by resting-state functional magnetic resonance imaging (rs-fMRI).

Results We found that ALFF was significantly higher in the left precuneus (two tails GRF correction, voxel p <0.001, cluster p < 0.05, voxels number = 32) and right posterior cingulate cortex (two tails GRF correction, voxel p <0.001, cluster p < 0.05, voxels number = 60) in the BDSI group and significantly lower in the right precuneus (two tails GRF correction, voxel p <0.001, cluster p < 0.05, voxels number = 71) in the BDNSI group than in the HC group. In addition, in the BDSI group, visual learning performance was positively correlated with ALFF values in the left precuneus (r=0.511, p=0.021).

Conclusion Our findings support the notion that BD patients present with ALFF abnormalities, which are associated with cognitive performance in BDSI.

关键字：Bipolar disorder, Suicidal ideation, Amplitude of low frequency fluctuation, Cognitive performance, Resting-state functional magnetic resonance.

Sex Differences in Hcy Levels in First-episode and Drug-na?ve Individuals with Major Depressive Disorder: Correlations with Clinical Symptoms and Cognitive Deficits

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Cognitive deficits and clinical symptoms have been associated with increased levels of homocysteine (Hcy) in first-episode and drug-na?ve (FEDN) individuals with major depressive disorder (MDD), but sex differences have seldom been studied. Our aim was to evaluate sex differences in Hcy levels among FEDN individuals with MDD, as in recent clinical studies, as well as sex differences in clinical symptoms and cognitive deficits. Here, we recruited 85 FEDN subjects individuals with MDD (32 males and 53 females) and 100 healthy controls (50 males and 50 females). The MATRICS Consensus Cognitive Battery (MCCB) was used to assess all cognitive function data, and serum Hcy levels were tested in all participants. The Hamilton Depression Rating Scale (HAMD) and Positive and Negative Syndrome Scales (PANSS) were used to evaluate clinical symptoms. Hcy levels were significantly higher in male patients than in female (F=6.772, P=0.001). Higher Hcy concentrations were associated with more severe positive symptoms (r=0.477, P=0.010) and worse WM performance in male patients (r=-0.409, P=0.031), suggesting that Hcy may be involved in the pathophysiology of impairments in specific cognitive domains in female MDD patients.

关键字：Homocysteine, depression, sex, cognitive deficits, clinical symptoms

Differential Relationships between Hcy, Cognitive Deficits, and Low-frequency Fluctuation in Bipolar Disorder with Suicidal Ideation

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Suicidal ideation is a complex symptom, and homocysteine (Hcy) is a potential biomarker of bipolar disorder (BD). In this study, we aimed to investigate the interrelations among Hcy levels, cognition, and altered regional brain activity by using amplitude of resting-state functional magnetic resonance imaging (rs-fMRI) in bipolar disorder suicidal ideation (BDSI) and no suicidal ideation (BDNSI), which has not yet been reported. 44 Individuals with BD and 30 age-/gender-matched healthy controls were enrolled. Individuals with BD were split into two groups: no suicidal ideation (BDNSI; n=24) and suicidal ideation (BDSI; n=20). All individuals were tested for plasma Hcy levels and a battery of neuropsychological tests were conducted to measure cognitive ability and rs-fMRI scans. We found that there were significantly higher Hcy levels in the BDNSI group than in the BDSI group (t=2.33, P=0.024). Specifically, there was a significantly positive association between Hcy and the fractional amplitude of low-frequency fluctuation (fALFF) signals in the left posterior cingulate gyrus in BDSI, and Hcy was negatively associated with visual learning (VisL), verbal learning (VrbL), and attention/vigilance (AV). Mediation analyses revealed that the left posterior cingulate gyrus significantly mediated the negative association between Hcy and VisL/VrbL (indirect 95% confidence interval = -0.592 to -0.069 and -0.465 to -0.042) and BDSI. Our data suggest that BDSI and BDNSI may exhibit different Hcy-neurocognitive-brain function profiles, which could be further verified as a pathophysiological mechanism of BDSI.

关键字：cognitive deficits, Hcy, low-frequency fluctuation, suicidal ideation

不同性别互联网游戏障碍患者与抑郁症的中介因素

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目的 本研究试图探究不同性别的 IGD 患者与抑郁及焦虑程度的中介因素

方法 研究于2022年4月1日至7月10日进行，通过多种方式招募 IGD 患者,他们可以自由的选择调查方式，响应邀请的玩家可以获得一次抽奖的机会。他们首先需要填写一份游戏成瘾量表（GAS-7），被认为患有 IGD 的玩家会继续被要求填写其它相关信息，包括基本社会信息，游戏相关信息，抑郁焦虑程度等。共有 1579 人受邀参与了游戏成瘾量表的调查，有 714 人被认为患有 IGD 并完成了后面的题目，采取纳入和排除标准后，最终有 609 人纳入研究，其中男性 317 人，女性 292 人。

结果 样本中女性平均年龄 21 岁，男性平均年龄 22 岁。男性平均游戏时间较长为 5.2 小时/天，女性为 4.2 小时/天。女性主要通过移动设备进行游戏（82.9%），男性使用移动设备（51.4%）和固定设备（48.6%）进行游戏的人数几乎各占一半。MOBA 类游戏是最受欢迎的游戏。男性在网络支持程度（80.4）和社会支持程度（11.4）低于女性（86.7，15.3），抑郁焦虑程度（17）稍高于女性（16.6）。

结论 IGD 患者更高的抑郁焦虑风险，很可能是不良游戏行为占用了大量的时间和精力，进而影响了人们的基本活动、社会参与和责任，导致了适应不良和抑郁焦虑情绪的出现，限制 IGD 患者的游戏时间，改善睡眠习惯，鼓励他们积极参与学习工作等重要领域可能会有效降低他们的抑郁焦虑程度。

关键字：网络成瘾；性别

Using Regional Homogeneity To Predict Major Depression Disorder Patients

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Objective Major Depression Disorder (MDD) is a common mental disorder with the characteristics of easy relapse and long course. It is estimated that around 5% of adults worldwide suffer from depression. Although there are effective treatments, the recognition rate and cure rate of depression are still very low, beacuse traditional diagnostic methods are prone to missed and misdiagnosis. Functional Magnetic Resonance Imaging (fMRI) is a non-invasive technique widely used in the field of neuroscience. The Regional Homogeneity (ReHo) value is a commonly used functional index of resting-state fMRI that reflects neural activity in local areas.

Methods For this study, we recruited 44 MDD patients and 32 well-matched healthy controls (HC). We evaluated the clinical symptoms of the patients using the Positive and Negative Syndrome Scale (PANSS) and assessed their cognition using the MATRICS Consensus Cognitive Battery (MCCB). Then, we calculated the functional indexes of brain networks in a resting state. Furthermore, the difference in Re-Ho values between the MDD group and the HC group was compared using fMRI scans to investigate the differences between MDD patients and HC brains in the resting state.

Results We found that the ReHo value of the cerebellum posterior lobe was higher in MDD group than in HC group (two tails GRF correction, voxel p <0.001, cluster p < 0.05, voxels number = 90). The ReHo value of the left cerebellum in MDD group was higher than that in HC group (two tails GRF correction, voxel p <0.001, cluster p < 0.01, voxels number = 71), and the ReHo value of the right cerebellum was also higher than that in BDSI group (two tails GRF correction, voxel p <0.001, cluster p < 0.01, voxels number = 57).

Conclusion Our results show that the ReHo value of MDD patients is abnormal. Compared with HC, the ReHo value of the cerebellum in MDD was significantly increased, indicating a potential biomarker for predicting MDD patients.

关键字：Major Depression Disorder, Regional Homogeneity, Cerebellum.

基于 FAERS 数据库对儿童青少年应用艾司西酞普兰风险信号的挖掘与分析

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目的 基于美国食品药品监督管理局管理局不良事件报告系统（FAERS）数据库对儿童青少年患者（6-17 岁）患者应用艾司西酞普兰的上市后药物不良事件（AE）信号进行挖掘和分析。

方法 利用 OpenVigil2.1 工具从 FAERS 数据库中提取 2004 年第 1 季度至 2023 年第 1 季度收录的艾司西酞普兰相关数据，采用比值失衡分析法的报告优势比（ROR）与比例报告比（PRR）进行信号挖掘，报告数>3、ROR 的 95% CI 下限>1、PRR>2 且 χ?>4 的 AE 定义为阳性信号，ROR 和 PRR 的数值越大，表明药物与相关 AE 的关联性越强。

结果 艾司西酞普兰作为首要怀疑药品，通过标准国际医学用语词典（MedDRA）分析查询检出 24 个信号，涉及 AE 报告 544 例。安全性信号主要涉及精神病类、心脏及血管疾病、神经系统疾病等。上报频数前 15 位的 AE（ROR 及其置信区间，PRR）分别是自杀/自伤（10.019 [8.307,12.085]，6.528）、药物滥用和依赖（2.876[2.126,3.891]，2.686）、抑郁（4.507[3.320,6.119]，4.160）、敌对/攻击（3.514[2.519,4.901]，3.308）、意外和伤害（3.112[2.203,4.397]，2.953）、精神病和精神障碍（2.626[1.753,3.934]，2.539）、心脏传导障碍（6.403[4.235,9.680]，6.124）、尖端扭转型室性心动过速/QT 间期延长（6.328[3.987,10.043]，6.110）、休克相关的尖端扭转型室性心动过速（5.235[3.300,8.305]，5.062）、休克相关的循环系统或心脏疾病（2.518[1.570,4.038]，2.459）、运动障碍（3.133[1.763,5.569]，3.078）、药物超敏反应综合征（4.468[2.450,8.148]，4.386）、消化道出血（2.148[1.146,4.025]，2.123）、妊娠-分娩并发症（4.263[2.198,8.269]，4.200）、肌张力障碍

（2.906[1.499,5.632]，2.869）。

结论 儿童青少年使用艾司西酞普兰需严格监测可能发生的 AE，特别警惕自杀自伤等精神病类疾病，以及注意心脏传导障碍等心血管疾病，保障患者的用药安全。

关键字：艾司西酞普兰；药物不良事件；美国食品药品监督管理局；数据挖掘；

抑郁症及双相障碍动态功能网络异常研究

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目的 比较抑郁症及双相障碍患者与健康对照者在动态功能网络连接特性及动态图论属性方面的差异，了解两种疾病不同的网络机制。

方法 收取 2021 年 10 月至 2023 年 1 月就诊于昆明医科大学第一附属医院的抑郁症患者、双相障碍患者以及健康对照者，进行人口学信息、临床量表资料、RS-fMRI 数据收集。采用组独立成分分析、滑动窗口分析，k-means 聚类分析等方法探究抑郁症、双相障碍患者动态功能网络连接及其时间属性异常。采用 GRETNA 工具对获得的动态功能连接进行图论属性分析。

结果 在抑郁症组和健康对照组的动态功能网络连接状态分析中，我们得到 5 个动态功能连接网络状态。①将 5 个状态的动态功能连接分别进行两组间比较，未发现两组间各状态比较存在差异；②将两组间各个状态下的时间属性进行比较，发现抑郁症组状态四和状态五的时间分数、平均驻留时间均高于健康对照组，其它状态下两组间的时间属性未见差异；③相关分析：状态四的时间分数与 HAMD-17 及 HAMA 的得分呈正相关；状态四的平均驻留时间与 HAMD-17 及 HAMA 的得分呈正相关。④抑郁症动态图论属性未见差异。 在双相障碍组和健康对照组的动态功能网络连接状态分析中，我们得到 4 个动态功能连接网络状态。①分别比较两组间各状态的动态功能连接，发现状态三的动态功能连接存在显著组间差异，为：与对照组比较，双相障碍组在状态三中表现出认知相关网络与感知相关网络之间以及感知相关网络之间的功能连接减弱；②将两组间各个状态下的时间属性进行比较，发现双相障碍在状态三时的时间分数、平均驻留时间低于健康对照组；③相关分析：状态三的时间分数与 HAMD-17、YMRS 呈负相关，与 RBANS 总得分呈正相关。状态三的平均驻留时间与 HAMD-17、YMRS 呈负相关，与 RBANS 延迟记忆得分、总得分呈正相关。④双相障碍动态图论属性未见明显差异。

结论 抑郁症患者和双相障碍患者间明显的动态功能网络异常具有明显不同的特征。1. 抑郁症患者主要表现为 dFNC 异常主要表现在时间属性上，在弱连接状态的平均驻留时间及时间分数增加，意味着抑郁症患者可能存在高度自我关注或负性情绪偏向的增强及信息处理能力下降，且弱连接状态持续越久疾病严重程度越高。2. 双相障碍感知相关网络内部及与认知相关网络之间的动态功能连接减弱，可能提示双相障碍患者认知相关网络及感知相关网络功能的缺陷。

关键字：双相障碍；抑郁症；动态功能连接；静息态功能磁共振成像；独立成分分析

Gender-related Alterations of Serum Minerals and Neuro Metabolism in The Anterior Cingulate Cortex of Patients with Major Depressive Disorder

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Objective Sex differences have been widely recognized in patients with major depressive disorder (MDD). The present study aims to evaluate the gender-related interaction between serum minerals and neurometabolic alterations in the anterior cingulate cortex of patients with MDD.

Methods 108 patients with unmedicated MDD (males/females = 47/61) and 44 healthy controls (males/females = 22/22) provided blood for minerals detection. 109 patients with unmedicated MDD (males/females = 48/61) and 59 healthy controls (males/females = 24/35) underwent magnetic resonance imaging scanning. Proton magnetic resonance spectroscopy (1H-MRS) was conducted under resting conditions. 93 unmedicated MDD patients (males/females = 40/53) underwent both minerals detection and 1H-MRS. Association and interaction analysis were conducted to investigate the inter-relationships between disease and gender.

Results Most serum minerals of MDD patients showed highly significant differences. The copper/zinc ratios were significantly increased. The calcium, magnesium, ceruloplasmin, zinc, and iron significantly decreased in MDD patients (all $p < 0.05$). Male patients showed lower serum copper levels than male controls ($p < 0.05$) and female patients showed higher copper/zinc ratios than female controls ($p < 0.001$). Significant gender differences in copper, ceruloplasmin and copper/zinc ratios were found between male and female patients (all $p < 0.001$). The neurometabolic alterations in ACC of MDD patients also showed significant sex differences. Male patients with MDD showed lower NAA/Cr ratios in bilateral ACC than controls and female patients (all $p < 0.05$). Female controls showed lower CHO/Cr ratios in left ACC than male controls, while there were no differences in patients with MDD between males and females ($p = 0.001$; $p=0.484$). In male patients, the Cu/Zn ratios negatively correlated to the NAA/Cr ratios of left ACC ($r = -0.356$, $p = 0.024$), and the iron levels negatively correlated to the CHO/Cr ratios of left ACC ($r = -0.331$, $p = 0.037$). In female patients, no

correlation between abnormal minerals and neuro metabolites was found.

Conclusion Patients with MDD show deficits in calcium, magnesium, zinc, and iron. Female patients with MDD had higher ceruloplasmin levels. In bilateral ACC, male patients showed lower copper levels and lower NAA/Cr ratios. Further, our results indicated that the gender-related interaction of abnormal serum minerals and neurometabolic of ACC may be implicated in MDD, which may indicate the gender difference in the pathogenesis of MDD.

关键字：major depressive disorder, minerals, anterior cingulate cortex, proton magnetic resonance spectroscopy, gender difference

雷洛昔芬对绝经期慢性精神分裂症患者的阴性症状及认知功能和生活质量的影响

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目的 研究雷洛昔芬对绝经期慢性精神分裂症患者的阴性症状及认知功能和生活质量的影响。

方法 选取芜湖市第四人民医院 2021 年 1 月到 2023 年 1 月期间接诊的 80 例长期住院服用氯氮平治疗的阴性症状为主的绝经后女性精神分裂症患者为研究对象。按随机数表法随机分为研究组与对照组各 40 例。所有患者均长期服用氯氮平治疗，对照组给予氯氮平治疗，研究组给予氯氮平联合雷洛昔芬治疗。两组患者均连续治疗 12 周，记录并比较两组患者治疗前与治疗 12 周后的阳性与阴性症状量表（PANSS）评分、阴性症状量表（SANS）评分、血清雌二醇（E2）水平、成套神经心理测验（RBANS）评分、采用生活质量综合评定问卷（GQOLI-74）评估生活质量、采用副反应量表（TESS）评估药物不良反应发生情况。

结果 治疗前，两组患者的 PANSS 评分、SANS 评分、E2 水平相比无显著性差异（P＞0.05），治疗 12 周后，两组患者的 PANSS 评分、SANS 评分均明显降低，且研究组低于对照组（P＜0.05），但 E2 水平明显升高，且研究组高于对照组（P＜0.05）；治疗前，两组患者的 RBANS 评分相比无显著性差异（P＞0.05），治疗 12 周后，两组患者的 RBANS 评分均明显升高，且研究组高于对照组（P＜0.05）；治疗前，两组患者生活质量各方面评分相比（P＞0.05），治疗后，两组患者生活质量各方面评分均明显升高，且研究组高于对照组（P＜0.05）；研究组患者药物不良反应发生率为 22.50%，对照组患者药物不良反应发生率为 15.00%，两组相比无显著性差异（P＞0.05）。

结论 雷洛昔芬对绝经期慢性精神分裂症患者的阴性症状具有一定的缓解作用，有助于改善患者的认知功能与生活质量，且安全性高。

关键字：绝经期；慢性精神分裂症；雷洛昔芬；阴性症状；阳性与阴性症状量表；认知功能；生活质量

HSP90 及其共伴侣 FKBP51 在抑郁症中的研究进展

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目的 已有的证据表明抑郁症患者或动物体内存在 HSP90 及 FKBP51 的升高，且 FKBP51 基因多态性与抑郁症相关。因此，研究 HSP90 及 FKBP51 如何在抑郁症的治疗中发挥作用具有重要意义。

方法 第一作者于中国知网学术期刊数据库、万方学术期刊数据库、Pubmed、Web of science 检索国内外文献。1.纳入标准：研究主题为 HSP90 及 FKBP51 与抑郁症的文献；研究对象为啮齿类动物或人类的文献；公开发表的中文或英文文献。2.排除标准：非啮齿类动物模型；个案报道、专家论述、会议论文等；非中文或英文文献；重复文献。

结果 在某些抑郁症患者和老鼠模型中，HSP90 的表达水平升高，可以通过降低 HSP90 的表达水平或其作用来减轻动物抑郁样行为。这可能是因为 HSP90 能够通过结合和调节许多不同的受体蛋白，如神经元受体、信号通路蛋白等，从而调节神经递质的转运和感受器的功能，影响神经系统的正常功能。FKBP51 的表达水平与抑郁症的发生和严重程度有关。在抑郁症患者中 FKBP51 mRNA 和蛋白质的表达水平常常显著升高，抗抑郁药物可以通过减少 FKBP51 的表达来起到一定的治疗作用。因此，FKBP51 可以被认为是产生精神疾病风险的生物标记物。FKBP51 可以通过与 HSP90/HSP70 形成复合物来调节糖皮质激素受体和 HPA 轴活性，HPA 亢进与抑郁症的发生紧密联系。FKBP51 基因的变异与令人容易感到情绪低落的环境（例如虐待、忽视、创伤等）有关，在这些环境中，FKBP51 突变导致精神健康问题，包括焦虑、抑郁症和创伤后应激障碍。在患有早期创伤后应激障碍的人中，FKBP51 存在变异，这些人很容易出现 LPS 诱导的皮质醇释放增加。然后，大量的 GWAS 调查支持了 FKBP51 的这种作用机制，并确定了创伤后应激障碍和抑郁症风险位点。FKBP51 基因中的 SNP 位点 rs1360780 和 rs3800373 已经被证实跟忧郁症和自杀事件紧密相关。

结论 虽然 HSP90 及其共伴侣 FKBP51 在抑郁症方面还需要更多的研究，但已有的证据表明抑郁症患者或动物体内存在 HSP90 及 FKBP51 的升高，且 FKBP51 基因多态性与抑郁症相关。因此，研究 HSP90 及 FKBP51 如何在抑郁症的治疗中发挥作用具有重要意义。

关键字：抑郁症；FKBP51；HSP90；HPA 轴

基于互联网和移动设备的干预在精神疾病作用的研究进展

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目的 精神卫生是影响我国经济社会发展的重大的公共卫生问题。目前对于精神疾病的心理干预措施仍依赖于专业人员面对面进行，存在普及率低、成本高等缺点。而自新冠疫情爆发以来，受到疫情的影响，传统的面对面心理干预措施严重受限，因此，海外开发了基于互联网和移动设备的心理干预措施，旨在解决传统面对面心理干预措施所面临的问题，并已进行大量的研究验证了其有效性。在疫情后时代引入基于互联网和移动设备的心理干预措施，有望解决传统面对面心理干预措施的种种限制，并提供同等甚至优于其的疗效。本文对基于互联网和移动设备的心理干预措施的研究进展及其面临的问题进行综述。

方法 从 Pubmed、Cochrane Library 等数据库中检索基于互联网和移动设备的干预措施（Internet-and-Mobile-Based Interventions, IMIs）的相关研究，包括综述、系统综述、Meta 分析及各种现况研究、前瞻性研究等。

结果 大部分研究指出，IMIs 与传统的面对面心理干预措施有着相当的有效性，并相比传统的面对面心理干预措施有着更好接受性和更高的依从性。

结论 IMIs 可借助其优势来解决传统面对面心理干预所面临的问题，面向社区提供心理干预的覆盖，进而缓解我国精神疾病的疾病负担，促进我国精神卫生事业的发展，推动实现健康中国建设。同时，我国近年来互联网发展迅速，互联网和移动设备的普及率迅速上升，借鉴互联网+医疗模式，推动 IMIs 搭上我国互联网发展的快车，IMIs 有可能改变我国现有的心理干预模式，在我国可大有所为。

关键字：互联网和移动设备, 心理干预

孕期运动对产后抑郁症预防作用研究进展

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目的 产后抑郁症是抑郁症中常见的一种类型，指分娩后 4 周内出现重度抑郁发作。产后抑郁症损害产妇心理、生理、社会功能等，该疾病诊断及治疗因多方面因素有较大困难，故产后抑郁的预防环节应得到重视。预防措施之一—运动，受到广泛关注，但预防机制仍在探索过程中。这篇文章将回顾运动对产后抑郁的作用，以及运动对产后抑郁预防作用的潜在生物学机制进行汇总。

方法 汇总过去运动对产后抑郁预防作用的潜在生物学机制研究。

结果 相比于抗抑郁药物及心理咨询，运动对于产后抑郁症的预防更安全有效，接受度更高，更容易向大众普及。本综述将运动对产后抑郁症的预防作用汇总，并提出该作用可能的生物学机制。未来产后抑郁症的预防研究可以更加着眼于不同运动方式及持续时间等对产妇的代谢及神经元功能影响，以更有效明确运动对产后抑郁症的预防作用。

结论 目前产后抑郁症的预防措施包括：使用药物及激素、心理咨询预防等，抗抑郁药可能会通过母乳喂养影响婴儿的健康，孕妇干预依从性不佳影响预防效果，而心理咨询预防费用昂贵、耗时，需要大量的精力，孕妇认可接受度较低，因此，需要探索发现更有效的产后抑郁症预防策略以改善治疗效果，减少发病率或提高治愈率，产后抑郁症的预防作用还需进一步探究。

关键字：产后抑郁症；运动；预防；机制

基于网络药理学和分子对接技术探讨二陈汤治疗第二代抗精神病药物诱发的代谢综合征作用机制

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目的 二陈汤已被临床证实对于非典型抗精神病药物引起的代谢综合征有较好的治疗效果。然而，二陈汤的主要活性成分和潜在的作用机制目前尚不清楚。本研究旨在通过网络药理学和分子对接技术，来系统全面地反映二陈汤治疗抗精神病药物引起的代谢综合征的药理机制。

方法 通过中药系统药理学数据库与分析平台（TCMSP）数据库获取二陈汤的有效成分及靶点，从 Genecards 数据库中获取氯氮平及奥氮平的作用靶点，DisGeNET 数据库中获取代谢综合征疾病靶点。将二陈汤有效成分和代谢综合征的交集靶点构建 PPI 网络，预测蛋白质间相互作用。随后获取二陈汤、氯氮平及奥氮平和代谢综合征的共同靶点，进行 GO 功能分析与 KEGG 通路富集分析 并构建二陈汤有效成分-核心靶点可视化网络。最后利用分子对接技术预测二陈汤活性成分与抗精神病药物及代谢综合征相关靶标的结合活性。

结果 网络药理学分析结果显示，经筛选获取 129 个二陈汤活性成分和 221 个潜在靶点，1027 个代谢综合征相关靶点，361 个氯氮平与奥氮平的作用靶点。然后我们通过韦恩分析获取 59 个二陈汤与代谢综合征的交集靶点，构建 PPI 网络。但其尚不能说明二陈汤改善抗精神病药物诱发的代谢紊乱的潜在靶点与机制。于是接着将二陈汤、氯氮平及奥氮平和代谢综合征的 23 个共同靶点分别行 GO 功能分析及 KEGG 通路分析和构建可视化网络，结果揭示了二陈汤治疗药源性代谢综合征的潜在信号通路，特别是 AMPK 信号通路；可视化网络反映了 ADRA1A、AHR、NR3C1、SLC6A4 可能是其核心靶点。最后，分子对接结果显示，二陈汤活性成分柚皮素、黄岑素和槲皮素与 NR3C1、SLC6A4 靶点均具有良好的结合活性。

结论 本研究发现二陈汤主要通过调节 AMPK 通路发挥治疗作用，并与 NR3C1、SLC6A4 等靶点密切相关，这对进一步为由抗精神病药物引起的代谢综合征的治疗提供新的证据和研究思路。

关键字：二陈汤，网络药理学，分子对接，代谢综合征，第二代抗精神病药

The Association between Childhood Trauma and Internet Gaming Disorder: A Moderated Mediation Analysis of Depression As A Mediator and Psychological Resilience As A Moderator

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Background : Internet Gaming Disorder (IGD) was a severe mental disorder, and childhood trauma was the critical risk factor for IGD. It was important to explore the social psychological mechanism that how childhood trauma led to IGD, and to find the potential protective factors. As such, this study examined the relationship between childhood trauma and IGD. Moreover, our study also tested psychological resilience - a specific type of positive parenting understudied in the literature of adolescent gaming disorder as a moderator, and depression as a mediator.

Methods A total of 8579 Chinese students in Hunan province provided socio-demographic information, childhood trauma, depression, psychological resilience, and IGD were evaluated by Childhood trauma questionnaire short form (CTQSF), Patient health questionnaire-9 (PHQ-9), Connor-Davidson resilience scale-10 (CD-RISC10), Chinese version of the Internet Gaming Disorder Scale-Short Form (IGDS9-SF). The effect of childhood trauma on IGD mediated by depression and moderated by psychological resilience was analyzed by using PROCESS.

Results Our study revealed that depression had partial mediating effects of IGD induced by childhood trauma ((B = 0.2324, t = 18.3941, p < 0.001)). Psychological resilience could moderate the association between childhood trauma and depression (B = -0.0025, SE = 0.0005, P < 0.001). Meanwhile, psychological resilience might buffer against the association between childhood trauma and IGD (B = ? 0.017, SE = 0.0006, P ＜ 0.0001).

Conclusions This study helped to elucidate the mechanism that underlined the pathway between childhood trauma and IGD scores in Chinese students and also emphasized the importance of psychological resilience in the relationship between childhood trauma, depression, and IGD scores. What's more, these findings offered an indication that enhancing psychological resilience decreases the likelihood of online gamers who experience higher severed childhood trauma from spending more hours per week gaming was recommended.

关键字：childhood trauma, depression, psychological resilience, IGD

从脑肠轴的角度探讨针刺治疗抑郁症的机制

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目的 抑郁症是一种危害人们健康的全球性精神类疾病，因其具有发病率高、自杀率高等特点。随着对该疾病了解的不断深入，治疗方式逐渐多样化。针刺治疗是我国传统医疗技术，广泛的实践和研究均证明了针刺治疗对抑郁症的治疗有效，有成本低、见效时间相对稳定、残留症状少、患者依从性好的特点。目前，针刺在抑郁症的治疗方面有着良好的临床疗效，但其具体机制有待进一步研究。本综述旨在总结针刺治疗抑郁症机制的相关研究，从肠道菌群和脑肠轴系统的角度，归纳探讨针刺治疗抑郁症的可能的机制，为临床应用针刺治疗抑郁症提供更多的理论支持。

方法 本文通过中国知网(CNKI)和 PubMed 外文数据库，对相关文献进行检索并综合分析，收集并整理了有关于针刺治疗对脑-肠轴影响的研究。

结果 针刺可以调节胃肠运动、肠道菌群及脑肠肽等基础物质，并通过脑-肠轴来实现双向通路来调节和相互应答，从而对抑郁症产生影响。一、脑肠肽是一种肽类激素，可以通过脑肠轴与中枢神经系统进行连接，而针刺可以调整脑肠肽的含量和平衡，从而治疗抑郁症。二、肠道菌群在脑肠轴的通路中也发挥着重要的作用，通过神经和免疫途径与中枢神经系统进行交流。研究发现，针刺可以提高抑郁大鼠肠道菌群的多样性指数和平均变化率。三、针刺对改善胃肠道症状的有效性比匹维溴铵更高，对于轻中度抑郁伴胃肠道症状的治疗也具有积极的影响。也有文章指出，应激的脑变化可能导致由迷走神经传出神经介导的肠道通透性增高和炎症。迷走神经可双向传递信息，是连接大脑和肠道的关键路径，刺激迷走神经具有抗炎作用，并被证明用于抑郁症治疗。迷走神经刺激治疗抑郁症，但低迷走神经张力可能是抑郁症发病的原因之一。

结论 基于脑-肠轴理论，针刺可以通过调节胃肠运动和肠道基础物质，与抑郁症相互联系，并调整机体的平衡来治疗抑郁症。此外，迷走神经的双向联系也可为该理论提供一定依据。这些机制都为针刺治疗抑郁症的临床应用提供实践依据。然而，目前对于针刺治疗抑郁症的机制还不是很明确，仍需更多的研究来加以证明。

关键字：针灸治疗、脑肠轴、抑郁症

网络游戏障碍亚型及症状改善的脑网络特征

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目的 探究网络游戏障碍是否存在不同的亚型，且不同亚型是否有各自的行为和脑网络特征。此外，进一步探究是否存在一些脑网络特征可以有效预测追踪过程中和心理干预后的网络游戏障碍亚型症状改善。

方法 本研究基于两个独立的数据集，包括量表、静息态 fMRI 数据，结合自然追踪和综合认知行为干预，采用 k-means 聚类、支持向量机分类和预测等方

法，从多个角度考察了网络游戏障碍不同亚型维持和症状改善的行为表现和脑网络特征。

结果 研究基于静息态功能连接识别并定义了两组网络游戏障碍亚型，对两个亚型分别和对照组进行分类，均能够取得较好的分类效果并在基于不同脑区的模板和独立数据集上得到重复验证。亚型 1（“渴求相关亚型”）以男性为主，对游戏的渴求分数显著高于对照组，脑网络上表现出在奖赏、执行控制和负性情绪调节网络间和网络内普遍功能连接增强的模式。亚型 2（“多症状亚型”）以女性为主，对游戏的渴求、行为抑制系统、行为激活系统和负性情绪调节分数显著高于对照组，脑网络上表现出在奖赏、执行控制和负性情绪调节网络间和网络内普遍功能连接减弱的模式。

结论 通过静息态功能连接我们发现了两个网络游戏障碍亚型，这两个亚型是可重复验证的，并在静息态 fMRI 和症状改善上有不同的脑网络特征。将网络游戏障碍群体分为以不同脑网络模式为特征的亚型可能有助于网络游戏障碍的机制研究、诊断细化以及干预治疗的开发，具有重要的理论意义和实践价值。

关键字：网络游戏障碍，亚型，脑网络，症状改善

“通阳醒神”针法干预青年轻中度抑郁患者疗效及基于 HPA 轴神经生物学机制研究

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目的 通过与非穴位针刺对比治疗青年轻中度抑郁障碍患者的临床疗效，评价“通阳醒神”针法的有效性、安全性进行探索，进一步总结“通阳醒神”针法对青年抑郁障碍的神经生物学机制研究，为后续关于抑郁症障碍伴发各种冲动行为状况下的针灸治疗、神经生理学功能的探究提供一定的研究基础。

方法 本研究采用对照研究，募集 18-33 岁符合入组标准的青年轻中度抑郁患者，随机分为观察组和对照组，在西药治疗基础上，观察组予以“通阳醒神”针刺，对照组予以非穴位针刺，通过评估治疗前后及治疗后 3 个月的中医证候积分量表、汉密尔顿焦虑(HAMA)、汉密尔顿抑郁量表(HAMD-17)自我伤害问卷及 Beck 自杀意念量表评估临床症状；使用社会支持评定量表(SSS)、生活事件量表(LES)、整体疼痛评估量表(GPS)评估社会心理因素；测定早晨基础血浆 CRH 和 ACTH 和早晨基础血清皮质醇的浓度来评估下丘脑-垂体-肾上腺（HPA）轴的活性。

结果 1.治疗前对两组患者的基本资料进行组间比较，经检验，两组患者的基本资料比较差异无统计学意义（P>0.05），可进行试验后比较。 2.治疗后两组患者治疗均有效，观察组优于对照组（P<0.05），总差异有统计学意义。 3.两组患者治疗后及 3 个月后随访时中医证候积分量表、HAMD、HAMD-17 评分、Beck 自杀意念量表与治疗前比均明显降低（P<0.05），且治疗后及随访时评分组间比较差异有统计学意义（P<0.05）。4.两组患者治疗后及 3 个月后随访时 SSS、LES、GPS 评分与治疗前比均明显降低（P<0.05），且治疗后及随访时评分组间比较差异有统计学意义（P<0.05）。 5.两组患者治疗前后 CRH 和 ACTH 和早晨基础血清皮质醇值均有所降低（P<0.05），且治疗后组间比较差异有统计学意义（P<0.05）。

结论 “通阳醒神”针法能有效改善青年轻中度抑郁障碍患者的临床症状；“通阳醒神”针法对青年轻中度抑郁障碍患者的症状改善是与 HPA 轴功能调节有关。

关键字：“通阳醒神”针法，青年轻中度抑郁，临床疗效，HPA 轴功能调节

精神分裂症的中医体质探究及其与肾脏酸化功能的相关性分析

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目的 目的 探讨中医体质与精神分裂症及肾脏酸化功能的相关性。

方法 选择 2017 年 9 月至 2019 年 4 月本院诊治的 40 例精神分裂症患者为患病组，同时选择 40 例健康人群为健康对照组，对照组与患病组性别、年龄大致配对。对两组研究对象进行一般情况、中医体质辨识、阳性和阴性症状量表（PANSS）、肾脏酸化功能指标来综合评估，采用 Logistic 回归分析中医体质、肾脏酸化功能与精神分裂症的相关性。

结果 患病组中医证型分布以痰湿质为主，对照组以平和质为主，两组体质分类差异有统计学意义(P＜0．001)。与健康对照组相比，精神分裂症患者的尿液 pH 值更高，尿 HCO3-、TA、NAE 更低（P＜0.001）。不同体质类型间 PANSS 评分比较差异无统计学意义（P＞0.05）。二元 Logistic 分析结果显示，以平和质作为参照，瘀血质、痰湿质、湿热质与精神分裂症的患病相关（P＜0.05），其中以湿热质最高（OR=0.143,95%CI=0.029-0.708），而特禀质、阳虚质、气虚质、气郁质、阴虚质与偏执型精神分裂症则无显著性相关性(P＞0．05)。

结论 精神分裂症患者的中医体质分布以痰湿质、湿热质、瘀血质为主要体质类型，以上体质与该病的发病有明显的相关性。此外，精神分裂症患者肾脏酸化水平均低于对照组，提示患病组存在酸潴留和肾脏酸化减少，酸潴留、肾脏酸化减少可能是精神分裂症发病的早期环节。

关键字：中医体质；精神分裂症；肾脏酸化功能；氧化应激

在线系统式执行技能训练对 ADHD 儿童疗效随机对照研究

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目的 我国儿童注意缺陷多动障碍(Attention Deficit Hyperactivity Disorder，ADHD)发病率高达 6.26%。而地区间医疗资源的不平衡，儿童精神科专业医务工作者的缺乏使本高度可治的疾病，常往对个人和社会造成不良影响的方向发展。远程治疗（telemedicine），作为一种现代医学与计算机通讯技术有机结合的新型医疗服务模式，以其便捷、易获取的属性，已成为助力 ADHD 的综合治疗，改善 ADHD 诊治的新方式。研究显示在线视频会议、游戏远程治疗、线上家长培训、VR 虚拟课堂筛查、电脑训练及电话教练等对 ADHD 儿童和青少年的注意力不集中、多动/冲动、对立行为以及认知功能均有显著改善并且效果与面诊相当。系统式执行技能训练结合远程治疗，有望提高人们对更便捷、高质量的医疗服务的需求，但其有效性仍待验证。

方法 随机将门诊符合美国《精神疾病诊断及统计手册》第五版 ADHD 诊断，未接受药物治疗或药物治疗剂量稳定 6 周以上，7-12 岁儿童 90 名，按 1：1：1 比例分配进行为期 5 周在线系统式执行技能训练组、在线家长行为治疗组及临床常规治疗组，治疗起始、结束对临床疗效进行评估。评估内容包括 ADHD 核心症状、执行功能、家庭功能量表。

结果 单因素方差分析显示，ADHD 核心症状父母填中，注意缺陷分值(F=7.148, P=0.001)，多动/冲动分值（F=5.575, P =0.005），多动\冲动条目(F=1.384, P =0.256)，在时间和组间存在显著的交互作用。BRIEF 量表中，抑制(F =1.384, P=0.256)，转换(F =2.212, P =0.116)，启动(F =2.305, P=0.106)，工作记忆(F =5.469, P=0.006)，元认知(F =3.302, P =0.042)在时间和组间存在显著的交互作用。家庭功能量表父母填中亲密度(F =3.40, P=0.038)，矛盾性(F =3.29., P=0.042)，情感反应(F =2.79, P=0.067) 在时间和组间存在显著的交互作用。

结论 本研究中，远程在线系统式执行技能训练为改善 ADHD 儿童的核心症状症状、执行功能、家庭功能提供了积极的证据。

关键字：ADHD；在线；系统式执行技能训练；疗效

社会心理服务研究协作组

四省市部分医护人员创伤后应激障碍患病情况

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目的 了解四省市医护人员心理健康状态，尤其是创伤后应激障碍的患病情况及其影响因素

方法 采取滚雪球方式，在北京市、辽宁省、陕西省和湖北省由医疗机构组织相关医护人员使用抑郁自评问卷（PHQ9）、焦虑自评问卷（GAD7）、失眠严重指数问卷（ISI）、创伤后应激障碍筛查问卷（PCL）和职业倦怠问卷等问卷，通过问卷星采取自愿填写的形式进行了调查。

结果 共有 2387 名医护人员完成了调查。其中女性 85.17%；已婚 73.06%；护士 66.65%，医师 20.44%；职称中中级的人最多 39.17%；三级医疗机构 88.27%，二级医疗机构 9.55%；其中所处科室：呼吸科占 12.36%；急诊科 6.37%，重症科 7.58%。 以 PHQ9≥10 分作为界值分，627 名（26.5%）可能存在抑郁症状；以 GAD7≥10 分作为界值分，384 名（16.3%）可能存在焦虑症状；以 ISI7≥7 分作为界值分，1257 名（53.2%）可能存在失眠症状。 44.49%的人在工作中亲自参加过一些重大事件的救援工作。有 770 名医护人员 2022 年年底在医院的急诊科或重症科或呼吸科工作。在所有参加过救援或在呼吸急诊科工作的 1208 人中 79.14%的人是医疗救护人员，在事件中扮演了重要的角色。超过 90%的人表示自己受到了事件发生后的身体和心理影响，其中 18.97%的人表示受到了中度影响，12.02%的人表示受到了重度影响。根据 PCL 问卷筛查结果显示在 1208 名救援或急诊重症科工作的人群中有 14.5%存在着 PTSD 三联征症状（回避 3 条，再体验 1 条，警觉性增高 2 条）。Logistic 回归显示失眠、抑郁、焦虑、男性和自觉身体状况差是影响 PTSD 发生的风险因素。

结论 参与救援或以急症重症为主的科室的医务人员发生创伤后应激障碍的比例相对较高。建议给予参与救援或在特定岗位工作的医护人员上岗前、上岗时和上岗后定期给予心理疏导，以期减少发生创伤后应激障碍的发生。

关键字：医护人员；创伤后应激障碍；发生率

A Longitudinal Study of Burnout, Sleep Quality, and Affective Symptoms Among Chinese Psychiatric Healthcare Workers During The COVID-19 Pandemic

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Objective To examine trends in burnout, sleep quality and affective symptoms, and their relationships in a longitudinal study of healthcare workers (HCWs) during

the COVID-19 pandemic.

Methods Three online surveys were distributed among HCWs in a Chinese psychiatric hospital: T2 (February 16-20, 2021), T3 (May 10-14, 2022), and T4 (December 20-24, 2022). The T4 survey was conducted after a major outbreak of the epidemic. Burnout, depression, anxiety, sleep quality, workplace factors and individual resources were measured via self-report questionnaires. We conducted the structural equation model (SEM) to investigate the mediating role of burnout in predicting affective symptoms and sleep quality.

Results 96, 124 and 270 HCWs were enrolled at T2, T3, and T4, respectively. In line with the epidemic trends, the level of perceived COVID-19 related risks increased significantly at T4, while the feeling of health and safety at work decreased significantly. At T4, the percentages of participants reported poor or very poor sleep quality was 30.4% (82/270), while 18.9% (51/270) and 9.3% (25/270) of them reported with clinically significant levels of depression and anxiety symptoms, respectively. In addition, 58.9% and 29.6% of participants reported high levels of stress and burnout, respectively. According to the SEM, individual resources and workplace factors mainly had an indirect effect in predicting depression and anxiety via burnout. However, neither burnout nor stress was a mediator or predictor of sleep quality. Instead, individual resources, positive workplace factors, and younger age had a direct effect in predicting good sleep quality.

Conclusion Levels of burnout and stress appeared to play different roles in predicting sleep quality and affective symptoms. Our findings highlight the importance of improving modifiable workplace factors, such as support at work, and strengthening individual resources to reduce burnout and promote the health of HCWs in the face of a prolonged pandemic. Future studies should further explore the relationship between job demands, resources, burnout, and sleep quality, and compare the well-being of HCWs from different specialties with the longitudinal data.

关键字：anxiety; burnout; depression; healthcare workers; sleep quality; workplace factor

赣南地区居民焦虑、抑郁情绪现状调查及 PM+干预研究

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目的 通过对赣南地区居民精神卫生现状的调查，了解赣南地区 18~60 岁以上人群焦虑抑郁共病的患病率和人群分布特点，分析焦虑抑郁共病的危险因素，并探讨问题管理家（PM+）对赣南地区居民焦虑抑郁共病的干预效果。

方法 2022 年 6 月至 12 月采取多阶段分层整群随机抽样的方法。第一阶段分层，赣南地区 18 个县市抽取 2 个县市，每个县市随机抽 2 个街道或乡镇，每个街道或乡镇各随机抽取 2 个社区或村，随后在每个社区或村随机抽取 30 人，共计 2160 人。通过网络问卷调查的形式了解赣南地区 18~60 岁以上人群焦虑抑郁共病的患病率和人群分布特点，分析焦虑抑郁共病的危险因素，并探讨 PM+对赣南地区居民焦虑抑郁共病的干预效果。

结果 在 2160 名被调查者中，共有 47 例患有焦虑抑郁共病，焦虑抑郁共病的患者在一般居民中的总患病率为 2.18%。将存在焦虑抑郁共病患者列为患病组（n=47），将不存在焦虑抑郁共病列为未患病组（n=2113）。单因素分析结果显示，焦虑抑郁共病患病与性别、年龄、婚姻状况、家庭月平均收入、吸烟史、居住地无关（P>0.05）。而与教育水平、职业、饮酒史有关（P<0.05）。多因素 Logistic 回归分析，结果显示，教育水平为小学及以下、从业状态为失业无业、有饮酒史是焦虑抑郁共病患病的危险因素（P<0.05）。干预后，对照组、研究组的 SAS、SDS、PSQI 评分均下降，且研究组低于对照组（P<0.05）。

结论 焦虑抑郁共病在赣南地区居民人群中的总体患病率为 2.18%，教育水平为小学及以下、从业状态为失业无业、有饮酒史是焦虑抑郁共病患病的危险因素，应重点关注此类群体。此外，PM+干预方法可有效改善赣南地区居民人群的焦虑、抑郁情绪，具有较好的临床应用价值。

关键字：赣南地区；居民；焦虑；抑郁；问题管理家；干预效果

兰州市大学生非自杀性自伤现状及其危险因素分析

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目的 非自杀性自伤（non-suicidal self-injury,NSSI）是指个体故意对自己身体进行损害，但并没有明确的自杀意图。这种行为通常是出于情绪困扰、压力、焦虑、抑郁或其他心理健康问题的表现。非自杀性自伤在一些中国大学生中成为一个存在的问题，尤其是面临学业压力、情感困扰、人际关系问题或其他心理压力的情况下。大学生阶段通常是一个过渡期，伴随着各种挑战和调整，可能对他们的心理健康产生影响。为了提高对非自杀性自伤问题的认识，并为学校和家庭提供更全面的支持和预防措施，本研究在兰州市部分高校对大学生的非自杀性自伤行为及其危险因素进行了调查分析。

方法 问卷使用中国青少年健康相关/危险行为调查问卷（大学生版）进行调查。调查内容包括学生基本情况，伤害相关行为，吸烟行为、饮酒行为、性行为等其他健康相关行为以及 NSSI 行为。将在过去 12 个月内用刀片割伤、烟头烫伤、用头撞墙、挤压、深呼吸或窒息等形式伤害自己 1 次及以上判定为 NSSI 行为。样本采用分层整群随机抽样的方法，在高校内问卷涵盖了 2856 名大学生。有效问卷共收回 2807 份，问卷有效回收率为 98.28%。其中，男生 1226 名，女生 1581 名，参与学生的平均年龄为（20.23±1.47）岁。数据采

用了 EpiData 3.0 软件进行录入，并使用 SPSS 25.0 软件进行统计分析。

结果 在调查过去 12 个月的时段内，有 247 名调查对象报告发生了 NSSI 行为，报告率为 8.78%。女生的报告率为 11.6%，显著高于男生的 6.2%，NSSI 首次发生的年龄大约在 10~24 岁之间，大学生是高发人群，女生更倾向于积极发泄情绪和解决问题，而男生更容易通过自伤行为如刀割、烫伤或撞墙来摆脱消极情绪。主要影响因素包括父母亲职业、是否受到校园霸凌、是否有过自杀意念、是否有过离家出走、民族及宗教信仰，饮酒、人际关系、负性生活事件等等。

结论 由于复杂和社会环境以及沉重的现实压力加之三年疫情的叠加影响，大学生对生活环境、学习方式和人际关系的适应压力较大，很容易自责、产生幻想和回避问题，而毕业生的就业压力往往也传导到各个年级的学生，由于缺少合理的压力排解方式，进而增加冲动行为和不理性行为的发生，最终可能发展为 NSSI 行为。提示家长、学校、社会应实时关切大学生心理健康，更多的在学习和生活给予更多关心和帮助，从容应对负性事件，减少 NSSI 行为。

关键字：大学生 NSSI

不同种类新精神活性物质依赖性的多模型判定技术研究

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目的 通过动物（大、小鼠）的复杂行为学模型（条件性位置偏爱或厌恶、自身给药、急慢性给药等模型）来评估不同种类新精神活性物质的依赖性，提供与现有已经列管的毒品相比较的依赖性折算数据，为合成大麻素类毒品相关案件的量刑提供依据

方法 通过条件性位置偏爱/厌恶模型、颅内自我刺激模型、自我给药模型、一般行为学模型、急慢性给药模型和催促戒断模型等来对动物在成瘾后的复杂行为学进行分析测试，建立了稳定成熟的可用于不同种类新精神活性物质滥用风险评估的动物模型；通过神经化学手段来确定其在动物脑内具体激活的脑区和神经元，进而通过激活神经元的计数来进行定量分析；通过脑电生理学来观察特定脑区激活的神经元之间的突触强度和成熟度的变化，同时观察神经元内外阳离子双向流动的差异。

结果 经过研究发现，SDB 和 PICA 都没有形成条件性位置偏爱，但是在随后的电生理膜片钳模型中，我们发现兴奋性传递方面，EPSC，两种药物与阳性对照可卡因的作用一致，都会导致 EPSC 的增强。抑制性传递方面，IPSC，PICA 和 cocaine 作用相反，SDB 没有作用。

结论 通过传统的成瘾行为学模型来评估合成大麻素类新精神活性物质的依赖性可能存在一些问题，可以通过进一步的电生理膜片钳来进行依赖性的辨别和定量分析研究。

关键字：新精神活性物质；依赖性；模型

NMDA 受体 2B 亚基酪氨 酸残基的磷酸化动态调 节介导氯胺酮的快速抗 抑郁作用

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Objective 抑郁症是一种严重的精神障碍类疾病。抑郁症患者的正常生活会受到巨大的困扰，严重的抑郁症患者会有自残、自杀行为。亚麻醉剂量的氯胺酮有快速且持久的抗抑郁作用，且对重度抑郁症患者疗效好。氯胺酮作为一种非选择性 NMDA 受体拮抗剂，其快速抗抑郁作用依赖于含 2B 亚基的 NMDA 受体（NR2B）功能来实现。研究显示 NR2B 的功能受到其在突触内外的位置分布影响，并依赖于酪氨酸残基的磷酸化调节。然而，氯胺酮抗抑郁作用的快速启动是否通过对突触内外 NR2B 酪氨酸残基磷酸化的影响而实现尚不清楚。

Methods 采用成年、雄性、220-240g 的 Sprague-Dawly 大鼠，经过 28 天慢性不可预见性应激诱导其产生抑郁样行为。采用糖水偏爱测试、高架十字迷宫测试、旷场测试和强迫游泳测试评价大鼠抑郁样行为和焦虑样行为。通过腺相关病毒条件性敲低 PTPN5（酪氨酸磷酸酶 STEP 61 的编码基因）在内侧前额叶皮层（mPFC）中的表达，观察 NR2B 的酪氨酸磷酸化失衡对大鼠行为的影响。采用亚细胞分离技术，提取大鼠 mPFC 中突触外膜（NPSD）和突触膜(PSD)成分，并利用 Western-blot 的实验方法检测与 NR2B 酪氨酸磷酸化相关的分子在 NPSD 和 PSD 上的表达，以验证突触内外酪氨酸磷酸化的改变是否参与氯胺酮的快速抗抑郁机制。

Results 结果发现，慢性应激导致突触外膜 NR2B、1472 位点酪氨酸残基磷酸化的 NR2B（pTyr1472NR2B）表达升高和纹状体富集的酪氨酸磷酸酶（STEP 61）表达降低；突触内膜 1336 位点酪氨酸残基磷酸化的 NR2B (pTyr1336NR2B)表达增加和 STEP 61 表达升高。氯胺酮可快速逆转慢性应激所致突触外膜 NR2B 和其 1472 位点的磷酸化（pTyr1472NR2B）表达增加，并升高 STEP 61 蛋白的表达。在突触内膜，氯胺酮可快速逆转慢性应激所致的 1336 位点 NR2B 磷酸化（pTyr1336NR2B）表达增加，1472 位点 NR2B 磷酸化（pTyr1472NR2B）表达降低，并逆转 STEP 61 的升高。条件性 mPFC 敲降 STEP 61 表达导致大鼠抑郁样和焦虑样行为发生，突触外 NR2B 和 pTyr1472NR2B 的表达显著增加，而不影响突触内 NR2B 及其磷酸化表达。氯胺酮则可快速逆转由于 STEP 61 表达降低所致的大鼠抑郁样行为，降低突触外 NR2B 和 pTyr1472NR2B 的表达，并增加突触内 pTyr1472NR2B 的表达。

Conclusion 综上，氯胺酮通过调节突触内、外 NR2B 酪氨酸磷酸化的动态平衡，增加突触内、降低突触外 NR2B 的 1472 位点酪氨酸残基磷酸化启动快速抗

抑郁作用。

关键字：抑郁症，氯胺酮，快速抗抑郁，NR2B，酪氨酸磷酸化

非条件性刺激唤起联合经颅直流电刺激改善尼古丁依赖者的情绪状态

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目的 探究非条件性刺激唤起（unconditioned stimulus retrieval，USR）联合经颅直流电刺激（transcranial direct current stimulation，tDCS）干预背外侧前额叶皮层对尼古丁成瘾者的抑郁、焦虑和冲动抑制能力的干预效果。

方法 本研究共完成60名尼古丁成瘾者的数据采集，随机分为1）无记忆唤起（no retrival, NoR）+tDCS干预组（NoR+tDCS），2）非条件性刺激唤起+伪刺激组（USR+sham）和3）非条件性刺激唤起+tDCS干预组（USR+tDCS），每组20人。在基线（第一天）时采集所有受试者的人口学信息和情绪指标得分；在干预（第二天）阶段，根据分组，NoR+tDCS组直接接受tDCS干预，USR+tDCS组和USR+sham组经过非条件性刺激（抽1/6根香烟）唤起尼古丁成瘾记忆后，分别进行tDCS真刺激和伪刺激；随访（干预后一周）进行随访，采集受试者的情绪状态指标得分。

结果 与NoR+tDCS组和USR+sham组相比，USR+tDCS组在干预后一周的抑郁自评量表（self-rating depression scale，SDS）得分（$F(2, 57) = 7.753$，$p < 0.05$）、焦虑自评量表（self-rating anxiety scale，SAS）得分（$F(2, 57) = 13.81$，$p < 0.001$）和巴瑞特冲动量表（Barratt impulsiveness scale，BIS）自评得分（$F(2, 57) = 21.35$，$p < 0.001$）均较基线显著下降。

结论 抑郁、焦虑、难以集中注意力和控制烟草使用冲动的能力降低是尼古丁成瘾者停止或减少使用烟草后出现的主要生理特征，USR联合tDCS对尼古丁成瘾记忆再巩固进行靶向破坏，可以有效降低USR+tDCS组干预后一周的SDS、SAS和BIS得分，即在再巩固时间窗内进行20分钟的tDCS干预，会影响到dlPFC在记忆再巩固过程和成瘾奖赏环路中的作用，破坏尼古丁成瘾记忆再巩固，进而进行戒烟干预。本研究中USR+tDCS组在干预后一周SDS、SAS和BIS量表得分等显著降低，说明USR联合tDCS作为一种潜在的戒烟干预方式，显著影响了尼古丁成瘾者的情绪状态，提高了受试者的冲动控制能力。

关键字：尼古丁依赖；经颅直流电刺激；抑郁；焦虑；冲动控制

不同首发年龄抑郁障碍患者全基因组甲基化差异分析

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目的 抑郁障碍发病年龄高峰大约为30岁，不同年龄段发病的患者在病因、临床特征和疾病预后方面有不同的表现。早发型抑郁障碍患者常表现出更严重的临床症状、更频繁的发作次数、更高的复发率和治疗难度。目前对此现象的生物学机制不明。本研究旨在从表观遗传学的角度寻找这一现象的可能生物学机制。

方法 2021年3月至2022年12月在山东省筛选入组抑郁障碍患者共计80例，按照首次发病年龄44岁作为临界值分组，早发者48人，晚发者29人。将性别、年龄纳为协变量。采用Illumina Infinium Methylation EPIC BeadChip芯片（850K芯片）进行全基因组DNA甲基化检测,筛选差异DNA甲基化位点并对其进行生物学信息分析。

结果 采用Benjamini & Hochberg方法对P值进行多重检验纠正，最终筛选校正后$P<0.05$作为显著差异位点的阈值，发现两组相比，未发现差异甲基化位点。经多重检验纠正，两组相比有48个差异甲基化区域。经基因本体（Gene Ontology，GO）功能富集分析显示两组人群在涉及生物学过程的氨基酸跨膜转运（P=0.00011）、神经管闭合（P=0.00012）、钠离子转运（P=0.00340）、弹性纤维组建（P=0.00822）、体节发育特性（P=0.00822）等方面有差异。分子功能方面的氨基酸跨膜转运蛋白活性（P=0.00268）、巯基依赖性泛素水解酶活性（P=0.00939）等有差异。细胞成分方面的树突生长锥（P=0.00839）、HULC复合体（P=0.00839）、静脉曲张（P=0.00839）等有差异。京都基因与基因组百科全书（Kyoto encyclopedia of genes and genomes，KEGG）信号通路富集分析显示两组人群在人T细胞白血病病毒1型感染（P=0.00564）；细胞外基质受体相互作用（P=0.00651）、哮喘（P=0.041724）、丙酸盐代谢（P=0.047554）等信号通路上有差异。

结论 基因位点DNA甲基化的差异对抑郁障碍发病年龄的早晚影响不大，更多的与功能区域的不同甲基化水平有关，可能涉及多个生物学过程、信号通路的相互影响相互制衡。

关键字：抑郁障碍 早发 晚发 全基因组甲基化富集分析

使用明尼苏达多相人格量表评估 481 名跨性别群体的人格心理特征

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目的 探索跨性别群体的人格心理特征偏离情况以及这些特征是否因社会人口学因素不同而有所差异，为制定科学的医疗照护提供依据。

方法 这项横断面研究是2021年1月至2023年

4 月期间在北京某精神专科医院性心理门诊进行，共有 481 人纳入本研究，使用自编一般资料调查表收集人口学信息，采用明尼苏达多相人格量表对人格心理特征进行施测，采用宋维真等人探索的中国普通群体常模作为对照组。

结果 跨性别女性在 MMPI 的 10 个临床因子中的平均分数均高于中国男性常模，且差异显著（p<0.01 或 p<0.001）。其中 Mf 和 D 因子均超出临床临界值（T>60），为整个量表剖面图的最高和次高峰；跨性别男性在 Hy、Pd、Ma 显著高于中国女性常模（p<0.05,p<0.01 或 p<0.001），而在 Mf、Si 因子上显著低于低于全国女性常模分数（p<0.001），所有临床量表并未超出临界分；MMPI 不同因子异常值（T>60）在性别、年龄、学历中的检出率存在明显差异（p<0.05,p<0.01 或 p<0.001）。

结论 跨性别女性可能存在多种心理困扰，需重点关注高中以下（含高中）学历、25 岁以下（含 25）年龄段的跨性别女性人格心理发展状况。

关键字：跨性别群体；明尼苏达多相人格量表；人格心理特征；心理评估

精神科医护人员人生意义感与心理健康的关系

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目的 了解精神科医护人员人生意义感现状及其与心理健康的关系。

方法 本研究于 2022 年 2 月对某三级甲等精神专科医院全体医护人员以“问卷星”的形式进行问卷调查，共调查 420 人。入组标准：临床或辅助科室的医生或者护士、自愿参加者。排除标准：除医护以外的行政管理者或其他岗位工作人员、既往确诊精神疾病、不配合调查者。所有参加问卷调查的医护人员均知情同意。调查对象的个人资料以及身份信息均属保密，不会透露给调查小组以外的成员。使用人生意义量表（RMLQ）、正性负性情绪量表(PANAS)、流调用抑郁自评表(CES-D)、焦虑自评量表(SAS)和生活满意度量表(SWLS)，对某三级甲等精神专科医院 370 名医护人员进行横断面调查，探究其人生意义感现状，比较不同人生意义类型的医护人员的心理健康状况，分析人生意义各维度与心理健康指标的相关性。

结果 精神科医护人员人生意义感量表总分为（49.19±11.74）分。方差分析表明，5 种人生意义类型医护人员的心理健康各指标之间均存在显著差异（P<0.001）。偏相关分析结果显示，在控制寻求意义感后，体验意义感与正性情绪和生活满意度呈正相关(r=0.284~0.484，P 均<0.01)，与负性情绪、抑郁情绪和焦虑情绪呈负相关(r=-0.316~-0.380，P 均<0.01)；在控制体验意义感后，寻求意义感与正性情绪和负性情绪均呈显著正相关(r=0.144~0.187，P 均<0.01)，而与抑郁情绪、焦虑情绪和生活满意度相关性均不显著。

结论 人生意义感与心理健康正性指标存在显著正相关，与心理健康负性指标存在显著负相关，人生意义感与心理健康关系密切，人生意义感越强，个体的心理健康状况越好。进一步偏相关分析结果表明，体验意义感维度与心理健康的关系更为密切，证实了体验意义感高的个体在生活中更容易适应，体验意义感低的个体在生活中比较不容易适应。精神科医护人员人生意义感与心理健康水平关系密切，人生意义感越强，个体的心理健康状况越好。

关键字：人生意义感；空虚感；心理健康；医务人员

Systematic Review and Meta-analysis of Brain Neuroimaging Abnormalities in COVID-19 Patients and Survivors

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Objective Accumulating evidence of neuro-involvement in COVID-19 infection has necessitated pooling findings from electroencephalography (EEG), brain computed tomography (CT), magnetic resonance imaging (MRI), and positron emission tomography (PET) studies that advance our current understanding of the disease and guide clinical management. This study aimed to pool findings of the function and topography of brain abnormalities in COVID-19 patients and survivors through a systematic review and meta-analysis.

Methods In this systematic review and meta-analysis, PubMed, Web of Science, and Scopus databases were searched for original articles published up to April 1, 2022. Studies reported the proportion of brain imaging changes on CT, MRI, and EEG in COVID-19 patients, and survivors were included. Two researchers independently extracted data using standardized formats. The pooled proportions of brain-imaging findings on CT, MRI, and EEG, including hemorrhage, microbleeds, ischemia, stroke, encephalitis, background activity abnormality, periodic or rhythmic activity, and epileptiform discharge were estimated using a random-effects model. This study was conducted according to PRISMA and registered on PROSPERO (CRD42022322501).

Results Sixty-six eligible studies that included 5,643 COVID-19 patients were included in the meta-anal-

ysis. Pooled results from 45 studies, including 4,597 patients, showed that more than two-fifths (43.02%) of patients who underwent CT/MRI had objective brain abnormalities. The most frequently reported abnormalities on CT/MRI were changes in white matter and microbleeds. Twenty-two EEG studies, including 1,073 patients, reported epileptiform discharges in one-fifth (20.94%) cases. The systematic review of long-term brain imaging manifestations in COVID-19 survivors also found common changes in brain microstructure and function.

Conclusion Brain imaging abnormalities in COVID-19 patients during the acute phase and after hospital discharge were complex and varied. These findings provide information to understand the pathological mechanism of neuroimaging and develop precise treatment and intervention strategies for neuropsychiatric symptoms among patients and survivors recovered from COVID-19.

关键字：COVID-19; SARS-CoV-2; CT; MRI; EEG; brain; imaging

抑郁症患者情绪调节障碍的神经影像学机制研究

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目的 抑郁症（Major Depressive Disorder, MDD）是一种临床常见的精神疾病，以显著而持久的心境低落为主要特征。抑郁症的病因和病理机制尚不清楚，情绪加工异常是其最常见和最突出的病理机制之一。个体对负性情绪的偏向和抑制控制缺损被认为是抑郁症发生的高危因素。因此，本研究将采用情绪面孔的 stroop 任务探讨抑郁症患者对不同效价情绪刺激的抑制控制能力变化及其可能的神经影像机制。

方法 招募符合 DSM-IV 诊断标准的抑郁症患者 40 例和健康对照 40 例，采用汉密顿抑郁量表（HAMD-17）进行抑郁症状评估，采用情绪调节问卷和情绪调节困难量表评估个体遭遇负性事件时所采用的情绪调节策略。并使用 3.0T 磁共振采集受试者完成情绪面孔 stroop 任务下的影像数据。

结果 抑郁症患者和健康对照在年龄、性别和受教育年限等一般人口学信息无统计学差异。患者组 HAMD-17 总分为 23.67±4.13。与健康对照组相比，抑郁症患者的情绪调节量表得分显著减低，情绪调节困难量表得分显著增加，提示抑郁症患者存在情绪调节困难现象。核磁下情绪面孔的 stroop 任务结果显示，在高冲突条件下，抑郁症患者的正确率较健康对照显著减低，且双侧额极的激活显著增加；而在低冲突条件下，两组无显著差异。

结论 抑郁症患者存在显著的情绪调节障碍，特别是在高冲突条件下，对情绪反应抑制存在缺损，额极的过度激活可能是抑郁症患者情绪调节障碍的神经基础。

关键字：抑郁症，情绪调节，面孔情绪 stroop，功能磁共振

大型城市社会心理服务团队能力建设模式的创新尝试

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目的 探索人口千万以上的大型城市中，全面建设社会心理服务体系的初级阶段，如何精准高效调用心理学人力资源，建立和完善系统化的高素质心理服务志愿者团队，并不断提升其业务能力和综合素养的工作模式。

方法 经过充分前期调研，对深圳市区心理工作者人力资源进行详实的摸底了解。发现精神科医生、心理治疗师及学校心理教师的数量极少且日常工作繁重，无法承担本职工作之外的社会心理服务重任。而心理咨询师分布广泛，且绝大多数咨询师以自由从业状态为主。掌握以上情况后，我们采取如下措施开展社心服务团队建设。1.公开招募：在深圳市委组织部领导下，交由深圳市精神卫生中心全权负责，以“市安心行动心理工作队”名义，通过微信公众号，面向全社会招募社会心理服务志愿者。因疫情、经济、主管单位权威性、运营单位公信力等因素影响而致心理工作者群体非常踊跃，前后几批招募共计有超过 2000 余人报名。 2.考试选拔：在深圳市精神卫生中心公卫部全程操持下，对报名者先进行集中笔试，考核内容包括健康教育、心理咨询、心理评估、危机干预等理论知识；笔试成绩合格者再行专家组面试，考核内容包括人格特质、沟通技巧、情绪管理、认知观念及特殊经历等。笔试环节通过者仅 40%左右，最终通过面试者仅不到 20%，从源头抓实了志愿者的质量。 3.技能培训：对不同类型的志愿者分别有针对性地设计业务培训课程并实施。其中安心行动倾诉陪伴热线接线员需接受 56 小时，阳光成长停学青少年家庭干预项目志愿者需接受 64 小时，深圳市安心驿站驻点心理师志愿者需接受32 小时的课程学习，并在培训过程中不断评优促进。 4.历练督导：依托深圳市社会心理服务体系中的常态化项目，分批分层次投入志愿者团队，并多次实施有针对性的笔试和面试再选拔，让志愿者最大限度地投入到项目的技术服务过程中去。承担电话心理咨询、个体心理辅导、群体心理教育和科学测量评估等工作任务。并由深圳市精神卫生中心提供技术指导和案例督导。

结果 经过 2 年时间的努力尝试，深圳市安心行动心理工作队现拥有热线接线员 147 人；青少年心理辅导员 82 人；市安心驿站驻点心理师 35 人；当地知名心理专家 23 人，初步形成一定规模并发挥实际作用。。

结论 充分挖掘全社会范围内的心理学人力资源，可能是社会心理服务团队建设的有效途径。

关键字：社会心理服务 心理工作者 专业团队 能力建设

基于新媒体下的正念训练对大学生正念水平及情绪问题的干预作用

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目的 探讨基于新媒体下正念减压训练对新冠病毒肺炎常态化防控期间，医科实习人员的正念水平及情绪心理状况干预效果，为促进实习人员心理健康提供参考依据。

方法 以 144 名实习人员为被试群体，以问卷星为调查载体，采用五因素正念度量表(FFMQ)，知觉压力量表 (CPSS)和 PHQ-9、GAD-7 及 PHQ-15，分别评测并比较正念干预前后实习人员的正念水平、压力大小及情绪状况，并对疫情下实习人员的心理健康状况与其正念水平、知觉压力及疫情相关因素进行逐步回归分析探究其关联。

结果 收集信息来源分析微信端占 86.1%，同时在手机端学习训练正念占 76.4%；正念干预前，被试人员情绪症状的多元线性逐步回归分析显示，性别（χ1）、高风险岗位（χ2）、毕业班与否（χ3）、防护充足与否（χ4）、关注疫情时间（χ5）和正念水平（χ6）进入分方程，干预前后 FFMQ 的总分比较有差异（118.48±9.61&126.32±8.82，P<0.01）；压力水平、PHQ-9、GAD-7 及 PHQ-15 比较也有差异（32.94±6.29&28.61±7.32、16.07±3.34& 10.29±4.19、13.71±4.58&9.69±5.16、15.26±12.6±4.28，P<0.01）。

结论 运用 4 周完成 8 次短程正念认知干预技术，可能通过增强被试正念水平而有效改善被试大学生的焦虑抑郁及躯体化症状。

关键字：正念认知干预，正念水平,焦虑抑郁,躯体化症状

Using Normative Modeling To Assess Pharmacological Treatment Effect on Brain State in Patients with Schizophrenia

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Objective The normative growth charts map child body measurement as a function of age with respect to predefined population-based reference models. This framework has kindled neuroscientists' interest in quantifying individual differences in neuroimaging metrics over time, especially in populations with mental disorders. Schizophrenia is diagnosed exclusively based on symptoms, and the clinical and biological heterogeneity makes it difficult to fully and accurately assess pharmacological treatment effects on the brain state.

Methods Using the Cambridge Centre for Ageing and Neuroscience (Cam-CAN) dataset, we first built normative models of static and dynamic brain states and mapped the deviations of the brain characteristics of each patient, to test whether deviations from these models were related to psychiatric symptoms in patients with schizophrenia, and we further investigated the pharmacological treatment effect on deviation distributions.

Results Specifically, we found that the patients can be divided into two groups, the first group showed a significant normalization trend, the other group showed a more severe deviation after treatment, and the normalized group had milder symptoms at baseline. We also found correlations between clinical symptoms and deviations in static and dynamic brain states, especially the dorsal attentional and default mode networks. In addition, the baseline severity of the depression as well as the overall symptoms, could predict the deviation of the static characteristics for the dorsal and ventral attention networks.

Conclusion Together, this work evaluates the effect of pharmacological treatment on static and dynamic brain states using an individualized approach based on normative modeling. Our results suggest that modeling brain states as deviations from the normative range may assist in understanding the heterogeneity of the illness pathology as well as the treatment response.

关键字：Normative model; schizophrenia; dynamic functional connectivity; pharmacological treatment

Anxiety, Depression, Insomnia, PTSD and Mental Health Needs Among College Students after Optimizing The COVID-19 Response in China

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Objective The number of COVID-19 infections has increased sharply and quickly after optimizing the COVID-19 response in China. In the context of this population-size infection, college students' psychological response and mental health needs are yet to be understood.

Methods A cross-sectional study was designed to investigate anxiety, depression, insomnia, and posttraumatic stress disorder (PTSD) symptoms and mental health needs among college students from December 31, 2022, to January 7, 2023. The questionnaire included the Generalized Anxiety Disorder 7 (GAD-7), Patient Health Questionnaire 9 (PHQ-9), Insomnia Severity Index (ISI), Impact of Event Scale (IES-R), and self-designed questionnaire.

Results Of the 22624 respondents, the self-reported prevalence of anxiety, depression, insomnia and PTSD appeared to be 12.7%, 25.8%, 11.6%, and 7.9%, respectively. The self-reported COVID-19 infection rate was 80.2%. All respondents reported a self-reported mental health needs rate of 2.2%, while those with psychological symptoms reported a rate of 5.0%. Changes in the place for learning, longer time online, not recovering after infection, a higher proportion of family member infection, insufficient drug

reserve, worry about sequela after infection, future studies, or employment contributed to a higher risk of anxiety/depression/insomnia symptoms or PTSD symptoms. Multinomial logistic regression showed that those who spent more extended time on the Internet, recovered after infection, and had insufficient drug reserves were less likely to have PTSD than anxiety/depression/insomnia symptoms. The need for mental health services was higher among those who had not been infected with COVID-19 and had not recovered from it.

Conclusion Anxiety, depression, insomnia, and PTSD were common psychological symptoms among college students when infection went through a large-scale population. This study highlights the importance of continuing to care for the psychological symptoms of college students, especially those uninfected and unrecovered from COVID-19 infection.

关键字：COVID-19; Psychological symptoms; Mental health need, College student

PROJECTING ECONOMIC BURDEN OF MENTAL DISORDERS FROM 2019 TO 2050: A VALUE OF STATISTICAL LIFE APPROACH

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Objectives The burden of mental disorders is on an upward trend bringing huge losses. We used a value of statistical life (VSL) approach to project the economic burden of mental disorders from 2019 to 2050.

Methods Firstly, we obtained the average value of a Statistical Life Year (VSLY) for each individual in that country using the difference between life expectancy and the median age of the population to average the VSL. Secondly, we calculated the economic burden based on the number of people with mental disorders in each population group of the country between 2012 and 2022, and projected the number of patients with mental disorders from 2023 to 2050.

Results In 2019, the global economic burden of mental disorders was an estimated $7.33 trillion. The burden will increase to $42.77 trillion in 2050. VSL-loss would increase in all regions, among which larger increase was in Asia and Europe, while upper-middle and high-income countries carried larger increases. Depressive disorders would account for the largest size of GDP in various mental disorders (2.77% of GDP in 2050 and 2.12% in 2019).

Conclusions The government could increase the expenditure on prevention and treatment of mental disorders by a big margin and establish a sustainable mental health care system to reduce the economic costs on families and improve their quality of life. A key step is to integrate mental health care reform with primary health care reform, and establish an effective and sustained dual referral system between hospitals and primary health care.

关键字：mental disorder; health economics; economic burden

精神科护士领悟社会支持与职业倦怠的关系：正念的调节作用

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目的 探索正念在精神科护士社会支持与职业倦怠的关系中的作用，为提高精神科护士的心理健康水平提供依据。

方法 选取三家精神专科医院从事临床精神科护理的护士为研究对象。调查采用在线发放问卷，采用《职业倦怠量表》、《正念注意觉知问卷》和《社会支持量表》，每一名护士根据问卷指导语，只能填写一次问卷，所有问卷均为匿名提交，共发放 227 份问卷，回收有效问卷 227 份。以问卷星收集到的信息，采用 SPSS-20 统计软件进行统计分析。所有统计学分析以 P＜0. 05 为差异具有统计学意义。

结果 采用皮尔逊相关分析结果显示：领悟社会支持与正念呈显著的正相关(r=0.38,P<0.05) ；正念与职业倦怠呈显著的正相关(r=0.26,P<0.01) ；采用温忠麟等人关于调节效应的检验程序，用分层回归进行调节效应验证正念在领悟社会支持和职业倦怠之间的调节作用。首先对自变量（领悟社会支持）和调节变量（正念）做中心化处理，随后生成二者的交互项。其次，以职业倦怠为因变量，纳入第一层作为控制变量，然后将中心化后的领悟社会支持和正念纳入回归方程第二层。接着，将前面两个变量以及二者的交互项纳入到方程的第三层。结果显示，领悟社会支持和正念之间的交互作用显著(β=-0.197，p= 0.000)，这提示正念对于领悟社会支持和职业倦怠关系的调节作用显著。

结论 领悟社会支持负向预测职业倦怠，且正念在其中起调节作用。

关键字：护士；职业倦怠；正念；领悟社会支持

新冠疫情期间大学生心理压力及心理援助状况调查

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目的 了解新冠疫情期间（2019 年 12 月-2023 年 1 月）大学生心理压力现状、接受心理援助的情况，以探索合理的心理援助发展对策，助力社会对公共卫生事件下大学生心理健康问题的科学应对。

方法 通过回顾性调查研究，采用自编的《疫情期间大学生心理援助调查问卷》，对 985 名在校大学生进行在线调查。调查问卷分为 3 个部分：第 1 部分为个人基本情况；第 2 部分为大学生心理健康状况，用于

了解大学生心理压力产生原因及其应对方式；第 3 部分为大学生心理援助信息反馈，包括对心理援助的认知、参与情况、对心理援助方式的偏好和对心理援助的建议。

结果 ①疫情期间，大学生心理压力主要来自个人前途及就业（81.12%）、学业（79.90%）和经济问题（77.56%），而应对压力的主要方式是转移注意力（78.98%）、适当倾诉（70.05%）和自我放松（57.26%）；②疫情期间，有 13.10%大学生接受过心理援助，其中超过 70%认为效果良好；③疫情期间，43.96%的大学生表示面对新冠疫情需要心理援助，而未寻求心理援助的主要原因是不了解心理援助；④对偏好方式而言，73.50%大学生愿意选择线下心理援助，有且接受过心理援助的大学生中，66.67%通过高校线下心理健康咨询获得心理援助。

结论 大学生对心理援助的需求大，但对心理援助的了解与接受度较低；学校心理健康咨询中心是疫情期间大学生心理援助的主战场；线下心理援助是大学生主要援助来源及偏好援助方式。因此有必要加大心理援助的科学普及，加强高校心理援助体系的建设，进而提高公共卫生事件下大学生的心理应对。

关键字：新冠疫情；大学生；心理援助；心理健康

Effects of Sleep Quality on Emotional Valence

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Objective Sleep plays a pivotal role in maintaining optimal psychological well-being, and chronic sleep deprivation has been linked to an increased susceptibility to various neurological and psychiatric disorders. However, it remains unclear whether sleep also influences emotional valence, a crucial indicator of psychological health.

Methods The study utilized data from the prestigious Human Connectome Project (HCP) database at the University of Minnesota, encompassing a diverse sample of 1204 adults ranging from 18 to 85 years of age. Emotional states were assessed using Computer Adaptive Testing (CAT) derived from the National Institutes of Health Toolbox. Partial correlation analysis was used to investigate the relationship between sleep and mood titer, controlling for covariates such as age, sex, race, medication history, body mass index (BMI), and blood pressure.

Results The study findings revealed significant positive correlations between PSQI scores and negative emotions, including anger (r=0.292, P<0.001), hostility (r=0.201, P<0.001), impulsive behavior (r=0.128, P<0.001), fear (r=0.299, P<0.001), somatic symptoms (r=0.278, P<0.001), and sadness (r=0.247, P<0.001). Moreover, PSQI scores exhibited significant positive correlations with life dissatisfaction (r=-0.217, P<0.001), lack of purpose in life (r=-0.197, P<0.001), and diminished positive emotions (r=-0.221, P<0.001). Additionally, a positive correlation was observed between PSQI scores and feelings of rejection (r=0.194, P<0.001), loneliness (r=0.215, P<0.001), and hostility (r=0.137, P<0.001), while negative associations were found with peer friendship (r=-0.140, P<0.001), emotional support (r=-0.169, P<0.001), and material support (r=-0.111, P<0.001). Notably, PSQI scores demonstrated a significant positive correlation with psychological stress (r=0.291, P<0.001). Furthermore, the independent samples Mann-Whitney U test revealed that the poor sleep quality group, compared to the good sleep quality group, exhibited significantly heightened levels of negative emotions, including anger (P<0.001), hostility (P<0.001), impulsive behavior (P=0.009), fear (P<0.001), somatic symptoms (P<0.001), and sadness (P<0.001). Moreover, the poor sleep quality group displayed significantly lower levels of life satisfaction (P<0.001), purpose in life (P<0.001), and positive emotions (P<0.001), as well as increased feelings of rejection (P<0.001), loneliness (P<0.001), and hostility (P<0.001), along with diminished peer friendship (P=0.003), emotional support (P<0.001), and material support (P<0.001). Importantly, the poor sleep quality group experienced a significant increase in psychological stress (P<0.001) compared to the good sleep quality group.

Conclusion This study provides compelling evidence of a robust correlation between sleep and emotional valence, with declining sleep quality associated with heightened negative emotions and diminished positive emotions.

关键字：Sleep quality, Emotional valence,

高中生的社会支持与心理健康之间的关系

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目的 探讨高中生的社会支持与心理健康之间的关系。

方法 本研究采用方便取样法收集数据，于 2021 年 6 月至 2022 年 1 月选取荆州市三所高中学校，使用冉茂盛整编的《青少年学生心理健康调查问卷》进行测试，内容包括一般人口学资料问卷、社会支持评定量表（SSRS）、一般心理健康问卷（GHQ-12）。采用线下纸质版或线上问卷星调查的方式，共回收 2879 份问卷，有效问卷 2421 份，有效率 84.1%。采用 SPSS21.0 软件进行统计分析。

结果 (1) 在 2421 份有效问卷中，据 GHQ-12≥3 分者（可能存在心理问题）634 人（26.1%），其中男生、女生的社会支持程度水平无明显差异（t=-0.054，P＞0.05）；(2)高中生低社会支持水平者（社会支持总分≤22 分）83 人（其中可能存在心理问题的 43 人，占比 51.8%），中等社会支持水平者（社会支持总分 23-44 分）2049 人（其中可能存在心理问题的 569 人，占比 27.8%），高社会支持水平者（社会支持总分≥45 分）289 人（其中可能存在心理问题的 22 人，占比 7.6%），高中生心理健康水平与高中生社会支持水平有统计意义（X2=82.424，P＜0.001）。(3)高中生社会支持总分与 GHQ-12 总分之间呈负相关（r=-0.329，P＜0.001）。

结论 (1)高中生存在心理问题的情况并不少见；(2) 高中生的社会支持水平与其心理健康有密切关系，高社会支持水平的高中生有更加良好的心理健康水平。(3)提高高中生的社会支持水平可能有助于降低其精神痛苦情况，从而减少心理问题的出现。

关键字：心理健康；社会支持；高中生；

役前训练新兵中庸思维与适应不良的关系：心理弹性的中介作用

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目的 探讨役前训练新兵中庸思维、心理弹性和适应不良的关系。

方法 采用方便取样，以湖北省荆州市参与役前训练的 92 名新兵为研究对象。采用吴佳辉和林以正编制的中庸思维量表(Cronbach′s α=0.94)，Connor-Davidson 编制、王丽等人翻译修订的心理弹性量表简版(Cronbach′s α=0.95)和王蕊编制的部队新兵适应问卷(Cronbach′s α=0.89)进行测试，使用 SPSS22.0 软件和 SPSS process 插件进行统计分析。

结果 本研究结果表明：(1)92 名役前训练新兵全部为男性，平均年龄 20.47 岁，标准差 1.12，中职学历 8 人(8.7%)，大专学历 79 人(85.9%)，本科学历 5 人(5.4%)；(2)役前训练新兵中庸思维(57.01±6.72)和心理弹性(44.49±6.10)呈显著正相关关系(r=0.68, P＜0.001)，中庸思维和适应不良(58.43±15.13)呈显著负相关关系(r=-0.62, P＜0.001)，心理弹性与适应不良呈显著负相关关系(r=-0.78, P＜0.001)；(3)中介作用分析结果显示，心理弹性在役前训练新兵中庸思维与适应不良间起完全中介作用，中介效应占总效应的比例为 73.57%。

结论 本研究发现，役前训练新兵的心理弹性会随着中庸思维的提升而增强，适应不良则会随着中庸思维和心理弹性的增强而减弱。本研究使用中介作用分析进一步发现，役前训练新兵的中庸思维会通过心理弹性的完全中介作用对适应不良产生影响，即当役前训练新兵在成长过程中具备较强的中庸思维时，受中庸思维影响较大的心理弹性是缓解其出现适应不良问题的重要保护性因素。

关键字：新兵；中庸思维；心理弹性；适应不良

荆州市高中在校生网络成瘾行为现状和相关因素分析

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目的 为探讨荆州市高中在校生网络成瘾行为现状和相关影响因素。

方法 应用采用网络成瘾测试（IAT）由美国匹兹堡大学 Kimberly Young 编制的网络成瘾问卷第二版评测青少年网络成瘾倾向情况对 2421 名高中生进行调查，于 2021 年 6 月至 2022 年 2 月采用网络问卷调查工具，用方便抽样法分阶段分步骤在荆州市的多所高中进行问卷发放，问卷由受试者自愿填写。结合高中生的一般资料(性别、年级、独生子女情况、恋爱情况)、家庭资料(父母文化程度、父母职业、家庭收入)以及社会支持评定量表（SSRS）评分来分析荆州市在校高中生网络成瘾行为倾向的现状和相关影响因素。

结果 ⑴荆州市在校高中生网络成瘾倾向的检出率 44.3％(网瘾依赖的判定标准 ：①得分在 45 分之上 ；②20 题中有 3 题及以上选“4＝经常”或“5＝总是”；其余则为正常网络使用者)。⑵单因素 X2 检验显示 ，不同年级、家庭模式、家庭收入、情感状态以及社会支持评分的青少年网络成瘾倾向的检出率不同（P ＜ 0.05）；⑶采用二元 logistic 回归分析数据，以是否存在网络成瘾倾向为因变量，将该群体的一般资料(性别、年级、独生子女情况、恋爱情况)、家庭资料(父母文化程度、父母职业、家庭收入)以及社会支持评定量表（SSRS）评分等数据纳入多元 logistic 二元回归模型，经模型调整后，最终确立了独身子女（OR=0.791, 95% CI：0.663-0.944, P=0.009）、高三年级(OR=0.626, 95% CI：0.441-0.889, P=0.009)、家庭收入良好(OR=0.610, 95% CI：0.449-0.829, P=0.002)、恋爱(OR=1.520, 95% CI：1.032-2.239, P=0.034)、高社会支持评分（OR=0.942, 95% CI：0.932-0.954, P＜0.001）为荆州市在校高中生网络成瘾行为倾向的相关影响因素；

结论 通过了解荆州市在校高中生网络成瘾行为的相关因素，发现在校高中生网络成瘾行为倾向广泛发生，虽然随着年级的升高，学业压力的增大，高中生网络成瘾行为倾向有降低的趋势，但是一时的环境因素对学生网络成瘾倾向的控制毕竟有限；学生陷入情感问题、缺乏相应的家庭及社会支持，社交上的孤独，过长的上网时间，严重影响其社会功能，更一步加重情绪问题。

关键字：高中生 网络成瘾行为 现状 因素

新冠疫情期间荆州市大学生失眠在网络成瘾和焦虑、抑郁之间的中介效应

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目的 新冠疫情期间，网络成瘾可能是影响大学生心理健康的主要问题，尤其是在失眠介导下会对大学生的心理健康产生一定的影响,会阻碍他们的学习，影响他们的长期职业目标。本文通过研究大学生网络成瘾的潜在相关因素，由失眠介导网络成瘾和焦虑、抑郁之间的关系，为有效预防和治疗大学生焦虑和抑郁症状提供理论依据。

方法 选取 2021 年 5 月与 2021 年 11 月荆州市 3 所高校的在校大学生按照年级进行分层后，随机抽取部分班级进行问卷调查，调查信息包括一般人口学信息，失眠严重程度指数（ISI）、网络成瘾量表（IAT）、焦虑量表（GAD-7）和抑郁量表（PHA-9）。连续变量使用平均值和标准差（SD），分类变量使用百分比总结样本特征，描述统计算网络成瘾、失眠、焦虑、抑郁的患病率，使用单变量分析去研究参与者特征和网络成瘾、失眠、焦虑及抑郁的关系，使用 process 中介模型 4 分析失眠介导网络成瘾和焦虑、抑郁之间的作用。

结果 在 2364 名大学生中，我们研究包括 612（25.9%）名男性和 1752（74.1%）名女性学生，网络成瘾评分为 44±13.46，存在有网络成瘾行为的比例有 33.7%，失眠严重程度评分为 8±4.57，存在失眠症状的比例为 26.4%，焦虑评分为 6±3.51,存在有焦虑症状的比例为 27.7%，抑郁评分为 7±4.15,存在有抑郁症状的比例为 31.2%。单因素分析结果显示年级、家庭经济（自评）、父母学历、疫情期间是否隔离与网络成瘾显著相关（P<0.05)。年级、性别、家庭经济（自评）、疫情期间是否隔离与失眠严重程度显著相关（P<0.05)。年级、疫情期间是否隔离与焦虑显著相关（P<0.05)。年级、性别、家庭经济（自评）、疫情期间与谁一起生活、婚恋状况、疫情期间是否隔离与抑郁显著相关（P<0.05)。网络成瘾和抑郁、焦虑得分呈正相关（P<0.05),网络成瘾和失眠得分之间呈负相关（P<0.05)。在网络成瘾与大学生抑郁、焦虑症状关联的中介效应模型中，失眠的中介效应占总效应的比例分别为 18.13%、25.23%（P<0.05)。

结论 疫情期间，大学生不同的生活特征对网络成瘾、失眠、焦虑和抑郁有着显著的影响，网络成瘾、失眠、焦虑、抑郁有着不同的相关性，大学生失眠在网络成瘾与抑郁、焦虑症状之间起部分中介作用。

关键字：失眠，网络成瘾，焦虑，抑郁，中介效应

荆州市既往接受心理干预的学生群体网络成瘾现状及关联因素

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目的 探究既往接受过心理干预的荆州市学生群体中网络成瘾的现状和相关因素及其与心理问题的联系

方法 《青少年学生心理健康状况调查问卷》由香港大学冉茂盛教授团队负责编制，内容包括一般人口学资料、网络成瘾量表（IAT）、抑郁自评量表（PHQ-9）、焦虑自评量表（GAD-7）、失眠严重程度指数量表（ISI-5）等工具。于 2021 年 10 月 1 日至 2022 年 1 月 6 日采用问卷星调查工具，用方便抽样法分阶段分步骤在荆州市的多所学校间进行问卷发放。问卷由受试者自愿填写，不记名调查，低年级学生由家长或带教老师协助完成。

结果 共收集到有效问卷 11276 份，其中共有 883 名学生（7.83%）既往接受过心理干预。在本研究中，我们以 IAT 量表得分为 40 分作分界点，将被调查者分为有无网络成瘾两个群体。在既往接受心理干预的这部分学生中，存在网络成瘾情况的有 446 人（50.51%）。以是否存在网络成瘾为因变量，将该群体的一般人口学资料，社会经济地位，心理测查问卷结果，日常行为习惯等数据纳入多元 logistic 回归模型进行分析，经模型调整后，最终确立了日常较少进行体育锻炼(OR=1.648, 95%CI：1.208-2.248, P=0.002)、抑郁自评量表的总分(OR=2.156,95%CI：1.348-3.449,P=0.017)、焦虑自评量表的总分(OR=2.388,95%CI：1.500-3.801,P＜0.001)、失眠严重程度指数量表的总分(OR=1.737,95%CI：1.170-2.580, P=0.006)为荆州市既往接受心理干预的学生出现网络成瘾的关联因素。

结论 荆州市既往接受过心理干预的学生人群中出现网络成瘾的情况较为普遍。其中，日常体育锻炼较少、存在抑郁症状、焦虑症状和失眠症状的学生群体的网络使用情况更加值得关注，针对相关预测因素采取相应的措施或许能够更好地改善学生的网络滥用问题，从而避免网络成瘾带来的学生群体相关负面心理问题的进一步加重。

关键字：学生；心理干预；网络成瘾

荆州某学校初三学生非自杀性自伤和家庭教养方式的相关性分析

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目的 调查初三学生非自杀性自伤行为（NSSI）的现况，分析影响非自杀性自伤行为的相关因素，为针对高危人群的个性化干预措施和预防服务提供理论支持。

方法 于 2023 年 3 月 1 日-8 日在湖北省荆州市某初中采用方便抽样的方法，选取初三年级的学生作为调查对象，使用冉茂盛整编的《青少年学生心理健康调查问卷》进行测试。采用 SPSS 21.0 软件对所得数据进行二元 logistic 回归分析所有危险因素。以 p 值<0.05），与家庭经济收入、父母婚姻状况和学历、母亲控制、父亲控制无统计学差异（P>0.05）。5.回归分析，将是否存在非自杀性自伤行为作为因变量，将单因素分析中有统计学意义的变量作为自变量，使用二元 logistic 回归分析，结果发现，父亲低关爱（OR=3.099）的初三学生发生非自杀性自伤行为风险高。

结论 (1)荆州某学校初三学生非自杀性自伤行为发生率 14.6%；(2)不同人口学特征(性别、对自己学业是否满意、母亲关爱、父亲关爱)发生非自杀性自伤行为存在不同；(3)父亲低关爱的初三学生发生非自杀性自

关键字：初三学生；非自杀性自伤；家庭教育方式

U-shaped Association between Burnout-related Emotional Exhaustion and Work Interference with Family Conflict in Chinese Physicians

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Objective Work interference with family conflict (WFC) and burnout-related emotional exhaustion (EE) are important concerns for both employees and organizations. This study aimed to investigate the relationship between WFC and EE among Chinese hospital physicians.

Methods Two thousand five hundred and thirty Chinese physicians were recruited in a cross-sectional study in 2018. Socio-demographics, WFC, and EE were assessed by the Work Family Conflict Scale and the Chinese Maslach Burnout Inventory Questionnaire. Multivariate linear regression analysis and smooth curve fitting were used to estimate the association between WFC and EE. The threshold effect was examined by the two-piecewise linear regression model. Interaction and stratified analyses were conducted according to sex, age, education, marital status, hospital grade, categories of hospitals, department, work experience, and title.

Results The result of fully adjusted linear regression showed WFC was positively associated with EE (β=0.72, 95%CI: 0.67 to 0.77, P<0.001). Smoothing plots also revealed a nonlinear relationship between WFC and EE, with the inflection point of WFC being 8.0. The effect sizes and the confidence intervals on the left and right sides of the inflection point were -0.61 (-1.17 to -0.05, P= 0.034) and 0.79 (0.74 to 0.85, P<0.001), respectively.

Conclusion A U-shaped relationship between WFC and EE was found in Chinese physicians, with the lowest risk of EE at a WFC of 8.0, indicating that both the lower and higher WFC levels may lead to an increased risk of EE.

关键字：Emotional exhaustion, work-family conflict, relationship, physicians

The Prevalence and Correlates of Depression and Anxiety Symptoms Among Older Adults in Shenzhen: A Cross-sectional Population-based Study

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Objectives To investigate the gender differences in the prevalence and severity of depression and anxiety among older adults in Shenzhen communities, as well as their associated factors.

Methods Participants completed a sociodemographic questionnaire, along with assessments including the Patient Health Questionnaire-9, Generalized Anxiety Scale-7, UCLA Loneliness Simplification Scale (ULS-6), Insomnia Severity Index Scale, Community Dementia Brief Screening Scale, and the 8-item Dementia Screening Questionnaire. Statistical analyses included the Shapiro?Wilk test, independent t test, Wilcoxon rank test, c2 test, and univariate and multivariate linear regression analysis.

Results The prevalence of depression and anxiety symptoms among older adults in Shenzhen communities was 10.4% and 11.3%, respectively. Women had higher mean scores of depression and anxiety than men (1.32 vs. 1.04 and 2.95 vs. 2.56), and the prevalence of depression and anxiety was also higher among females (11.7% vs. 8.90% and 13.4% vs. 9.02%). Females in the elderly population had lower literacy, lower monthly income, were more likely to be single, had a higher prevalence of chronic diseases, and reported poorer self-rated health. Gender was not significantly associated with the severity of depression and anxiety among the elderly population in Shenzhen. Recent factors such as health status, sleep quality, early cognitive impairment, and loneliness were significantly associated with the severity of depression and anxiety among older adults in Shenzhen.

Conclusions Gender was not identified as a risk factor for depression and anxiety in the elderly community in Shenzhen, likely thanks to the rapid social development and ideological progress of gender equality in the region. Recent factors such as health status, sleep quality, and early cognitive impairment were found to be significantly associated with depressive and anxiety symptoms. The existing welfare system and infrastructure should remain and targeted mental health programs addressing the identified risk factors should be proposed.

关键字：mental health; depression symptoms; anxiety symptoms; older adults

新冠感染后的长期慢性症状和精神症状的发生风险

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目的 新冠疫情已在全球流行 3 年余，尽管世界

卫生组织于 2023 年 5 月宣布新冠疫情不再是“全球突发卫生事件”，但新冠病毒变异毒株不断出现，疾病本身发生发展机制和对精神心理健康影响仍有待进一步探索。

方法 采用社区队列纳入 2022 年 12 月前的新冠感染者，2022 年 12 月后的新冠感染者，以及未感染者调查不同人群中不同系统的长期慢性症状，以及抑郁、焦虑、失眠以及应激等精神症状的发生率和发生风险。

结果 目前总共纳入了 1404 人，包括未感染者 103 人，2022 年 12 月后的新冠感染者 946 人，2022 年 12 月前的新冠感染者 259 人，以及重复感染者 96 人。结果发现相比于未感染者（42.7%），2022 年 12 月后的新冠感染者（73.2%），2022 年 12 月前的新冠感染者（73.4%），以及重复感染者（81.3%）任意一种慢性症状的发生率均显著增加，其中重复感染者长期慢性一般（59.4%）、神经（50.0%）、精神（43.8%）和心血管（26.0%）系统症状发生率最高。其次，相比于未感染者（27.2%），2022 年 12 月后的新冠感染者（56.2%），2022 年 12 月前的新冠感染者（57.9%），以及重复感染者（59.4%）任意一种精神症状的发生率均显著增加。多元 logistics 回归校正年龄、性别、教育、婚姻状况、家庭月收入、居住环境、居住同伴、饮酒、吸烟、日常运动强度、疫苗针数、疫苗时间等因素后发现，相比于未感染者，2022 年 12 月后的新冠感染者存在任意一种慢性症状的发生风险增加了 3.436 倍，2022 年 12 月前的新冠感染者存在任意一种慢性症状的发生风险增加了 3.191 倍，以及重复感染者存在任意一种慢性症状的发生风险增加了 4.812 倍。相比于未感染者，2022 年 12 月后的新冠感染者存在任意一种精神症状的发生风险增加了 4.270 倍，2022 年 12 月前的新冠感染者存在任意一种精神症状的发生风险增加了 3.842 倍，以及重复感染者存在任意一种精神症状的发生风险增加了 3.983 倍。

结论 新冠感染与慢性症状和精神症状的发生风险增加显著相关，而重复感染者的慢性症状的发生风险最高，提示在新冠感染后需要重视慢性症状的长期管理和重点人群的心理健康工作，提高我国公众的身心健康状况和幸福水平。

关键字：新冠感染 慢性症状 精神症状 危险因素

A Genome-wide Association Study of Suicide Ideation in Medical Students in China

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Objective Suicide is a worldwide health crisis. Medical students report higher levels of suicidal ideation than the age-matched peers in general population. We aimed to identify genetic risk variants associated with suicidal ideation.

Methods We conduct a genomewide association study (GWAS) for suicidal ideation using 992 medical students（446 male, 45%） from 7 medical school of Han Chinese ethnicity. Beck scale for suicidal ideation (BSS) was used for the assessment of suicide ideation. We then assessed genetic effects on suicidality-related characteristics (depressive symptoms (Patient health questionnaire, PHQ-9)/anxiety symptoms (Generalized anxiety disorder scale GAD-7)/insomnia symptoms (Pittsburgh sleep quality index PSQI)/PSSS/LBUS/CD-RISC, and compared the polygenic risk of suicide ideation in Han Chinese with other populations (European).

Results We found and validated one significant loci located in 2q31.1, with lead SNP rs2358894*WIPF1 (Pdiscovery=2.88×10-9) was associated with suicidal ideation. In addition, rs2358894 was associated with resilience, depressive symptoms, and insomnia symptoms in this cohort and with alcohol use, nicotine dependence, guilt, and depression in GWAS ATLAS. There was no significant result of polygenetic risk score analysis. We further compared the difference of symptom reduction among different genotypes after the epidemic. The results showed that the medical students rs2358894 allele T had a higher degree of reduction in depression symptoms, insomnia symptoms and suicidal ideation than those carrying allele C. It indicated that these loci not only played a role in the current mental problems, but also in symptom remission.

Conclusion Mental health problems such as depressive symptoms, anxiety symptoms, insomnia symptoms and suicidal ideation were prevalent among medical students in China. The prevalence and severity of mental health problems showed a decreased tendency after the COVID-19 pandemic. Implementations of online medical education and mental health education as well as accessible psychological services would be effective measurements in protecting medical students' mental health. At the meantime, regular physical activities, minimized internet use were favorable life styles in keeping a good mental health state during the epidemic.

关键字：GWAS, suicide ideation, medical students

Explaining Forgetting and Childhood Trauma and Resilience

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Objective Childhood trauma has been associated with psychiatric disorders and physical disorders in adulthood. However, it is important to note that individuals who possess a resilient nature tend to experience higher levels of well-being. Forgetting could potentially play a significant role on this situation. This review will summarize the role of active forgetting between childhood trauma and resilience.

Methods A review of published studies was performed by searching the PubMed, EMBASE, and

PsycINFO databases from inception to 22nd June, 2023. The search strategy mainly included childhood trauma, forgetting and resilience. The inclusion criteria as follows: (a) individuals had a history of childhood trauma; (b) studies included one of the four instruments of trait resilience; (c) studies related with forgetting.

Results We found that rates of forgetting were various in different type of childhood trauma. And forgetting brought better outcomes for people who experienced adverse events in childhood. Furthermore, the results showed that childhood trauma was negatively associated with psychological resilience. People who possess a robust sense of resilience are less susceptible to conditions such as depression and obesity, consequently exhibiting a lower risk. In addition, forgetting was one trait of resilience, which may help people to resist trauma events.

Conclusion This study adds to the existing body of knowledge that focuses on the significance of investigating the impact of forgetting on individuals with high resilience, especially among those who have experienced childhood trauma. In doing so, it acknowledges the crucial role that forgetting plays in their lives.

关键字：childhood trauma, forgetting, resilience

四川省某市中高考生的心理睡眠状况及需求调查

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目的 调查四川省某市中高考生的心理睡眠状况及需求。

方法 于2021年3月-5月采用分层整群抽样的方式对样本人群进行调查，调查内容包括一般人口学资料、考前心理睡眠状况、心理需求方式及需求内容；其中心理状况采用凯斯勒心理困扰量表（K6）进行调查。采用卡方检验对比不同类别、性别考生的考前心理健康状况，采用 Pearson 相关分析探讨心理状况与睡眠情况的相关性。

结果 ①.共抽样调查 10641 名中高考生，6305 名（59.3%）中高考生 K6 评分≥13 分；高考生比中考生的 K6 评分更高，女性比男性的 K6 评分更低，差异有统计学意义（均 P<0.05）；②.80.2%的中高考生对自己的近 4 周的睡眠满意，19.8%的中高考生不满意；45.39%的中高考生近 4 周的睡眠与既往没有明显变化，50.29%的中高考生睡眠较以往减少，4.32%的中高考生睡眠教以往增多。③.中高考生希望得到心理需求的方式依次为：视频动画（58.94%）、科普文章（44.84%）、知识讲座（42.85%）、现场心理咨询（32.98%）、心理热线/线上心理咨询（25.82%）；考前希望了解的科普内容依次为：如何应对考试压力（71.6%）、睡眠卫生知识（57.9%）、营养饮食（47.24%）、眼卫生（45.31%）；④.中高考生的睡眠满意程度与 K6 总评分及各分项得分均呈正相关（均 P<0.05）。

结论 多数中高考生存在心理困扰，但对睡眠状况满意；最希望得到的心理需求方式为科普动画，最希望了解的科普内容为如何应对考试压力。

关键字：中高考生，睡眠，心理

Social Support Facilitates Fear Extinction Retention in Humans

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Objective The present study investigated the role of social support on fear memory extinction and fear return in humans, and explored related neural activations.

Methods One hundred and four healthy participants were included and randomized into social support group and no support group and exposed to a Pavlovian fear conditioning paradigm. Social support group completed a 10-min social interaction procedure with close friends before extinction, while no support group stayed by oneself for 10 mins before extinction. Participants reported their perceived social support level before and after social interaction procedure.

Results Results suggested that peer interaction before extinction significantly increased perceived social support, which then reduced fear response and prevented the return of fear memory in the spontaneous recovery test and reinstatement test. Results from resting state study showed that following peer interaction, there were significant differences in the cortical brain regions including many regions within frontal lobe, inferior parietal lobe, and etc. In addition, fMRI scanning of fear extinction following peer interaction found that, compared with control group, the peer interaction group had an activation in the limbic system and precuneus when processing CS+ comparing with CS-. fMRI analysis of the spontaneous recovery test and reinstatement test found that memory-related brain regions were inhibited in the peer interaction group, including hippocampus, thalamus, and precuneus. Besides, there was a significant difference in the functional connectivity of thalamo-cortical circuit between two groups.

Conclusion We propose that social support might be an effective method in promoting fear memory extinction and preventing fear return through regulating thalamo-cortical circuit, which can serve as a new strategy in treating fear-related disorders.

关键字：Social support, fear memory extinction, peer interaction, thalamo-cortical circuit

Association of Healthy Lifestyle with Sleep Quality, Patterns and Disturbances in General Population in China

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Objective Lifestyle has received increasing attention as a modifiable behavior because this factor is relatively easily amendable with potential benefits for overall health as well as sleep. However, few studies have focused on the effect of healthy lifestyle on sleep. Hence, the study aimed to identify an optimal lifestyle profile associated with sleep quality, patterns and disturbances in general population in China.

Methods An online cross-sectional study was conduct from June 12 to July 17, 2022. Six healthy lifestyle factors were assessed: a healthy diet, regular physical exercise, never smoking, never drinking alcohol, sedentary behavior <0.001), healthy sleep patterns (OR=1.89, 95% CI=1.75-2.04, p<0.001), and low ORs for sleep disturbances, including insomnia (OR=0.82, 95% CI=0.75-0.89, p<0.001), excessive daytime sleepiness (OR=0.76, 95% CI=0.68-0.84, p<0.001), and obstructive apnea syndrome (OR=0.44, 95% CI=0.40-0.48, p<0.001), but not narcolepsy (OR=1.05, 95% CI=0.94-1.18, p=0.379).

Conclusion A healthy lifestyle is associated with better sleep quality, more healthy sleep patterns, as well as lower proportions of sleep disturbances. This study might offer important information to improve sleep quality.

关键字：healthy lifestyle; sleep quality; sleep pattern; sleep disturbance

Associations of Posttraumatic Stress Disorder Symptoms with Amyloid Burden and Cognition in Aging

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Objective Posttraumatic Stress Disorder (PTSD) is associated negative cognitive outcomes, including worse than normal changes with aging, and preclinical Alzheimer's disease pathology (amyloid β [Aβ]). To investigate the associations between PTSD symptoms and global and regional brain Aβ burden, and to determine whether PTSD influenced cognitions through Aβ.

Methods This cross-sectional study obtained data from participants in the Anti-Amyloid Treatment in Asymptomatic Alzheimer's Disease (A4) study. The sample for this analysis consisted of individuals aged 65 to 85 years who underwent an Aβ positron emission tomography (PET) scan, had complete apolipoprotein E (APOE) genotype data, demographic information, and neuropsychological testing, and were identified as clinically normal (per a Clinical Dementia Rating score of 0) and cognitively unimpaired (per a Mini-Mental State Examination score of 25 to 30). Data were analyzed from July 30, 2022, to August 30, 2022.The outcome was PTSD symptoms, Aβ burden (as measured with a fluorine 18–labeled-florbetapir PET scan), objective and subjective cognitive function measures, and lifestyle variables.

Results A total of 4228 participants were included in the final analysis. PTSD symptoms was significantly associated with higher global and regional brain Aβ level (1.15±0.20 vs 1.09±0.19; β=0.056; P<0.001) when adjusted for covariates. Severe PTSD symptoms was exhibited higher Aβ level than moderate, mild or no PTSD symptom group. In addition, PTSD symptom was not significantly associated with cognition. Pathway analysis showed PTSD symptom was associated with Aβ level, and indirectly associated with cognition.

Conclusion The findings implicate that PTSD increased risk of high amyloid burden in cognitively normal old adults, and negatively affected individuals' cognition. The findings suggest the importance of early intervention of PTSD to prevent the risk of dementia.

关键字：posttraumatic stress disorder; amyloid burden; dementia; old adult

心理健康教育对高校新生心理健康素养的干预效果评价

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目的 调查高校大一新生的心理健康状况及心理健康素养水平，开发一项包含精神障碍知识和态度的课程，并评估该课程对学生心理健康素养水平的干预效果。

方法 本研究采取方便抽样的方法分别从北京市、贵阳市和呼和浩特市三地选取三所高校，招募大一新生参与研究。我们采用前后自身对照的类实验方法，采集基线数据，并对基线纳入的新生进行心理健康教育干预，评估干预效果。心理健康素养包括心理健康相关知识、态度和寻求专业帮助的意向，采用心理健康意识量表（Mental Health Awareness scale，MHA）对结局指标进行评估。采用 McNemar 检验评估心理健康教育干预的效果。

结果 基线心理健康状况调查共有 1284 名高校学生完成调查，基线纳入研究的学生在接受心理健康干预后进行干预效果评估，共收集到 1237 份有效问卷。评估结果发现与基线相比，新生心理健康相关知识水平较好的占比由 67.3%提高到 72.4%，差异有统计学意义（p＜0.001）。对待精神障碍的积极态度率和寻求专业帮助的意向的变化无统计学差异。对不同特征人群的干预效果进行分析发现，与基线相比，学校类型为专科、非医学类专业、家庭月收入＜5000 元的高校新生在干预后知识水平较好的占比有显著提高(p＜0.05)，而学校类型为本科、医学类专业、家庭月收入≥5000 元的高校新生则无显著提高。

结论 本研究高校学生的心理健康素养水平较好，

精神健康相关知识水平较好的可占到六成，大部分学生心理健康相关态度较积极，且在出现心理问题时有寻求专业帮助的意向，在心理健康教育干预后，知识水平有显著提高，尤其是在专科、非医学生、家庭月收入＜5000 元的新生中干预效果更好，可针对不同人群特征进行不同实施力度的课程，从而达到心理健康教育干预效果的最大化，其文化适用性与本土性可得到一定程度的验证。

关键字：心理健康素养；教育干预

Decreased Dorsal Attention Network Homogeneity As A Potential Neuroimaging Biomarker for Major Depressive Disorder

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Objective Gaining insight into abnormal functional brain network homogeneity (NH) has the potential to aid efforts to target or otherwise study major depressive disorder (MDD). The NH of the dorsal attention network (DAN) in first-episode treatment-naive MDD patients, however, has yet to be studied. As such, the present study was developed to explore the NH of the DAN in order to determine the ability of this parameter to differentiate between MDD patients and healthy control (HC) individuals.

Methods This study included 73 patients with first-episode treatment-naive MDD and 73 age-, gender-, and educational level-matched healthy controls. All participants completed the attentional network test (ANT), Hamilton Rating Scale for Depression (HRSD), and resting-state functional magnetic resonance imaging (rs-fMRI) analyses. A group independent component analysis (ICA) was used to identify the DAN and to compute the NH of the DAN in patients with MDD. Spearman's rank correlation analyses were used to explore relationships between significant NH abnormalities in MDD patients, clinical parameters, and executive control reaction time.

Results Relative to HCs, patients exhibited reduced NH in the left supramarginal gyrus (SMG). Support vector machine (SVM) analyses and receiver operating characteristic curves indicated that the NH of the left SMG could be used to differentiate between HCs and MDD patients with respective accuracy, specificity, sensitivity, and AUC values of 92.47 %, 91.78 %, 93.15 %, and 65.39 %. A significant positive correlation was observed between the left SMG NH values and HRSD scores among MDD patients.

Conclusion These results suggest that NH changes in the DAN may offer value as a neuroimaging biomarker capable of differentiating between MDD patients and healthy individuals.

关键字：Major depressive disorder; Dorsal attention network Biomarker; Network homogeneity; Support vector machine

中国 Omicron 感染者的抑郁症患病率和临床相关因素的性别差异

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目的 抑郁症的性别差异已被充分认识。然而，Omicron 感染者中抑郁症的性别差异却很少得到系统的研究。这项研究比较了 2022 年中国 Omicron 大流行期间感染者的抑郁症的性别差异。

方法 从中国的天津和上海招募了 506 名 Omicron 感染者（男/女=268/238）。自编的人口统计学量表用于收集一般人口学资料，Zung 抑郁自评量表（SDS）、Zung 焦虑自评量表（SAS）、Connor-Davidson 弹性量表（CD-RISC）、De Jong Gierveld 量表（DJGLS）和宾州担心问卷（PSWQ）分别用于评估受访者的抑郁、焦虑、复原力、孤独和担心状况。

结果 男性患者的抑郁症患病率明显高于女性患者（42.2%VS31.9%；$\chi2=5.64$，$P=0.018$）。回归分析显示，在女性患者中，抑郁症与焦虑[OR=1.26，95%CI（1.16-1.36），$P<0.001$]和心理弹性[OR=0.98，95%CI（0.96-1.00），$P<0.05$]相关；而在男性患者中，抑郁症与焦虑[OR=1.24，95%CI（1.15-1.33），$P<0.001$]相关。

结论 这项研究表明，男性 Omicron 感染者的抑郁症发病率高于女性，并且影响因素有所差异。建议在 Omicron 大流行期间的抑郁症预防和治疗策略中考虑性别差异。

关键字：抑郁，性别差异，Omicron 感染，中国

Artificial Intelligence in Psychiatry Research, Diagnosis and Therapy

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Objective Psychiatric disorders are now responsible for the largest proportion of the global burden of disease, and even more challenges have been seen during the COVID-19 pandemic. Artificial intelligence (AI) is commonly used to facilitate the early detection of disease, understand disease progression, and discover new treatments in the fields of both physical and mental health.

Methods References for this review were identified by searching PubMed with the search terms “artificial intelligence,” “machine learning,” “deep learning,” “mental health,” “psychiatry,” “diagnosis,” “prognosis,” and “treatment.” Additional articles were identified by searching the references of relevant articles. Only papers that were published in English were reviewed. The final list of included articles was generated based on relevance and originality with regard to the broad scope of this review.

Results The present review provides a broad overview of AI methodology and its applications in data acquisition and processing, feature extraction and characterization, psychiatric disorder classification, potential biomarker detection, real-time monitoring, and interventions in psychiatric disorders. We also comprehensively summarize AI applications with regard to the early warning, diagnosis, prognosis, and treatment of specific psychiatric disorders, including depression, schizophrenia, autism spectrum disorder, attention-deficit/hyperactivity disorder, addiction, sleep disorders, and Alzheimer's disease. The advantages and disadvantages of AI in psychiatry are clarified.

Conclusion Artificial intelligence implementation in psychiatry continues along the path of becoming the most transformative technology that humanity has developed. Future psychiatric research needs to consider the implementation of AI to improve diagnostic, prognostic, and therapeutic decision making.

关键字：Psychiatric disorders; Artificial intelligence; Diagnosis; Prognosis; Treatment.

Polysomnography Parameters in Healthy and Neuropsychiatric Children: A Systematic Review and Meta-analysis

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Objective The current study was designed to identify objectively recorded variations in sleep patterns and establish typical reference values for sleep patterns in healthy and neuropsychiatric children (0-18 years of age) using quantitative data from the polysomnography (PSG).

Methods We searched the Scopus database for articles that cited the American Academy of Sleep Medicine criteria 2007 scoring manual and its subsequent versions. Nine routine PSG sleep parameters: total sleep time (TST), sleep efficiency (SE), sleep onset latency (SOL), wake after sleep onset (WASO), rapid eye movement latency (REML), percentages of each stage of sleep (N1, N2, slow-wave sleep (SWS), rapid eye movement (REM)) of healthy and neuropsychiatric children were included in this study up to December 23th, 2022 (CRD42020147008).

Results A total of 139 studies were included from 10456 papers involving 7210 participants. The total sleep time of children was 459.444 minutes (95% confidence interval (CI): 453.542 – 465.346). For each year of age increase in children, SOL would decrease by 0.83 minutes, WASO by 2.15 minutes, SWS by 0.593%, and REM-phase sleep by 1.223%. Similarly, we also found that WASO would decrease by 6.395 when the body mass index increased by 1. In contrast, SE and N2 would increase as age increased. For each year children grow, SE would increase by 0.505%, and N2 would increase by 0.656%. Notably, most of the disorders involved, with the exception of GAD, have reduced sleep efficiency, with Down syndrome, migraine, OSA, epilepsy, and nocturnal enuresis all having a reduced proportion of sleep in the REM phase.

Conclusion Our results provide an average reference value of sleep parameters for healthy children and adolescents using polysomnography. Some neuropsychiatric disorders interfere with children's normal sleep patterns. These findings help physicians and parents determine whether children's sleep parameters are within the normal range.

关键字：sleep; polysomnography; normal sleep parameters; children and adolescents; reference values

昼夜节律与认知失败：快眼动睡眠行为异常的中介作用

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目的 了解中国普通人群的昼夜节律情况，探索昼夜节律与认知失败的关系

方法 使用京东电子平台对受试者一般情况进行调查，使用清晨型与夜晚型量表-5、快动眼睡眠行为障碍筛查量表、认知失败量表分别对中国 41061 名一般人群的昼夜节律、快眼动睡眠障碍行为和认知功能进行评估。

结果 本研究共收集有效问卷 41061 份，涵盖我国 34 个省/直辖市。1.在昼夜节律方面，21740 人（52.9%）属于中间型，14268 人（34.7%）属于清晨型，5053 人（12.3%）属于夜晚型节律。2.睡眠节律与快眼动睡眠行为障碍、认知失败之间存在显著相关性（$p < 0.05$），快眼动睡眠障碍行为与认知失败存在显著正相关（$r=0.251$, $p < 0.05$）。3.快眼动睡眠障碍行为在睡眠节律与认知失败之间起到了部分中介作用，夜晚型节律通过增加快眼动睡眠障碍行为的方式增加了认知失败（$\beta=0.15$, $p < 0.05$），而清晨型节律则起到了相反的作用（$\beta=-0.08$, $p < 0.05$），睡眠节律的中介效应占总效应的 19.73%。

结论 我国成年人睡眠节律以中间型为主，快眼动睡眠障碍行为在昼夜节律与认知失败中起到了部分中介作用。

关键字：睡眠；昼夜节律；认知失败

The Role of Perineuronal Nets in Psychiatric Disorders and Pharmacological Treatment

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Depression is a complex mental health disorders with the dysfunction of different cell types and function in the brain. Increasing evidence shows that perineuronal nets (PNNs) are associated with development and progression

of depression, pointing to a potential therapy target for prevention. PNNs are specialized structures of the extracellular matrix molecules that surrounds the soma and proximal dendrites of subsets of neurons, enwrapping synaptic terminals in many regions of the central nervous system, particularly parvalbumin-expressing interneurons. In this review, we focused on the role of PNNs in the etiology and treatment of depression. First, we highlighted candidate mechanisms by several types of stress induces changes of PNN density in animal models. Second, we emphasized the possible mechanisms by which PNNs influence neuronal network activity due to inflammation in clinically depressed patients and PNN structure and core protein expression changes in animal studies. Third, we described the effects of antidepressants on PNNs and component proteins. Last, we focused on the role of PNNs in other psychotic disorders. These data suggested that regulation of PNNs and components actions might be a novel therapeutic strategy to against depression and other mental illnesses.

关键字：Depression; Perineuronal nets; Pharmacological treatment

Mindfulness-based Cognitive Therapy Enhances Sleep Quality in Individuals with Late-life Depression

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Objective Late-life depression (LLD) is an important public health problem among the aging population and often accompanied by sleep issues. Our previous study suggested that mindfulness-based cognitive therapy (MBCT) could improve depression and anxiety in patients with LLD. However, the effect of MBCT on sleep quality and its neuroimaging mechanism remains unclear. The present study investigated the effect and potential neural mechanism of MBCT on sleep quality in LLD patients.

Methods Sixty participants with LLD were enrolled and randomized to 8-week Treatment As Usual (TAU) group or MBCT plus TAU (MBCT+TAU) group (ChiCTR1800017725). The Pittsburgh Sleep Quality Index (PSQI) and Cardiopulmonary Coupling (CPC) were used to evaluate sleep quality. Magnetic resonance imaging (MRI) was applied to measure the changes in resting-state functional connectivity (RSFC) and meditative state task functional connectivity after treatment. We also explored the relationship between changes in brain connectivity and improvements in sleep quality.

Results Participants with LLD in the MBCT+TAU group reported a significant improvement in overall subjective sleep quality than TAU group ($p = 0.002$). According to CPC analysis, the duration of four sleep stages in both intervention conditions changed significantly from baseline to posttreatment (for all values $p< 0.05$). Sleep duration in MBCT + TAU group were significantly more than in TAU group ($p =0.005$). We also found increased functional connectivity between left orbitofrontal cortex and right middle frontal gyrus, right frontal pole, right paracingulate gyrus, left Cereb 2, left Cereb1, right superior frontal gyrus (SFG) and right angular gyrus, as well as increased functional connectivity between left SFG and right SFG, left inferior frontal gyrus (IFG), left inferior temporal gyrus (ITG), right ITG and left middle temporal gyrus (MTG) during meditation relative to resting-state functional connectivity in the MBCT+TAU group after 8-week treatment. Increased functional connectivity of right SFG with left MTG, the left IFG with posterior cingulate cortex, right ITG with left caudate and right occipital pole with right supramarginal gyrus were observed during meditation relative to RSFC at posttreatment. Additionally, the same group identified reduced functional connectivity between left IFG, and right superior temporal gyrus, as well as left amygdala, and right accumbent. Specifically, we found a correlation between change of the increase of right accumbent-left amygdala functional connectivity correlated with improvement of sleep quality in MBCT+TAU patients ($r = 0.45$, $p = 0.013$).

Conclusion Adjunctive MBCT with antidepressants appeared to have more desirable benefits on sleep quality in LLD patients. These results suggested that decreased right accumbent-left amygdala connectivity during meditation were related to altered time of stable sleep.

关键字：Late-life Depression; Sleep Quality; Mindfulness-based Cognitive Therapy; Randomized Controlled Trial; Follow-Up Study; fMRI

Age-related Differences in Sleep Architecture between Healthy Young and Older Adults

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Objective Sleep is a fundamental physiological process that is crucial for maintaining overall health and well-being. However, sleep patterns and requirements vary across different age groups. This study aims to investigate the sleep architecture in both healthy young and older adults.

Methods All participants underwent an adaptation night followed by the polysomnography (PSG) night. A total of 21 young adults (mean age±SD: 21.5±2.13 years) and 21 healthy older adults (mean age±SD: 64.95±3.94 years) had PSG recordings, from which sleep staging and EEG measures were obtained.

Results Older age was associated with lower duration and percentages of N3 and rapid eye movement (REM) sleep, accompanied by higher duration and percentages of N1 sleep. Older adults compared with younger adults experienced more frequent awakenings and wakefulness after sleep onset. Additionally, relative Delta (1–4 Hz) EEG power in non-rapid eye movement (NREM) sleep was lower in older adults than in younger adults at the Frontal and Central electrodes. However, EEG power in other higher frequency bands was higher in older adults compared to younger adults, with equal effects across electrodes. The counts and duration of spindles in the Frontal

electrode were lower in older adults compared to younger adults.

Conclusion In summary, age-related sleep differences are a complex and multifaceted phenomenon. Understanding these variations is crucial for developing targeted interventions that can optimize sleep health across the lifespan.

关键字：Aging; Sleep architecture; EEG

白藜芦醇对阿尔茨海默病小鼠前额叶皮质 SIRT1、RARβ、ADAM10 蛋白表达及 Tau 蛋白磷酸化水平的影响

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目的 探讨白藜芦醇(Res)对阿尔茨海默病(AD)小鼠前额叶皮质沉默信息调节因子 2 相关酶 I(SIRT1)维甲纬酸受体 B(RARB)、含有解整合素和金属蛋白酶结构域的蛋白 10(ADAM10)表达及 Tau 蛋白磷酸化水平的影响。

方法 选取 6 月龄 C57BL/6 雄性小鼠 6 只作为空白对照组(BC 组生理盐水灌胃)，6 月龄 APPswePSEN1dE9(APP/PS1)转基因小鼠 12 只制备 AD 小鼠模型后均分为 AD 组(生理盐水灌胃)、AD+Res 组(800mg/kgRes 灌胃)，采用 Morris 水迷宫实验(MWM)检测 3 组小鼠 6 月龄和 9 月龄时找到水中平台的时间:9 月龄小鼠完成 MWM 后麻醉处死，取前额叶皮质，采用荧光实时定量聚合酶链式反应(RT-qPCR)技术检测 3 组小鼠前额叶皮质 SIRTI 和 ADAM1mRNA 表达水平，采用免疫蛋白印迹(Westernblot)技术检测 3 组小鼠前额叶皮质 SIRTLRARB 及 ADAM10 蛋白表达及 Tau 蛋白磷酸化位点 Ser396 位点[p-tau(S396)1 磷酸化水平

结果 9 月龄 AD 组和 AD+Res 组小鼠小鼠较本组 6 月龄时找到水中平台的时间延长(P<0.01)9 月龄 AD 组小鼠较同月龄 BC 组小鼠找到平台的时间延长(P<00AD 组小鼠前额叶皮质 SIRTI 和 ADAM1O mRNA 表达水平较 BC 组小鼠下降(P<0.01)AD+Res 组小鼠前额叶皮质 ADAM10mRNA 表达水平较 AD 组升高(P<0.01):AD 组小鼠前额叶皮质 SIRTLRARBADAM10 蛋白表达水平较 BC 组降低(P<0.01)AD+Res 组小鼠前额叶皮质 SIRT1ADAM10 表达水平较 AD 组升高(P<0.05);AD 组小鼠前额叶皮质 p-tau(S396)磷酸化水平较 BC 组升高(P<0.001)，AD+Res 组小鼠前额叶皮质 p-tau(S396)磷酸化水平较 AD 组降低(P<0.01)

结论 Res 可改善 AD 小鼠的认知功能其机制可能与 AD 小鼠前额叶 SIRTLRARB 及 ADAM10 表达上调和 Tau 蛋白磷酸化水平降低有关。

关键字：阿尔茨海默病;Tau 蛋白质类;白藜芦醇;水迷宫;沉默信息调节因子 2 相关酶 I:维甲纬酸受体 B;含有解整合素和金属蛋白酶结构域的蛋白 10

Interpersonal Communication Is A Mediating Factor in The Relationship between Depressive Symptoms and Alexithymia

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Objective College students commonly experience mental health issues such as alexithymia and depressive symptoms, which are closely related to their interpersonal communication ability. Researchers have explored these relationships to better understand these issues and provide support for developing interventions.

Methods This study adopted a cross-sectional online survey using the Toronto Alexithymia Scale, Interpersonal Communication Competence Scale, and Patient Health Questionnaire-9 (PHQ-9) to assess alexithymia, interpersonal communication ability, and depressive symptoms among incoming freshmen at a certain medical university. The PROCESS2.13 macro program in SPSS23.0 was used to test the mediating effect of interpersonal communication ability.

Results (1) The detection rate of depressive symptoms among college students was 7.40%. (2) There was a positive correlation between total scores of alexithymia (59.38±8.90) and depressive symptoms (1.39±1.91) (r=0.28, p<0.01), as well as between total scores of alexithymia and total scores of interpersonal communication ability (59.22±20.23) (r=0.44, p<0.01). There was also a positive correlation between total scores of interpersonal communication ability and depressive symptoms (r=0.52, p<0.01). Factors 1 (12.40±3.65), 2 (15.00±3.91), and 4 (15.62±3.85) of alexithymia were positively correlated with total scores of depressive symptoms (factor 1: r=0.42, p<0.01; factor 2: r=0.4, p<0.01; factor 4: r=0.22, p<0.01) and total scores of interpersonal communication ability (factor 1: r=0.56, p<0.01; factor 2: r=0.53, p<0.01; factor 4: r=0.38, p<0.01). Factor 3(16.36±3.58) of alexithymia was negatively correlated with total scores of depressive symptoms (r=-0.35, p<0.01) and total scores of interpersonal communication ability (r=-0.37, p<0.01). (3) Interpersonal communication ability had a mediating effect on the relationship between alexithymia and depressive symptoms. The direct effect (effect size=0.024) and the mediating effect (effect size=0.041) accounted for 36.92% and 63.08%, respectively, of the total effect (effect size=0.065). Interpersonal communication ability also mediated the relationship between factors 1, 2, and 3 of alexithymia and depressive symptoms, with the mediating effect being the highest between interpersonal communication ability and factor 1 of alexithymia and depressive symptoms (total effect size=0.221).

Conclusion Alexithymia not only directly affects depressive symptoms but also exerts an indirect effect on them through the mediating role of interpersonal competence.

关键字：alexithymia;depressive;interpersonal communication;mediation

Delayed Activation in Prefrontal Cortex During Late Consolidation in Humans

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Objective Fear memory is beneficial for adapting to external environments, but excessive fear memory could lead to anxiety and trauma-related disorders. Exploring ways to effectively eliminate fear memory is of great significance. Studies have shown that fear memories are initially acquired and soon consolidated in neocortex, there is a shift away from hippocampal-dependent representational patterns to distributed neocortical representational patterns in the transformation from recent fear memory to remote fear memory. However, whether intervening the late phase after memory formation of fear memory modulates remote fear memory storage is unclear.

Methods Participants in our experiment would firstly learned the fear memory, then we scanned the neural activation and network connectivity of brain regions at different memory stages using functional magnetic resonance imaging (fMRI), and then regulated the activity of the prefrontal cortex at different memory stages through transcranial magnetic stimulation (TMS). We also conducted recent and remote fear memory tests to examine the expression of recent and remote fear memory. A total of 236 subjects were recruited for this experiment, and they were randomly assigned into different intervention groups. The intervention time points (fMRI scanning was before the intervention) were 0.5 hours, 9 hours, 18 hours, and 36 hours after fear memory acquisition.

Results We found out that medial prefrontal cortex (mPFC) inhibited delayed activation during late consolidation phase of memory in humans. Besides, prefrontal functional pathways differed in consolidation and late consolidation: dorsolateral prefrontal cortex (dlPFC) showed negative correlation with recent memory performance in consolidation (0.5h intervention) group and negative correlation with remote memory performance in late consolidation (18h intervention) group. Deep transcranial magnetic stimulus intervention on mPFC during memory consolidation phase could reduce fear responses in recent recall test, intervening during memory late consolidation phase contributed to the attenuation of remote fear memory. Continuous theta-burst stimulation on dlPFC during memory consolidation phase also could reduce fear responses in recent recall test, intervening during memory late consolidation phase contributed to the attenuation of remote fear memory.

Conclusion After 18 hours of fear memory acquisition, there is a delayed activation phenomenon in brain regions related to the long-term maintenance of fear memory. At this late consolidation stage, mPFC and dlPFC show their importance. TMS intervention in these brain regions can specifically reduce the fear response of participants in remote fear memory tests, but has no effect on the expression of recent fear memory. Late consolidation time window for memory intervention provides a new perspective on timely intervention during acute phase in clinical practice.

关键字：Fear Memory, Delayed Activation, Remote Memory, Prefrontal Cortex

Disruption of Inhibitory Control in Cannabis Users: A Meta-analysis of Functional Magnetic Resonance Imaging Studies

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Objective Cannabis is a widely used controlled psychoactive substance. Increased dopamine excitation transmission reduced the capacity of prefrontal cortex to inhibit and control drug seeking. Cannabis users desired cannabis and their capacity of inhibitory control decreased. We sought to perform a meta-analysis to clarify the dynamic changes of brain regions during inhibition control process of cannabis users.

Methods A systematic search of the PubMed, Embase and Web of Science was performed to identify fMRI studies that were published from the inception up to August 26th, 2022, which reported the brain activation during inhibitory control process in cannabis users. Backward citation tracking was also performed. Seed-Based d Mapping (SDM) was applied to combine the statistical maps, coordinates and t-values of the peaks in each study. We concerned the sources of heterogeneity by subgroups and meta-regression.

Results 13 studies with 694 individuals were included in the analysis. Individuals with cannabis use history during abstinence period showed increased responses in limbic system, decreased activation in visual system and motor system during inhibition control process compared with healthy controls. Longer duration time and lager amount of cannabis exposure could enhance the activation of cingulate cortex and cerebellum, and reduce the activation of prefrontal cortex, parahippocampus and medial temporal lobe. Dysregulation of these regions particularly impacted on adolescents.

Conclusion This review and meta-analysis indicates increased activation in limbic system and decreased activation in prefrontal cortex in people with chronic cannabis use. The more intake dose, duration years and shorter abstinence caused worse injury of cannabis to human brain. Protective measures should be taken to reduce the possibility of adolescents' exposure to cannabis and attenuate the damage of cannabis to the brain.

关键字：cannabis user; inhibitory control; fMRI; prefrontal regions; limbic system

Modulation of Brain Oscillations in Patients with Insomnia by Continuous Theta Burst Stimulation

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Objective Widespread global decreased slow oscillations in patients with insomnia. The continuous theta burst stimulation (cTBS) can be used to suppress cortical excitability, but little is known about how the cTBS influence spontaneous brain oscillations. The present study sought to investigate the effect of cTBS on resting state electroencephalogram (rsEEG) during waking and subsequent sleeping states. meeting criteria for insomnia/sleep disorder completed a counterbalanced sham-controlled crossover study in which they served as their own controls on two separate nights of in-laboratory polysomnography (PSG) monitored sleep.

Methods Fourty-one patients with insomnia were recruited and completed a counterbalanced crossover study on two separate nights of in-laboratory polysomnography (PSG) monitored sleep. Both active and sham cTBS comprised three sessions, during which closed-eyes resting state EEG recordings were acquired pre and post-cTBS of each session. Then patients were allowed an 8-hour sleep opportunity monitored with PSG at their habitual bedtime.

Results The power spectrum density (PSD) of delta and theta band was increased after cTBS across global brain regions, as well as enhanced the phase locking value (PLV) within frontal-occipital networks ($p<0.05$, FDR correction). Both PSD power and PLV value exhibited a cumulative effect with increasing pulses of cTBS. Temporal changes in clustering coefficient (CC), global efficiency (GE), and local efficiency (LE) provide evidence that the efficiency of information communication within frontal-occipital networks was enhanced specifically in the theta frequency band. During the NREM of first sleep cycle, the SWA power in frontal areas was higher after active intervention (159.74 % ± 32.14 %) than that after sham intervention (138.49 % ±32.73 %, $p < 0.05$). The dissipation rate of SWA power overnight was also steeper after active intervention than that after sham intervention.

Conclusion By demonstrating that cTBS induces low frequency oscillations, our study contributes to a more comprehensive understanding of the neurobiological mechanisms involved in the effects of cTBS, and may inform the development of more effective treatments for insomnia disorder.

关键字：cTBS, EEG, SWA, insomnia

严重精神障碍社区同伴支持项目组织管理中的常见问题与应对

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背景 严重精神障碍社区同伴支持技术是一种成熟、先进、经济有效的精神康复服务模式。北京大学第六医院在全国推广社区同伴支持项目，对试点地区进行月度督导、技术培训等工作，帮助该技术在全国各地实施推广。目前全国已有 200 余个社区参与同伴支持项目开展相应服务。目的 阐述严重精神障碍社区同伴支持项目组织管理中的常见问题与应对策略，指导该项目在全国各地进一步推广。

方法 收集同伴支持项目月度工作会各地遇到的问题与专家团队的建议，将主要问题进行分类汇总。

结果 1.项目前期招募困难。应对方案：①拓展招募形式。除海报与微信公众号外，在精神科门诊、家属健康讲堂、精防人员随访时宣传；②扩大招募范围。可考虑将招募范围扩大至周边社区。2.项目开始初期同伴工作者能力不足。应对方案：①加强培训与督导。对同伴工作者充分培训后再组织其开始工作，每次小组活动结束后给予正性督导与反馈，增强其自信心；②初期工作人员在活动策划和活动中适当提供帮助，给予支持。3.项目中期活动形式吸引力下降。应对方案：①征求同伴意见。与同伴们集体座谈，集思广益，共同商讨活动计划；②结合主题节日如端午节、中秋节等设计活动内容；③加强交流学习。增强与其他项目点的沟通交流，学习借鉴其经验，开拓思路。4.同伴脱落。应对方案：①支持同伴工作者。同伴脱落容易引起同伴工作者内疚自责等，产生消极影响，应第一时间对同伴工作者提供心理支持和疏导，使其正确看待脱落是正常现象；②分析原因。与脱落的同伴及时沟通，找出脱落原因，后续组织活动时持续改进。

结论 严重精神障碍社区同伴支持服务是经济易行可推广的精神障碍社区康复服务模式，有效处理组织管理中的问题能更好地促进其推广实施。

关键字：严重精神障碍；社区；同伴支持；问题应对

精神科护士工作环境、工作投入对创新行为的影响研究

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目的 护士作为医院组成的重要群体，其行为能力直接影响患者安全和医院竞争力。护理人员的创新培养是护理学科发展的重要推动力。研究显示我国护理人员创新行为处于中等水平，有待进一步提高。本研究以精神科护士为对象，探讨护理工作环境对创新行为的影响机制，以期为提升护士创新能力提供参考。

方法 以陕西省 569 名精神科护士为研究对象，

采用一般资料问卷、专科护士工作投入量表、护士工作环境量表、护士创新行为量表进行调查，使用 SPSS 26.0 软件进行描述性分析、相关性分析和线性回归分析，应用 AMOS26.0 软件建立结构方程模型进行中介效应检验，检验水准 α=0.05。

结果 本次研究共发放问卷 598 份，有效问卷 569 份，有效回收率 95.15%。精神科护士工作投入条目均分（3.48±1.67）分，处于中等偏高水平；护理工作环境条目均分（2.85±0.49）份，处于中等水平；护士创新行为总分（30.72±7.88）分；三者之间均存在显著正相关（P＜0.01）；护士工作投入在护理工作环境和创新行为间中介作用的结构方程模型适配度拟合较好，模型合理。Bootstrap95%置信区间均未包括 0，提示精神科护士工作投入在工作环境与创新行为之间存在部分中介作用，中介效应占总效应 52.60%。

结论 活力、奉献和高质量护理服务的基础工是护士创新行为的重要影响因素，工作投入在工作环境与创新行为间起部分中介作用，中介效应值为 52.60%，为护士提供良好的工作环境和基础，提高护士工作活力，培养爱岗奉献精神，可提高护士在工作中的创新行为。

关键字：精神科护士；工作投入；创新行为；护士工作环境

氨苯砜对一种阿尔兹海默症模型小鼠的认知缺陷有改善作用

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目的 阿尔兹海默病（Alzheimer's disease, AD）是一种中枢神经系统退行性疾病，是最常见的痴呆类型。对于阿尔兹海默病患者而言，认知功能的减退是疾病的主要标志。阿尔兹海默病的病理特征主要有淀粉样蛋白斑块、神经纤维缠结和神经元丢失等。随着人口老龄化的加剧，阿尔兹海默病的患病率逐年增高，给社会带来严峻的政治和经济挑战。小分子药物氨苯砜（dapsone, DDS）是一种砜类抑菌剂，除了对麻风杆菌有较强的抑菌作用外，具有抗炎和抗氧化等许多功效。有临床研究提示，DDS 可能有助于减缓 AD 的发生发展，但其作用机制尚不明确。因此有必要在可信的动物模型中进行研究，以期找到 DDS 的潜在作用靶点，揭示 DDS 在延缓 AD 的发生发展，特别是改善认知功能方面发挥作用的原因。

方法 在 BV2 细胞中通过不同浓度梯度的 DDS 药物进行干预，探究 DDS 对 LPS 诱导的细胞炎症的治疗作用，后续通过 Elisa、QPCR 和免疫荧光、测序等方法进行分析。在 AD 转基因动物模型中进行在体验证，通过前期连续 6 周的治疗，是否会延缓 12 月龄 AD 鼠疾病进程。通过生物素连接标记 DDS，然后通过 Pulldown 联合质谱技术，对得到的结合靶点进行通路富集，根据前期研究结果，将重点关注与炎症相关的通路，通过分子生物学手段对得到的靶点进行验证。

结果 持续 6 周的 DDS 治疗，改善了 AD 小鼠的认知缺陷，且长期治疗不会对小鼠的抑郁焦虑行为产生负面影响。

结论 DDS 有助于改善 AD 小鼠的认知行为，对阿尔兹海默病这项复杂疾病提供了新的治疗策略,为未来的临床治疗提供了依据。

关键字：氨苯砜 阿尔兹海默症 认知障碍

Associations of Sleep Pattern with Survival and Life Expectancy of Cancer Patients

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Objective As far, it remains unclear whether and to what extent having a healthy sleep pattern can increase the survival rate and prolong the life expectancy of cancer survivors. In this study, we aimed to investigate the associations between sleep patterns and the survival rate among cancer patients. We also estimated the life expectancy of cancer patients based on their sleep scores and distinct sleep behaviors. These findings can serve as valuable metrics for healthcare professionals, and offering health promotion information tailored to cancer patients' needs.

Methods This prospective cohort study included 20,517 cancer patients from UK Biobank. We developed a comprehensive sleep score by combining five individual sleep behaviors: chronotype, sleep duration, insomnia symptoms, snoring and daytime sleepiness. Kaplan?Meier estimation was employed to generate survival curves, and the log-rank test was used to compare the survival probability among different groups based on the number of low-risk sleep factors and sleep scores. The life table method was utilized to calculate participant's life expectancy based on the increasing number of low risk sleep factors and sleep scores.

Results Of 20,517 cancer patients, those with higher number of low-risk sleep factors exhibited a significantly higher survival probability (P<0.001). Additionally, individuals with healthy sleep pattern demonstrated the highest survival probability across different sleep score groups (P<0.001). The average life expectancy at age 50 increased with an increasing number of low-risk sleep factors among cancer survivors, ranging from 6.8 years to 9.9 years. Cancer patients with poor sleep, intermediate sleep and healthy sleep patterns had estimated life expectancies at age 50 of 6.8 years, 7.8 years, and 8.8 years, respectively. Among cancer patients aged 50, those with low risk for individual sleep behavior, such as early chronotype, 7–8 hours of sleep duration, no or rare insomnia symptoms and infrequent daytime sleepiness, had longer life expectancies than those with high risk. However, this study did not observe a difference in life expectancy between low-risk and high-risk groups for snoring. Healthy sleepers had longer life expectancies than poor sleepers within each age group ranging from 45 to 70 years. However, the gap in life expectancy between different sleep score groups decreased after the age of 60.

Conclusion Adopting a healthy sleep was associated with a higher survival rate among cancer patients, and those who maintained a healthy sleep pattern had a longer life expectancy than poor sleepers. These findings contribute to the development of evidence-based prevention strategies for policymakers and healthcare professionals aimed at improving the survival outcomes of cancer patients.

关键字：Healthy sleep, Sleep behaviors, Cancer patients, Life expectancy, Survival

基于潜在剖面分析的公交驾驶员路怒情绪分型及影响因素研究

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目的 探讨公交驾驶员路怒情绪的潜在分类，并分析不同类别的影响因素。

方法 采用整群抽样的方法于2022年9—11月对芜湖市1465名公交驾驶员进行调查。调查内容包括一般资料、驾驶愤怒量表（DAS）、职业倦怠量表-普适版（MBI-GS）和匹兹堡睡眠质量指数量表（PSQI）。采用 Mplus 8.3 对公交驾驶员路怒情绪进行潜在剖面分析，并通过 logistic 回归分析潜在分类的影响因素。

结果 潜在剖面分析将路怒情绪显示为3个类别时效果最佳，分别定义为“低路怒-情绪稳定型”（69.0%）、“中等路怒-配合执法型”（21.4%）、“高路怒-易激惹型”（9.6%）。回归分析显示MBI-GS得分较高（OR=1.521，95%CI=1.282~1.803），PSQI得分较高（OR=1.280，95%CI=1.206~1.359），月收入在3000元以下（OR=1.445，95%CI=1.183~1.979），偶尔饮酒（OR=1.407，95%CI=1.106~1.643），经常饮酒（OR=1.364，95%CI=1.218~1.756）是“中等路怒-配合执法型”的危险因素；驾龄（年）在10~19（OR=0.460，95%CI=0.250~0.845），≥20（OR=0.429，95%CI=0.197~0.933）是“高路怒-易激惹型”的保护因素，MBI-GS得分较高（OR=3.573，95%CI=2.713~4.705）、PSQI得分较高（OR=1.341，95%CI=1.243~1.447），月收入在3000元以下（OR=1.496，95%CI=1.183~1.744），偶尔饮酒（OR=1.496，95%CI=1.147~1.785），经常饮酒（OR=1.678，95%CI=1.506~2.073）是“高路怒-易激惹型”的危险因素。

结论 公交驾驶员路怒情绪存在3种不同潜在类别，公交公司管理者应注重不同驾龄、月收入和饮酒频率驾驶员的分类，通过优化人员结构配置、改善激励措施、加强健康生活方式宣教等方式降低驾驶员职业倦怠感、改善睡眠质量，从而达到预防和改善其路怒情绪的目的。

关键字：公交驾驶员；路怒情绪；职业倦怠；睡眠质量；潜在剖面分析

Community Survey of Mental Health Problems Among Survivors in China During The COVID Pandemic

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Objective Impacts on mental health during the acute COVID-19 infection have been reported, but the long-term effects are less evident.

Methods We reported findings for community survivors 20 months after diagnosis of COVID-19 in a community-based cohort in China. Mental symptoms were collected from four validated questionnaire including depression symptoms measured by the Patient Health Questionaire-9 (PHQ-9) , anxiety symptoms measured by the Generalized Anxiety Disorder-7 (GAD-7) , insomnia symptoms measured by the Insomnia Severity Index (ISI), and PTSD symptoms measured by the PTSD checklist for DSM-5 (PCL-5).

Results A total of 1000 participants were included in the study with a median follow-up duration of 625.0 days (615.0–634.0) after COVID-19 diagnosis. The mean age of the participants was 55.9 (13.8) years, with 446 (44.6%) men. 85 patients (8.5%) were diagnosed as severe or critical cases in the acute phase. The median length of hospital stay was 31.0 days (21.0–48.0). 514 (51.4%) had at least one physical comorbidity, 43 patients (4.3%) had history of mental disorders and 10 (1.0%) had family history of mental disorders. 369 (36.9%) participants reported at least one mental symptoms. The most frequent mental symptoms after 20 months were depression (25.2%) and insomnia (24.5%), followed by anxiety (20.1%) and PTSD (4.3%). Physical comorbidities, history of mental disorders, longer hospitalization periods and severe acute illness were significantly associated with at least one mental problems.

Conclusion The overall effect of the pandemic has been associated with persistent psychological problems. More than one-third of survivors have not recovered and continue to bear a major burden of mental problems 20 months after the acute infection.

关键字：mental, COVID-19, community survivors

Global, Regional and National Mental, Neurological and Substance Use Disorders Among Young People Aged 10-24 Years, 1990-2019:

Findings for The Global Burden of Disease Study 2019

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Objective Understanding the causes and disease burden of mental, neurological and substance use (MNS) disorders can aid in the development of effective interventions and improve brain health of young people.

Methods The 2019 Global Burden of Disease study was used for data on the prevalence, Disability Adjusted Life Years (DALYs), Years Lived with Disability (YLDs), and Years of Life Lost (YLLs) for mental disorders (MDs), neurological disorders (NDs), and substance use disorders (SUDs), including corresponding level 3 causes in young people aged 10 to 24 years, in 204 countries and territories, between 1990 and 2019. Estimations were made for rates per 100,000 population, percentage changes between 1990 and 2019, 95% Uncertainty Intervals (UIs), and correlations with Sociodemographic Index (SDI).

Results In 2019, there were an estimated 985.1 million (95% UI 841.5-1135.3) prevalent cases of MNS disorders among individuals aged 10-24 worldwide, accounting for 55.9% of the total burden in this age group for all diseases, including neurological disorders (706.3 million, 40.1%), mental disorders (248.0 million, 14.1%), and substance use disorders (30.1 million, 1.7%). Among MNS, 86.2% (849.6 million, 722.9-981.7) of global cases were from low- or middle-income countries, with Asia accounting for 55.5% (471.5 million, 401.3 -543.2). The prevalence rate of MNS disorders increased steadily from 10-14 years to 20-24 years old. Females are more affected by MDs and NDs than males, while the reverse trend was observed for SUDs. YLDs were responsible for 94.3% of the total estimated DALYs for MNS disorders worldwide. MDs were the leading cause of disease DALYs globally, and accounted for the largest proportion of MNS DALYs in 2019 (12.2%). The highest DALYs rate was found in the high-income countries (4,072.6, 2561.9-6,046.5 per 100,000 population) while the lowest rate in Southeast Asia, East Asia and Oceania (2,180.1, 1261.6-3,478.4 per 100,000 population). The prevalence rates of MDs, NUDs, and SUDs were significantly increased in nations with higher SDI ($p<0.001$).

Conclusion Youth worldwide suffer from a variety of mental, neurological, and substance use disorders, in particular MDs are ranked the number one cause of all disease burden across high, middle, and low income countries. Future policies should strengthen prevention and health services for mental, neurological, and substance use disorders to improve the health of young people.

关键字：mental disorders，neurological disorders，substance use disorders， youth

新冠疫情期间大学生人群网络成瘾现状及相关因素分析

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目的 调查新冠疫情期间大学生人群中网络成瘾的现状及相关因素。

方法 采用方便抽样对湖北省武汉市的30所高校大学生进行横断面调查。线上问卷采集一般人口学信息、学校、家庭和网络使用行为等内容，采用网络成瘾测试（IAT）评估问题性网络使用和网络成瘾，其他精神心理症状亦通过自评量表评估。使用无序多分类 Logistic 回归模型分析问题性网络使用和网络成瘾的相关因素。

结果 研究共纳入 32047 名大学生，其中 60.32%为女性、68.94%为本科生，中位数年龄为 19（四分位数 18-20）岁。问题性网络使用和网络成瘾在大学生中的检出率分别为 27.95%和 1.67%。多因素 Logistic 回归显示，男性、年龄小、毕业年级、学校表现不佳、人际关系差、特定教养方式和人格特质、疫情期间压力、不良经历和习惯、失眠、抑郁和焦虑等精神心理症状以及在线上打游戏和购物与更高的网络成瘾风险相关。

结论 问题性网络使用是疫情期间大学生面临的重要问题。家校联合引导其形成良好的网络使用习惯、积极进行体育锻炼、增加人际交往并培养与父母和同学的良好互动关系、整体促进精神心理健康等综合措施将有助于降低这一特殊时期和未来大学生人群中的问题性网络使用及成瘾风险。

关键字：网络成瘾；问题性网络使用；流行病学调查；危险因素

COVID-19 大流行期间一般人群认知失败模式及相关因素

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目的 全球范围内进行的 COVID-19 大流行造成了精神问题的沉重负担，可能会影响一般人群的认知功能。本研究旨在调查我国一般人群在疫情期间认知失败的水平、负面变化及相关因素。

方法 本横断面调查通过发放线上问卷链接，在 2020 年 4 月 18 日至 5 月 4 日间招募了 18-70 岁的参与者。认知失败采用认知失败问卷(CFQ-14)进行测量，并通过多元线性和逻辑回归模型评估与认知失败及其负面变化的相关因素。

结果 共招募了 30879 名符合条件的参与者，其中多数为女性(59.10%)、在 31-45 岁间(61.51%)。认知失败问卷的平均评分为 15.62 [SD=11.55]， 4619 名(14.96%)参与者报告了大流行期间认知失败水平的负面变化（即认知失败增多）。多元回归分析显示，女性、有身体和精神病史、自我感知受新冠肺炎影响、食欲和味觉偏好改变、人际关系恶化、睡眠时间长、睡眠质量差、抑郁、焦虑和 PTSD 症状的参与者认知失败水平较高和负面变化有关，而经常运动的参与者这两种结果的风险均更低。

结论 这项研究表明，有必要关注疫情背景下的一般人群的认知功能。健康的生活方式和减少心理压力对人群的认知水平有积极作用。

关键字：COVID-19，认知功能，认知失败，一般人群，危险因素

The Influence of Neurotic Personality on Insomnia: The Chain Mediating Role of Mind Wandering and Symptom Rumination

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Objective Insomnia is one of the major public health issues in the world today. The association between neuroticism and insomnia has been widely confirmed, but its psychological mechanisms are unclear. This study reveals the direct and indirect effects of mind wandering and symptom regurgitation on insomnia by examining the relationship between neurotic personality, mind wandering, symptom rumination, and insomnia based on the 3P model of sleep.

Methods The study measured 1,790 online participants using the Big Five Personality Inventory, Athens Insomnia Scale, Chinese Version of Mind-Wandering Questionnaire, and Chinese Version of Nolen-Hoeksema Ruminative Responses Scale. The relationship between neuroticism and insomnia was analyzed using correlation and mediation analysis, investigating the mediating role of mind-wandering and rumination symptoms.

Results The study found significant positive correlations between Neurotic Personality, Mind Wandering, Symptom Rumination, and Insomnia ($r>0.464$, $p<0.001$). Moreover, mediation analysis revealed that Neurotic Personality has a significant direct and indirect effect on Insomnia through Mind Wandering and Symptom Rumination (Estimate=0.372, SE=0.031, $p<0.001$).

Conclusion The Mind wandering and symptom rumination brought by neuroticism are risk factors for insomnia, and interventions targeting Mind wandering and symptom rumination may block this pathway and provide new insights for insomnia intervention measures.

关键字：Insomnia, Neurotic personality, Mind wandering, Symptom rumination, Chain mediation

不同饮食习惯对睡眠质量的影响

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目的 探究不同饮食习惯对中国人群睡眠质量的影响。

方法 采用问卷调查的方式，调查 15 岁以上人群的饮食习惯和睡眠质量的情况。问卷内容包含一般人口学特征、不同种类食物使用频率和睡眠相关量表。将不同食物分为四类：鱼、肉或蛋类食物；鲜果蔬和豆、奶制品；辣椒；食用甜点或油炸食品。以 PSQI 量表测量睡眠质量，得分在 7 以上者为睡眠质量较差；ISI 量表测量失眠症状，得分在 7 以上者为存在失眠症状；MEQ 量表测量睡眠分型。以 logistic 回归分析探索睡眠质量和饮食习惯之间的关系。

结果 41061 名调查对象平均年龄为 36.24 岁（SD=9.51），男性占比 40.95%。其中，91.15%的人经常食用鱼、肉或蛋类食物，96.23%经常食用新鲜果蔬、豆、奶制品，35.59%经常食用辣椒，26.97%经常食用甜点或油炸食品。调查人群平均睡眠时长为 6.88 小时（SD=1.38），47.23%的人睡眠质量较差，31.62%面临不同程度的失眠症状，52.95%为中间型睡眠，34.74%

为清晨型睡眠，12.31%为夜晚型睡眠。多因素 Logistic 分析结果显示，在调整性别、年龄、运动等可能的混杂因素以后，经常吃新鲜果蔬、豆、奶制品的人比较少吃的人睡眠质量较高（OR=0.37，95%CI: 0.16~0.89），而经常吃辣椒的人比较少吃的人睡眠质量更差（OR=1.08，95%CI: 1.01~1.16），与较少吃甜点或油炸食物的人相比，偶尔（OR=1.38，95%CI: 1.27~1.49）或经常（OR=1.40，95%CI: 1.28~1.53）吃此类食物的人睡眠质量较差的风险更高。

结论 合理的饮食能帮助人们提高睡眠的质量。经常食用新鲜果蔬、豆、奶制品，注重荤素搭配，减少辛辣、油腻食物的食用有助于人们的睡眠。

关键字：饮食习惯，睡眠质量，失眠，睡眠分型

Global Prevalence and Risk Factors of Nonmedical Prescription Drug Use in General Population, A Meta-analysis and Systematic Review

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Objective To provided a quantitative estimate of global prevalence of prescription opioids, sedatives and tranquilizers and stimulants nonmedical use in general population.

Methods We searched PubMed, Embase and Cochrane library databases for studies published from inception up to June 29, 2022. Studies related to NMPDU of three type drugs including opioids, sedatives/tranquilizers and stimulants in general populations were included. Random effects model was used to calculate pooled odds ratios (OR) and 95% confidence intervals (95% CI). Subgroups analyses were conducted to explore association between NMPDU and different population characteristics including age group, sex, publication year, geographical region, level of income, type of population and survey methods.

Results A total of 124 studies involved 2633457 participants from 14 countries were included into the meta-analysis. Among eligible studies, 61 studies were included for prevalence of prescription opioids nonmedical use, 24 for prescription sedatives and tranquilizers and 68 for prescription stimulants. The pooled lifetime nonmedical use prevalence of opioids was 11.6% (95%CI: 9.4%-13.9%), sedatives/tranquilizers 5.9% (95%CI: 3.4%-8.9%) and stimulants 11.7% (95%CI: 9.0%-14.6%). College students, people from high-income country and America region had a higher prevalence of NMPDU. High-income country, Young age, higher grade in school, mental health problems, other substance use and poor social supports were associated with nonmedical use behaviors.

Conclusion The prevalence of nonmedical use behaviors of prescription drugs was basically stable, And the increase of opioid and sedative/tranquilizers has been slowed since 2015. Nonmedical use of stimulants might be another trend of NMPDU. More NMPDU was more likely to occur in younger age groups, high-income areas and student groups. Family and friends were common sources of prescription drugs, which reflected lack of conception about potential for prescription drug misuse. These findings suggest that comprehensive and early detection and intervention for the prevention of NMPDU is necessary to reduce its economic, social and health burden.

关键字：Nonmedical use, Prescription opioids, Sedatives and tranquilizers, Stimulants, General population

中国大学生电子烟使用相关行为的流行程度及危险因素

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目的 电子烟是一种新兴的烟草替代产品，近年来其流行程度有所上升。但电子烟在大学生中的认知情况和流行程度尚不明确。本研究拟调查大学生中电子烟的认知率和使用情况，探究大学生使用电子烟的特征。

方法 采用方便抽样的方法，于 2021 年 3 月 18 日至 6 月 23 日在中国湖北省武汉市 30 所高校中开展在线调查。通过量表和自主设计的问卷收集电子烟使用相关行为的发生率和可能的相关因素等信息。采用 logistic 回归分析电子烟使用相关行为的风险因素。

结果 共纳入 24134 名受访者， 其中男性 9822 人(40.7%)，平均年龄为 20.2 (SD=1.3)岁。在所有受访者中，20048 人(83.1%)表示听说过电子烟，6378 人(26.4%)曾经看到过别人使用电子烟，1132 人(4.7%)曾尝试使用电子烟。男性(OR=1.57，95%CI=1.34-1.83)、存在饮酒(OR=1.78， 95%CI=1.49-2.12)和吸烟(OR=10.17，95%CI=8.62-11.99)行为的学生更有可能尝

试使用电子烟。抑郁症状与听说过电子烟(OR=1.25，95%CI=1.06-1.46)、看到过别人使用电子烟(OR=1.2，95%CI=1.07-1.35)或尝试过使用电子烟(OR=1.45，95%CI=1.16-1.82)的风险增加相关。

结论 在本次调查中，武汉市大学生中有超过 4/5 的人听说过电子烟，约 1/20 的人尝试使用过电子烟。该人群中电子烟使用率相对较低，但仍存在一些接触过电子烟相关信息而又对电子烟危害缺乏了解的人，这些人可能会出于好奇尝试使用电子烟。大学生中的精神心理问题及吸烟饮酒等行为与电子烟的使用相关。研究提示，需要对大学生进行健康教育并采取综合的预防干预策略，以控制电子烟的流行并减少电子烟对大学生的伤害

关键字：电子烟，大学生，使用行为，心理健康

COVID-19 康复期患者睡眠特征和睡眠呼吸障碍与抗体研究

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目的 COVID-19 患者合并 OSA 等睡眠障碍时疾病严重程度更高且预后更差。本研究拟通过 PSG 监测明确 COVID-19 康复期患者的睡眠和睡眠呼吸特征，探索其与 SARS-CoV-2 感染引起的血清学变化之间的关联性。

方法 本研究共纳入武汉地区 COVID-19 康复期患者 102 名（男性 36 名、女性 66 名），采用整夜 PSG 监测睡眠结构、睡眠连续性及睡眠呼吸事件等特征，使用 ELISA 方法对血清中 SARS-CoV-2 棘突（Spike, S）蛋白、S 蛋白重组受体结合域（Recombinant receptor binding domain, RBD）以及壳核（Nucleocapsid, N）蛋白相关 IgG 进行定量检测，进一步通过假病毒中和实验测定血清阻断 SARS-CoV-2 假病毒感染细胞的效率。

结果 （1）根据 AHI 将 COVID-19 康复期患者分为非 OSA 组（AHI＜5 次/小时，34 人）、轻度 OSA 组（5≤AHI＜15 次/小时，33 人）和中-重度 OSA 组（AHI≥15 次/小时，35 人），其中中-重度 OSA 患者占比 34.3%，其 BMI、男性比例、SARS-CoV-2 总 IgG、Anti-N IgG 水平均高于非 OSA 患者，三组间 SARS-CoV-2 Anti-S IgG、Anti-RBD IgG 水平无差异；（2）多变量线性回归模型显示 COVID-19 康复期患者 BMI、自症状出现至抗体检测时间间隔、微觉醒指数（Microarousal index, MAI）及快速眼球运动睡眠期氧减饱和度指数（Oxygen desaturation index, ODI）与血清中 SARS-CoV-2 Anti-N IgG 水平呈独立相关；（3）阻塞性睡眠呼吸暂停指数、低通气指数、睡眠过程中低血氧饱和度持续时间均与 SARS-CoV-2 Anti-N IgG 水平相关；（4）SARS-CoV-2 总 IgG、Anti-N IgG、Anti-S IgG、Anti-RBD IgG 水平与血清阻断 SARS-CoV-2 假病毒感染细胞的效率呈正相关，Anti-S IgG、Anti-RBD IgG 与阻断效率相关性更高。

结论 研究提示 OSA 患者夜间睡眠反复发生的间歇性低氧和睡眠碎片化可能是加重 COVID-19 患者免疫反应的内在危险因素。

关键字：睡眠，阻塞性睡眠呼吸暂停，新型冠状病毒肺炎，多导睡眠监测

Memory Consolidation Drives The Enhancement of Remote Cocaine Memory Via Prefrontal Circuit

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Remote memory usually decreases over time, whereas remote drug-cue associated memory exhibits enhancement, increasing the risk of relapse during abstinence. Memory system consolidation is a prerequisite for remote memory formation, but neurobiological underpinnings of the role of consolidation in the enhancement of remote drug memory are unclear. Here, we found that remote cocaine-cue associated memory was enhanced in rats that underwent self-administration training, together with a progressive increase in the response of prelimbic cortex (PrL) CaMKII neurons to cues. System consolidation was required for the enhancement of remote cocaine memory through PrL CaMKII neurons during the early period post-training. Furthermore, dendritic spine maturation in the PrL relied on the basolateral amygdala (BLA) input during the early period of consolidation, contributing to remote memory enhancement. These findings indicate that memory consolidation drives the enhancement of remote cocaine memory through a time-dependently increase in activity and maturation of PrL CaMKII neurons receiving a sustained BLA input.

关键字：Memory system consolidation, addiction, prefrontal cortex

Help-seeking Behavior of Sleep Problems in Chinese Adult Population

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Objective Sleep problems seriously affect people's mental health, work performance and quality of life. Pharmacological and non-pharmacological treatments can help improve symptoms, such as insomnia and daytime sleepiness, and improve quality of life. Despite the variety of treatments available, many patients with sleep problems may not be aware of their problems and adequately treated. Meanwhile, there is a lack of researches on whether people would seek help for sleep problems, especially with regard to the types of seeking help and choices of who people turn to for help. Therefore, it is necessary to investigate the behavior, objects and reasons of seeking help for sleep problems among Chinese adults.

Methods The study was a cross-sectional study with convenience sampling of participants recruited by online platform across China. The survey was conducted from June 12 to July 17, 2022, and ultimately surveyed 40,676 participants on sleep problems including sleep quality, insomnia, excessive daytime sleepiness, obstructive sleep apnea syndrome, restless leg syndrome, and behavior and reasons of (not) seeking help for sleep problems. Logistic regression was used to analyze the influencing factors of help-seeking behavior for sleep problems.

Results 10.91% of the participants had help-seeking behavior for sleep problems, and the rates of help-seeking of people with sleep problems as poor sleep quality, short sleep time, insomnia and excessive daytime sleepiness were 16.76%, 14.90%, 21.97% and 18.86%, respectively. For sleep problems, the first and main source of help-seeking were psychiatrists or psychologists (33.74% and 44.39%, respectively), followed by traditional Chinese medicine. The most common reason for not seeking help was the belief of that they did not have sleep problems (60.97%). Lack of access to help and concerns about the effectiveness or side effects of drug treatment were also considered as important barriers of help-seeking.

Conclusion Almost merely 10% of Chinese people sought help for sleep problems. The rates of seeking help increased among people with sleep problems, but was still less than one third. Multiple factors affecting help-seeking behavior for sleep problems in Chinese population, so further researches are necessary to improve the belief of seeking help, promote the development of sleep health education and implement specific strategies of intervention.

关键字：sleep, sleep disorders, help-seeking, treatment preference

Sleep Status and Sleep Pattern of The General Population in China: A Cross-sectional Study

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Objective Sleep disorders are a critical public health problem. To investigating the sleep patterns of Chinese residents and the prevalence of various sleep disorders, a large-scale epidemiological study was conducted to explore the factors of sleep disorders and provide a basis for targeted interventions for high-risk populations.

Methods The study was a cross-sectional study with convenience sampling of participants by onlin platform from June 12 to July 17, 2022, and finally recruited 40,665 participants aged 18 to 65. The study's primary outcome measures were sleep duration, sleep quality, and the prevalence of insomnia, excessive daytime sleepiness, obstructive sleep apnea (OSA), and restless legs syndrome (RLS). The Pittsburgh Sleep Quality Index (PSQI), Insomnia Screening Index (ISI), Morning and Evening Questionnaire-5 (MEQ-5), Epworth Sleepiness Scale (ESS), and Stop-Bang questionnaire were used for assessment. Sleep patterns was assessed according to five aspects: 1) early chronotype (MEQ≥18); 2) Sleep 7-8 hours a day; 3) No or very few symptoms of insomnia (ISI< 8); 4) No snoring 2); 5) No frequent sleepiness (ESS≤10) and finally defined as "healthy sleep pattern", "moderate sleep pattern", and "poor sleep pattern".

Results 1. Sleep characteristics in adults: The average nighttime sleep duration of the surveyed population was 6.88±1.37 hours, with 59% of adults sleeping for 7-8 hours, 4.51% sleeping for 9-10 hours. The prevalence of insufficient sleep (10 hours) was 0.43%. A total of 47.28% of participants had poor sleep quality, 53.11% had intermediate morning-evening sleep patterns, followed by moderately evening type (27.62%); 19.84% of participants rarely napped, and the average nap time for the rest of the napping population was 40.13±24.77 minutes. A total of 23.54% of participants used non-pharmacological means to improve sleep, and 4.63% used pharmacological treatment. 2. Prevalence of sleep disorders in adults: In the surveyed population, the screen rate of insomnia， excessive daytime sleepiness， OSA and RLS was 31.67%, 16.82%, 25.79%, and 9.41%. 3. Sleep pattern analysis: 10.25% of participants belonged to the poor sleep pattern group, 44.46% belonged to the moderate sleep pattern group, and 45.29% belonged to the healthy sleep pattern group.

Conclusion This study found that sleep problems in the Chinese adult population are significant, with high prevalence rates of insufficient sleep, poor sleep quality, insomnia, and excessive daytime sleepiness symptoms. This study suggests that the sleep conditions of the Chinese population require long-term attention, and the importance of sleep health among the general public needs to be further emphasized.

关键字：sleep, sleep disorders, sleep pattern, epidemiological investigation

运动与睡眠质量的关系：一项横断面研究

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目的 本研究旨在探索工作之余的体育运动和睡眠质量之间的联系，为人们提供合理的运动策略，尽可能减少失眠的发生，改善睡眠质量。

方法 我们使用在中国的一项睡眠及运动状况调查，纳入 40461 名参与者的研究，从运动频率、运动强度、运动时长等多个角度分析运动对睡眠质量（PSQI）的影响。

结果 研究发现，总体而言，我们发现运动人群较不运动人群的睡眠质量好，失眠的风险更低。相关性分析显示频率较高（β=-0.116）、时间较长（β=-0.020）、坚持年数较多（β=-0.026）的运动与更好的睡眠相关，而每次运动强度更大并不能明显改善睡眠。二分类 logistic 回归分析显示，与不运动的人群相比，频率较高，强度适中（中度运动），时长适中（30-60 分钟）的运动能更明显改善睡眠。运动方式以跑步（以及慢跑）、竞技运动（如球类运动）、健身有氧运动能更好的改善睡眠。清晨（5：00-8：00）及晚上（17：00-22：00）进行体育运动能对睡眠产生更好的效果。

结论 在日常工作之外，进行高频率、中强度、时长适中的运动能最大限度的改善夜间睡眠质量，减少失眠的风险；运动方式以有氧、竞技类体育运动为宜，对于具体的运动时间，以清晨为宜。

关键字：睡眠；睡眠质量；运动

To Nap Or Not？Evidence Based on Meta-analysis of Cohort Studies of Napping and Health Outcomes

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Objective We aimed to perform a systematic review and meta-analysis to synthesize the cohort studies of napping and risk of health outcomes. Additionally, we explored the different napping duration, as well as age or sex in the risk of health outcomes.

Methods We systematically searched PubMed, Web of Science, Embase, and Cochrane library databases to synthesize the cohort studies of napping and risk of health outcomes with the inception up to April 12, 2023.

Results A total of 41 cohort studies with 1,817,207 subjects were included in the final analysis. Overall, daytime napping increased risk for several health outcomes, including all-cause mortality, cardiovascular diseases, metabolic diseases, and cancer, but decreased risk for cognitive impairment and sarcopenia. Individuals with napping duration over 30 minutes exhibited higher risk for all-cause mortality, cardiovascular diseases, and metabolic diseases, while those with duration less than 30 minutes had no significant risks. No significant meta-regression result was found between napping and health outcomes stratified by age, sex, and follow-up time

Conclusion These findings provide a comprehensive profile of the roles of napping in health outcomes and implicate that individuals with long napping durations should shorten their durations.

关键字：daytime napping; health outcomes; napping duration; mortality; cardiovascular disease; metabolic disease

Internet Addiction Behavior of Vocational Medical Students: Moderating Effect of Positive Psychological Factors.

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Objective The purpose of this study was to determine the impact of negative events on Internet addiction among vocational school students. A cross-sectional study was conducted among medical students at a vocational college in Luzhou City, Sichuan Province, China, using a structured questionnaire to collect information.

Methods The Smartphone Application-Based Addiction Scale (SABAS), Bergen Social Media Addiction Scale (BSMAS), and Internet Gaming Disorder Scale-Short Form (IGDS9-SF) were used to investigate students' Internet addiction behavior. Strengths and Difficulties Questionnaire-Student (SDQ-S), Warwick-Edinburgh Mental Health Scale (WEMWBS) and Connor-Davidson Resilience Scale (CD-RISC10) were used to test students' positive psychological factors. The students' negative psychological factors were tested with the Multidimensional Peer Victimization Scale (MPVS) and the Revised Child Incident Impact Scale-Arabic Version (CRIES-13A).

Results We tested 7086 students (1402 boys). Mean age was 18.01±0.99, 2112 adolescents (14-17 years) and 4974 adults (18-24 years). The related factors of Internet addiction were analyzed by Pearson's correlation coefficient. BSMAS was positively correlated with CRIES13 (r=0.380, P<0.01), MPVS (r=0.315, P<0.01), PSQI (r=0.354, P<0.01), SDQS-TD (r=0.363, P<0.01), PQ16 (r=0.337, P<0.01), and with WEMWBS (r=-0.270, P<0.01), CDRISC10 (r=-0.258, P<0.01), and SDQS-PS (r=-0.089, P<0.01) were negatively correlated; 2) SABAS was negatively correlated with CRIES13 (r=0.365, P<0.01), MPVS (r=0.330, P<0.01), PSQI (r=0.394, P<0.01), SDQS-TD (r=0.455, P<0.01), and PQ16 (r=0.347, P<0.01) were positively correlated with WEMWBS (r=-0.400, P<0.01), CDRISC10 (r=-0.386, P<0.01), SDQS-PS (r=- 0.204, P < 0.01) were negatively correlated; 3) IGDS9SF was negatively correlated with CRIES13 (r=0.350, P < 0.01), MPVS (r=0.361, P < 0.01), PSQI (r=0.313, P < 0.01), SDQS-TD (r=0.385, P < 0.01), PQ16 (r= 0.361, P < 0.01) were positively correlated with WEMWBS (r = -0.302, P < 0.01), CDRISC10 (r = -0.270, P < 0.01), SDQS-PS (r = -0.194, P < 0.01) were negatively correlated. Through the analysis of the moderating effect,

we found that positive psychological factors (SDQ-PS, CD-RISC10, WEMWBS) can moderate the effect of adverse events (MPVS, CRIES-13A, parental addiction) on Internet addiction symptoms (IGDSF9, SABAS, BSMAS) Influence.

Conclusion Adverse events are associated with stronger Internet addiction symptoms, while positive psychological factors are associated with milder Internet addiction symptoms, and positive psychological factors can moderate the impact of adverse events on Internet addiction behaviors.

关键字：medical students Internet addiction Moderating effect

Trajectory Pattern and Risk Factors of Cognitive Impairment in The Disease Course of COVID-19: A Meta-analysis and Systematic Review

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Objective To quantitatively estimate the pooled prevalence of global impairment and specific diverse domains and the related risk factors of cognitive impairment in COVID-19 patients and survivors among the disease courses development.

Methods We systematically searched for papers reported the cognitive impairment in COVID-19 patients or survivors up to Dec 3rd, 2021. We estimated the prevalence of detailed domains of cognitive impairment among four diseases courses (acute, on-going, mid-term post and long-term post) after COVID-19 infection phases. The risk factors for each domain of cognitive impairment were summarized. The current study was registered at PROSPERO (protocol: CRD42022334200).

Results The objectively measured cognitive impairment peaked (53.10%) at the acute phase but showed relatively decreased among the development, while the subjectively reported brain fog mainly reported after the acute phases and persisted in high level (35.40%) in the long-term post phases. The prevalence of attention (~30%), memory deficits (~20%) maintained as relatively subtle among the disease courses. Notably, the severe COVID-19 illness including several therapies (e.g., oxygen therapy, ICU admission) at the acute phases had been reported as the risk factors of cognitive impairment after the recovery.

Conclusion The current findings reported that various aspects of cognitive impairment persisted and showed differential developmental patterns among the disease courses of COVID-19. These findings call for the attention for the prevention and intervention on the cognitive impairment after COVID-19 infection.

关键字：Cognitive impairment, COVID-19, prevalence, risk factors, meta-analysis

午睡的特征及其与精神心理问题与慢病躯体疾病的相关性研究

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目的 为了解中国人群午睡习惯的人群分布和特征，探讨影响午睡习惯的相关因素，并分析午睡、夜间睡眠及其交互作用与慢性躯体疾病及精神疾病的相关性，为健康的午睡采取相应的干预措施提供科学的参考。

方法 数据来源于京东平台在 2022 年 6-7 月开展的网络问卷调查。本研究以来自中国 34 个省/市/自治区的居民为研究对象，通过问卷调查收集一般人口学资料、午睡行为、夜间睡眠情况、行为生活方式、既往疾病史、健康自评状态以及医生诊断的慢性躯体疾病情况，采用 PHQ-2 和 GAD-2 量表测的抑郁焦虑等精神心理状况。，采用多因素 Logistic 回归,在调整夜间睡眠及其他因素的情况下，计算午睡与慢性躯体疾病和精神心理疾病的相关性，计算比值比和 95%置信区间。

结果 有效样本包括 41061 名 15 岁以上的调查对象。约 40.4%（样本量）的人没有午睡的习惯。有午睡习惯者中平均每天午睡时长为 40min±24；午睡时长 1-30 分钟者占 33.3%，＞30 分钟者占 26.4%，焦虑检出率 16.7%，抑郁检出率 19.4%，慢性躯体疾病史检出率 17.3%。多因素 Logistic 回归分析结果显示，调整混杂因素后，与无午睡习惯组相比，午睡时长为 1-30min 的人群增加 6.9%亚临床失眠的风险（95%CI：1.01-1.13），降低 24.4%重度失眠的风险（95%CI：0.58-0.99）；午睡时长＞30min 的人群增加 12.1%亚临床失眠的风险（95%CI：1.054-1.191）和 13.9%中度失眠的风险（95%CI：1.02-1.28）。此外，与不午睡的人群相比，午睡时长为 1-30min 降低 6.9%慢性躯体疾病的风险（95%CI：0.87-0.10）；午睡时长＞30min 与慢性躯体疾病的风险无统计学差异；无论午睡的时间是 1-30min 还是＞30min，都可以降低焦虑的风险，分别是 19.7%（95%CI：0.75-0.86）和 19%（95%CI：0.75-0.87）；同样，与没有午睡习惯的人群相比，无论午睡的时间是多久，都可以降低抑郁的风险，分别是分别是 18.9%（95%CI：0.76-0.87）和 13.5%（95%CI：0.81-0.93）。

结论 午睡时长在 30 分钟以内在一定程度上可能是重度失眠、慢性躯体疾病、焦虑抑郁的保护因素。建议大众保持午睡的习惯并根据个人情况和需求，调整午睡的时间和方式。

关键字：午睡；夜间睡眠；慢性躯体疾病；焦虑；抑郁；分布情况

新冠康复者认知损害特征及影响因素分析

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目的 新型冠状病毒感染自 2019 年 12 月暴发以来，已经导致严重的全球公共健康危机，随着全球新冠感染及康复人数增加，众多研究发现，仍有部分患者在康复数周或数月后被新冠相关症状所困扰。其中认知损害是最常见的症状之一，然而新冠病毒导致长期认知损害的流行病学特征和危险因素尚不明确。因此，本研究旨在调查新冠感染后的长期认知损害情况，探究认知损害的影响因素，为未来新冠康复者认知损害的科学干预提供参考。

方法 自 2021 年 10 月至 11 月对武汉市某区 2020 年感染新冠的康复者进行调查，通过客观评估的蒙特利尔认知评估量表（Montreal Cognitive Assessment，MoCA）和主观报告的认知失败问卷（Cognitive Failures Questionnaire-14，CFQ-14）全面评价新冠康复者认知损害情况，并采用 Logistic 回归进行影响因素分析。

结果 本研究共纳入 1000 份有效问卷，其中轻型、普通型、重型/危重型分别有 875（87.50%）人、40（4.00%）人、85（8.50%）人，平均年龄为 55.86±13.84 岁，55.40%是女性，38.81%为本科及以上学历。新冠康复者中认知损害的比例为 15.60%。影响因素分析发现，年龄大于 60 岁、低学历、急性期诊断为重型或危重型、伴有多个自我报告症状、伴有焦虑和 PTSD 症状的康复者更容易发生认知损害。

结论 新冠感染 20 个月后，仍有近 1/6 的康复者存在认知损害，高龄、低学历、急性期病情严重、伴有更多的躯体和精神心理症状的康复者更容易发生认知损害，需要对该重点人群长期随访并进行针对性干预。

关键字：新型冠状病毒，流行病学调查，危险因素，认知损害，功能核磁共振成像

新冠病毒感染疫情期间北京市属医院不同类别医务人员心理健康水平差异分 析

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目的 了解新型冠状病毒（简称新冠病毒）感染疫情期间北京市不同岗位医务人员心理健康水平差异，为关心关爱医务人员提供循证依据。

方法 于 2020 年 10—11 月，在线调查北京市 22 家市属医院疫情期间外派支援和坚守本院一线、二线医务人员，采用广泛性焦虑量表（GAD-7）、患者健康抑郁症状群量表（PHQ-9）、失眠严重程度指数（ISI）评估医务人员心理健康状况，描述与比较北京市不同类别医务人员的心理健康水平现况，并使用 logistic 回归模型进行影响因素分析。

结果 共调查医务人员 4 931 人，其中 1 603 人（32.51%）发生焦虑情绪，1 729 人（35.06%）发生抑郁情绪，933 人（18.92%）发生失眠。在二线医务人员、坚守本院一线医务人员、外派支援医务人员中，焦虑情绪、抑郁情绪、失眠状况的发生情况差异均有统计学意义（$P < 0.05$）。logistic 回归分析结果显示，疫情期间工作类型、年龄是焦虑和抑郁情绪的影响因素，疫情期间工作类型、年龄、受教育程度是失眠的影响因素。

结论 不同岗位医务人员疫情期间心理健康水平存在差异，长期坚守本院一线医务人员心理健康问题最突出。

关键字：新型冠状病毒感染；医务人员；心理健康

新冠疫情期间及解封后四川省青少年及青年学生心理压力和新冠感染对心理健康叠加影响的研究

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目的 新冠疫情期间及解封之后的心理压力和新冠感染均可能对青少年和青年学生的心理健康产生影响。但是，至今心理压力和新冠感染两者叠加对心理健康造成的影响尚不清楚。本研究旨在探索在新冠疫情解封之后，心理压力和新冠感染对青少年和青年学生心理健康的相互影响。

方法 本研究是在中国四川省进行的一项大样本、横断面的在线调查。于 2022 年 12 月 14 日至 2023 年 2 月 28 日在四川省 162 所学校（初中、高中和大学）90118 名学生中实施，共有 82873 名学生（92.0%)自愿参与并完成了调查。参与者按照心理压力轻和重以及是否感染分为 4 组：第一组：未感染且心理压力水平低；第二组：感染且心理压力水平低；第三组：未感染且心理压力水平高；第四组：感染且心理压力水平高。本研究采用患者健康问卷(PHQ-9)、广泛性焦虑量表(GAD-7)、DSM-5 创伤后应激障碍检查表（PCL-5）、失眠严重程度指数（ISI）和网络成瘾测试（IAT）评估解封之后学生的抑郁症状、焦虑症状、创伤后应激障碍(PTSD)症状、失眠和网络成瘾症状。本研究采用方差分析比较四个亚组之间在人口学资料和量表资料的差异。其次，以第一组为参照组，分析其余三组出现抑郁

症状（PHQ-9≥5），焦虑症状（GAD-7≥5），PTSD 症状（PCL-5 ≥33），失眠（ISI≥8）和网络成瘾症状（IAT≥40）的风险。采用二元逻辑回归探讨四组参与者在抑郁、焦虑、PTSD、失眠症状的相关危险因素。

结果 所有完成调查的参与者中，38.1%的学生存在抑郁症状，31.8%存在焦虑症状，33.9%存在 PTSD 症状，34.0%存在失眠症状，60.3%存在网络成瘾。与第一组的参与者相比，第二组到第四组的参与者出现抑郁症状的风险分别增加了 9.6%，106.8%，147.3%；出现焦虑症状的风险分别增加了 12.3%、125.9%、161.1%；出现 PTSD 症状的风险分别增加了 6.6%、125.2%、158.7%；出现失眠症状的风险分别增加了 12.0%、95.7%、141.0% (p<0.001)。抑郁症状、焦虑症状、PTSD 症状和失眠症状的危险因素在四个亚组之中也存在不同。

结论 新冠疫情造成的心理压力与新冠感染本身对学生心理健康的影响存在彼此叠加的效应。应进一步制定相关的卫生和教育政策，为学生提供长期的社会心理服务和干预。

关键字：新冠感染，心理压力，叠加效应，青少年及青年学生，心理健康，四川省

Mll5 基因单倍体不足导致孤独症样行为的作用机制研究

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目的 孤独症谱系障碍（autism spectrum disorder,ASD）是一组以社交障碍、刻板重复行为为特征的神经发育障碍性疾病，致病机制复杂，病因未明。大型遗传学研究显示 MLL5 基因突变或缺失与 ASD 相关联，仅有少数几篇文章报道了 MLL5 基因突变或缺失与 ASD、神经发育疾病、癫痫的症状相关联，但因果关系未开展实验证明，MLL5 的神经生物学机制尚为空白。

方法 应用 Mll5+/-小鼠模型，通过动物行为学、药理学、电生理、分子生物学、原代细胞培养等实验以及多组学的生物信息学分析。

结果 Mll5+/-小鼠脑重，脑长，皮层厚度正常，无明显大脑畸形。Mll5+/-小鼠海马区小胶质细胞形态呈现静息态改变，吞噬功能障碍。海马区突触蛋白表达、数量显著升高，但是发育不成熟，mEPSC 频率显著降低。Mll5+/-小鼠呈现孤独症样、抑郁样行为。通过建立携带 MLL5 突变的 ASD 患者 iPSC 模型，发现诱导的小胶质细胞呈现吞噬功能障碍。而神经元发育无明显异常。

结论 Mll5+/-小鼠呈现孤独症样行为，其神经机制主要包括小胶质功能异常。研究结果将有助于深入理解 ASD 的致病机制，为 ASD 的诊疗提供新的生物标记物，具有重要的临床意义。

关键字：孤独症，小胶质细胞，神经元，iPSC, MLL5

严重精神障碍社区同伴支持服务推广现状分析

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背景 严重精神障碍社区同伴支持技术是一种成熟、先进、经济有效的精神康复服务模式，目前已在全国多地试点实施。北京大学第六医院在全国推广社区同伴支持项目，对每个项目试点社区提供一年的经费支持与技术指导。 目的 了解严重精神障碍社区同伴支持服务在项目经费支持结束后的推广情况，为该服务的可持续发展提供参考。

方法 采用自编调查表通过在线方式对 2020、2021 两个年度 40 个地市（区）的 154 个项目社区进行调查，了解服务开展情况。

结果 发放地市（区）调查有效问卷 41 份，回收有效问卷份数 41 份（含通过市级层面进行服务推广的重庆市），其中 20%的地市（区）及重庆市级层面在项目经费 1 年期支持结束后，自行推广开展同伴支持服务，共计推广至 114 个社区。发放社区调查有效问卷 154 份，回收有效问卷份数 124 份，其中 76%的社区在持续开展同伴支持服务；未继续开展同伴支持服务社区的主要原因有受疫情影响、无经费支持、社区撤并、社工运营不稳定、基层精防人员工作量大等。在继续开展及推广的社区中，活动经费由各地自行筹措，包括市级财政经费（政府购买服务）、民政支持经费、残联支持经费、卫生健康委工作经费、牵头单位自筹经费等；面临的困难有资金不足、场地不固定或受限、同伴招募困难、同伴工作者能力不足等。

结论 严重精神障碍社区同伴支持服务在提供一定的技术支持后能够广泛推广，其推广需要经费、场地、工作人员及技术指导等各方面支持。

关键字：同伴支持，严重精神障碍，社区康复

新冠疫情对中国成人睡眠特征及常见睡眠问题的影响

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目的 探索我国成人在新冠疫情期间的睡眠特征以及新冠病毒感染与隔离对于睡眠的影响。

方法 采用横断面调查，于 2022 年 6 月至 7 月通

过京东问卷平台发放网络调查问卷，问卷内容涵盖人口学特征、生活行为习惯、新冠疫情相关特征、睡眠相关量表等。本研究根据五个睡眠问题创建了健康睡眠评分，并将低风险人群定义为: 每天睡 7-8 小时，睡眠节律呈清晨型（清晨型夜晚型量表-5 项得分≥18），没有失眠症状（失眠严重指数<8），没有阻塞性睡眠呼吸暂停综合征（OSA）症状（STOP 量表得分<2），没有日间过度嗜睡症状（Epworth 嗜睡量表得分≤10）。依据健康睡眠评分，我们将人群睡眠模式划分为“健康睡眠模式”、“中等质量睡眠模式”以及“不良睡眠模式”。本研究采用的统计方法包括统计描述、卡方检验与多因素 logistic 回归分析等。

结果 41025 份有效问卷被纳入最终分析。平均年龄为 36.2 岁，女性 24228 名 (占 59.1%)。在睡眠问题方面，31.6%的调查对象有失眠症状，25.3%有 OSA 症状，16.8%有日间过度嗜睡症状，睡眠时长异常和非清晨型睡眠节律的检出率较高，分别为 41.4%和 65.2%。多因素 logistic 回归分析结果显示，曾感染新冠病毒能增加各种睡眠问题的发生风险，如日间过度嗜睡症状（OR=2.67, 95%CI: 2.35-3.04）、OSA 症状（OR=2.70, 95%CI: 2.39-3.06）。曾经历隔离也能增加各种睡眠问题的发生风险，如失眠症状（OR=1.54, 95%CI: 1.42-1.68）、睡眠时长异常（OR=1.26, 95%CI: 1.16-1.37）。在睡眠模式方面，4242 人（占 10.3%）处于不良睡眠模式。曾感染新冠病毒者或经历隔离者的不良睡眠模式的检出率均高于未曾感染新冠病毒者或未经历隔离者（19.8% vs 10.0%, P<0.001；16.6% vs 9.8%, P<0.001）。多分类 logistic 回归分析结果显示，在调整了潜在的混杂因素后，曾感染新冠病毒或经历隔离都增加更差的睡眠模式的风险（感染：OR=2.83, 95%CI: 2.38-3.36；隔离: OR=2.20, 95%CI: 1.94-2.50）。

结论 我国成人的睡眠特征在新冠疫情期间普遍受到影响；新冠病毒感染以及经历隔离会增加睡眠问题发生风险，严重危害睡眠健康。

关键字：新冠疫情；睡眠；横断面调查

Prevalence and Influencing Factors of Sleep Disturbance Among Medical Students under The COVID-19 Pandemic

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Objective Medical students may feel severe psychological stress during COVID-19, which might impair their ability to sleep. This research aimed to look at the risk factors for sleep disturbance and the prevalence of sleep disturbance among medical students.

Methods 538 medical students in total were recruited for this research. Anxiety, depression, and sleep disturbance were assessed using the Self-rating Anxiety Scale (SAS), Self-rating Depression Scale (SDS), and Pittsburgh Sleep Quality Index (PSQI). In order to evaluate the possible risk variables, we computed descriptive statistics for each assessment item and ran univariate and logistic regression analyses.

Results Medical students had a 63.6% prevalence of sleep disturbance (n = 342). According to logistic regression, introverted students are 1.77 times more likely than extroverted students to have sleep disturbance (OR = 1.77, 95% CI: 1.08–2.91). Medical students with depression had a 5.6-times higher risk of sleep disturbance than those without depression (OR = 5.60, 95% CI: 3.43–9.15). Additionally, medical students with anxiety were 3.95 times more likely than those without anxiety to have sleep disturbance (OR = 3.95, 95% CI: 2.04–7.64).

Conclusion According to this research, the COVID-19 pandemic caused significant sleep disturbance among medical students. Additionally, among medical students, introversion, anxiety, and depression were risk factors for sleep disturbance.

关键字：COVID-19, Sleep disturbance, Medical students, Prevalence, Risk factor

Brain Neuroimaging Studies of Nonsuicidal Self-Injury in Youth: A Systematic Review and Meta-analysis

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Objective This systematic review and meta-analysis aims to provide a comprehensive synthesis of brain neuroimaging studies investigating the neural correlates of nonsuicidal self-injury (NSSI) in youth. By pooling the findings from these studies, we aim to examine the consistent patterns of brain alterations associated with NSSI and identify potential biomarkers and neurobiological mechanisms underlying this self-destructive behavior.

Methods A systematic literature search was conducted using electronic databases, including PubMed, PsycINFO, and Embase. Keywords such as "nonsuicidal self-injury," "self-harm," "neuroimaging," "brain imaging," and "youth" were used to identify relevant articles. Inclusion criteria comprised studies that focused on neuroimaging findings in individuals aged 25 years or younger who engaged in NSSI. Studies using functional magnetic resonance imaging (fMRI), structural MRI, diffusion tensor imaging (DTI), or positron emission tomography (PET) were included.

Results The systematic review identified 39 neuroimaging studies investigating NSSI in youth, and 14 of these studies met the criteria for inclusion in the meta-analysis. Compared to control groups, the meta-analysis revealed consistent alterations in neural activation patterns and structural brain differences in youth who engage in NSSI. Specifically, regions involved in emotion regulation, such as the anterior cingulate cortex, insula, and prefrontal cortex, showed increased activation during emotion-processing tasks.

Conclusion This paper provides strong evidence for consistent brain alterations in youth engaging in NSSI.

The identified neuroimaging findings support the involvement of emotional dysregulation and impulse control deficits in the pathophysiology of NSSI. The meta-analysis also suggests that these brain alterations may serve as potential biomarkers for NSSI. These findings have important clinical implications, emphasising the need for targeted interventions that address emotion regulation and impulse control in individuals engaging in NSSI. However, the heterogeneity across studies, including differences in sample characteristics, imaging modalities, and analysis techniques, should be considered when interpreting the results. Future research should strive for standardized protocols and larger sample sizes to enhance the reproducibility and generalizability of the findings.In conclusion, this systematic review and meta-analysis provide compelling evidence for consistent brain alterations in youth engaging in NSSI. The identified neural correlates highlight the importance of emotion regulation and impulse control deficits in NSSI. These findings contribute to our understanding of the neurobiological mechanisms underlying NSSI and offer potential targets for intervention. Further research should focus on longitudinal studies to elucidate the developmental trajectories of these brain alterations and examine their predictive value in the course

关键字：Nonsuicidal self-injury, Self-harm, Neuroimaging, Brain imaging, Youth,

The Artificial Intelligence Large Language Models and Neuropsychiatry Practice

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Objective This study aims to explore the potential applications of artificial intelligence (AI) large language models in neuropsychiatry practice. Specifically, we aim to investigate how these models can enhance diagnostic accuracy, improve treatment planning, and facilitate research in neuropsychiatric disorders.

Methods In this study, we conducted a comprehensive literature review to identify relevant articles and studies on the applications of AI large language models in neuropsychiatry. We searched electronic databases, including PubMed, PsycINFO, Embase, MEDLINE, Web of Science, Cochrane databases and Google Scholar, using keywords such as "artificial intelligence," "large language models," "neuropsychiatry," and "neuropsychiatric disorders." We also reviewed the references of selected articles to identify additional relevant studies.

Results Our findings indicate that AI large language models have the potential to revolutionize the field of neuropsychiatry practice. These models can assist clinicians in accurate diagnosis by analyzing vast amounts of clinical data, including medical records, patient questionnaires, and neuroimaging reports. By employing natural language processing techniques, AI models can extract meaningful information from unstructured text and provide valuable insights to aid in clinical decision-making. Furthermore, AI large language models can contribute to treatment planning by providing personalized recommendations based on individual patient characteristics, treatment history, and response patterns. These models can analyze treatment outcomes from large-scale datasets, identify patterns of treatment response, and suggest tailored interventions for patients with neuropsychiatric disorders. Moreover, AI models can facilitate research in neuropsychiatry by enabling data-driven discoveries. These models can uncover novel associations between various factors and neuropsychiatric disorders by analyzing large datasets, including genetic data, neuroimaging data, and electronic health records. This can lead to identifying potential biomarkers, developing new diagnostic criteria, and discovering therapeutic targets.

Conclusion The integration of AI large language models in neuropsychiatry practice is promising to improve diagnostic accuracy, treatment planning, and research in neuropsychiatric disorders. These models can assist clinicians in making more informed decisions, enhance patient outcomes, and contribute to a deeper understanding of the underlying mechanisms of these disorders. However, successfully implementing AI models in clinical practice requires addressing ethical considerations, ensuring data privacy, and maintaining transparency and interpretability. Future research should focus on validating the performance of AI models in real-world clinical settings and addressing the challenges associated with their implementation.

关键字：Artificial intelligence, large language models, Neuropsychiatry, Neuropsychiatric disorders

政法系统工作人员心理健康状况及其影响因素分析

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目的 了解政法系统中不同工作机构（法院、公安、检察院、司法和政法委）工作人员的心理健康状况。为后续开展有针对性、引导性的社会心理服务方案提供科学依据。

方法 采用分层整群抽样的方法，采集 7880 名政法系统工作人员的一般人口学资料、婚姻家庭情况、工作情况及个体心理健康水平。使用一般健康问卷（GHQ-12）了解被试的心理健康状况，使用组织支持量表（POS）、职业倦怠量表（MBI-GS）、社会支持量表、一般效能量表、幸福感指数量表了解其工作和生活情况。采用 t 检验、方差分析进行不同群体的差异比较，使用 Person 相关分析和多重线性回归了解心理健康可能的影响因素。

结果 共回收有效问卷 7307 份，GHQ-12 得分为 8.55±5.83。不同性别（F=-4.98，P＜0.001）、年龄（F=24.26，P＜0.001）、学历（F=7.741，P＜0.001）、

政治面貌（F=3.93，P=0.02）、工作区域（F=12.23，P＜0.001）、年收入（F=13.19，P＜0.001）、婚姻状况（F=8.99，P＜0.001）、子女数量（F=4.23，P=0.005）、职业类别（F=3.02，P=0.017）、工作角色（F=4.35，P=0.013）的政法系统工作人员 GHQ-12 评分差异均有统计学意义。多重线性回归分析显示，女性、大专、四线城市、离异、市州级工作、心理健康自我评估达标是心理健康的影响因素（β=0.280、0.695、-0.420、0.777、-0.332、-2.206，P 均＜0.05）。

结论 西部地区非一线城市政法系统工作人员心理健康水平良好，性别、工作地区、婚姻状况和心理健康自我评估达标与否是心理健康的影响因素。

关键字：政法系统、心理健康、影响因素、社会心理

The Potential of Dexmedetomidine As Anxiolytic Drugs: A Systematic Review and Meta-analysis

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IMPORTANCE Despite numerous studies investigating the anxiolytic effects of dexmedetomidine in comparison to other drugs or saline, the results have yielded inconsistence.

OBJECTIVE To comprehensively evaluate the evidence regarding the postoperative anxiolytic effects of dexmedetomidine.

DATA SOURCES PubMed, Embase, Cochrane Library, Web of Science, CINAHL, and ClinicalTrials.gov from inception to April 2, 2023.

STUDY SELECTION Randomized clinical trials (RCTs) examining anxiolytic effects of dexmedetomidine with valid anxiety scores.

DATA EXTRACTION AND SYNTHESIS To extract data according to a predetermined list of interests, the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) guidelines were applied.

MAIN OUTCOMES AND MEASURES The primary outcomes were anxiety scores in patients treated with dexmedetomidine compared to patients with other drugs or saline.

RESULTS Overall, this meta-analysis and systematic review included 22 RCTs with 1,638 participants (mean age 27.75 years; 52% male) who were all undergoing surgery. The primary outcome revealed that patients treated with dexmedetomidine had significantly lower anxiety scores, with a lower standardized mean difference (SMD=-0.50, 95% CI [-0.83, 0.17], P =0.003, I2 = 91%) when compared to control. Furthermore, dexmedetomidine was found to be more effective than midazolam (SMD = -0.57, 95% CI [?0.96, ? 0.18], P = 0.004, I2 = 90%). The secondary outcomes revealed no significant differences in satisfaction and sedative scores between patients treated with dexmedetomidine and control. However, patients treated with dexmedetomidine had a lower risk of postoperative nausea and vomiting (OR = 0.29, 95% CI [0.16, 0.54], P < 0.0001, I2 = 0.0%), while the occurrence of bradycardia was more common in the dexmedetomidine groups (OR= 3.48, 95% CI [1.84, 6.58], P = 0.0001, I2 = 0.0%).

CONCLUSIONS AND RELEVANCE Overall, this meta-analysis provides evidence supporting the potential of dexmedetomidine in relieving anxiety among patients undergoing surgery, with superior and more sustained anti-anxiety effects compared to midazolam.

关键字：Dexmedetomidine; Axiety; Midazolam

Nightmares in Healthy Adults and in Patients with Chronic Diseases

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Objective Dreams can manifest in various ways, including physiological signals, behaviors, and patterns of brain activity. Additionally, they can provide insights into nightmare experiences, physical states, and the presence of chronic diseases. This study aims to compare dreams in healthy adults and individuals with different chronic diseases, with the objective of exploring the characteristics of dreams, nightmares, and their relationship with the nervous system, mental health, cardiovascular health, endocrine system, and pain associated with chronic diseases.

Methods A cross-sectional study was conducted involving adult participants between June 2022 and July 2022. The statistical analysis was performed using SPSS 26 software, employing chi-square tests for count data between groups, as well as binary logistic regression for multivariate analysis. The significance level was set at α 0.05, and a two-sided test was used.

Results A total of 41,062 resident cases were included in the study. The analysis revealed a significant association between the following diseases and the occurrence of nightmares: Insomnia (β = 0.29, CI: 0.262-0.320), narcolepsy (β = 0.562, CI: 0.384-0.823), hypertension (β = 0.708, CI: 0.647-0.774), coronary heart disease (β = 0.783, CI: 0.627-0.978), brain injury caused by trauma (β = 0.664, CI: 0.461-0.956), migraine headache (β = 0.299, CI: 0.249-0.359), diabetes mellitus (β = 0.750, CI: 0.622-0.903), Thyroid disease (β = 0.366, CI: 0.259-0.419), Chronic pain (β = 0.380, CI: 0.266-0.545), Depressive disorder (β = 0.397, CI: 0.260-0.522), and Anxiety disorder (β = 0.432, CI: 0.390-0.622). The p-value was found to be ≤0.05, indicating statistical significance.

Conclusion The incidence of nightmares in patients with various chronic diseases was found to be higher compared to that of healthy individuals, particularly among patients with pain, endocrine, mental, and neurological conditions. Nightmares, being disruptive experiences during sleep, have a significant impact on the quality of overnight sleep and daytime mood. Therefore, they should be considered as symptoms requiring attention and management during the course of disease treatment.

关键字：nightmare; sleep; chronic diseases

新冠疫情解封后四川省中学生学业表现及其与心理健康相关性的研究

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目的 探索新冠疫情解封后，四川省青少年学生的学业表现及其与心理健康之间的关系。

方法 于新冠疫情解封后（2022 年 12 月 14 日-2023 年 2 月 28 日），通过网络问卷对四川省青少年学生学业及心理健康状况开展调查，共收集 60268 份中学生有效问卷。问卷包含人口统计学信息、新冠疫情相关信息、学业及行为习惯信息、心理健康信息四个部分；其中，学业信息包括学业受影响情况（进步、无影响、退步），担心疫情对学业的影响；疫情相关信息包括个人及家人的感染、隔离等信息；心理健康状况采用抑郁量表（PHQ-9）、广泛性焦虑量表（GAD-7）和网络成瘾量表（IAT）评估。根据学业受影响情况，分为三组：学业进步（组一）、学业未受影响（组二）、学业退步（组三）。采用卡方检验分析组间差异；采用 ANOVA 和 post-hoc 对三组的抑郁、焦虑、网络成瘾的差异进行比较；采用二元逻辑回归分析心理健康问题（抑郁、焦虑）的影响因素。

结果 学业表现：仅 39.9%的学生报告学业未受影响，41.2%的学生报告学业退步。其中，学生学业退步与城市户籍、少数民族、高中生、低收入家庭、新冠感染及家人新冠感染显著相关（P≤0.001）。学业表现与心理健康：从组一（学业进步）到组三（学业退步）,学生抑郁症状的检出率分别为 29.0%，33.5%，47.5%；焦虑症状的检出率分别为 26.2%，27.8%，40.3%；网络成瘾的检出率分别为 48.1%，50.9%，69.8%；检出率依次升高。学生抑郁、焦虑、网络成瘾的均值也依次显著升高（P<0.001）。与学业未受影响者相比，学业退步者患抑郁和焦虑症状的风险显著增高；心理健康问题的影响因素：女性、14 岁及以上、本人感染新冠、家人感染新冠、有隔离经历、有新冠病耻感者患抑郁和焦虑的风险更高；同时，高中生，毕业班学生，担心新冠对学业造成影响者患抑郁和焦虑的风险更高；体育锻炼则是患抑郁和焦虑的保护性因素（P≤0.001）。

结论 新冠疫情对四川省青少年学生学业表现和心理健康状况均产生了消极的影响。学生学业表现不佳与其心理健康问题显著相关，学业退步的学生患抑郁和焦虑的风险最高。因此，教育部门及卫生健康相关机构需要关注学生，特别是学业退步学生的学业及心理健康状况，根据学生的具体情况，制定相应的教育和健康政策，发展社会心理服务干预，不断促进中学生的学业表现和心理健康。

关键字：新冠疫情；青少年学生；学业表现；心理健康问题；四川省

倒班工作与睡眠质量及情绪障碍的相关性研究

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目的 长期夜班工作可能会对不同人群的健康产生不利影响。本研究探索倒班工作如何影响认知和睡眠质量。

方法 通过京东健康网络平台发放问卷，包括一般资料、工作状态、匹兹堡睡眠质量、失眠严重指数、GAD-2、PHQ-2 等评估。收集有效问卷 41061 份，采用 SPSS 25 软件进行统计分析。独立的组间计数资料构成比的比较采用 X2 检验。采用二元 Logistic 回归进行多因素分析。显著性水平 α= 0.05，双侧检验。

结果 共收集有效问卷 41061 份，其中 14395 人（35.1%）有过倒班经历，9612（23.4%）正在从事倒班或轮班的工作。从事倒班工作的人群出现睡眠质量较差、中度失眠和重度失眠的风险则是从事日间工作的 1.75 倍(95% CI: 1.67-1.84)、2.60 倍(95% CI: 2.34-2.87)和 3.61 倍(95% CI：2.89-4.50)。从事轮班或倒班工作的人群出现抑郁症状和焦虑症状的风险则是从事日间工作人群的 1.57 倍(95%CI: 1.47-1.66)和 1.60 倍(95%CI:1.50-1.70)。

结论 从事倒班工作更容易出现失眠、抑郁、焦虑症状。应更加关注倒班工作者的身心健康，合理安排轮班工作制度。

关键字：倒班工作；睡眠；焦虑；抑郁；

Reconstruction of Visual Information From Cortical Activity: A Systemically Review

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Objective The brain is the most complex and mysterious organ in the human body, and researchers have been diligently working to unravel the secrets of this fascinating realm. As part of the field known as "brain decoding" or "brain-computer interface" (BCI), decoding visual activity from brain signals involves utilizing neuroimaging techniques to interpret the patterns of neural activity associated with visual perception.

Methods and Results The excitement surrounding the decoding of visual activity gained momentum in 2011, when Gallant et al. conducted a series of groundbreaking experiments. By employing a newly developed motion-energy encoding model and constructing a Bayesian decoder, the researchers were able to generate rough but captivating

visual reconstructions. These findings demonstrated that functional magnetic resonance imaging (fMRI), despite its relatively poor time resolution, can assist in decoding visual activity from the brain. Since then, scientists worldwide have been conducting similar experiments to explore how to decode human brain signals and reconstruct visual content. In 2012, T. Horikawa et al. conducted a study in which subjects were asked to sleep during an MRI scan. These individuals were periodically awakened, approximately every 6 minutes, and asked to report their visual experiences prior to awakening. The researchers performed over 200 repeated experiments on each volunteer and created a database based on the objects described in their dreams, which were then meticulously categorized. By examining the patterns of brain activity during dreaming and comparing them to responses to visual stimuli during wakefulness, the researchers successfully predicted the visual experiences during dreams using machine-learning models. However, a complete interpretation of one's dreams still remains a distant goal, as does the ability to interpret the dreams of multiple individuals with a single machine. More recently, a method called "CEBRA" has gained attention. Scientists recorded multicellular electrophysiological data from the hippocampus area using intracranial electrodes and discovered that CEBRA could capture complex kinematic features, providing highly accurate visual decoding of videos directly from the brain. However, it is important to note that both of the aforementioned studies are considered "matching" rather than "pixel-level reconstruction." This means that the models rely on contrastive learning to find the best match rather than generating the images themselves. One potential approach for decoding visual activity is through the use of Autoencoders.

Conclusion In conclusion, significant attention has been directed towards decoding visual activity from brain signals, and previous achievements have highlighted a promising future. Our next goal is to employ multiple imaging methods, such as magnetoencephalography (MEG), to obtain more accurate results.

关键字：Deep learning, AI, Visual Reconstruction

新冠疫情期间留守儿童的精神心理问题——系统综述和荟萃分析

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目的 随着交通方式的进步和人们移徙范围的增大，在全球范围内越来越多的儿童被父母遗留在家乡成为留守儿童。过往的荟萃分析表明父母移徙不利于留守儿童的健康成长，留守儿童相对非留守儿童没有获得任何显著性的益处。在疫情期间，一方面人口迁移急剧减少，另一方面新的线上沟通方式的发展进步有力提升了留守儿童与父母的交流水平，因此我们需要进一步探索新形势下的留守儿童的精神心理状态。

方法 对于本系统综述和荟萃分析，我们检索了Pubmed、中国知网、万方等数据库，文献的纳入日期是从 2020 年 1 月 1 日至 2023 年 6 月 1 日，没有对语言加以限制，研究了父母移徙对留守儿童和青少年心理健康、成瘾性物质使用等水平。我们排除了以下研究：受试者年龄平均年龄大于 18 岁或是有超过 50%的受试者大于 18 岁；父母迁移试时长不超过 6 个月。我们使用系统综述软件筛选研究，并从已发表的报告中提取摘要估计值。主要结局是健康结局的风险和患病率，包括心理健康（抑郁障碍、焦虑障碍、品行障碍、自残和自杀）、成瘾性物质使用等。

结果 我们检索确定了 52 篇文献，共纳入了 22915 名留守儿童进行分析，重点关注了国内劳动力迁移的影响。结果表明，留守儿童抑郁风险、焦虑风险更高，失眠患病率为 37.80%，抑郁患病率为 30.05%，焦虑患病率为 21.27%，有 37.80%的留守儿童有过自杀意念，不过不足 10%的留守儿童将其付诸行动。纳入研究的质量各不相同，可能存在一定的偏倚风险。研究表明，留守时长越高、营养水平越差、运动时间越少，留守儿童精神心里水平越差。

结论 与既往的研究一致，留守儿童的精神心理风险显著更高。在疫情期间这一情况加剧，因此我们亟待需要加强对留守儿童关注，制定切实可靠的政策来保障留守儿童的健康成长。

关键字：留守儿童，新冠疫情，焦虑，抑郁

阿尔茨海默病高危基因加速认知老化的神经机制—基于情景记忆的研究

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目的 阿尔茨海默病(Alzheimer’s disease, AD)是一种以记忆力衰退为主要特征的认知减退综合征，其中，情景记忆的下降被广泛地认为是 AD 的典型认知特征。由于人均寿命的提高，AD 的患病率在近年来逐步攀升。但由于 AD 的长期潜伏性和病理机制的不甚明确，极高的致死率仍然严重威胁了老年人的身心健康。已有的研究表明，环境和遗传因素之间复杂的相互作用构成了 AD 的致病原因。而双生子的研究结果显示 AD 的患病风险中遗传因素占 50%左右。因此针对 AD 遗传学的研究对于早期识别易感人群十分重要。从多个遗传风险的联合作用入手，在未表现临床症状的人群中探究多基因遗传风险对老年人情景记忆的影响，已成为研究 AD 发病机制的最佳切入点。

方法 研究被试来自于北京老年社区队列研究，根据一定的入组标准纳入 62 名认知能力未出现明显衰退的正常老年人(Normal control, NC)和 30 名遗忘性轻度认知障碍(Amnestic mild cognitive impairment, aMCI)患者。采集被试的外周静脉血提取 DNA，利用 Taqman 探针法进行 24 个单核苷酸多态性的基因分型，以此来构建多遗传风险得分。利用成套的神经心理学测查量

表评估老年人的 7 大领域认知能力，包括一般精神状态，情景记忆，工作记忆，视空间能力，语言能力，加工速度和执行功能。同时通过情景记忆编码任务考察多基因遗传风险对记忆损伤的脑功能响应模式，以及疾病在其中发挥的影响。

结果 在考察疾病×多基因遗传风险对认知能力以及编码任务行为表现的交互作用时发现，在情景记忆和加工速度上疾病的主效应均显著（情景记忆：P=0.045；加工速度：P=0.036），即 aMCI 患者的认知能力显著差于 NC；其余认知能力未发现显著性的结果。功能磁共振研究发现疾病×多基因遗传风险的交互作用表现在右侧海马，即随着遗传风险的升高，NC 组中右侧海马的激活值逐渐下降，而 aMCI 组中的激活值逐渐升高。相关结果显示 aMCI 组中右侧海马的激活值与编码阶段反应时呈现显著的负相关。另外，多基因遗传风险显著影响了 aMCI 患者左侧中央后回和右侧辅助运动区的激活。多基因遗传风险对健康老年人的大脑激活没有任何效应。

结论 本研究首次探索多基因遗传风险对情景记忆领域损伤的脑功能响应机制，研究结果提示了结合多个遗传风险因素对于探究认知损伤和相关神经机制的重要性。

关键字：阿尔茨海默病，多基因遗传风险，情景记忆，认知损伤，功能磁共振

Associations between Objective Sleep Parameters and Brain Amyloid-β Burden in Non-demented Populations: A Meta-analysis

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Objective Amyloid beta (Aβ) peptides accumulation is associated with overwhelming neurodegenerative diseases (NDDs). Populations with poor subjective sleep quality and sleep disorders reported amyloid overload. However, the relationship between objective sleep parameters and amyloid burden still remains lack of consistency. Therefore, we conducted a meta-analysis to investigate this issue in the non-demented population, to facilitate the early management of NDDs.

Methods The review protocol can be accessed on the PROSPERO with Registration No. CRD42023387435. We carried out a thorough search in 3 databases: PubMed, Embase, and PsycINFO. The search strategies were based on the keywords "Amyloid And ((Sleep*) OR (Insomnia*))". Studies that only reported serum Aβ were excluded. We investigated the relationship between brain Aβ and general sleep parameters and sleep stags. We performed a meta-analysis of data by random-effects models. Pooled effect sizes and 95% CIs are reported as Pearson's correlation coefficients. Sensitivity analyses were performed by excluding each study. In addition, meta-regression was used to identify potential moderators, including gender, age, measurement of Aβ and whether outcomes were adjusted, of the effect.

Results A total of 21 eligible studies for inclusion in the meta-analysis. All included studies reported objective sleep parameters, including total sleep time (TST) (n = 14), sleep efficiency (SE) (n = 12), apnea hypopnea index (AHI) (n = 5), sleep latency (SL) (n = 5), wake time after sleep onset (WASO) (n = 13), and sleep stages (n = 4). As for general sleep parameters, SE was found to be negatively correlated with Aβ burden (r=-0.172, 95% CI: -0.307 to -0.030), while WASO (r=0.101, 95% CI: 0.030 to 0.172) and AHI (r=0.338, 95% CI: 0.055 to 0.571) were positively correlated with Aβ burden. No significant correlation was found between TST (r=-0.045, 95% CI: -0.115 to 0.025), SL (r=0.227, 95% CI: -0.167 to 0.558), and Aβ burden. As for sleep stage, only slow wave sleep (SWS) stage was found to be negatively correlated with Aβ burden (r=-0.250, 95% CI: -0.424 to -0.059), while rapid eye movement (REM) (r= -0.075, 95% CI: -0.212 to 0.064), non-REM1 (r=0.200, 95% CI: -0.126 to 0.487), non-REM2 (r=-0.040, 95% CI: -0.312 to 0.239), and stages did not show any significant correlation with Aβ burden. According to the sensitivity analysis, the significant association between brain Aβ burden and SE, WASO, and SWS demonstrated robustness, however, exclusion of 4 studies led to the loss of statistical significance for the association between AHI and Aβ burden. Univariate meta-regression did not find significant potential moderators to impact the effect.

Conclusion Nocturnal fragmentation of sleep provides a warning indication of amyloid accumulation among non-dementia individuals. Specific sleep changes could predict the risk of NDDs and might contribute to effective early screening for diseases.

关键字：amyloid-beta, sleep, neurodegenerative diseases

The Dual Role of Sleep: Beyond Facilitating Memory Consolidation, Enabling Forgetting

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Objective Emerging evidence from neurobiology and psychology strongly supports the notion that sleep is crucial in consolidating memories acquired during wakefulness. Recent research has proposed that forgetting appears to be an active process and an essential brain function, which interests the researchers to explore the intriguing relationship between sleep and forgetting. This study aims to summarize the extensive research on sleep and forgetting, providing a framework to elucidate the relative relationship, underlying mechanisms, and fundamental neural processes involved in sleep and memory forgetting, from the cellular level of neurons to brain regions and behavioral outcomes. Importantly, we propose a new hypothesis for regulating memory forgetting during sleep, which will provide potential new treatments for psychiatric disorders dominated by memory disorders.

Methods In this systematic review, we thoroughly examined and synthesized the existing literature on sleep,

memory, and forgetting, particularly the mechanisms involved forgetting during sleep and the intricate relationship between sleep and forgetting.

Results The process of synaptic reorganization during sleep mediates forgetting. According to synaptic mechanisms, the hippocampus plays a crucial role in sleep-induced forgetting, particularly during rapid eye movement (REM) sleep-associated synaptic reorganization. Maintaining a balance between memory consolidation and forgetting depends on coupling slow wave oscillations (SOs) and delta waves with spindle waves, respectively. When confronted with excessive memory load, the brain triggers forgetting during sleep as a coping mechanism, leveraging enhanced synaptic network activity. However, uncontrolled synaptic enhancement leads to an escalating demand for energy and space. The systematic consolidation theory also elucidates that memory consolidation involves the generalization and abstraction of memories to conserve resources. Similarly, when faced with excessive memory load, sleep-driven forgetting may involve similar mechanisms. By modulating neural oscillations in the brain, it is possible to exert further control over the delicate balance between consolidation and forgetting, extending the potential for clinical applications such as field potential regulation. Only a few studies have focused on inducing forgetting during sleep. However, actively causing memory forgetting through intervention during sleep may become an effective intervention technique for mental diseases mainly characterized by memory disorders.

Conclusion For memory forgetting during sleep, more cognitive neurology and neurobiology research are needed to study it further, but intervening to induce forgetting during sleep certainly has great therapeutic prospects for mental diseases mainly characterized by memory disorders.

关键字：Sleep Forgetting Memory

睡前使用电子设备对多种睡眠问题的影响：一项横断面研究

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目的 随着科技发展，电子设备已成为人们生活中不可或缺的一部分，但许多人在睡前使用电子设备的习惯可能会对他们的睡眠时长和睡眠质量造成不良影响，而目前睡前使用电子设备对多种睡眠问题的影响研究较少。本研究旨在探究睡前使用电子设备对中国人群多种睡眠问题的影响

方法 采用横断面研究方法，通过京东问卷平台发放线上调查问卷，其内容包括人口学特征、睡前电子设备使用情况和睡眠疾病相关量表等，睡前电子设备使用情况包括睡前一小时是否使用电子设备、上床后是否使用电子设备、上床后使用电子设备频率、上床后使用电子设备时间；以多因素二元 logistic 回归分析探索睡前使用电子设备与多种睡眠问题之间的关系。

结果 最终分析共纳入有效问卷 41061 份。调查对象平均年龄为 36.2 岁(±9.5 岁)，其中，女性 24247 名(占 59.1%)，居住地区以华东（占 36.6%）、华北（占 21.1%）和华南（占 19.4%)为主，居住地类型以城市为主（占 91.7%），已婚的调查对象最多（占 74.3%），84.3%的调查对象有工作。在所有调查对象中，睡前一小时使用电子产品者比例达 80.4%，而上床后使用电子产品比例达 74.9%，其中 69.3%的人几乎每天都会使用；在使用时长方面，使用时间为 30 分钟-1 小时者占比最多（48.4%），其次为 30 分钟以内（27.1%）。多因素二元 logistic 回归分析结果显示：在调整了潜在混杂因素后，相比睡前不使用电子设备的调查对象，睡前一小时使用电子产品和上床后使用电子产品均与更高的失眠风险（OR=1.42，95% CI=1.24-1.63，P<0.001；OR=1.97，95% CI=1.73-2.25，P<0.001）、更高的日间嗜睡风险（OR=1.41，95% CI=1.23-1.61，P<0.001；OR=2.00，95% CI=1.76-2.28，P<0.001）有关；在阻塞性睡眠呼吸暂停方面，睡前一小时使用电子产品的调查对象表现为低风险（OR=0.84，95% CI=0.78-0.90，P<0.001），而上床后使用电子产品表现为高风险（OR=1.25，95% CI=1.17-1.34，P<0.001）。

结论 无论是睡前一小时使用电子产品，还是上床后使用电子产品，均会导致发生失眠和日间嗜睡的风险增加，而睡前使用电子产品对阻塞性睡眠呼吸暂停的影响仍需要进一步研究。

关键字：电子设备使用；睡眠；失眠；日间嗜睡；阻塞性睡眠呼吸暂停

Dissociation of Self and Mother-related Processing in Abstinent Heroin Misusers

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Objective Numerous studies have consistently shown that the self-prioritization effect is prevalent cross-culturally. In Chinese culture, individuals often associate their self-concept with that of their mother, leading to a mother-prioritization effect. However, little is known about how drug addiction affects the self-concept of Chinese drug users. Our previous research indicated that the self-prioritization effect remains intact in drug users at the level of perceptual matching. In this present study, we aimed to investigate whether abstinent heroin misusers (AHM) exhibit differentiation between self- and mother-prioritization effects.

Methods Study 1 aimed to replicate Liang et al.'s (2021) study to verify whether the self-prioritization effect persists in heroin misusers using the adapted self-perceptual matching task, and to assess whether the mother-prioritization effect is diminished. Participants completed the

self-mother perceptual matching task, consisting of two phases adapted from Sui et al.'s (2012) study. In the first phase, participants were instructed to assign three geometric shapes (circle, rectangle, and triangle) as "self," "mother," or "stranger". In the second phase, participants were required to determine whether simultaneously presented shape-label pairings were correct. Study 2 repeated the results of Study 1 at the memory level using the adapted self-reference task (Keenan, 1980). During the self-mother reference phase, participants were instructed to determine whether the presented trait-adjective described the self, mother, or familiar other. Study 3 aimed to explore the potential clinical implications of the mother-prioritization effect. Similar to Study 1, participants completed the self-mother perceptual matching task, followed by a questionnaire collecting substance abuse-related data.

Results The results of Study 1 revealed that, similar to healthy controls, AHM demonstrated a bias towards self-related stimuli. However, a noticeable difference emerged in their processing of stimuli associated with motherhood, as AHM exhibited a reduced bias in this regard. Study 2 further validated the findings from Study 1 at the level of memory. The results confirmed that healthy controls in the Chinese cultural context exhibit self- and mother-prioritization effects, whereas drug addiction attenuates the mother-prioritization effect. Additionally, the results of Study 3 replicated the findings from Study 1 and further demonstrated the association between the mother-prioritization effect and indicators of drug use.

Conclusion In conclusion, these findings demonstrate a dissociation between self and mother-related processing in AHM, highlighting a potential target for addiction interventions aiming to strengthen the associations between the self and significant stimuli.

关键字：drug addiction, self-prioritization effect, mother-prioritization effect, perceptual matching, personal relevance attribution

The Crucial Role of Standardization in Pain Management: Addressing The Opioid Crisis Through Consistent and Effective Practices

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Objective The opioid crisis has emerged as a significant public health challenge, with devastating consequences for individuals, families, and communities. Effective pain management practices play a crucial role in addressing the opioid crisis and mitigating its impact. Standardization of pain management protocols and guidelines is an essential component of this strategy. Standardization in pain management involves the development and implementation of evidence-based guidelines, protocols, and best practices across healthcare settings. By establishing uniform approaches to pain assessment, treatment, and monitoring, standardization aims to enhance patient care while minimizing the risk of opioid misuse and addiction.The objective of this study is to examine the role of standardization in pain management and its impact on the opioid crisis.

Methods A comprehensive review of the literature was conducted to gather relevant information on pain management practices, opioid crisis, and standardization efforts. The review included studies, guidelines, and reports from reputable sources such as medical journals, government agencies, and professional organizations.

Results The findings indicate that standardization plays a crucial role in addressing the opioid crisis through effective pain management. By implementing evidence-based guidelines, protocols, and best practices, standardization promotes consistent and appropriate pain assessment, treatment, and monitoring across healthcare settings. This approach enables healthcare professionals to make informed decisions based on the best available evidence, reduces opioid overprescribing and excessive doses, and enhances patient safety through regular monitoring and risk assessment.

Conclusion Standardization of pain management practices is essential in combating the opioid crisis. It ensures consistent, safe, and effective pain management while minimizing the risk of opioid misuse and addiction. However, the successful implementation of standardized guidelines may face challenges such as resistance to change and variations in healthcare systems and resources. Efforts from policymakers, healthcare organizations, and professional societies are necessary to overcome these challenges and promote the widespread adoption of standardized pain management practices.

关键字：opioid crisis; pain management; standardization;

睡眠质量与慢性疾病间的相关性探索

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目的 本研究旨在描述中国普通人群的睡眠质量情况，并探索睡眠质量与慢性疾病间存在的关联。

方法 本研究在京东问卷平台开展了一项睡眠情况及影响因素的网络横断面调查，问卷内容包括人口学信息、生活方式、疾病史、睡眠情况等。使用匹兹堡睡眠质量量表（Pittsburgh sleep quality index, PSQI）评价睡眠质量，≤5 分者睡眠质量较好，＞5 分者睡眠质量较差。本次分析纳入的躯体慢性疾病包括心脑血管疾病（包括高血压、高脂血症）、代谢性疾病（包括糖尿病、甲状腺疾病）、癌症、神经退行性疾病，采用 Logistic 回归进行多因素分析。使用 SPSS27.0 软件进行统计分析，显著性水平 α=0.05。

结果 共有 41025 名 18 岁以上的调查对象被纳入本次分析，年龄均数为 36.24±9.51 岁；男性共 16814

人，占 40.98%；城镇居民共 37663 名，占 91.80%。共有 7114 名调查对象（占总人口的 17.32%）患有慢性躯体疾病，其中高血压 2980 人，粗患病率为 7.26%；高脂血症 1159 人，粗患病率为 2.82%；糖尿病 692 人，粗患病率为 1.69%；甲状腺疾病 1141 人，粗患病率为 2.78%；癌症 178 人，粗患病率为 0.43%，神经退行性疾病 185 人，粗患病率为 0.45%。42.7%的调查对象睡眠质量较好。经年龄、性别、体力活动类型调整后，睡眠质量较差者的慢性疾病患病风险是睡眠质量较好者的 2.59 倍（95%CI:2.44-2.47, P<0.01）；高血压（OR=2.00，95%CI:1.84-2.18, P<0.01）；高脂血症（OR=2.00，95%CI:1.84-2.18, P<0.01），冠心病（OR=2.88，95%CI:2.34-3.53, P<0.01）中风（OR=3.04，95%CI:2.29-4.05, P<0.01），甲状腺疾病（OR=2.29，95%CI:1.99-2.62, P<0.01），糖尿病（OR=1.84，95%CI:1.56-2.18, P<0.01），癌症（OR=2.11，95%CI:1.51-2.94, P<0.01），神经退行性疾病（OR=2.39，95%CI:1.70-3.35, P<0.01）。

结论 睡眠质量与多种疾病的发生存在统计学关联，为了预防慢性疾病的发生，睡眠质量是值得关注的因素。

关键字：睡眠；睡眠质量；慢性疾病

Different Response Patterns of The Anterior and Posterior Insula During Acquisition of Conditioned Fear Memory in Humans

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Objective The interoceptive insular cortex (IC) is known to be involved in the perception of bodily states and emotions. Increasing evidence points to an additional role for the insula in fear memories. However, the role of the insula in fear conditioning is still unclear. We addressed this issue by recording the intracranial electroencephalogram (iEEG) of patients with refractory epilepsy during conditioned fear acquisition.

Methods A total of twenty-four patients with refractory epilepsy requiring intracranial electrode implantation were recruited for this study. During the monitoring period after intracranial electrode implantation, subjects underwent conditioned fear acquisition training. During training, skin conductance reaction (SCR), and iEEG were collected simultaneously. Firstly, located electrode contact of anterior insular cortex (AI) and posterior insular cortex (PI). Secondly, the differences of SCR between CS+ and CS- in each group during different phases were analyzed using paired-samples t-tests. Thirdly, the iEEG data of AI and PI were analyzed by performing intracranial event-related potential (iERP). Fourthly, the Pearson's correlation was used to quantify the relationship between the iERP and SCR. Finally, Time-domain Granger causality analysis (GCA) was conducted to analyse the information flows between the two insular subregions during conditioned fear acquisition.

Results (1) Ten patients had electrode contacts on the AI, and sixteen patients had electrode contacts on the PI. As SCR results shown, the SCR induced by CS+ was significantly higher than that induced by CS- during the second phase ($p < 0.01$), and this difference decreased slightly in the third phase ($p < 0.05$). (2) The results of intracranial event-related potential (iERP) suggested that the response patterns of AI and PI varied during the conditioned fear memory formation in humans. The AI responded quickly to dangerous stimuli in the early phase but attenuated over time, while the PI showed sustained responses during the acquisition of conditioned fear memory. (3) The correlation between the mean amplitude of insular subregions and the average SCR of the three phases was analyzed. As results displayed, the electrical activity of the AI in the early phase was positively correlated with SCR in the third phase of stable acquisition of conditional fear memory ($p < 0.05$). (4) The GCA demonstrated that information is mainly transmitted from the PI to the AI during the conditioned fear memory formation.

Conclusion Our findings emphasize that the AI mainly plays a role in learning-associative fear memory, while the PI primarily continuously perceives and transmits threatening stimuli during human conditioned fear memory formation. These findings will not only enrich our in-depth understanding of the insular cortex function in human fear memory, but also provide a new perspective for the mechanism exploration and intervention of fear memory related mental diseases.

关键字：Keywords: conditioned fear; anterior insular cortex; posterior insular cortex; iEEG

护士心理韧性影响因素研究进展

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目的 本文从人口学因素、个人内部因素和外部环境因素三方面综述影响护士心理韧性的因素，旨在为护理人员开展心理韧性影响因素相关研究以及制定干预措施时提供有提供理论依据,进而达到改善我国临床护士心理健康状况,维护护理队伍稳定。

方法 在知网、万方输入"护士心理韧性""心理弹性"选择近 5 年的文献略读加精读，在 Web of sience 搜索 Mental resilience of nurse,选择近 5 年的文献精读并归纳整理。

结果 护士的心理韧性水平与人口学因素中的年龄、工作年限、性别 职位、婚姻以及是否独生子女有关；与个人内部因素中的正念水平、心态、自我效能、自觉准备程度、完成任务的信心、知觉压力、职业使命感、职业成就感、工作满意度、抑郁焦虑情绪状态、人格特质、自我同情水平、积极应对方式、问题解决能力及工作投入程度有关；与外部环境因素中的心理服务机构的成熟度、社会支持系统、社会资本、家庭人均月收入、家庭亲密度和舒适性、工作与家庭之间的冲突、医院文化、医院精神、医院制度、医院等级、医护关系、团队 氛围、人力调配、护士轮班情况、同伴支持及护

士长的领导风格有关。

结论 我国护士心理韧性水平低，应重视发展护士心理韧性对改善护士的心理健康状况和提高护理服务质量的积极意义，有针对性地从不同角度提升护士的心理韧性，使其更好地面对和适应工作与生活中的压力。

关键字：护士 心理韧性 影响因素

FNIRS 在 ADHD 儿童研究中的应用

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目的 功能性近红外光谱成像（fNIRS）是一种光学的，无创的新型成像技术。通过大脑皮层组织对不同波长近红外光的吸收率不同，进行脑组织中氧合血红蛋白以及脱氧血红蛋白的测量。fNIRS 是一种无创的，便携式的脑功能成像工具，由于有着对运动伪影的高耐受性的特点，在 ADHD 的研究中有着很大的潜力。

方法 本文首先介绍近红外光谱成像进行了简介，包括成像原理以及设备的组成。接着概述在精神类疾病领域的应用，尤其在儿童 ADHD 方面的研究。我们回顾了一系列的相关研究，研究人员使用功能性近红外光谱（fNIRS）和脑电图(EEG)来研究 ADHD 儿童执行功能缺陷的神经生理学生物标志物; 多不饱和脂肪酸（PUFAs）生物状态已被提出作为可能的注意缺陷多动障碍（ADHD）诊断生物标志物，研究人员通过功能性近红外光谱（fNIRS）在患有和不患有 ADHD 的儿童样本中测量的 PUFAs 生物状态与大脑皮层代谢之间的关系；ADHD 儿童与典型发育（TD）儿童相比，熟悉和不熟悉的面部识别的神经相关性。研究人员使用功能性近红外光谱（fNIRS）来测量双侧颞部区域的血液动力学反应。

结果 研究结果表明，患有 ADHD 的儿童在右额叶皮层中显示出氧合血红蛋白显着降低。此外研究还发现，ADHD 患儿花生四烯酸水平较低，特别是在完成更困难的任务时，TD 参与者的 NIRS 信号更强。在面部处理过程中，TD 儿童仅在晚期表现出显着的活动，而 ADHD 儿童在早期和晚期都表现出显着的活动。

结论 综上所述，fNIRS 作为一种有效的脑成像的技术，为儿童 ADHD 的研究提供了一种新的方法。通过对儿童 ADHD 的脑区的研究，揭示了 ADHD 儿童脑区的血氧水平和脑区活动情况。

关键字：近红外光谱 ADHD 儿童 脑成像

Prediction of The Efficacy of Group Cognitive Behaviour Therapy Using Heart Rate Variability Based Smart Wearable Devices: A Randomized Controlled Study

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Objective Depression and anxiety are common and disabling mental health problem in children and young adults. Group cognitive behavioral therapy (GCBT) is considered that an efficient and effective treatment for these significant public health concern, but not all participants respond equally well. Identifying predictors of GCBT efficacy can facilitate personalized treatment and advance the development of GCBT, save medical resources. The aim of this study was to examine the predictive ability of heart rate variability (HRV), based on sensor data from consumer-grade wearable devices to detect GCBT effectiveness in early intervention.

Methods In a study of 33 college students with depression and anxiety, participants were randomly assigned to either GCBT group or a wait-list control (WLC) group. They wore smart wearable devices to measure their physiological activities and signals in daily life. The HRV parameters were calculated and compared between the groups. The study also assessed correlations between participants' symptoms, HRV, and GCBT outcomes.

Results The study showed that participants in GCBT had significant improvement in depression and anxiety symptoms after four weeks. Additionally, HRV was a significant predictor of GCBT effectiveness for anxiety and depression after controlling for other independent variables. Higher HRV, such as SDNN, RMMSD, PNN50, Triangular index, was associated with greater improvement in depressive and anxious symptoms following GCBT.

Conclusion HRV may be a useful predictor of GCBT treatment efficacy. Identifying predictors of treatment response can help personalize treatment and improve outcomes for individuals with depression and anxiety.

关键字：Group cognitive behavioral therapy; Prediction; Heart rate variability; Depression; Anxiety.

抗抑郁药反应轨迹及相关因素分析

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目的 已进行的研究未能确定与抗抑郁药疗效密切相关的影响因素，结果的不足可能与两个原因有关：一是对药效的判定不能反映病人的实际情况。抑郁症

的药物遗传学研究目前主要集中在常见变异，忽略了罕见变异的影响。而罕见变异往往具有更大的影响效应且更容易映射到因果基因。本研究旨在利用纵向多时点点数据识别抗抑郁疗效异质性，并评估临床心理因素和罕见遗传变异对疗效的影响

方法 本研究入组 929 例抑郁症患者，年龄在 18 至 65 岁之间，符合非精神病性 MDD 的诊断标准。参与者接受单一抗抑郁药物治疗 8 周或前两周同步 rTMS 治疗。在基线和第 2、4、6 和 8 周的预定随访时间点使用 HAMD-17 评估抑郁症状严重程度。使用时序数据分析方法建立抑郁症患者的治疗反应轨迹，并进行聚类分析以识别治疗反应模式。进行方差分析和 Turksy HSD 检验评估环境因素(童年创伤经历、家庭环境、社会支持)和临床症状(述情障碍、自杀意念、快感缺失)对反应模式的影响。此外，基于以往研究和 KEGG 中与抗抑郁作用有关的途径，我们选择了 1309 个靶基因进行了靶向外显子组测序。我们关注罕见变异对药效的影响，通过罕见变异负荷分析和富集分析探索与反应模式有关的潜在生物学途径。

结果 聚类分析产生 3 种反应集:逐渐反应组（C1）、早期反应组（C2）和症状波动组（C3）。症状波动组的患者在基线时有较高水平的自杀意念（C1 vs C3, p=0.00054; C2 vs C3, p=0.027）和家庭控制水平（C1 vs C3, p=0.0067; C2 vs C3, p=0.018），在治疗结束时表现出显著较高水平的自杀意念（C1 vs C3, p=0.00025; C2 vs C3, p=9.3e-07）、述情障碍（C1 vs C3, p=1.6e-10; C2 vs C3, p=4.6e-13）和快感缺失（C1 vs C3, p=1.5e-11; C2 vs C3, p=4.7e-10）。早期反应(C1 vs C2)相关基因主要富集于神经营养因子信号通路，而症状波动(C1 vs C3)相关基因主要富集于 TRP 炎症介质调控通道。

结论 我们的结果为发现影响抗抑郁治疗反应背后的生物学途径提供了更多信息，侧面佐证神经营养因子信号通路参与抗抑郁药快速起效机制，也为 TRP 通道作为抑郁症的新治疗靶点提供了进一步的新证据支持。

关键字：抗抑郁药；轨迹分析

公共卫生事件中医务人员心理弹性与职业倦怠的关系：应对方式的中介效应和遮掩效应

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目的 调查公共卫生事件中医务人员的心理弹性、应对方式和职业倦怠等方面的状况，探讨心理弹性、应对方式和职业倦怠之间的关系。

方法 使用心理弹性量表(CD-RISC)、简易应对方式量表（SCSQ）和马斯勒倦怠量表-服务行业版(MBI-HSS)对 1714 名医务人员进行心理健康状况调查。

结果 （1）1714 名医务人员在公共卫生事件中心理弹性量表得分为（58.62±16.66）分；在简易应对方式量表上，积极应对维度为（21.72±7.22）分，题均分显著高于国内常模（t=2.075，P<0.05），消极应对维度为（10.50±4.56）分，题均分显著低于国内常模（t=-20.187，P<0.05）；在职业倦怠量表上职业倦怠得分为（49.07±20.82）分，职业倦怠检出率为 72.87%。（2）积极应对在在心理弹性与职业倦怠间起到了部分中介作用，消极应对在心理弹性与职业倦怠间起到了遮掩效应。

结论 （1）在公共卫生事件中，国内医务人员的职业倦怠检出率较高值得关注。（2）在公共卫生事件中，心理弹性可以直接影响职业倦怠，也可以通过积极应对方式影响职业倦怠。消极应对的间接效应缓解了直接效应，使得总效应变小。

关键字：医务人员；职业倦怠；心理弹性；应对方式

医务人员领悟社会支持对职业使命感影响：心理弹性的中介作用

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目的 调查医务人员的领悟社会支持、心理弹性和职业使命感，探讨领悟社会支持、心理弹性和职业使命感之间的关系。

方法 使用领悟社会支持量表（PSSS）、心理弹性量表（CD-RISC）、职业使命感量表（CQ12）对 1714 名医务人员进行研究。

结果 （1）1714 名医务人员在 PSSS 量表上得分为（58.23±13.75）分；在 CD-RISC 量表上得分为（58.62±16.66）分；心理弹性总分显著低于国内社区人群常模(t=-16.852，P<0.05)，低于西南地区临床护士常模 (t=-13.050， P<0.05)；在 CQ12 量表上得分为（41.62±9.61）分。（2）PSSS 量表得分与 CD-RISC 量表得分显著正相关（r=0.642，P<0.05），PSSS 量表得分与 CQ12 量表得分显著正相关（r=0.437，P<0.05），CD-RISC 量表得分与 CQ12 量表得分显著正相关（r=0.503，P<0.05）。（3）心理弹性在领悟社会支持与职业使命感那中间起到了部分中介作用，且间接效应占总效应得 58.44%。

结论 （1）医务人员的领悟社会支持与职业使命感处于中高水平，心理弹性处于中低水平。（2）领悟社会支持通过心理弹性对医务人员职业使命感产生影响。

关键字：医务人员；领悟社会支持；心理弹性；职业使命感

高中生心理健康网络的性别差异：基于 MHSMSS 量表

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目的 高中生的身体、心理和社会角色都在发生重大变化，他们需要面对许多新的挑战和适应不同的环境。尤其是学业压力、家庭关系、社交困难等。既往研究表明，高中生心理健康存在性别差异，但大多数仅关注水平高低，忽视了心理健康的内部结构的关联。心理健康的内部结构多元复杂，仅仅关注水平高低无法全面了解心理健康问题的本质。网络分析方法可以从“共病网络”角度出发，解释各个症状、各类心理障碍之间相互影响、相互作用的机制。因此，本研究旨在探讨高中生心理健康网络结构及其性别差异。

方法 研究采用了 MHSMSS（Middle School Students Mental Health Scale）量表作为测量工具，对 3769 名高中生（包括 1563 名女性）进行问卷调查和数据分析。

结果 方差分析显示了高中生在强迫症状、偏执、敌意、人际敏感性、抑郁、焦虑、学业压力和情绪不稳定方面存在着性别差异（F＞4.493，P＜0.05）；网络分析结果表明高中生心理健康问题共存于同一个心理病理网络中（Sparsity=0.13）；中心性结果表明男生的核心症状是抑郁（Expected influence=1.189），女生的核心症状是焦虑（Expected influence=1.472）。

结论 高中生心理健康网络存在性别差异。上述发现有助于我们更好地理解高中生心理健康网络的性别差异，并为高中生心理社会服务提供基于性别视角的针对性参考。

关键字：高中生，心理健康，网络分析，性别

社交隔离和孤独感的变化与心血管事件和死亡率的关联

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目的 社交隔离和孤独感被认为是影响身心健康的重要因素，本研究旨在调查社交隔离和孤独感的变化与心血管疾病(CVD)、死亡率和随后的心功能之间的纵向关联。

方法 我们从英国生物样本数据库纳入了 18,258 名具有社交隔离或孤独感的被试，这些被试均参与了基线（2006-2010）和第一次随访(2012-2013) ，基线平均年龄 57.12±7.4 岁，其中男性 8892 名(51.3%)。通过问卷调查评估社交隔离或孤独感，并根据其变化分为四种模式: 从不、短暂、偶然和持续。研究结局为 CVD 发生率、全因死亡率和 CVD 死亡率。

结果 在 8.3 年的中位随访期间，3707 名参与者存在新发 CVD, 856 人死于各种原因，310 人死于 CVD。与从未、短暂和偶发的社交隔离相比，持续的社交隔离与 CVD 发生 (风险比 HR, 1.17，95%可信区间 CI, [1.02-1.33])、全因死亡率(1.42[1.12-1.80])和 CVD 死亡率(1.52[1.04-2.21]) 存在最高风险。同样，持续的孤独感，而不是其他形式的孤独感变化，与心血管疾病发生的风险(1.13[1.00-1.27])、全因死亡率(1.28[1.02-1.61])和心血管疾病死亡率(1.52[1.06-2.18])密切相关。

结论 持续的社交隔离和孤独感与心功能不良相关。与其他模式相比，持续的社交隔离和孤独对心血管疾病的发生率、全因死亡率和心血管疾病死亡率以及心功能障碍的风险都要高得多。

关键字：社交隔离、孤独感、心血管疾病、英国生物样本数据库

Activating Social Memory Engram Suppresses Cocaine Relapse

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Objective Addiction is a chronic relapsing brain disease, characterized by a high susceptibility to relapse once returns to the original living environment even after an extended period of abstinence. Positive social interactions are believed to have therapeutic potential in managing drug addiction by shifting the drug reward back onto social reward. However, the neural mechanisms underlying social interaction’s therapeutic effects against relapse are poorly understood. The dopamine (DA) activity of Ventral tegmental area (VTA) mediates both the reinforcing properties of social reward and drugs of abuse. Therefore, we hypothesized that distinct subpopulations of DAergic neurons in the VTA may play different roles in the process of social anti-relapse.

Methods We employed the cocaine self-administration as a relapse model in rats, and combined immunofluorescence, virus label, fiber photometry recording, and chemical genetics to explore the involvement of subpopulations of DAergic neurons during social interaction-mediated relapse prevention.

Results We found that social interaction significantly inhibited the spontaneous recovery of cocaine seeking after cocaine self-administration extinction training in rats. While both social interaction and relapse of cocaine seeking reliably elicited obvious Ca2+ level increase in the TH neurons of VTA and induced DA relapse in nucleus accumbens (NAc), both the increase of Ca2+ level in the TH neurons of VTA and DA release in NAc induced by active cocaine relapse were significantly reduced after social interaction. Furthermore, the subpopulations of DAergic neurons in the VTA which encoded social interaction and relapse were distinct and anatomically segregated. Lastly,

capturing and reactivating the specific subpopulation of DAergic neurons in the VTA encoding social interaction significantly inhibited cocaine relapse.

Conclusion This study provided the evidence that distinct subpopulations of DAergic neurons in the VTA are involved in social interaction and relapse, and selective activation of the memory engram of social interaction in the VTA effectively inhibited drug relapse.

关键字：Social interaction, cocaine relapse, VTA, DAergic neurons, memory engram

前额叶脑电图 α 波偏侧性与抑郁症严重程度相关性及抗抑郁药物的疗效评估的研究现状与进展

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作者：张鹏 刘家钰 黄劲松 单位：辽宁省大连市第七人民医院 摘要：本文主要对前额叶脑电图 α 波偏侧性及其与抑郁症的严重程度相关性及对抗抑郁药物疗效的评估的理论研究概况，目前针对抑郁症症状改善及药物疗效，仍多靠临床医师主观判断，多年来一直都在寻找是否可以有一种辅助评估症状改善及药物是否起效的生物学指标，而在众多生物学指标中，脑电图因其敏感，轻微的情绪波动即可在脑电图中有所体现等其他优势。大量关于脑电图是否可以作为一种神经电生理指标用来评估精神疾病，特别是抑郁症的症状严重程度，抗抑郁药物疗效及疾病预后等方面研究因此而开展。本文涵盖近几年新发论文关于脑电图作为一种神经电生理指标对于评估抑郁症严重程度及评估药物疗效等相关文章，人们发现当大脑频率处于 α 波时，人的意识清醒，但身体却是放松的，它提供意识与潜意识的“桥梁”。情绪低落及兴趣减退作为抑郁症主要表现之一，而额叶主要负责个人需要及情感相关问题，因此针对抑郁症患者脑电图 α 波能量能量异常，主要是集中在额叶，特别是前额叶部分，戴维森提出了一种针对情感变化的模型，被称作为激活-抑制假说，这种假说认为左右侧大脑半球功能是不同的，左侧大脑半球的活动更多涉及行为激活系统，代表增强的动机与积极的情绪，而相反的右侧大脑半球的活动更多涉及行为抑制系统，代表后退和逃避的动机与抑郁的情绪。这种脑电的不对称被称为额叶 α 波能量不对称（frontal alpha asymmetry，FAA）是重症抑郁障碍产生的一种神经电生理学机制，抑郁症患者脑电图 α 波较正常患者发生一定改变，且 α 波的偏侧程度与抑郁症的严重程度呈相关性，额叶 α 波能量不对称可作为一种衡量抑郁症严重程度的指标，FAA 更偏向左侧的患者抑郁程度更为严重。有观点认为 FAA 作为抑郁症的一种预后指标时结果较为准确，使用 SSRI 治疗有效的患者中 FAA 右侧偏侧更为明显，尤其在枕部更为明显，前额叶脑电图 α 波能量较低患者药物治疗效果较差，虽然许多研究取得了乐观的结果，但也有研究得到了不同的结果，原因可能在于：1.脑电图记录的技术特性以及信息进一步处理的问题；2.受试对象是否共患其他精神心理疾病；3.样本数量大小以及样本特性不同。因此针对脑电图作为一种神经电生理指标是否可以用来评估抑郁症严重程度及要药物疗效仍需要大连研究证实，对于推广到临床应用中仍需要许多时间。

关键字：抑郁症；脑电图 α 波偏侧性；抗抑郁药物疗效；抑郁症严重程度

Title: Sleep "Losses" and Sleep "Gains": The Critical Role of Sleep on Social Cognition

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Objective Sleep silently stitches the fabric of our social understanding as we embark on nocturnal journeys through landscapes of dreams and memories, traversing the delicate balance between wakefulness and repose. Recent research has highlighted the complex interplay between sleep and social cognition; sleep not only promotes the capacity for emotional reactivity, emotional regulation, empathy, and conflict resolution, but also serves as a critical factor in the development of mental health issues such as major depressive disorder (MDD) and generalized anxiety disorder (GAD). This systematic review aims to delve into the captivating realm of sleep and shed light on how the symphony of slumber orchestrates our every interaction in the social world.

Methods We searched the literature using PubMed, Web of Science, APA PsycINFO, Cochrane and Embase, considering available studies up to May 2023. We used PubMed MeSH terms and the text words of key articles that we identified a priori for searching within titles, abstracts, or keywords. We identified 35,765 journal articles.

Results Sleep loss, including sleep deprivation and restriction, profoundly affects social behavior, affecting various aspects of emotion processing, including emotional reactivity, cognitive reappraisal, facial emotion recognition, and the consolidation of emotional memories. Research has revealed that sleep deprivation can disrupt the functioning of the prefrontal cortex and lead to overactivity in the amygdala, the brain region responsible for processing emotional information and regulating emotional responses. The exacerbation of mood disorders by acute sleep deprivation adds another layer of complexity to the interplay between sleep and emotional regulation. Sleep deprivation could intensify mood disorders, such as MDD and GAD, further impeding the ability to adeptly manage emotions in social settings. Sleep loss leads to social loss; correspondingly, sleep also serves as a time window for social gains. During the different stages of sleep, especially during slow-wave sleep and Rapid Eye Movement (REM) sleep, the brain engages in myriad activities that facilitate reorganizing and strengthening neural connections underpinning memory. One of the promising techniques to leverage sleep for memory enhancement is Targeted Memory Reactivation (TMR) which involves the re-exposure to cues (such as sounds or smells) associated with specific

memories during wakefulness. By selectively strengthen the neural representations of the associated memories during sleep, TMR holds immense promise for academic learning and skill acquisition and potentially mitigating memory-related disorders.

Conclusion Sleep plays a pivotal role in social cognition, profoundly impacting our ability to understand, interpret, and react to social cues. Prioritizing sleep is not only necessary for physical health but also critically important for our social cognition, memory, and overall mental well-being.

关键字：sleep; social cognition, mental health

The Mediating Effects of Mobile-Based Music Therapy on Depressive Medical Students: A Randomized Controlled Trial

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Objective Depression, perceived stress, and insomnia are common mental health challenges among medical students. The telemedicine has emerged as a popular and viable means of addressing mental health concerns. The mechanisms underlying the effectiveness of mobile-based music therapy (mMT) in treating depression remain unclear. This study aims to explore the mediating relationship between depressive symptoms, stress perception, and insomnia severity, investigate the efficacy of mMT in improving symptoms, and explore potential mediating pathways.

Methods A mental health survey was conducted on 5776 medical students. Mediation analysis evaluated the role of depression in mediating the relationship between perceived stress and insomnia in those reporting depressive symptoms. A randomized controlled trial was conducted on 105 depressive students, randomly assigned to an mMT group or control (CON) group. The mMT group received 4 weeks of mMT intervention, and the CON group without any intervention. Self-reported measures of depression, perceived stress, and insomnia were assessed pre- and post-measurements. Mediation analysis examined the mediating pathway among symptom improvement.

Results Depression partially mediated the relationship between perceived stress and insomnia in 1581 depressive students. The mMT intervention significantly improved depression, perceived stress, and insomnia symptoms in the mMT group (n=30) compared to the CON group (n=30). Depression completely mediated the effect of mMT on the improvement of insomnia symptoms through perceived stress.

Conclusion This study highlights the potential benefits of mMT in improving depressive symptoms, stress perception, and insomnia symptom severity. Based on the interplay between symptoms in depression, provides insights into the mediating symptomatic mechanisms of mMT's effectiveness.

关键字：Mobile-Based Music Therapy, Randomized Controlled Trial, Symptomatic Mediating Mechanism

护理硕士自我能力否定倾向及完美主义人格对职业倦怠的影响

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目的 探索护理硕士自我能力否定倾向、完美主义人格及职业倦怠的关系，为干预护理硕士职业倦怠提供参考

方法 采用一般资料问卷、Clance 自我能力否定倾向量表、Frost 多维完美主义量表及职业倦怠对 234 名护理硕士进行问卷调查，并分析完美主义人格、自我能力否定倾向和职业倦怠三者间的关系。

结果 护理硕士自我能力否定倾向得分为（57.91±12.10），职业倦怠得分为（39.08±15.18）；护理硕士自我能力否定倾向与职业倦怠呈正相关（P<0.01）；多元线性回归分析显示自我能力否定倾向、是否喜欢护理专业、职称、积极完美主义最终进入护理硕士职业倦怠的回归方程（P<0.01），可解释护理硕士职业倦怠21%的变异。中介分析结果显示，积极完美主义对职业倦怠总效应为-0.5768，（95%CI=-1.086~-0.068），直接效应为-0.8337（95%CI=-1.319~-0.348），间接效应为0.2569（95%CI=0.084~0.465），中介效应占比 30.81%。

结论 护理硕士自我能力否定倾向和职业倦怠情况严重，积极完美主义对职业倦怠有负向预测作用，自我能力否定倾向在积极完美主义与职业倦怠中起部分中介效应。护理管理者应重视护理硕士群体中出现的职业倦怠及自我能力否定倾向现象并采取适当的措施以减轻护理硕士的职业倦怠，有助于培养和使用身心健康的护理人才。

关键字：护理硕士；自我能力否定倾向；完美主义人格；职业倦怠；横断面；中介效应

Perception of Attitudes Towards People with Mental Disorders and Social Distance: A Survey of Community Residents in A Western City of China

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Objective To know the current state of stigma associated with mental disorders in community residents in Chengdu, and to analyze which aspects of stigma were prominent and explore the influencing factors.

Methods 1470 community residents were recruited from May 2019 to June 2019. Questionnaires including socio-demographic information, social distance scale (SDS), and community attitude toward the mentally illness scale (CAMI) were applied to evaluate the stigma associated with mental disorders. One-way ANOVA, independent sample T test and multiple linear regression analysis were

applied to analyze the status of stigma and its influencing factors.

Results Residents aged between 55-74 years had higher social rejection attitude towards people with mental disorders (P<0.05). Oppositely, individuals with junior college, friends or acquaintances and caregivers for people with mental disorders had less social rejection of people with mental disorders (P<0.05). Single child showed more negative attitude, and caregivers for people with mental disorders and people who have someone with mental disorders in family revealed more positive attitude to mental disorders （P<0.05).

Conclusion The stigma and social rejection towards people with mental disorders is still common. The more contact with people with mental illness, Such as Friends or acquaintances and caregivers, the weaker the discriminatory attitude towards mental illness. Therefore, publicity of knowledge related to mental illness should be strengthened and contact between the public and patients could be promoted to facilitate the real understanding of people with mental illness, so as to reduce stigma.

关键字：Stigma; social distance; mental disorders;

尿酸代谢异常介导青少年心境障碍患者自我伤害行为的神经影像特征

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目的 目前，临床量表评估对于预测自我伤害行为的有效性有限，无法满足临床需求。本研究聚焦于嘌呤能代谢系统，并将其终产物尿酸，作为嘌呤代谢紊乱标志物。在此基础上比较自我伤害行为与非自我伤害行为的青少年心境障碍患者之间外周血尿酸水平的差异，并研究外周血尿酸水平与自我伤害行为风险之间的关系。同时探究伴有自我伤害行为的青少年心境障碍患者在全脑水平上脑区自发活动的改变，以及外周血尿酸水平与特定脑区自发活动之间的相关性。基于尿酸代谢紊乱-脑功能异常-自我伤害行为易感性的内在链式中介机制，构建预测青少年心境障碍患者自我伤害行为的模型。

方法 招募符合 DSM-5 诊断标准的 340 名青少年心境障碍患者，排除 4 个近期严重感染的病例后，剩余 336 名受试者。按照既往有无自我伤害病史，分成自我伤害组（SH 组,N=209）、非自我伤害组（NSH 组,N=127）。收集患者人口学特征及临床量表资料，主要包括去除自杀评分的汉密尔顿抑郁量表 16 项（HAMD-16）、汉密尔顿焦虑量表（HAMA）、杨氏躁狂量表（YMRS）、贝克自杀量表（BSS lasTweek）、童年创伤事件量表（CTQ）、青少年生活事件量表（ASLEC）。收集血液样本，包括：嘌呤代谢终产物（尿酸）、炎症指标（白细胞计数）、代谢指标（葡萄糖、甘油三酯、总胆固醇）、氧化应激指标（总胆红素、直接胆红素、间接胆红素）、肾功能指标（肌酐）。完成磁共振数据采集及预处理。使用 SPSS 软件，进行双样本 T 检验比较自我伤害组和非自我伤害组在血液指标及临床量表的差异。双变量 logistic 回归分析尿酸水平与自我伤害行为的相关性。利用 Dpabi，分析伴有或不伴有自我伤害行为的青少年心境障碍患者在全脑水平脑自发活动的变化，并使用皮尔逊相关分析明确尿酸水平与特定脑区 ALFF 值之间的关系。

结果 相对于 SH 组，NSH 组患者尿酸（T=3.051, P<0.05），Logistic 回归示外周血清尿酸水平降低是自我伤害行为的危险因素(OR=0.996，P＜0.05）。静息态磁共振研究示 SH 组在楔前叶的自发活动增强（P<0.001, corrected）。

结论 嘌呤能代谢紊乱介导了青少年心境障碍患者自我伤害行为的发生，楔前叶是 SH 与 NSH 的差异脑区，自我伤害行为可能机制为尿酸代谢紊乱-脑功能异常-自我伤害行为易感性的内在链式中介机制。

关键字：尿酸；嘌呤代谢；自我伤害；心境障碍；静息态功能磁共振；

汕头地区慢性疲劳综合征患病率调查

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目的 慢性疲劳综合征（CFS）是以医学上无法解释的慢性疲劳为主要表现的一类疾病。然而，我国目前关于 CFS 的流行状况尚缺乏调查。本研究的目的为调查汕头地区人群的 CFS 的患病率。

方法 本研究采用横断面调查设计及便利抽样方法。从 2021 年 10 月到 2021 年 12 月，对 1474 名 20 至 88 岁的汕头市广厦街道居民及汕头大学医学院教职工、家属及学生(419 名男性和 1055 名女性)进行了问卷调查，包括一般情况、既往病史、Chalder 疲劳量表及 CFS 筛查量表。Chalder 疲劳量表得分≧4 分定义为存在疲劳感，慢性疲劳定义为疲劳感持续 6 个月及以上，CFS 定义符合 1994 年美国疾病控制和预防中心提出的病例定义。

结果 存在疲劳感的人群占比为 39.1%，有慢性疲劳的占比为 13.5%，CFS 的患病率为 1.8%。在年龄分组中，疲劳感发生率最高的在 20-29 岁年龄组（25.3%，146/576），慢性疲劳发生率集中在 50-69 岁（43.2%，86/199），CFS 患病率集中在 50-69 岁（48.1%，13/27），CFS 患病率在不同年龄组间具有显著统计学差异。在性别分组中，女性中有疲劳感 430 人（29.2%,430/1474），慢性疲劳 152 人（10.3%, 152/1474），CFS 23 人（1.6%，23/1474）；男性中有疲劳感 146 人（9.9%，146/1474），慢性疲劳 47 人（3.2%，47/1474），CFS 4 人（0.3%，4/1474），两组间 CFS 患病率差异无统计学显著性。

结论 本调查显示汕头地区处于疲劳状态的比例较高，而 CFS 患病率与世界其他地区患病率相当，CFS

患病率存在年龄差异，但性别间差异不明显。

关键字：汕头，慢性疲劳综合征

A Study on Reflecting The Stress Levels of Adolescent Males and Females Based on Voice Features

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Objective This study explores the role of voice features in identifying stress levels in adolescent males and females. It also investigates the relationship and differences between stress levels and voice features in these two groups.

Methods The study included 11,427 adolescents aged 10-18 from Taizhou, Yixing, and Sheyang counties in Jiangsu Province, who participated in the psychological health screening project. Clinical scale assessments and voice recordings were conducted. Statistical analyses were performed using SPSS 27.0 software. Mann-Whitney U tests were conducted separately for male and female samples in the healthy and stressed groups to identify voice features that showed differences between the groups. Pearson correlation analysis was conducted between the voice features that differed between the healthy and stressed groups and the total score of the DASS-stress factor in the stressed group. Logistic Regression machine learning classification models were developed using stress-related voice features for males and females as input features. Cross-validation was employed to obtain ROC curves and calculate accuracy, precision, sensitivity, specificity, and AUC.

Results Voice features such as F0 skewness and mfcc-9 mean were found to reflect stress levels in adolescent males, with an accuracy of 51.4%, precision of 51.3%, sensitivity of 51.4%, specificity of 51.4%, and AUC of 0.528. Voice features including F1-second order difference skewness, B1 range, and B3-second order difference skewness were found to reflect stress levels in adolescent females, with an accuracy of 56.9%, precision of 57.8%, sensitivity of 56.9%, specificity of 56.9%, and AUC of 0.572.

Conclusion Fundamental frequency (F0) and Mel-frequency cepstral coefficients (mfcc) may be closely associated with stress levels in adolescent males, showing relatively high accuracy in detecting stress states. They have the potential to serve as objective indicators for assessing and identifying stress levels in males. Resonance peaks and resonance peak bandwidth may be closely associated with stress levels in adolescent females, showing relatively high accuracy in detecting stress states. They have the potential to serve as objective indicators for assessing and identifying stress levels in females.

关键字：voice features, stress, females, males, machine learning, fundamental frequency, Mel-frequency cepstral coefficients, resonance peaks.

一种新型基于移动端的计算机化全自助式神经认知测验的信效度检验

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背景 《“健康中国 2030”规划纲要》明确提出要探索推进智能健康电子产品和健康医疗移动应用服务的发展。目前与认知评估有关的电子产品的研究较少，缺乏较为有效的智能认知评估移动应用系统。 目的检验一种基于移动端的新型计算机化全自助式神经认知测验在正常人群中的信度和效度。

方法 依据认知理论、国内外相关文献和已有测验拟定认知测验提纲，与计算机专家合作研发形成初级认知测验，采用初级认知测验对 14 个心理与精神医学专业的硕博生进行预测试，依据预测试结果对初级测验进行修改与完善，形成正式测验。从 2023 年 5 月 1 日到 2023 年 6 月 26 日，采用正式测验对河北唐山市 223 名认知正常人群进行测试，其中 90 名被试同时完成可重复神经心理状态评定量表（RBANS）。间隔 3 周后随机选取 53 人进行重测。

结果 测验共包括 17 个条目。KMO=0.698。探索性因子分析通过主成分法共提取出 8 个特征根＞1 的公因子，分别为视空间能力、心理反应速度、情绪识别、工作记忆、注意、执行功能、反应抑制、长时记忆，与原测验设定的 8 公因子结构一致。累计方差贡献率为 65.364%。内部一致性信度为 0.74，各因子的重测信度范围为 0.51-0.66（均 P＜0.05）。与 RBANS 量表各因子及总分的效标关联效度为 0.30-0.52（均 P＜0.05）；折半信度为 0.721。验证性因子分析结果为：X2/DF=2.031,CFI=0.924,TLI=0.901,IFI=0.926,GFI=0.892,RMESA=0.072,SRMR=0.08。数据拟合良好。

结论 新型计算机化全自助式神经认知测验是一个信效度良好的认知自评工具，能够全面的评估正常人的认知表现。本研究有利于下一步应用该认知测验评估精神障碍患者的认知缺陷。

关键字：认知评估；心理测量；智能化

新冠后“脑雾”症状的流行病学调查

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目的 根据 WHO 针对新冠后长期影响的专家共识所述，在新冠后患者中观察到的长期认知障碍可以被称为“脑雾”，具体表现包括：记忆力下降、注意力不集中、找词困难等。本研究通过流行病学方法调查全国范围内新冠后“脑雾”的发病情况，初步明确新冠后“脑雾”患病人群的人口学特征及“脑雾”症状群严重程度。

方法 采用网络问卷调查的形式，通过微信公众

号及线上新闻媒体转发传播，由专人统一收集整理采集数据。采集内容包括性别、年龄、受教育程度、婚姻状况、居住地区、是否出现“脑雾”症状群（包括：1.记忆力减退 2.注意力不集中 3.思维迟缓 4.感觉头脑昏沉 5.找词困难）、症状严重程度（从来没有—0 分、偶尔有—1 分、经常有—2 分、一直有—3 分）、症状出现时间、疫苗接种史等。

结果 （1）截止至 2023 年 6 月 20 日，共计回收有效问卷 653 份。平均年龄(35.95±14.20)岁，其中女性占比 71.5%，本科/专科学历人群占比 71.2%，“脑雾”症状严重程度自评分数平均(6.66±3.38)分（0-15 分），61.5%的人认为“脑雾”症状对生活造成轻度影响，25.2%的人认为“脑雾”症状对生活造成中到重度影响。（2）自评出现“脑雾”症状问卷 533 例，平均年龄(32.50±16.64)岁，其中女性占比 72.4%，“脑雾”症状严重程度自评分数平均(7.48±2.95)分；其中，接触病毒之前有轻微症状，但感染病毒后症状显著加重的 320 例，脑雾”症状严重程度自评分数平均(7.4±2.78)分；之前从未有过“脑雾”症状，感染病毒后新发症状 213 例，脑雾”症状严重程度自评分数平均(7.59±3.18)分；两组在“脑雾”症状严重程度上具有显著差异（p=0.026）。

结论 新冠后“脑雾”症状以认知功能损害为核心特点，主要临床表现包括：记忆力减退；注意力不集中；思维迟缓；感觉头脑昏沉；找词困难等；症状集中发生在青年人群中，女性占多数；超过四分之一的“脑雾”患者认为症状对自己的生活造成中重度影响，且感染病毒后新发“脑雾”的人群，其症状严重程度较感染前就有，但感染病毒后加重的人群更严重。综上，持续的“脑雾”对人类健康造成一定影响，值得未来更进一步探究其发病机制及诊疗方案。

关键字：新型冠状病毒 脑雾 流行病学调查

Microaggressions Experienced by Doctors and Nurses After The Lifting of COVID-19 Lockdown: A Study on Current Status and Influencing Factors

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Objective "Microaggression", encompasses the notion that subtle and everyday acts of discrimination and bias, can lead to psychological and emotional harm, perpetuate inequality, and foster a hostile social environment for marginalized individuals or groups. Studies aimed to shed light on the effects of microaggressions of healthcare workers have found that the harm caused by microaggressions is pervasive. This study aims to investigate the current status of healthcare workers' experiences of microaggressions after the lifting of the COVID-19 lockdown and the risk factors associated with encountering microaggressions.

Methods 190 clinical healthcare workers aged between 18 and 60 years were recruited from March 2023 to April 2023. the Everyday Discrimination Scale (EDS), the Patient Health Questionaire-9 items (PHQ-9), and the Generalized Anxiety Disorde-7 items (GAD-7) were collected.

Results There are a total of 83 nurses [82(98.8%) female] and 107 doctors [54(50.5%) female]. 40(37.4%) doctors and 50(60.2%) nurses have reported experiencing microaggressions, with the proportion of nurses significantly higher than doctors (p=0.002). The prevalence of depression and anxiety symptoms was significantly higher among doctors compared to nurses (p=0.003, 0.008, respectively). There is a significant negative correlation between microaggression scores and anxiety scores, as well as depression scores, for doctors, the correlation coefficients are rPHQ-9=-0.434 (p<0.001) and rGAD-7=-0.398 (p<0.001), for nurses, the correlation coefficients are rPHQ-9=-0.361 (p<0.001) and rGAD-7=-0.470 (p<0.001). The binary logistic regression analysis showed that the independent factors influencing the doctors’ experience of microaggressions was department [reference level=internal; OR(auxiliary)=6.138, P(auxiliary)=0.016], the independent factors influencing the nurses’ experience of microaggressions was age [reference level=18~35y; OR(36~60)=3.497, P(36~60)=0.037], department [reference level=internal; OR(auxiliary)=0.072, P(auxiliary)=0.007] and family structure [reference level=nuclear family; OR (big family)=0.242, P(big family)=0.012].

Conclusion After the lifting of the COVID-19 lockdown, healthcare workers have faced a significant prevalence of microaggressions, with nurses being particularly affected. The experiences of microaggressions among healthcare workers have shown a strong association with anxiety and depression symptoms. Doctors working in auxiliary departments have a higher risk of experiencing microaggressions compared to those in internal medicine, on the contrary, nurses in auxiliary departments have a higher risk compared to their counterparts in internal medicine. Additionally, among nurses, those elder and living in a nuclear family (as opposed to big family) were also found to be at elevated risk.

关键字：microaggression; COVID-19; healthcare worker; influencing factor

Neuropsychological Outcomes Among Community-dwelling Young Chinese Older Adults Affected by Falls in The Past Year with and without Vision Loss

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Objective In the context of global ageing, fall prevention is increasingly appreciated. However, the impact

of vision loss on neurocognitive, psychological health and subjective well-being (SWB) in older adults after fall events is poorly understood. We aimed to investigate the differences between young older adults with and without vision loss on neuropsychological outcomes following falls during the past year and to identify predictors of neuropsychological distress.

Methods A secondary analysis of 668 young older Chinese adults aged 65~79 years old was conducted from the cross-sectional survey data in the 2018 wave of the Chinese Longitudinal Health Longevity Survey (CLHLS). A battery of standardized instruments evaluating neurocognitive function, psychological issues, and SWB was administered by a face-to-face approach.

Results Participants with vision loss scored significantly higher on anxiety and depression and lower on cognitive function and SWB than those without vision loss (P < 0.001 or P < 0.05). The results also revealed that vision loss was a significant predictor of adverse outcomes for all four neuropsychological measures. In addition, a history of stroke/cerebrovascular disease and fall events were predictors of cognitive impairment, and insufficient financial support was a predictor of anxiety.

Conclusion Our ?ndings suggest that post fall community-dwelling young older adults with vision loss showed a considerable prevalence of neurocognitive impairment, psychological issues, and decreased SWB within a year. This has secondary prevention and rehabilitation implications. Longitudinal studies are required to determine the effects of negative neuropsychological outcomes in post fall older adults with sensory impairment on prognosis.

关键字：Fall, Vision loss, Cognitive impairment, Anxiety, Depression, Young older adults

Prevalence of Depression and Anxiety, and Associated Factors, Among Chinese Primary and High School Students: A Cross-sectional, Epidemiological Study

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Objective This study aimed to investigate the prevalence of depression and anxiety, and associated factors, among Chinese children and adolescents aged 8–18 years who attend primary or high school.

Methods A total of 23 005 primary and high school students were recruited from February to December, 2019 for this cross-sectional study. The questionnaire included demographic information, questions assessing suicidality, resilience, depression (Center for Epidemiological Studies Depression Scale for Children), and anxiety (Screen for Child Anxiety Related Disorders). Binary logistic regression was used to analyze the independent correlates of depression and anxiety.

Results Overall, 13.06% of participants experienced depressive symptoms, 22.34% experienced anxiety symptoms, 26.34% experienced transient suicidal ideation, 2.23% had serious suicidal ideation, and 1.46% had a history of suicide attempts. Anxiety (odds ratio [OR], 4.935; 95% confidence interval [CI][4.442–5.485]), suicidality (OR, 2.671; 95% CI[2.203–3.237]), skipping breakfast (OR, 1.920; 95% CI[1.348– 2.736]), sleep duration (OR, 0.470; 95% CI[0.398–0.556]) and self-expectations (OR, 1.924; 95% CI[1.550–2.389]) were associated with depression (all p < .05). Depression (OR, 4.424; 95% CI[3.983–4.914]), female sex (OR, 1.903; 95% CI[1.759– 2.060]), school-based traumatic experience(s) (OR, 1.905; 95% CI[1.747–2.077]), relationships with teachers (OR, 1.575; 95% CI[1.103–2.249]), and suicidality (OR, 1.467; 95% CI[1.218–1.766]) were associated with anxiety symptoms (all p < .05).

Conclusion Depression and anxiety are common among school-age children and adolescents in China. Childhood school- and family-based traumatic experience(s), female sex, and lifestyle factors (eating breakfast, sleep duration, exercising, and Internet use) are significantly associated with mental health among children and adolescents. Developing interventions targeting these factors to protect students from depression and anxiety are needed.

关键字：adolescents; anxiety; children; depressive symptom; epidemiology

Loveless Marriage and Child Psychopathology: Do Not Reluctantly Stay Together for The Sake of The Children

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Objective Some couples with unhappy relationship still maintain the marriage for the sake of their children. However, such loveless marriages may expose children to long-term parental conflict, which may be associated with higher risk of child psychopathology even more than divorce. This study aimed to answer whether parents' decision to reluctantly stay in an unhappy marriage is associated with their children's risk of psychopathology.

Methods A total of 96,431 adolecents (Mage = 13.08, SD = 2.70) and their parents from a cross-sectional study were included in this study. Children were divided into different groups based on their parents' self-reported marriage state (non-divorced, divorced, and remarried) and their interparental relationship (happy, so-so, unhappy) reported by the child and the parent, respectively. Then logistic regression analyses compared whether children whose parents with a unhappy marriage had higher risks of

psychopathology (i.e., suicidality, non-suicidal self-injury (NSSI), depression, and anxiety) than their counterparts.

Results About 34.56% - 41.56% of parents with unhappy relationships chose to stay in their current marriage. Children of these parents displayed higher odds of suicidality, NSSI, depression, and anxiety, compared to children with other parents, after adjusting for demographic variables of the child and parent, as well as parental psychopathology. The results were similar regardless of whether the grouping indicator of interparental relationship was child-reported or parent-reported.

Conclusion Public awareness should be raised that divorce may not be the worst option when parents are in an unhappy relationship, at least when considering the potential effect on their children's psychopathology.

关键字：MDD, children and adolescence，divorce，suicide, self-harm

物质依赖学组

伴自伤自杀行为的青少年抑郁症额叶功能改变及影响因素分析

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目的 探讨伴自伤自杀行为的青少年抑郁症患者在执行认知任务时额叶功能的改变，以及伤自杀行为的影响因素。

方法 本研究共招募伴自杀或自伤行为的青少年抑郁症患者 37 名（伴自杀自伤组），以及一般情况相匹配的无自杀或自伤行为的青少年抑郁症患者 24 名（无自杀自伤组）。对两组受试者，收集其一般情况，评估汉密尔顿焦虑量表、汉密尔顿抑郁量表、艾森克人格问卷、及父母教养方式问卷，并在执行言语流畅性任务及应激图片任务的同时收集了受试者额叶的功能性近红外光谱数据。

结果 两组受试者年龄、性别、受教育程度等一般情况比较均无显著差异。比较两组受试者执行两种任务的脑功能变化发现，在执行言语流畅性任务两组受试者各脑区功能无明显差异，而在执行应激图片任务时，自伤自杀组右侧额中回激活显著强于无自杀自伤组（t=3.0409, p=0.0035）。各量表中，艾森克人格问卷的神经质因子评分伴自杀自伤组显著高于无自杀自伤组（t=-4.409,p<0.001），父母教养方式问卷中母亲偏爱被试评分伴自杀自伤组显著高于无自杀自伤组（t=3.101，p=0.003），且自杀自伤组显著高于中国常模（t=6.172,p<0.001）；父亲过分干涉评分伴自杀自伤组显著低于无自杀自伤组（t=-3.102，p=0.003），且自杀自伤组显著低于中国常模（t=-4.768,p<0.001）。将上述影响因素纳入 logistic 回归分析，发现神经质因子评分或母亲偏爱被试评分越高、父亲过分干涉评分越低，青少年抑郁症患者越可能出现自伤自杀行为。

结论 存在自伤自杀行为的青少年抑郁症患者在处理应激情绪时，右侧额中回过度激活，而这种改变可能与自伤自杀行为的出现有密切的关系。青少年抑郁症患者自身的神经质特质及母亲的过分偏爱越强、父亲的干涉越少，越容易出现自杀自伤行为。

关键字：青少年抑郁症，自伤行为，自杀行为，功能性近红外光谱技术

线索暴露联合低频电针足三里治疗预防酒依赖复发的随机对照研究

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目的 探讨线索暴露联合低频电针足三里治疗降

低酒依赖者在面对酒相关环境线索时心理渴求的作用。

方法 本研究采用随机对照试验方法，将 117 例依 DSM-IV 诊断为酒依赖的患者，按患者年龄分层，根据患者入院先后顺序编号，查随机数字表，用区组随机化法，随机分为线索暴露+电针治疗（试验组）及常规治疗（对照组）两组。试验组在常规治疗基础上增加线索暴露+电针治疗 9 次。在治疗前和为期 3 周的治疗后，采用可视渴求量表、饮酒迫促性量表评定患者的心理渴求。完成治疗出院后的半年内进行 4 次随访，计算患者该期间的戒酒天数。主要结局指标为复饮率和校正累积戒酒时间。

结果 治疗后试验组 VAS 评分低于对照组 VAS 评分（1.87±1.95vs 3.56±2.60），差异有统计学意义（t=-3.960，P=0.000）；试验组 VAS 评分减分值更高（2.50±2.23vs 0.92±2.00），差异有统计学意义（t=4.043，P=0.000）。治疗后 4 周、8 周、12 周随访结果显示，试验组复饮率及复饮后日均饮酒量均低于对照组，差异有统计学意义（P<0.05）；治疗后 26 周随访结果显示，两组复饮率及复饮后日均饮酒量差异无统计学意义。

结论 线索暴露治疗联合低频电针足三里治疗技术，短期内可以进一步降低酒依赖患者的心理渴求，从而降低酒依赖患者的远期复发率。

关键字：酒精依赖；线索暴露

基于 Web of Science 数据库的食物成瘾研究热点的可视化分析

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目的 探究国际关于食物成瘾研究的现状、热点及趋势，为国内肥胖等疾病的防治提供借鉴。

方法 2023-03-09，以 Web of Science 数据库核心合集为数据检索源、以“food addiction”、“Yale Food Addiction Scale”为主题词进行检索，检索式为 TS=“food addiction”OR“Yale Food Addiction Scale”。文献纳入标准：（1）发表时间为建库时间~2023-03-07；（2）文献类型为 Article。排除标准：（1）重复文献；（2）仅在摘要或正文提及 FA 而未以其作为主题进行研究。共检索文献 877 篇，选择全记录与引用的参考文献后以 txt 文本格式导出，采用 CiteSpace 自带“Remove Duplicates”功能去除重复文献，最终纳入参考文献 822 篇。

结果 共纳入文献 822 篇，1956 年~2023 年食物成瘾相关文献发文量呈连年上升趋势，发文量最多的国家为美国（381 篇），发文量最多的机构为密歇根大学（86 篇），发文量最多的学者为密歇根大学的 Gearharddt Ashley N（78 篇），食物成瘾研究的热点与趋势集中于食物成瘾神经病理学机制及其与肥胖的关系、食物成瘾与精神心理障碍的关系、食物成瘾的测量与诊断及未成年人食物成瘾 4 个方面。

结论 食物成瘾受到国际学者的关注，国内研究者应加强国内外合作，开发食物成瘾的干预方案及心理因素解释模型并开展随访研究，结合国内具体情况完善食物成瘾量表测量主题，积极开展未成年人食物成瘾的防治方案。

关键字：食物成瘾；肥胖；研究热点；CiteSpace；VOSviewer

教师自我职业污名和离职倾向的关系：职业倦怠的中介作用

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目的 调查教师自我职业污名、离职倾向和职业倦怠现状，并探讨三者之间的关系以及相关影响因素。

方法 采用自编的人口学问卷、《感知职业污名量表》、《职业倦怠量表》和《离职倾向量表》对幼儿园、小学、中学和大学教师进行网络匿名问卷调查。

结果 本研究共放发 3400 份问卷，获得 3025 份有效问卷，有效率为 88.9%，其中男性 753 人（24.9%），女性 2272 人（75.1%）；平均年龄为 36.40±10.15 岁，平均教龄为 14.01±12.06 年。幼儿园教师 483 人（16.0%），小学教师 1412 人（46.7%），初中教师 732 人（24.2%），高中教师 242 人（8.0%），大学教师 156 人（5.2%）。教师自我职业污名平均得分为 31.98±6.55。职业倦怠的平均得分为 50.20±16.64，其中情绪衰竭（19.47±7.97），去个性化（14.80±6.53）、成就感低落（15.93±7.58）。离职倾向的平均得分为 16.11±7.04。自我职业污名与职业倦怠显著正相关（r=0.29，p<0.00），自我职业污名与离职倾向显著正相关（r=0.25，p<0.00），职业倦怠与离职倾向显著正相关（r=0.51，p<0.00）显著正相关。自我职业污名可以显著正向预测职业倦怠（β=0.29，p<0.01），职业倦怠可以正向预测离职倾向（β=0.47，p<0.001），自我职业污名对离职倾向的作用显著（β=0.11，p<0.01），职业倦怠在自我职业污名和离倾向之间的中介效应占总效应的 55.56%。教师自我职业污名的影响因素有年龄、学段、学历、职位、月收入、编制等（p<0.05），职业倦怠的影响因素有性别、婚姻状况、年龄、教龄、学段、学历、职位、月收入、编制等（p<0.05），离职倾向的影响因素有婚姻状况、年龄、教龄、学段、学历、职位、月收入、编制等（p<0.05）。

结论 教师群体普遍存在较高的自我职业污名和职业倦怠，离职倾向则相对较低。教师自我职业污名、职业倦怠和离职倾向三者之间关系紧密，职业倦怠起到部分中介作用。

关键字：教师；自我职业污名；职业倦怠；离职倾向；中介作用

成年男性甲基苯丙胺使用障碍患者自杀观念及相关因素研究

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Objective 探索成年男性甲基苯丙胺使用障碍（MAUD）患者的自杀观念及其影响因素，为自杀风险的评估和管理提供科学依据。

Methods 采用方便抽样的方法共纳入 360 名强制隔离戒毒所的成年男性 MAUD 患者为研究对象。采用半结构式访谈与自评式问卷调查相结合方式收集被试的临床资料，包括自编基本信息表、自编甲基苯丙胺（MA）使用特征信息表、《药物与酒精依赖半结构评估中文版》、贝克自杀观念量表（BSSI）、酒精使用障碍筛查量表（AUDIT）、Fagerstr?m 尼古丁依赖检验量表（FTND）、儿童期创伤问卷简版（CTQ-SF）、艾森克人格问卷简式量表（EPQ-RS）和 Buss-Perry 攻击问卷（AQ）。分别对 BSSI 总分及其两个维度（自杀观念和自杀倾向）进行单因素分析（Mann-Whitney U 检验、Spearman 相关分析）和多因素分析（多元线性回归分析）。

Results 本研究中 MAUD 患者自杀观念的检出率为 26.67%（n=96）（根据 BSSI 量表条目 4 和 5 得分之和是否为 0，可将被试分为有自杀观念者和无自杀观念者）。BSSI 总分的独立危险因素包括 MA 每次使用剂量（β=1.74，95%CI：0.02，3.46）、艾森克人格特征的内向型（β=-0.07，95%CI：-0.12，-0.01）和不稳定型（β=0.06，95%CI：0.01，0.12），以及攻击性中的指向自我的攻击性（β=0.07，95%CI：0.03，0.11）。BSSI 自杀观念维度的独立危险因素包括艾森克人格特征的不稳定型（β=0.035，95%CI：0.01，0.06）和攻击性中的指向自我的攻击性（β=0.03，95%CI：0.02，0.05）。BSSI 自杀倾向维度的独立危险因素包括年龄≥30 岁（β=1.10，95%CI：0.13，2.07）、MA 每次使用剂量（β=1.39，95%CI：0.26，2.51）、艾森克人格特征的内向型（β=-0.05，95%CI：-0.08，-0.01），以及攻击性中的指向自我的攻击性（β=0.04，95%CI：0.01，0.07）。

Conclusion 戒毒机构中成年男性 MAUD 患者普遍存在较高的自杀观念，检出率高达 26.67%，其独立危险因素为：MA 每次使用剂量高、内向型和不稳定型人格倾向、指向自我的攻击性高。此外，自杀观念的两个维度的危险因素既有共性，又稍有差异。该研究结果提示我们，在对戒毒机构中的成年男性 MAUD 患者进行自杀风险评估和管理时，应该重点关注具有以上特征的 MAUD 患者，做到及时发现和干预防范，以规避其发生自杀的风险。

关键字：甲基苯丙胺使用障碍；物质使用障碍；自杀；危险因素

北京市大学生童年不良行为对饮酒行为的影响：积极饮酒期望的中介效应

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目的 初步探索北京市大学生童年不良行为对饮酒行为的影响过程中积极饮酒期望的中介效应。

方法 采用方便抽样的方法，2014 年 1 月至 2015 年 12 月在北京市两所大学内共招募 214 名非医学类院校大学生入组，采用酒精依赖综合症量表评估受试者的饮酒行为，并收集受试者一般情况、饮酒期望、12 岁前童年行为相关信息，利用相关分析、多元回归分析、Bootstrap 检验方法对受试者的问卷调查结果进行分析。

结果 饮酒行为、童年不良行为及积极饮酒期望三个主要变量之间的相关系数显著，呈两两正相关。多元回归分析结果显示童年不良行为可显著正向预测大学生积极饮酒期望（β=1.27，P＜0.01），对饮酒行为也有显著正向预测作用（β=0.09，P＜0.01），积极饮酒期望对饮酒行为也有显著正向预测作用（β=0.02，P＜0.01）。童年不良行为到饮酒行为的直接效应及中介效应两条路径的 95%置信区间均不包含“0”。童年不良行为对饮酒行为的影响中，其直接效应为 0.088，95%CI 为（0.009,0.167），直接效应与总效应之比为 78.55%，总间接效应为 0.026，95%CI 为（0.008,0.046），总间接效应与总效应之比为 21.45%。积极饮酒期望在童年不良行为对饮酒行为的影响中的中介效应显著。

结论 大学生的童年不良行为可以通过其积极的饮酒期望间接影响大学生的饮酒行为，建议对有童年不良行为的大学生积极降低其积极饮酒期望，从而降低童年不良行为对饮酒行为的影响。

关键字：童年不良行为；积极饮酒期望；饮酒行为；中介效应

Different Characteristics of Psychological and Sleep Symptoms Across Social Media Addiction (SMA) and Internet Gaming Disorder (IGD) in Chinese Adolescents- A Network Analysis

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Background Previous research has explored a variety of mental disorders associated with Internet Gaming Addiction (IGD) and Social Media Addiction (SMA). To date, few studies focused on the network characteristics and investigated mood and sleep symptoms across SMA and IGD of adolescence at a group-specific level. This study aims to identify different characteristics of IGD and SMA and further determine the group-specific psychopathology process among adolescents.

Methods We conducted a cross-sectional study to

recruit a cohort of 7246 adolescents who were scored passing the cutoff point of Internet Gaming Disorder Scale-Short Form (IGDS9-SF) and Bergen Social Media Addiction Scale (BSMAS), as grouped in IGD and SMA, or otherwise into the control group. Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder 7-item (GAD-7), and Pittsburgh Sleep Quality Index (PSQI) were assessed for the current study, and all assessed items were investigated using network analysis.

Results The edge weight bootstrapping analysis shows that different groups of networks reach certain accuracy, and the network structures of the three groups are statistically different (Pcontrol-IGD = 0.004, Pcontrol-SMA < 0.001, PIGD-SMA < 0.001). The core symptom of SMA is “feeling down, depressed, or hopeless”, while IGD is “feeling tired or having little energy”.

Conclusions Although IGD and SMA are both subtypes of IA, the psychopathology processes of IGD and SMA are different. When dealing with IGD and SMA, different symptoms should be addressed.

关键字：Internet Gaming Addiction; Social Media Addiction; Sleep Symptoms; Anxiety; Depression

The Association between Workload, Alcohol Use, and Alcohol Misuse Among Psychiatrists in China

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Objective Survey alcohol use and workload among Chinese psychiatrists and explore their associations.

Methods We conducted an online questionnaire among psychiatrists working in large psychiatric institutions across the country. We collected data including demographic factors, alcohol use, and workload. Alcohol use was assessed using the Alcohol Use Disorder Identification Test-Consumption (AUDIT-C), and workload-related questions included working hours, night shifts, and caseloads.

Results In total, 3549 psychiatrists completed the survey. Nearly half (47.6%) reported alcohol use, and the percentage of alcohol use in males (74.1%) was significantly higher than in females. 8.1% exceeded the AUDIT-C cutoff scores for probable alcohol misuse (19.6%in males and 2.6%in females). AUDIT-C scores were significantly correlated with working hours per week (p=0.017) and the number of outpatient visits per week (p=0.006). Regressional analysis showed that alcohol use was significantly associated with the following factors: longer working hours (Working more than 44 hours/week, OR = 1.315), having an administrative position (OR =1.352), being male (OR =6.856), being single (OR =1.601), being divorced or widowed (OR =1.888), smoking (OR =2.219), working in the West (OR =1.511) or the Northeast (OR =2.440). Regressional analysis showed that alcohol misuse was significantly associated with the following factors: fewer night shifts (Three to four night shifts/month, OR = 1.460; No more than 2 night shifts/month, OR = 1.864), being male (OR =4.007), working in the Northeast (OR =1.683), smoking (OR =2.219), frequent insomnia (OR =1.678).

Conclusion Nearly half of the psychiatrists in China reported alcohol use and 8.1% had probable AUD. Alcohol consumption is significantly associated with several workload-related factors, such as long working hours, heavy caseload, and administrative duties. Alcohol misuse was inversely associated with the number of night shifts per month. While the direction of causality is unclear, our findings may help identify vulnerable professional groups and develop more targeted interventions to improve healthcare professionals’ well-being.

关键字：Alcohol use, Alcohol misuse, psychiatrists, workload, Association

Cultural Differences in Problematic Smartphone Use Among Chinese and Belgian Undergraduates

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Objective This study aims to explore the problematic smartphone use （PSU）of Chinese and Belgian undergraduates, including the support of family and friends, depression, anxiety and stress, and compare the relevant cultural differences between the two countries, so as to provide strong support for more accurate intervention of PSU.

Methods 1229 undergraduates were invited to participate in the online questionnaire on problematic smartphone use, of these,790 were in China and 439 in Belgium. Questionnaires used in the study were Problematic Mobile Phone Use Questionnaire -Short Version (PMPUQ-SV),Multidimensional Scale of Perceived Social Support (MSPSS) and Depression?Anxiety?Stress?Scale (DASS-21). Data from the questionnaires include the following information: gender, age, etc; Time of using smartphone during weekdays(worktime), time of using smartphone during weekends and holidays（offtime）, smartphone usage, multi-dimensional social support and emotional states.Multiple linear regression interaction model was used to explore the influence of age, sex, worktime, offtime, family, friends, others, stress, anxiety and depression on PSU in China and Belgium.

Results The age of undergraduates in China was 19.19 ±1.52, and that in Belgium was 19.78±1.55.There are 191 (24.2%) males and 599 (75.8%) females in China, 290 (66.1%) males and 149 (33.9) females in Belgium.Chinese undergraduates worktime is 4.97±4.01h, and offtime is 7.03±3.65h.The worktime of Belgian undergraduates is 2.21±1.70h, and the offtime is 2.47±1.98h.There was no statistical difference in the comparison of the above factors between the two countries，p

关键字：problematic smartphone use

基于授权理论下知信行健康教育对男性酒精依赖患者的应用研究

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目的 探讨基于授权理论下知信行健康教育在男性酒精依赖患者康复中的应用效果。

方法 招募 2021 年 1 月～2023 年 1 月于芜湖市第四人民医院住院治疗的 64 例男性酒精依赖患者为研究对象，随机分为对照组和实验组，每组 32 人。对照组给予常规药物和心理治疗，实验组在常规药物和心理治疗基础上实施基于授权理论下知信行模式健康教育。比较两组患者干预前和干预 6 周末时一般自我效能感量表（GSES）和社会功能量表（SSPI）得分。

结果 干预前两组患者 GSES 评分比较差异无统计学意义（P>0.05）；干预 6 周时，实验组自我效能感评分高于对照组，差异有统计学意义（P＜0.05）。干预前两组患者社会功能各维度评分比较差异无统计学意义（P>0.05）；干预 6 周时，实验组日常生活能力、活动和交往情况、社会活动技能的维度评分及总分均高于对照组，差异有统计学意义（P＜0.05）。干预 6 周时，实验组复饮率、未戒酒发生率明显低于对照组（P>0.05）；限量戒酒率组间比较差异无统计学意义(P>0.05)。

结论 基于授权理论下知信行健康教育能提高男性酒精依赖患者的自我效能，增强自我管理能力，强化患者对酒精的抵制，降低复饮率，有效改善其社会功能。

关键字：授权理论；知信行健康教育；酒精依赖；社会功能

甲基苯丙胺物质使用障碍者长期戒断后的冲动性特征分析

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目的 我们前期研究表明正在用药或短期戒断的甲基苯丙胺使用障碍个体普遍存在高冲动性的人格特征，本研究则是进一步探讨该类人群长期戒断后的冲动性特征。

方法 本研究以 456 名戒断时间大于 16 个月的甲基苯丙胺使用障碍者和 394 名与之匹配的正常对照者作为研究对象，采用自制一般情况调查表和物质使用情况调查表收集所有受试者的人口学资料信息及甲基苯丙胺使用障碍者的物质使用情况信息，采用巴瑞特冲动量表（Barratt Impulsiveness Scale，BIS）和奖惩敏感度量表（Sensitivity to Punishment and Sensitivity to Reward Questionnaire，SPSRQ）评估所有受试者的冲动性及相关特征。

结果 甲基苯丙胺使用障碍组在 BIS-11 问卷的非计划因子分（P<0.01）、行动因子分（P<0.05）、认知因子分（P<0.01）和总分（P<0.01）方面的得分均显著高于正常对照组；甲基苯丙胺使用障碍组的 SPSRQ 奖赏敏感度分量表得分显著高于正常对照组（P<0.05），即甲基苯丙胺使用障碍者对奖赏刺激的敏感性更高；甲基苯丙胺使用障碍组的 SPSRQ 惩罚敏感度分量表得分显著低于正常对照组（P<0.01），即甲基苯丙胺使用障碍者对惩罚性后果的敏感性较差。

结论 长期戒断后的甲基苯丙胺使用障碍者仍具有高冲动性的人格特征。

关键字：甲基苯丙胺；长期戒断；冲动性

Transcriptomic Profiles of Stress Susceptibility and Resilience in The Prelimbic and Infralimbic Cortex of Rats after Single Prolonged Stress

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Objective The experience of traumatic stress can engender lasting memories associated with the trauma, often resulting in post-traumatic stress disorder (PTSD). However, only a minority of individuals develop PTSD symptoms upon exposure. The neurobiological mechanisms underlying the pathology of PTSD are poorly understood.

Methods We employed a rat model of PTSD, the Single Prolonged Stress (SPS) paradigm, which allows us to differentiate between resilient and susceptible individuals. Fourteen days after the SPS exposure, we conducted the behavioral analyses using Elevated Plus Maze (EPM) and Open Field (OF) tests to identify rats as trauma resilient or susceptible. We focused on the microRNA(miRNA) profiles of the infralimbic(IL) and prelimbic (PL) cortical regions, known to be crucial in regulating the stress response.

Results We found divergent responses among stressed rats subjected to the SPS procedure, and differential expression microRNAs (DEmiRs) analysis indicated significant differences in the IL and PL transcriptional response. In the IL cortex, the GO analysis revealed enriched GO terms in the resilient vs. control comparison, specifically related to mitogen-activated protein kinase and MAP kinase signaling pathways for their molecular functions as well as cytosol and nucleoplasm for the biological process. In the susceptible vs resilient comparison, the changes in molecular functions were only manifested in the functions of regulation of transcription involved in the G1/S transition of the mitotic cell cycle and skeletal muscle satellite cell activation. However, no enriched GO terms were found in the susceptible vs control comparison. In the PL cortex, results indicated that the DEmiRs were enriched exclusively in the cellular component level of the endoplasmic reticulum lumen in the comparison between resilient and control individuals.

Conclusion Overall, our study utilized an animal model of PTSD to investigate the potential correlation between stress-induced behavioral dysfunction and variations in miRNA expression. The aforementioned discoveries have the potential to pave the way for novel therapeutic approaches for PTSD, which could involve the targeted regulation of transcriptome expression.

关键字：Transcriptome, Stress, Susceptibility, Resilience, Prefrontal cortex

酒精使用障碍患者自杀意念及相关因素研究

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目的 酒精使用障碍患者常存在自杀意念，且其终生自杀企图发生率远高于普通人群。本研究对我国医院精神科就诊者中酒精使用障碍患者合并自杀意念进行调查，并探讨其相关因素，以期为有自杀意念的酒精使用障碍患者的早期干预提供参考依据。

方法 ：根据美国精神障碍诊断与统计手册第 4 版（DSM-IV），在我国八家医院精神科就诊者中招募酒精使用障碍患者，收集其人口学资料、饮酒相关信息，利用贝克抑郁自评量表（BDI）评估患者的抑郁情绪及自杀意念。

结果 ：本研究共计招募 592 例酒精使用障碍患者，512 例完成全部评估及访谈，其中男性 476 例，女性 36 例。共计 115 例患者（占比 22.5%）在访谈前 1 周存在自杀意念。有自杀意念的患者中，22.6%为较严重的自杀意念。对酒精使用障碍患者是否有自杀意念进行单因素分析，结果显示，性别、婚姻状态、就业状况、饮酒量、BDI 抑郁总分在二者之间有统计学意义（P 值均＜0.05）。二元 Logistic 回归分析显示：女性（OR=2.09, 95% CI: 1.35–3.24）、饮用较高饮酒量（OR=1.91, 95%CI: 1.16–3.14）、抑郁情绪较重者（OR=2.44, 95%CI: 1.66–3.59）为酒精使用障碍患者自杀意念的危险因素。

结论 ：酒精使用障碍患者自杀意念检出率较高，应引起临床医务工作者的重视；对于女性患者、高饮酒量者、合并抑郁情绪的酒精使用障碍患者应及早进行干预。

关键字：酒精使用障碍，自杀，相关因素

青少年阈下非自杀性自伤成瘾属性的脑肠轴机制

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目的 非自杀性自伤（NSSI）很可能导致自杀，根据 DSM-5 过去一年自我伤害行为需达到 5 次或以上，但有自伤行为不到 5 次的人群，不应忽视。根据本课题组的流行病研究，其与 NSSI 患者一样具有成瘾属性，且该属性可能具有脑肠轴机制。

方法 本研究在 2021 年 9 月至 2023 年 3 月间在四川大学华西医院开展，纳入未达到 NSSI 现有诊断标准的人 13 到 21 岁的首次入院自伤患者 55 名，和其匹配的健康青少年 51 名，我们对这 51 名青少年继续使用“阈下 NSSI”的称呼。收集静息态功能磁共振数据，收集大便，使用渥太华自伤量表第 22 项目 7 条评定成瘾属性，使用蓄意自我伤害清单评估自伤的频率、类型、严重程度和持续时间。使用 fALFF 评估局部活动一致性，选用 fALFF 组间有差异的脑区进行全脑功能连接分析；使用 16S rDNA 扩增子测序和菌种鉴定，选用 LEfSe 方法挖掘分组样本存在差异群落结构；使用和健康对照组相比，具有功能连接改变和差异的纲目科菌属以及成瘾属性进行中介效应分析，探究阈下 NSSI 成瘾属性的脑肠轴作用机制。

结果 与健康青少年相比，经过 GSR 校正后 fALFF 在左侧丘脑和扣带回存在差异。以上述作为种子点进行全脑功能连接分析，发现相比健康青少年，左侧丘脑与双侧小脑，右侧海马，枕中回，额叶补充运动区，中央后回功能连接存在异常；LEfSe 方法表明相比健康青少年，门水平拟杆菌门、厚壁菌门，纲水平拟杆菌纲 、梭菌纲，目水平拟杆菌目、乳螺目，科水平普雷沃菌科、毛螺菌科存在优势差异；使用异常功能连接作为中介与菌群对成瘾属性进行中介效应分析，发现普雷沃菌科通过左侧丘脑和枕中回的功能连接对成瘾属性第四条目每日占用时间目起完全中介作用，同时普雷沃菌科通过左侧丘脑和枕中回的功能连接对首次发生自伤行为时间起完全中介作用，且成瘾属性第四条和首次发生自伤行为时间成正相关。

结论 过去 1 年自我伤害行为在 1~4 次的人群需要被考虑，他们应有独立的命名便于区分，如像阈下抑郁以及临床高危精神疾病状态，使用“阈下 NSSI”的称呼。功能磁共振分析表明，阈下 NSSI 存在功能连接以及菌群的相对丰度异常。普雷沃菌科作为肠道重要基石菌属，其可能通过侧丘脑和枕中回的功能连接影响阈下 NSSI 自我伤害行为的成瘾特征。阈下 NSSI 具有脑肠机制的成瘾属性，按照治疗行为成瘾方式早期干预阈下 NSSI，防止其向 NSSI 及自杀转化刻不缓。

关键字：非自杀性自伤；成瘾属性；脑肠轴；阈下；青少年

Cortical Thickness of The Inferior Parietal Lobule As A Potential Predictor of Relapse in Men with Alcohol Dependence

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Objective Alcohol dependence (AD) is a disorder with a high recurrence rate that leads to a considerable public health burden. The risk of relapse appears to be related to a complex interplay of multiple factors. Herein, we aimed to explore the potential neural predictors of relapse in Chinese male patients with AD.

Methods This study enrolled 58 male patients with AD who had undergone acute detoxification. General demographic information and clinical features were collected. Magnetic resonance imaging (MRI) data were used to measure cortical thickness across 34 regions of the brain. Patients were followed up at 6 months, and 51 patients completed the follow-up visit. These patients were divided into a relapser and an abstainer group. A binary logistic regression analysis was performed to investigate the potential risk factors of relapse.

Results Compared to abstainers, relapsers showed higher inattention and non-planning impulsivity on the 11th version of the Barratt Impulsive Scale. The cortical thicknesses of the inferior-parietal lobule were significantly greater in abstainers compared with those in relapsers. Furthermore, binary logistic regression analysis showed that the thickness of the inferior parietal lobule predicted relapse.

Conclusion Relapsers show poorer impulse control than abstainers, and MRI imaging shows a decreased thickness of the inferior parietal lobule in relapsers. Our results indicate the thickness of the inferior parietal lobule as a potential relapse predictor in male patients with AD.

关键字：Alcohol dependence; Cortical thickness; Inferior parietal lobule; Relapse; Predictor

荆州市在校高中生精神活性物质使用行为现状及影响因素分析

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目的 为探讨疫情下深高中生精神活性物质使用行为发生的现状及影响因素，为制定预防控制中学生药物滥用的措施提供科学依据。

方法 于 2021 年 6 月至 2022 年 2 月采用网络问卷调查工具，用方便抽样法分阶段分步骤在荆州市的多所高中进行问卷发放，问卷由受试者自愿填写，不记名调查。结合高中生的一般资料(性别、年级、独生子女情况、恋爱情况)、家庭资料(父母文化程度、父母职业、家庭收入)、同辈精神活性物质使用情况以及社会支持评定量表（SSRS）评分来分析在校高中生精神活性物质（包括吸烟、饮酒、新型合成毒品、传统毒品、常见精神活性物质以及国家管控的精神类药品等）使用行为影响因素。

结果 获得有效问卷 2421 份，荆州市在校高中生精神活性物质使用行为的检出率 9.6%。单因素 X2 检验显示 ，不同性别、年级、家庭模式、家庭收入、情感状态以及同辈行为影响的青少年精神活性物质的使用检出率不同（P＜0.05）；采用二元 logistic 回归分析数据，以是否精神活性物质使用行为作为因变量，将该群体的一般资料(性别、年级、独生子女情况、恋爱情况)、家庭资料(父母文化程度、父母职业、家庭收入)、同辈精神活性物质使用情况以及社会支持评定量表（SSRS）评分等数据纳入多元 logistic 二元回归模型，经模型调整后，最终确立了女性（OR=0.566, 95% CI：0.406-0.787, P=0.001）、独身子女(OR=0.697, 95% CI：0.502-0.969, P=0.032)、恋爱(OR=3.188, 95% CI：1.874-5.422, P＜0.001)、毕业班学生（OR=2.564, 95% CI：1.512-4.347, P＜0.001）、家庭收入情况良好（OR=0.589, 95% CI：0.363-0.958, P=0.033）, 母亲高学历（OR=2.594, 95% CI：1.194-5.635, P=0.016 ）, 存在同辈影响（OR=25.638, 95% CI：17.160-38.306, P＜0.001）为荆州市在校高中生网络成瘾行为倾向的相关影响因素。

结论 学习压力过大，父母期盼过高、陷入情感问题、焦虑、好奇、同学或同辈之间精神活性物质的滥用均可影响高中生沾染精神活性物质。

关键字：高中生 精神活性物质 使用行为

重复经颅磁刺激对吗啡依赖患者渴求、睡眠及抑郁焦虑情绪的影响

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目的 探索高频重复经颅磁刺激（repetitive transcranial magnetic stimulation, rTMS）对吗啡类物质依赖患者渴求、睡眠及抑郁焦虑情绪的影响。

方法 预计纳入 2020 年 05 月 01 日-2021 年 06 月 30 日于北京昌平华佑医院住院的 40 例吗啡类物质依赖患者，随机分为实验组及对照组，所有入组患者均接受美沙酮替代治疗；实验组加用 tTMS 治疗，刺激部位为背外侧前额叶区，刺激强度为患者运动阈值的 110%，频率为 10Hz，刺激时间 5 秒，间隔 20 秒，每次治疗刺激 30 次，共治疗 2 周，每周 5 次；对照组应用伪刺激线圈。在基线期、治疗结束后（2 周）进行随访，使用阿片戒断症状量表(Opiate Withdrawal Scale, OWS)、视觉模拟评分（visual analogue scale, VAS）、广泛性焦虑障碍量表（Generalized Anxiety Disorder, GAD-7）、9 项健康问卷（Patient Health Questionnaire-9, PHQ-9）、匹兹堡睡眠治疗指数（Pittsburgh sleep quality index, PSQI）等问卷评估受试者渴求、及焦虑抑郁情绪及睡眠状况。

结果 最终共纳入 42 例被试，两组分别 21 例，其中对照组 3 例被试脱落剔除。计算两组被试在性别、年龄、吗啡类物质吸食量及基线期的 OWS、VAS、GAD-

7、PHQ-9 及 PSQI 评分上无统计学差异，而治疗后（2 周）两组受试者的上述评分均降低，且自身治疗前后配对 T 检验结果提示组内 OWS、VAS、PSQI、GAD-7 的减分具有统计学意义（P<0.05）；对两组间各量表的减分使用独立样本 T 检验进行差异性检验，提示两组 VAS、PSQI、GAD-7 减分具有统计学意义。

结论 高频 rTMS 有助于降低吗啡依赖患者早期戒断期的渴求，并改善其睡眠及焦虑情绪，但对于戒断症状及抑郁情绪改善不显著。

关键字：重复经颅磁刺激，吗啡依赖，渴求，焦虑

Plasma Exosomes in Methamphetamine Addicts During Acute Withdrawal Induce Anxiety and Depression-like Symptoms in Mice

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Objective Methamphetamine (MA) addiction is a complex brain disease with a high relapse rate due to the underlying mechanism remains largely elusive. Recently, exosomes are involved in the pathophysiology of neuropsychiatric diseases, but the role of exosomes in MA is unclear. The aim of this study was to investigate the pathomechanism of MA addiction and withdrawal through plasma-derived exosomes.

Methods The proteomic analysis, cell culture, anxiety and depression-like behavior and molecular experiment were conducted **Results** The transplantation of plasma exosomes in MA addicts during acute withdrawal induced anxiety and depression-like behavior in mice. In addition, in vitro experiments validate exosome treatment changed neuronal morphology with dendrite branch number and length were reduced and induced astrogliosis and an A1-like reactive astrocyte phenotype. The following proteomic analysis in MA addicts undergoing withdrawal, revealed differential expressed proteins involved in immunity and inflammation. Of these, amyloid A-1 (SAA1) and amyloid A-2 (SAA2) were upregulated in acute withdrawal (AW) stage but rapidly declined in protracted withdrawal (PW) stage, compared to healthy controls (HCs). Further experiments verified the key role of SAA1 and SAA2 in inducing anxiety and depression-like behavior, astrogliosis and neurotoxic.

Conclusion This study may provide a potential animal model and further understanding of the pathogenic mechanisms of withdrawal symptoms for MA.

关键字：Methamphetamine; Withdrawal; Exosomes; SAA1

Cue-induced Brain Activation in Patients with Ketamine Use Disorder and Methamphetamine Use Disorder

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Objective This study aimed to explore cue-induced craving of brain activation in patients with ketamine use disorder and methamphetamine use disorder.

Methods A sample of 260 subjects, including 46 ketamine users, 111 methamphetamine (MA) users and 103 health controls (HC), underwent functional magnetic resonance imaging (fMRI) when viewing ketamine use related, MA use related, and neural clips.

Results When viewing ketamine use related clips, patients with ketamine use disorder showed increased activation in the anterior and middle cingulum cortex when compared with HC, and showed higher activation in the left middle temporal cortex and the right posterior cingulum cortex when compared with patients with MA use disorder. When compared with HC, subjects with MA use disorder exhibited significant lower activation in the right lingual gyrus, the left medial temporal lobe and the left postcentral gyrus when viewing MA use related cues. The differences of brain activations to MA clips between ketamine users and MA users were not observed.

Conclusion The findings from this study indicate that patients with ketamine use disorder exhibit different cue-elicited carving of brain activation pattern from patients with methamphetamine use disorder.

关键字：Ketamine, Methamphetamine, Addiction, Carving, fMRI

Altered Insular Functional Activity Among E-cigarette Users with Nicotine Dependence

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Objective Electronic cigarettes (e-cigs) use, especially among youngsters， has been on the rise in recent years. Studies have found use of e-cigs may have a negative impact of health on lung and cardiovasculara function. However, little is known about the long-term effects of use of e-cigarettes on brain functional activity. The study aimed to explore the impact of e-cigs on brain functional activity.

Methods We acquired the resting-state functional magnetic resonance imaging data from 93 e-cigs users with nicotine dependence and 103 age- and sex- matched health controls (HC). The local synchronization was analyzed via regional homogeneity (ReHo) method at voxel-wise. The functional connectivity (FC) between the NAcc, VTA and insula was calculated at ROI-wise. The support vector machining classification model based on resting-state fMRI measures was used to identify e-cigs users from HC.

Results Compared with HC, nicotine dependent e-cigs users showed increased ReHo in the right rolandic operculum ($p < 0.05$, FDR corrected) and the right insula ($p < 0.05$, FDR corrected). At ROI-wise level, abnormal FC between the NAcc, VTA and insula were found in e-cigs users compared to HC ($p < 0.05$, FDR corrected). Correlation analysis found a significant negative correlation

between ReHo in the left NAcc and duration of e-cigs use (r = -0.273, p = 0.008, FDR corrected). The following Support vector machine model based on significant results of resting-state fMRI successfully differentiate chronic e-cigs users from HC with an accuracy of 73.47%, AUC of 0.781, sensitivity of 67.74% and specificity of 78.64%.

Conclusion Dysregulated spontaneous activity and FC of addiction-related regions were found in e-cigs users with nicotine dependence, suggesting that long-term use of e-cigs may have a negative impact on brain.

关键字：electronic cigarettes, regional homogeneity, functional connectivity, Support vector machine, addiction

心理韧性在父母吸烟对未成年子女吸烟影响的中介效应：基于中国西部地区儿童青少年的研究

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目的 儿童青少年是吸烟行为产生和持续的关键阶段。研究表明父母吸烟、心理韧性与未成年子女是否出现吸烟行为有关，但可能存在性别差异。本研究目的是：1. 调查中国西南地区儿童青少年自我报告的吸烟情况以及经过生物学验证的吸烟情况；2.探索不同性别亚组中心理韧性、父母吸烟和未成年子女吸烟三者之间的关系。

方法 本研究共包含两个数据集。数据集 1 采用随机整群抽样的方法，在中国西南地区某市选取两个区及 1 个县的所有初、高中在读学生，共纳入 62909 名被试（男/女：31084/31861）。通过自我报告的方式收集相关信息，其中自编问卷收集一般社会人口学资料、自己及父母吸烟情况，简易心理弹性量表(CD-RISC-10)评估心理韧性。采用描述性统计方法描述参与者的一般特征，单因素和多因素逻辑回归模型分析父/母吸烟与未成年子/女吸烟行为的关系，路径分析模型分析心理韧性在父/母吸烟对未成年子/女吸烟的中介效应，以上统计分析均使用 R（3.6.3）进行。数据集 2 采用多层抽样的方式，抽取 4 所初、高中在校学生，共纳入 2989 名被试（男/女：1511/1478），进行尿可替宁检测从而得到生物学验证的吸烟情况。

结果 加权后总人群现吸烟率为 1.4% (95% CI: 1.0%-2.0%)，男生吸烟率为 2.2% (95% CI: 1.8%-3.0%)，女生吸烟率为 0.6% (95% CI: 0.3%-1.0%)；此外，经生物学验证后尿可替宁阳性率在总人群中为 2.0%，其中男生阳性率为 3.4%，女生阳性率为 0.7%。在男孩吸烟中，父亲吸烟 (OR=1.28, 95%CI: 1.08-1.52)、母亲吸烟 (OR=2.24, 95%CI: 1.70-2.91)是危险因素，心理韧性中介了父亲吸烟 (11.54%)、母亲吸烟 (5.88%)对未成年男孩吸烟的影响；在女孩吸烟中，母亲吸烟 (OR=3.29, 95%CI: 2.08-5.00)是危险因素，而与父亲吸烟无关，心理韧性中介了母亲吸烟 (14.85%)对未成年女孩吸烟的影响。

结论 无论是自我报告还是生物学验证的吸烟率，均表明男孩吸烟率高于女性。此外，父母吸烟对未成年子女吸烟的影响存在性别差异，但无论是男孩还是女孩，母亲吸烟均为高风险因素。心理韧性可以调节父母吸烟对子女吸烟的影响。以上结果表明，增强心理韧性可以作为校园控烟的重要举措之一。

关键字：未成年吸烟；生物学验证吸烟率；心理韧性；父母吸烟；

酒精使用障碍和精神分裂症共同表达的核心基因筛选和分子机制研究

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目的 应用生物信息学方法筛选酒精所致精神障碍的核心基因和关键信号通路，为阐明酒精所致精神障碍的发病机制，提出新型防治策略提供研究方向。

方法 从基因表达综合数据库下载酒精使用障碍（alcohol use disorder, AUD）基因表达数据集 GSE161986 和精神分裂症（schizophrenia，SCZ）基因表达数据集 GSE53987，GSE17162 和 GSE21138 芯片数据集。应用 R 软件进行基因芯片的标准化处理和数据分析，筛选在 AUD 和 SCZ 中均存在明显差异表达基因（differentially expressed genes， DEGs）。使用 DAVID 数据库进行基因富集分析。使用 STRING 数据库构和 Cytoscape 软件构建蛋白-蛋白互作网络并筛选在酒精所致精神障碍发病过程中具有潜在关键作用的核心基因。使用 AUD 芯片数据集 GSE44456 和 SCZ 芯片数据集 GSE87610 对筛选出的潜在核心基因进行验证分析。

结果 共筛选出在 AUD 和 SCZ 中均存在显出差异表达 DEGs95 个，其中表达上调的基因 75 个，表达下调基因 20 个。基因富集分析表明，表达上调的 DEGs 主要参与的生物学过程主要包括凋亡过程的负调控、炎症反应和免疫反应等生学学过程以及 NF-kappa B 信号通路和细胞凋亡等信号通路的调控。表达下调的 DEGs 主要参与化学突触传递、固有免疫应答反应和神经肽信号通路等生物学过程以及神经活性配体-受体相互作用信号通路。蛋白-蛋白互作网络分析显示，表达上调的 DRGs 构成的 PPI 网络共包含 48 个蛋白节点和 89 个蛋白相互作用关系。其中以 CD44，NFKBIA，TNFRSF1A，FCGR3B，TIMP1，SOX2，MT1H，MT1G，MT1E，MT2A 等蛋白节点连接度最高。表达下调的 DRGs 构成的 PPI 网络共包含 9 个蛋白节点，分别为 GAD1，PVALB，NPY，TAC1，CRH，NMU，NEUROD6，RGS4 和 ACTL6B。9 个 PPI 蛋白节点共包含 18 个蛋白相互作用关系。核心基因筛选及验证分析显示，MTIG，MT2A，PVALB 可能在酒精所致精神障碍的发病过程中起到潜在关键作用。

结论 利用生物信息学方法分析可以有效筛选出在酒精所致精神障碍中起到重要作用的核心基因和关键信号通路，为疾病的精准靶向治疗提供理论参考。

关键字：酒精所致精神障碍，精神分裂症，差异表

达基因，信号通路，核心基因

青少年网络游戏障碍与抑郁的相关性研究

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目的 网络游戏障碍和抑郁障碍成为影响生活学习的主要精神障碍，是目前大学生心理关注的焦点，迫切需要探索二者的相关新。本研究调查青少年网络游戏障碍和抑郁发生的现状，探讨二者的关系，

方法 2023 年 4～5 月选取安徽、湖南、山东等省份的大学生 5016 名作为研究对象，运用问卷调查一般人口学资料、网络游戏障碍、抑郁障碍、执行功能等情况，分析二者的共病情况，，采用一般情况调查表和网络游戏使用情况调查表、网络游戏成瘾量表（IGD-20）、抑郁症筛查量表（PHQ-9）、行为抑制/行为激活量表（BIS-BAS 量表）等测量大学生网络游戏成瘾、抑郁发生、执行功能的情况，分析其相关关系。

结果 大学生网络游戏障碍的检出率 2.75%，抑郁的发生率为 8.33%。网络游戏组的抑郁发生高于非网络游戏组（x2=663.19，P<0.05）。中介效应分析结果：抑郁与的效应系数 a=0.329*，执行功能与网络游戏障碍的效应系数 b=0.013*，执行功能在抑郁与网络游戏障碍之间起部分中介作用(间接效应=0.109,95% CI 28[0.006,0.102])，中介效应占总效应的 19.8%。

结论 青少年网络游戏障碍发生率较高，易导致抑郁倾向。青少年网络游戏成瘾程度越高，抑郁的发生率越高，执行功能的损害越严重。网络游戏使用时长、执行功能损害是青少年网络游戏成瘾的影响因素。通过改善执行功能可以减少网络游戏障碍引起的抑郁。

关键字：网络游戏障碍；抑郁；执行功能

青少年网络游戏成瘾与社会联结及愤怒之间的关联性分析：一项大样本多中心的横断面研究

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目的 网络游戏障碍（Internet Gaming Disorder, IGD）是一种反复有害使用网络游戏的行为成瘾模式，社会联结是指个体与社会保持亲密人际关系的主观感知觉，既往研究发现愤怒会增加青少年身心健康问题的发生。本研究将探索 IGD 与社会联结程度及愤怒之间的关联性

方法 对不同地区 4 所学校进行多中心横断面流行病学调查。使用网络游戏障碍量表（Internet Gaming Disorder Scale–Short Form, IGD9-SF）评估受试者的近一年网络游戏使用情况，IGD9-SF≥36 分为可疑 IGD；使用社会联结量表（Social Connectedness Scale, SCSC）来评估受试者分别在现实世界（R）和网络世界（N）的社会联结程度，该量表可分为社会联结维度（SCSC_A）与社会非联结维度（SCSC_B）；使用 DSM-5-TR-Level 2-Anger 量表来评估患者近一周愤怒程度。使用中介分析探索 IGD、Anger、SCSC 之间的关系

结果 9616 名中学生的平均年龄为 14.97 岁（±1.67），可疑 IGD 的检出率为 1.12%。IGD9-SF 得分与 Anger 得分呈显著正相关（r=0.34, p<0.001），与现实世界的 SCSC 得分（r=-0.30, p<0.001）及网络世界的 SCSC 得分（r=-0.03, p<0.05）呈显著负相关。进一步中介分析结果提示。IGD 对 Anger 有直接影响，也可通过 SCSC 对 Anger 产生间接影响。但 IGD 通过 SCSC 间接影响 Anger 的作用机制在现实世界和网络世界有所不同，在现实世界里面，IGD 得分越高则 SCSC 得分及 SCSC_A 与 SCSC_B 得分则越低，则 Anger 得分越高；但在网络世界里面，IGD 得分越高，SCSC 得分与 SCSC_B 得分越低，但 SCSC_A 得分却越高，导致 Anger 得分越高。最终发现，IGD 得分通过现实世界与网络世界的 SCSC_A 的差值（DSCSC_A(R-N)）及现实世界与网络世界的社会联结维度 SCSC_B 的均值（MSCSC_B[(R+N)/2]）间接影响 Anger 量表得分的中介效应值更大

结论 网络游戏成瘾程度越高则社会接触程度越低，但却易出现愤怒情绪。网络游戏障碍不仅可以直接影响愤怒情绪，还可以通过影响社会联结程度来间接影响愤怒情绪

关键字：网络游戏成瘾；社会联结；愤怒；中介分析

Prevalence and Risk Factors of Low Bone Mineral Density in Chinese Han Male Patients with Alcohol Dependence

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Objective Low bone mineral density (BMD) including osteopenia or osteoporosis is a physical condition that is often comorbid in alcoholic patients. However, few studies have assessed the prevalence of low BMD in Chinese Han male patients with alcohol dependence (AD). The aims of this study is to investigate the prevalence of low BMD in Chinese Han male patients with AD and the possible risk factors.

Methods A total of 107 Chinese Han male patients with AD were included retrospectively. According to the results of the T score (outcome of BMD test), the subjects were divided into the normal BMD group (T score ≥ -1; n = 32) and the low BMD group (T score < -1; n = 75). The demographic data, alcohol-related data, comorbid diseases, smoking history, and routine laboratory parameters were collected and compared between the two groups. The binary logistics regression method was used to evaluate the risk factors related to low BMD. The correlation between T score and the demographic data, alcohol-related data,

comorbid diseases, smoking history, and routine laboratory parameters was evaluated using Pearson correlation analysis or Spearman correlation analysis.

Results The prevalence of low BMD in patients with AD was 70.09%. Patients with low BMD had higher age, daily alcohol intake and LDH levels, and lower Ca2+ levels compared to the patients with normal BMD. The results of binary logistics regression analysis showed that increased daily alcohol intake, high serum Ca2+ levels, high serum LDH levels, and comorbid hypertension were the influencing factors of low BMD in Chinese Han male patients with AD. The results of correlation analysis showed that T score was positively associated with the serum Ca2+ levels.

Conclusion The prevalence of low BMD in Chinese Han male patients with AD was high. Risk factors for low BMD might be increased daily alcohol intake, high serum Ca2+ levels, high serum LDH levels, and comorbid hypertension.

关键字：Low bone mineral density; Prevalence; Risk factors; Alcohol dependence; Osteopenia; Osteoporosis

间歇性 θ 爆发式重复经颅磁刺激对阿片类依赖者记忆功能的影响

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目的 观察探讨间歇性 θ 爆发式刺激（intermittent theta burst stimulation，iTBS）模式下的重复经颅磁刺激（repeated transcranial magnetic stimulation，rTMS）对阿片类依赖者基本认知功能之一记忆功能的影响。

方法 选取 2022 年 10 月到 2023 年 2 月上海市某维持治疗门诊阿片类物质依赖者 64 例，随机抽样法分为 iTBS 真刺激组和 iTBS 伪刺激组各 32 人。两组在接受常规美沙酮药物维持治疗的基础上，分别给予做前额叶背外侧皮质（left dorsolateral prefrontal cortex，LDLPFC）iTBS 刺激和和伪刺激，每天 1 次，共刺激 1200 个脉冲，每周 5 天，连续 4 周，共 20 次治疗。采用韦氏记忆量表第四版(WMS-IV)中文版(成人版)对两组治疗前后记忆功能差异性进行评估。

结果 经过 20 次的 rTMS 治疗后，iTBS 真刺激组在 WMS-IV 的记忆商数（Full Scale Memory Quotient，FSMQ）进步幅度高于 iTBS 伪刺激组（$p<0.05$），且换算其中 2 个指数分词语配对和视觉再现分值，iTBS 真刺激组进步幅度高于 iTBS 伪刺激组（$p<0.05$），另外一个可选分量表（简明认知状况测验），反映总体认知功能状况，iTBS 真刺激组进步幅度高于 iTBS 伪刺激组（$p<0.01$）。换算视觉记忆（Visual Menory Index,VMI）、视觉工作记忆（Visual Working Memory Index，VWMI）、即时记忆（Immediate Memory Index，IMI）这 3 个指数分，进步幅度差异有统计学意义（$p<0.05$）。治疗期间两组在不良反应方面微晶明显差异（$p>0.05$）。

结论 间歇性 θ 爆发式刺激（iTBS）模式下的重复经颅磁刺激治疗科有效改善阿片类依赖者基本认知功能之一的记忆功能，疗效显著，且安全性较好。

关键字：重复经颅磁刺激；阿片类依赖；间歇性 θ 波脉冲；记忆功能

Repetitive Transcranial Magnetic Stimulation on Brain Functional Connectivity in Opioid Use Disorder：An EEG-NIRS Study

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Objective Opioid use disorder (OUD) leads to impairment of neural communication functions in the brain that, whilst initially driven by activation of brain reward neurocircuits, increasingly engages anti-reward neurocircuits that drive adverse emotional states and relapse. Repetitive transcranial magnetic stimulation (rTMS) can effectively improve adverse emotional state and reduce recurrence.Functional connectivity (FC) in the brain may be a valid indicator of brain recovery.recovery. However, it is unclear how FC in the brain changes in Opioid use disorder (OUD) after treatment with rTMS.

Methods Thirty-four patients with OUD participated in this study. The subjects were randomized to receive the active or sham rTMS for four weeks. Subjects performed electroencephalography (EEG) examinations and visual analogue scale assessments before and after the treatment. The FC networks were constructed and visualized, and then the graph theory analysis was carried out. Finally, machine learning was used to classify FC networks before and after rTMS.

Results Our results showed that (1) the active group showed a significant enhancement in connectivity in the beta band; (2) the global efficiency, local efficiency and aggregation coefficient of the active group in the beta band decreased significantly; (3) the average classification accuracy based on FC adjacency matrix reaches 76.7% in the beta band between before and after rTMS.

Conclusion Our findings demonstrated that brain FC could effectively assess the therapeutic effect of rTMS, among which the beta band was the most sensitive and effective frequency band.

关键字：Repetitive transcranial magnetic stimulation; Opioid use disorder; EEG Functional connectivity (FC)

Analysis of The Use of Class II Psychotropic Drugs in Outpatients of Anhui Mental Health Center

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Objective To understand the use and trend of Class

II psychotropic drugs in outpatient clinics of Anhui Mental Health Center from 2020 to 2022, in order to provide reference for scientific management and standardization of the rational use of Class II psychotropic drugs, and to prevent dependence and abuse of Class II psychotropic drugs.

Methods The PASS software was used to extract the drug names, specifications, units, consumption, sales amounts, etc. of the second class psychotropic drugs in the outpatient department of Anhui Mental Health Center from 2020 to 2022. Statistical analysis was conducted on the sales volume, sales amount, defined daily dose system (DDDs), average daily cost (DDC), and serial number ratio (sales amount sorting/drug DDDs sorting).

Results From 2020 to 2022, the sales of second-class psychotropic drugs showed an increasing trend, with benzodiazepines increasing year by year and non benzodiazepines showing a decreasing trend. Oxazepam has seen the fastest growth in sales. The top three drugs in DDDs are dexzopiclone, estazolam, and alprazolam. Oxazepam and zaleplon have the highest DDC values in the second category of psychotropic drugs. The serial number ratio of clonazepam (2mg) is equal to 1, indicating good economic and social benefits.

Conclusion The second class psychotropic drugs in our hospital have transitioned from non benzodiazepines to benzodiazepines, and the structural transformation is not reasonable. Psychiatrists should comprehensively evaluate the indications, contraindications, and course of use of second-class psychotropic drugs, weigh the pros and cons of reducing, discontinuing, and continuing to use them, and prevent adverse consequences from occurring. Pharmacists should obtain the latest information to strengthen medication education for patients, and use various methods to regulate the legal, reasonable, and standardized use of second-class psychotropic drugs, in order to reduce the unreasonable use and abuse of second-class psychotropic drugs.

关键字：Class II psychotropic drugs; sales volume; Defined daily dose system；Average daily cost

左侧下顶叶功能连接中介健康人群焦虑抑郁症状与睡眠质量的关系

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目的 具有焦虑和抑郁症状的人群容易出现睡眠障碍。目前大多数研究都关注焦虑或抑郁症状对睡眠质量的单独影响，但是在临床实践中焦虑和抑郁症状往往同时发生。焦虑和抑郁症状的共性部分在睡眠障碍的病理机制和治疗中发挥着重要作用。本研究旨在探索焦虑和抑郁症状影响睡眠质量的共同神经机制。

方法 我们招募了92名健康成年人进行静息态功能磁共振扫描，同时使用宗氏焦虑/抑郁自评量表评估焦虑和抑郁症状，使用匹兹堡睡眠量表评估睡眠质量。采用独立成分分析方法探索各个脑网络中的功能连接，使用主成分分析来提取焦虑和抑郁症状的共性部分，进而获得受试者的情绪特征。最后我们使用中介分析模型来探索焦虑抑郁症状与睡眠质量的关系。

结果 全脑线性回归分析显示，焦虑和抑郁症状的共性部分($r = 0.483$, $p < 0.001$)以及睡眠质量下降($r = 0.515$,$p < 0.001$)都与前默认模式网络中左侧下顶叶（IPL）的功能连接增加有关。中介分析显示，前默认模式网络中左侧 IPL 的功能连接能够部分中介焦虑和抑郁症状的共性部分与睡眠质量间的关系。

结论 左侧 IPL 的功能连接可能是焦虑和抑郁症状的共性部分与睡眠质量下降间关系的潜在神经机制，并可能成为未来治疗睡眠障碍的潜在干预靶点。

关键字：焦虑；抑郁；睡眠质量；左侧下顶叶；中介分析；

两种新型大麻素衍生物引起的前额叶皮层锥体神经元突触传递异常

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目的 大麻作为世界范围内滥用最为广泛的成瘾性物质之一，严重危害着人们的健康。然而，除成瘾外，大麻还会产生幻视幻听、睡眠紊乱等神经精神症状，这些症状产生的机制并不明确。此外，大麻素及其衍生物对抑郁症、焦虑症以及创伤后应激障碍综合征等多种精神疾病具有重大的治疗潜力。因此，探索大麻引起的神经系统改变并寻找这些改变对应的病理或治疗机制尤为重要。本研究通过物质偏爱模型和离体电生理记录，探究两类新型大麻素衍生物对内侧前额叶皮层锥体神经元突触传递的影响，并与传统精神活性物质可卡因进行比较，横向对比大麻素衍生物与可卡因造成的突触传递改变的异同，从而为大麻素成瘾性以外的精神活性研究提供理论基础。

方法 本研究使用 2-4 月龄的 C57BL6J 小鼠，分别对小鼠进行生理盐水、大麻素衍生物 I、大麻素衍生物 II 以及可卡因的条件位置偏爱（Conditioned Place Preference，CPP）训练，并于训练后进行前额叶皮层锥体神经元 sEPSC 和 sIPSC 的记录。

结果 两类大麻素衍生物引起的兴奋性突触传递的异常与可卡因相同，均导致 sEPSC 幅度的增加；然而，其对抑制性突触传递的影响却与可卡因不同，可卡因造成前额叶皮层锥体神经元 sIPSC 幅度的降低，大麻素衍生物 I 造成 sIPSC 的显著升高，而大麻素衍生物 II 造成 sIPSC 的轻微（不显著）升高。

结论 大麻素衍生物造成的突触传递的异常，尤其是造成的抑制性传递的异常与可卡因不同，因此抑制性传递的变化可能是导致大麻素衍生物引起幻视幻听等特殊精神症状或具有精神疾病治疗作用的原因。

关键字：大麻，前额叶皮层，突触传递

Kynurenine Metabolite Changes in Individuals

with Alcohol Use Disorder: A Systematic Review and Meta-analysis

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Objective Alcohol is the most common addictive substance in the world. Growing evidence suggests an abnormal metabolism of kynurenine in individuals with alcohol use disorder (AUD). This systematic review and meta-analysis was aimed at assessing the possible differences in kynurenine metabolites between individuals with AUD and controls.

Methods We searched PubMed, Embase, and Web of Science databases and included eligible clinical studies comparing the peripheral blood levels of at least one metabolite, between individuals with AUD and controls without AUD. Random-effects meta-analyses were conducted to generate pooled standardized mean differences (SMD). Subgroup analyses, meta-regression analyses and leave-one-out sensitivity analyses were conducted. (PROSPERO registration number: CRD42022357640).

Results A total of seven eligible studies with 572 participants were included (317 individuals with AUD and 255 controls without AUD). The peripheral blood levels of kynurenine (SMD = 0.58; p = 0.004) along with the ratio of kynurenine and tryptophan (SMD = 0.73; p = 0.002) were higher in individuals with AUD, while kynurenic acid levels (SMD = ?0.81; p = 0.003) were reduced in individuals with AUD compared to controls. The peripheral blood levels of tryptophan along with the ratio of kynurenic acid and kynurenine were unaltered. Subgroup analyses confirmed these results. Meta-regression analyses and sensitivity analyses did not estimate any influencing factor.

Conclusion Our results suggested a shift in the tryptophan metabolism to the kynurenine pathway and a down-regulation of the potentially neuroprotective kynurenic acid in individuals with AUD. The altered KYN pathway may be an important biomarker of AUD, providing insight into the psychobiological changes involved in alcohol related disease.

关键字：Alcohol use disorder, Biomarker, Kynurenine, Metabolism, Meta-analysis

Reflecting on Relaxing Zero-COVID and Moving Forward with Positivity: A Population-based Quantitative and Qualitative Study

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Objective China has lifted zero-COVID policy on December 2022 and this study aims to investigate people's responses after relaxing zero-COVID policy in China.

Methods We conducted a cross-sectional online survey one month after relaxing zero-COVID policy among Chinese general population using qualitative and quantitative approaches. Participants rated their health, mood, life satisfaction, and policy satisfaction using horizontal visual analogue scale (1 - 100). In addition, we included open-ended questions to gain a deeper understanding of their responses.

Results Among 4456 participants, they had around 70% of satisfaction after policy change, and people with COVID-19 infection (N = 3308) rated lower scores of health, mood, life satisfaction, and policy satisfaction than those without COVID-19 infection. Multiple linear regression model revealed that absence of COVID-19 infection, higher life satisfaction and higher policy satisfaction were associated with better mood. Interestingly, participants with increases of life and policy satisfaction had better moods. Qualitative analysis revealed improved mood reflecting a tendency to return to a normal life despite a desire for a gradual and well-prepared transition policy.

Conclusion This study indicated positive changes after relaxing zero-COVID policy. The strategies aimed at post-COVID-19 recovery should prioritize individuals who have contracted the virus, while concurrently promoting life and policy satisfaction amongst the general population.

关键字：ten new covid measures, coronavirus disease, mood, life satisfaction, policy satisfaction, mixed method research

酒依赖酒精相关线索任务态下低频经颅磁刺激治疗：抑制内侧前额叶高功能状态降低渴求减少复饮初步研究

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目的 酒依赖是一种慢性复发性脑病，常常导致严重的个人健康问题。其复发受多因素影响，也是重大的公共卫生问题。如果没有经过特殊防复饮干预治疗，经过急性戒断治疗的酒依赖患者 6 个月内有大约 80-90%复饮可能。特别大多数（大约 60-70%）复饮发生在急性戒断治疗后的前 3 个月。本研究旨在研究酒依赖患者前额叶功能障碍恢复技术；探索应用 rTMS 技术在酒依赖治疗中降低渴求，减少复饮的治疗方法。

方法 本实验为随机双盲对照研究，入组 50 名酒依赖患者随机分入治疗组和安慰剂组，治疗靶部位为内侧前额叶，治疗组为 1Hz 低频 rTMS 刺激，安慰剂组为伪刺激，治疗同时观看酒精饮料线索刺激和中性线索刺激图像。治疗后进行为期 6 个月的随访，随访时间分别为 2，4，6 个月。完成酒精使用障碍筛查量表（AUDIT）评定，主要观察复饮情况，规定>8 分为复饮。同时完成渴求量表（视觉模拟量表 VAS）和汉密尔顿焦虑量（HAMA）表评定。

结果 本研究采用低频 rTMS 对酒依赖患者进行干预，发现可缓解酒依赖患者的焦虑症状，及失眠症状。虽未得出阳性降低复饮的结果，但控制复发因素也为减少酒依赖患者再次饮酒提供可能。

结论 经 rTMS 治疗后，可改善酒依赖患者焦虑症状或认知功能，缓解戒断症状。rTMS 运用将减少物质依赖性和控制戒断症状提供可能，为减少复饮做有价值的尝试。

关键字：酒依赖，rTMS.

Prelimbic Cortex Dynorphin/κ Opioid Receptor System Modulates Methamphetamine-induced Cognitive Impairment

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Objective The present study aimed to investigate the role of dynorphin/κ opioid receptor (KOR) system in the development of methamphetamine (METH)-induced cognitive impairment.

Methods Mice were administered METH (10 mg/kg, i.p.) for 7 days and underwent the novel object recognition test (NORt) and spontaneous alternation behavior test (SAB). Systemic KOR antagonist (norBNI,10 mg/kg, i.p.) pretreatment and KOR deletion were used to confirm the effect of KOR blockade against METH-induced cognitive impairment. A qPCR assay were utilized to test the Pdyn and Oprk1 mRNA level in the prelimbic cortex (PL) and infralimbic cortex (IL) after METH treatment and withdrawal. Finally, microinjection of norBNI into PL and IL were conducted before METH exposure to further investigate the neuroprotective effect of KOR antagonist on METH-induced cognitive impairment.

Results We found that mice showed significant cognitive impairment in the novel object recognition test (NOR) following daily injections of METH (10 mg/kg) for 7 consecutive days. Systemic blockade of KOR prevented METH-induced cognitive impairment by pretreatment of the selective KOR antagonist norBNI (10 mg/kg, i.p.) or KOR deletion. Then, significant increased dynorphin and KOR mRNA were observed exclusively in prelimbic cortex (PL) other than infralimbic cortex (IL). Finally, microinjection with norBNI into PL also improved cognitive memory in METH-treated mice using NOR and spontaneous alternation behavior test (SAB).

Conclusion Our results demonstrated that dynorphin/KOR system activation in PL may be a possible mechanism for METH-induced cognitive impairment and shed light on KOR antagonists as a potential neuroprotective agent against the cognitive deficits induced by drug abuse.

关键字：methamphetamine; prelimbic cortex; cognitive impairment; dynorphin; κ opioid receptor

游戏障碍者的时间知觉能力研究

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目的 伴随着网络的普及，网络游戏使用问题受到越来越多的关注。研究发现，过度游戏会带来身体健康问题、学业成绩下降、睡眠模式紊乱、更差的精神状态，增加焦虑、抑郁和压力水平。特别是，游戏障碍的核心诊断标准之一为游戏行为失去控制，表现为游戏行为的发生、频率、强度、持续时间以及无法停止。这种时间丧失的背后可能是时间知觉方面的异常，且时间认知的异常在其他物质滥用障碍和行为障碍中已有体现。同时，游戏过度使用是一个从娱乐性使用、风险性使用、到成瘾性使用的连续发展过程。因此，本研究系统比较网络游戏成瘾者、风险性游戏使用者和娱乐性游戏使用者时间知觉能力的差异。

方法 在大学生群体中，填写自评量表游戏障碍筛查量表（GDSS），GDSS 得分≥47 分的人群会进行一个依据 ICD-11 诊断标准的临床访谈，以确定是游戏成瘾还是风险性游戏使用人群。GDSS≤32 分人群被纳入到娱乐性游戏使用组，且通过临床访谈筛查，无过度游戏行为。所有被试会完成一个标准时间辨别任务，被试需要将比较时距 200，400，600，800，100ms 与标准时距 600ms 进行比较，以判断是长于标准时距还是短于标准时距，考察指标为主观相等点和考察时间辨别敏感度的韦伯系数。

结果 本研究共入组 28 名游戏障碍者，27 名风险性游戏使用者和 35 名娱乐性游戏使用者，平均年龄为 19.21±0.45。对比发现，在主观相等点上三组被试（游戏障碍者：533ms；风险性：550ms；娱乐性：521ms）无显著差异（$F=2.35$，$p=0.10$）；在韦伯系数上，在主观相等点上三组被试（游戏障碍者：0.283；风险性：0.279；娱乐性：0.283）无显著差异（$F=2.04$，$p=0.14$）。

结论 游戏障碍者的时间知觉能力未显示出异常，但仍需探讨背后的神经机制以及影响时间知觉的关键因素。

关键字：网络游戏障碍；时间知觉；风险性游戏使用

美沙酮维持治疗患者退出美沙酮治疗原因及退出后情绪状态变化

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目的 对既往曾接受美沙酮维持治疗而目前已经退出美沙酮药物治疗的患者进行退出治疗原因调查，

并评估他们退出美沙酮药物治疗后的情绪状态，了解美沙酮维持治疗患者退出美沙酮药物治疗的主要原因，并评估停止美沙酮药物治疗后该类患者的情绪状态。

方法 通过面对面访谈的形式对受访者退出美沙酮治疗原因、退出治疗前美沙酮治疗情况等资料进行收集，使用贝克抑郁自评量表（BDI）及贝克焦虑自评量表（BAI）对受访者的抑郁、焦虑情况进行评估。

结果 本研究共纳入122名受访者，平均年龄为：54.2±4.8岁。其中，男性受访者101人（82.8%），女性受访者21人（17.2%）。退出治疗前，受访者的平均美沙酮治疗剂量为17.30±15.99mg/d。122名受访者中，66人（54.1%）因自认为阿片类物质渴求已得到控制无需继续使用美沙酮而退出治疗；46人（37.7%）因进行违法犯罪中断美沙酮药物治疗；4人（3.3%）因更改居住地后治疗点离新的居住地太远不便于取药而停止接受美沙酮维持治疗，6人（4.9%）因出现其他躯体疾病需要接受其他药物治疗并担心使用美沙酮会影响躯体疾病治疗效果而停止接受美沙酮维持治疗。退出美沙酮维持治疗后，122名受访者中，66人（54.1%）有不同程度的抑郁。其中，轻度抑郁13人，中度抑郁33人，重度抑郁20人。有21人（17.2%）有不同程度的焦虑。其中，轻度焦虑12人，中度焦虑6人，重度焦虑3人。相关分析发现，退出治疗前受访者的美沙酮维持治疗剂量与他们的BDI评分和BAI评分呈正相关关系（相关系数分别为0.407和0.415，p值均小于0.05），提示退出药物治疗前美沙酮治疗剂量越高，退出治疗后出现焦虑、抑郁风险更大。

结论 美沙酮维持治疗患者退出美沙酮药物治疗主要原因有两个，一个是自认为阿片类物质渴求已得到控制无需继续接受美沙酮药物治疗，另外一个则是因进行违法活动而被动停止的。退出美沙酮药物治疗后，有相当一部分患者存在焦虑、抑郁症状。

关键字：美沙酮维持治疗；退出原因；情绪状态

Gender Differences in Alcohol Drinking Among Adolescents: A School-based Survey in China

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Objective Alcohol drinking in adolescents is an increasing concern, with its adverse impacts on this population. Thus, it was necessary to investigate the proportion of alcohol drinkers and hazardous drinkers and the sociodemographic associated factors of hazardous drinkers among primary and middle school students.

Methods A school-based cross-sectional survey was carried out between September and December 2020 in a city in southwestern China, with a total of 89,360 students (including 50.0% boys) from primary and middle school. Alcohol drinking behaviors were assessed by self-reported measures on the Alcohol Use Disorders Identification Test Consumption (AUDIT-C).

Results Of the 89,360 respondents, 19.0% were alcohol drinkers and 4.0% were hazardous drinkers. More boys than girls were alcohol (22.1% for boys vs. 16.0% for girls) or hazardous drinkers (5.2% vs. 2.7%). The mean AUDIT-C score was 1.4 (±2.10) and significantly higher in boys (1.6±2.22) than girls (1.2±1.89, $p<0.001$). There was a polarity between boys and girls beginning at grade 10, with an increasing number of alcohol or hazardous drinkers were boys and decreasing for girls. Multiple logistical regression analysis indicated that older age, boys, living in rural and left-behind children were risk factors while nuclear family and parents no drinking were protective factors associated with being a hazardous drinker.

Conclusion Considering the prevalence of alcohol consumption in primary and middle school, which was associated with older age, boys, living in rural, family type, and parents' drinking behavior, more strict measures should be informed to reduce alcohol use in the typical students.

关键字：Gender differences, Adolescents, Alcohol drinker, Hazardous drinker, China

前额叶皮层神经元集群的延迟激活介导了可卡因依赖长期戒断后的潜伏心理渴求

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目的 药物成瘾是慢性复发性的脑疾病，同时也是一种病理性的情感记忆。长期戒断的药物成瘾记忆会出现时间依赖性的强化，表现为个体对线索诱导的药物渴求会随着时间的延长而逐渐升高，被称为药物依赖戒断后的潜伏心理渴求现象。最新研究表明，病理性记忆的长期维持需要一个晚期巩固阶段，该过程发生在记忆获得后的12小时到24小时左右。然而，记忆的晚期巩固现象在可卡因成瘾戒断后的潜伏心理渴求中的作用并不清楚。因此本研究探究记忆的晚期巩固现象在可卡因成瘾戒断后的潜伏心理渴求中的作用

方法 本文运用大鼠自身给药模型，综合蛋白质免疫印迹检测技术、免疫荧光技术、化学遗传学技术、fos-LacZ转基因大鼠及Daun02药理学干预技术等，探索了记忆的晚期巩固现象在可卡因成瘾戒断后的潜伏心理渴求中的作用

结果 可卡因自身给药训练后前边缘皮层（prelimbic cortex, PrL）存在早期激活和延迟激活的现象。其中早期激活发生在训练后的0.5小时左右，延迟激活发生在训练后的18小时左右。训练后0.5小时于PrL内脑区微注射蛋白质合成抑制剂Anisomycin可以特异性降低大鼠戒断第2天的觅药行为，而对戒断第30天的觅药行为没有影响；相反地，训练后18小时干预PrL内蛋白质合成可以特异性降低大鼠戒断第30天的觅药行为，而对戒断第2天的觅药行为没有影响。训练后9小时或36小时于PrL内脑区微注射Anisomycin对大鼠戒断第2天和第30天的觅药行为均没有影响。免疫荧光实验发现，PrL的早期激活和延

迟激活均伴随着 Fos 蛋白阳性神经元数目的增多。最后利用 fos-lacZ 转基因大鼠结合 Daun02 药理学干预手段发现，训练后 0.5 小时选择性杀死 PrL 内 Fos 阳性神经元，可以特异性降低大鼠可卡因成瘾戒断后第 4 天的觅药行为，对第 30 天的觅药行为没有影响；训练后 18 小时选择性杀死 PrL 内 Fos 阳性神经元，可以特异性降低大鼠可卡因成瘾戒断后第 30 天的觅药行为，而对第 4 天的觅药行为没有影响

结论 可卡因依赖戒断后的潜伏心理渴求过程中 PrL 脑区存在蛋白质合成依赖的早期激活和延迟激活的现象。其中早期激活过程特异性介导了大鼠可卡因成瘾戒断早期的心理渴求，而延迟激活过程特异性介导了大鼠可卡因成瘾戒断晚期的潜伏心理渴求；早期激活和延迟激活过程分别由相互独立的神经元集群介导。本研究将会为药物成瘾的学习记忆机制研究提供新思路

关键字：成瘾记忆，晚期巩固，前额叶皮层

新颖环境暴露对药物成瘾记忆消退的影响

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目的 成瘾性物质的反复使用会使成瘾者形成强烈而持久的病理性记忆，即使经过长期的药物戒断这种记忆依然会持续存在，并导致复吸行为。临床上通常采用线索暴露疗法，即反复暴露于条件性刺激诱导消退行为进而治疗药物成瘾，但疗效十分有限。研究表明，暴露于新颖环境可以促进恐惧记忆的消退，然而对成瘾记忆的消退作用还并不清楚。因此本研究探索新颖环境暴露对药物成瘾记忆的消退作用。为临床上利用线索暴露疗法治疗药物成瘾提供新的视角

方法 本文运用大鼠自身给药模型以及条件性位置偏爱模型，探索新颖环境暴露对药物成瘾记忆的消退作用。为了测试在消退前进行新颖环境暴露是否影响消退以及药物点燃诱导的大鼠觅药行为的复燃，大鼠进行可卡因自身给药训练以及形成条件性位置偏爱后于消退训练前 1 小时进行新颖环境或熟悉环境暴露，对照组仅进行消退不进行环境暴露。所有动物达到消退标准后第 1 天进行生理盐水点燃测试，第 2 天进行可卡因点燃测试，观察对大鼠觅药行为复燃的影响

结果 大鼠可卡因自身给药训练以及形成条件性位置偏爱后在消退训练前 1h 进行新颖环境暴露可以促进可卡因成瘾记忆的消退，降低可卡因点燃诱导的觅药行为的复燃；而消退训练前 1h 进行熟悉环境暴露对消退过程和觅药行为的复燃没有影响，单独进行消退训练不进行环境暴露对觅药行为的复燃同样没有影响，提示新颖环境暴露发挥了消退的行为标签的作用

结论 新颖环境暴露而不是熟悉环境暴露可以促进可卡因成瘾记忆的消退，进而降低大鼠觅药行为的复燃。本研究将为临床上利用线索暴露疗法治疗药物成瘾提供新的视角。

关键字：成瘾记忆，晚期巩固，前额叶皮层

酒精依赖患者血清 S100B 蛋白对早期复发的的预测效应

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Objective 酒精依赖是一种慢性复发性脑疾病，主要以反复复发为特征。脑损害可能与反复复发有关，既往有研究发现血清 S100B 蛋白的高低可反应脑损害程度，该蛋白的高低可能与酒精的使用量及频率有关。目前关于血清 S100B 蛋白能否预测酒依赖的复发尚无相关研究；本研究旨在探究酒依赖患者复发组与戒断组治疗前的血清 S100B 蛋白有无差异，以及探讨治疗前不同水平的血清 S100B 蛋白对酒依赖患者的复发有无预测意义。

Methods 研究纳入 170 名住院治疗的酒精依赖患者，患者在入院第 2 天清晨空腹抽取患者的血液，采用化学发光法检测血清 S100B 蛋白，经过脱瘾治疗后，采集患者的人口学资料及临床特征（包括蒙特利尔认知评估量表、7 项广泛性焦虑障碍量表、9 项患者健康问卷）。在出院后第 1、3、6 个月进行电话随访。通过受试者工作特征曲线确定治疗前血清 S100B 预测复发的最佳界限值，并根据此将患者分成高水平血清 S100B 蛋白组和低水平血清 S100B 蛋白组，分析两组血清 S100B 水平组之间临床特征的分布差异以及酒依赖患者早期复发率及影响因素。生存分析采用 Kaplan-Meier 法以及 Log-rank 生存分析；复发的影响因素采用多因素 Cox 比例风险模型向前 LR 法进一步分析。

Results 复饮组的酒依赖患者治疗前 S100B 蛋白浓度高于持续戒断组患者 0.03650（0.02，0.04375）ng/mL vs 0.04400（0.0280，0.0680）ng/mL。受试者工作特征曲线分析示血清 S100B 蛋白预测早期酒依赖复发的最佳界限值为 0.04350ng/mL，曲线下面积为 0.625，灵敏度 52.7%，特异度 75%。根据最佳界限值将血清 S100B 蛋白分为高水平组合低水平两组。两组间临床特征差异无统计学意义，治疗前血清 S100B 蛋白高水平组酒依赖患者 6 个月的复发率为 84.3%，血清 S100B 蛋白低水平组 6 个月复发率为 61.6%，差异具有统计学意义，（X2=11.080，P=0.001）。多因素 Cox 比例风险回归模型提示治疗前 S100B 水平高是复发的危险因素（HR=1.634，P=0.011）。

Conclusion 治疗前血清 S100B 水平对酒依赖患者出院后的早期复发具有一定的预测价值，治疗前血清 S100B 蛋白高的患者复饮的风险增高，或可作为一种筛选高复发风险的酒依赖患者参考指标。对于基线血清 S100B 水平高的酒依赖患者可考虑给予一定的脑保护治疗，从而提高戒酒的成功率。

关键字：酒依赖 早期复发 S100B 蛋白 影响因素

高频率电刺激背侧中缝核在大鼠甲基苯丙胺觅药行为中的作用

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目的 药物成瘾是一种病理性记忆，不仅异常持久且难以消除，使得成瘾者持续用药或停药后易出现复吸。因此，寻求安全有效的治疗手段是药物成瘾的热点和难点。深部脑刺激（DBS）在各类神经精神疾病的治疗中表现出较好的前景，展现出治疗药物成瘾的潜力，但目前仍缺少确切的刺激靶点和治疗参数。在药物成瘾的关键脑区中，背侧中缝核（DRN）在成瘾记忆的表达中发挥重要作用。因此，本研究旨在探索在DRN进行DBS时，不同的刺激参数在大鼠甲基苯丙胺点燃诱导的觅药行为中的作用，可为药物成瘾复吸的防治提供参考。

方法 （1）大鼠DRN埋置电极后，进行甲基苯丙胺（1 mg/kg, i.p.）条件性位置偏爱（CPP）训练。待大鼠形成稳定的位置偏爱行为，进行CPP消退训练，直至大鼠CPP得分回归基线水平。使用不同频率分别对大鼠DRN进行电刺激60 min，之后使用甲基苯丙胺（1 mg/kg, i.p.）点燃后进行测试；（2）大鼠DRN埋置电极后，进行甲基苯丙胺自身给药训练。待大鼠建立稳定的自身给药行为后，对其进行自身给药消退训练。消退完成后，使用不同频率分别对大鼠DRN进行电刺激60 min，之后使用甲基苯丙胺（1 mg/kg, i.p.）点燃后进行测试。

结果 （1）在CPP测试中，高频率（130 Hz）DBS组大鼠甲基苯丙胺点燃测试的CPP得分显著低于假刺激（0 Hz）和低频率（20 Hz）DBS组，说明高频率电刺激DRN可有效抑制大鼠甲基苯丙胺点燃诱导的CPP重建；（2）在自身给药测试中，高频率（130 Hz）DBS组大鼠甲基苯丙胺点燃测试的有效鼻触次数显著低于假刺激（0 Hz）DBS组，说明高频率电刺激DRN可阻止大鼠甲基苯丙胺点燃诱导的自身给药重建。（3）在食物CPP训练过程中，高频率（130 Hz）和假刺激（0 Hz）DBS组大鼠均可形成食物诱导的位置偏爱，说明高频率电刺激DRN不影响大鼠的天然奖赏。

结论 高频率电刺激DRN可有效抑制大鼠甲基苯丙胺点燃诱导的觅药行为，可为DBS治疗药物成瘾提供新的靶点和参数选择，但其作用机制还需进一步的研究进行探讨。

关键字：深部脑刺激；甲基苯丙胺；背侧中缝核；复吸

社区康复期甲基苯丙胺滥用者睡眠障碍发生率及相关因素

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目的 流行病学研究表明，甲基苯丙胺滥用者中存在广泛的睡眠障碍和催眠药物滥用问题，严重影响了甲基苯丙胺滥用者的身心健康和治疗预后。本研究旨在分析社区康复期甲基苯丙胺滥用者睡眠障碍发生率及相关因素，为甲基苯丙胺滥用者的康复期干预提供一定的参考依据。

方法 选取2019年5月1日-2022年4月30日107例社区康复期甲基苯丙胺滥用者为研究对象，采用匹兹堡睡眠质量指数（PSQI）调查该群体的睡眠状况，了解睡眠障碍发生率。根据研究对象有无睡眠障碍划分为无睡眠障碍组、睡眠障碍组，同时采用一般资料调查问卷、焦虑自评量表（SAS）、抑郁自评量表（SDS）进行问卷调查，采用卡方检验对调查结果进行分析。采用多因素Logistic回归分析社区康复期甲基苯丙胺滥用者睡眠障碍发生的危险因素。

结果 （1）社区康复期甲基苯丙胺滥用者PSQI总分为（16.87±2.26）分，睡眠障碍发生率为50.47%（54/107）。（2）与无睡眠障碍组相比，睡眠障碍组每日吸烟量多、饮酒频率高、甲基苯丙胺累及使用时间长，抑郁及焦虑的发生率高（P<0.05）。（3）多因素Logistic回归分析显示，每日吸烟量多、饮酒频率高、甲基苯丙胺累及使用时间长、焦虑、抑郁是社区康复期甲基苯丙胺滥用者睡眠障碍发生的危险因素（P<0.05）。

结论 社区康复期甲基苯丙胺滥用者睡眠障碍发生率高，睡眠障碍的发生与每日吸烟量、饮酒频率、甲基苯丙胺累及使用时间、焦虑和抑郁情绪相关。 基金项目：上海市嘉定区科委卫生系统科研项目（JDKW-2017-W35）；“嘉医新星”青年人才培养计划（2019JDJYXX013）；上海市卫生健康委科研项目（202040429）

关键字：甲基苯丙胺滥用者；睡眠障碍；发生率

酒依赖患者对酒精线索的眼动特征分析及矫治干预研究

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目的 研究通过经典及成瘾的行为学范式结合眼动监测技术，探究酒精依赖患者对酒精相关线索是否存在注意偏向和注意偏向的行为学和眼动特征，并分析注意偏向和睡眠、焦虑抑郁、冲动性等心身因素的相关性；同时探索基于眼跳的注意偏向训练对注意偏向水平矫治的有效性。

方法 研究包含两部分，实验一招募29名酒依赖患者和29名健康人群，采用2（线索类型：酒精图片、

情绪图片）×2（探测点和线索相对位置：同侧、异侧）×2（组别：酒精依赖组、健康对照组）三因素混合设计。通过使用经典点探测范式和眼动技术监测被试对酒精线索注意偏向的特征。同时对患者的睡眠、焦虑抑郁和冲动性等心身状况进行评估。分析酒精依赖患者注意偏向的行为学和眼动特征，并与量表评分进行相关性分析。实验二通过多中心、随机对照试验，纳入 40 名酒依赖住院患者，随机（1:1）分为干预组（10 次基于眼跳的注意偏向训练）和对照组（10 次正序数字记忆广度训练），采用成瘾 Go/No-go 任务比较分析两组患者干预前后的注意偏向水平差异，并验证注意偏向训练对注意偏向矫治的有效性。

结果 实验一发现：酒依赖组点探测任务反应时显著长于健康对照组（P＜0.05）；当图片配对类型为酒精相关线索图片-中性图片时，酒依赖组对酒精相关线索存在显著的注意探测延迟（P＜0.05）和注意维持（P＜0.01），且瞳孔均显著小于健康对照组（P＜0.001），通过相关性分析发现，酒依赖组点探测任务正确率和 BIS-11 量表评分呈负相关（P＜0.05）；反应时和 GAD-7 量表评分呈正相关（P＜0.05）；首视点和 GAD-7 量表评分呈正相关（P＜0.01）；PSQI 量表评分和 PHQ-9 量表评分呈正相关（P＜0.05）。实验二发现：相较于对照干预组，注意偏向训练组的酒依赖患者在干预后的冲动性量表总分均显著降低（P＜0.01），成瘾 Go/No-go 任务的反应时显著缩短（P＜0.001），反应变异性显著降低（P＜0.05），No-go 条件的正确率显著提高（P＜0.05）。

结论 结果表明，酒精依赖患者对酒精相关线索存在注意偏向；相较于传统的行为学通过正确率和反应时间结果反推注意偏向，眼动为酒精依赖患者注意偏向的评估提供了更直接的、多指标的证据。基于眼跳的注意偏向训练可以矫治酒依赖患者对酒精线索的注意偏向。今后的研究有待于联合神经电生理技术进一步分析注意偏向矫治训练神经调控的具体过程。

关键字：酒依赖, 注意偏向，眼动监测，注意偏向训练

巴戟天寡糖胶囊联用舍曲林治疗抑郁障碍的有效性和安全性研究

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目的 评价巴戟天寡糖胶囊联用舍曲林治疗抑郁障碍的有效性和安全性。

方法 入组标准：符合 ICD-10 有关抑郁障碍的诊断标准；中医辨证属肾阳虚证；服用舍曲林病情平稳，未达临床痊愈的患者。筛选受试者 40 人，成功入组 36 例，试验疗程 8 周，给药方案：第 1～2 周为初始剂量治疗；在第 2 周末主要根据汉密尔顿抑郁量表(HAMD17)减分率决定患者是否进入增量治疗。若第 2 周末 HAMD17 评分＞7 分，则进入增量治疗；若第 2 周末 HAMD17 评分≤7 分，则维持初始剂量。若患者在增量治疗过程中不能耐受，可重新回到初始剂量。初始量：早：150mg 巴戟天寡糖胶囊 1 粒+50mg 曲林舍片 1 片。晚：150mg 巴戟天寡糖胶囊 1 粒+50mg 曲林舍片 0-1 片。增 量：早：150mg 巴戟天寡糖胶囊 2 粒+50mg 曲林舍片 1 片。晚：150mg 巴戟天寡糖胶囊 2 粒+50mg 曲林舍片 0-1 片。主要疗效指标为治疗终点(8 周末)缓解率（HAMD17 总分≤7 分）。安全性指标：①生命体征；②实验室及心电图检查；③不良事件/反应评估。统计方法：配对 t 检验、Fisher 检验。

结果 用药 8 周末 FAS 数据集中缓解率(HAMD17≤7 分)为 73.53%，PPS 数据集中缓解率(HAMD17≤7 分)为 80.00%。用药 8 周末 HAMD17 评分相对基线的组内比较，差异有统计学意义(P＜0.001)。用药 8 周末 HAMA 评分相对基线的组内比较，差异有统计学意义(P＜0.001)。用药 8 周末中医肾虚症状评分与基线比较，差异有统计学意义（(P＜0.001）。安全性结果：试验期间共 4 例发生不良事件（11.11%）。因不良事件脱落病例 1 例。试验期间未发生严重不良事件。治疗前后实验室检查指标变化无统计学意义或临床意义。

结论 舍曲林联用巴戟天寡糖胶囊治疗抑郁障碍缓解率显著高于单用舍曲林，两药联用可发挥一定的协同作用。舍曲林联用巴戟天寡糖胶囊可有效改善受试者中医症状。试验过程中未发生具有临床意义的不良事件和实验室指标改变，安全性较高。

关键字：巴戟天 舍曲林 抑郁障碍 有效性 安全性

The Relationship between Serum Glutamate-related Metabolites, Cytokines and Psychological Craving in Patients with Alcohol Use Disorder

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Objective Alcohol use disorder (AUD) is a chronic, reurrent psychiatric disorder but its pathogenesis is still unclear. According to the WHO, more than 3 million people worldwide die from drinking every year, accounting for 5.3% of the total deaths. Previous studies have shown that changes in inflammatory cytokines in AUD patients may mediate abnormal glutamate metabolism, affecting their psychological symptoms and cravings. We conducted a cross-sectional study to investigate the serum concentrations of glutamate-related metabolites and cytokines in AUD patients and healthy controls, and analyzed their correlation with alcohol craving.

Methods The study consisted of 38 male AUD patients and 30 healthy controls. General demographic data and alcohol consumption were collected. The Penn Alcohol Craving Scale (PACS) and Visual Analogue Scale (VAS) were used to evaluate the patients' psychological craving for alcohol. The serum glutamate-related metabolites (glutamic acid, glutamine and GABA) were measured

with the high performance liquid chromatography-tandem mass spectrometry method. The level of cytokines (TNF-α, IFN-γ, IL-1β, IL-6, IL-10 and MCP-1) were determined by enzyme-linked immunosorbent assay.

Results (1) Compared with healthy controls, serum glutamic acid (P=0.009) and GABA (P=0.002) in AUD patients were significantly increased, and glutamine was significantly decreased (P<0.001); serum TNF-α (P=0.002) and IFN-γ (P=0.045) concentrations were increased in AUD group. (2) In AUD group, serum glutamic acid was positively correlated with weekly alcohol consumption(r=0.328, P=0.045); serum glutamine was negatively correlated with psychological craving scores (PACS: r=-0.484, P=0.002; VAS: r=-0.333, P=0.041). (3) In AUD group, serum concentrations of IL-1β (r=0.325, P=0.046), IL-6 (r=0.448, P=0.005) and IL-10 (r=0.367, P=0.023) were positively correlated with VAS scores. (4) In AUD group, serum GABA was negatively correlated with MCP-1 (r=-0.387, P=0.016). Serum glutamic acid and glutamine concentrations were not correlated with all six cytokines.

Conclusion Continuous alcohol consumption may cause abnormal peripheral glutamate metabolism and inflammatory changes, serum cytokines may be related to psychological craving for alcohol, and glutamate metabolism may be related to both drinking behavior and craving. Our study found that the higher the serum GABA concentration in AUD patients, the lower the MCP-1 concentration, indicating that the inflammatory process may be involved in the glutamate metabolism disorder of AUD and play a potential role in the mechanism of substance addiction.

关键字：alcohol use disorder; cytokines; neuroinflammation; glutamic acid metabolism; psychological craving

氯胺酮和艾司氯胺酮对抑郁症患者自杀意念的疗效：系统评价和 meta 分析

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目的 通过 meta 分析的方法比较不同剂量、剂型的氯胺酮和艾司氯胺酮对单相和双相抑郁患者自杀意念的疗效；同时，进一步探究氯胺酮和艾司氯胺酮对自杀意念的持续疗效。

方法 系统检索数据库 MEDLINE、EMBASE、CENTRAL、PsycINFO、Web of Science，检索至 2023 年 5 月，同时追踪相关的系统评价、meta 分析和纳入研究的参考文献。纳入氯胺酮和艾司氯胺酮对抑郁症患者自杀意念影响的所有研究。文献筛选、纳入研究偏倚风险和数据提取均由两名研究员独立完成。结局指标包括自杀意念缓解率，以及 MADRS、HAMD、QIDS-SR、BDI 等量表中相关自杀意念的评估。比值比（odds ratio，OR）及其 95%可信区间（confidence interval，CI），标准化均值差（standardised mean difference，SMD）及其 95% CI 作为各结局指标的合并效应量。采用 Stata 17.0 和 R 4.3 软件进行统计分析。

结果 本研究共纳入 12 篇研究，包括 13 个随机对照试验，涉及氯胺酮、艾司氯胺酮、咪达唑仑和安慰剂等干预措施。本研究纳入的随机对照试验的偏倚风险评估结果为中到高质量研究。纳入研究对象的年龄、性别、自杀意念等基线特征均衡可比。合并分析结果显示：与安慰剂相比较，抑郁患者输注氯胺酮后短期改善自杀意念缓解[OR=2.21, 95% CI (1.40, 3.51)]；而与咪达唑仑相比较，抑郁患者输注氯胺酮后近期的自杀意念缓解率差异无统计学意义[OR=1.72, 95% CI (0.84, 3.52)]；艾司氯胺酮与安慰剂相比能缓解抑郁患者的自杀意念[OR=6.11, 95% CI (1.27, 29.27)]，但纳入研究和样本量均较少。纳入研究中仅少部分研究报告输注氯胺酮后超过 1 月的自杀意念缓解的情况，合并结果显示与对照组相比，输注艾司氯胺酮后持续缓解自杀意念的疗效差异无统计学意义[OR=1.30, 95% CI (0.52, 3.27)]。

结论 本研究发现单次输注氯胺酮可能对自杀意念产生短期有益影响，其表明可将氯胺酮治疗急性自杀，但其维持时间短。在临床应用前，同时需要对氯胺酮的长期安全性及降低自杀风险的有效性进行大样本多中心的研究。

关键字：氯胺酮；艾司氯胺酮；抑郁症；自杀意念；meta 分析

Alterations in Brain Functional Network Among Male Abstinent Individuals with Methamphetamine Use Disorders

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Objective Methamphetamine is a highly addictive psychostimulant drug globally abused, resulting in a serious worldwide health problem. Unfortunately, the precise addiction mechanism remains unclear. Thus, this study aimed to investigate the characteristics of functional connectivity of brain network and impacting factors in the patients with methamphetamine use disorder (MUD) by using magnetic resonance imaging.

Methods This study included 96 male abstinent participants with MUD (mean age, 29.41 years; SD, 8.00), and 46 age- and sex-matched healthy controls (HC) (mean age, 29.70 years; SD, 5.84). Participants completed a general scale, the Barratt Impulsivity Scale Chinese version 11 and magnetic resonance imaging scan, while participants with MUD completed the drug use pattern evaluation and the visual analogue scale.

Results Compared with HC, participants with MUD showed higher impulsivity, lower small-world attribute of the resting state network, increased node clustering coefficient and node local efficiency in the cerebellar vermis, increased FC strength within the cerebellum and between the cerebellum and brain, decreased FC strength between frontal-parietal. In addition, after controlling for covariance, results of partial correlation analysis showed that small-world property was significantly associated

with METH use frequency, psychological craving, and impulsivity; and the topological attributes of bilateral precuneus, right middle frontal gyrus, and the right parahippocampal gyrus were significantly associated with impulsivity in the MUD group.

Conclusion These findings may further improve our understanding of the neural mechanism of impulse control dysfunction underlying methamphetamine addiction and assist in exploring the neuropathological mechanism of MUD related dysfunction and rehabilitation.

关键字：Methamphetamine use disorder; functional magnetic resonance imaging; brain network; functional connectivity; impulsivity

Efficacy of Oxazepam in The Treatment of Withdrawal Symptoms in Patients with Alcohol Use Disorder and Its Effect on Gut Microbiota

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Objective Alcohol use disorder (AUD) is a major public health problem affecting the world. At present, benzodiazepines are the good choice for treating alcohol withdrawal syndrome (AWS), among which oxazepam is popular because of its fewer side effects and high safety, but its efficacy is limited. In recent years, an increasing body of evidence suggest that the development of AUD is related to changes in gut microbiota. However, the use of drugs may change the composition and structure of gut microbiota, treating diseases or causing toxic reactions. Therefore, the purpose of this study was to evaluate the efficacy of oxazepam in the treatment of AWS, as well as its influence on gut microbiota composition and structure in AUD patients.

Methods A total of 31 AUD patients were enrolled in this study. The efficacy of oxazepam was evaluated according to the changes of clinical indicators, withdrawal symptoms and psychiatric symptoms of AUD patients. Alpha-diversity and beta-diversity analyses were performed to observe the effect of oxazepam on gut microbiota in AUD patients.

Results The results showed that oxazepam significantly reduced the withdrawal symptoms and alcohol craving scores in AUD patients and played a role in improving mood. We also found that oxazepam treatment caused the decrease of intestinal microbial richness and the change of bacterial community structure in AUD patients, which are mainly manifested as the significant decrease of Proteobacteria, Escherichia-Shigella and Ruminococcus_gnavus_group, Actinobacteriota and Bifidobacterium increased significantly. These changes in bacteria showed a significant correlation with psychiatric symptoms.

Conclusion These results demonstrate that oxazepam is effective in the treatment of AWS and may act on intestinal microbiota to achieve therapeutic effects.

关键字：Alcohol use disorder, Alcohol withdrawal syndrome, Oxazepam, Efficacy, Gut microbiota

Disrupted White Matter Microstructure and Topological Organization of Reward System in Alcoholism with Positive Family History

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Objective Significant evidence of white matter (WM) microstructural and topological organization abnormalities had been revealed in the patients with alcohol dependence (AD). The purposes of this study were to explore neuroimaging biomarkers for family history positive (FHP) subtype of AD and the relationship of these abnormalities with craving.

Methods We recruited 51 patients meeting the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders-IV) criteria for AD. There are 21 patients with FHP, 30 patients with family history negative (FHN), and 25 healthy controls (HC) in our present study. We used seed-based classification by probabilistic tractography to explore the white matter microstructure of striatal circuits, and computed topological properties of reward systems (such as caudate, putamen and hippocampus). We compared fractional anisotropy (FA) and mean diffusivity (MD) of striatal related WM skeleton and topological properties of reward system between the three groups (FHP, FHN and HC). Then covariates of alcohol use characteristics were controlled between FHP and FHN. In addition, we explored whether microstructural and topological organization abnormalities were associated with self-reported craving in AD groups.

Results We found abnormal WM microstructural of striatal circuits and topological properties of hippocampus in AD with FHP compared to HC. After controlling covariates of severity and courses of alcohol dependence, there was still disruptions of topology organization in FHP compared to FHN, such as lower nodal between, degree, efficiency and higher shortest path of right hippocampus. The nodal topological properties of right hippocampus were significantly correlated with self-reported craving in AD.

Conclusion We provide robust evidence for WM microstructural and topological properties abnormalities in AD with FHP. We also found the disrupted topological properties of right hippocampus associated with the degree of craving.

关键字：Alcohol dependence; reward system; white matter microstructure; topological organization; diffusion tensor imaging

Emotion Dysregulation and Internet Gaming Disorder in Young People: Mediating Effects of Negative Affect and Metacognitions

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Objective Recent studies have found that emotion dysregulation, negative affect, and metacognitions about online gaming are risk factors for Internet gaming disorder (IGD). However, few studies investigated the mechanisms underlying these interactions. The present study aimed to explore the relationships between emotion dysregulation and IGD, and the mediating effects of negative affect and metacognitions about online gaming.

Methods An online survey was conducted with young people (aged 10-24 years) who played video games. 1768 participants were included in this study. Observed variables, including emotion dysregulation, IGD, depression, anxiety, and metacognitions, were measured with self-report scales. Structural equation modeling (SEM) was used to analyze the relationships among the variables.

Results The results showed that emotion dysregulation positively predicted IGD through a fully mediated model which included the independent mediating effects of negative affect and metacognitions about online gaming and their sequential mediating effect. The model explained 75.5% of the variance in IGD.

Conclusion This study emphasizes that negative affect and metacognitions about online gaming mediate the effect of emotion dysregulation on IGD; moreover, metacognition may be a proximal factor of IGD. Thus, improving emotional regulation and modifying maladaptive metacognitions in young people may improve the prevention and treatment of IGD.

关键字：Internet gaming disorder; emotion dysregulation; metacognitions about online gaming; negative affect; depression; anxiety

基于影像组学探索游戏障碍的分类特征

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目的 游戏障碍在我国流行率高，危害严重，但缺乏客观生物指标。既往磁共振研究提示脑影像学对发现疾病生物标记物有重要意义。本研究拟通过影像组学综合分析游戏障碍者的静息态磁共振数据和临床数据以得到疾病的分类特征，通过解码分类特征以探索游戏障碍者的情绪、人格、游戏使用以及脑区和脑网络的异常，并使用机器学习的方法从分类特征中开发出疾病的分类模型以辅助临床诊断。

方法 本研究纳入了 55 名游戏障碍者和 45 名年龄与受教育年限相匹配的正常被试。使用联影 3.0T 磁共振机收集静息态功能磁共振数据，使用自编问卷收集了个人和家庭信息及游戏使用信息，使用大五人格量表、广泛性焦虑量表和患者健康问卷评估人格特征和焦虑、抑郁情绪；选择基于全脑的低频振幅，局部一致性，体素镜像同伦连接和功能连接作为影像学指标。使用影像组学对磁共振数据和问卷及量表资料进行特征提取和特征筛选以获得有价值的疾病分类特征，之后对所得特征进行泛化性验证和二次筛选，输入支持向量机建模得到疾病的分类模型并验证分类效能。

结果 影像组学从 7096 个维度的特征空间中筛选出 28 个有价值的分类特征，主要涉及情绪、人格、游戏目的以及默认网络、边缘网络和小脑功能网络，区分游戏障碍准确率为 81%（特异度 78%，灵敏度 84%）。分类特征中的颞下回的低频振幅、丘脑和小脑上部的局部一致性、小脑下部的体素镜像同伦连接、小脑下部之内以及下部与蚓部之间的功能连接及抑郁得分、大五人格的开放性和责任心得分、寻求快感和打发时间的游戏目的通过了二次筛选成为可泛化的分类特征，建模后在测试集中识别游戏障碍者，重复 100 次后得到平均分类准确率为 79%（特异度 77%，灵敏度 82%，t=23.15，P<0.001）。

结论 本研究基于影像组学全面分析了游戏障碍者脑功能磁共振数据和临床资料，得到的分类特征能显著地帮助识别游戏障碍者，为理解游戏障碍的神经机制和客观诊断提供帮助。

关键字：游戏障碍；影像组学；分类特征；功能磁共振；功能脑网络

酒精依赖患者认知损害的磁共振波谱研究

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目的 采用磁共振波谱（MRS）技术研究酒精依赖患者代谢物变化特点，并探讨与认知损害之间的关系，以期发现酒精依赖认知损害的神经生物学机制。

方法 使用重复性成套神经心理状态测验（RBANS）对 60 例住院酒精依赖患者和 40 例健康志愿者的认知功能进行评估，采用磁共振波谱（MRS）技术观测酒精依赖者额叶、杏仁核关键脑区代谢物变化，并分析 MRS 与 RBANS 之间的相关性。

结果 与正常对照组比较，酒精依赖组在左侧额叶、右侧额叶和左侧杏仁核 NAA/Cr 值均显著性降低（P<0.05），左侧额叶、右侧额叶、右侧杏仁核脑区 Cho/Cr 值显著性降低（P<0.05），右侧额叶脑区 Glu/Cr 值显著性降低，而左侧杏仁核区 Glu/Cr 显著性增高，差异均具有统计学意义（P<0.05）。酒精依赖患者即刻注意与注意功能分值与左侧额叶 NAA/Cr 值呈正相关（r=0.327，r=0.352，P<0.05）；言语功能分值与左侧额叶 Cho/Cr 值呈正相关（r=0.269，P<0.05）；左侧杏仁核 Cho/Cr 值与即刻注意呈正相关，而与言语功能呈负相关（r=0.286，r=-0.312，P<0.05）；右侧杏仁核 Cho/Cr 值与即刻注意和注意功能分值呈正相关（r=0.546，

r=0.292，P<0.05），而左侧杏仁核 Glu/Cr 与即刻注意分值呈负相关（r=-0.492，P<0.05）。

结论 酒精依赖者关键脑区（双侧额叶及杏仁核）代谢产物异常，这可能是酒精依赖者认知功能损害的神经生物学基础。

关键字：酒精依赖；认知损害；磁共振波谱；代谢物变化；神经生物学机制

Association of Social Connectedness at Different Levels of Social Isolation with The Mental Health Impact of COVID-19-Related Quarantine

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Objective The COVID-19 pandemic and associated quarantine have led to a global rise in mental health disorders, highlighting the significance of social connectedness as a protective factor and social isolation as a risk factor. However, there is a lack of studies that simultaneously explores the role of social connectedness and social isolation on mental health conditions. This study aimed to explore these factors' relationship and investigate whether social isolation moderates the effect of social connectedness on mental health during quarantine.

Methods This study used an online survey to collect data to investigate the effects of social isolation and connectedness on mental health during COVID-19 quarantine. A total of 485 participants were analyzed using statistical methods, including Pearson correlation analysis, linear regression, cluster analysis, and moderated mediated.

Results The study found that anxiety and depression scores increased during the quarantine period, with age, education, and social connectedness scores associated with the increase. Pre-quarantine anxiety and depression levels were strongly correlated with mental health status during quarantine. Cluster analysis revealed three beneficiary clusters for those with decreasing or unchanged scores. The study also found that the level of social isolation influences the impact of social connectedness on pre-quarantine mental health, which in turn affects mental health status during quarantine.

Conclusion The study found that quarantine led to an increase in anxiety and depression. Increasing age was protective, while education and social connectedness were risk factors. Besides, when focusing on the impact of social connectedness on mental health, the level of social isolation cannot be ignored.

关键字：depression, anxiety, moderated mediation,covid-19 pandemic

SERCA2b 参与甲基苯丙胺致神经毒性的机制研究

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目的 探讨 SERCA2b 在甲基苯丙胺（methamphetamine, METH）诱导内质网应激、细胞凋亡中的作用，进而加深对 METH 神经毒性的作用机制的研究，为 METH 诱导神经毒性损伤的防治提供新的靶点和理论依据。

方法 通过倒置显微镜观察不同浓度 METH 对 SH-SY5Y 细胞形态的影响。构建 SH-SY5Y 细胞 METH 染毒模型，通过 Western Blot 检测 SERCA2b 表达情况；将细胞分为 Con 组、METH 组和 CDN1163+METH 组，利用 ATP 酶活性检测、Western Blot、细胞内质网钙离子检测、TUNEL 染色等方法，评估 SERCA2b 活性、内质网钙离子浓度、细胞凋亡情况以及内质网应激和细胞凋亡相关蛋白表达变化。构建 METH 染毒动物模型，纹状体定位注射 SERCA2b 激活剂 CDN1163，将小鼠分为 Con+PBS 组、METH+PBS 组和 METH+CDN1163 组。监测和评分小鼠的刻板行为，通过 Western Blot 检测内质网应激和细胞凋亡相关蛋白的表达，在体内验证 SERCA2b 参与 METH 诱导的内质网应激和凋亡。

结果 METH 引起细胞形态严重损伤，且随浓度增加而逐渐加重；SERCA2b 的表达随 METH 暴露时间和浓度增加而降低；METH 降低了 SERCA2b 活性，SERCA2b 激活剂 CDN1163 可以提高其活性；METH 会引起内质网应激相关蛋白 GRP78、P-eIF2α 和 CHOP 表达增加，而 CDN1163 可减轻这些蛋白表达；METH 降低了内质网钙离子浓度，而 CDN1163 可增加其浓度；METH 增加了 Caspase-3 和 Bax 蛋白表达，降低了 Bcl-2 蛋白表达，CDN1163 可以减轻凋亡蛋白表达并增加 Bcl-2 表达；METH 引发了细胞凋亡和凋亡小体形成，但 CDN1163 可以缓解细胞凋亡；METH 导致小鼠的刻板行为评分升高，使用 CDN1163 后评分明显减低；METH 组小鼠中 SERAC2b 蛋白表达降低，同时内质网应激相关蛋白和细胞凋亡相关蛋白的表达增加，Bcl-2 的表达降低；CDN1163 可以减轻内质网应激和细胞凋亡相关蛋白表达，并增加 Bcl-2 表达。

结论 SERCA2b 通过内质网应激，引发细胞凋亡途径参与 METH 诱导的神经毒性，引起神经功能障碍。使用 SERCA2b 激动剂可缓解 METH 诱导的内质网应激、细胞凋亡，减轻神经毒性，改善神经功能障碍。

关键字：甲基苯丙胺；SERCA2b；神经毒性；内质网应激；细胞凋亡

酒精使用障碍对患者冲动行为的影响：基于有调节的链式中介模型

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目的 酒精使用障碍（Alcohol Use Disorder, AUD）者常伴有冲动行为，冲动行为会造成患者社会功能障

碍，也是导致 AUD 患者复饮的重要因素，因此研究 AUD 冲动行为的心理机制有重要意义。本研究旨在考察执行功能、前瞻回溯记忆和性别因素对 AUD 患者冲动行为的中介影响机制，为 AUD 患者的治疗提供参考。

方法 通过随机抽样的方法，选取安徽中北部城市社区居民和精神病医院确诊的 AUD 患者共 713 例为研究对象，其中男性 363 例，女性 350 例，采用酒精使用障碍筛查量表（Alcohol Use Disorder Identification Test，AUDIT）、执行功能量表、巴瑞特冲动性量表和主观前瞻回溯记忆量表进行调查，中介分析采用 SPSS 28.0 Process3.5 完成。

结果 （1）随着 AUDIT 分数的增加，前瞻记忆和执行功能逐步降低，冲动行为逐渐增加（P<0.05）；（2）女性 AUDIT 总分明显低于男性（P<0.05），但是女性比男性产生更严重的执行功能障碍和前瞻记忆损伤（P<0.05），以及比男性更严重的冲动行为障碍（P<0.05）；（3）在控制年龄、学历和居住地的条件下，分析显示，前瞻记忆和执行功能在 AUDIT 总分和冲动行为之间有部分中介作用，总间接效应为 0.387（95%CI 0.331～0.447），性别因素在中介模型中起到调节变量的作用，饮酒行为可能使女性产生更严重的前瞻记忆损伤和执行功能障碍，通过中介加重了 AUD 患者的冲动行为。

结论 AUD 通过产生前瞻记忆损伤和执行功能障碍对冲动行为产生影响，性别在其中发挥调节效应，构成了一个有调节的链式中介模型；女性 AUD 比男性产生更严重的执行功能障碍和前瞻记忆损伤，以及比男性更严重的冲动行为障碍，本研究对不同性别的酒精使用障碍患者的冲动行为干预具有参考价值。

关键字：酒精使用障碍； 执行功能； 前瞻回溯； 冲动； 性别差异； 链式中介； 调节效应

Oral Microbiota Modulates Alcohol-induced Cognitive Impairment Via Nitrate Metabolism

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Objective Alcohol use is increasingly prevalent in modern society and is known to cause cognitive impairment and dysregulation of inflammatory responses. Emerging evidence suggests that oral microbiota plays a critical role in the pathogenesis and development of psychiatric disease. However, the specific contribution of oral microbiota dysbiosis to the alcohol-induced cognitive impairment remains poorly understood.

Methods We tested the difference in oral microbial composition between different levels of cognitive impairment in 24 alcohol drinkers and 12 healthy controls by 16S RNA sequencing. Then, C57BL/6 male mice were administered ethanol-containing diet with or without nitrate for 6 weeks prior to testing. Cognitive function, oral microbiota composition, serum cytokines and brain Iba-1 expression were measured.

Results Oral bacteria related to nitrate metabolism were increased in alcohol drinkers with less cognitive impairment, and this improvement was accompanied by decreased inflammatory responses. In the animal study nitrate supplementation effectively mitigated cognitive impairment induced by chronic alcohol exposure, as evidenced by improved performance in cognitive behavioral tests. Additionally, nitrate supplementation led to a reduction in neuroinflammation and systemic inflammation. Interestingly, we found that nitrate supplementation also restored the dysbiosis of oral microbiota related to nitrate metabolism that was caused by alcohol consumption. Furthermore, the supplementation resulted in a decrease in inflammation-related bacteria.

Conclusion These findings highlight the protective role of nitrate against alcohol-induced cognitive impairment and neuroinflammation dysfunction, and suggest that the oral microbiota associated with nitrate metabolism and brain function may form part of a “microbiota-mouth-brain axis”.

关键字：Microbiota, Cognitive function, Alcohol dependence

Effects of Online Game and Short Video Behavior on Academic Delay of Gratification - Mediating Effects of Anxiety, Depression and Retrospective Memory

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Objective Recently, the number of people playing short videos has surpassed that of online games in China. However, it is not known whether excessive short videos and online games have the same harmful effects on college students' studies. Therefore， this study compared the different effects of college students' excessive online gaming and short video behaviors on anxiety, depression, prospective memory, and academic delay of gratification (ADOG). The possible mechanism that causes excessive playing of online games and short videos to lead to a decline in ADOG was also explored.

Methods Based on the whole class random sampling method, a questionnaire survey was conducted among college students in Northern Anhui, China from May 7 to July 27, 2022. The questionnaires included the Generalized Anxiety Disorder Scale (GAD-7), Patient Health Questionnaire Scale (PHQ-9), Prospective and Retrospective Memory (PRM) Questionnaire, and ADOG Scale.

Results A total of 1016 participants completed the survey. The study found that of all the internet behaviors, 20.8% of the college students played online games, 43.9% played short videos, and 35.3% conducted other online behaviors. When compared with other internet behaviors, online gaming and short video behaviors can cause more serious depression and worse PRM and ADOG scores. As

time spent playing online games and short videos increased, anxiety and depression became worse, and the scores for PRM and ADOG also declined. anxiety, depression, and PRM mediate the relationship between time spent online gaming/on short videos and ADOG.

Conclusion Excessive playing of short videos may produce the same psychological problems and learning problems as online gaming disorder. Excessive short video and online gaming behaviors affect ADOG performance through anxiety, depression, and prospective memory. These findings could be used as a basis for future studies on the improvement of ADOG.

关键字：short video, online games, anxiety, depression, prospective memory, academic delay of gratification

短视频成瘾与大学生学业延迟满足的关系：有调节的中介效应分析

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目的 为明确短视频成瘾对其学业延迟满足的作用机制，本研究构建了一个有调节的中介模型，重点考察了前瞻回溯记忆在二者关系中的中介作用以及焦虑、抑郁的调节作用。

方法 这项研究招募了 925 名本科生参与横断面调查，使用广泛性焦虑障碍量表(GAD-7)和患者健康问卷量表(PHQ-9)、学业延迟满足量表(ADOG)、前瞻回溯记忆量表(PRM)进行调查。

结果 共收集到有效数据 836 条，其中男生 397 条(47.5%)，女生 439 条(52.5%)。对收集到的问卷在剔除不完整数据后进行信度和效度分析，然后进行结构方程建模进行模型验证。结果表明：（1）在控制性别、年龄、年级后，短视频成瘾对拖延行为具有显著的负向预测作用；（2）前瞻回溯记忆能够在短视频成瘾与学业延迟满足的关系中起中介作用；（3）短视频成瘾对拖延行为的直接预测作用及前瞻回溯记忆在二者关系中的中介作用均会受到焦虑、抑郁的调节。

结论 短视频成瘾不仅可以直接降低学业延迟满足，还可以通过降低前瞻回溯记忆间接增加学习拖延症，而对于焦虑、抑郁程度较高的个体来说，短视频成瘾可能对前瞻回溯记忆有更强的影响，因此前瞻回溯记忆的中介作用更强。短视频成瘾对学业延迟满足的直接预测作用及前瞻回溯记忆在二者关系中的中介作用均会受到焦虑、抑郁的调节。研究结果对引导大学生合理使用短视频为其心理社会适应服务具有启示意义。

关键字：短视频成瘾，前瞻回溯记忆，学业延迟满足，焦虑，抑郁

甲基苯丙胺依赖者情绪状态的长程变化及影响因素： 一项 8 年随访调查

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目的 探索甲基苯丙胺（methamphetamine, MA）依赖者出所后情绪状态（抑郁、焦虑）的长程变化情况及其影响因素，从而为理解 MA 依赖者的心理健康水平变化特征并为进一步改善临床转归提供潜在方向。

方法 本研究为一项纵向随访调查研究，对 2012-2013 年自上海强制隔离戒毒所入组的 574 名 MA 依赖者在 8 年后进行随访调查，以完成基线评估和随访调查的 283 名 MA 依赖者为研究对象。采用卡方检验比较基线和随访时（8 年后）抑郁、焦虑的变化情况，采用多元线性回归分析探索 8 年后抑郁、焦虑的影响因素。

结果 与基线相比，随访时存在抑郁状态、焦虑状态的 MA 依赖者比例显著降低（$p<0.001$）；基于随访数据的多元线性回归分析结果显示，应激感受越高、患有躯体疾病、危险及有害饮酒风险越高以及家庭支持度越低的 MA 依赖者，抑郁得分越高；应激感受越高、患有躯体疾病、生活满意度越高以及家庭支持度越低的 MA 依赖者，焦虑得分越高（p 值皆<0.05）。

结论 8 年后 MA 依赖者抑郁、焦虑状况显著改善。其中，家庭支持是 MA 依赖者抑郁和焦虑的保护因素，高应激感受、患有躯体疾病和危险及有害饮酒则是 MA 依赖者高抑郁得分的危险因素，高应激感受、患有躯体疾病、高生活满意度是 MA 依赖者高焦虑得分的危险因素。

关键字：甲基苯丙胺；抑郁；焦虑；长程随访；影响因素

Altered Individual Gray Matter Structural Covariance Networks in Early Abstinence Patients with Alcohol Dependence

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Objective While brain structural alterations in patients with alcohol dependence (AD) have extensively been reported, knowledge about gray matter structural covariance networks is limited. This aim of study was to investigate gray matter structural covariance networks abnormalities based on cortical thickness at single-subject level.

Methods : Sixty-one AD inpatients during early abstinence and 59 healthy controls were under high-resolution structural magnetic resonance imaging (MRI) scans. The surface-based cortical thickness data was extracted from 64 brain regions to construct the single-subject structural covariance networks and topological properties of

brain networks were analyzed using a graph theory approach.

Results : Both AD patients and healthy controls showed economic small-world organization in structural covariance networks. However, compared with healthy controls, AD patients exhibited significantly altered topological properties, characterized by increased characteristic path length, increased path length, and decreased global efficiency. At a local level, AD patients displayed decreased nodal properties including degree centrality and nodal efficiency mainly located in right precuneus. In addition, Alcohol Use Disorder Identification Test (AUDIT) score was negatively correlated with degree centrality and nodal efficiency of left middle temporal gyrus.

Conclusion : This study demonstrates that the abnormal topological organization of gray matter structural covariance networks may be the underlying neurobiology biomarkers for AD, which may provide new perspective into the neural mechanisms of AD from structural covariance networks level.

关键字：Alcohol dependence; structural covariance networks; gray matter; cortical thickness; graph theoretical analysis

网络游戏使用态度与大学生游戏障碍的关系

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目的 探讨网络游戏使用态度对游戏障碍的影响以及冲动和非理性信念在其中的作用。

方法 采用网络游戏使用态度量表(GUAS)、冲动性量表(BIS-11)、网络游戏障碍量表(IGD-20)和非理性信念量表(IBS)对 1029 名在校大学生进行调查。

结果 ①相关分析显示网络游戏使用态度总分与网络游戏障碍总分呈正相关(r=0.772,P<0.001),网络游戏使用态度总分与冲动性总分呈负相关(r=-0.508,P<0.001)，网络游戏使用态度总分与非理性信念总分呈正相关(r=0.228,P<0.001)，网络游戏障碍总分与冲动性总分呈负相关(r=-0.533,P<0.001),网络游戏障碍总分与非理性信念总分呈正相关(r=0.168,P<0.001),冲动性总分与非理性信念总分呈负相关(r=-0.243,P<0.001)；②回归分析显示网络游戏使用态度对游戏障碍具有显著的正向预测作用（β=0.73,P<0.001);③冲动性在网络游戏使用态度和游戏障碍之间起部分中介作用；④非理性信念在网络游戏使用态度和冲动性之间起调节作用，且对于低非理性信念的个体，网络游戏使用态度对冲动的影响更大；⑤非理性信念在网络游戏使用态度和游戏障碍之间起调节作用，且对于低非理性信念的个体，网络游戏使用态度对游戏障碍的影响更大。

结论 ①网络游戏使用态度可能既能与游戏障碍行为有直接关联，也可以通过冲动性与游戏障碍行为有间接关联。②非理性信念水平越低，网络游戏使用态度对冲动性的负向预测作用越强。③非理性信念水平越低，网络游戏使用态度对游戏障碍行为的正向预测作用越强。

关键字：网络游戏使用态度；游戏障碍；冲动性；非理性信念

基于神经认知范式评估酒依赖患者注意偏向与抑制控制的研究

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目的 探讨酒依赖患者与健康对照之间酒精线索下的注意偏向、抑制控制、渴求程度、强迫性寻酒、饮酒期望、饮酒动机、心理健康状况的差异。同时探讨酒依赖患者注意偏向、抑制控制功能缺陷与渴求程度、强迫性寻酒、饮酒期望、饮酒动机、心理健康状况等影响因素之间的关系。

方法 通过招募河北省精神卫生中心住院的28例酒依赖患者作为研究组，年龄、性别相匹配的 26 例健康成年人作为对照组。签订知情同意后，两组均采集一般人口学资料，进行临床评估，完成入组筛选和酒精线索的视觉联合搜索任务及 Go/NoGo 任务。收集并整理资料，进行统计学分析。

结果 一般人口学资料结果显示酒依赖患者与健康对照在职业、婚姻情况、受教育年限、家族史、饮酒年限、大量饮酒年限、饮酒频率、饮酒次数、每日酒精摄入量、吸烟史、吸烟年限、每日吸烟量等分布上存在显著差异。两组人群之间在蒙特利尔认知评估量表、酒精依赖疾患识别测验、强迫性饮酒量表总分、强迫性饮酒量表调整后总分、强迫思维分量表、强迫饮酒分量表、K10 量表得分上存在显著差异。酒依赖患者组的积极饮酒期望得分显著高于健康对照组。酒依赖患者组的社会动机、增强动机、应对动机、顺从动机得分均显著高于健康对照组。两组人群在酒精线索 Go/NoGo 任务中 Go 试验上的 Go 酒精、Go 中性、Go 试次的正确反应时与正确率存在显著差异，在 NoGo 试验上的 NoGo 酒精、NoGo 试次的错误率与正确率存在显著差异。酒依赖患者的抑制控制功能缺陷的多元线性回归分析结果发现，受教育年限与抑制控制功能缺陷呈负相关，有睡眠问题与抑制控制功能缺陷呈正相关，每日饮酒与抑制控制功能缺陷呈正相关，积极饮酒期望与抑制控制功能缺陷呈负相关，社会动机与抑制控制功能缺陷呈正相关，应对动机与抑制控制功能缺陷存在负相关。

结论 酒依赖患者与健康人群之间在酒精线索下的注意偏向、抑制控制、强迫性寻酒、饮酒期望、饮酒动机、心理健康状况等方面存在差异。在控制其它因素的影响下，发现受教育年限较低、存在睡眠问题、每日饮酒、积极饮酒期望较低、较多的社会动机以及较少的应对动机与酒依赖患者的抑制控制功能缺陷有关。

关键字：酒依赖；注意偏向；抑制控制；饮酒动机

The Relationship between Binge Drinking and Incidence of Intentional Injury Events- A Study Based on The Data of Emergency Room

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Objective Investigate the relationship between binge drinking and incidence of intentional injury events.

Methods This project is a survey performed per 10 years which sponsored by the National Institute of Alcohol Abuse and Alcoholism (NIAAA) commissioned by the International Health Organization (WHO). At 2016, Tianjin was selected as the site which to conduct the survey by NIAAA in China. According to the requirements of NIAAA, 521 injured patients in the emergency room was enrolled in the study. WHO handbook for collaborative research on alcohol and injury was adopted to assess subjects' drinking patterns. Logistic regression analysis was used to estimate the association between drinking patterns and the incidence of intentional injury.

Results Within 6 hours before injury, the incidence of intentional injury events among 12+ standard drinkes each time was 7.61folds (OR=7.61, CI=3.90-11.86) for induce the intentional injury events, the incidence among the 5-11 standard cup drinkes was 3.56 folds (OR=3.56, CI=1.08-6.08). Within the past 12 months, the incidence of intentional injury events among 12+ standard drinkes each time was 3.46 folds (OR = 3.46, CI = 2.07-5.78) for induce the intentional injury events, the incidence among the 5-11 standard cup drinkes was 2.86 folds (OR= 2.86, CI = 1.68-4.87).

Conclusion The drinking pattern of binge drinking can increase the risk of the incidence of intentional injury.

关键字：Paroxysmal binge drinking, drinks, intentional injury, risk factors

前额叶皮质中 NR4A1 参与调节酒精戒断小鼠焦虑行为

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目的 研究酒依赖戒断引起小鼠的焦虑行为对前额叶皮质中 NR4A1 的影响。

方法 21 只雄性 C57 小鼠随机分为正常对照组(n = 10) 和酒精组(n = 11) ，加上 NR4A1 基因敲除组(n = 8)，采用条件位置偏好（CPP）造酒依赖模型。通过黑白箱（LDT）、高架十字迷宫(EPM) 及开放旷场(OFT) 实验评估小鼠焦虑情绪，蛋白质印迹（WB）和免疫荧光（IF）检测小鼠前额叶皮质中 NR4A1 变化。

结果 正常对照组与酒精组小鼠体重无统计学差异(P＞0.05)；酒精组与正常对照组小鼠相比酒精偏好百分比有明显统计学差异(P＜0.05)。酒精组酒依赖模型建立成功后戒断 14h，与正常对照组相比，酒精组小鼠行为学表现出明显的焦虑情绪，有统计学差异(P＜0.05)；酒精组小鼠前额叶皮质中 NR4A1 和 BCL-2 明显增多，与正常对照组相比有统计学差异(P＜0.05)。

结论 运用条件位置偏好（CPP）方法，可以成功建立小鼠酒依赖模型；停止饮酒 14h 酒依赖小鼠表现出明显焦虑情绪，并且发现前额叶皮质中 NR4A1 明显增多，敲除前额叶皮质中的 NR4A1 可以减轻小鼠焦虑，具有保护脑的作用。

关键字：酒依赖戒断导致的焦虑；核受体亚家族 4 A 组成员 1；B 细胞淋巴瘤 2 基因

The Role of CircHomer1 in Cocaine-induced Rewarding Effects

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Objective Cocaine is a widely abused psychostimulant, whose hyper-rewarding property is believed to underlie its addictive effect, but the molecular mechanism regulating this effect remains unclear. Previous studies have shown that CircHomer1, derived from Homer protein homolog 1 (HOMER1), is a neuronal-enriched circRNA that may be involved in cocaine induced rewarding effects, however, the mechanism remains unclear.

Methods In this study, we used repeated cocaine exposure and conditioned place preference (CPP) models combining with chemical genetics, qPCR and western blotting to explore the role of circHomer1 in cocaine-induced rewarding effects.

Results We found that the expression of circHomer1 is consistently downregulated in the prelimbic cortex (PrL) of rat when exposed to cocaine, whereas significant alterations in circHomer1 expression were not observed in the PrL of rat subjected to other rewarding and psychiatric stimuli, such as morphine. We further found the substantial reduction in circHomer1 expression may be regulated by both D1R and D2R. Increasing circHomer1 levels in the PrL attenuated cocaine-induced conditioned place preference, whereas inhibiting circHomer1 expression in the PrL enhanced these effects but did not change the preference of rat for a natural reward, i.e., sucrose. These effects may involve the expression of Grin1 (NMDA receptor subunit 1), but not other NMDA receptor subunits and AMPA receptor subunits.

Conclusion Our findings demonstrate an important role for PrL circHomer1 in regulating cocaine reward, reveal a novel molecular regulator of the actions of cocaine on brain reward circuitries and provide a new strategy for treating cocaine addiction based on the modulation of non-coding RNAs.

关键字：cocaine, reward effects, circHomer1, dopamine receptor, NMDA receptor, AMPA receptor

久坐行为、吸烟行为与口腔健康的关系研究

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目的 香烟的燃烧会在主流烟雾、侧流烟雾、二手烟、三手烟和废弃烟头中均产生潜在的有毒物质。口腔健康状况不佳相关的疾病涉及所有器官系统和许多主要疾病类别，包括传染病、心血管疾病、慢性疼痛、癌症和心理健康。吸烟与口腔健康问题都是可预防的公共卫生问题，而久坐行为的时长可能与其相关。因此，本研究旨在探索久坐行为、吸烟和口腔健康之间的关联。

方法 本研究以 2013-2018 年美国国家营养调查中分层抽取的 20 岁及以上代表性人群为样本，共 5343 人（男 3174 人、女 2169 人，平均年龄 52.36 ± 17.14 岁）。通过全球身体活动问卷（GPAQ）评估久坐行为时长；通过烟草使用问卷（SMQ）判断样本现阶段是否有吸烟行为；根据牙科检察员提出的口腔护理建议判断样本的口腔健康状况。分类变量采用卡方检验，计量变量采用秩和检验，P＜0.05 被认为具有统计学意义（双侧检验）。通过单因素分析后，以具有统计学意义的人口学变量作为协变量，分别以久坐行为为自变量，吸烟行为和口腔健康为因变量，以及以吸烟行为为自变量，口腔健康为因变量，作二元 Logistic 回归分析。数据均采用社会科学统计软件包（SPSS）26.0 版进行分析。

结果 （1）在排除所有混杂变量后，久坐行为与吸烟显著相关（P＜0.001），比值比（OR）=1.274（95%Cl：1.157-1.402）；（2）久坐行为与口腔健康显著相关（P=0.013），OR=1.125（95%Cl：1.025-1.234）；（3）吸烟与口腔健康显著相关（P＜0.001），OR=1.847（95%Cl：1.710-1.996）。

结论 一天中较短时间的久坐行为（<600min）是吸烟和口腔问题的共同危险因素；吸烟是口腔问题的危险因素。因此，在常规的一天中，在保证足够身体活动的前提下，也要让身体进行充分休息，使身体活动和久坐时长处于相对平衡的状态。

关键字：久坐行为，吸烟，口腔健康

Seasonality of Hospitalization for Alcohol Use Disorders: A Cross-sectional Study in China

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Objective Seasonal patterns have been observed in several psychiatric disorders such as depression and schizophrenia, but there is no consensus on the seasonality of alcohol use disorders. We thus retrospectively analyzed a large-scale database to explore whether seasonality affects hospitalization for alcohol use disorders **Methods** In this study, a total of 14,357 inpatients with alcohol use disorders were recruited over a 7-year time span, and after applying rigorous data criteria, 2,176 inpatients were ultimately included in the statistical analysis.

Results Patients with alcohol use disorders admitted in various seasons had significant differences in length of stay (H=13.592, df=3, P=0.004), and corrected Bonferroni post hoc tests suggested that patients admitted in spring had a shorter length of stay than in the other three seasons (P=0.009, P=0.013, P=0.048 for summer, autumn and winter, respectively). In addition, seasonality may have influenced the relapse of the disease. We found that disease recurrence was unevenly distributed across various seasons (X2=10.486, df=3, P=0.015), with corrected Bonferroni post hoc tests suggested a higher proportion of recurrent admissions in summer(P<0.05). We then performed a Binary logistic regression, and the effect of seasonality on disease recurrence remained significant after controlling for gender, occupation, and marital status. Taking winter as a reference, the risk of relapse was higher in spring and summer (OR=1.284, 95CI%=1.00-1.65, P=0.048; OR=1.393, 95CI%=1.08-1.80, P=0.011, respectively).

Conclusion This is the first large sample size study to explore the seasonality of hospitalization for alcohol use disorders in a Chinese population. Our study found that patients with alcohol use disorders admitted in the spring had shorter hospital stays, but also had more relapses in the spring and summer. These findings will contribute to the exploration of risk factors for alcohol use disorders as well as provide preliminary evidence for clinical development of prevention strategies.

关键字：Alcohol use disorders; seasonality; relapse episodes.

Consumption Habits, Emotions and Personality Traits of Bubble Tea Addicts: A Cross-sectional Study

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Objective In recent years, bubble tea is popular all over the world, especially loved by young people. This study aimed to examine the relationship between bubble tea addiction and consumption habits, emotions and personality traits among young people in China.

Methods We distributed questionnaire and collected relevant data through the online survey tool Questionnaire Star, a professional online survey evaluation platform. The questionnaire included socio-demographic characteristics, bubble tea consumption habits and scales assessment. Addiction Diagnosis Questionnaire was used to measure participants' bubble tea addiction. General Anxiety Disorder-7 (GAD-7) and Patient Health Questionnaire-9(PHQ-9) were used to assess anxiety and depression, respectively. Personality traits were assessed by Eysenck Personality Questionnaire-Revised, Short Scale for Chinese (EPQ-RSC). According to Addiction Diagnosis Questionnaire score, the enrolled participants were divided into addiction group and non-addiction group. The t-test and chi-square test were used to compare the differences between the two groups to assess the relationship between bubble tea addiction and consumption habits, emotions and personality traits.

Results Among enrolled 511 subjects, 45(8.81%) were in the bubble tea addiction group and 466 (91.19%) were in the non-addiction group. No difference was found in demographic information between the two groups. There was significantly different between the two groups in terms of bubble tea consumption habits. For example, the addiction group drank bubble tea more frequently and spent more money on it each week. The addiction group had higher scores on both GAD-7 and PHQ-9 compared to the non-addiction group, and the difference was statistically significant. In addition, the EPQ-RSC subscale scores showed differences between the two groups in psychoticism and neuroticism, but not in extraversion and lie.

Conclusion Our study found a high proportion of young people were addicted to bubble tea. Bubble tea addiction was related to high consumption and anxiety and depression. Individuals with psychotic and neurotic personality traits appear to be more susceptible to addiction.

关键字：bubble tea; addiction; emotion; consumption

Effect of Online Game Policy on Smartphone Game Play Time, Addiction and Emotion in Rural Adolescents of China

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Objective Smart phone game addiction has emerged as a major public health problem in China and worldwide. In November 2019 and August 2021, the National Press and Publication Administration of China implemented two increasingly strict policies (a year ago and half a year ago), as a means of preventing smartphone game addiction in adolescents aged 18 or below. This study aimed to analyze the effect of these two policies on smartphone game play time, addiction and emotion in rural adolescents of China.

Methods We sent the questionnaire to the rural adolescents and collected relevant data, like sex, age, and smartphone game play time, through the online survey tool Questionnaire Star, a professional online survey evaluation platform. The questionnaire included demographic data survey, smartphone use survey, smartphone game addiction and emotion evaluation scales. The Smartphone Addiction Scale-Short Version (SAS-SV) was used to measure adolescents' smartphone game addiction. The Short Version of UPPS-P Impulsive Behavior Scale (SUPPS-P) and the Social Anxiety Scale for Children (SASC) were used to measure adolescents' emotion. According to SAS-SV score, the enrolled rural adolescents were divided into addiction group and non-addiction group. The t-test, Chi-square test and repeated measure ANOVA were used to compare the differences between the two groups to assess the effect of the policies on adolescents' smartphone game addiction and emotion.

Results Among enrolled 459 rural adolescents, 151 (32.90%) were in the addiction group and 308 (67.10%) were in the non-addiction group. Adolescents in the addiction group were older, more male, and of a higher grade than those in the non-addiction group. There was no difference between the two groups in smartphone use habits. There were time and group effects between the two groups in play time. The addiction group spent more time in smartphone game than the non-addiction group at a year ago. With the implementation of the policy, the time spent on smartphone game decreased significantly in both the two groups. Moreover, there is no significantly difference in play time between the two groups now. There were time and group effects between the two groups in SAS-SV and SASC scores. However, neither time nor group effects existed in SUPPS-P score between the two groups.

Conclusion With the implementation of the policy, the play time of rural adolescents spent on smartphone game has decreased significantly compared to a year ago or half a year ago. Moreover, the change in the play time is not due to the lack of addiction or social anxiety, but due to the restriction of the policy. The policy had practically significant effects in reducing smartphone game play time for rural adolescents in China.

关键字：adolescents; smartphone; policy; gaming disorder

Internet Addiction and Anxiety Among Chinese Adolescents: The Mediating Effect of Social Connectedness and Cognitive Emotion Regulation

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Objective The factors associated with internet addiction among adolescents have been extensively characterised, but the mechanisms underlying the complexities of the relationship between internet addiction (IA) and anxiety have been less studied. This study examines the mediating role of online and offline social connections, along with cognitive emotion regulation, in internet addiction and anxiety, as well as their differences.

Methods This expansive cross-sectional study was undertaken among adolescents enrolled in grades 7 to 12 within four provinces of China, namely Fujian, Jiangsu, Sichuan, and Xinjiang, during the period spanning from September 2022 to March 2023. We employed Young's 20-item internet addiction test (IAT-20), Social Connectedness Scale-Revised (SCS-R), Negative Cognitive Emotion Regulation Scale, and APA-DSM5TR-Level2 Anxiety Child to collect sociodemographic and target mental health outcomes. Structural equation modelling (SEM) were performed for the data analyses.

Results A total of 9616 adolescents were included in this study. The prevalence of IA and anxiety is 21.8% and 33.6 % respectively. The factor of online social connectedness and non-social connectedness are both positively correlated with IA. Structural equation modeling demonstrated that the direct effect of IA on anxiety is 0.20 [95%CI: (0.18~0.23)]. Both online-offline social connectedness gap and negative cognitive emotion regulation significantly mediated relations between IA and anxiety, the total indirect effect is 0.52 [95%CI: (0.50~0.54)].

Conclusion Internet addiction had both direct and indirect effects on anxiety; these effects were mediated by online-offline social connectedness gap and negative cognitive emotion regulation in Chinese adolescents. These findings will therefore be useful to develop more strategies to improve the mental health of Chinese middle school students.

关键字：Internet addiction; Anxiety; Social connectedness; Cognitive emotion regulation

The Role of Online-Offline Social Connectedness Gap in Adolescent Internet Addiction and Depression: A Chain-Mediated Model Analysis

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Objective While the relationship between adolescent internet addiction (IA) and depression has been extensively researched, there is a lack of studies investigating the role and mechanisms of online and offline social connectedness in this context. This study examines the mediating role of online and offline social connections, along with cognitive emotion regulation, in internet addiction and depression, as well as their differences.

Methods This expansive cross-sectional study was undertaken among adolescents enrolled in grades 7 to 12 within four provinces of China, namely Fujian, Jiangsu, Sichuan, and Xinjiang, during the period spanning from September 2022 to March 2023. We employed Young's 20-item internet addiction test (IAT-20), Social Connectedness Scale-Revised (SCS-R), Negative Cognitive Emotion Regulation Scale, and DSM5-level2 Depression Scale to collect sociodemographic and target mental health outcomes. Structural equation modelling (SEM) were performed for the data analyses.

Results 9616 adolescents were included in this study. The prevalence of internet addiction and depression is 21.8% and 35.8 % respectively. The factor of online social connectedness and non-social connectedness are both positively correlated with IA. Structural equation modeling demonstrated that both online-offline social connectedness gap and negative cognitive emotion regulation significantly mediated relations between IA and depression, the indirect effect is 0.34 [95%CI: (0.32~0.35)].

Conclusion The gap between online and offline social connectedness plays a significant mediating role in adolescent IA and depressive symptoms. By increasing the intensity of social interactions in real-life settings among adolescents, the online-offline social connectedness gap can be effectively reduced, thus reducing the risk of depression among adolescents with IA. This finding provides valuable insights for promoting the psychological well-being of secondary school students in the digital era.

关键字：Interet addiction; Depression; Social connection; Cognitive emotion regulation

Disrupted Inter-brain Synchronization in The Prefrontal Cortex between Adolescents and Young Adults with Gaming Disorders During The Real-world Cooperating Video Games

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Objective Gaming disorder (GD) and hazardous gaming (HG) have a high incidence among adolescents and young adults and have caused various negative consequences. Interpersonal interaction deficits are closely re-

lated to GD and HG. However, the underlying brain mechanisms are still unclear.

Methods The current study recruited 46 healthy subjects and 32 subjects with GD/HG. Gaming time and frequency, gaming disorder risks, life events, strengths, and difficulties were measured with scales. Subjects were randomly paired into 12 HC-HC dyads, 15 HC-GD/HG dyads, and 7 GD/HG-GD/HG dyads after the excluding process and completed a real-world cooperating video game — "Tied Together" with functional near-infrared spectroscopy (fNIRS) hyperscanning recording in the prefrontal cortex. The inter-brain synchronization (IBS) in each region of the PFC between dyads was calculated by dynamic wavelet to transform coherence (WTC) to measure brain-to-brain synchronization during the task.

Results We found that subjects with GD/HG reported higher risks of gaming ($z = -3.922$, $p < 0.001$). The dynamic IBS in the left dorsolateral prefrontal cortex (dlPFC) significantly decreased in the HC-GD/HG and GD/HG-GD/HG dyads compared with healthy controls ($p = 0.005$). A decreasing dynamic IBS of the left dlPFC was related to a decreasing level of peer problems ($p = 0.012$, $r = 0.865$).

Conclusion The current study may provide new prevention and treatment insights into gaming disorders targeting disrupted interpersonal interaction.

关键字：social interaction, fNIRS, hazardous gaming, teenagers, brain-to-brain synchronization

Characteristics of Amplitude of Low-frequency Fluctuations in The Resting-state Functional Magnetic Resonance Imaging of Alcohol-dependent Patients with Depression

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Objective The high comorbidity of alcohol use disorder and depressive disorder is associated with poor patient prognosis. The mechanisms underlying this comorbidity, however, are largely unknown. By applying the amplitude of low-frequency fluctuations parameter in resting-state functional magnetic resonance imaging, this study investigated changes in the brain functioning of alcohol-dependent patients with and without depression.

Methods Alcohol-dependent patients (n = 48) and healthy controls (n = 31) were recruited. The alcohol-dependent patients were divided into those with and without depression, according to Patients Health Questionnaire-9 scores. Amplitude of low-frequency fluctuations in resting-state brain images were compared among the alcohol-dependent patients with depression, alcohol-dependent patients without depression, and healthy controls groups. We further examined associations between amplitude of low-frequency fluctuations alterations, alcohol-dependence severity, and depressive levels (assessed with scales).

Results Compared with the healthy controls group, both alcohol groups showed amplitude of low-frequency fluctuations enhancement in the right cerebellum and amplitude of low-frequency fluctuations abatement in the posterior central gyrus. The alcohol-dependent patients with depression group had higher amplitude of low-frequency fluctuations in the right cerebellum than the alcohol-dependent patients without depression group. Additionally, we observed a positive correlation between amplitude of low-frequency fluctuations value and Patients Health Questionnaire-9 score in the right superior temporal gyrus in the alcohol-dependent patients with depression group.

Conclusion Alcohol-dependent subjects showed abnormally increased spontaneous neural activity in the right cerebellum, which was more significant in alcohol-dependent patients with depression. These findings may support a targeted intervention in this brain location for alcohol and depressive disorder comorbidity.

关键字：alcohol dependence; ALFF; depression; resting-state functional magnetic resonance imaging; right cerebellum.

SERCA2b 参与甲基苯丙胺成瘾的机制研究

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目的 甲基苯丙胺成瘾与伏隔核多巴胺水平的增加有关。SERCA2b 是内质网膜上的钙泵，可以通过调节细胞内钙水平参与多巴胺的释放。然而，SERCA2b 是否参与甲基苯丙胺诱导的伏隔核多巴胺释放增加尚不清楚。本研究旨在探讨伏隔核 SERCA2b 在甲基苯丙胺成瘾中的作用机制，为治疗甲基苯丙胺成瘾提供新的靶点。

方法 甲基苯丙胺 1mg/kg 腹腔注射 CD1 小鼠，制作条件位置偏爱(conditioned place preference, CPP)的动物模型；用 Western blot 检测 CPP 小鼠伏隔核 SERCA2b 的表达；用 SERCA2b 活性检测试剂盒检测伏隔核 SERCA2b 的活性；高效液相色谱检测伏隔核多巴胺的水平变化；在 SH-SY5Y 细胞水平检测甲基苯丙胺对 SERCA2b 摄钙能力的影响；分别向小鼠伏隔核微注射 CDN1163(SERCA2b 的激动剂)/腺相关病毒过表达 SERCA2b，或者向伏隔核微注射 Thapsigargin (SERCA2b 的抑制剂)/腺相关病毒干扰 SERCA2b，观测对小鼠 CPP 的影响。

结果 甲基苯丙胺成瘾动物伏隔核 SERCA2b 的活性降低，双侧伏隔核微注射 SERCA 的激动剂，或腺相关病毒过表达 SERCA2b，可以减弱伏隔核多巴胺的释放，抑制甲基苯丙胺成瘾的形成；虽然双侧伏隔核微注射 SERCA 的抑制剂 Thapsigargin 没有明显加重甲基苯丙胺的成瘾作用，但采用腺相关病毒干扰 SERCA2b 的表达，可以增加伏隔核多巴胺的释放，促进甲基苯丙胺成瘾形成。细胞水平发现甲基苯丙胺降低了 SH SY5Y 细胞 SERCA2b 摄取钙离子的功能。

结论 本研究首次发现甲基苯丙胺可能通过下调伏隔核 SERCA2b 的功能，导致内质网内外钙平衡紊乱，增加伏隔核多巴胺释放，促进成瘾形成。靶向 SERCA2b 的药物，可能具有治疗甲基苯丙胺成瘾的潜力。

关键字：甲基苯丙胺；伏隔核；SERCA2b；多巴胺；钙离子；CDN1163

A Latent Profile Approach for Classifying Internet Gamers Based on Big Five Personality Traits for Online Gaming

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Objective This study aims to explore the latent categories of gaming players based on the big five personality traits and identity the different risk according classification model and game characteristics.

Methods An online survey was conducted to collect data from internet gaming users, with 5593 participants included in the final analysis after excluding missing data. The average age of the participants was 19.38 years old (SD=1.63; range=15-25), and 59.5% were male (n=3326). Demographic variables included age, gender, education, marital status, and family situation. Gaming characteristics included gaming types, gaming device, monthly expenditure, number of friends in online gaming over the past year, daily time spent playing games, and gaming motivations such as seeking pleasure, escaping reality, coping with negative emotions, passing time, and making friends. The Chinese version of Video Gaming Dependency Scale were used to evaluate IGD level (9 points), and the Chinese Big Five personality traits scale was adopted for personality trait assessment. This study employed cross-sectional latent profile analysis using mplus 8.0 and SPSS 23.0 for statistical analysis.

Results According to the values of LL, BIC, AIC, and SABIC and the interpretability of classifications, we divided gaming players into three groups using latent profile analysis, namely, "high-risk group" (64.78%), "medium-risk group" (3.22%), and "low-risk group" (32%). High-risk gamers were characterized by higher neuroticism, lower conscientiousness, lower agreeableness, lower openness to experience and lower extraversion scores. Medium-risk gamers showed relatively low scores on all Big-Five personality traits, while low-risk gamers were characterized by relatively higher scores on all Big-Five personality traits except neuroticism. The high-risk group showed highest monthly expenditure, spent more time playing online games, and prefer to use mobile to play. Their game motivations are inclined to escape reality, copy with negative emotions, and pass time. The demographic and gaming characteristics of the middle-risk group are intermediate, and often play games for seeking pleasure. The low-risk group are opposite to those of the high-risk group. Although there is no significant difference in the motivation for making friends among the three groups, the high-risk group made the fewest friends in online games over the past year.

Conclusion Gaming players can be classified into three latent subcategories based on the big five personality traits. Low neuroticism, high conscientiousness, high openness, high agreeableness and high extraversion are protective factors against gaming addiction. Gamers who are unmarried, only children, play games for seeking pleasure, spend less money and time on games are less likely to experience gaming addiction. Our research can help identify high-risk gamers and guide early interventions to players at different risks.

关键字：gaming disorder, latent profile analysis, Big-Five personality traits

基于 CiteSpace 的国内外酒精依赖症护理的研究现状与热点分析

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目的 酒精依赖症作为一种慢性脑病，具有高复发率的显著特征，给患者的身心健康、生活质量、家庭和谐以及社会稳定等带来严重损害，本研究利用文献计量学方法分析国内外酒精依赖症护理领域热点和趋势，为相关研究提供参考。

方法 基于 Web of Science（WOS）核心数据库和中国知网（China National Knowledge Infrastructure, CNKI）,使用 CiteSpace 6.1.R3 软件对 2012 年 12 月至 2022 年 12 月国内外酒精依赖症护理领域研究的发文量、作者、机构、国家、关键词进行分析。

结果 筛选后共纳入 2370 篇英文文献，113 篇中文文献。美国是酒精依赖症护理研究发文量最多的国家，发文量约占纳入文献总数的 67.72%。国外更关注于“mental health”、“genome wide association”、“harm reduction”等，而国内更多关注于“健康教育”、“家庭环境”、“戒酒”等。

结论 研究热点主要集中于酒精依赖症的精神健康、酒精依赖症病因学、酒精依赖症导致的相关伤害等方面，提示我们应借鉴和参考国际研究热点，深入和拓展相关研究，以推动中国该领域研究的不断深化。

关键字：酒精依赖症；护理；CiteSpace；文献计量学

VR 线索暴露治疗酒精使用障碍患者的疗效研究

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目的 本研究旨在探索 VR 线索暴露疗法对降低酒精使用障碍患者渴求和出院后防止复饮方面的治疗效果。

方法 33 名符合 DSM-5 中重度酒精使用障碍诊断的住院患者被随机分配到 VR-CET 组(N=18)和对照组(N=15)。VR-CET 组接受饮酒情境的暴露，然后观看厌恶视频进行渴求的反调节治疗，最后进行场景放松。对照组接受一般的场景放松治疗。在两周内完成 5 次治疗。出院后使用时间轴回访法（Timeline Followback, TLFB）对患者进行 4 周一次的随访，共随访 12 周。主要结果指标为总酒精消费量。次要结果指标包括首次复饮时间、重度饮酒天数百分比。使用线性混合效应模型进行重复测量分析。

结果 与对照组相比，VR-CET 组在随访 12 周内总酒精消费量更低，具有分组的主效应（F=5.145,p=0.026,）。重度饮酒天数百分比在第 8 周（t=2.669,p=0.01）和第 12 周随访点（t=3.473,p=0.001）显著低于对照组，具有分组×时间的交互效应。治疗后首次复饮时间 VR-CET 组（中位复饮时间 60 天，95%CI 0-136.03）晚于对照组（中位复饮时间 20 天，95%CI 1.4-38.6），但差异未达到显著性（LogRank P=0.055）。

结论 VR-CET 组在出院随访 12 周内具有更低的总酒精消费和重度饮酒天数百分比，在延长治疗后首次复饮时间上也具有一定改善效果。

关键字：虚拟现实 线索暴露 渴求 酒精使用障碍 复饮

重复经颅磁刺激对酒精使用障碍患者心理渴求疗效的研究

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目的 探索重复经颅磁刺激治疗对酒精使用障碍患者心理渴求的治疗疗效和远期疗效，同时观察现实虚拟技术在评估 rTMS 治疗对酒精使用障碍患者心理渴求疗效中的应用。

方法 选取 2020 年 6 月至 2022 年 5 月物质成瘾病房住院的维持期男性酒精使用障碍患者 120 例，根据随机字母表法将患者分入实验组、伪刺激对照组和阴性对照组。实验组给予高频 rTMS 治疗，伪刺激对照组采用 rTMS 伪刺激及常规治疗，阴性对照给予常规药物康复治疗，不参与 rTMS 治疗。分别记录三组患者在治疗结束后的第 1 个月、第 3 个月及第 6 个月随访情况，随访指标包括是否复饮，同时监测体内血液酒精的含量；采用 VR 酒精线索暴露下评估 VAS 的渴求水平，采集 SCL 和脉搏生理指标；同时采用 HAMA、HAMD、PSQI 评估情绪及睡眠情况，采用 MoCA 评定认知功能。

结果 1. 治疗后 1 月、3 月、6 月，实验组复饮率均低于同期伪刺激对照组和阴性对照组，差异具有统计学意义（P<0.05）。2.治疗前后，三组 VAS、HAMA、HAMD、PSQI、MoCA 及 SCL 的评估差异有统计学意义（P<0.05）。 3.治疗后，与伪刺激对照组和阴性对照组相比，实验组 VAS、HAMA、HAMD、PSQI、SCL 的评分较低，MoCA 评分较高，且差异均有统计学意义（P<0.05）。 4. 三组均未观察到癫痫、晕厥等严重不良反应。三组治疗后不良反应之间没有统计学意义（P>0.05）

结论 1.目前的常规治疗可降低酒精使用障碍患者的渴求，改善情绪、睡眠和认知功能。而在常规治疗上辅以 rTMS 可进一步减少患者复饮。 2.rTMS 辅助常规治疗不增加患者的不良反应，安全性高，且疗效可以维持 6 个月以上。 3.虚拟现实技术下的视觉模拟可作为一种有效的评估手段用于酒精使用障碍患者心理渴求疗效的评估。

关键字：重复经颅磁刺激，酒精使用障碍，心理渴求，认知功能障碍，情绪症状，虚拟现实，临床疗效

Insular Regulation of Substance Use Disorder

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Objective This review aims to discuss the mechanisms underlying the involvement of the insula in addiction-seeking behavior, in order to elucidate the relationship between insula damage and substance addiction remission in human studies.

Methods A comprehensive search was conducted in major international and Chinese literature databases, including PubMed, Web of Science, Embase, and CNKI, to identify relevant human and animal studies on the insula and addiction. The selected studies were analyzed to examine the role of the insula in cue-induced addictive substance-craving behavior and its functional models in regulating homeostasis.

Results Human imaging studies revealed that remission of substance use disorder was associated with strokes located in the insula and frontal-capital region, while animal studies demonstrated that inhibition of the anterior insula significantly suppressed cue-induced relapse behavior. Neuronal activation in the anterior insula during drug-seeking behavior and exposure to drug-related cues was found to encode reward anticipation and drug effects, thereby regulating drug-seeking behavior. Furthermore, both human functional imaging and animal studies indicated that the insula facilitates the transition from the default mode network to the central executive network, enabling the satisfaction of craving feelings through the activation of drug use behavior. Additionally, the insula serves as a regulatory hub for the impulse and reflective systems, and increased anterior insula activity, in conjunction with the impulse system, inhibits the reflective system, leading to impulsive drug-taking behavior.

Conclusion Our findings suggest that the insula

plays a crucial role in regulating craving-driven drug-seeking behavior by predicting the rewarding effects of cues and monitoring general reward levels. Future research should focus on investigating cellular, electrical, and molecular signaling changes in different neural functional units of the insula at various temporal and spatial scales, to gain deeper insights into the neural mechanisms underlying substance use disorders and develop novel therapeutic approaches.

关键字：substance use disorder, insula, cues, anticipation, impulsive behavior

Exploring The Relationship Between Impulsiveness, Risk Appetite, and Internet Gaming Disorder Among College Students

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Objective Internet Gaming Disorder (IGD) is considered a mental illness resulting from addictive behavior. Recent research has focused on the social issues associated with IGD. Although it shares similarities in physical and psychosocial effects with substance use disorder, the underlying psychological mechanisms of IGD remain unclear. To shed light on this issue, this research aims to explore the link between IGD, impulsive personality traits, and risk preferences in medical college students in China using a questionnaire-based approach.

Methods A questionnaire survey was conducted among medical college students in Northern Anhui, China, using the random cluster sampling method from September 3 to October 27, 2020. Three different questionnaires were used to collect data: the IGD-20 Scale to assess Internet Gaming Disorder, the Chinese revised version of the Barratt Impulsiveness Scale Version 11 (BIS-11) to measure impulsive personality traits, and the risk appetite index (RPI) to evaluate risk preferences. The SPSS 23.0 software was used for statistical analysis in this study. The data were presented as M ± SD, and a two-sample independent t-test was conducted to compare two data groups. For multiple groups, one-way ANOVA was used, followed by post-hoc comparisons. Correlation analysis was performed to investigate the associations among IGD, impulsivity, and risk appetite index. Mediating effect analysis were performed using SPSS 23.0 and the plug-in PROCESS 4.0, and all results were integrated. $P< 0.05$ was considered a statistically significant difference.

Results 624 participants completed the survey, exhibiting a female predominance (n = 367, 58.81%). All participants were between 18 and 24 years. We found that in IGD and its six different dimensions and risk appetite index, males scored significantly higher than females. Additionally, our finding revealed there is statistical significance in IGD scores and impulsiveness between game group with game time greater than or equal to 4 hours and non-game group. The IGD and its six different dimensions, among which all except for Mood modification are positively correlated with impulsiveness and risk appetite. Mediating effects indicate that risk appetite plays a partial mediating role between motor impulsiveness and IGD.

Conclusion Our research shows that men exhibit higher scores in IGD, and there is a certain relationship between impulsivity and risk preference with IGD and its dimensions. These findings may contribute to further research and development of intervention and prevention measures for IGD.

关键字：Internet gaming disorder, impulsivity, risk appetite, college students.

Sleep Features in Alcohol Use Disorder: A Systematic Review and Meta-analysis of Polysomnographic Findings in Case-control Studies

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Objective Although alcohol use disorder (AUD) is often associated with sleep problems, polysomnographic studies examining sleep abnormalities in AUD have produced inconsistent results. This study aimed to identify the overall pattern of objectively measured sleep abnormalities in AUD and the influence of the related and demographic factors on sleep disturbance.

Methods PubMed, Embase, Web of Science, MedLine, CINAHL, PsycINFO, and Cochrane databases were searched from 1968 to 2023, and 13 datasets from 12 studies were included in this analysis. Features of sleep microarchitecture and demographic and clinical characteristics of the cohorts were extracted from each study. GRADE was used to assess the quality of evidence.

Results Patients with AUD had a greater sleep onset latency, less sleep efficiency, more stage 1 sleep, less stage 2 sleep, less slow wave sleep, and high rapid eye movement sleep density and 1st REM min. Moderators, such as ethnicity, age, gender, and abstinence period, affected the sleep microarchitecture of AUD.

Conclusion This is the largest study to quantitatively assess impaired sleep as a diagnostic marker for AUD patients. The knowledge of sleep macroarchitecture of AUD may aid clinicians in developing a treatment strategy for AUD-related sleep symptoms in patients.

关键字：Alcohol use disorder; Sleep; Polysomnography; Sleep electroencephalography; Meta-analysis

Construction of A Treatment Selection Model Based on Brain Gray Matter Volume and Function in First-episode Mild To Moderate Depression

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Objective Most of the current clinical treatment options for mild to moderate depression (MMD) are based on treatment guideline recommendations and lack of neuroimaging biomarkers. In order to provide a neuroimaging basis for clinical treatment, this study was conducted to construct a model for treatment selection of MMD in the acute phase of cognitive behavior therapy (CBT) and antidepressant medication (ADM) selection based on gray matter volume (GMV) and regional homogeneity (ReHo) by machine learning (ML) method based on structural and functional brain imaging data of MMD patients.

Methods Eighty-eight patients with first-episode untreated mild to moderate depression (fMMD) were recruited and randomized to start a 6-week course of ADM or CBT, and all patients were clinically assessed after 6 weeks. We focused on the differences in brain GMV and ReHo at baseline between the two groups of patients who achieved clinical remission and applied the minimal-redundancy maximal-relevance (mRMR) feature selection method and support vector machine (SVM) classification method, in order to obtain the classification accuracy that can effectively identify the treatment choice of fMMD and the brain regions with high contribution to classification.

Results After follow-up, a total of 41 patients achieved clinical remission, including 22 in the CBT group and 19 in the ADM group at baseline. there were no group differences in gender, age, years of education, duration of illness, 24-item hamilton rating scale for depression (HAMD-24) scores and hamilton rating scale for anxiety (HAMA) scores between the two groups (p >0.05). In the ReHo-based classification model, the classification accuracy was 82.5% when the number of features was 8, and the specificity corresponding to the optimal classification accuracy was 81% and the sensitivity was 83.3%. The brain regions with high contributions were mainly the inferior temporal gyrus, medial superior frontal gyrus, parahippocampal gyrus, and middle temporal gyrus. In the GMV-based classification model, the classification accuracy was 60% when the number of features was 13, and the specificity corresponding to the optimal classification accuracy was 62% and the sensitivity was 58.33%. The brain regions with high contributions were mainly in the dorsolateral prefrontal lobe.

Conclusion In this study, we found that applying ML methods to construct classification models based on brain GMV and ReHo characteristics of MMD patients can provide a reference for treatment selection for MMD patients. Moreover, the use of brain functional imaging data ReHo has better performance than structure imagine data in the treatment selection of MMD patients.

关键字：mild to moderate depression; machine learning; regional homogeneity; gray matter volume; treatment selection.

不同尼古丁依赖程度对于神经结构影像的影响

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目的 探究人群中不同尼古丁依赖程度对于脑结构影像的影响

方法 入组被试为 2018 年 1 月至 2021 年 1 月在本中心就诊的尼古丁依赖患者；及社区招募健康对照组，健康对照组 41 例入组，尼古丁依赖组 41 例入组，根据法氏尼古丁依赖评分（FTND）分为轻度尼古丁依赖组 21 例（FTND<4 分），中重度尼古丁依赖组 20 例（4≤FTND≤10 分），患者均对本研究知情同意。MRI 扫描使用无锡市人民医院西门子 3.0T MRI 对入组被试予以扫描，以获取大脑三维高分辨率 T1 加权序列。由两名影像科医生审阅全部平扫图像，排除具有脑器质性疾病的患者。MRI 数据预处理使用 SPM12（http://www.fil.ion.ucl.ac.uk/spm/software/spm12/ ）、CAT12(http://www.neuro.uni-jena.de/cat/) 软件和 SBM 方法预处理。统计学使用 SPSS 26.0 软件，计量资料进行配对样本 t 检验；将年龄、受教育程度作为协变量，采用偏相关方法进行相关性分析；P<0.05 差异有统计学意义。

结果 组间差异：与非吸烟组相比较，中重度尼古丁依赖组沟深减少的区域在左后扣带回（P＜0.05，FWE 校正）。与轻度尼古丁依赖组相比较，中重度尼古丁依赖组褶皱减少的区域在左顶下缘角回（P＜0.05，FWE 校正）。临床量表评分与脑结构变化相关关系：非吸烟组沟深、褶皱与 HAMA、HAMD 评分无相关。轻度尼古丁依赖组沟深、褶皱与 FTND、HAMA、HAMD 评分无相关。中重度尼古丁依赖组左舌回的褶皱与 FTND 评分呈正相关（P<0.05,FWE 校正），与 HAMA、HAMD 评分无相关。

结论 不同尼古丁依赖程度在沟深、褶皱等神经结构影像维度表现出不同的损伤程度，尤其以中重度依赖表现明显。

关键字：尼古丁依赖；功能磁共振成像；磁共振成像

大鼠前边缘皮层 ANKS1B 调节可卡因奖赏记忆的作用及机制

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目的 长期使用可卡因会导致学习记忆过程的神经可塑性受损，进而形成病理性奖赏记忆。记忆的形成和储存依赖于多个相互连接的大脑区域，这些区域在记忆巩固过程中的贡献各不相同。内侧前额叶皮层，特别是前边缘皮层（prelimbic cortex, PrL），传统认为其参与远期记忆存储，但最近的证据表明其在近期记忆中也有作用。然而，PrL 脑区调控近期记忆和远期记忆的相关分子尚缺乏研究。锚蛋白重复及 SAM 结构域蛋白 1B（Ankyrin repeat and sterile alpha motif domain containing 1B, Anks1b）基因编码大脑中高表达、活性依赖性突触后效应蛋白。全基因组关联研究提示，Anks1b 基因多态性与多种药物成瘾易感性及表型显著关联。

在自我给药大鼠模型中，过表达 ANKS1B 可降低大鼠对海洛因和甲基苯丙胺的主动觅药行为。然而，ANKS1B 在成瘾记忆不同阶段的作用机制目前并不清楚。本研究主要研究前边缘皮层 ANKS1B 在药物奖赏记忆不同阶段中的作用及机制。

方法 实验一：建立大鼠可卡因诱导条件位置偏好奖赏记忆模型（conditioned place preference, CPP），检测可卡因近期和远期奖赏记忆时的前边缘皮层 ANKS1B 表达水平；实验二：前边缘皮层过表达 ANKS1B 对近期和远期可卡因奖赏记忆的影响及 ANKS1B 下游分子 PSD-95 和 NMDAR 亚基的表达变化。实验三：前边缘皮层特定类型神经元中过表达 ANKS1B 对可卡因记忆的影响，明确 ANKS1B 是否通过影响特定类型神经元发挥作用。

结果 初步研究结果表明，前边缘皮层 ANKS1B 的表达在可卡因近期记忆阶段明显下降，但在远期记忆阶段未见显著改变。CPP 训练前在前边缘皮层过表达 ANKS1B 显著降低可卡因 CPP 的水平，说明前边缘皮层 ANKS1B 负性调控可卡因 CPP 的形成。

结论 初步结果提示前边缘皮层 ANKS1B 可以负性调控可卡因记忆的形成。

关键字：条件位置偏好，近期记忆，远期记忆，ANKS1B，前边缘皮层，可卡因

社会奖惩和网络游戏障碍的关联机制及干预研究

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目的 近年来网络游戏障碍等行为成瘾的发生率不断增加，已严重影响青少年的健康成长，大学生群体为网络游戏障碍的高危人群。相较于药物成瘾，行为成瘾受社会奖惩的影响可能更为显著，网络游戏障碍人群对于社会相关奖惩感知异常，并过度追求成瘾性物质带来的奖赏效应。然而社会奖惩敏感性与网络游戏障碍发生发展的关联机制缺乏系统研究。本文旨在结合横断面和纵向队列研究，明确社会奖惩与网络游戏障碍的关联及其脑机制，并进一步基于社会奖惩神经反馈方法，开发网络游戏障碍的行为学治疗方法。

方法 受试者为在校大学生群体，第一部分为横断面研究，招募非大一的大学生网络游戏障碍患者、娱乐性游戏使用者及健康对照，进行核磁与脑电下的行为学任务。通过组间比较，明确社会奖惩的组间差异及影响网络游戏障碍的脑机制。并期待根据脑电结果对患者进行增强社会奖赏的神经反馈训练，探索治疗有效性。第二部分为纵向研究，预计纳入 500 名大一新生，每半年随访其网络使用和社会奖惩等情况并纳入部分较高或较低社会奖赏的受试者，进行 1 年 1 次的脑电下行为学任务随访，研究社会奖惩对游戏娱乐性使用转变为网络游戏障碍的预测作用，探索关联神经生物学机制。实验中的行为学任务包括游戏线索反应任务、社会线索反应任务、金钱激励延迟任务。脑电数据用格林泰克 32 导便携设备采集；核磁数据用 3.0T Siemens Prisma 采集，影像学数据通过 Matlab 中的 EEGLAB 和 SPM12 进行处理。量表数据与行为学数据通过 SPSS25 进行分析。

结果 目前横断面研究已入组 294 人，其中核磁任务完成 49 人，脑电任务完成 69 人。量表关联结果表明，消极社会效能与网络游戏障碍呈正相关，并会随着网瘾加深而加重。核磁下行为学数据表明，相比健康组，网瘾患者对胜利游戏图片表现出更高渴求，对社会奖赏图片敏感性更低。纵向研究入组 344 人，其中 86 人进行了脑电随访，行为学数据表明，IGDS9-SF 评分与社会奖赏图片诱发的积极情绪和社会惩罚图片诱发的消极情绪呈负相关，同时低社会奖赏组对社会奖赏图片的敏感性更低，对胜利相关游戏图片表现出更高渴求。受试者的招募仍在进展中，影像学数据正在分析过程中。

结论 本研究为社会奖惩与网络游戏障碍的关联提供了证据，明确了网络游戏障碍患者对于社会奖赏的敏感性降低。研究结果有助于对大学生的网瘾行为进行精准防控，并从提高社会奖赏的角度来进行可能的有效干预

关键字：社会奖惩，网络游戏障碍，神经反馈

伏隔核脑区过表达 ANKS1B 抑制可卡因长时程自我给药行为

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目的 可卡因成瘾是一种慢性复发性脑疾病，其核心特征为不计负性后果的强迫性觅药和给药行为。伏隔核是大脑奖赏环路的关键脑区之一，与药物成瘾的发生与发展密切相关。Anks1b 基因编码活性依赖的突触后效应蛋白锚蛋白重复及 SAM 结构域蛋白 1B（ANKS1B），主要表达于大脑伏隔核脑区。我们前期研究发现，Anks1b 基因多态性与物质滥用和精神分裂症等精神疾病显著关联。然而，Anks1b 是否参与可卡因成瘾行为及其具体机制尚未有研究报道。本研究采用大鼠自身给药模型，探究靶向调控伏隔核脑区 Anks1b 表达是否调节可卡因成瘾行为及其分子环路机制。

方法 （1）通过大鼠脑立体定位注射技术，在大鼠伏隔核脑区双边注射 rAAV-CMV-ANKS1B-Flag-WPREs，构建伏隔核脑区 Anks1b 过表达/敲低大鼠。建立可卡因静脉自身给药模型，首先，大鼠接受为期 5 天（FR1，FR2，FR3，FR5，FR5）的短期可卡因自我给药（2h/day）训练，接下来使大鼠在 FR5 下维持长期自我给药（6h/day）10 天，比较对照组与 Anks1b 过表达/敲低组在可卡因自身给药范式中的差异。（2）在长期可卡身给药后，在戒断第 1 天和第 28 天，评估 Anks1b 对线索诱导的可卡因寻求的影响。

结果 目前已有的结果表明，大鼠在接受 5 天短期可卡因自我给药（2h/day）训练，并逐渐增加 FR（从 FR1 到 FR5）的程序下，未发现两组之间存在差异。我们的结果表明，在长期自给药后的第 5 天到第 10 天，与对照组相比，Anks1b 过表达组显著减少了可卡因摄入。实验仍在开展过程中，目前，已构建 Anks1b 敲低大鼠，探究 Anks1b 表达对可卡因成瘾行为的影响及其具体的机制。

结论 研究结果提示，伏隔核脑区 Anks1b 表达可能在可卡因成瘾行为中发挥重要作用，后续我们将通过 Anks1b 转基因大鼠结合多种神经生物学技术继续深入探索 Anks1b 对可卡因成瘾行为的影响。

关键字：Anks1b；可卡因；伏隔核；物质滥用

探索与酒精使用障碍（AUD）相关的多巴胺羟化酶（DBH）其基因多态性、RUNX1 转录因子与其活性及功能的关联研究

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目的 探索与 AUD 相关的 rs1611115 位点多态性对 DBH 基因表达水平的调控作用，了解其对酶活性的影响。并进一步通过过表达 RUNX1 转录因子验证 DBH 表达水平对细胞去甲肾上腺素分泌功能的影响。

方法 建立 DBH 启动子双荧光素酶报告载体，通过双荧光素酶报告实验研究 rs1611115 位点多态性对 DBH 基因表达水平调控作用。预测转录因子 RUNX1（Runt-related transcription factor 1，Runt 相关转录因子 1），建立 RUNX1 过表达重组质粒，转染 HepG2 细胞，进一步验证其对 DBH 转录调控作用，测定其对 DBH 蛋白表达水平和细胞去甲肾上腺素分泌水平的影响。

结果 （1）双荧光素酶活性检测结果：野生型 DBH-WT 组（TT 基因型）启动子活性明显低于突变型 DBH-MUT 组（CC 基因型），（P<0.05）。野生型 RUNX1 过表达载体组启动转录水平活性明显高于空载组（P<0.05）。（2）RUNX1 过表达载体转染 HepG2 细胞后可对 DBH 进行转录调控，RUNX1 过表达载体组 DBH 蛋白表达水平、去甲肾上腺素分泌水平显著高于对照组（P<0.05）。

结论 DBH rs1611115 位点多态性与 DBH 活性相关，CC 基因型活性高于 TT 基因型；转录因子 RUNX1 对 DBH 基因的表达具有调控作用，其过表达可上调 DBH 基因表达水平，增强 DBH 酶的活性，增加 HepG2 细胞分泌 NE 的功能。

关键字：酒精使用障碍，多巴胺羟化酶，双荧光素酶报告实验，转录因子，基因表达

慢波睡眠中暴露游戏声音线索对网络游戏成瘾的干预研究

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目的 网络游戏成瘾(IGD)是以持续、无节制的参与游戏活动为特征，从而导致严重的心理问题和社会功能障碍的一类行为成瘾障碍。目前网络游戏成瘾仍缺乏有效的治疗方法。线索暴露疗法是通过干预成瘾记忆再巩固的行为学治疗方法。已有研究提示，睡眠状态下（特别是慢波睡眠期）可以接受声音线索刺激，并对记忆和认知功能产生显著影响。本研究以期探索慢波睡眠中暴露游戏相关声音线索来干预游戏渴求的有效性，且与清醒状态中的线索暴露疗法进行比较，并进一步探索慢波睡眠状态下游戏声音线索暴露治疗的相关脑电机制。

方法 采用 RCT 的研究方法，将符合 DSM-5 的网络游戏成瘾患者随机分成两组，一组为干预组，即在慢波睡眠期间通过闭环操控在 1-4 Hz 慢波的 up-state 阶段暴露游戏相关的声音线索(共播放 300 次)。另一组为对照组，即采用相同的方法暴露游戏无关的声音线索。所有被试均进行两晚的实验干预，在睡眠中戴着脑电帽实时监测大脑脑电波。在干预前（基线）采集游戏渴求、游戏时间以及社会人口统计学、网络游戏成瘾、睡眠、情绪、奖赏敏感性等问卷信息，并在干预后以及第一周、二周、三周、一个月后分别收集被试的游戏渴求和玩游戏时间的数据。

结果 目前一共纳入了 15 名网络游戏成瘾患者，其中干预组 9 人（年龄 21.3±2.589），对照组 6 人（年龄 20±0.68）,两组之间的基线游戏渴求（干预组：57.3±10.6；对照组：55.8±11.1）没有显著差异。结果发现，在经过两晚的声音线索干预后，与基线相比，干预组的游戏渴求程度显著降低（p<0.05），且游戏渴求的降低程度（50.5±6.8）显著高于对照组（12.2±4.7）（p<0.05）。后期我们将进一步收集数据，并进一步对游戏渴求降低的神经机制进行探索。

结论 慢波睡眠中重复暴露游戏相关的声音线索可以有效降低网络游戏成瘾的渴求，这将为 ICD 的治疗提供新的有效干预方法。

关键字：慢波睡眠，线索暴露，网络游戏成瘾，渴求

The Mediating Effect of Social Connection between Internet Addiction and Somatic Symptoms in Chinese Adolescents

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Objective The aim of this study was to investigate the relationship between Internet addiction, social connectedness and somatic symptoms in Chinese adolescents.

Methods This study used a stratified cluster sampling method to administer questionnaires, including the Internet Addiction Scale（IAT-21）, the Somatic Disorders

Scale(DSM-5), and the Revised Real Social Connections Scale （RSCS-20）and the Revised Online Social Connections Scale（NSCS-20）, to 9616 adolescents in four Chinese provinces from September 2022 to March 2023.

Results The somatic symptoms were positively correlated with Internet addiction (r=0.298, p<0.001) and the difference between NSCS and RSCS (r=0.243, p<0.001). The somatic symptoms were negatively correlated with NSCS (r=-0.050, p<0.001) and RSCS (r=-0.272, p<0.001). (ii) The real social connection partially mediated between internet addiction and somatic disorder, with a mediating effect accounted for 31.41%. (iii) The real social connection and internet social connection difference partially mediated between internet addiction and somatic disorder, with a mediating effect accounted for 22.27%.

Conclusion The real social connections and online social connections play a mediating role between adolescents' Internet addiction and somatic symptoms; we should pay attention to the important role of social connections and actively carry out activities that can increase real social connections and decrease online social connections in order to reduce adolescents' Internet addiction and alleviate somatic symptoms.

关键字：Adolescents；Internet addiction；Social connectedness；Somatic symptoms

The Mediating Effect of Social Connection between Internet Gaming Disorder and Somatic Symptoms in Chinese Adolescents: A Large Sample Cross-sectional Study

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Objective This study aimed to explore the impact of Internet gaming disorder on somatic symptoms and the mediating role of social connection among Chinese adolescents.

Methods A multi-stage stratified cluster sampling method was used to select 9616 adolescents in four provinces of China from September 2022 to March 2023. The general demographic questionnaire, IGDS9-SF, SCS-R and PHQ-15 were used to collect data. pearson correlation analysis was used to analyze the correlation between variables, and the SPSS 26 Process 3.5 plug-in was used to test the mediating effect between variables.

Results The score for adolescent internet gaming disorder was 14.44±6.454, internet social connection scored 77.64±11.918, real-life social connection scored 84.89±16.099, and somatic symptoms scored 3.461 (0, 8.077). Pearson correlation analysis indicated a significant positive correlation between internet gaming disorder and physical symptoms (r=0.203, P<0.05). Internet social connection (r=-0.084, P<0.05) and real-life social connection (r=-0.305, P<0.05) negatively influenced physical symptoms. Real-life social connection、the difference between real-life and internet social connection scores partially mediated the relationship between internet gaming disorder and physical symptoms, with effect sizes accounting for 43% and 31%, respectively.

Conclusion Internet gaming disorder in adolescents negatively affects somatic symptoms, and good social connection as a mediating variable can improve this effect

关键字：Internet gaming disorder; Social bonding; Somatic symptoms; Mediation analysis

110 例不同地区汉、维族酒依赖患者及对照宏基因组学分析结果

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目的 探究不同地区、民族酒精使用障碍患者肠道微生物组群差异比较。

方法 对既往于湖南地区就诊的汉族酒依赖的患者和性别年龄匹配的健康对照组，以及新疆地区就诊的汉族、维吾尔族酒依赖的患者和性别年龄匹配的健康对照组，分别采集临床信息及生物样本信息进行宏基因组学分析。

结果 长期酒精依赖会导致菌群 alpha 多样性显著下降；门水平上，放线菌门在汉、维族酒精依赖人群中显著降低；属水平上，双歧杆菌属在汉、维族酒精依赖人群中显著降低；种水平上，艾克曼菌在汉族酒精依赖人群中显著降低，梭状芽孢杆菌在汉、维族酒精依赖人群中显著增加；长链脂肪酸、赖氨酸生物合成在汉、维族酒精依赖人群中显著降低；汉族人群的种水平菌群 beta 多样性与谷草转氨酶、谷氨酰转肽酶有关联，而维族人群与总胆红素、间接胆红素有关联；肠球菌在汉族人群中与直接胆红素、总胆红素、谷草转氨酶和谷氨酰转肽酶呈正相关，在维族人群中与临床指标无相关性。

结论 1.汉、维族酒精依赖人群与对照组人群之间的肠道微生物群组成存在差异；2. 双歧杆菌属在汉、维族酒精依赖人群中显著降低；3.汉、维族酒精依赖患者肝损伤均跟长链脂肪酸减少、赖氨酸生物合成降低相关。

关键字：酒精使用障碍 肠道菌群 民族

The Latent Profile Analysis of Chinese Adolescents' Gaming Disorder: Examination and Validation

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Objective Gaming disorder is a new disease, which

is included in the disease unit of disorder caused by addiction in the 11th revision of the International Classification of Diseases. This study examined the symptom characteristics of gaming disorders in Chinese adolescents using the latent profile analysis.

Methods Totally, 5988 students (including 3285 boys and 2703 girls; aged 12-18 years) from junior high schools and senior high schools were enrolled. The Gaming Disorder Symptom Questionnaire-21 (GDSQ-21) was used to screen gaming disorder. A latent profile analysis was used for classifying the subgroups (i.e., latent profiles) based on the extent of gaming usage. The relationship between adolescent gamers and demographic variables was analyzed by logistic regression.

Results The results of latent profile analysis supported the models of four latent profiles, which were defined as "healthy gamers" (Profile 1, 56.83%), "impaired control gamers (Profile 2, 26.09%)", "impaired control-game priority gamers (Profile 3, 9.72%)" and "gamers with disorder (Profile 4, 7.36%)", respectively. Logistic regression analysis found that, compared with healthy gamers, older adolescents and boys were more likely to be classified into the group dominated by uncontrolled gaming.

Conclusion This study highlighted that the latent profile analysis identified four different groups of adolescent gamers, showing a clearer conceptualization of heterogeneous gamers. Gender, age and average daily gaming time can predict the latent profile of adolescents. Our findings may facilitate the design of individualized assessment and early intervention programs for adolescent gamer users based on different gaming usage symptoms.

关键字：latent profile analysis; Chinese adolescents; gaming disorder.

BLA→CLA 神经投射调控大鼠尼古丁 CPP 复燃

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目的 尼古丁是烟草引起成瘾的主要成分之一，其所带来的奖赏效果与烟草使用的相关环境或者特定线索可形成一种强烈的奖赏记忆，而这种奖赏记忆会在大脑内长期储存。大脑屏状核（Claustrum, CLA）参与调控奖赏、决策、记忆及意识等与成瘾非常相关的一些大脑功能，说明其可能是调控药物成瘾行为的一个重要脑区。CLA 接受大脑基底外侧杏仁核（Basolateral amygdala, BLA）的投射，后者在药物奖赏记忆中发挥重要作用。然而，目前对 BLA→CLA 这个神经投射所介导的脑功能并不完全清楚，对于其是否调控尼古丁奖赏记忆也不明确。本研究以大鼠尼古丁诱导的条件位置偏爱（conditioned place preference，CPP）为动物模型，研究 BLA→CLA 神经投射在尼古丁成瘾记忆中作用及机制。

方法 建立大鼠尼古丁 CPP 后进行消退，然后给予足底电击或者尼古丁进行 CPP 点燃测试；通过 c-Fos 荧光免疫标记分析尼古丁 CPP 点燃后投射到 CLA 的 BLA 神经元的活性；通过光遗传抑制 BLA→CLA 神经投射，观察对足底电击和尼古丁诱导的尼古丁 CPP 点燃的影响。

结果 足底电击可以诱导高剂量尼古丁剂量（0.75 mg/kg，i.p.）训练的尼古丁 CPP 的点燃，但不能点燃低剂量尼古丁（0.1、0.3、0.5 mg/kg，i.p.）训练的 CPP。药物诱导的尼古丁 CPP 点燃后，投射到 CLA 的 BLA 神经元的 c-Fos 表达未见明显增高。但是，通过光遗传学方法抑制 BLA→CLA 神经投射能抑制足底电击引起的尼古丁 CPP 点燃，且可能部分抑制尼古丁诱导的 CPP 点燃。

结论 抑制 BLA→CLA 神经投射可降低足底电击和尼古丁引起的尼古丁 CPP 点燃。该结果可能有助于理解尼古丁复吸的神经机制，为吸烟成瘾的治疗提供新思路。

关键字：屏状核；基底外侧杏仁核；尼古丁复吸；条件位置偏爱；神经环路

Effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) in Treating Benzodiazepine Dependence: A Randomized Controlled Trial Based on Chinese Patients

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Objective This study aimed to preliminarily verify the effectiveness of repetitive transcranial magnetic stimulation (rTMS) in treating benzodiazepine dependence.

Methods A randomized controlled trial was conducted to evaluate the efficacy of rTMS combined with conventional treatment for benzodiazepine dependence. The treatment changes in clinical features such as anxiety, depression, and sleep quality in patients with benzodiazepine dependence were observed. A total of 40 inpatients who met the inclusion criteria were collected, and related scale assessments were performed before admission, including the Hamilton Anxiety Rating Scale (HAMA), the Montgomery-Asberg Depression Rating Scale (MADRS), and the Pittsburgh Sleep Quality Index (PSQI). Subjects were randomly divided into two groups: the conventional treatment group received diazepam injections once a day (dose of 10-15mg), gradually reduced according to the patient's condition until discontinued. After admission, the conventional treatment group received supportive psychological therapy once a day for two weeks while receiving drug treatment, including conveying information about benzodiazepine dependence and withdrawal and methods to relieve anxiety and use benzodiazepines rationally. The control group received conventional treatment for two weeks, and the experimental group received rTMS treatment based on the control group, conducted 5 times a week

for two weeks. The subjects were assessed with the above scales at the end of the 2nd, 4th, 8th, and 12th weeks of treatment. The changes in scale scores before and after treatment and the differences between the two groups were compared to evaluate the effectiveness of the two treatments.

Results Comparison of results before and after treatment showed that the MADRS, HAMA, and PSQI total scores of the conventional treatment group were significantly reduced at the ends of the 2nd, 4th, 8th, and 12th weeks (P<0.05); the MADRS, HAMA, and PSQI total scores of the conventional treatment + rTMS group were significantly reduced at the ends of the 2nd, 4th, 8th, and 12th weeks (P<0.05). The comparison results of the two groups showed that at the end of the 8th and 12th weeks, the MADRS, HAMA, and PSQI total scores of the conventional treatment + rTMS group were lower than those of the conventional treatment group (P<0.05).

Conclusion Both conventional treatment and combined rTMS could improve depression, anxiety, and sleep quality in patients with benzodiazepine dependence to some extent. Compared with conventional treatment, the improvement of depressive symptoms, anxiety, and sleep quality by rTMS combined treatment is more rapid, and the effect is obvious at the end of the 8th week and lasts until the end of the 12th week. Compared with traditional conventional treatment, rTMS application based on conventional treatment may be a more effective treatment method with a better long-term prognosis.

关键字：Repetitive Transcranial Magnetic Stimulation; Benzodiazepine Dependence; Physical Therapy; Substance Dependence Treatment

基于脑网络的药物使用障碍冲动性预测因子

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目的 药物成瘾是全球范围内的严重精神疾病和社会问题，寻找有效预测临床特征的神经生物标记至关重要。本研究旨在探究药物使用障碍患者的冲动行为与脑功能连接异常的关系，并研究不同药物使用障碍之间是否存在一致的冲动性脑功能异常模式。

方法 本研究采用连接组预测模型（Connectome-based predicting model, CPM）筛选了能够预测可卡因和甲基苯丙胺的冲动行为评分（Barratt Impulsivity Scale-11 中文版量表）的 4 个预测因子，并使用机器学习方法验证了这些因子是否是可卡因和甲基苯丙胺使用障碍的共病神经基础。数据集包含 42 名可卡因物质使用障碍和 63 名戒断低于一年的甲基苯丙胺物质使用障碍受试者。数据集被分为训练集和测试集，并采用 5 折交叉验证评估模型性能。

结果 研究结果显示，虽然能够识别出与可卡因和甲基苯丙胺使用障碍相关的冲动行为的预测因子，但无法仅依据这些因子将两组人群成功分类。多层感知机、支持向量机、决策树和随机森林等机器学习方法均不能准确地根据冲动性预测因子将可卡因和甲基苯丙胺使用障碍人群区分开。其中，多层感知机分类准确率为 52.38 %，支持向量机分类准确率为 61.90 %，决策树分类准确率为 58.10%，随机森林分类准确率为 58.10 %。

结论 本研究揭示了药物使用障碍患者的冲动行为与脑功能连接异常的相关性，并提示了不同药物使用障碍之间可能存在相似的冲动性脑功能连接模式。这些发现对于开发新的治疗干预措施具有重要意义，并为药物成瘾的预防和治疗提供更有效的方法提供了指导。进一步的研究可以深入探索不同药物使用障碍的神经机制。

关键字：关键词：可卡因、甲基苯丙胺、冲动、功能连接、静息态功能磁共振

Exploring The Cooperation between China and Iran in The Field of Addiction Medicine: Opportunities, Challenges, and Strategies

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Addiction is a global public health and social issue that presents unique challenges in different cultural and social contexts. With the launch of China's "Belt and Road" initiative, there is an increasing momentum in medical and health cooperation between China and Iran. Exploring the potential collaboration between the two countries in the field of addiction medicine can provide new opportunities for the development of global addiction science and help address global addiction issues. After conducting research on the resources, talents, culture, and legal environments in the field of addiction medicine in China and Iran, and incorporating the opinions of addiction medicine experts from both countries, we have analyzed the challenges of collaboration. These challenges include differences in resources, talent bottlenecks, culture, and legal environments. China and Iran both have a long history of traditional treatment experience in the field of addiction medicine, and

China's Belt and Road Initiative provides opportunities for collaboration between the two countries. However, there are still obstacles to overcome. The main challenge is the difference in resources, including imbalances in research facilities, technology, and funding. Both countries also face talent bottlenecks and require more professionals to support the development of addiction medicine. Additionally, differences in culture and legal environments need to be addressed. To promote collaboration between China and Iran in the field of addiction medicine, we recommend strengthening resource development. This includes improving research facilities and technological levels, as well as increasing funding. Furthermore, enhancing mutual understanding and communication would help mitigate cultural differences. The formulation of cooperation plans in accordance with laws and regulations would provide clear guidance and protection for collaboration. Additionally, we suggest exploring the integration of traditional medicine with modern treatment methods to provide more treatment options. This collaboration will contribute to the advancement of the discipline of addiction and treatment methods, and serve as a reference and guidance for other countries.

关键字：addiction medicine, China-Iran cooperation, innovative cooperation models, addiction treatment, addiction prevention

大学生电子烟使用者抑郁倾向影响因素的研究

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目的 近几年，国际上大学生电子烟的使用大幅增加。电子烟最初被提议作为成人戒除传统香烟的辅助手段，但它却变成了诱发开始吸烟的催化剂；电子烟使用同时导致了抑郁的发生，为减少电子烟使用者抑郁倾向的发生与干预，本研究调查大学生电子烟使用者抑郁倾向发生的现状，探讨其与强化敏感性及自我控制之间的关系。

方法 2023 年 1～3 月，抽取安徽 5 所大学 9904 名学生，其中电子烟使用者 352 名，不吸烟者 9552 名，采用一般情况调查表和电子烟使用情况调查表、行为抑制/行为激活量表（BIS-BAS 量表）、自我控制双系统量表中文版（Dual-ModeofSelf-Control scale，DMSC-S）、抑郁症筛查量表（PHQ-9）等测量大学生电子烟使用、抑郁发生情况及强化敏感性及自我控制的情况，分析其相关关系，行为抑制系统得分代表惩罚敏感性，行为激活系统得分代表奖赏敏感性。

结果 大学生电子烟使用率 3.6%，可能有轻度或中度以上抑郁表现的占 54.4%。电子烟用户组 PHQ-9 得分显著高于不吸烟对照组（t=10.935，P<0.001），行为抑制得分（t=-7.216，P<0.01）、行为激活-奖赏（t=-9.499，P<0.01）、行为激活-驱力（t=-6.070，P<0.01）、行为激活-愉悦奖赏得分（t=-3.510，P<0.01）、自我控制总分（t=-5.318，P<0.01）均显著低于不吸烟对照组。电子烟使用者的抑郁倾向与行为抑制（r=0.308，P<0.05）、行为激活-驱力（r= 0.238，P<0.01）、行为激活-愉悦奖赏（r=0.282，P<0.05）呈显著正相关，与行为激活-奖赏（r=-0.204，P<0.01）、自我控制总分（r=-0.236，P<0.05）显著负相关。回归分析显示，行为抑制对抑郁倾向有显著正向预测作用，行为激活-奖赏、自我控制总分对抑郁倾向有显著负向预测作用（F=14.740，P＜0.001）。

结论 大学生电子烟使用者比例较高，可能与抑郁倾向增加有关。吸电子烟可使人的强化敏感性降低，其中惩罚敏感性高、奖赏敏感性低以及自我控制能力差的电子烟用户，发生抑郁倾向的可能性更大。行为抑制、行为激活-奖赏、自我控制总分是大学生电子烟使用者抑郁倾向的影响因素。

关键字：电子烟；抑郁；强化敏感性；自我控制

美沙酮维持治疗患者生命质量及其影响因素研究

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目的 对美沙酮维持治疗（MMT）患者的生命质量进行调查并分析其影响因素，为提升美沙酮维持治疗服务质量提供依据。

方法 从 2019 年 5 月到 12 月在广州医科大学附属脑科医院 MMT 门诊接受美沙酮维持治疗的 197 例患者完成了自制调查问卷、阿片类稽延性戒断症状评定量表（OP）、海洛因渴求问卷（HCQ）、贝克焦虑量表（BAI）、贝克抑郁量表（BDI）、匹兹堡睡眠质量指数（PSQI）和药物成瘾者生命质量量表（QOL-DA）。先后使用单因素线性回归和用多因素线性回归分析其生命质量及其 4 个维度的影响因素。

结果 在生命质量影响因素方面，单因素分析结果提示，MMT 中断次数和 OP、HCQ、BAI、BDI、PSQI 总分是影响患者生命质量及其四个维度的共同的主要因素（P＜0.05）。MMT 是否中断仅是影响躯体功能的主要因素（P＜0.05），目前美沙酮治疗剂量（21~100mg vs.20mg 及以下）可能是影响生命质量及其躯体功能、心理功能、社会功能 3 个维度的主要因素（P＜0.05）。进一步多因素线性回归分析表明，MMT 中断次数、OP、HCQ、BAI、PSQI 总分是影响 MMT 患者生命质量的主要因素；OP、BAI、PSQI 总分是影响 MMT 患者躯体功能的主要因素；OP、HCQ、BAI 总分是影响 MMT 患者心理功能的主要因素；OP、HCQ、BDI、PSQI 总分是影响 MMT 患者社会功能的主要因素；MMT 中断次数、OP、HCQ、BAI、BDI 总分是影响 MMT 患者戒毒症状及毒副作用维度的主要因素；以上差异有统计学意义（P＜0.05）。

结论 MMT 中断次数、稽延性戒断症状、渴求、焦虑、睡眠质量是 MMT 患者生命质量的主要影响因素。

关键字：美沙酮维持治疗、生命质量、稽延、渴求、

心理、影响因素

妇女精神医学学组

新冠疫情下儿童青少年强迫症状的识别

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目的 强迫症状（obsessive-compulsive symptoms，OCS）是强迫症的亚临床状态，儿童青少年 OCS 十分普遍，症状持续时间较长，相关研究指出在新冠疫情（COVID-19）期间一部分儿童青少年经历了强迫症状的恶化。本文通过对新冠疫情下儿童青少年强迫症状识别情况和识别工具的最新进展进行综述，为国内儿童青少年强迫症状提供不同角度的识别方法，及时进行干预，防止其进一步恶化为强迫症，为应对未来传染疾病带来的心理健康困扰提供参考。

方法 本文中使用系统审查方法来总结其他研究得出的最新学术成果，于 2023 年 5 月搜索电子数据库，主要包括：NCBI PubMed、Google Scholar、百度学术、中国知网。本文综述共包含 60 篇，包括病例报告、临床研究文章和评论等。

结果 本研究主要从三个方面对新冠疫情时期儿童青少年强迫症状的识别进行综述，即症状变化、识别情况、识别工具。在症状变化上，儿童青少年强迫症状在新冠期间经历了恶化，尤其是污染相关的强迫思维和清洁相关的强迫行为。相关流行疾病研究认为强迫症状恶化不会随着紧急状态的结束而立刻停止，而可能会在一段时间内继续恶化；在识别情况上，儿童青少年本身的发育限制和新冠疫情带来的大范围恐惧导致识别的困难；在识别工具上，本文总结了近年来国内外针对新冠疫情下儿童青少年的八个量表，包括国内应用较广的量表（莱顿强迫量表 LOI-CV）、国外应用较广的量表（儿童耶鲁布朗量表 CY-BOCS）、较好识别清洁和污染强迫症状的筛选工具（强迫量表儿童版 OCI-CV）、可以快速识别症状的简便工具（佛罗里达儿童强迫量表 C-FOCI）、对治疗变化比较敏感的问卷（Maudsley 强迫问卷 MOCI）、探测灵敏度较高的改编量表（强迫八项量表 OCS-8）、评估新冠期间强迫相关的经验回避的量表（新冠强迫症接受和行为问卷 AAQ-OCD-COVID），新冠期间可以评估强迫相关症状的压力问卷（COVID-19 压力量表，CSS），这些量表用于新冠疫情期间青少年儿童强迫症状的筛选，区分普通人的恐惧和强迫性恐惧。

结论 本综述发现，在新冠疫情期间，青少年儿童的强迫症状经历了恶化，并且不会随着紧急状态结束就立刻停止。新冠疫情给识别强迫症状带来了新挑战，为了青少年儿童的身心健康发展，早期识别强迫症状尤其重要。

关键字：新冠疫情；强迫症状；儿童青少年

贝克认知自知力量表（BCIS）中文版的信效度研究

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目的 对贝克认知自知力量表（Beck Cognitive Insight Scale, BCIS）进行汉化翻译，并对其中文版进行因子分析，信效度检验以及差异显著性检验，试图探寻该量表在我国文化背景下的可实施性，以期为国内开展认知自知力临床科研工作提供有效的测量工具。

方法 以精神分裂症患者的认知自知力及其他相关认知功能为研究核心，参考国内外信效度检验的文献以及目前有关精神分裂症认知自知力的最新研究，通过翻译、修订、回译而最终形成中文版 BCIS 后，在精神分裂症患者中进行施测，同时使用阳性与阴性症状量表（PANSS）、自知力评估量表（SUMD）、元认知问卷（MCQ-30）及简明精神状态量表（MMSE），分别评估被试的精神病性症状、自知力、元认知和神经认知功能，以检验 BCIS 中文版的信效度水平。

结果 对已收集的量表资料进行探索性和验证性因子分析，结果显示 BCIS 中文版符合英文原版的两因素模型，即自省性 9 个条目，自负性 6 个条目。其内部一致性信度、重测信度、结构效度、聚合效度、区分效度均达到显著性水平。关联效度方面，自省性与 PANSS 中阴性症状、一般精神病理症状、G2 焦虑、G6 抑郁之间呈显著正相关，与阳性症状、G12 判断和自知力缺乏之间呈显著负相关；自负性与 PANSS 中阴性症状、G2 焦虑之间呈显著正相关，与 G12 判断和自知力缺乏呈显著负相关；复合分与一般精神病理症状、G2 焦虑、G6 抑郁之间呈显著正相关，与阳性症状、G12 判断和自知力缺乏之间呈显著负相关。自省性和复合分与 SUMD 各维度及总分之间均呈显著负相关。除复合分与 MCQ-30 中认知性自我意识之间无显著相关外，自省性和复合分与 MCQ-30 各维度及总分之间呈显著正相关。自省性与 MMSE 中定向力、注意力和计算力、语言能力及总分之间呈显著负相关；自负性与 MMSE 各维度及总分均无显著相关；复合分与定向力、注意力和计算力、语言能力、总分之间呈显著负相关。差异显著性检验方面，精神分裂症患者和正常人群的自省性得分、

结论 经汉化后得到的中文版 BCIS 具有良好的信度和稳定的结构效度，各因子间的聚合效度和区分效度较为理想，关联效度和临床效度均良好，表明认知自知力的二因子模型具有可接受的计量心理学特征，BCIS 中文版可推广应用于中国大陆文化背景下精神分裂症患者认知自知力的量化评估，以考量心理治疗对精神分裂症患者的适用性。

关键字：精神分裂症；贝克认知自知力量表；信度；效度

Efficacy and Safety of Antidiabetic Agents for Major Depressive Disorder and Bipolar Depression: A Meta-analysis of Randomized, Double-blind, Placebo-controlled Trials.

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Objective This meta-analysis aimed to determine the efficacy and safety of antidiabetic agents in the treatment of major depressive disorder and bipolar depression.

Methods Randomized controlled trials (RCTs) of antidiabetic agents in major depressive disorder and bipolar depression were searched in three electronic databases and three clinical trials register websites from their inceptions up to September 2020. The differences in changes in depression scores from baseline to endpoint or pre-defined sessions, response rate and remission rate between antidiabetic agents and placebo were meta-analyzed. Side effects and dropout rates were compared. The risk of bias was assessed using the Cochrane tool. Subgroup analysis were conducted to identify heterogeneity.

Results A meta-analysis of 7 studies found that antidiabetics didn't outperform placebo in reducing depressive symptoms from baseline to endpoint with a standardized mean difference of 0.42 (95% CI -0.02 to 0.86). However, subgroup analysis found a significant difference of 1.09 (95% CI 0.76 to 1.42) between antidiabetics and placebo in reducing depressive symptoms in Middle East populations. The heterogeneity was 75% which might be caused by region difference between each included study. There were no significant differences in side effects or dropout rates.

Conclusion The current meta-analysis does not support the efficacy of antidiabetics in the treatment of unipolar and bipolar depression. However, subgroup analysis indicates that patients from the Middle East may benefit from adding an anti-diabetic medication to their ongoing medication(s). Larger studies with good quality are warranted. High heterogeneity and a small sample size limited the interpretation of the results.

关键字：Bipolar disorder, Depression, Antidiabetic, Meta-analysis.

Changes in Core Depressive Symptoms over Time in Peripartum Women: A Network Analysis.

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Objective Perinatal depression (PND) is common in pregnant and postpartum women. Previous research indicates that there are clinical subtypes of PND, and the

time of onset is an important factor to identify PND subtypes. However, differences of PND in different trimesters and in the postpartum period are not clear. And studies examining core symptoms that could be used to identify PND subtypes are lacking.

Methods Women during the second (N = 161) and third trimesters (N = 248) and within 6 weeks postpartum (N = 110) were recruited. All participants completed the assessment of the Edinburgh Postnatal Depression Scale. Network analysis was used to explore the relationships between depressive symptoms in all three periods.

Results Postpartum women showed the highest prevalence of PND and the most severe depressive symptoms. The symptom 'Sadness and misery' had the strongest centrality in both the second and third trimesters, but decreased in the postpartum period. The symptom 'Fear and panic' had the strongest centrality in the postpartum period. All three PND networks were relatively stable in strength and closeness.

Conclusion This study indicated the changes over time in central symptoms in pregnant and postpartum women, which shifted from being dominated by depression to being dominated by anxiety. Our findings suggested that more symptom-specific interventions should be used to improve the mental health of mothers, fetuses and infants. All of this provided clinical evidence to investigate the biological mechanisms of PND subtypes to help diagnose and treat PND with precision.

关键字：perinatal depression; different periods; central symptoms; network analysis; subtype

伴有混合性特征心境障碍患者的 1 年随访研究

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目的 探讨DSM-5界定的伴有混合性特征抑郁症和双相障碍的临床现象学、疾病转归及相关危险因素。

方法 对 361 例伴和不伴混合性特征抑郁症和双相障碍患者进行为期 1 年的前瞻性随访研究，在入组后第 3、6、12 个月末 3 个时点进行疗效和结局等相关评估。

结果 抑郁症和双相障碍患者中，伴有 DSM-5 界定的混合性特征的发生率为 9.4%（34/361），伴有广义混合性特征的发生率为 41.8%（151/361）。 与不伴混合性特征组相比，伴有 DSM-5 界定的混合性特征组：非已婚状态更多见（70.6% vs 42.5%，P=0.00），起病年龄更早（25.97±13.29vs 33.75±14.80，P=0.00），HAMD-17 评分更低（24.03±3.55vs 25.57±4.32，P=0.05），更少伴有忧郁特征（42.4% vs 64.0%，P=0.02），1 年的痊愈率更低（28.1% vs 51.3%，P=0.01）、复发率更高（43.8%vs 25.0%，P=0.02）、转相率更高（40.6%vs9.0%，P=0.00）、服药依从性更差（31.3% vs 68.8%，P=0.00）。 对于伴有广义混合性特征的抑郁症和双相障碍患者，复发的危险因素为持续性抑郁障碍（OR=3.90，P=0.02）、伴有自杀观念（OR=2.27，P=0.05）及程度更轻的焦虑（OR=0.71，P=0.02）。转相的危险因素为既往发病次数少（OR=0.77，P=0.02）。

结论 伴有混合性特征的抑郁症和双相障碍是一种更严重、预后更差的疾病亚型，临床上并不少见，需要引起重视。

关键字：抑郁症，双相障碍，混合性特征，随访研究

Effect of Melatonin on Learning and Memory in Drug-free Patients with Schizophrenia: Path Analysis Based on Structural Equation Model

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Objective The primary objective of this study is to shed light on the interconnected pathways linking melatonin and the cognitive capacities of drug-free patients with schizophrenia, to identify potential targets for intervention that could enhance the learning and memory abilities of schizophrenia patients.

Methods This study included a total of 108 individuals diagnosed with schizophrenia and 109 healthy individuals as controls. The symptomology of the schizophrenia patients was evaluated using the Positive and Negative Symptom Scale (PANSS). To assess subjective sleep quality over the past month, the Pittsburgh Sleep Quality Index (PSQI) was employed. The patient's learning and memory abilities were measured using the Hopkins Verbal Learning Test-Revised (HVLT-R) and Brief Visuospatial Memory Test-Revised (BVMT-R). The concentration of melatonin in saliva at 02:00 under dim light conditions was determined using ELISA for all participants. Structural equation modeling was conducted to investigate the relationship between melatonin levels and learning and memory abilities. The goodness of fit of the model was evaluated using the chi-square/degree of freedom ($\chi 2$/df), goodness-of-fit index (GFI), root mean square error of approximation (RMSEA), comparative fit index (CFI), normal fit index (NFI), and non-normal fit index (NNFI). A good fit was defined as $\chi 2$/df being less than 5, RMSEA less than 0.08, and GFI, CFI, NFI, and NNFI greater than 0.95. Based on the goodness of fit, the model was adjusted and fitted again to determine the optimal model.

Results The findings of the study revealed that individuals diagnosed with schizophrenia exhibited decreased melatonin levels during nighttime in comparison to the healthy control group. The final model analysis demonstrated two indirect pathways. The first pathway displayed a significant relationship between melatonin and PANSS scores (Z=-2.42, p=0.016), as well as between PANSS scores and verbal learning (Z= -2.76, p=0.006). The second pathway indicated a significant association between melatonin and PSQI scores (Z=-12.36, p< 0.001), PSQI scores and verbal learning (Z=-2.28, p=0.023), and PSQI scores and visual learning (Z= -4.18, p< 0.001). The

fitting of the final model was evaluated using various indices, including χ2/df=2.51, GFI=0.981, RMSEA=0.119, CFI=0.958, NFI=0.953, and NNFI=0.960.

Conclusion The relationship between melatonin and cognitive performance in drug-free individuals with schizophrenia was examined, revealing a possible indirect influence through psychotic symptoms or sleep quality. These findings suggest that melatonin could serve as a potential target for intervention aimed at enhancing cognitive function among patients diagnosed with schizophrenia.

关键字：Schizophrenia; Melatonin; Cognitive function; Structural equation modeling

精神分裂症患者视网膜视神经纤维层结构与微小血管异常及其影响因素研究

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目的 精神分裂症患者视觉感知及认知严重受损，进而影响患者的现实检验能力、社会功能与人际交往。精神分裂症已渐被认识是脑神经网络发育过程中出现异常。而视网膜与大脑发育同源，是中枢神经外延部分，视网膜结构紊乱可能导致精神分裂症患者视觉信息处理错误、退化或屏蔽困难。本研究旨在发现精神分裂症患者视网膜视神经纤维层与视网膜微血管特定损伤区域，并分析影响因素，以期对于精神分裂症早期发现，早期干预。

方法 本研究属于大样本横断面研究，主要是采用光相干断层扫描（Optical Coherence Tomography，OCT）观察并测量精神分裂症患者视盘与黄斑区的视神经纤维层（Retinal nerve fiber layer ,RNFL）层厚，分析视网膜 RNFL 异常结构特征。并采用眼底数字摄影进行眼底微血管照片采集，使用 ImageJ 软件测量并分析视网膜微血管直径异常特征。比较分析在精神分裂症发病群体中该 RNFL 层厚及微血管直径异常与正常对照组之间的差别；分析精神分裂症的认知功能损伤与视网膜 RNFL 特定损伤区域的相关性。对与神经发育有关的睫状神经营养因子（Ciliary neurotrophic factor ,CNTF）及与血管发育有关的血管内皮生长因子(vascular endothelial growth factor ,VEGF)进行血清学含量测定，分析 CNTF 与 RNFL 厚度，VEGF 与视网膜微血管直径的相关性。

结果 本研究发现精神分裂症患者组与正常对照组相比 RNFL 厚度有明显的变薄。RNFL 厚度随着病程的迁延而逐渐变薄，而在较低的血清 CNTF 浓度下，其 RNFL 变薄愈加明显。RNFL 厚度下降意味着神经元细胞的丢失，这种改变可能导致精神分裂症认知水平持续下降。精神分裂症患者视网膜微静脉扩张较为明显，并且在有阳性家族史的患者中该变化更加显著。

结论 精神分裂症患者 RNFL 厚度的减少可能是神经元凋亡的一个生物标志物。RNFL 厚度的降低与精神分裂症患者的认知受损密切相关。视网膜微静脉扩张可能是与神经外胚层发育异常相关，推测其可能为精神分裂症的潜在的内表型。本研究可为视网膜视神经及微血管结构在精神分裂症疾病中的作用及发病机制提供更多的新的潜在的证据。

关键字：精神分裂症，视网膜微小血管，视神经纤维层

改良中医情绪疗法（MTET）对精神分裂症患者情感症状疗效及社会功能改善的多中心随机对照研究

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目的 评估改良中医情绪疗法（Modified TCM Emotional Therapy， MTET）对精神分裂症患者的情感症状的疗效及社会功能的改善。

方法 将符合 DSM-5 精神分裂症诊断标准、伴有抑郁或焦虑症状的患者，采用随机区组法分为 MTET 组及对照组，MTET 组给予 MTET 治疗，对照组给予常规支持性心理治疗，两组均为每周治疗 1 次（30～40 分钟），疗程均为 12 周。两组均在治疗前、治疗 4、8、12 周末进行 HAMD-17、HAMA 评定，在治疗前及第 12 周末进行中医症候量表（TCMQ）、社会功能（PSP）及生活质量（SQLS）比较。

结果 两组在治疗前各量表总分比较均无统计学差异（P>0.05）；在治疗 4、8、12 周末，MTET 组 HAMD-17 总分、HAMA 总分均低于对照组(P＜0.05 或 0.01)；MTET 组在治疗 4、8、12 周末本组前后比较，上述各量表总分均明显降低(P＜0.05 或 0.01)；12 周末 MTET 组 TCMQ、PSP、SQLS 总分明显改善，显著优于对照组（P<0.01、P<0.05）。

结论 MTET 对精神分裂症患者的抑郁焦虑情感症状有很好的疗效，而且能改善其社会功能、提高其生活质量。本研究采用 MTET 对伴有抑郁焦虑情感症状的精神分裂症患者进行干预，观察对其情感症状及社会功能的影响，以期拓展改良中医情绪疗法的应用，为伴有情感症状的精神分裂症患者提供一种新的治疗方法。

关键字：精神分裂症；情感症状；抑郁焦虑症状；改良中医情绪疗法；社会功能

ICU 危重症患者心理健康状况影响因素分析及基于家庭赋权护理的心理干预效果研究

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目的 通过问卷调查方法了解 ICU 危重症患者心理健康状况，并分析其影响因素，进一步探讨基于家庭

赋权护理在 ICU 危重症患者中的应用效果，以期为患者提供更好的护理服务。

方法 选择 2022 年 2 月-9 月入住 ICU 危重症患者 500 例患者为对象，根据纳入与排除标准筛选出 184 名患者为研究对象，以 2022 年 2 月至 5 月 ICU 患者 92 例为观察组，2022 年 6 月至 9 月 ICU 患者 92 例为对照组。对照组采用常规护理，观察组采用联合基于家庭赋权护理的心理护理干预方法，两组均完成 2 周护理干预，比较两组焦虑自评量表（SAS）、抑郁自评量表（SDS）评分、应对方式、心理弹性、生活质量、治疗依从性及满意度。

结果 ICU 危重症患者躯体化、焦虑、抑郁、恐惧、敌对及偏执总分高于量表正常值（P<0.05）；基于家庭赋权护理干预的观察组护理 2 周后 SAS、SDS 评分低于对照组（P<0.05）；观察组心理弹性、积极应对、生活质量、治疗依从性及满意度评分均高于对照组（P<0.05）；消极应对评分低于对照组（P<0.05）。

结论 ICU 危重症患者心理健康状况，可能的影响因素包括：年龄、文化程度、ICU 住院时间、插管数量、机械通气天数、是否使用镇静药物等；基于家庭赋权护理的心理护理应用于 ICU 危重症患者中，有助于降低患者负性情绪，提升患者积极应对方式，提高患者生活质量，从而获得较高的依从性和满意度。

关键字：危重症患者；心理健康；影响因素；家庭赋权护理；心理护理

Dynamic Changes in Psychological Symptom Network Among Medical Students During The COVID-19 Pandemic: A Two-Year Mixed Longitudinal Study

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Objective The COVID-19 pandemic is a significant event in human history, but research on its long-term impact on mental health is lacking. To understand how this global crisis has affected individuals' psychological well-being, we conducted a mixed longitudinal study. Our aim was to examine the changing patterns of psychological issues during the pandemic.

Methods Over two years, from March 2020 to March 2022, we conducted a study with 52,194 students from a single college. They underwent five psychological screenings, allowing us to track the severity of depression, anxiety, insomnia, and stress symptoms over time. We also constructed networks of symptoms at each time point to identify the dynamic changes of central symptoms and bridge symptoms.

Results The peak of psychological symptom severity did not occur during the initial phase of the pandemic, characterized by lockdown and online learning at home (T1). "Restlessness" emerged as the most central symptom during this period. However, the most severe symptomatology was observed when students were on-campus during lockdown (T2 and T3), with "Sleep dissatisfaction" as central symptoms. As restrictions were lifted and students returned to campus (T4), there was an improvement in symptoms, and the central symptom shifted to "Noticeability of sleep problems by others." However, during the re-emergence of the epidemic and subsequent on-campus lockdown (T5), symptoms experienced a slight worsening, with "Upset by something happening unexpectedly" becoming the central symptom.

Conclusion Our study reveals that psychological symptoms during the COVID-19 pandemic show a delayed peak, with a focus on addressing physical symptoms initially. Prolonged campus lockdown exacerbates psychological distress, particularly sleep dissatisfaction, which should be targeted in interventions. Perceived stress among students plays a significant role in later stages. Psychological symptoms fluctuate throughout different pandemic stages, requiring tailored interventions for central symptoms at specific times. These findings inform mental health interventions during significant events and provide policy recommendations for the future.

关键字：COVID-19; Psychological Symptom Network; Mixed Longitudinal Study

The Differential Methylation Analysis of Gene on Cerebral Cortex GABAergic Pathway in Major Depressive Disorder

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Objective GABA is the primary inhibitory neurotransmitter in the cortical interneurons of the brain and plays a crucial role in regulating complex emotional and cognitive processes. Dysfunction in the GABAergic pathway is believed to contribute to the pathophysiological mechanisms of MDD. However, the exact mechanisms are not yet fully understood. DNA methylation, one of the widely studied epigenetic modifications, can reflect the interaction between environmental and genetic factors. This study aims to elucidate the significant role of DNA methylation of genes on the Cerebral Cortex GABAergic pathway in the molecular mechanisms of MDD by analyzing the DNA methylation levels of these genes in MDD patients.

Methods This study included a total of 42 patients who met the diagnostic criteria for MDD according to DSM-IV, as well as 86 age and gender-matched healthy controls . Blood samples were collected from both groups for genetic testing.We conducted the scanning of the 850K methylation chip using an Illumina-iScan scanner to obtain grayscale images. The resulting scan data was then preprocessed using GenomeStudio V2011 software to standardize the methylation data. We specifically focused on CpG sites of 11 genes.To analyze the data, We utilized a two-step method with SPSS 25.0 software. (1) We conducted a two-sample T-test to assess the disparities in methylation sites. False Discovery Rate correction was applied to the test outcomes for each gene. During the initial screening, potential differential methylation sites were

identified based on their statistical significance, with a corrected p-value of less than 0.05.(2) In the second step, a regression model was employed to evaluate the differential stability of the selected differential methylation sites obtained from the previous step. The methylation level value of the chosen differential methylation sites was used as the dependent variable, while the grouping information ,age and gender served as the independent variable. If a methylation site displayed significant group-related effects in the regression model, it was deemed a final differential methylation site.

Results This study investigated the methylation levels of 11 genes involved in the Cerebral Cortex GABAergic Pathway. While the DNA chip did not detect the methylation level of the ARX gene, methylation levels of 370 CpG sites from 10 genes were ultimately obtained. Through two-sample T tests and regression analyses between MDD and HC groups, the significant differences methylation levels of 37 CpG sites across five genes were determined.

Conclusion In MDD , abnormal DNA methylation levels were found in multiple genes of the Cerebral Cortex GABAergic Pathway. This further validates the GABAergic Pathway as a key biological pathway in MDD. Several sites of methylation dysregulation were identified in genessuch as CNTN2, DRD2, NKX2-1, FEZF2, and DLX1, indicating their potential involvement are involved in psychopathology of MDD.

关键字：Cerebral Cortex GABAergic Pathway,Major Depressive Disorder DNA methylation

重性抑郁障碍患者不受用药状态影响的功能网络模块间分离整合异常的研究

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目的 重性抑郁障碍（Major depressive disorder，MDD）是脑网络异常疾病，但功能网络模块间的分离整合改变尚不完全清晰。参与系数（Participation coefficent，PC）是图论的一个指标，可以提供脑网络内和网络间连接的信息，进而体现大脑网络中的模块间分离整合程度。尽管大量神经影像学研究为 MDD 功能网络的损害提供了重要基础，然而研究结果的不一致一直困扰我们对 MDD 神经影像学机制的深入理解。是否使用精神科药物是造成结果不一致的非常重要的原因。因此本研究旨在通过分析未用药 MDD 患者和用药 MDD 患者功能网络 PC 值的改变，以发现 MDD 患者不受用药状态影响的功能网络模块间分离整合的异常，为理解 MDD 的神经影像学机制提供理论依据。

方法 纳入符合 DSM-IV 中 MDD 诊断标准的未用药患者 77 人、用药患者 133 人，以及年龄、性别匹配的健康对照（Healthy control,HC）217 人，采集静息态功能磁共振和一般人口学资料。应用 Gretna 以 Glasser-360 皮层图谱的 360 个脑区为节点，构建功能网络，并计算 PC 值。应用单因素方差分析对未用药 MDD 患者、用药 MDD 患者和 HC 三组间 PC 值进行统计分析。并对检验结果进行 FDR 多重比较校正，校正后 P<0.05 认为有统计学差异。

结果 未用药 MDD 患者、用药 MDD 患者和 HC 三组方差分析结果显示：视觉网络、感觉运动网络、腹侧注意网络、额顶网络和默认网络存在 PC 值升高的脑区，事后比较分析发现，与 HC 相比，nMDD 患者和 mMDD 患者视觉网络、感觉运动网络、腹侧注意网络存在功能网络 PC 值升高的脑区，其中腹侧注意网络中 PC 值升高的脑区在两组间完全一致，视觉网络、感觉运动网络中 PC 值升高的脑区在两组间不一致。

结论 MDD 患者功能网络整合增强，主要表现在视觉网络、感觉运动网络、腹侧注意网络、额顶网络和默认网络，其中腹侧注意网络的模块间信息传输增加，模块间信息整合能力增强是 MDD 患者不受用药状态影响的稳定脑网络改变，视觉网络、感觉运动网络、额顶网络和默认网络的模块间信息整合能力增强可能受用药状态影响。

关键字：重性抑郁障碍；功能网络；分离整合

重性抑郁障碍患者脑网络模块化水平结构-功能耦合异常的研究

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目的 重性抑郁障碍（Major depressive disorder，MDD）是脑网络异常疾病，SC-FC（Structural-Functional coupling,SC-FC）耦合反映了结构-功能网络连接的一致性，能更敏感的检测大脑网络的改变。大脑不同模块可以同时分离和整合，目前没有关于 MDD 患者模块水平 SC-FC 耦合的研究报道。此外，MDD 患者脑网络研究结果的不一致对我们了解 MDD 患者脑网络改变造成困扰，是否使用精神科药物是造成结果不一致非常重要的原因。因此，本研究旨在模块水平分析 MDD 患者不受用药状态影响的脑网络 SC-FC 耦合异常，以明确 MDD 患者稳定的脑网络改变特征，为理解 MDD 的神经影像学机制提供理论基础。

方法 纳入符合 DSM-IV 中 MDD 诊断标准的患者 210 人（其中未用药患者 77 人，用药患者 133 人），以及年龄、性别匹配的健康对照（Healthy control,HC）217 人，采集高分辨率结构成像、弥散张量成像、静息态功能成像的影像数据。以 Glasser-360 皮层图谱的 360 个脑区为节点，构建结构网络和功能网络。将 360 个脑区划分为视觉网络（Visual network,VIS）、感觉运动网络、背外侧注意网络、腹侧注意网络（Ventral attention network,VAN）、边缘网络、额顶网络、默认网络 7 个模块，对每个模块的结构、功能网络分别进行皮尔逊相关分析计算 SC-FC 耦合系数。应用单因素方差分析在未用药 MDD 患者、用药 MDD 患者和 HC 三组间对 SC-FC 耦合系数进行统计分析，并进行 LSD 事后检验及 FDR 多重比较校正。校正后 p<0.05 认为有统计学差异。

结果 未用药 MDD 患者、用药 MDD 患者和 HC 三组方差分析结果显示： SC-FC 耦合系数降低，主要表现在 VIS、VAN。事后比较分析发现，与 HC 相比，未用药 MDD 患者和用药 MDD 患者 VIS、VAN 的 SC-FC 耦合系数降低，且两组患者间没有统计学差异。

结论 本研究发现未用药 MDD 患者和用药 MDD 患者 VIS，VAN 结构-功能耦合系数降低，即 MDD 患者 VIS，VAN 结构-功能一致性降低，提示 MDD 患者 VIS，VAN 较高的功能灵活性。研究发现未用药 MDD 患者和用药 MDD 患者 VIS，VAN 结构-功能耦合系数降低但在两组间没有差异，提示其可能是 MDD 的稳定脑网络改变特征。

关键字：重性抑郁障碍 ；脑网络；模块水平；结构-功能耦合

Prevalence of and Relevant Factors for Postpartum Depression and Anxiety Symptoms Among Women on The Eastern Coastal Region of China in The Post-COVID-19 Era: A Cross-sectional Study.

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Objective Postpartum depression and anxiety symptoms are common mental health issues that may negatively affect women's emotions, family relationships, career pursuits, and attachment relationships with their infant. The aim of this study is to examine the prevalence of postpartum depression and anxiety symptoms in the coastal regions of eastern China in the post-COVID-19 era, along with their influencing factors.

Methods We utilized a cross-sectional design to conduct an online survey on 1,891 postpartum women in Lianyungang City, collecting general demographic data. The Patient Health Questionnaire-9 (PHQ-9) was used to assess depressive symptoms, while the Generalized Anxiety Disorder-7 (GAD-7) was adopted to evaluate anxiety symptoms.

Results The proportions of postpartum depressive symptoms, anxiety symptoms, and comorbid depressive and anxiety symptoms reported in the study were 12.9%, 8.0%, and 6.1%, respectively. Age, comorbid physical illness, poor economic status, and shorter sleep duration are potential risk factors for postpartum depression and anxiety symptoms (all $P < 0.05$), while living in suburban areas is a possible risk factor for postpartum depression symptoms. Parity is not a risk factor for postpartum depression and anxiety symptoms. ($P > 0.05$) .

Conclusion In the post-COVID-19 era, the prevalence of postpartum depression and anxiety symptoms continue to be higher than expected. It is essential for policymakers, families, and individuals to pay attention to the mental health of postpartum women.

关键字：prevalence, psotpartum depression and anxiety, post-COVID-19 era

Prevalence of and Relevant Factors for Depression and Anxiety Symptoms Among Pregnant Women on The Eastern Seaboard of China in The Post-COVID-19 Era

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Objective Antenatal depression and anxiety symptoms may have negative consequences for both mothers and offspring, and upward trends in the prevalence of these symptoms were especially apparent during the COVID-19 epidemic. The purpose of this study was to evaluate the prevalence of and relevant factors influencing depressive and anxiety symptoms in Chinese pregnant women in the post-COVID-19 era.

Methods We conducted an online survey of 1,963 pregnant women in Jiangsu Province, using a cross-sectional design, and collected their general demographic data. The nine-item Patient Health Questionnaire 9 (PHQ-9) was used to evaluate depression symptoms, and the seven-item Generalized Anxiety Disorder 7 (GAD-7) was used to measure anxiety symptoms.

Results The prevalence of reported antenatal depressive symptoms, anxiety symptoms, and depression combined with anxiety symptoms was 25.2%, 27.9%, and 18.6%, respectively. Of the respondents, prevalence of moderate to severe depression, anxiety, and combined symptoms was 7.9%, 7.7%, and 4.7%, respectively. Binary logistic regression analysis demonstrated that age, low level of education, rural area, unemployment, pregnancy complications, poor marital relationship, and fair household income were positively association with both depressive and anxiety symptoms (all $P < 0.05$). The proportion of women reporting anxiety symptoms in the third trimester was 1.895-fold higher than in first trimester. Parity was not a relevant factor for depression and anxiety symptoms (all $P > 0.05$).

Conclusion In the post-COVID-19 era, the prevalence of depression and anxiety symptoms in pregnant women was higher than expected, and it is vital to establish hospital, community, and family psychological health screening systems based on relevant factors and enhance early preventive measures.

关键字：Antenatal depression; antenatal anxiety; prevalence; risk factors; pregnant women; post-COVID-19 era

Gender Differences in The Association between Body Mass Index and Suicide Attempts in Chinese Patients with First-episode Drug-na?ve Major Depressive Disorder

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Objective The relationship between body mass index (BMI) and suicide attempts (SA) is still unclear with controversial research results in patients with major depressive disorder (MDD). The aim of this study was to explore the relationship between BMI and SA for men and women in patients with first-episode drug-na?ve (FEDN) MDD in China.

Methods This cross-sectional study was conducted among the FEDN MDD patients from September 2016 to December 2018 in Taiyuan, China. A history of suicide attempts was verified based on medical records and interviews with patients and their family members. Univariate and multivariable logistic regression methods were used to evaluate the association between BMI and SA, and subgroup analysis was performed on female and male patients. Threshold effects were examined by a two-piecewise linear regression model.

Results A total of 588 male patients (BMI: 24.41±2.04 kg/m2) and 1130 female patients (BMI: 24.35±1.86 kg/m2) were enrolled in this study. After fully adjusting the covariates, the association between BMI and SA was only significant in males (OR = 0.84, 95%CI: 0.74 to 0.94, P = 0.003) but not in females (OR = 0.97, 95%CI: 0.89 to 1.06, P = 0.541). The interaction effect with gender was significant (P for interaction < 0.05). The piecewise linear spline models also revealed an L-shaped relationship between BMI and SA for both genders, and the inflection points of BMI were at 27.3 kg/m2 for males and 21.4 kg/m2 for females, respectively. When BMIs were lower than the inflection point, a negative association between BMI and SA was detected in males (OR = 0.75, 95%CI: 0.66 to 0.86, P< 0.001) and females (OR = 0.48, 95%CI: 0.32 to 0.72, P< 0.001). Once the BMI was higher than the inflection point, no significant association was observed for both genders (P all > 0.05).

Conclusion Our results showed an L-shaped nonlinear relationship between BMI and SA in FEDN MDD patients of all genders, but the BMI inflection points were different for men and women, 27.3 kg/m2 and 21.4 kg/m2, respectively.

关键字：gender, association, body mass index, suicide attempts, major depressive disorder

Sex Differences in The Effects of Repeated Ketamine Infusions on Bone Markers in Patients with Unipolar and Bipolar Depression

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Objective Patients with depression, especially women, are associated with low bone mineral density (BMD). Traditional antidepressants are associated with negative effects on BMD. Few studies have examined the effect of ketamine on BMD, and it remains unclear whether there are sex differences in the effects of ketamine on BMD in depressive patients.

Methods A total of 102 patients with unipolar and bipolar depression were administered six infusions of intravenous ketamine over a 12-day period. Plasma levels of eight bone markers were examined at baseline, 24 hours after the sixth infusion and again 2 weeks (Days 13 and 26).

Results Linear mixed models showed all bone markers had significant time main effect (all p<0.05). Compared with baseline, the whole sample showed increased levels of leptin and osteoprotegerin at Days 13 and 26, as well as dickkopf-related protein 1 at Day 13, and decreased levels of osteocalcin, sclerostin, osteopontin, parathyroid hormone and fibroblast growth factor 23 at Days 13 and 26 (all p<0.05). Females had a higher level of leptin at Days 13 and 26, and lower levels of osteocalcin and sclerostin at Day 13 than males (all p<0.05). Increases of leptin were associated with depressive symptom improvements at Day 13 and Day 26 in females (both p<0.05). In males, higher baseline osteocalcin levels were associated with greater depressive symptom improvement at Day 26 (β=0.414, p=0.009).

Conclusion Our results suggest that repeated ketamine infusions may be associated with modulation of bone markers in patients with depression and present sex differences. Baseline osteocalcin level may be served as a predictor for the antidepressant effects of ketamine in males.

关键字：ketamine, depression, bone mineral density, bone markers, leptin, osteocalcin

新冠疫情后孕妇抑郁及母胎依恋变化及抑郁相关影响因素研究

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目的 通过比较疫情前后孕晚期孕妇的情绪及母胎依恋现状，探究新冠病毒感染疫情防控常态化管理后对其影响，及疫情后孕晚期孕妇的抑郁影响因素。

方法 于疫情前后（2019 年 7—9 月 VS 2022 年 7—9 月）在某三甲医院采用方便抽样的方法纳入来自产科门诊的孕晚期孕妇,其中疫情前孕妇 173 名,疫情后孕妇 126 名。采用自制一般资料量表评估孕妇一般人口学资料,采用爱丁堡产后抑郁量表(EPDS)评定所有孕妇的产前抑郁状况，采用母胎依恋量（MAAS）表评估所有孕妇的母胎依恋现状。并采用表自我效能量表(GSES)及妊娠压力量表评估疫情后孕妇的自我效能现状及妊娠相关压力，采用 COVID-19 风险感知问卷评估孕妇对 Covid-19 大流行对胎儿健康潜在影响程度。并采用二元 logistic 回归探究疫情后孕晚期孕妇的抑郁影响因素。

结果 疫情后孕妇的产前抑郁得分高于疫情前孕妇（8.04±5.23 VS 6.80±4.27,P = 0.025）,且产前抑郁的

发生率也高于疫情前孕妇（36.51% VS 28.32%，P = 0.039）；在母胎依恋得分维度，疫情后孕妇的母胎依恋质量低于疫情前孕妇（43.82±7.52 VS 46.18±4.87，P = 0.001），而在母胎依恋总分及母胎依恋强度两组之间无显著差异（P 均＞0.05）。二元 logistic 回归结果显示，妊娠相关压力（OR= 1.122, P

关键字：产前抑郁，母胎依恋，新型冠状病毒疫情，COVID-19 疫情感知风险，妊娠压力

不同疗效重性抑郁障碍患者基线肠道菌群紊乱特征的比较研究

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目的 研究发现抗抑郁药物疗效的个体差异与肠道菌群有关，同时患者个体化的肠道菌群特点可能影响了患者的药物药效，本研究拟采用 16S rRNA 的方法，探讨抗抑郁药物疗效的可能肠道菌群影响因素，为后续探究药物疗效的作用机制提供理论基础。

方法 研究共收集被试 54 人包括 27 名 MDD 和 27 名健康对照。采集患者粪便，收集被试一般资料，完成临床评估然后对服用舍曲林的患者进行 8 周随访评估症状变化。根据 HAMD 评分将患者分为 MDD 完全缓解组（HAMD≤7 分）与未完全缓解组（HAMD>7 分），最终得到 MDD 未完全缓解组 13 例，MDD 完全缓解组 14 例。将采集到的粪便进行 16S rRNA 的分析，经过 PCR 扩增和纯化后，利用 Illumina 高通量测序及生物信息分析，计算 Alpha 多样性与 Beta 多样性，探究 MDD 完全缓解组、MDD 未完全缓解组与健康人之间基线的肠道菌群组成差异，并使用 LEfSe 的方法找寻标志差异物种。

结果 （1）MDD 未完全缓解组与 MDD 完全缓解组患者及健康对照相比，均不存在 Alpha 多样性的差异，但三组间存在 Beta 多样性的差异。基于 Jaccard 算法的 Beta 多样性的差异仅存在于 HC 与完全缓解 MDD 及 HC 与未完全缓解 MDD 之间，两组 MDD 人群无显著差异。同时我们又使用了基于 Bray-Curtisdistance 算法的 PCoA 主坐标分析同样使用 PERMANOVA 分析对组间差异进行统计分析结果发现 MDD 未完全缓解组患者 Beta 多样性与 MDD 完全缓解组呈显著差异，但完全缓解 MDD 与 HC 及未完全缓解 MDD 与 HC 之间无差异。（2）物种差异分析发现三组一共存在 13 个标志性差异物种，其中 8 个在 MDD 未完全缓解组中富集，2 个在 MDD 完全缓解组中富集，3 个在 HC 中富集。

结论 本研究的结果证明了 MDD 与健康人相比存在肠道菌群结构的改变，这种改变在 MDD 未完全缓解患者中更为显著。

关键字：重性抑郁障碍；16S rRNA；疗效；

不同疗效重性抑郁障碍患者脑结构网络拓扑属性的比较研究

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目的 重性抑郁障碍是涉及全身各系统的精神心理疾病，部分患者在足量足疗程用药后症状并未改善，为此早期准确鉴别个体药物疗效，对指导临床患者治疗有着重要意义。本研究拟通过探索不同疗效 MDD 患者基线脑结构网络特征探讨抗抑郁药物疗效的可能脑结构网络改变，为探究疗效的个体化差异问题提供理论指导。

方法 ：本研究共纳入年龄 18-50 周岁被试 74 名，包括 39 例 MDD 和 35 名健康对照（HC）。收集被试一般资料，完成临床评估同时采集患者基线磁共振数据，然后对服用舍曲林的患者进行 8 周随访评估症状变化。根据 HAMD 评分将患者分为 MDD 完全缓解组（HAMD≤7 分）与未完全缓解组（HAMD>7 分），最终得到 MDD 未完全缓解组 19 例，MDD 完全缓解组 20 例。对采集得到的磁共振数据进行预处理后通过 AAL90 模版构建结构脑网络，计算包括全局属性与节点属性在内的网络参数，对随访得到的 MDD 完全缓解组、MDD 未完全缓解组、健康人三组进行基线水平的脑网络拓扑属性差异比较。采用方差分析的方法分别计算三组的全局拓扑属性和节点拓扑属性。

结果 （1）在结构网络全局属性方面，MDD 未完全缓解组较 MDD 完全缓解组及健康人存在最短路径长度的显著下降及全局效率的显著升高， MDD 完全缓解组较健康人功能及结构网络全局属性无显著差异。（2）在结构网络节点属性方面，MDD 未完全缓解组在右侧前扣带与旁扣带回脑区节点集聚系数较健康人及 MDD 完全缓解组患者显著上升，MDD 完全缓解组较健康人未发现显著差异。

结论 本研究发现舍曲林治疗 8 周后未完全缓解 MDD 在基线就存在脑结构网络整合功能的异常和右侧扣带回等脑区结构网络节点属性的异常。提示用药后疗效欠佳的 MDD 可能存在更显著的脑结构、功能网络异常。

关键字：重性抑郁障碍；白质结构网络；疗效

基于局部一致性和体素镜像同伦连接的抑郁症患者认知功能改变的静息态功能磁共振研究

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目的 基于静息态功能磁共振技术研究抑郁症患者局部一致性(ReHo)、体素-镜像同伦连接(VMHC)、功

能连接的改变，同时探讨这些脑影像改变与神经认知功能的相关性。

方法 2022 年 11 月-2023 年 11 月期间在四川大学华西医院招募了 49 名抑郁症患者和 55 名健康对照，对所有受试者进行静息态功能磁共振扫描，并完成加工速度（BACS）、工作记忆（WMS）测试。我们计算了两组间 ReHo 和 VMHC 具有统计学差异的脑区，并以这些脑区为感兴趣区域计算了两组间具有统计学差异的全脑功能连接（FC）值。我们随后用偏相关分析计算了 ReHo、VMHC、FC 与 BACS、WMS 之间的相关性，并用 ROC 曲线分析了 ReHo、VMHC、FC 在抑郁症人群中的诊断价值。

结果 抑郁症患者和健康人群在性别、年龄、教育、烟酒使用等人口学资料中没有统计学差异，抑郁症患者 BACS、WMS、BVMT 得分明显低于健康人群（P＜0.001）。相比健康人群，抑郁症患者在左侧内侧额叶皮质（FMC）的 ReHo 值下降，双侧壳核和右侧 FMC 的 VMHC 值下降（GRF 校正，体素 P＜0.001，团簇 P＜0.01）。相比健康人群，抑郁症患者在双侧 FMC 与左侧副扣带回（PCG）和右侧后侧颞侧梭状皮质(pTFC)、右侧 FMC 与左侧颞极、左侧 FMC 与右侧后中央回以及双侧壳核与右侧前侧扣带回和左侧岛叶皮质之间的 FC 下降。偏相关分析发现，抑郁症患者双侧 FMC 与左侧 PCG 以及左侧 FMC 与右侧后中央回之间的 FC 下降与 BACS 测试结果下降呈正相关（r=0.373，p＜0.05），右侧壳核与左侧岛叶皮质之间 FC 下降与 WMS 测试结果下降呈正相关（r=0.349，p＜0.05）。双侧 FMC 与左侧 PCG 的 FC 值、右侧 FMC 与左侧颞极的 FC 值在抑郁症人群中具有较大的诊断价值（AUC＞0.8）。

结论 双侧 FMC 与左侧 PCG 以及左侧 FMC 与右侧后中央回之间的 FC 和右侧壳核与左侧岛叶皮质之间的 FC 下降可能是抑郁症患者加工速度和工作记忆功能下降的神经机制之一。双侧 FMC 与左侧 PCG 的 FC 和右侧 FMC 与左侧颞极的 FC 可能是抑郁症的潜在生物学指标。

关键字：抑郁；认知 ；局部一致性；体素镜像同伦连接；功能连接

Interplay between Childhood Maltreatment and Brain Age Gap in The Anti-suicidal Effect of Esketamine on Female Adolescences with Major Depressive Disorder: Findings From A Randomized Clinical Trial

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Objective Childhood maltreatment (CM) experience has been consistently related to alterations in trajectories of brain development. Although CM and brain age gap (BAG) have been implicated in treatment outcome, its interplay in the efficacy is unclear. Esketamine has been indicated to reduce symptoms of depression and suicidality. Here we test whether CM and BAG moderate the relationship between esketamine and treatment outcomes in female adolescences with MDD.

Methods Forty-two female adolescences with MDD and suicidal ideation were randomly assigned to receive three infusions of esketamine (0.25mg/kg) or active-placebo (midazolam 0.02mg/kg) over 5 days. Brain age was calculated using T1-weighted structural magnetic resonance imaging with brainageR software. BAG was defined by the difference between estimated brain age and chronological age. A two-way repeated measures ANOVA was used to determine the efficacy of two interventions. Moderation analysis examined the interrelation of CM, BAG and the efficacy of intervention.

Results We found that both esketamine and midazolam could significantly alleviate suicidal ideation and depressive symptoms, and that childhood maltreatment could emerge as a potential moderated role in the relationship between intervention and anti-suicidal effect. Specifically, a better anti-suicidal effect of esketamine was only observed in MDD with high level of childhood maltreatment. Moreover, the moderating effect of physical neglect varied with the level of BAG.

Conclusion Our results reveal how the CM and BAG interplay in the anti-suicidal effect of esketamine. Female adolescent MDD with more serious experience of physical neglect and younger-appearing brain might achieve better anti-suicidal effect in esketamine and worse effect in midazolam.

关键字：childhood maltreatment; brain age; esketamine; female adolescence; major depressive disorder

肠道微生物对于抗抑郁药物疗效的预测作用

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目的 既往研究表明，肠道微生物可以通过肠-脑轴在抑郁症的发病机制中发挥作用。然而，它在抗抑郁症治疗效果中的作用尚不清楚。 因此本研究以探索肠道微生物在抗抑郁治疗过程中发挥的作用，寻找对疗效有预测作用的生物标记物。

方法 本研究共收集了 47 个首发未用药抑郁症患者及 47 个健康对照，比较抑郁症患者于健康对照之间肠道微生物结构的差异，以及抑郁症患者在接受抗抑郁药物治疗 8 周后通过汉密尔顿评分评估抗抑郁治疗效果，从而探究基线肠道微生物结构对于后期药效的影响及其对于药物治疗效果的预测作用，从而为临床治疗的药物选择提供参考。

结果 抑郁症患者与健康对照 a 多样性无统计学差异，β 多样性在 jaccard 距离上存在显著性差异（p=0.001），应用两组间不同丰度的菌属构建随机森林模型，预测健康对照与抑郁症患者，其 ROC 曲线下面积为 0.540-0.894.根据 8 周患者评分是否小于 7 分，将基线分为治疗有效组及无效组，应用两组间有差异的

菌属构建随机森林模型，ROC 曲线下面积为 0.468-0.965.

结论 我们的结果表明抑郁症患者可能会出现特征性的微生物群，且某些微生物群生物标志物可以预测该患者群体的治疗反应。

关键字：抑郁症，药物治疗，肠道微生物

青少年抑郁症非自杀性自伤与快感缺失的相关性研究

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目的 青少年抑郁症发病率逐年攀升，并且越来越多的患者出现非自杀性自伤（Non-suicidal self-injury，NSSI）。目前已有研究报道 NSSI 是自杀的独立危险因素，因此关注 NSSI 的发生并探究其发生机制可以更有效的改善抑郁症的不良预后。

方法 本研究纳入了青少年抑郁症患者 107 名，使用儿童抑郁量表和汉密尔顿抑郁量表对其抑郁症状严重程度进行评估，根据 DSM-5 的 NSSI 诊断标准分为抑郁症伴非自杀性自伤组（NSSI 组，n=59）和抑郁症不伴非自杀性自伤组（NON-NSSI 组，n=48），招募湖南省长沙市中学健康青少年 45 名作为健康对照（HC 组）。收集三组的一般人口学资料，评估愉悦情绪体验量表（TEPS），情感激励延迟范式（AID）和金钱激励延迟范式（MID）收集行为学数据。应用 GraphPad Prism 5.0 和 IBM SPSS statistics 22.0 软件统计分析。

结果 （1）NSSI 组（59.27±15.51）TEPS 得分均低于 NON-NSSI 组（67.52±15.44）和 HC 组（78.02±12.54）（P 均＜0.05）；（2）在 AID 和 MID 的预期-反馈评估中，在正性和中性条件下 NSSI 组的预期评分（AID：4.76±1.67，4.53±1.30；MID：4.85±1.69，4.44±1.43）均较 HC 组低（AID：6.12±1.49，5.37±1.07；MID：7.41±1.35，5.60±1.08）（P 均＜0.05），NON-NSSI 组的预期评分（5.23±1.50；5.74±1.67）仅在正性条件下较 HC 组低（P＜0.05），且在 MID 中 NSSI 组和 NON-NSSI 组的正性条件下预期评分差异有统计学意义（P=0.020）；（3）在 AID 和 MID 负性条件下的预期评分三组间无差异（P 均＞0.05）；（4）OWI 中近一个月发生 NSSI 频率等级与 TEPS 总分（r==-0.209）和抽象期待性快感（r=-0.251）、MID 的正性及中性条件下预期评分（r=-0.371~-0.309）以及三种不同条件下击中目标的反馈评分（r=-0.484~-0.359）呈负相关（P 均＜0.05）。

结论 青少年 MDD 患者更严重的快感缺失与近期 NSSI 的发生有关，并且伴 NSSI 的青少年 MDD 患者以抽象期待性快感降低为主，在 MID 中更容易出现预期差异。

关键字：青少年抑郁症；非自杀性自伤；快感缺失；奖赏动机

孕产期抑郁症的影响因素及心理治疗进展分析

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目的 总结分析近几年学者们对孕产期抑郁症相关因素及心理治疗干预措施的研究,以期医护及卫生保健人员及早筛查孕期高危人群,并及时进行产前、产时、产后的全面预防,探索治疗孕产期抑郁症的最佳方法，为孕产期抑郁症的治疗提供依据。

方法 检索国内外数据库，结合作者多年精神科临床工作实践，针对孕产期抑郁症的影响因素及心理治疗在孕产保健领域中的应用方法与应用效果进行综述与分析。

结果 1.孕产期抑郁症的病因比较复杂，发病机制目前尚未完全明确。随着现代医学模式的改变，对孕产期抑郁症的研究也由纯生物学观点转向综合生物、心理和社会诸多的影响。大多数研究认为孕产期抑郁症主要是心理学、社会学、生物学、遗传等多因素相互作用的结果。 2.心理治疗是唯一没有发现不良作用的抗抑郁方法，这种非药物性治疗尤其对孕产期妇女更适合、更安全。目前对孕产期抑郁症的治疗大多采取以心理治疗为主，必要时辅以药物治疗的综合治疗手段。心理治疗的适用范围比较广，对一些轻型的、无功能损害的患者可单独使用心理治疗，对重症抑郁患者也可作为联合治疗手段。心理治疗可以使孕产期抑郁患者宣泄郁闷心情，感到被支持、尊重、理解和信心增强，加强自我控制及建立与他人良好交流的能力，激发患者的内在动力去应付自身的问题。心理治疗对孕产期抑郁症有显著效果，同时不会给母婴或者胎儿造成危险，应被视为孕产期抑郁症的一线治疗手段。 3.目前应用于孕产期抑郁症的心理治疗主要有：个体治疗（认知疗法、行为疗法、松弛疗法和音乐疗法）、团体治疗、夫妻治疗及母——婴互动治疗等。有研究表明孕产期应用综合心理干预措施能降能在短期内缓解抑郁症状、降低爱丁堡产后抑郁量表（EPSD）的评分而缩短病程。

结论 现代医学认为人是生物——心理——社会的有机体。生物因素与心理社会因素之间相互联系相互影响。心理干预治疗是一种对孕产妇、家庭、社会都具有积极意义的治疗方法，目前也是用于孕产期抑郁症治疗最可行而有效的治疗方式。

关键字：孕产期抑郁，心理治疗，影响因素

青少年抑郁症患者主动遗忘能力与童年创伤和抑郁的关系

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目的 使用定向遗忘任务（directed-forgetting paradigm，DFP）研究青少年抑郁症患者主动遗忘的能力，对比青少年抑郁症患者与健康青少年对情绪性图片的

定向遗忘效应，并分析该效应在童年创伤与抑郁间的作用。

方法 选取 141 名青少年抑郁症患者和 42 名年龄、性别、居住地等与之匹配的健康青少年，比较两组被试在定向范式任务中对情绪性图片再认成绩上的差异。“记住”指令条件的再认高于“忘记”指令条件即出现了定向遗忘效应。并采用童年创伤经历问卷（CTQ-SF）和 Beck 抑郁量表（BDI-II）进行自评式调查。

结果 与健康组不同，抑郁组仅能在正性图片中出现了定向遗忘效应（$P < 0.001$），在中性、负性图片中抑郁组对两种指令的再认率间的差异不具有统计学意义（$Ps > 0.05$）；并且抑郁组 CTQ-SF 得分与 BDI-II 得分正向关联（$\beta = 0.47$，$P < 0.001$），负性图片的定向遗忘效应在 CTQ-SF 得分与 BDI-II 得分间起部分中介作用（效应值 $= 0.10$，置信区间[0.05, 0.17]，占总效应的 21.3%）。

结论 青少年抑郁症患者难以定向遗忘中性和负性材料。相比于健康青少年，青少年抑郁症患者未能有效按记忆指令复述或抑制记忆内容，并且由于心境一致性的加工偏向导致青少年抑郁症患者未能够主动遗忘中性记忆和负性记忆内容；其次发现青少年抑郁症患者对负性记忆的主动遗忘能力是童年创伤经历与抑郁间的中间因素，通过一定方式提升该能力可能为治疗由早期创伤性事件所造成的抑郁提供了新的可能。

关键字：主动遗忘，定向遗忘范式，童年创伤，抑郁，青少年

重复经颅磁刺激对青少年抑郁症患者 SSI 评分的影响

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目的 分析研究应用重复经颅磁刺激（rTMS）对青少年抑郁症患者贝克自杀意念量表（SSI）评分的影响。

方法 选取我院 2022 年 8 月~2023 年 5 月收治的 50 例青少年抑郁症患者作为本次观察对象，采用随机数字表法分为观察组和对照组，各 25 例。对照组采用盐酸舍曲林片治疗，使用剂量为 50 mg，每日服用一次，治疗总疗程为 3 个月； 观察组患者在对照组的基础上加以使用重复经颅磁刺激进行治疗，使用武汉依瑞德医疗设备技术有限公司生产的 CCY-1 型脉冲磁场刺激仪为患者进行治疗，观察两组治疗前后的 SSI 评分变化情况、焦虑、抑郁评分以及治疗总有效率，观察两组治疗前后的 SSI 评分变化情况，采用 Beck 自杀意念问卷调查表（SSI）对患者自杀意念进行综合评价，主要从患者乐观因子、睡眠因子、绝望因子以及掩饰因子四个维度进行观察，共计 19 个条目，每个条目 0~3 分，采用四级评分法进行评分。

结果 观察组治疗后 SSI 评分以及焦虑抑郁评分显著低于对照组，差异显著（$P<0.05$）且治疗总有效率显著高于对照组，差异显著（$P<0.05$）。

结论 对青少年抑郁症患者实施药物治疗基础上加以重复经颅磁刺激（rTMS）治疗效果较之药物治疗效果显著，可明显缓解患者抑郁状况，大大减少自杀观念，提高了治疗总有效率，使得患者重新拾起生活的信心，值得推广应用。

关键字：重复经颅磁刺激；青少年抑郁症；自杀意念；负性情绪

首发未用药精神分裂症患者认知功能异常与病情严重程度及病程的相关性研究

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目的 精神分裂症是一种重性精神疾病，临床表现为幻觉、妄想症状及认知功能的下降。本研究针对首发未用药的精神分裂症患者评估其认知功能，探究病情严重程度和病程对其认知功能的影响。

方法 招募首发未用药精神分裂症（schizophrenia，SP）患者 48 人与患者年龄、性别相匹配的健康对照（health control，HC）53 人，对患者和 HC 进行连线测验、符号编码测验、言语流畅性测试、言语记忆测试、空间广度、数字序列、迷宫测试、视觉记忆、情绪管理测试和持续操作测试；同时对患者进行简明精神病评定量表的评估，根据 BPRS 得分将 SP 患者分为轻、中、重三组，“轻度”相当于 BPRS 总分 31 分以内，“中度”相当于 41 分以内，“重度”相当于 53 分以内；根据病程长短将 SP 患者分为小于 12 周，12-48 周，48 周以上三组。首先对 SP 和 HC 上述测试的结果进行单样本 T 检验，计算两组差异性；另外，根据 SP 患者病情采用方差分析和事后检验计算轻、中、重三组之间的认知结果的差异性；采用皮尔逊相关分析计算上述认知测试与病情严重程度及病程的关联性。

结果 除外情绪管理测试（$p=0.309$），SP 组和 HC 相比，连线测验、符号编码测验、言语流畅性测试、言语记忆测试、空间广度、数字序列、迷宫测试、视觉记忆和持续操作测试的结果均有显著差异性（$p<0.01$）。HC 与轻度 SP 相比，除外情绪管理测试发现 $p<0.05$，其余测试 $p<0.01$；HC 与中度 SP 相比，除外数字序列和迷宫测试发现 $p<0.05$，其余测试 $p<0.01$、HC 与重度 SP 患者相比，10 种认知结果均有显著差异（$p<0.01$）。仅发现轻度 SP 与重度 SP 患者相比，持续操作测试具有差异性（$p<0.05$），其余未发现显著差异性。数字序列实验得分与 12-48 周病程呈现负相关（$r=-.591$，，$p=0.033$）；情绪管理测试与 48 周以上病程呈现负相关（$r=-.566$, $p=0.035$）；言语记忆测试结果与轻度病情负相关($r=-.306$, $p=0.029$);数字序列测试与中度病情成负相关($r=-.507$, $p=0.019$)。

结论 本研究发现首发未用药精神分裂症患者认知能力下降，且病情越重、病程越长，认知能力越差。

关键字：精神分裂症，认知功能，病情，病程

首发未用药精神分裂症患者面部表情识别功能异常与病情严重程度及病程的相关性研究

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目的 精神分裂症（schizophrenia，SP）是一种重性的、具有高度遗传性的精神疾病，本研究通过对 SP 患者进行面部表情识别测试，评估精神分裂症患者的面部表情识别功能是否异常，同时探究 SP 患者面部表情识别能力与病情严重程度和病程的相关性

方法 对 18 例首发未用药 SP 患者及年龄、性别相匹配的 53 例健康对照（health control, HC）进行行面部表情识别测试，计算快乐正确数、中性正确数、悲伤正确数和表情总正确数。根据 BPRS 得分将 SP 患者分为轻、中、重三组,“轻度”相当于 BPRS 总分 31 分以内,“中度”相当于 BPRS 总分 41 分以内,“明显”相当于 BPRS 总分 53 分以内；根据病程长短将 SP 患者分为小于 12 周，12-48 周，48 周以上三组。分别对 SP 和 HC 上述测试的 4 项结果进行单样本 T 检验，计算两组差异性；根据 SP 患者轻、中、重病情三组采用方差分析和事后检验计算上述测试结果的差异性；采用皮尔逊相关分析计算上述测试结果与病情严重程度及病程的关联性。

结果 SP 组和 HC 相比，快乐正确数、中性正确数、悲伤正确数和表情总正确数结果均有显著差异性（p＜0.01）。方差分析及事后检验发现 HC 与轻度 SP 相比，中性正确数（p=0.033）、悲伤正确数（p=0.038）和表情总正确数（p=0.004）有显著差异；HC 与中度 SP 相比，中性正确数有显著差异（p=0.029）； HC 与重度 SP 相比，中性正确数（p=0.021）、悲伤正确数（p=0.015）和表情总正确数（p=0.001）有显著差异；另外，我们研究发现上述测试结果与病情轻重程度无相关（p＞0.05）；中性正确数（r=-0.233，p=0.034）与 12 周以内的病程呈正相关。

结论 精神分裂症具有明显的面部表情识别障碍，且执行功能障碍严重程度与病情轻重水平无关，与病程有关。

关键字：精神分裂症，面部表情识别，病情，病程

Psychosocial Factors Affect The Occurrence of Nonsuicidal Self-injury in Adolescents with Major Depressive Disorder Through Chain Mediation

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Objective People with depressive symptoms are more likely to practice non-suicidal self-injury (NSSI) than those without. In the adolescent group, about half of adolescents with major depressive disorder (MDD) have NSSI. Psychosocial factors are associated with the development of NSSI. Clarifying the relationship between psychosocial factors and NSSI in adolescents with MDD can help us achieve early prevent. However, it is not clear how psychosocial factors affect the generation of NSSI in adolescents with MDD, and how they interact with each other.

Methods Demographic data, Hamilton Depression Scale-24, childhood trauma questionnaire, emotional intelligence scale, Barratt Impulsiveness Scale 11th version and interpersonal reactivity index were collected from 187 adolescents with MDD. The adolescents were grouped according to their history of NSSI (NSSI- group=84, NSSI+ group=103). Analysis of general demographic data and clinical severity of adolescents in both groups using ANOVA and chi-square test, Binary logistic regression was used to explore the risk factors and protective factors affecting NSSI behavior in adolescents with MDD. Pearson correlation analysis, Mediation effect analysis, and Structural Equation Models were used to explore how psychosocial factors affect adolescents with MDD with NSSI behavior.

Results The results of ANOVA showed that there was significant difference between the two groups in HAMD24 total score, impulsiveness, emotional intelligence, and empathy ($p<0.05$), but there was no significant difference between the two groups in childhood abuse ($p>0.05$). In the regression analysis, women, depression degree, motor impulsiveness (MI), personal distress (PD) and appraisal of other's emotions empathy were the risk factors for MDD adolescents to produce NSSI behavior. Among the indicators that were significantly related to MDD and NSSI, MI and PD mediate the relationship between MDD and NSSI, the intermediary effect of other 2 indicators was not established. The structural equation model showed that MDD, PD and MI had a direct impact on NSSI, but PD and MI had multiple intermediary effected in the relationship between MDD and NSSI. Emotional intelligence, emotional neglect and cognitive impulsiveness indirectly affected the occurrence of NSSI behavior.

Conclusion Impulsiveness, personal distress, emotional neglect, and emotional intelligence are important risk factors that affect NSSI behavior in adolescents with MDD, and they affect the occurrence of NSSI in adolescents with MDD through chain mediation.

关键字：major depressive disorder, nonsuicidal self-injury, adolescent, psychosocial factors

Quality of Life in Patients with Schizophrenia: A 2-year Cohort Study in Primary Mental Health Care in Rural China

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Objective ：WHO de?nes Quality of Life(QoL) as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.Previous studies have shown QoL has been always an important way to evaluate the outcomes of schizophrenia, but there have been few previous longitudinal studies and few in middle-income countries. This study aimed to explore the QoL in Chinese patients with schizophrenia treated in primary mental health care and the risk factors of QoL over time.

Methods ：Patients with schizophrenia treated in primary mental health care in rural/regional areas in Luoding, Guangdong, PR China, were evaluated with an extended questionnaire including the Chinese version of the World Health Organization Quality of Life (WHOQOL-BREF) at baseline and 2-year followup. The effects of demographic characteristics, medication, negative and positive symptoms, depression, sleep, insight on quality of life were also investigated.Bivariate and multivariate analyses were conducted including Generalized Estimated Equation analyses (GEE).

Results ：Four hundred and ninety-one patients with schizophrenia in primary care completed the 2-year follow up evaluation. The QoL physical, environmental, and social relationships domains showed improvement after the 2-year period, but the psychological domain did not. GEE results showed that earlier age of onset, older age, being employed, being unmarried, the thicker waist circumference, less use of clozapine or other SGAs, fewer hospitalizations, more frequent insomnia, more severe depressive and negative symptoms as well as worse treatment insight were independently associated with poor QoL in patients with schizophrenia.

Conclusion ：According to our results, to improve the quality of life of patients with schizophrenia in primary care, we should pay more attention to the treatment of depression, negative and insomnia symptoms of schizophrenia, the choice and dosage of antipsychotic medication and improvement in the treatment compliance. The combined use of educational and behavioral strategies may improve treatment adherence.

关键字：schizophrenia, quality of life, primary care, risk factors, China

Meta-analysis of Gender Differences in Transition Prevalence Among Individuals at Clinical High Risk of Psychosis

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Objective Gender differences have been found in several areas of individuals at clinical-high risk for psychosis(CHR）.Therefore the risk of transition to psychosis may differ between male and female CHR, but previous work has not systematically reviewed and analyzed gender differences in conversion rates. Therefore, the purpose of this study was to analyze all articles on CHR conversion published from January 1996 to December 31, 2022 using a meta-analysis approach, with the expectation of gaining a clearer understanding of the differences in conversion rates between men and women in the CHR population and to make evidence-based recommendations for clinical practice.

Methods We performed a meta-analysis based on PRISMA guidelines, including all studies that assessed and provided data on the conversion of male CHR and female CHR to psychosis with reliable tools to understand the conversion rates of male and female CHR. Data from January 1996 to December 2022 were searched in the following three databases PubMed,Medline and EmbaseNote (PROSPERO:CRD42022303606). Meta-analysis was performed using CMA 3.0 software. The main effect indicator was the male CHR conversion rate compared with the female CHR conversion rate at 1, 2, 3, and ≥4 years of follow-up. Random-effects analysis, quality assessment, heterogeneity assessment, and meta-regression analysis were performed.

Results Seventy-nine articles were included, with a total of 5770 male CHR, of which 1250 were converted, and a total of 4468 female CHR, of which 832 were converted. Among male CHR, the conversion rate was 19.4% (95% CI:14.2% to 25.8%) at 1 year, 20.6% (95% CI:17.1% to 24.8%) at 2 years, 24.3% (95% CI:21.5% to 27.4%) at 3 years, 26.3% (95% CI:20.9% to 32.5%) at 4 years or more, and all 22.3% (95% CI:20.0% to 24.8%), and in female CHR the conversion rates were 17. 7% (95% CI:12.6% to 24.4%) at 1 year, 17.5% (95% CI:14.2% to 21.4%) at 2 years, 19.9% (95% CI:17.3% to 22.8%) at 3 years, and 4 years or more at 26.7% (95% CI:22.1% to 31.9%), and 20.4% (95% CI:18.1% to 22.9%) for all. There were differences between the two groups in overall conversion, and conversion rates at 2- and 3-year follow-up, with higher conversion rates for male CHR than for female CHR. meta-regression showed that years of follow-up and Newcastle-Ottawa Scale (NOS) total score had a significant effect on the risk of psychiatric morbidity for male CHR and female CHR. Higher Newcastle-Ottawa Scale (NOS) total scores and longer follow-up were associated with an increased risk of psychosis in both male and female CHR.

CONCLUSIONS Differences in CHR conversion rates exist between men and women, particularly in the first three years. Future research on the characteristics of male and female CHR is needed with the expectation of developing gender-appropriate interventions to further reduce the conversion rate of CHR

关键字：Clinical High Risk of psychosis Gender differences Transition Meta-analysis

The Association of Impulsivity and Fecal Microbiota in Individuals Abstaining From Methamphetamine

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Objective Methamphetamine (MA) abuse is a significant public problem and impulsivity undertakes both a prominent risk factor and a consequence of addiction. Hence, clarifying the biological mechanism of impulsivity may facilitate the understanding of the addiction of MA. Microbiota-gut-brain axis may underlie a biological mechanism of impulsivity induced by MA.

Methods : We, therefore, recruited 62 MA addicts and 50 healthy controls (HCs) to investigate the alterations of impulsivity and fecal microbiota and the associations between them in the MA group. Thereafter, 25 MA abusers who abstained from MA for less than 3 months were followed up for 2 months to investigate the relationship between impulsivity and microbiota as abstinence got longer. 16S rRNA sequencing was conducted for microbiota identification.

Results : Elevated impulsivity and dysbiosis characterized by an increase of opportunistic pathogens and a decrease of probiotics were identified in MA abusers, and both the increased impulsivity and disrupted microbiota tended to recover after longer abstinence of MA. Impulsivity was related to microbiota, and the effect of MA abuse on impulsivity was mediated by microbiota.

Conclusion : Potentially, our findings highlighted the importance of abstention and implied the significant role of the microbiota-gut-brain axis in the interrelationship of microbiota and behaviors, as well as the potential of microbiota as a target for intervention of impulsivity.

关键字：Methamphetamine dependence; Impulsivity; Fecal microbiota; Follow-up; Abstention

探讨抑郁障碍与阿尔茨海默病对小鼠心脏 β 淀粉样蛋白沉积量的交互影响

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目的 探讨抑郁障碍对阿尔茨海默病（AD）小鼠模型心脏 β 淀粉样蛋白沉积的影响。

方法 选取 6 周龄雄性 C57BL/6 小鼠 20 只，10 只作为空白对照组，剩余 10 只通过慢性不可预知性温和刺激（CUMS）制备抑郁障碍小鼠模型；6 周龄雄性 APP/PS1 双转基因小鼠 20 只，10 只作为阿尔茨海默病(AD)小鼠模型，剩余 10 只同时予以 CUMS 建立 AD+抑郁障碍共病小鼠模型。通过 ELISA 技术检测小鼠心脏 β 淀粉样蛋白 1-40（Aβ1-40）和 β 淀粉样蛋白 1-42（Aβ1-42），免疫组化半定量小鼠心脏组织 Aβ1-42 分布情况。

结果 与空白对照组比较，抑郁障碍组、AD 组、AD+抑郁障碍共病组小鼠摄食潜伏期延长，糖水偏好百分比下降，差异具有统计学意义（P<0.01）；与与空白对照组比较，抑郁障碍组、AD 组小鼠心脏 Aβ1-40、Aβ1-42 沉积量增多，差异有统计学意义（P<0.01），与 AD 组、抑郁障碍组比较，AD+抑郁障碍组小鼠心脏 Aβ1-40、Aβ1-42 沉积量有增多，差异有统计学意义（P<0.01）。

结论 CUMS 会导致实验小鼠抑郁样行为出现，当抑郁障碍与 AD 共病时，AD 小鼠心脏组织 Aβ 沉积量明显增多。

关键字：抑郁障碍；阿尔茨海默病；心脏；病理；β 淀粉样蛋白

帕罗西汀联合经颅直流电刺激治疗围绝经期抑郁症疗效

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目的 探讨帕罗西汀联合经颅直流电刺激（tDCS）治疗围绝经期抑郁的临床疗效及其对血清性激素、炎症因子的影响

方法 本研究为随机对照研究，选取首发、未用药的围绝经期抑郁患者 168 例患者为研究对象，通过随机数表法随机分入治疗组（盐酸帕罗西汀联合 tDCS，85 例）和对照组（盐酸氟西汀联合假性 tDCS，83 例），疗程共 8 周。在治疗前后分别采用汉密尔顿焦虑量表（HAMA）和汉密尔顿抑郁量表（17 项）（HAMD17）评估临床疗效；采用威斯康星卡片分类测验（WCST）比较认知功能；采用酶联免疫吸附技术检测患者治疗前后血清性激素（雌二醇，E2；卵泡刺激素，FSH；孕酮，P；泌乳素，PRL；睾酮，T；黄体生成素；LH）水平、炎症因子水平变化

结果 治疗前，与对照组相比，治疗组 HAMA、HAMD17 总分无显著差异（P>0.05）；8 周治疗后，治疗组的 HAMA、HAMD17 总分显著低于对照组（P<0.05）。此外，WCST 测试治疗组总反应数、正确反应数及完成分类数显著高于对照组（P<0.05），错误应答数与持续性错误显著低于对照组（P＜0.05）。治疗前，两组血清 E2、FSH、P、PRL、T 以及 LH 水平，抗炎因子以及促炎因子水平比较，差异均无统计学意义（P＞0.05）。治疗 8 周后，治疗组 E2、FSH、P、PRL、T、LH 均高于对照组，而炎症因子水平低于对照组（P＜0.05）

结论 盐酸帕罗西汀联合 tDCS 可显著缓解围绝经期抑郁患者抑郁、焦虑以及认知症状，改善血清性腺激素水平，其机制可能与抑制促炎因子表达有关。

关键字：盐酸帕罗西汀；经颅直流电刺激；围绝经期；抑郁；性激素；炎症反应

Orexin 在急慢性应激所致青春期小鼠酒依赖及

复发中的作用

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目的 酒依赖是全球性的公共健康问题，其危害大且复发率高，但机制尚不清楚。研究表明应激可能是药物依赖及复发的重要因素，且食欲素系统可能也参与其中。本研究分为两部分，以 4 周 C57BL/6J 雄性小鼠为研究对象，以急性或慢性足底电击为应激模型，分别探索食欲素系统在慢/急性应激所致青春期小鼠酒依赖及酒复发中的作用

方法 I 部分 先构建酒精 CPP 模型。实验一，待 CPP 消退后将其随机分为应激组（单次足底电击，15min）和对照组，应激处理后测定 CPP 重建情况。并处死小鼠取样，采用 Elisa 检测奖赏脑区食欲素情况；实验二，另一批小鼠在 CPP 消退后随机分为载体组、食欲素 1 或 2 受体拮抗剂组，CPP 重建测试前均接受急性电击，电击前接受不同药物干预探索其对 CPP 重建的影响 II部分 实验一，将小鼠随机分为对照组和慢性应激组（足底电击，15min/天，10 天），应激结束后行为学测量其焦虑水平，接着进行酒精 CPP 调节及测量建立情况；实验二，小鼠均接受慢性应激，后将其随机分为载体组和食欲素 1 或 2 受体拮抗剂组，在每次 CPP 酒精调节前接受不同药物干预，后测量 CPP 建立情况；实验三，小鼠同样分三组，均接受慢性应激，但在每次应激前分别接受不同药物干预，应激结束后测量其焦虑水平。

结果 I部分 1.仅应激组小鼠酒精 CPP 重建成功（P＜0.01），此外与对照组相比，应激组小鼠的伏隔核、海马、内侧前额叶皮层脑区食欲素浓度均显著增加(P 均＜0.05)；2.食欲素 1，2 受体拮抗剂组小鼠其 CPP 重建均未成功（P 均＞0.05），而载体组小鼠 CPP 重建成功（P＜0.001）。 II部分 1.与对照组相比，慢性应激组小鼠的焦虑水平（P＜0.05）及 CPP 得分（P＜0.01）显著增加；2.与载体组相比，食欲素 1，2 受体拮抗剂组小鼠其 CPP 得分均显著降低（P 均＜0.05）；3.两种食欲素受体的拮抗剂干预对慢性应激所致焦虑水平均无显著影响（P 均＞0.05）。

结论 慢性应激可易化青春期小鼠酒依赖形成，急性应激可促进其酒依赖复发，而食欲素 1，2 受体拮抗剂均可抑制慢性/急性应激对其酒依赖或复发的促进作用，两种食欲素受体在慢或急性应激所促进的青春期小鼠酒依赖形成或复发中起着重要作用，但可能对慢性应激所致焦虑情绪无影响。

关键字：应激；酒精；条件性位置偏爱；酒依赖；酒依赖复发；食 欲素系统；食欲素受体

临床状态相同的首发精神分裂症与重性抑郁障碍动态低频振幅比较与机器学习分类研究

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目的 本研究旨在对两种抑郁症状和精神病性症状同时发作的重性抑郁障碍和精神分裂症的脑动态低频振幅（Dynamic amplitude of low fluctuation, Dalff）属性进行分析,旨在找到疾病间 Dalff 的差异和变化,并将其作为特征进行机器学习分类，为精准诊断和治疗提供神经影像学证据?

方法 招募 MDDP 患者 71 例,SZD 患者 51 例及年龄性别匹配的健康对照组(Healthy control,HC)43 例?入组标准:年龄 13-50 岁;符合 DSM-V 的诊断标准，且无其他轴 I 障碍；扫描当天均存在精神病性症状及抑郁症状发作?对三组人群进行成套神经心理学评估和磁共振数据采集?使用 DPAB6.0I 软件计算相应的动态低频振幅（Dynamic amplitude of low fluctuation, Dalff）指标?使用 SPSS 26.0 软件,应用 ANCOVA 比较三组一般人口学资料及动态低频振幅指标差异，使用 GRF 方法进行多重比较矫正?最后使用支持向量机（Support vector machine, SVM）方法，使用差异动态低频振幅作为分类指标，对两患者组进行分类。

结果 研究中包括首发 MDDP 患者 71 人（男/女=16/55），平均年龄为 22.27（7.96）岁和 SZD 患者 51 人（男/女=14/37），平均年龄为 22.76（8.93）岁。同时招募了有非精神病家族史的健康志愿者 43 人（男/女=18/25），平均年龄为 22.30（3.41）岁。在 HC 组、MDDP 组和 SZD 组中，年龄、性别无统计学差异（P>0.05），而在临床量表得分显示出统计学差异。 MDDP 组、SZD 组与 HC 组在右侧大脑的楔前叶、距状裂、楔叶、缘上回、顶下缘角回、角回和颞上回的 Dalff 存在统计学差异（P<0.001, GRF 校正）。 差异脑区正确区分 MDDP 和 SZD，在区分 MDDP 和 SZD 中展现出准确率 77.05%、敏感性 72.55%、特异性 80.23%和 AUC0.80。

结论 异常的 Dalff 改变可能是区分 SZ 和 MDD 的潜在和客观的特征性神经影像标记，甚至可能帮助精神病学家在临床状态相同的情况下正确识别两种疾病。

关键字：精神分裂症、重性抑郁障碍、动态低频振幅、支持向量机

计算机化认知训练对轻度认知障碍人群认知功能和脑功能网络改变的研究

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目的 轻度认知障碍（MCI）是介于正常衰老和 AD 的过渡阶段，其中遗忘型轻度认知功能障碍（aMCI）更易发展为 AD。因而对 aMCI 进行有效的干预，进而延迟或预防其发展成为 AD 尤为重要。本研究将 aMCI 人群及健康对照（HC）同时分为 CCT 训练组与不训练的对照组，对四组人群 12 周随访时和基线时认知评分的差值进行方差分析研究，确定 CCT 对 aMCI 人群认知功能的作用。并首次使用基于图论的大脑复杂网络分析技术，研究 CCT 对 aMCI 人群脑功能网络的影响。

方法 招募 aMCI 老年人 50 例，年龄性别相匹配的 HC50 例。aMCI 入组标准：年龄 60-79 岁；能听懂指令并正常交流；符合 Peterson aMCI 科研诊断标准；没有其他精神障碍；老年抑郁量表（ GDS）得分<15 分。HC 入组标准：年龄 60-79 岁；能够听懂指令并正常交流；认知功能正常；GDS <15 分。对分组后基线的四组人群进行神经心理学评估及 fMRI 扫描，之后对两组训练组进行 CCT，两组对照组维持原生活方式，12 周后再次进行神经心理学评估及 fMRI 扫描。使用 SPSS 26.0 软件，应用 t 检验、卡方检验等方法分析比较 aMCI 组和 HC 组的一般人口学资料及基线时认知功能评分。使用 DPABI 和 GRETNA 软件对 fMRI 数据进行分析并构建脑功能网络，使用方差分析比较四组人群训练前后认知功能和脑功能网络拓扑属性的改变。

结果 基线比较可以发现，aMCI 组受教育程度、MoCA 评分、AVLT 延迟回忆评分、VFT 评分均低于 HC 组。全局属性比较中 aMCI 组 Eg 降低；在节点属性方面，aMCI 组在 ROL.R 的 DC 显著降低，在 ACG.R、OLF.L、SFGmed.L 和 ROL.R 的 NE 显著降低， 四组人群经过 12 周后仅 MoCA 分数的变化有显著性差异，事后比较可以看出四组在 12 周后 MoCA 分数有提高的趋势。而 BC 的前后变化在四组中有显著差异的脑区包括 PreCG.L 、ORBmid.R 、DCG.L 、双侧 HIP 和 PoCG.R。DC 的前后变化在四组中有显著差异的脑区为 SFGdor.L 、SFGmed.L、双侧 ROL、HIP.R、MOG.R、SMG.R、TPOmid.R 和 ITG.R。

结论 CCT 可以改善 aMCI 和 HC 的认知功能水平，并改变了 aMCI 人群前额叶及颞叶部分脑区的 BC 和 DC，这可能是 CCT 改善 aMCI 人群认知功能的神经影像学机制。

关键字：轻度认知障碍，计算机化认知训练，脑功能网络

Gut Microbiome, Cognitive Function and Brain Function: A Multi-omics Integration Analysis

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Objective Microbiome-gut-brain axis may be involved in the progression of chronic inflammation and relevant brain function changes in schizophrenia (SZ), but evidence from large human cohorts is lacking. This study was aimed to investigate the associations of gut microbiome with chronic inflammation and brain function based on multi-omics data from a large population.

Methods We recruited a total of 302 participants including 182 SZ patients and 120 healthy controls (HC), of whom 302 individuals completed cognitive assessment, 250 individuals completed brain magnetic resonance imaging scan, and 185 individuals provided fecal and serum samples. Fecal 16S rRNA, targeted serum metabolomics, cytokine measurements and brain regional homogeneity (ReHo) analyses were performed in this cohort.

Results Compared with HCs, the SZ patients showed abnormal structural and functional changes in a wide range of brain regions, including the frontal, temporal, parietal, occipital, cingulate gyrus, caudate nucleus, insula, and thalamus. Similarly, compared with the HC group, the relative abundance of many butyrate-producing bacteria such as Faecalibacterium prausnitzii, Butyricicoccus pullicaecorum, Gemmiger formicilis, and Blautia were significantly reduced in SZ patients, while the relative abundance of conditionally pathogenic bacteria such as Proteus, Succinobacteria, Ruminococcaceae and Bacteroidales increased significantly. Moreover, we found detrimental associations of Bacteroidales with cognitive impairment and ACC ReHo, which might be mediated by inflammatory factors.

Conclusion Our findings reveal that specific gut microbial features are closely associated with cognitive impairment and increased ACC function, which may be mediated by elevated pro-inflammatory factors.

关键字：schizophrenia; brain imaging; gut microbiota; cognitive impairment

氟西汀对类惊恐发作大鼠肠道微生物群影响的研究

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目的 惊恐障碍是焦虑障碍谱系中常见的精神障碍，研究表明 PD 的核心症状惊恐发作与亚急性肠道症状密切相关，但目前尚未见有探讨 PD 患者肠道微生物群特征的研究，也未见有研究探讨氟西汀等抗焦虑、抑郁药物对 PD 患者或 PD 动物模型肠道微生物群影响。因此，利用 PD 大鼠模型探讨惊恐发作及氟西汀干预对肠道微生物群的影响可能有助于更好地理解 PD 的病理生理机制，为其临床治疗提供新的突破口。

方法 本研究对 45 只大鼠行中脑背侧导水管周围灰质电极植入手术并随机分为假手术组、单纯电刺激组及电刺激+氟西汀组。通过电刺激大鼠 dPAG 建立 PD 动物模型，并采集三组大鼠回肠及盲肠内容物。使用 16S rRNA 测序技术提取肠道微生物的总 DNA。利用 Illumina 高通量测序及生物信息分析，获得三组样本肠道微生物的物种多样性、群落组成及差异代谢通路等信息，探讨大鼠类惊恐发作行为对肠道微生物群的影响以及氟西汀干预对类惊恐发作大鼠肠道微生物群的影响。

结果 1、LEfSe 分析结果表明单纯电刺激组大鼠回肠栖湖菌属；盲肠粪芽孢菌属和假单胞菌科显著富集。假手术组大鼠回肠孪生菌目、放线菌科等显著富集；盲肠变形菌纲、图里氏杆菌目等显著富集。2、连续 21 天氟西汀干预后大鼠类惊恐发作逃逸阈值（87.78±33.46 μA）与基础逃逸阈值（72.22±27.74 μA）差异具有统计学意义。3、16S rRNA 测序结果显示，电刺激+氟西汀组与单纯电刺激组大鼠盲肠微生物

Simpson 指数、Pielou"s evenness 等 Alpha 多样性指数差异具有统计学意义；电刺激+氟西汀组与单纯电刺激组大鼠回肠微生物 Beta 多样性差异具有统计学意义。LEfSe 分析结果显示，电刺激+氟西汀组大鼠回肠拟杆菌门、瘤胃球菌科等显著富集；盲肠放线菌门、红蝽菌纲等显著富集。单纯电刺激组大鼠回肠梭状芽胞杆菌；盲肠支原体等显著富集。在基于 16S rRNA 测序进行的功能预测中，氟西汀干预大鼠的盲肠微生物在 ko00363、ko00253、ko04142 通路上调具有统计学意义。

结论 1、类惊恐发作改变了大鼠回肠和盲肠微生物群的组成特征；2、氟西汀提高了类惊恐发作大鼠的逃逸阈值，起到了抗惊恐作用；3、氟西汀干预改变了类惊恐发作大鼠回肠和盲肠的微生物群的多样性以及组成特征，提示氟西汀可能通过影响肠道微生物群从而发挥抗惊恐作用。

关键字：惊恐发作；肠道微生物群；氟西汀；脑-肠轴

氟西汀及艾司氯胺酮对慢性多样性应激小鼠行为及炎症相关基因表达的影响

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目的 探讨氟西汀及氯胺酮对慢性可变应激（CVS）小鼠抑郁及焦虑样行为的改善作用及炎症相关基因表达的影响。

方法 40 只 C57BL/6J 小鼠随机分为对照组（Control）、模型+生理盐水组（CVS+Sal）、模型+氟西汀治疗组（CVS+Flx）及模型+艾司氯胺酮治疗组（CVS+es-Ket），每组 10 只。CVS+Sal 组、CVS+Flx 组及 CVS+es-Ket 组进行为期 21d 的 CVS 程序进行造模。CVS+Sal 组造模结束后每天腹腔注射生理盐水（10 ul/g），CVS+Flx 组造模结束后每天腹腔注射氟西汀（20mg/kg），两组均连续给药 7 天；CVS+es-Ket 组造模结束后每天腹腔注射生理盐水（10ul/g），第 7 天注射艾司氯胺酮（10mg/kg）1 次。随后通过旷场实验、新奇抑制摄食实验、悬尾实验、强迫游泳实验、高架十字迷宫实验检测各组小鼠的抑郁、焦虑样行为，随后收取血浆，通过 Elisa 检测血浆中 IL-1β、IL-6、IL-8、IL-17A、IL-33、TNF-α、IL-4、IL-9、IL-10、IL-24、IL-24、IL-37、IFN-β 及 CXCL12 表达情况。

结果 1.CVS 组小鼠表现出明显的抑郁、焦虑样行为，包括旷场运动总距离减少、进食潜伏期延长、悬尾不动时间增加、强迫游泳不动时间延长，进入旷场中央区域时间降低、高架开臂时间减少（P 均<0.05）。2.CVS 组小鼠血浆中 IL-1β、IL-6、IL-8、IL-17A、TNFα、IL-4、IL-9、IL-24、IL-24、IL-37、IFN-β、CXCL12 水平明显升高，而 IL-10、IL-33 显著下降（P 均<0.05）。3.与 CVS 组相比，CVS + Flx 组及 CVS + es-Ket 组旷场运动总距离增长、进食潜伏期缩短、悬尾不动时间减少、强迫游泳不动时间减少，进入旷场中央区域时间增加（P 均<0.05）。4.与 CVS 组相比，CVS＋Flx 组及 CVS＋es-Ket 组血浆中 IL-1β、IL-6、IL-8、IL-17A、TNF-α、IL-4、IL-9、IL-24、IL-24、IL-37、IFN-β、CXCL12 水平明显降低，而 IL-10、IL-33 显著上升（P 均<0.05）

结论 艾司氯胺酮、氟西汀均通过降低炎症因子水平，增加抗炎因子水平改善 CVS 小鼠的抑郁焦虑样行为，但艾斯氯胺酮起效时间更快。

关键字：艾司氯胺酮；氟西汀；慢性多样性应激；炎症因子

首发重性抑郁障碍患者经 SSRIs 治疗前后 NLRP3 炎症小体及其相关细胞因子水平的变化

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目的 观察首发重性抑郁障碍（FED）患者接受选择性 5-羟色胺再摄取抑制剂（SSRIs）治疗后 NLRP3 炎症小体及其相关细胞因子的水平变化，分析其与神经元损伤标志物的关系，进一步阐明 SSRIs 的作用机制。

方法 共纳入 34 例 FED 患者，分别于治疗前和经 SSRIs 治疗 6-8 周后进行疾病严重程度评估和外周血采集。采用 HAMD-24 评估疾病严重程度并以其减分率作为临床疗效判定依据(减分率＞50%为有效，减分率＜50%为无效)；采用 Elisa 法检测血浆 IL-1β、IL-18、Tau 蛋白、NFL、MBL，采用 Western-blot 检测 PBMC 中 NLRP3 炎症小体、Caspase-1 水平。

结果 （1）与治疗前相比，治疗后 NLRP3 炎症小体、IL-18、IL-1β 水平显著升高，差异具有统计学意义（t=-2.663，z=-2.350、-3.690，P＜0.05），Tau 蛋白水平和 HAMD-24 总分明显下降，差异具有统计学意义（z=-2.309，t=9.436, P＜0.05）。（2） Spearman 秩相关分析显示，NLRP3 炎症小体的治疗前后差值与 NFL 的治疗前后差值、MBL 的治疗前后差值成正相关（rs=0.564、0.494，P＜0.01）；IL-1β 的治疗前后差值与 IL-18 的治疗前后差值成正相关（rs=0.496，P＜0.01）；Tau 蛋白的治疗前后差值与 NFL 的治疗前后差值成正相关（rs=0.479，P＜0.01）；MBL 的治疗前后差值与 NFL、Tau 蛋白的治疗前后差值成正相关（rs=0.474、0.619，P＜0.01）。（3）有效组与无效组之间 NLRP3 炎症小体治疗前后差值、Caspase-1 治疗前后差值、MBL 治疗前后差值，差异有统计学意义（t=-2.101、2.270，z=-2.957，P＜0.05）。进一步采用多因素 logistic 回归分析发现，治疗是否有效的影响因素依次为：NLRP3 炎症小体治疗前后差值（OR=4.668, 95%CI：1.018-21.399, P=0.047）、Caspase-1 治疗前后差值（OR=0.204, 95%CI：0.046-0.895，P=0.035）。

结论 SSRIs 对 NLRP3 炎症小体有一定激活倾向，治疗有效患者的 NLRP3 炎症小体的激活程度可能更明显。

关键字：首发重性抑郁障碍；NLRP3 炎症小体；SSRIs

慢性抑郁症与复发性抑郁症临床结局研究

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目的 探究高复发倾向抑郁症、低复发性倾向抑郁症与慢性抑郁症的临床结局的关系。

方法 在这项队列研究中，收集 2018 年 10 月至 2022 年 9 月就诊于郑州大学第一附属医院精神科的患者 1037 例，随访至 2023 年 5 月，最终纳入符合 ICD-10 复发性抑郁症或慢性抑郁症诊断标准的患者 736 例。收集病程演变特征：包括发作次数、总病程，及临床结局变量：包括药物疗效、残留症状、社会功能等变量，对病程演变特征进行二次处理，计算年化发作频度，根据年化发作频度将复发性抑郁症分为低复发倾向抑郁症与高复发倾向抑郁症两组，符合慢性抑郁症诊断标准的记为慢性抑郁症组，比较三组的临床结局。

结果 年化发作频度为偏态分布，中位数为 0.7（0.4,1.0），以中位数为界，将复发性抑郁症患者分为两组，<0.7 记为低复发倾向组，共 293 例；≥0.7 为高复发倾向组，共 326 例，另外 117 例为慢性抑郁症组，比较三组临床结局，发现三组的药物疗效（P＜0.001）、残留症状（P＜0.001）、社会功能（P=0.016）存在统计学差异，进一步进行两两比较，发现低复发倾向组与高复发倾向组、慢性抑郁症组在药物疗效、残留症状、社会功能上均存在统计学差异（P<0.05），高复发倾向组与慢性抑郁症组在药物疗效上存在统计学差异（P＜0.001）,在残留症状、社会功能上差异无统计学意义。

结论 慢性抑郁症与高复发倾向抑郁症具有相似的临床结局。

关键字：慢性抑郁症；复发性抑郁症；临床结局

首发青年中期抑郁症 DTI 的研究

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目的 通过使用基于纤维束的空间统计方法（TBSS）对首发未用药青年中期抑郁症患者及健康志愿者行全脑 DTI 数据分析，从而探索青年中期抑郁症患者脑白质微结构的改变，并分析其与临床指标之间的关系，以期为青年中期抑郁症的临床早期识别、预防及精准治疗提供依据。

方法 1.研究对象：本研究共纳入来自郑州大学第一附属医院精神医学科首发青年中期（18-25 岁）抑郁症患者 38 例作为研究组，同期招募健康志愿者 42 名作为对照组，两组的年龄、性别、受教育年限相匹配。2.资料收集：采用 24 项汉密尔顿量表（HAMD-24）对所有受试者进行评估；所有受试者进行常规 MRI 序列及 DTI 序列的扫描；收集所有受试者社会人口学资料及临床特征资料，利用电话联系或面谈的方式进行随访跟踪。随访至 2021 年 2 月。 3.统计学分析：采用 FSL 比较两组 FA、MD、AD、RD 值的差异，P＜0.05 为差异有统计学意义。采用 SPSS21.0 统计软件，将差异有统计学意义的弥散张量参数数值与 HAMD 评分和病程作相关分析，P＜0.05 为差异有统计学意义。

结果 1.两组影像学结果分析 与对照组相比，首发青年中期 MDD 患者组胼胝体膝部、左侧内囊前肢、双侧上纵束的 FA 值降低，差异具有统计学意义(P＜0.05，经 TFCE 校正)，且未发现患者组脑白质 FA 值高于对照组的区域；患者组左侧内囊前肢 RD 值高于对照组，差异具有统计学意义(P＜0.05，经 TFCE 校正)；两组 MD 值和 AD 值差异无统计学意义(P＞0.05，经 TFCE 校正)。 2. FA 值和 RD 值与 HAMD 评分和病程相关分析 首发青年中期 MDD 患者组的 HAMD 评分与胼胝体膝部、右侧上纵束 FA 值呈负相关(r =-0.433，P＜0．05；r =-0.343，P＜0.05)，其余指标未显示出有明显相关性。

结论 1.首发青年中期抑郁症患者存在脑白质微结构的改变，主要表现在胼胝体膝部、左侧内囊前肢、双侧上纵束的 FA 值的降低以及左侧内囊前肢 RD 值的升高，提示这些白质结构的异常可能是青年中期抑郁症发病的因素。 2.首发青年中期抑郁症患者胼胝体膝部、右侧上纵束 FA 值与抑郁严重程度呈负相关，提示大脑白质的破坏程度可能反映了抑郁症状的严重程度。

关键字：抑郁症；弥散张量成像；白质；青年人

抚摸改善应激致痛觉过敏的机制研究

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目的 痛觉过敏是临床躯体症状障碍的重要表现之一，患者往往在经历外界的压力应激后躯体表现出对疼痛的过度敏感，这可能与触觉相关脑区异常有关。在神经科学中，触觉分为感觉和感受，感觉代表着触觉的性质、力度、定位，而感受代表着触觉后给生物体带来的情感改变。鉴于应激致痛觉过敏中的触觉异常，我们试图研究通过抚摸这种愉悦性感受触觉能否改善应激致痛觉过敏。

方法 采用小鼠束缚诱导小鼠应激致疼痛过敏模型。应用 von Frey 实验检测机械痛阈，将其分为抚摸组与对照组。抚摸组将接受棉花抚摸，模仿母鼠对幼崽的舔舐，持续 3 天；对照组会放在手上同样的时间而不进行抚摸。在这之后，再次进行 von Frey 实验以及热板实验，并统计分析两组前后痛阈的改变。并且通过 c-Fos 免疫荧光染色筛查潜在相关脑区。

结果 造模 CRS 小鼠在第 11 天成功诱发出疼痛过敏，抚摸组经过连续三天抚摸后，抚摸组（N=6）4 只小鼠机械痛阈得到改善，对照组（N=6）2 只小鼠机械痛阈得到改善。在此基础上进一步探索抚摸改善 SIH 模型小鼠疼痛过敏的可能目标脑区，分析全脑 c-

Fos 染色结果显示，并没有发现差异脑区。

结论 本研究表明，应激引发的疼痛过敏可能通过抚摸的愉悦性触觉改善症状，机械痛域得到改善。目前实验处于初步探索阶段，将在之后增加实验小鼠量，探究其潜在机制。

关键字：应激，痛觉过敏，触觉

Symptom Based Subtypes of Major Depressive Disorder and Their Clinical Correlates: A Latent Class Analysis

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Objective Major Depressive Disorder (MDD) is a heterogeneous syndrome with a large number of symptoms across multiple domains. The current study employed a latent class analysis (LCA) to generate distinct subgroups and examine the dimensions of depressive symptoms within and beyond the DSM criterion framwork.

Methods A total of 3275 patients who met DSM-IV TR criteria for MDD (current episode) were enrolled from 32 psychiatric settings in China. Demographics and comprehensive depression symptomatology covering multiple depressive symptom domains were assessed. Two LCA models were constructed to estimate subtypes of MDD , one with 19 items consisting of the diagnostic criteria of MDD and four DSM specifiers, and the other with 41 items in which non-DSM symptoms were added on the basis of the former. Demographics and symptom characteristics of patients in distinct subtyping groups within each model were compared.

Results Statistical and clinical indicators supported five and four classes for the two models, respectively. Model A, the 19-item model, consisted of the following subgroups: Severe (18.8% of the participants), with the highest proportion of nearly all symptoms; Atypical with psychotic symptoms (11.5%), characterized by high prevalence of increased appetite, weight gain, hypersomnia and suicidal ideation; Melancholic (33.6%), characterized by high endorsement in melancholic features (i.e. interest loss, anhedonia, decreased appetite, weight loss, insomnia, guil and loss of mood reactivity); Moderate (25.7%), identified with medium level in nine DSM-IV diagnostic criteria and low percentage of atypical DSM subtypes; and Mild (10.4%), characterized by lowest proportion of nearly all symptoms. Model B, the 41-item model, had a similar composition except for the Moderate class: Severe (26.8%), Atypical (18.9%), Melancholic (31.8%), and Mild (22.5%). In addition, the Atypical group was characterized by psychotic symptoms in Model A (PR= .576), but its level dropped (PR= .391) after the enrolment of non-DSM symptoms, thus causing a change in designation. The attribution of participants in Model A to Model B founded that the Melancholic was partially classified into the Severe (27.6%) and the Atypical (11.4%); the Moderate was further assigned to the Melancholic (41.4%), the Mild (46.1%) and the Atypical (12.2%).

Conclusion Atypical and melancholic depression were found to be the most stable subtypes, while anxious and psychotic depression may not be independent clinical subtypes. The findings have implications for identifying more homogeneous subgroups in population with MDD, developing providing individualized treatment strategies and directing more targeted etiological studies of MDD.

关键字：Major depressive disorder；subtypes；latent class analysis；atypical depression；melancholic depression；anxious depression

Albumin As A Biomarker in Severe Neuropsychiatric Disorders: Acute-phase Schizophrenia and Bipolar Disorder

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Background Inflammation is relevant to the pathophysiology of severe neuropsychiatric disorders, schizophrenia (SCZ) and bipolar disorders (BD). Multiple pathophysiological biomarkers are valuable for the study of inflammatory processes. This study investigated albumin related biomarkers in SCZ and BD to explore their roles in disease.

Methods A total of 5,577 SCZ, 3442 BD-manic (BD-M) and 1405 BD-depression (BD-D) in acute stage and 5000 health controls (HCs) were enrolled. The differences in these biomarkers levels among different groups were compared, and the contributing factors for the occurrence of SCZ, BD, and subgroups of BD were analyzed.

Results Both SCZ and BD exhibit lower prognostic nutritional index (PNI, but higher neutrophil percentage-to-albumin ratio (NPAR) and creatinine-albumin ratio (CRA) compared with HC. Compared with BD-D, BD-M had higher NPAR and platelet to albumin ratio（PAR）, lower CRA. In logistic regression, lower prognostic nutritional index（PNI）and higher CRA were associated with both SCZ and BD, while higher NPAR was associated with BD. In the subgroup of BD, higher NPAR, CRA and lower PNI were associated with BD-M; lower PAR, PNI and higher CRA were associated with BD-D.

Conclusions Our study reaffirmed the role of inflammation in the pathophysiology of SCZ and BD. Heterogeneity existed between BD-D and BD-M in the process of inflammation.

关键字：Schizophrenia; Bipolar disorder; Inflammation; albumin; Neutrophil percentage-to-albumin ratio; Platelet to albumin ratio; Prognostic nutritional index; Creatinine-albumin ratio

Current Status of Non-suicidal Injuries and Associated Factors Among Junior High School Students in Hainan Province, China: A Cross-sectional Study

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Objective To summarize the general status of non-suicidal self-injury (NSSI) behavior and characteristics of junior high school students, and to determine the risk factors associated with NSSI behavior.

Methods Five middle schools in the rural and urban areas of Hainan Province were randomly selected for this cross-sectional study, and a group of students from junior high school were sampled by class to distribute questionnaires, including the General Sociodemographic Questionnaire, Ottawa Self-Injury Scale, Anxiety Self-Rating Scale, Depression Self-Rating Scale, Adolescent Lifestyle Scale, and Parenting Style Scale.

Results The NSSI rate among junior high school students in Hainan Province was 28.9%, with a higher prevalence among girls than boys. The most common form of self-injury used by junior high school students was scratching/bruising, followed by cutting, with differences between boys and girls in self-injury to the genitals ($\chi2$=5.178, p=0.043) and arms ($\chi2$=15.979, p=0.000). The age range of junior high school students was 11-16 years, with a mean age of 13.08±0.911 years. The most important motivation for undertaking NSSI behaviors was to release negative emotions. The risk factors affecting NSSI behaviors were female gender (OR=1.793), depression (OR=1.961), anxiety (OR=1.495), interpersonal relationship factors (OR=1.099), learning stress factors (OR=1.062), maternal emotional warmth (OR=0.97), and maternal over-interference (OR=1.036).

Conclusion The NSSI rate among junior high school students in Hainan was 28.9%, affecting girls more than boys. The form and site of self-injury between boys and girls were significantly different. The motivation for committing self-injurious behaviors was mainly to regulate bad emotions. Risk factors for NSSI behaviors included female gender, anxiety, depression, interpersonal relationship factors, academic stress factors, and maternal emotional over-interference, while maternal emotional warmth was a protective factor.

关键字：non-suicidal self-injury, adolescent, junior high school students

伴自杀意念的青少年抑郁症患者的杏仁核功能连接与艾司氯胺酮的抗抑郁和抗自杀作用

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目的 杏仁核功能异常是抑郁症的核心发病机制，研究发现氯胺酮治疗后成年抑郁症患者杏仁核功能网络发生改变，且其改变与氯胺酮的抗抑郁疗效有关，然而艾司氯胺酮治疗是否会导致青少年抑郁症患者产生特征性的杏仁核相关网络变化，目前仍不清楚。本研究中，我们旨在探索艾司氯胺酮治疗伴自杀意念的青少年抑郁症患者自杀意念和抑郁症状的疗效和与其治疗相关的杏仁核相关网络变化，并寻找可以预测艾司氯胺酮治疗结局的神经影像学指标。

方法 使用随机双盲对照方法，39 名伴自杀意念的青少年抑郁症患者随机接受了 3 次 0.25mg/kg 的艾司氯胺酮或 0.02mg/kg 咪达唑仑静脉输注。采用蒙哥马利-阿斯伯格量表表（Montgomery-Asberg Depression Rating Scale，MADRS）在基线、第 2、4、6、12 以及 19 天评估自杀意念和抑郁症状，并在基线、第 6 天以及第 12 天进行磁共振扫描对咪达唑仑组和艾司氯胺酮组的 MADRS 量表和影像数据分别进行混合结构模型分析，评估艾司氯胺酮的治疗疗效和探索与其治疗相关的特征性杏仁核功能网络变化。39 名健康对照也接受了一次磁共振扫描作为青少年抑郁症患者杏仁核静息态功能连接(resting-state functional connectivity,RSFC)对照。

结果 本研究发现艾司氯胺酮对治疗伴自杀意念青少年抑郁症患者的自杀意念有效，但未发现与艾司氯胺酮和咪达唑仑药物分组相关的杏仁核 RSFC 变化。在艾司氯胺酮亚组分析中，我们发现艾司氯胺酮治疗后，伴自杀意念的青少年抑郁症患者的左侧杏仁核到右侧额中回的 RSFC 下降，同时该 RSFC 的变化与自杀意念和抑郁症状的减分率无关。此外，在艾司氯胺酮组，伴自杀意念的青少年抑郁症患者左侧杏仁核与左侧眶部额上回的 RSFC 可以预测第 12 天抗自杀疗效；左侧杏仁核到右侧背外侧额上回以及右侧杏仁核和右侧颞上回的 RSFC 可以预测第 6 天的抗抑郁疗效；左侧杏仁核和右侧枕中回、右侧杏仁核和右侧颞上回以及右侧杏仁核和左侧枕中回三者的联合 RSFC 可以与预测第 12 和 19 天的抗抑郁疗效。

结论 伴自杀意念的青少年抑郁症患者存在杏仁核功能网络异常。与咪达唑仑相比，艾司氯胺酮可以显著减少伴自杀意念的青少年抑郁症患者的自杀意念，同时可以调节杏仁核的相关回路。而基线杏仁核 RSFC 有可能成为艾司氯胺酮治疗伴自杀意念青少年抑郁症患者的疗效预测指标。

关键字：抑郁症；杏仁核；氯胺酮；磁共振

心理联合药物治疗对小儿多动症改善及对父母的影响

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目的 探究心理联合药物治疗对小儿多动症改善及对父母的影响。

方法 选择我院 2020 年 9 月至 2022 年 10 月接受治疗的小儿多动症患儿 90 例作为研究对象，按照随机分组的方法将其分为对照组和观察组，对两组患儿的治疗效果、治疗前后多动症患儿对家庭的影响以及患儿的身心问题、品行问题、冲动多动以及学习问题进行调查评估。

结果 治疗前观察组及对照组采用 Conners 量表各因子评分之间无统计学意义（P＞0.05），治疗后两组患儿采用 Conners 量表患儿的身心问题、品行问题、冲动多动以及学习问题评分均有所下降，观察组患儿评分显著低于对照组，差异具有统计学意义（P＜0.05）。治疗后观察组患儿治疗总有效率显著高于对照组，差异具有统计学意义（P＜0.05）。经过治疗后患儿对家庭的影响明显受到改善，被照顾较难、破坏家庭活动、去其他地方难、父母感到紧张焦虑、几乎没有朋友、同学纠纷各项指标的人数比治疗前显著减少，差异具有统计学意义（P＜0.05）。

结论 本次研究在小儿多动症患儿的基础治疗上实施心理干预，对小儿多动症进行心理联合药物治疗，患儿改善情况较好，对父母的影响有所降低，效果显著，在一定程度上改善患儿的品行问题以及身心问题等，值得应用推广。

关键字：小儿多动症；心理治疗；药物治疗

A Comparison of Internet-based Self-help and Face-to-face Mindfulness Training on Perinatal Depression: A Meta-analysis of Randomized Controlled Trials

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Objective One in five mothers will experience perinatal depression (PND) during pregnancy and within the first year following childbirth. As a non-pharmacological treatment， mindfulness training is more acceptable to pregnant women. Current evidence suggests the short-term efficacy of Mindfulness-based training for perinatal women, but there are often barriers to access to face-to-face interventions. It is quite important for pregnant women because somatic changes make it difficult to commute to hospitals. However, the effectiveness of internet-delivered mindfulness training for perinatal depression is still unclear. The study aimed to ascertain the comparative efficacy of these two forms on reducing depression scores of scales in women during a perinatal period by examining the available evidence for face-to-face and self-help internet-based Mindfulness training.

Methods This meta-analysis was carried out according to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. The inclusion criteria were designed based on the PICOS (population, intervention, comparison, outcomes, study design) model. The researchers searched PubMed, MEDLINE, Embase, PsycINFO, and the Cochrane Database of Systematic Reviews for relevant studies published from 2000 to July 1, 2023. References cited in the collected results were also searched to supplement the literature. Eventually，23 studies were included, 16 of which were face-to-face and 7 of which were internet-based self-help Mindfulness training. Two independent authors (L and Z) summarised the characteristics of the included studies. Evidence from RCTs was synthesized by Comprehensive Meta-Analysis Version 3 as mean difference (MD). A random-effects model was employed owing to the inconsistency within the patients, measurement tools, and so on. And the Risk of bias tool (RoB 2) was used to assess the risk of bias in the randomized controlled trials.

Results There were 23 studies obtained with a total of 1955 participants included. The risk of bias in studies was variable. The results of the random effects model showed that the Mindfulness training had good efficacy (MD = -0.773). Further subgroup analysis was conducted, which showed that internet-based self-help mindfulness was not inferior to face-to-face positive thinking training (MD = -0.645 vs. MD = -1.042).

Conclusion Both internet-based self-help Mindfulness training and face-to-face Mindfulness training achieved above moderate effect sizes. In the short term, Internet-based self-help Mindfulness training may be a more effective targeted intervention for women in the perinatal period than for other populations and may be a candidate alternative to face-to-face Mindfulness training.

关键字：Mindfulness; Perinatal depression; Internet; Randomized Controlled Trials;Meta-analysis

Cognitive Function and Cardiovascular Health in The Elderly: Network Analysis Based on Hypertension, Diabetes, Cerebrovascular Disease, and Coronary Heart Disease

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Objective Cognitive decline in the elderly population is a growing concern, and vascular factors, such as hypertension, diabetes, cerebrovascular disease, and coronary heart disease, have been associated with cognitive impairments. This study aims to provide deeper insights into the structure of cognitive function networks under these different vascular factors and explore their potential associations with specific cognitive domains.

Methods Cognitive function data from patients

with hypertension, diabetes, cerebrovascular disease, and coronary heart disease were collected and analyzed using network centrality and network comparison test (NCT) approaches. The cognitive function networks for each of the four disease groups were compared to identify differences in centrality, overall network structure, and connections within cognitive domains.

Results The results revealed that cerebrovascular disease and coronary heart disease had a more significant impact on cognitive function than hypertension and diabetes. Cerebrovascular disease was associated with weaker centrality in memory and spatial orientation, and a sparser cognitive network structure. Coronary heart disease was associated with weaker centrality in memory, repetition, executive function, recall, attention, and calculation, as well as a sparser cognitive network structure and weakened connections within cognitive domains. The NCT analysis further highlighted significant differences in overall network structure and connection strength between the disease groups.

Conclusion Our findings suggest that specific cognitive domains may be more vulnerable to impairments in patients with cerebrovascular disease and coronary heart disease. These insights could be used to improve the accuracy and sensitivity of cognitive screening in these patient populations, inform personalized cognitive intervention strategies, and provide a better understanding of the potential mechanisms underlying cognitive decline in patients with vascular diseases.

关键字：Cognitive domains; Aging; Vascular factors; Network analysis; Ising model.

Unraveling The Complex Relationships Between Anxiety, Depression, and Quality of Life in Schizophrenia: A Network Analysis Study

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Objective The primary objective of this study was to investigate the intricate relationships between anxiety, depression, and quality of life in hospitalized schizophrenia patients. By employing a network analysis approach, the study aimed to identify central nodes, bridging symptoms, and predictability patterns to provide valuable insights for targeted clinical interventions, ultimately improving the overall well-being of individuals with schizophrenia. In addition, the study sought to emphasize the importance of comprehensive treatment approaches that prioritize psychosocial interventions alongside symptom management for this population.

Methods An exploratory network analysis was conducted using data from a cross-sectional study involving hospitalized schizophrenia patients. Self-report measures assessing anxiety, depression, and quality of life were collected and analyzed to identify central nodes, bridging symptoms, and predictability patterns within and across the three domains. The network analysis approach enabled the visualization and quantification of the complex relationships between these variables.

Results The network analysis revealed that hopelessness emerged as the most central node within the quality of life domain, suggesting its critical role in shaping the well-being of schizophrenia patients. In the depression community, somatic anxiety was identified as the most central node, highlighting the importance of addressing somatic symptoms in treatment interventions. Sleep disturbances emerged as central issues in both anxiety and depression domains, underscoring the need for targeted interventions to address sleep issues. Furthermore, the analysis identified significant connections between emotional and physical symptoms, supporting the importance of addressing both aspects in treatment to improve overall well-being.

Conclusion This study highlights the complex interplay between anxiety, depression, and quality of life in hospitalized schizophrenia patients and offers valuable insights for targeted clinical interventions. Addressing key symptoms, such as hopelessness, somatic anxiety, and sleep disturbances, may be critical for enhancing overall well-being in this population. Furthermore, integrated interventions targeting both anxiety and depression, as well as comprehensive treatment approaches addressing psychosocial factors, are essential for optimizing treatment outcomes and improving quality of life for individuals with schizophrenia.

关键字：schizophrenia, network analysis, anxiety, depression, quality of life, central nodes, bridging symptoms, targeted interventions, comprehensive treatment approaches, psychosocial factors

Disease-related Risk Factors for Dementia and Cognitive Impairment: An Umbrella Review of Systematic Reviews and Meta-analyses

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Objective Dementia is a global public health problem and current treatments for dementia are very limited. Therefore, reducing the risk of cognitive decline is a basic strategy. Standardized assessment of disease risk factors for all forms of dementia and cognitive impairment is urgently needed. To address this issue, we conducted a comprehensive review to evaluate the strength and effectiveness of existing evidence.

Methods We searched all systematic reviews and meta-analyses established in PubMed, Embase, Cochrane, and PsycINFO databases up to 31 October 2022. Our aim was to systematically collect and summarise the latest top evidence on the association of disease risk factors and cognitive impairment with dementia. For each association, we analyzed the summary effect size, 95% confidence interval, 95% prediction interval, heterogeneity, small study effects, and excess significance bias. Each disease factor was classified as convincing, highly suggestive, suggestive, weak, or nonsignificant based on standardized criteria.

Results A total of 35,867 articles were identified, and 87 eligible studies produced 213 unique associations. There is convincing evidence that all-cause dementia is associated with nine disease risk factors, including hypoglycemia, homocysteine, hyperlipidemia, coronary heart disease, late-life depression, visual impairment, tooth loss, sleep apnea and preeclampsia. AD is associated with three disease risk factors, late-life depression, sleep apnea, and chronic pain. Cognitive impairment is associated with three disease risk factors, visual impairment, past stroke with atrial fibrillation, and left ventricular hypertrophy. Midlife low body weight, late-life low body weight, late-life obesity, and excessive sleep duration are associated with dementia and/or cognitive impairment.

Conclusion Our comprehensive review summarizes the relevant risk factors, emphasizing the need to explore their mechanisms of cognitive function impairment, which may be the key to intervening in dementia. The identified diseases are strongly associated with dementia, and future research should focus on clarifying causal relationships to achieve breakthroughs in dementia prevention strategies.

关键字：Dementia; Alzheimer's disease; Vascular dementia; Cognitive impairment; Disease risk factors; Umbrella review

Multi-omics Analysis Reveals The Impact of Gut Microbiota on Antipsychotic-induced Weight Gain in Schizophrenia

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Objective Emerging evidence indicates that gut microbial dysbiosis is associated with the development of antipsychotic-induced weight gain in schizophrenia (SZ). We aim to determine the exact taxonomic composition and functionality that constitute the “obesogenic” microbial profile in SZ patients after chronic antipsychotic medication.

Methods First, we conducted a retrospective survey to investigate BMI changes in SZ patients on chronic antipsychotics. Then, 22 overweight/obese SZ (SZ-O) and 38 normal BMI SZ (SZ-N) patients with chronic antipsychotic medication underwent 16S rRNA sequencing and multi-omics analysis. Further, 22 first-episode drug-na?ve SZ (FSZ) patients were followed to determine the gut microbial predictive efficacy for antipsychotic-induced weight gain.

Results Our retrospective survey identified two groups of SZ population separated by BMI, with 1/3 patients developing overweight/obesity after chronic antipsychotic treatment. Based on multi-omics analysis, we identified that SZ patients with overweight/obesity had lower relative abundances of the signature bacteria genera, including Bacteroides, Parabacteroides, Akkermansia, and Clostridium than normal BMI individuals, which was accompanied by dysregulated energy expenditure and nutritional metabolism, severe clinical indices, and decreased levels of beneficial metabolites, e.g. indole-3-carboxylic acid and propionic acid. The signature bacteria were positively associated with host metabolic homeostasis. Moreover, leveraging data from first-episode drug-na?ve schizophrenia (FSZ) patients at one-month and one-year follow-up, both artificial neural network and random forest classifier-based prediction models demonstrated a strong ability of microbial profiles to predict antipsychotic-induced weight gain. Importantly, FSZ patients with higher relative abundance of Parabacteria distasonis are less susceptible to antipsychotic-induced weight gain.

Conclusion Gut microbiota could serve as a noninvasive approach to predict antipsychotic-induced weight gain, guiding clinical antipsychotics administration and developing novel therapeutic strategies for weight management in SZ.

关键字：Schizophrenia; Gut microbiota; Obesity; Artificial neural network; Parabacteroides distasonis

Genome-wide Association Exploratory Studies in Individuals with Ultra-high Risk for Schizophrenia in Han Nationality in China

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Abstract Ultra-high risk for psychosis (UHR) and HR (high-risk) individuals constitute a distinctive group which exhibiting cognitive and functional impairments alongside multiple psychiatric morbidities. Although UHR is related to both genetic and environment factors, the precise mechanisms still unknow. To date, few studies have explored the GWAS in UHR and HR individuals especially in Han population in China. In this study, we explored the high frequency risk loci for schizophrenia of UHR and HR individuals and compared the difference in high frequency risk loci in China with GWAS analysis. Besides, we also compared 22q11 based on sequencing by full exon. Nearly 16 UHR individuals (44.4%) developed into schizophrenia patients and no HR individuals developed into psychosis in two years. Compared with HR group, UHR group had more severe psychopathology, more cognition declines and lower functioning. The susceptibility loci at NRXN1(rs1045881), DRD1(rs686, rs4532), CHI3L1(rs4950928), ARVCF (rs165815), DRD2(rs1076560) were identified in GWAS analysis. The FAM230 gene in the 22q11 region had a high frequency of long deletion fragments were found, and 30 high-frequency genes appeared in UHR and HR group. Further studies are required to assess its efficacy as a prevention strategy for those population, and serve as a therapeutic target for preventive or adjunctive therapies, as well as biomarkers of disease progression.

关键字：UHR GWAS schizophrenia China

Patterns and Correlates of Insight Among Schizophrenia Patients in China：a Network Perspective

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Objective To explore the patterns and correlates of insight among schizophrenia patients with a large population in China.

Methods A multi-center cross-sectional study was conducted in Guangdong province, China. Patients with schizophrenia were included. Basic socio-demographic and clinical characteristics were collected in this study. Univariate analyses, multivariate logistic regression, and network analysis were conducted.

Results A total of 6090 participants (58.8% were male, and 41.2% were female) met the study criteria and completed all the assessments. 63.5% (n=3869) patients with schizophrenia had impaired insight. Fewer drug sides effect, higher psychological and environment domains scores in quality of life have a positive significant impact on insight in patients with schizophrenia. Younger age, higher BPRS scores have a negative significant impact on insight in patients with schizophrenia. The node ITAQ 8 (strength=1.17) was the most central node within the ITAQ network, while node ITAQ 3 was the least central node (strength=0.69). The edge ITAQ 1-ITAQ 2 was the thickest and most saturated edge in network model.

Conclusion Considering patterns and correlation of insight, it is necessary to ensure adherence to medications and engagement with mental health services for patients with schizophrenia, which could also improve their quality of life. Taking medication actively is more central to identify ITAQ and might be the potential targets for future interventions.

关键字：Schizophrenia, insight, quality of life, network analysis

Two-year Cohort-up Study of Clozapine Prescription in Chinese Patients with Schizophrenia Treated in Rural Primary Care

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Objective Few studies have examined the clozapine in cohort studies of Chinese patients with schizophrenia in rural primary care. The objective of this two-year cohort study was to describe the usage of clozapine and investigate and identify the demographic, clinical correlations and risk variables which affect the use of clozapine in patients with schizophrenia.

Methods A random cluster sampling technique was used, and participants were collected from China National Psychiatric Management System (CNPMS). The variables for clozapine use in individuals with schizophrenia who had undergone a two-year follow-up were determined using the generalized estimating equation (GEE).

Results In this study, 742 patients with schizophrenia were invited, and 491 completed the two-year follow-up study. Being married, more years of education, more waist circumference, using mood stabilizer, using anticholinergic, higher ITAQ (Insight and Treatment Attitude Questionnaire) scores were more significantly related to the use of clozapine. Older age of onset, using second-generation antipsychotics (SGAs) except clozapine predicted a lower prevalence of using clozapine. The usage of clozapine was very common in patients with schizophrenia treated by primary care physicians, and was influenced by a variety of factors, including price of drugs, clinical factors, health regulations, and the characteristics of treatment environment.

Conclusion Further examination of the rationale and appropriateness of clozapine in primary care in China is necessary.

关键字：schizophrenia clozapine cohort-up study

Relevant Factors for Non-Suicidal Self-Injury in Chinese Adolescents: The Impact of Childhood Trauma, Resilience, and Depression

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Objective Understand the clinical characteristics of adolescents with non-suicidal self-injury(NSSI) and explore the associated risk or protective factors. Furthermore, investigate the impact of childhood trauma on the development of NSSI, and examine the roles of resilience and depression in this relationship.

Methods Selected 51 adolescents treated for NSSI as the experimental group, with 24 healthy volunteers and 24 adolescents with depressive disorder as control groups. Psychological assessments included the Childhood Trauma questionnaire(CTQ), Youth Mental Resilience Scale, 24-item Hamilton Depression Inventory(HAMD24), and NSSI behavioral questionnaire. Path analysis was used to examine the causation structure of NSSI-related symptoms.

Results The majority of NSSI adolescents experienced childhood trauma, especially emotional and physical neglect. Childhood trauma significantly predicted the occurrence of NSSI, particularly in females. The path analy-

sis model showed that Psychological resilience and depressive mood played a crucial role in the relationship between childhood trauma and NSSI. Childhood trauma and depression scores and NSSI frequency showed a moderate positive correlation.

Conclusion Our study provides strong evidence that individuals who experienced childhood trauma are at a higher risk of developing NSSI compared to those who did not. Gender may play an important role in this relationship, and other factors may increase the complexity of this relationship, such as resilience and depression. Not only explains how trauma affects NSSI through the mediation of resilience and the regulation of depression, but also analyzes when the effect is most significant. Identifying childhood trauma and addressing resilience and depressive mood are crucial in managing NSSI in adolescents.

关键字：NSSI; Adolescent; Trauma; Resilience; Depression

Prevalence and Factors Associated with Depression and Anxiety in Adults with Atopic Dermatitis

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目的 To identify the prevalence and factors associated with depression and anxiety in adults with atopic dermatitis (AD).

方法 A cross-sectional study conducted between July 2022-July 2023 in outpatient of Huashan Hospital, Fudan University. We used GAD-7, PHQ-9，PO-SCORAD, EASI and POEM. The correlations between variables were explored using multivariate techniques.

结果 A total of 102 participants were included, of which the majority were female 39 (38%). The median time with the disease was 16 years.The prevalence of depression and anxiety in patients with AD is significantly higher than that in the general population (P＜0.05). The multivariate analysis showed that the variables that influenced the anxiety and depression scores were as follows: PO-SCORAD, EASI score, income, illness length and age.

结论 The prevalence of anxiety and depression symptoms was high. PO-SCORAD, EASI score,illness length and age were associated with anxiety and depression scores in patients with AD.

关键字：adult atopic dermatitis (AD)；depression；anxiety

SSRI 与 SNRI 改善更年期女性抑郁症患者症状的疗效研究

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目的 探究 SSRI 类药物与 SNRI 类药物改善更年期女性抑郁症患者临床症状的疗效及安全性。

方法 选取自 2022 年 7 月~2023 年 5 月就诊于我院门诊的 45-55 岁之间、患有首发更年期抑郁症的女性患者 120 名，按随机数字表法分为 SSRI 治疗组和 SNRI 治疗组，每组 60 例患者。SSRI 治疗组采取舍曲林、氟西汀、帕罗西汀、氟伏沙明、西酞普兰或艾司西酞普兰治疗，SNRI 治疗组采取度洛西汀或文拉法辛治疗。具体药物选择不做规定，全部按照患者临床特征、疾病需求及个人偏好选药。两组患者均连续治疗 8 周。使用 9 项患者健康问卷（Patient Health Questionnaire-9，PHQ-9）、7 项广泛性焦虑障碍量表（Generalized Anxiety Disorder-7, GAD-7）、 15 项患者健康问卷躯体症状群量表（Patient Health Questionnaire-15，PHQ-15）及席汉残疾量表(Sheehan disability scale，SDS）评定患者治疗前后的临床症状及功能状况，使用抗抑郁药副反应量表（Rating Scale for Side Effects，SERS）评估药物使用后的副作用及安全性。

结果 治疗前，两组患者人口学特征差异无统计学意义；PHQ-9、GAD-7、PHQ-15、SDS 得分组间比较，差异均无统计学意义（P＞0.05）；治疗 8 周后，两组患者 PHQ-9、GAD-7、PHQ-15、SDS 总分较治疗前均有改善（P＜0.05），SNRI 治疗组改善程度优于 SSRI 治疗组（P＜0.05）。药物使用 2 周、4 周、8 周后评估 SERS。在第 2 周时，两组 SERS 评分显示 SSRI 组评分低于 SNRI 组，差异有统计学意义（P＜0.05），但第 4 周、第 8 周两组 SERS 差异无统计学意义（P＞0.05）。

结论 SNRI 对于更年期抑郁症患者的症状的疗效优于 SSRI。在最初治疗 2 周内，SNRI 不良反应多于 SSRI，但 4 周后两组不良反应相当。

关键字：SSRI；SNRI；更年期；抑郁症

产后重性抑郁障碍危险因素的 Meta 分析

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目的 产后重性抑郁障碍（Postpartum Major Depressive Disorder，简称 PPMD）是一种严重的产后心境障碍，临床多见抑郁、兴趣丧失、无助感、睡眠障碍及食欲障碍等症状，部分患者会产生自杀想法或行为，严重危害产妇身心健康。该病病因复杂，目前有较多研究对重性抑郁障碍的危险因素进行探索，但部分研究结果存在争议。因此，本研究拟通过 Meta 分析综合评价产后重性抑郁障碍的危险因素，为识别高危人群和临床治疗或干预提供证据支持。

方法 选取 Pubmed、Web of Science、psycINFO、EBSCOhost 等数据库对自建库至 2022 年关于产后重性抑郁障碍危险因素的文献进行检索。由两名研究员根据纳入标准和排除标准独立筛选文献并提取数据，根据 I2 大小确定采用随机或固定效应模型。使用

RevMan 5.3 软件对数据进行 Meta 分析。

结果 共纳入 18 项研究，总样本量 1829706 例，包括 34 项相关危险因素。具有统计学意义的危险因素有：(1)生物因素：流产（RR=2.51，95%CI:1.91～3.11）、妊娠综合征（RR=2.11，95%CI:1.50～2.73）等；（2）心理因素：焦虑症病史（RR=3.91，95%CI:1.39～6.44）、妊娠期抑郁（RR=3.30，95%CI:1.55～5.06）、药物使用障碍（RR=2.08，95%CI:1.61～2.55）等；（3）环境因素：儿童性别（RR=2.88，95%CI:1.78～3.97）、怀孕计划（RR=2.36，95%CI:1.72～3.00）等。

结论 不同国家和地区的产后重性抑郁障碍患病风险存在差异，欧美地区患病风险更高。焦虑症病史、应激性生活事件、妊娠并发症、妊娠期抑郁、胎次及胎儿性别是孕产妇人群患产后重性抑郁障碍的主要预测因素，临床医生应重点关注。

关键字：产后重性抑郁障碍；危险因素；meta 分析

Decoding Symptom Interactions: A Network Analysis of Anxiety, Depression, and Cognitive Functioning in Patients with Schizophrenia

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Objective This study aimed to investigate the complex relationships among anxiety, depression, and cognitive functioning in hospitalized patients with schizophrenia using network analysis, with a focus on identifying central and bridging symptoms that may serve as potential intervention targets.

Methods A total of 1328 patients with schizophrenia were included in the study. Symptoms were assessed using the Hamilton Depression Rating Scale (HAMD-17), Hamilton Anxiety Rating Scale (HAMA-14), and Montreal Cognitive Assessment (MOCA). Network analysis was conducted to explore the relationships among symptoms, and central and bridging symptoms were identified. Network stability was assessed through bootstrap analysis.

Results The network analysis revealed a densely interconnected network with strong positive associations within each of the depression, anxiety, and cognitive functioning communities. The strongest connections between the depression and anxiety communities involved "depressed mood" and "depressed state of mind." Negative associations were observed between "early awakening" and "visual space and executive functioning" within the depression and cognitive functioning communities, and between "cognitive function" and "delayed recall" within the anxiety and cognitive functioning communities. "Somatic anxiety," "insomnia," and "language" emerged as the most central symptoms in the depression, anxiety, and cognitive functioning communities, respectively. The strongest bridging symptoms were "cognitive functioning" in the depression community, "somatic anxiety" in the anxiety community, and "visuospatial and executive" in the cognitive functioning community. The network stability analysis indicated accurate and reliable network estimates.

Conclusion This study provides valuable insights into the complex interplay among anxiety, depression, and cognitive functioning symptoms in patients with schizophrenia. The identification of central and bridging symptoms may inform targeted interventions to improve patients' mental health and functioning. Future research should further explore the potential benefits of addressing these symptoms in clinical practice and investigate the temporal dynamics of these relationships to better understand their causal nature.

关键字：schizophrenia, network analysis, anxiety, depression, cognitive functioning, central symptoms, bridging symptoms, Hamilton Depression Rating Scale, Hamilton Anxiety Rating Scale, Montreal Cognitive Assessment

CB1R-UCP2 信号通路在创伤后应激障碍中的作用机制研究

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目的 创伤后应激障碍（post traumatic stress disorder, PTSD）是最为常见的精神障碍之一，尤其是新冠疫情以来，其发生率明显增加，给患者、家属以及社会带来了沉重的负担。迄今为止，PTSD 的发病机制尚未完全阐明，也缺乏特异性的治疗方法。CB1R-UCP2 是脑内调节能量代谢、维持线粒体功能的重要信号，是维持大脑正常生理功能关键信号机制，但是否参与 PTSD 的发生尚不明确。本研究尝试探讨 CB1R-UCP2 信号通路在 PTSD 样模型中的改变，并通过腹腔注射不同剂量的 CB1R 激动剂 WIN 55,212-2 观察其对实验小鼠的行为学及其靶向分子的影响。

方法 采用 SPS and S 的方法构建 PTSD 小鼠模型。将 45 只 C57BL/6J 雄鼠随机分为 Sham+Veh 组、SPS+Veh 组、SPS+WIN 55,212-2（0.5、1.0、1.5mg/kg）5 组。造模后静养 14 天后通过旷场、高架、条件恐惧等实验来检测小鼠行为学的变化。通过 Western Blot 检测小鼠皮层、海马、杏仁核的 CB1R、UCP2、IL-1β、Caspase-1 等分子的变化。

结果 与 Sham+Veh 组相比，SPS+Veh 组旷场运动总距离、中心区运动距离百分比、中心区停留时间比均下降；高架实验进入开臂时间百分比、进入开臂次数、中心区次数均降低，条件恐惧测试中，情境下小鼠的不动时间增多。与 SPS+Veh 组相比，旷场实验中，0.5mg/kg 给药后小鼠中心区停留时间百分比、中心区运动距离、中心区次数均显著升高，而 1.0、1.5mg/kg 与其他组间均无统计学差异。高架实验中，1.0mg/kg 组中心区停留时间、中心区运动距离比增多，0.5、1.5mg/kg 与其他组间无统计学差异。 2. 与 Sham+Veh 组相比，SPS+Veh 组皮层、杏仁核和海马组织中 CB1R、UCP2 表达均下降，而 IL-1β、Caspase-1 表达均上调。与 SPS+Veh 组比较，三种激动剂组 CB1R、UCP2 蛋白表达显著上升，1.0mg/kg 剂量组 CB1R 回调效果最显

著；IL-1β、Caspase-1 表达降低。

结论 SPS and S 造模后小鼠表现出明显的焦虑样行为，并伴有认知缺陷，恐惧消退受损等现象，可能与皮层、海马、杏仁核等脑区情绪分子降低有关，而注射 CB1R 激动剂后，能够减轻模型动物的焦虑样行为及炎症反应。

关键字：创伤后应激障碍；大麻素分子；解偶联蛋白 2；作用机制

PCDH9 (rs9540720) and Narcissistic Personality Traits on The First Episode Risk of Major Depression in Chinese Freshmen: Findings From A 2-year Cohort Study

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Objective To explore the influence of the polymorphism of the Protocadherin (PCDH) gene and narcissistic personality traits on major depression in freshmen.

Methods A 2-year longitudinal study proceeded on Chinese first-year university students from two universities in Shandong enrolled in 2018 by cluster random sampling. The snapshot technique was used to detect the genotypes of PCDH9 (rs9540720). The Chinese version of the Composite International Diagnostic Interview (CIDI-3.0) was used for major depressive Disorder (MDD) screen, and narcissistic personality traits were measured by 11 items based on DSM-IV. We used STATA 16.0 for logistic regression modeling to estimate the relationship between rs9540720 and narcissistic personality traits and new onset depression.

Results 5,687 people participated in this study and provided blood samples. The prevalence of narcissistic personality disorder (NPD) and the incidence of MDD among first-year students were 6.60% (95%CI: 5.98%-7.27%) and 4.98% (95%CI: 4.30%-5.76%), respectively. The average score of the narcissistic personality traits was 1.43±1.729. Rs9540720 (ORGG=2.19, 95%CI: 1.26-3.82; OR GA=2.13, 95%CI: 1.24-3.66) and narcissistic personality traits (OR=1.32, 95%CI: 1.23-1.42) were significantly associated with an increased risk of developing depression. Additionally, rs9540720 (ORGG=2.18, 95%CI: 1.24-3.83; ORGA=2.20, 95%CI: 1.27-3.81) and narcissistic personality traits (OR=1.23, 95%CI: 1.14-1.34) are risk factors for new-onset depression within two years.

Conclusion Rs9540720 and narcissistic personality traits play an important role in the risk of major depression. While keeping an eye on freshmen with depression, it is essential to not only implement appropriate prevention and intervention measures but also conduct further analysis of the molecular biological pathogenesis. This will help provide theoretical guidance and practical approaches for the prevention and treatment of depression.

关键字：Protocadherin gene, Narcissistic personality traits, Major depressive disorder, Freshmen, Longitudinal study

围绝经期综合征患者睡眠障碍现状及影响因素研究

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目的 研究围绝经期综合征患者睡眠障碍现状及影响因素，为防治工作提供参考信息。

方法 选取我院 2019 年 10 月～2020 年 9 月诊治的围绝经期综合征患者 263 例作为研究对象，应用匹兹堡睡眠质量指数量表（PSQI）评估患者睡眠质量，统计睡眠障碍发病率并分析发病特点，收集患者的人口学资料、性激素水平、精神状态，人口学资料包括年龄、体重指数、学历、高血压史、糖尿病史、吸烟、饮酒、体育锻炼，性激素水平检测血清雌二醇（E2）、促黄体生成素（LH）、促卵泡刺激素（FSH）、泌乳素（PRL）、孕酮（P）、睾酮（T），精神状态采用焦虑自评量表（SAS）、抑郁自评量表（SDS）评估，通过统计学分析判定以上各项是否为围绝经期综合征患者睡眠障碍的影响因素。

结果 263 例围绝经期综合征患者 PSQI 均分为（11.5±2.9）分，睡眠障碍发病率为 43.7%，睡眠障碍患者的主要表现是入睡困难、夜间觉醒次数增多、晨间早醒、觉醒后无法再入睡等， 睡眠障碍患者的 PSQI 评分主要体现在主观睡眠质量、入睡时间、睡眠障碍、日间功能障碍维度分之较高，与无睡眠障碍的患者比较差异有统计学意义（P＜0.05）。单因素分析发现年龄 50～55 岁、学历高中及以下、有糖尿病史、体育锻炼＜3 次/周、E2 降低、PRL 降低、P 降低以及 SAS 评分≥50 分、SDS 评分≥50 分的患者睡眠障碍发病率更高（P＜0.05）。多因素 logistic 回归分析提示年龄、糖尿病史、体育锻炼以及 E2、PRL、P 水平和 SAS 评分、SDS 评分是围绝经期综合征患者睡眠障碍的影响因素（P＜0.05）。

结论 围绝经期综合征患者睡眠障碍发病率高，应当引起关注，睡眠障碍发病受到围绝经期综合征患者年龄、糖尿病史、体育锻炼以及性激素 E2、PRL、P 水平和精神状态多因素影响，需要针对以上各项采取有效的干预措施降低围绝经期综合征患者睡眠障碍发病率，改善女性围绝经期生活质量。

关键字：围绝经期综合征；睡眠障碍；睡眠质量；人口学资料；性激素；焦虑；抑郁；影响因素

知信行模式下正念减压训练对有精神神经症状的围绝经期综合征女性负性情绪、应对方式及性激素代谢的影响

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目的 探讨知信行模式下正念减压训练对有精神神经症状的围绝经期综合征女性负性情绪、应对方式

及性激素代谢的影响。

方法 选取有精神神经症状的围绝经期综合征女性 80 例，随机分为对照组与观察组，每组 40 例，对照组采用常规的健康教育干预，观察组采用知信行模式下正念减压训练干预。调查两组患者干预前后负性情绪、应对方式及性激素水平变化。

结果 两组患者干预前焦虑自评量表（SAS）和抑郁自评量表（SDS）评分比较差异无统计学意义（P>0.05），干预后 SAS 和 SDS 评分均较干预前下降，且观察组低于对照组，比较差异有统计学意义（P<0.05）；两组患者干预前应对方式（MCMQ）中面对、回避和屈服得分比较差异无统计学意义（P>0.05），干预后面对得分较治疗前升高，且观察组高于对照组，干预后回避和屈服得分均较治疗前下降，且观察组低于对照组，比较差异有统计学意义（P<0.05）；两组患者干预前血清雌二醇（E2）、孕酮（P）和卵泡刺激素（FSH）水平比较差异无统计学意义（P>0.05），干预后 E2 和 P 水平较干预前升高，且观察组高于对照组，干预后 FSH 水平均较干预前下降，且观察组低于对照组，比较差异有统计学意义（P<0.05）。

结论 有精神神经症状的围绝经期综合征女性采用知信行模式下正念减压训练干预有助于缓解患者负性情绪，改变患者对疾病的应对方式，调节性激素的代谢，帮助患者度过围绝经期。

关键字：围绝经期综合征；知信行模式；正念减压疗法；精神神经症状；负性情绪；应对方式；性激素代谢；女性

The Mediating Effect of Depressive Symptoms in Relationship between Physical Activity and Cognitive Functions Among Older Adults

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Objective Previous studies showed that physical activity (PA) is protective against cognitive decline, but the underlying mechanism between PA and cognitive function is still unclear. This study was to explore whether depressive symptoms play a mediating role in the relationship between PA and cognitive function.

Methods This study included 2,681 participants aged 60 years or over from NHANES 2011-2014, which was a complex, multistage, and probabilistic sampling design survey. Multivariable linear regression was applied to estimate the associations between PA, depressive symptoms, and cognitive function, and the mediation model was used to investigate the mediating effect of depressive symptoms.

Results The depressive symptoms, as a mediator in the association between the moderate-to-vigorous recreational activity (MVRA) and the Animal Fluency Test (AFT), the Digit Symbol Substitution Test (DSST), and the composite z-score, mediated 7.8%, 12.8%, and 11.2% of the total association, respectively.

Conclusion This study found that higher moderate-to-vigorous recreational activity may improve better cognitive function in older adults, in which depressive symptoms played a partial mediating role.

关键字：physical activity; cognitive function; depressive symptoms; mediation analysis

Violence Against Pregnant and Postnatal Women in China: A Multicenter Study

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Introduction Violence against women has always been a worldwide public health issue. In particular, intimate partner violence and sexual violence are major threats to women and violations of women's human rights. However, little is known about the violence experience among pregnant and postnatal women in China. In this study, we aim to examine the prevalence of verbal and physical violence experience, its demographic and clinical correlates and association with QOL among Chinese pregnant and postnatal women.

Methods This cross-sectional, multicenter investigation was performed from February to October 2019. Women's verbal and physical violence experience was assessed with 6 revised questions from the Chinese Workplace Violence Scale, and the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF) is utilized to assess a person's quality of life. Univariate analyses, multivariate logistic regression analyses were performed.

Results In total, 1,060 pregnant and postnatal women completed the assessment. A total of 88 (8.30%, 95% CI=6.64%-9.97%) women reported violent experiences during and after pregnancy. Of these women, 79 (7.45%, 95% CI=5.87%-9.04%) reported verbal violence experience, and 19 (1.79%, 95% CI=0.99%-2.59%) reported physical violence. Logistic regression analysis showed that women with placenta previa (OR=2.140, 95% CI=1.041-4.399, P=0.039) were more likely to experience violence during pregnancy or the postnatal period. Individuals with violence experience reported lower QOL in the physical (t=4.492, P<0.001), psychological (t=4.503, P<0.001), social (t=5.289, P<0.001) and environmental (t=4.997, P<0.001) domains.

Conclusion the prevalence of violence experienced by Chinese pregnant and perinatal women decreased in recent years, but violence experience during and after pregnancy was found to be significantly and negatively associated with all domains of QOL. To guide legislative and policy reforms and to provide targeted and effective interventions, it is essential to provide comprehensive information about violence experience of women for the public to increase societal awareness.

关键字：violence, pregnancy, postnatal period, prevalence, China

The Core Inflammatory Factors in Patients with Major Depressive Disorder: A Network Analysis

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Objective The symptoms of major depressive disorder (MDD) vary widely. Psycho-neuro-inflammation has shown that MDD's inflammatory factors can accelerate or slow disease progression. This network analysis study examined the complex interactions between depressed symptoms and inflammatory factors in MDD prevention and treatment.

Methods We gathered participants' inflammatory factor levels, used the Hamilton Depression Scale (HAMD-17) , and network analysis was used to analyzed the data. Network analysis revealed the core inflammatory (nodes) and their interactions (edges). Stability and accuracy tests assessed these centrality measures' network robustness. Cluster analysis was used to group persons with similar dimension depressive symptoms and examine their networks.

Results Interleukin-1β (IL-1β) is the core inflammatory factor in the overall sample, and IL-1β—Interleukin-4 (IL-4) is the strongest correlation. Network precision and stability passed. Network analysis showed significant differences between Cluster 1 (with more severe anxiety/somatization and sleep disruption) and Cluster 3 (with more severe retardation and cognitive disorders), as well as between Cluster 2with more severe anxiety/somatization, sleep disruption and body weight) and Cluster 3. L-1β is the core inflammatory factor in Cluster 1 and Cluster 2, while tumor necrosis factor alpha(TNF-α) in Cluster 3.

Conclusion IL-1β is the central inflammatory factor in the network, and there is heterogeneity in the core inflammatory factor of MDD with specific depressive dimension symptoms as the main manifestation. In conclusion, inflammatory factors and their links should be prioritized in future theoretical models of MDD and may provide new research targets for MDD intervention and treatment.

关键字：network analysis; major depressive disorder; inflammatory factors; trait depression; cluster analysis.

Intensive Cognitive Behavioral Therapy for Obsessive-Compulsive Disorder: A Comprehensive Meta-analysis of Randomized Controlled Trials

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Background Intensive cognitive behavioral therapy (CBT) becomes prevalent used in patients with anxiety disorders, especially obsessive-compulsive disorder (OCD). However, the efficacy of this treatment remains uncertain. The aim of this review was to explore the effects of intensive CBT compared to other treatments.

Method Randomized control trials (RCT) were identified through six English database and two Chinese database resulting 16 eligible studies. Four reviewers independently involved in studies searching, screening, and research quality assessing. We examined standardized mean difference (SMD) at post-treatment and follow-up to seek the short-term and long-term effects of intensive CBT compared with inactive treatment, psychotherapy and pharmacotherapy. Moderated analysis and meta-regression were conducted to investigate the potential factors associated with OCD severity relief. Secondary outcomes included scores of depression, anxiety and family accommodation (FA).

Results Participants in intensive CBT showed a significant relief in OCD symptoms at post-treatment compared with inactive treatment (SMD = -2.32, 95%CI: -3.97 to -0.67, p < .000), psychotherapy(SMD = -0.85, 95%CI: -1.45 to -0.26, p < .000) and pharmacotherapy (SMD = -1.11, 95%CI: -2.08 to -0.15, p = .003). The superiority of intensive CBT disappeared at follow-up compared with psychotherapy (SMD = -0.05, 95%CI: -0.53 to 0.43, p = .84). Jadad score and session duration were significantly associated with effect sizes. Symptoms of depression (SMD = -0.51, 95%CI: -0.90 to -0.12, p = .01) and FA (SMD = -0.78, 95% CI: -1.54 to -0.02, p = .04) improved better in group of intensive CBT at post-treatment. While there was no evidence of differences between intensive CBT and control group in reducing anxiety. No significant differences were found in anxiety, depression or FA between intensive CBT and control groups at follow-up.

Conclusions This meta-analysis suggested that intensive CBT may be more effective than inactive treatment, psychotherapy and pharmacotherapy in reducing OCD severity at short-term, and this efficacy were moderated by the study quality and session duration. Intensive CBT also perform well in depression and FA improvement, but advantages disappear as time goes by.

关键字：obsessive-compulsive disorder, cognitive behavioral therapy, intensive treatment, randomized controlled trial, meta-analysis.

Patterns of Attentional Bias in Prenatal Depression: An Eye-tracking Study

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Objective One of the most common mental disorders in the perinatal period is depression, which is associated with impaired emotional functioning due to alterations in different cognitive aspects including thought and facial emotion recognition. These functional impairment may affect emerging maternal sensitivity and have lasting consequences for the dyadic relationship. The current study aimed to investigated the impact of depressive symptoms on the attention bias of infant stimuli during pregnancy.

Methods Eighty-six pregnant women completed the Edinburgh Postnatal Depression Scale and an eye-tracking task comprising infant-related emotion images. Gaze data was recorded to assess different components of the attention data.

Results All participants showed biased attention to infant-related images. Compared to healthy pregnant women, pregnant women with depression symptoms initially directed their attention to infant-related stimuli more quickly ($F(1, 84) = 6·175$, $P = 0·015$, $\eta? = 0·068$). Further, pregnant women with prenatal depression were faster to detect positive images associated with infants than negative images ($P = 0·007$).

Conclusion Our research found that attentional bias toward positive stimuli more than negative stimuli does appear in depressed individuals.We speculate that structural and functional changes in affective motivation and cognitive-attention brain areas may induce these attentional bias patterns. These results provide suggestions for the implementation of clinical intervention programs to correct the attention bias of prenatal depressed women.

关键字：prenatal depression; attentional bias; eye tracking; pregnancy.

Association between Non-suicidal Self-injury and Theory of Mind in Female Patients with Depressive Disorder

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Objective Non-suicidal self-injury (NSSI) is widespread among female patients, especially among female patients with depression. Among them, interpersonal factors play an important role in the occurrence of non-suicidal self-injury behaviors in female patients. Assessing social cognitive deficits can provide insight into underlying interpersonal problems associated with nonsuicidal self-injurious behavior.Theory of mind(TOM) is an important part of social cognitive.TOM is the basis for being able to correctly understand the surroundings and participate in social interpersonal communication however, there is currently little research in female patients with NSSI. This study used a theory-of-mind-related paradigm to explore the impairment of decoding and reasoning abilities in female patients with depressive disorder aiming to identify patients at risk of NSSI early and give targeted intervention at early stages to reduce suicide.

Methods A total of 40 female patients with depressive disorder who were in Shenzhen Kangning Hospital from June to December 2021 were enrolled. They were divided into NSSI group(n= 24)and non-NSSI group(n= 16) according to DSM-V. Hamilton anxiety rating scale-14 item (HAMA-14) and Hamilton depression rating scale-17 item(HAMD-17)were used to evaluate the severity of anxiety and depression. Hinting task was used to test TOM .Binary Logistic regression analysis was used to explore the independent risk of theory of mind to NSSI.

Results Compared with the non-NSSI group, the NSSI group had higher scores on the anxiety symptom [(20.88±4.48),(17.38±5.90),t=2.131,P=0.040]depression[(25.46±4.48),(22.00±4.05),t=2.483,P=0.018],Compared with the non-NSSI group, the NSSI group had lower scores on the Hinting task [(16.13±2.89),(18.25±1.06),t=-3.280,P=0.003].Binary Logistic regression analysis showed that hinting task was associated with non-suicidal self-injury in patients with depressive disorder(OR:0.570,95%CI:0.329-0.986).

Conclusion The impairment of verbal reasoning ability in female patients with depression associated with NSSI may provide direction for early identification and intervention of NSSI in the future.

关键字：Depressive disorder; female patients; Non-suicidal self-injury; Theory of mind.

肝-脑轴调控 RNA 甲基化介导运动抗焦虑的整合生理学机制

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目的 作为简便、经济、安全的非药物手段，运动能显著改善情感和认知障碍。这些效果可能源于其对大脑可塑性的调节，但目前我们对于运动保护脑功能的完整外周-中枢机制还不清晰。课题组近年来聚焦肝脏这一重要代谢器官，解析肝-脑轴在运动改善情感障碍中的作用机制。

方法 建立了慢性束缚压力应激的小鼠焦虑症模型，结合慢性平板跑步机训练进行运动干预，通过系列行为学手段进行检测以评估运动抗焦虑的疗效。通过表观遗传组学测序手段对运动干预后小鼠前额叶皮质的 RNA 甲基化水平和具体位点进行分析；进一步利用分子生物学和神经环路技术，对甲基化影响的神经突触活动性进行在体记录，对其相关的神经环路进行解析。最后，利用外周代谢组学等手段，研究肝脏来源的

甲基化供体对脑内 m6A 的调控机制过程。

结果 研究发现，慢性运动可以激活肝脏中甲基化供体合成，通过促进脑内突触相关基因转录本 RNA 甲基化（m6A），增强情感相关脑环路网络活性，从而改善焦虑障碍。进一步的分子机制解析发现，运动激活肝脏释放的甲基化供体，还可能通过 m6A 机制调控脆性 X 型智力迟钝蛋白（FMRP）表达，进而激活 mTOR 通路，在细胞代谢层面增强神经元活动性。

结论 上述研究揭示了一条肝-脑轴介导的代谢-表观遗传通路，在慢性运动中改善情感障碍的完整机制，对于客观评估运动疗效、优化运动处方、开发运动增效或替代性药物都具有重要意义。

关键字：焦虑症；运动；甲基化

Validation of The Female Sexual Function Index (FSFI) and The Female Sexual Distress Scale-Desire/Arousal/Orgasm (FSDS-DAO) in Chinese Women

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Introduction Low sexual desire is common in China, while the lack of reliable and valid instruments to evaluate symptoms of hyposexual desire disorder (HSDD) impedes related research and clinical service. [Aim] To validate the Female Sexual Function Index (FSFI) and the Female Sexual Distress Scale-Desire/Arousal/Orgasm (FSDS-DAO) in Chinese female HSDD patients.

Methods We administered FSFI and FSDS-DAO in a convenient sample of Chinese adult women. Participants were diagnosed by a psychiatrist according to the DSM-IV-TR. [Outcomes] The reliability and validity of FSFI (including its desire domain FSFI-d) and FSDS-DAO.

Results We had a valid analysis sample of 279 Chinese women, of which 108 were HSDD patients. The Cronbach's α of FSFI and FSDS-DAO were 0.947 and 0.956, respectively. ICCs were 0.86 and 0.89, respectively (the interval was 13-15 days). The correlation coefficient of FSFI (or FSDS-DAO) and the Revised Adult Attachment Scale (RAAS) did not exceed 0.4; the area under the ROC curve was 0. 83 when combined FSFI-d and FSDS-DAO, which was significantly different from that of using these scales individually. The cut-off value of the domain score FSFI-d ≤ 2.4 (1.2-6) and FSDS-DAO≥ 14 (0-60) (Sen 68%, Spe 83%) can be used in clinical research or outpatient screening. [Clinical implications] FSFI (including FSFI-d) and FSDS-DAO are suitable for the screening and evaluation of Chinese female HSDD patients. [Strengths and limitations] Strengths include a thorough validation of FSFI and FSDS-DAO and the exploration of the cutoff score combing FSFI-d and FSDS-DAO. Limitations include a small convenience sample and the requirement of being sexually active for HSDD patients.

Conclusion FSFI (including FSFI-d) and FSDS-DAO have good internal consistency, test-retest reliability, construct validity, and criterion validity in Chinese female HSDD patients.

关键字：Sexual desire, Sexual distress, Hypoactive sexual desire disorder, Scale

Social Support Mediates The Influence of Cerebellum Functional Connectivity Strength on Postpartum Depression Symptoms

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Objective Depression is a common mental disorder. Postpartum depression (PPD) is a major depressive disorder in which a mood disorder occurs during pregnancy or within one year after delivery. Maternal depression affects both the child's growth and the mother's ability to care for her infant. Previous studies have shown that adequate social support can protect against PPD. However, how the brain connectome is disrupted in PPD and the neural basis underlying the role of social support in PPD remain unclear. The present study aims to explore these issues in patients with PPD.

Methods Well-established questionnaires and resting-state functional Magnetic Resonance Imaging (rsfMRI) were performed in 120 PDD patients and 105 Healthy Postnatal Women (HPW). Brain functional integration was measured by analysis of Functional Connectivity Strength (FCS). Association and mediation analyses were performed to investigate relationships between FCS, PPD symptoms and social support.

Results PPD patients showed specifically higher FCS in right parahippocampus. In all postpartum women, depression symptoms positively correlated with FCS in left paracentral lobule; depression and anxiety symptoms were negatively correlated with FCS in right cerebellum posterior lobe (CPL), a brain region implicated in supporting social cognition and regulation of emotion. Subsequent mediation analysis revealed that perceived social support mediated the association between CPL FCS and PPD symptoms.

Conclusion Measurement of FCS in disorder-specific neural circuits offers a potential biomarker to study and measure the efficacy of social support for PPD.

关键字：postpartum depression, functional connectivity strength, mediation analysis, social support, cerebellum posterior lobe

妊娠期抗精神病药暴露的产科结局（先天畸形）. 系统综述

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目的 回顾妊娠早期接触奥氮平、利培酮和阿立哌唑以及先天畸形风险的现有数据。我们根据 PRISMA 指南进行了系统的文献检索，确定了包含先天畸形早期妊娠暴露和妊娠结局原始数据的研究。

方法 同时纳入所有抗精神病药的系统综述，对所有符合条件的实验进行了全面的荟萃分析，共包括 17 项队列研究，纳入 3,312,249 名受试者，为今后妊娠期抗精神病药治疗策略提供一定依据。纳入干预：阿立哌唑，氯氮平，氟哌啶醇/五氟利多，拉莫三嗪，锂，鲁拉西酮，奥氮平，喹硫平，利培酮 ，丙戊酸钠，齐拉西酮 ，吩噻嗪类药物共 12 种干预。暴露组为：n=46897，妊娠期患有精神疾病，并且使用抗精神病药的妇女。（其中两项研究为妊娠全期妇女，其余 15 项均研究妊娠早期）对照组为：n=3,265,352，妊娠期患有精神疾病，但未用抗精神病药妇女

结果 奥氮平的累积数据为 4977 例，妊娠早期接触过奥氮平的孕妇，其中 230 例畸形，导致畸形率为 4.6%。阿立哌唑，利培酮的相应数字分别为 6733/292（4.3%）、4606/227（4.9%）。相对风险估计值和 95%置信区间分别为 1.48 (1.09, 2.16)（奥氮平）、1.49 (1.13, 2.15)（阿立哌唑）、1.52 (1.08, 2.20)（利培酮）。

结论 妊娠早期接触奥氮平，利培酮，阿立哌唑均与先天畸形风险增加有关，其他尚未发现明显差异的精神科药物，风险排序如下：锂盐、氟哌啶醇/五氟利多、喹硫平、吩噻嗪类、拉莫三嗪。

关键字：妊娠期、抗精神病药、先天畸形

司法精神病学组

基于司法精神病学案例分析的 CBL 教学法在精神病学理论课程的应用

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目的 在当前新医科教育背景下国家出台了相关的新政策要求，精神病学理论课程的教学当前面临诸多新挑战，如何提升精神病学理论课程的课堂参与度、提高教学质量值得研究，本研究拟探讨基于司法精神病学案例分析的CBL 教学法在精神病学理论课程的应用情况。

方法 以教研室 2022 年秋季学期主修“精神病学理论”课程且自愿参与调研的 287 名医学本科生为研究对象，通过在期末向学生发放问卷星二维码的方式进行匿名问卷调查、评价教学改革效果。教学过程中，选取精神病学理论课程中的“器质性精神障碍、精神活性物质所致精神障碍”章节由一位具有法医精神病鉴定资质的教师采用基于司法精神病学案例分析的CBL 教学法，其余章节内容由其他 8 名教师依旧采用传统教学模式，相关案例分析均基于临床病例。据此分两组，探讨基于司法精神病学案例分析的CBL 教学法对精神病学理论课程学习参与度的影响。

结果 在 283 名有效参与调研的大学生中，86.22%学生（244 人）认为老师运用了司法精神病案例分析后，能够在一定程度上提升他们对“精神病学理论”课程的参与度。在“精神病学理论”全章节听课过程中，学生自评课堂参与度为“非常高”者 78 人（27.56%）、“较高”者 134 人（47.35%）、“一般”者 62 人（21.91%）、“较低”者 9 人（3.18%），其中在使用了司法精神病学案例分析的授课章节中，学生的课堂参与度较全章节课堂平均参与度总体上有所提高，自评课堂参与度为“非常高”者 77 人（27.21%）、“较高”者 146 人（51.59%）、“一般”者 55 人（19.43%）、“较低”者 5 人（1.77%）。

结论 该教学法在一定程度上有助于提升学生的课堂参与度，值得在今后的精神病学教学活动中进一步验证。

关键字：精神病学，CBL 教学，课堂参与度，教学改革

法医精神病远程鉴定的几点思考

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目的 探讨远程鉴定的实施方案

方法 从传统鉴定模式面临的困境、远程鉴定的可能面临的困难以及相应的处理建议进行逐一探讨。

结果 首先，有必要尽快制定适用于精神病远程鉴定的规范、标准。现行的《精神障碍者司法鉴定精神

检查规范》（SF/Z JD0104001-2011）等规范性文件需要针对远程鉴定的精神检查特点，对设备要求、在场人员要求、保密性、不合作者的检查等方面进行规范。另外，可出台远程鉴定操作规范细则，从委托受理、材料审查、委托确认书签署、鉴定实施过程，远程鉴定告知书制作等方面进行规范。司法精神医学鉴定行业有必要组织专家尽快进行专门研究、讨论，形成共识，并以行业规范、技术标准或行业专家共识等方式进行公布实施。 其次，因为视频鉴定对设备要求较高，同时需要考虑网络的安全性。建议机构应配备独立的服务器，非公共网络服务器，办公电脑（可以流畅运行 windows XP 或 windows 7 系统）、通过扩展可以进行视频、声频通讯，使用摄像头、麦克风、扬声器等专业的和普通的外部设备进行实时的远程音视频联系，一般要求互联网带宽不低于 512K。 最后，进行远程鉴定需征得委托方同意，告知委托方及相关方风险，经确认设备、软件能保证鉴定检查的实施，可进行远程鉴定。鉴定过程需同步录音录像，任何机构或个人不得随意录制或传播。

结论 远程精神病鉴定是弥补传统线下精神病鉴定的重要方案，然而作为新晋的鉴定模式，现行远程鉴定中仍有众多不足。尽快制定适用于精神病远程鉴定的规范、标准将极大保证远程鉴定的完善和顺利实施。

关键字：法医精神病；远程鉴定

醉驾者刑事责任能力评定

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目的 2011 年 5 月 1 日《中华人民共和国刑法修正案(八) 》正式将醉驾纳入危险驾驶罪(车辆驾驶人员血液酒精含量≥80 mg /100 mL 为醉酒驾车)，即醉驾入刑，每年有相当多的醉驾者判罪量刑。研究发现此类人群中酒精使用障碍、抑郁障碍、人格障碍等精神障碍的患病率及共病率均明显高于一般人群。在法医精神病鉴定实践中，醉驾案件中的嫌疑人可能涉及刑事责任能力评定。但对于这一特殊的犯罪类型，法医精神病鉴定人的认识并不统一，是否开展、如何开展醉驾者的刑事责任能力评定存在较大分歧。本研究旨在探讨醉驾者刑事责任能力评定的可能类型，并提出相应的评定意见。

方法 对无刑事责任能力、限定刑事责任能力、完全刑事责任能力等三种类型的案件进行回顾性分析。

结果 进行刑事责任能力评定的醉驾者在精神障碍诊断方面存在如下几种情形：（1）急性酒精中毒：包括普通醉酒、复杂性醉酒；（2）使用酒精所致的精神和行为障碍，存在慢性酒中毒，作案时处于普通醉酒状态；（3）使用酒精所致的精神和行为障碍，共病其他精神障碍，诸如精神分裂症、心境障碍等。依据具体案件情况，醉驾者的刑事责任能力评定可能出现无刑事责任能力、限定刑事责任能力、完全刑事责任能力三种情形。

结论 对醉驾者的刑事责任能力评定应根据医学要件和法学要件相结合的法医精神病鉴定原则，全面收集相关信息，系统开展鉴定检查，根据《ICD-10 精神与行为障碍分类》明确被鉴定人的精神状态，即是否罹患精神障碍、罹患何种精神障碍，作案时精神状态如何；结合醉驾具体作案情节分析被鉴定人对醉酒驾驶作案行为的辨认和控制能力是否受到精神症状的影响及受影响程度，根据《精神障碍者刑事责任能力评定指南》对醉驾者的刑事责任能力状况进行准确评价。

关键字：酒精 醉驾 刑事责任能力 评定

涉毒案件的司法判决结果引发的司法精神医学鉴定思考

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目的 探讨毒品所致精神障碍的司法鉴定诊断、刑事责任能力评定在法律界审查与认定的差异

方法 通过对一例吸食毒品所致精神障碍者二次刑事案件的三次司法鉴定和法院判决结果进行对比分析，讨论毒品所致精神障碍的诊断和刑事责任能力评定相关问题

结果 目前毒品所致精神障碍的鉴定诊断及刑事责任能力评定仍存在诸多分歧，大部分鉴定人虽然知晓司法部 2011 年颁布实施的《精神障碍者刑事责任能力评定指南》（2016 年修订）对毒品所致精神障碍者刑事责任能力评定的特别规定，但在实际鉴定工作中，大部分鉴定人仍评定完全或限定刑事责任能力但法律界更多判定毒品所致精神障碍者“完全刑事责任能力”.但法律界更多判定毒品所致精神障碍者“完全刑事责任能力”,认为作案时处于精神活性物质所致精神障碍发病期，虽然受精神病理因素的影响，其辨认能力和控制能力受损，但其精神障碍系其自愿长期吸食毒品所致，之前有过因精神症状杀人等“失控行为”，从全过程考虑，因其吸毒行为属于可控制的行为，具有违法性和自陷性，其对于危害结果的发生持放任态度，属于“原因自由行为”，应当认定具有完全刑事责任能力。

结论 当下司法鉴定机构应统一按照《精神障碍者刑事责任能力评定指南》出具鉴定意见，即 5.2.5 条款规定：“对毒品所致精神障碍者，对自愿摄入者，如果精神症状影响其辨认或控制能力时，不宜评定其刑事责任能力，可进行医学诊断并说明其作案时精神状态。”行为人是否具有刑事责任能力，承担何种刑事责任的问题。此问题属于法律问题，故其判断应采取以法官司法判断权为主，精神病专家知识性权力为辅的方式。以便法院对行为人的刑事责任能力做出最终的司法裁定，希望毒品所致精神障碍者刑事责任能力问题尽快通过立法或修改《刑法》第十八条第四款予以明确，如“自愿摄入毒品所致精神障碍的人犯罪，应当负刑事责任”，为司法实践“定纷止争”。

关键字：毒品 精神障碍 司法精神医学鉴定 刑事责任能力

如何应对鉴定实践中伪装精神病问题

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目的 讨论法医精神病鉴定实践中伪装精神病的特点及处理方法

方法 从一门诊诊断“抑郁症”、住院“精神分裂症”的具体鉴定案例出发，从案发前社会功能、精神症状性质、发展、转归、心理评估以及生化测验等方面入手，综合鉴别是伪装，结合部分文献及近二十年鉴定实践，分析病历问题和识别伪装问题。

结果 伪装精神病的特征：有明显的伪装动机和目的；对个人病征的过分强调；精神症状表现不能完全地符合任何一种精神疾病的临床相，违反了精神疾病的一般规律；发作间歇性异常；伪装精神疾病病程不定，精神异常表现往往突然出现、突然消失；精神异常表现夸张、做作，内容丰富多彩；不符合精神疾病症状组合的一般规律；主动演示症状；对外界的因素会做出相应调整；伪装精神病所表现出来的生活能力、社会功能障碍的严重程度比真正精神病患者严重；对于相关人员的检查呈排斥和不合作态度。伪装性精神病常见的表现有：（1）伪装幻觉，例如主动表述看到了妖怪、听到声音叫自己去作案等；（2）伪装妄想，称有人来害他等；（3）伪装兴奋躁动，例如故意大喊大叫不止，手舞足蹈，时哭时笑；（4）伪装不说话、安静型，就是所谓的装聋作哑，多问不答，蜷缩一隅；（5）缄默不语、不吃不喝、（亚）木僵状态；（6）伪装痴呆，表现智能严重减退、呆傻、遗忘，甚至记不得自己和家人名字、个人经历等；（7）行为怪异及其他型，行为做作、怪异、吃异物，随地便溺，甚至往自己身上倒屎倒尿，当众裸体等；（8）在看守所、监狱等地经常扬言要自杀，主动写“绝命书”，并有数次的小自残自伤行为，但从无严重的致死性自我伤害。

结论 鉴定基本要求：鉴定人员在鉴定实践必须时时保持高度警觉性，不仅要有严肃和客观的态度，而且还要有丰富的精神病学知识和临床经验。阅卷、调查、鉴定调查与精神检查同样重要，按司法部《精神障碍者精神检查规范》。无病推定，掌握全面的、辩证的鉴别思维方法，首先将所谓“精神症状”与具体精神疾病联系起来进行鉴别，横断面和纵向分析是否符合某种精神疾病的发生、发展及其病情演变规律，再结合具体的案情事实，重点分析其装病动机、“起病”时间、“发病”过程、“症状”与作案行为特点间的关系等。必要时进行住院鉴定，可以对被鉴定人进行长时间、持续性地观察和反复作深入细致的精神检查，这是鉴别伪装精神疾病疑难案例的有效方法。未来的研究应着重于客观指标的建立、“无精神病”与“伪装精神病”的长期随访等。

关键字：法医精神病鉴定 伪装精神病 识别 处理

司法鉴定中颅脑外伤所致精神障碍者 EPQ 人格特征及相关因素分析

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目的 探讨颅脑外伤所致精神障碍司法鉴定者 EPQ 人格特征，分析其相关影响因素。随着经济社会的快速发展，颅脑外伤（目前主要是交通事故）所致精神障碍[1]在司法精神病伤残鉴定案件中的比例越来越高[2]，其中“颅脑外伤所致人格改变”的诊断比例明显不一，颅脑外伤所致人格改变诊断比例低的 2.4%，高的 81,7%【3】。导致这种巨大差异的原因很多。为了能客观的、一致性较高的在伤残鉴定中诊断颅脑外伤所致人格改变，其心理状况逐渐受到关注，为此本研究探讨司法鉴定中颅脑外伤所致精神障碍者 EPQ 人格特征，以便更好地为法医精神病司法鉴定提供理论依据。

方法 收集 400 例法医精神病司法鉴定中颅脑外伤所致精神障碍者纳入研究对象，采用龚耀先修订本的艾森克人格问卷（Eysenck Personality Questionnaire，EPQ）评定人格特征，并用采用简明精神病量表（The Brief Psychiatric Rating Scale,BPRS）测评心理健康状况，最常用的为 18 项版本。所有项目按 1~7 分评分。

结果 研究组与常模组，EPQ 评定的内外向特征高于全国常模（P＜0.05），精神质与神经质特征得分均低于常模（P＜0.01），掩饰得分两组间无明显差异（P＞0.01）；BPRS 评分在焦虑抑郁、缺乏活力因子分比较差异均有显著性（P＜0.05）。多元线性回归显示文化程度、受伤原因和 EPQ 的神经质(N)、内外向(E)、精神质(P)进入 BPRS 阳性症状的回归方程。

结论 文化程度、受伤原因和 EPQ 的神经质(N)、内外向(E)、精神质(P)进入 BPRS 阳性症状是发生精神障碍的影响因素，应建立起相应的干预机制。本研究结果表明司法鉴定中颅脑外伤所致精神障碍者的人格特征中神经质（N）与精神质（P）两个维度明显低于全国常模，不同于国内魏江辉等学者研究结果[6]。可能的解释为颅脑外伤所致精神障碍者在受伤后与社会接触少，社会功能部分降低，人际关系单调，在经过一系列康复后，对自己外伤也有了一定认识。这些因素或多或少影响到其人格特征，特别是精神质与神经质特征，随着时间的增长，以往冲动易怒，情绪波动大等性格逐渐缓和。在内外向（E）维度人格特征上与学者潘金灯[7]有相似的研究结果。

关键字：颅脑外伤；精神障碍；EPQ；人格特征

不同程度颅脑损伤致精神伤残多因素临床研究

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目的 探讨不同程度颅脑损伤后认知功能障碍与受伤部位、颅脑损伤程度、昏迷状况、智商和事件相关

电位检查结果等各种相关因素。

方法 ：对纳入的 400 例样本进行回顾性研究，收集每个样本的年龄、伤前受教育的程度、受伤部位、颅脑损伤程度、昏迷状况、智商等多种与认知功能障碍的伤残程度相关的客观因素，进行多因素 Logistic 回归分析，筛查对伤残等级有重要影响的因素。

结果 昏迷时间、GCS 评分、损伤性质、人格改变、精神病性症状、软化灶、全量表智商和智能损害程度与伤残等级有显著性相关，且 GCS 评分和全量表智商与伤残等级呈正相关，其他因素与伤残等级呈负相关；有统计学意义，具有较高的参考价值。通过对自变量逐一进行单因素的 Logistic 回归分析，可以初步得出年龄，职业，颅脑损伤程度，昏迷时间，GCS 评分，受伤部位，损伤性质，后遗症中的人格改变，神经症样症状，精神病性症状，软化灶，脑积水和脑萎缩，智商中的言语智商，操作智商，全量表智商和智能损害程度对伤残等级有显著性影响。但未发现性别，受教育程度和受伤侧别对伤残等级有显著性影响。

结论 昏迷时间、GCS 评分、损伤性质、人格改变、精神病性症状、软化灶、全量表智商和智能损害程度可以作为评定伤残等级的重要依据本研究通过对各种相关因素进行 Logistic 回归分析后发现，昏迷时间、GCS 评分、全量表智商、智能损害程度、损伤类型、后遗症均与伤残等级相关，且 GCS 评分和全量表智商与伤残等级为正相关，即为保护因素，其他的均为负相关，即为危险因素。本研究的伤残等级评定结果其中 I~III级伤残 2 例，占 0.5%，IV~VI级伤残 20 例，占 5%，VII~X级伤残最多，共 351 例，占 87.75%，不构成伤残 27 例，占 6.75%。其中，I级伤残 2 例，无II级和III级伤残，考虑原因可能在于一方面该类患者人数较少，另一方面该类患者多为植物人或者不能进行有效的言语交流，以致无法进行 WAIS-RC 测验等相关检测，也就无法进行伤残等级的评定，因此，该类患者并不适用于本研究.

关键字：颅脑损伤；精神伤残；多因素；临床研究

Disrupted Brain Functional Asymmetry at Rest in Patients with Major Depressive Disorder Associated with Sleep Disturbances

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Objective Sleep disturbances (SD) are a common comorbidity symptom in patients with major depressive disorder (MDD). However, the brain functional asymmetry disruption in MDD patients with SD remains unclear. Here, we investigate the effects of SD comorbidity on the neuropathological mechanism of MDD patients from the perspective of functional asymmetry.

Methods Resting-state functional magnetic resonance imaging was applied to 24 MDD patients with SD (Pa_s), 33 MDD patients without SD (Pa_ns) and 32 healthy controls (HCs). Imaging data were analyzed using the parameter of asymmetry (PAS) to evaluate the changes of functional asymmetry.

Results The Pa_s displayed significantly decreased PAS in the left middle frontal gyrus (MFG)/inferior frontal gyrus (IFG), and left parahippocampal gyrus/brainstem compared to Pa_ns. The decreased PAS in the left MFG/IFG was positive correlated with the severity of SD and a negative correlation was found between decreased PAS in the left parahippocampal gyrus/brainstem and SD scores in all MDD patients. Receiver operating characteristic (ROC) curve analyses further indicated that the decreased PAS in the left MFG/IFG and left parahippocampal gyrus/brainstem may be used as neuroimaging markers to differentiate Pa_s from Pa_ns.

Conclusion These results highlighted the impact of concomitant SD symptoms on functional asymmetry in Pa_s. Decreased PAS in the left MFG/IFG and parahippocampal gyrus/brainstem may be considered a prominent feature associated with SD symptoms of MDD patients.

关键字：major depressive disorder, sleep disturbances, parameter of asymmetry, functional connectivity

立法后精神科医生进行非自愿住院决策的影响因素研究

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目的 精神障碍患者的非自愿住院涉及患者自由权利的侵犯，因此历来饱受争议，我国精神卫生法颁布实施后，精神障碍患者的入院方式仍以非自愿住院为主。按《精神卫生法》规定，精神障碍患者非自愿住院的实施需符合危险性标准，而精神科医生的个人经验、对于法律标准的理解均会影响其对患者入院方式的判定与建议，精神科医生作为精神障碍患者非自愿住院决策的重要参与者，对其决策影响因素的探究十分必要。

方法 该研究采用 Delphi 法结合情景案例法，选取符合标准的高质量函询专家开展三轮专家意见咨询。专家意见征询问卷以情景案例为基础，情景案例的选取采用立意抽样的方法、由前期研究中 4 组半结构化深度访谈案例测试修订形成，第一轮和第二轮专家意见征询均是基于情境案例进行，以求获取较为全面的医生住院决策影响因素；第三轮专家意见咨询进一步确定终版非自愿入院决策因素及各因素重要性。采用 EXCEL2017 建立数据库、SPSS20.0 对数据进行统计分析。

结果 本研究参与专家共计 25 名，均来自上海市。平均年龄 45.12±5.548 岁（35-58 岁），平均工作年限 22.32±5.603 年（14-35 年），正高级职称专家占 44%，硕士以上学历专家 64%。专家权威系数为 0.790（大于 0.7）。三轮专家意见征询结果显示，影响医生进行非自愿住院决策的因素中，患者“伤人行为”（0.072）对于医生非自愿住院决策的影响最大，其次为患者的“自伤行为”（0.07）、“达到严重精神障碍程度”（0.069）。除外法律标准，对于决策影响最大的是“患者的精神症状

难以通过门诊或其他诊疗方式进行控制”（0.053）、“患者的院外服药依从性差”（0.051）、“患者住院治疗效果预期较好”（0.05）、“治疗需要：目前患者需要及时或系统治疗”（0.049），患者自身状况是影响医生决策的重要因素，但在特殊情况下医生会根据现实情况而重新对各决策因素进行定位。

结论 医生进行患者非自愿入院决策时，除外法律规定，还受诸多因素的影响，各因素对医生的影响程度随着具体案例的不同而发生较大幅度变化。立法后，精神障碍患者的非自愿住院操作缺乏合理有效的操作指引，合理有效地使用非自愿住院危险性标准，兼顾和限制现实中家属意愿对非自愿住院决策的作用，将使临床医生的非自愿住院评估操作更规范、住院建议更具有参考意义。

关键字：精神障碍患者，精神科医生，非自愿住院，决策影响因素

失匹配负波作为评价脑震荡后综合征神经认知障碍的潜在指标

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目的 脑震荡后综合征作为轻微脑外伤后最普遍的慢性后遗症，在伤残等级鉴定中常因为不具有脑影像学的改变而等级不被认可。但实际中被鉴定人常因存在症状而导致性格、社会功能改变。社会功能和人格改变是评价脑外伤后神经认知障碍的关键指标。同时对于神经认知障碍的客观评价指标很少，失匹配负波（mismatch negative，MMN）是 ERPs 的成分之一，在精神障碍、认知功能障碍和脑损伤中被广泛研究。有研究发现 MMN 可以反应脑外伤患者社会功能恢复的情况。因此本研究关注脑震荡后综合征患者 MMN 与正常对照组的区别，以及其社会功能、人格改变的相关性进行研究。

方法 根据 ICD-10 诊断标准，我们招募了 20 例脑震荡后综合征患者和26名年龄和性别匹配的健康志愿者。采用社会功能调查量表（FAQ）、日常生活活动量表(ADL)和脑外伤后人格改变量表对患者的日常生活活动和社会功能进行评估。所有受试者坐在屏蔽室中，使用脑电记录与分析系统进行检测。头皮电极按国际 10/20 系统放置，听觉 MMN 测试采用听觉“Oddball”刺激序列，由 3 种不同的刺激组成。记录 F1、Fz、F2、Fcz、CZ、PZ 等导联的电位。经过滤波、去伪迹、分段、叠加平均等步骤处理数据。

结果 受试者的一般人口学资料在年龄、受教育程度上、性别是差异无统计学意义。患者组 ADL 量表、FAQ 量表得分均显著高于对照组。脑震荡患者较正常对照人群在 FZ 和 F2 的波幅均明显降低。其中 FZ 波幅【脑震荡为（-2.98±0.97μV），对照组（-3.89±1.79μV）P 0.044】，F2 波幅【脑震荡为（-2.83±1.04μV），对照组（-4.02±1.85μV）P 0.037】。在脑震荡患者中 FZ 的波幅与人格改变量表得分（相关系数 0.614，P 值 0.004）、FAQ 量表（相关系数 0.486，P 值 0.03）呈正相关，而 F2 的波幅与上述两个量表无相关性。

结论 MMN 波幅越低，社会功能和人格改变的损害越大，表明脑震荡后综合征的神经认知障碍的受损程度越高。MMN 可能是评估脑震荡后综合征神经认知障碍严重程度的一个潜在指标。

关键字：失匹配负波 脑震荡后综合征 社会功能 人格改变

Light Therapy Improved Depression-like Behavior Induced by Chronic Unpredictable Mild Stress in Mongolian Gerbils

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Objective Progress has been made in elucidating the mechanism by which light modulates depressive-like behaviors. However, almost all of these studies ignore an important issue, namely, that examining the effects of light therapy in nocturnal animals may be difficult because the influences of light on behavioral responses differ between nocturnal and diurnal animals. To date, few diurnal rodents have been utilized to establish animal models that closely mimic clinical depression.

Methods The chronic unpredictable mild stress model, which is the most representative, reliable, and effective rodent model of depression, was implemented in diurnal Mongolian gerbils for the first time. The gerbils were subjected to two hours of light therapy or fluoxetine treatment for 2 weeks.

Results Our work revealed that Mongolian gerbils subjected to chronic unpredictable mild stress showed depression-like behaviors. Interestingly, we also found that light therapy improved anhedonic behavior more effectively than fluoxetine after two weeks of treatment.

Conclusion In summary, our study is the first to use diurnal Mongolian gerbils, which have the same circadian rhythm as humans, to establish an effective, economical, and practical animal model of depression and confirmed that light therapy could improve depression-like behavior more effectively than fluoxetine to some extent in diurnal Mongolian gerbils, which establishes a good foun- dation for clarifying the neural mechanism of light therapy for depression.

关键字：Depression; Chronic unpredictable mild stress; Light therapy; Diurnal Mongolian gerbils

苏州市强制医疗精神障碍患者特征分析

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目的 精神障碍患者容易出现伤害他人或者影响社会安定的违法犯罪行为，对于无责任能力的违法精

神病人依法进行强制治疗便是一项重要举措。而国内与精神病人强制医疗的相关研究并不多，本研究通过对近 4 年在我院收治的 61 例精神障碍强制医疗患者的特征进行分析，为制定早期预防和干预措施提供依据。

方法 自制调查表对在苏州市广济医院 61 例强制医疗精神障碍患者资料进行统计分析。

结果 61 例强制医疗患者主要为精神分裂症 57 例，双相情感障碍 1 例，癫痫性精神障碍 1 例，酒精所致的精神障碍 2 例。按照是否解除了强制医疗可将其分为在院执行强制医疗的 54 例（占 88.52%）和已经解除强制医疗的 7 例（占 11.48%）。两组人群在文化程度、既往治疗的依从性、首次住院治疗被保护次数的差异具有统计学意义（P<0.05）;在性别、婚姻状况、职业状况、籍贯、病程、疾病治疗情况、住院次数、服药种类、核心症状、执行强制医疗时间、是否合并无抽搐电休克治疗及是否使用长效针剂治疗的差异无统计学意义（P>0.05）。

结论 苏州市强制医疗的精神病患者多以男性、青壮年、初小文化、无固定职业和外地流动人口为特点，解除强制医疗的精神病人以文化程度较高、入院时被保护次数较少和治疗依从性较好为特点。

关键字：强制医疗；精神障碍患者；相关分析

Evaluation of Bidirectional Relationships Between Risk Preference and Mood Disorders: A 2-Sample Mendelian Randomization Study

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Objective To investigate the association of risk preference with mood disorders.

Methods Genome-wide association studies (GWAS) summary data of risk preference in 939908 participants were obtained from a meta-analysis of the GWAS of European-ancestry participants from the UK Biobank and 23andMe. Data from 413,466 participants (41,917 cases and 371,549 controls) from the Psychiatric Genomics Consortium were used to identify bipolar disorder (BP), and data from 807,553 participants (246,363 cases and 561,190 controls) from the Psychiatric Genomics Consortium were used to identify major depressive disorder (MDD). The weighted median (WM), inverse variance weighted (IVW), and Mendelian randomization-Egger (MR-Egger) methods were used for the MR analysis to estimate the causal effect and detect the directional pleiotropy.

Results GWAS summary data were retrieved from three combined samples, involving 939,908, 413,466, and 807,553 European adults, respectively. The result of Mendelian randomization suggested that risk preference was associated with an increased incidence of BP (OR=2.84, 95CI%: 1.77-4.56, P=1.58*10-5), and the presence of BP was also associated with increased risk preference (OR=1.03, 95CI%: 1.02-1.05, P=9.63*10-6). In contrast, the results showed no significant association between risk preference and MDD (OR=1.12, 95CI%: 0.95-1.30, P=0.095).

Conclusion Using large-scale GWAS data, the MR analysis supported a mutual effect between risk preference and BP, but no association between risk preference and MDD was found. The present study showed that risk preference might be a marker for the early identification of BP, and further studies are still needed with regard to the association between risk preference and MDD.

关键字：Risk Preference; Mood Disorders; Mendelian Randomization Study

躁狂发作违法者刑事责任能力评定及犯罪临床特征分析

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目的 探讨躁狂发作违法者刑事责任能力评定及犯罪临床特征。

方法 采用自编调查表对 27 例 2015 年至 2021 年在我所进行司法精神病鉴定的诊断为无精神病和双相情感障碍躁狂发作的案例进行回顾性研究，分析其犯罪临床特点及刑事责任能力的评定。

结果 全部 700 例刑事鉴定案件中，案发地在江苏省的案例为 672 例（96%），由公安机关送检的案例 657 例（93.9%）；男性 600 例（85.7%）；平均年龄 36.26+11.65 岁；汉族 690 例（98.6%）；初中及以下 463 例（66.1%）；单身 425 例（60.7%）；无业 288 例（41.1%）。有犯罪前科者 211 例（30.1%），平均首次犯罪的年龄为 25.56+8.82 岁；重新鉴定 34 例（4.9%）。100 例女性犯罪者中，年龄 40.95+11.42 岁；已婚 62 例（62.0%），初中及以下 61 例（61.0%），无业 42 例（42.0%），案前有饮酒 2 例（2.0%），有吸毒史 10 例（10.0%）；有犯罪前科 13 例（13.0%），其中 1 例（1.0%）犯罪类型为故意伤害，其余均为非暴力犯罪，如盗窃、贩毒、诈骗等。首次犯罪年龄为 35.92+8.56 岁。与无精神病组相比，躁狂发作组文化水平高，多有家族史，且犯罪类型多为轻伤害或非暴力犯罪（P<0.05 或 P<0.01）；无业、单身、男性、来自农村比例高，犯罪时年龄及首次犯罪年龄高，但差异无统计学意义（P>0.05）。躁狂患者作案时的临床特征：语量增多 24 例（88.9%），鲁莽行为 22 例（81.5%），精力充沛 19 例（70.4%），思维增快 19 例（70.4%），易激惹 18 例（66.7%），睡眠需要减少 17 例（63.0%），情感高涨 16 例（59.3%），自我评价高 16 例（59.3%），随境转移或注意力不集中 11 例（40.7%），性欲亢进 5 例（18.5%），妄想 4 例（14.8%），幻觉 1 例（3.7%）。责任能力：无刑事责任能力 5 例（18.5%），限定刑事责任能力 22 例（81.5%）。

结论 躁狂或轻躁狂发作患者多为轻伤害和非暴力犯罪，躁狂症状导致控制能力明显削弱。

关键字：躁狂发作；司法精神病；犯罪

中英年轻男性自杀行为的影响因素及潜在亚型研究

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目的 比较中英年轻男性自杀行为者的影响因素分析其潜在类别。

方法 研究分别于英国与中国四川省成都市采用随机位置抽样法进行社区调查，共纳入英国与中国 18-34 岁年轻男性各 2046 名与 4238 名。调查使用自评问卷对受试者精神障碍、童年期与成年期创伤性事件、自杀行为等进行评估。采用回归模型分析年轻男性自杀行为的相关因素；采用潜在类别分析（LCA）分析具有自杀行为史的年轻男性的同质亚型。

结果 中国年轻男性自杀行为发生率(8.3%, 95% CI: 7.4%?9.2%)高于英国年轻男性为(6.6%, 95% CI: 5.5%?7.7%)。在控制年龄的情况下，单因素 logistic 回归显示受教育水平低、躯体疾病、儿童期创伤事件、成年期创伤事件、冲动性、酒精依赖、药物滥用、焦虑、抑郁、精神病和自杀行为有关(P<0.05)；英国年轻男性的自杀行为与失业有关(P<0.05)，中国年轻男性的自杀行为与独自生活、没有亲密关系有关(P<0.05)。潜在类别分析发现，中英两国年轻男性自杀行为者可分为 3 种亚型：焦虑型(中国，73.6%；英国：26.4%)，无精神障碍型(中国，81.1%；英国：18.9%)，创伤/精神病型(中国，56.6%；英国：43.4%)。中国年轻男性自杀行为者的创伤/精神病型明显少于英国年轻男性自杀行为者(OR：0.36, 95% CI: 0.24-0.56, p<0.001)。

结论 中英两国年轻男性自杀行为者均为 3 个亚型，但在两种截然不同的文化背景下，不同类型的发生率差异较大。这些差异可能为自杀行为的提前干预与临床管理提供客观依据，并根据相应的类别构建不同的自杀行为预防策略。

关键字：自杀行为，跨文化精神病学，社会隔离，潜在类别分析

The Impact of Workplace Violence on Chinese Correctional Staff: The Chain Mediating Effects of Stress and Insomnia

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Objective The aim of this study was to explore the impact of workplace violence on burnout among Chinese correctional staff and to assess the role of stress and insomnia.

Methods A total of 472 correctional officers were included in this study. The Workplace Violence Scale was used to assess their exposure to violence at work. Their insomnia was assessed using the Asens Insomnia Scale. Their stress was assessed using the 21-item Depression Anxiety Stress Scale. Their burnout was assessed using the MBI-GS Burnout Scale. The correlations of workplace violence, burnout, stress and insomnia were analyzed, and stress and insomnia were used as mediating variables to assess their role in workplace violence on burnout among Chinese correctional officers.

Results There was a positive correlation among workplace violence and stress (r = 0.244, p < 0.01), insomnia(r = 0.264, p < 0.01), and burnout (r = 0.189, p < 0.01).Stress was positively associated with insomnia (r =0.624, p < 0.01), and burnout (r = 0.644 p < 0.01).Insomnia was positively associated with burnout(r =0.545, p< 0.01). In the model 1, workplace violence positively predicted stress (β=1.07,p<0.01). In the model 2, workplace violence(β=0.27,p < 0.01) and stress(β=0.31,p < 0.01) positively predicted insomnia. In the model 3, stress(β=1.09,p < 0.01) and insomnia(β=0.99,p < 0.01) positively predicted burnout. However, workplace violence was not a significant predictor of burnout(β=0.06,p >0.05) . Results based on 5000 bootstrapped samples indicated that the total effect of workplace violence on burnout was significant (βtotal=1.81, SE=0.43,95% CI: LL=0.96?to UL=2.66, p<0.01), the direct effect was not significant (βdirect=0.06, SE=0.34, 95% CI: LL=-0.61?to UL=0.74,p=0.8514).? Overall, the stress and insomnia fully mediate the relationship between workplace violence and burnout (βindirect=1.75, SE=0.36, 95% CI: LL=1.02?to UL=2.44).The mediation effect consists of three pathways: the mediation effect of stress was 64.09%, insomnia was 14.36%, and the chain mediation effect of stress and insomnia was 17.68%. The 95% confidence interval of the above indirect effects excluded 0, indicating that the three pathways were statistically significant.

Conclusion Workplace violence may contribute to burnout among correctional officers, and stress and insomnia fully mediates the relationship between workplace violence and burnout.

关键字：workplace violence;stress;insomnia;burnout;correctional staff

1 例强奸案司法精神病鉴定中证据调查的方法学启示

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目的 司法精神病鉴定是准司法证明过程，证据调取的框架确立，证据分析的路径走向，影响鉴定质量高低甚至对错。本报告拟通过个案，探讨鉴定人以精神病理学调动证据意识，引导证明思维的方法学意义。

方法 案例：男，55 岁，未婚，初中文化，某宾馆水电工，涉嫌强奸，公安委托作案时精神状态及刑事责任能力鉴定。 2022 年 10 月 21 日 22 时许，嫌疑人在宾馆员工宿舍二楼厨房，企图强奸受害人，惊动邻居后被制止。讯问笔录中供述作案动机为当晚在宿舍看过手机黄色小视频，后出门上厕所时楼道遇受害人，起了生理反应。称当时头脑发热，一时冲动犯了不该犯的错误；2023 年 02 月 23 日鉴定检查时，其对作案过程表述与讯问笔录一致，检查结束前主动反映，自己有过 2 次因“癫痫”看急诊，分别为案发前 1 年及案发当日凌晨。 调取被害人陈述、证人证言、案发现场楼道监控、出警执法记录仪视频、到案后数次讯问视频、嫌疑人既往就诊书证材料等，构建嫌疑人行为轨迹、言行特征的客观时间线。以嫌疑人讯问供述（笔录对照讯问视频）、鉴定精神检查时陈述的事件经过，构建主观时间线。对比主、客观两条并行时间线，发现差异线索，排查病理性因素。

结果 嫌疑人主观时间线呈现的作案过程，与各类言词证据、书证、视听资料等构建的客观时间线呈现的案发过程，在事件内容完整性、准确性，事件时间顺序，过程时间刻度等方面，存在巨大差异。 综合案发前、中、后表现，呈现一个明确的发作性过程，表现为意识范围的狭窄，并伴有意识清晰度水平下降。

结论 1.司法精神病鉴定人应觉察控制刻板印象认知偏差，无病推定原则不应成为忽略重要病理性线索的托词。 2.精神病理学基础对于司法精神病鉴定人而言，具有至关重要的前提价值，结合证据意识和证明思维，有效引导系统全面的证据调查和分析。

关键字：司法精神病鉴定，精神病理学，证据，证明

颅脑损伤开颅术后再次外伤后伤残评定 1 例

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目的 2017 年因颅脑外伤行开颅手术，2022 年 1 月 17 日因道路交通事故再次致头部损伤。现因涉及民事赔偿申请伤残等级鉴定。

方法 1.2022 年 1 月 18 日因车祸伤及头部全身多处意识障碍 7 小时入院。查体：昏迷；双侧瞳孔对光反射迟钝；行右侧开颅多发血肿清除术+弃骨瓣减压术+颅内压探头置入术。诊断：右颞左额多发挫裂伤，右颞枕硬脑膜外下血肿，左额颞顶硬脑膜下血肿，左颞脑软化灶，右颞颅内积气；癫痫；脑外伤后遗症。2.2022 年 9 月 29 日因癫痫发作 6 小时入院。查体：反应迟缓。诊断：癫痫样发作；脑外伤术后。3.2022 年 10 月 26 日因开颅术后伴颅骨缺失 9 个月入院，行“右颞顶部颅骨修补术”。诊断：右额颞顶部手术后颅骨缺失；脑软化灶。

结果 1.阅片：2022 年 1 月 18 日 CT 片示：左颞顶部脑软化灶；右颞顶骨、左顶骨骨折；右颞顶颅内积气；右颞顶硬脑膜外血肿，左颞部硬脑膜下血肿；双侧额颞脑挫裂伤。2022 年 8 月 8 日 CT 片，对比 1 月 18 日 CT 片示：右侧颞叶及左侧额叶片状软化灶，左侧颞叶软化灶范围较前扩大。2.法医学检查：神清，表情平淡，记忆力下降，反应迟钝，构音欠清，理解表达能力下降，社会功能轻-中度受损。

结论 1.关于伤残等级评定 两次颅脑损伤史明确，具有引起颅骨缺损、精神障碍的损伤病理基础。第 1 次颅脑损伤后遗留：左侧额颞顶颅骨开颅修补术后，左侧颞顶部脑软化灶。按照《人体损伤致残程度分级》第 5.10.1 2)条、第 5.10.1 8)条规定，评定为拾级伤残。第 2 次颅脑损伤后遗留：认知功能受损，人格改变，构音欠清，右侧额颞顶颅骨开颅修补术后，右侧颞叶及左侧额叶片状软化灶、左侧颞叶软化灶范围较前扩大，社会功能轻-中度受损，按照《人体损伤致残程度分级》第 5.10.1 8)条、第 5.7.1 1)条规定，评定为壹处拾级伤残、壹处柒级伤残。2.交通事故外伤与伤残后果之间因果关系及其损伤参与度：两次受伤间隔 5 年，在第 2 次受伤前能正常工作和生活。两次受伤均致左侧额颞部脑实质受损，现遗留损害后果系在其既往外伤的基础上，主要由第 2 次道路交通事故造成（双侧额颞多发挫裂伤，右侧颞枕硬脑膜外下血肿，左侧额颞顶硬脑膜下血肿）等新鲜损伤所致改变，与残疾后果之间存在因果关系，为主要原因、起主要作用，建议参与度为 75-85%；既往外伤为次要原因、起次要作用，参与度为 15-25%。应关注颅脑损伤后再次外伤的问题。

关键字：法医精神病学；颅脑损伤，开颅术，伤残关系

97 例性自我防卫能力司法鉴定的相关因素分析

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目的 了解昆明市及周边地区受害者被性侵害状况和这类案件鉴定的特点，探讨性自我防卫能力评定的相关因素，为维护被性侵者的合法权益和提高性自我防卫能力的法医精神病学鉴定水平提供参考。

方法 对 2020 年 7 月 1 日至 2022 年 12 月 31 日在我鉴定中心进行法医精神鉴定案例中涉及被性侵害案例的鉴定资料进行回顾性分析，以受害人的人口学资料，案件特点，鉴定意见等因素，编制调查表进行调

查，采用 SPSS 26.0 软件进行统计分析。

结果 同期公安委托定案例共计 468 例，其中刑事责任案例 351 例（75.00%），性侵害案例 97 例（20.73%），服刑能力案例 20 例（4.27%）。人口学资料发现，女性 96 例（98.97%），男性 1 例；年龄从 11 岁到 76 岁，平均年龄 27.26 岁；未成年人 32 例（32.99%），成年人 65 例（67.01%）；受害者绝大多数居住于农村 92 例（94.84%），小学及以下文化程度者 74 例（76.28%），未婚者 64 例（65.98%）。案件特点分析发现，被性侵地点在受害者家 40 例（41.24%），在外 39 例（40.20%），在嫌疑人家中 18 例（18.56%）；案发情况，家人发现 79 例（81.44%），怀孕后发现 10 例（10.31%），村民发现 8 例（8.25%）；作案对象熟人作案高达 80 例（82.47%）；被害次数情况，发生一次性行为 61 例（62.89%），发生多次性行为 36 例（37.11%）；事件发生时受害人无反抗者 82 例（84.53）；2 例为重复鉴定。鉴定诊断以精神发育迟滞 76 例（78.35%）居首，以轻中度精神发育迟滞为主（61 例）；精神分裂症 7 例（7.22%）次之；精神状态正常 5 例（被侵犯后出现创伤后应激障碍 2 例）；边缘智力 3 例；脑炎所致神经精神障碍 2 例，脑瘫、脑损伤所致神经精神障碍、抑郁障碍、癫痫全面强直发作各 1 例；大部分被评定为部分性防卫能力。

结论 性防卫能力鉴定的案例有逐年增加的趋势，以农村地区、低文化水平的女性轻中度精神发育迟滞者是被性侵害的重点。男性被性侵害有不断增加的趋势，我鉴定中心有 1 例男性轻度精神发育迟滞者被男性性侵害。在鉴定中发现精神状态正常者 5 例及抑郁障碍 1 例。建议加强性知识教育。对性防卫能力的评定应慎重，达到惩治犯罪分子、保护精神障碍者合法权益。

关键字：法医精神鉴定；性自我防卫能力；影响因素

北京安定医院司法鉴定中心复工复学人员特征及社会支持影响因素分析

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目的 通过分析 2021 年 8 月 6 日-2023 年 2 月 20 日期间首都医科大学附属北京安定医院精神疾病司法鉴定科复工复学人员的来访数据，了解此期间内复工复学患者的特征，探索其社会支持度的影响因素。

方法 使用自制的调查表收集北京安定医院精神疾病司法鉴定科来访者的一般资料,使用社会支持评定量表(Social Support Scale, SSS)测量其社会支持情况。分析一般人口学特征、疾病诊断类型分布特征及季度变化趋势，采用卡方检验分析社会支持的影响因素，利用 Logistic 多因素回归分析方法探讨各类特征与社会支持之间的关系。

结果 在 1383 名参与者（898 名 [64.93%] 女性；年龄范围 10 至 54 岁；平均年龄 19.58±4.93 岁）中，在第 3 季度进行鉴定的人较多，人数随年龄增长呈现出先升高后降低的趋势。Logistic 回归分析结果显示，年龄越大、文化程度越低、服药越规律者，社会支持度越高，与爱人、父母同住或多形式混合居住者的社会支持度比独居者高，抑郁及双相情感障碍者的社会支持度比焦虑者低。

结论 在本次调查中，女性、青少年占比较大，较大年龄、低文化程度、规律服药、不独居是高社会支持的保护因素，抑郁及双相情感障碍者的社会支持比焦虑者低。

关键字：复工，复学，社会支持，特征

Resting-State EEG Functional Connectivity Distinguishes Major Depressive Disorder, Psychotic Major Depression and Schizophrenia

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Objective Neuroimaging techniques such as EEG have become potential tools for the diagnosis of MDD. However, there is a lack of correlational studies that examine the actual diagnostic value of EEG in distinguishing MDD, and its subtypes from other disorders. Using dynamic brain network analysis, this study aims to identify the dynamic nature of functional connectivity linked to MDD, and its subtypes from other disorders (i.e., PMD, and SCZ), and to evaluate how effective these network manifestations could differentiate individuals with NPMD, PMD, and SCZ.

Methods A total of 579 participants, including 152 patients with NPMD (age: 36.7±11.4 years), 45 patients with PMD (age: 37.9±10.7 years), 185 patients with SCZ (age: 37.0±10.1 years) and 197 healthy participants (age: 37.0±11.2 years) were recruited. An individualized dynamic functional connectivity (DFC) approach was used to estimate the principal FC states across each independent dataset as well as different proportional samples of data (from 10% to 100%) within one dataset. Metrics of DFC (proportion, mean duration and transition number) among the four groups were examined for identifying disease-linked neural manifestations, which were also extracted to train a two-layer classifier of the four groups (HC, NPMD, PMD and SCZ).

Results The four principal brain states (i.e., states 1,2,3,4) of each frequency band estimated by the DFC approach were highly reproducible, both within-diagnosis and across-diagnosis. Between-group comparison showed that there were significant differences in the network metrics of state 2 and state 3 between healthy and individual patient's groups ($p < 0.01$, FDR corrected). In addition, the identified key dynamic network metrics achieved over 75% accuracy in the four-way classification of HC, NPMD, PMD and SCZ, which also significantly outperformed the SFC approach.

Conclusion Our findings suggest that the proposed

individualized DFC approach can identify dynamic network biomarkers at the single-subject level. These biomarkers have the potential to accurately differentiate individual subjects among various diagnostic groups of psychiatric disorders or healthy controls, which may contribute to the development of a valuable EEG-based diagnostic tool with enhanced accuracy and assistive capabilities.

关键字：Depression; Schizophrenia; Electroencephalography (EEG); Functional Connectivity (FC); Brain state; brain network; dynamic; Classification; Reproducibility.

Association Between Targeted Plasma Metabolomic Profiling and Childhood Maltreatment for First-Episode Drug-Na?ve Adolescents with Major Depressive Disorder

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Objective At present, the research on the underlying molecular mechanism of major depressive disorder (MDD) in adolescents is still insufficient. Childhood maltreatment (CM) is an important risk factor for MDD in adolescents, but there are few studies on the pathogenesis of MDD in adolescents from the perspective of adverse life experiences and molecular mechanisms of metabolome. The purpose of this study was to explore metabolomic differences between MDD and healthy individual among adolescents, and the association between CM and differential metabolites.

Methods The exploratory study recruited 40 first-episode drug-na?ve adolescents with MDD and 20 healthy individuals. We used the Beck Depression Inventory (BDI) to assess the severity of depression and the Childhood Trauma Questionnaire (CTQ) to assess experiences of childhood maltreatment. Then Plasma samples from all participants were collected for targeted metabolomics analysis using ultra-performance liquid chromatography coupled to tandem mass spectrometry (UPLC-MS/MS) methods. Spearman correlation was applied to analyze the correlations between clinical variables and differential metabolites.

Results We found 48 metabolites were significantly different between the HC and MDD groups, of which 11 increased and 37 decreased in the MDD group. Alpha linolenic acid and linoleic acid metabolism, warburg effect, citric acid cycle, arginine and proline metabolism, urea cycle, and glycine and serine metabolism were significantly perturbed metabolic pathways in MDD compared with HC. In addition, glycolic acid, pyruvic acid, linoleyl carnitine and malic acid showed large areas under the curve (AUCs) by ROC analysis (>0.900). Importantly, we found glutamic acid, creatine, valine, pyroglutamic acid, isoleucine were negatively correlated with BDI-13 total score, while linoleic acid, arachidonic acid, docosapentaenoic acid, amino acids and 4-Hydroxyproline were associated with the score of CTQ in adolescents with MDD.

Conclusion Our research shows that metabolic pathophysiological processes changes were found in adolescents with MDD, which included energy metabolism, oxidative stress, and fatty acid metabolic pathways and suggests that glycolic acid, pyruvate, linoleyl carnitine and malic acid may be biomarkers of diagnostic value in adolescents with MDD. The intrinsic association between childhood maltreatment and metabolites may suggest the underlying molecular mechanism in adolescents with MDD, but future longitudinal cohort design is needed to further validate the results of this study.

关键字：Major depressive disorder (MDD); Childhood maltreatment (CM); Metabolomic; Adolescents

男性暴力精神分裂症患者冲动行为与神经影像学改变的关系

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目的 既往研究发现精神分裂症患者的暴力风险较健康人群显著增高，该人群的暴力风险与社会人口学、症状学等多种因素显著相关，其中，神经生物学因素是其关键因素之一。然而，精神分裂症患者暴力行为的神经生物学基础尚不明确，目前关于大脑结构和暴力的发现在很大程度上不一致。因此，本研究旨在探讨精神分裂症患者中与暴力行为相关的脑结构改变及大脑结构与冲动的关系，以揭示其可能的神经机制。

方法 本研究选取45例具有暴力行为的精神分裂症患者（VSZ）、45 例症状与之相匹配的无暴力行为的精神分裂症患者（NVSZ）和 53 例健康对照（HC）作为研究对象。采用基于体素的形态学测量方法和全脑分析方法研究所有受试者的灰质体积（GMV）的变化。相关分析用于检验冲动和与暴力相关的大脑区域之间的联系。

结果 VSZ 组较 HC 组在右侧颞极、左侧眶额部和左侧颞横回 GMV 降低。此外，与 hc 组相比，VSZ 组和 NVSZ 组在右侧颞上回、左侧额眶回、右侧额上回和双侧脑岛 GMV 均有下降。Spearman 相关分析显示，VSZ 组冲动性与右侧颞上回、左侧岛叶和左侧眶额回 GMV 呈正相关。

结论 本研究结果为具有暴力行为的精神分裂症患者的脑结构改变以及特定的大脑改变与冲动之间的关系提供了进一步的证据。未来对于精神分裂症患者暴力行为相关的脑结构研究有助于了解本研究中发现的结构改变是否可以用作预测精神分裂症患者未来暴力的生物标志物。

关键字：精神分裂症 暴力行为 影像学

精神科就诊资料在司法精神病刑事责任能力鉴定中的证据力效果探析

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目的 拟讨论精神科就诊资料在司法精神病刑事责任能力鉴定中的证据力效果话题，探究优劣，指导专科病历书写，提升精神科病历在司法鉴定实践中的证据支撑作用。

方法 复习委托事项含刑事责任能力鉴定且既往有精神病史的被鉴定人卷宗，区分是否提供精神科就诊资料，对提供就诊资料的类别（门诊或住院）、具体资料内容（门诊病历、入院录、病程记录/阶段小结、出院小结、诊断证明、其他等；如仅提供挂号单、缴费单、检查申请单、处方单等资料中之一归入其他类，同时提供门诊及住院记录、诊断证明等超过两项的称为复合性资料）、数量（单次、多次就诊）、时序（案发前后）、是否明确诊断、供史者信息、是否详实记录鉴定相关案/事件、辅助检查等进行统计描述；由包含原鉴定人在内的至少 5 名鉴定人评价每卷中的就诊资料的证据力强弱赋值打分，分低、中、高三档。根据鉴定人的评价进一步分析不同档次资料的特征。

结果 在 200 例委托事项包含刑事责任能力鉴定且既往有精神病史的被鉴定人卷宗中，共有 158 例提供了就诊资料，其中提供单一就诊资料占比情况分别为门诊病历 15.82%、入院录 8.23%、出院小结 16.46%、诊断证明 9.49%、其他 4.43%，提供复合性就诊资料的占 45.57%；并对就诊次数、时序等其他被关注的研究指标进行描述。鉴定人评价材料证据力由高到低分别占 58.33%、15.67%、25.76%；证据力强度与就诊资料特征要素拟合（AUC 值最大）较高的是复合性资料、入院录、出院小结、多次就诊材料、案发前就诊资料、详实记录鉴定相关案/事件的资料等。鉴定人更倾向关注家属供史、公安及政府机关人员送诊供史的病史资料，采用案发前诊疗资料支撑诊断结论更具有说服力，本研究所定义的其他类就诊资料效力极低、难以满足鉴定证据要求，而不能反映明确诊断的就诊材料同样给鉴定人带来困惑。病程记录或阶段小结等能反映精神障碍病情演变的复合性就诊资料更接近鉴定人对委托材料内容的期待。孤立的诊断证明的鉴定证据力低于其在传统认知范畴的临床地位。

结论 精神科就诊资料在司法精神病刑事责任能力鉴定中的证据价值重要，就诊资料越全面、对相关案事件描述越详实越有助于支撑鉴定结论，否则可能成为干扰因素，建议精神科加强病历质控，强化病历资料作为鉴定证据的意识。委托机关在启动司法精神病鉴定时应详尽调取被鉴定人的精神科就诊资料并作为证据材料提供给鉴定机构。

关键字：司法精神病鉴定 刑事责任能力 精神科病历 证据力

一氧化氮合酶基因 1 基因多态性与男性青少年暴力攻击行为的关联

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目的 探讨一氧化氮合酶基因 1 基因(NOS1)多态在青少年男性暴力攻击行为发生中的作用。

方法 1.对 138 名暴力攻击行为男性少教人员，98 名非暴力男性少教人员进行一般情况，个性特质（SSP）问卷评定。2.采用 SNaPshot 基因分型技术对 138 名暴力攻击行为男性少教人员，98 名非暴力男性少教人员以及 153 名正常成年男性的一氧化氮合酶基因 NOS1（rs2293054，rs693534，rs2682826)进行基因分型检测，分析三组间的等位基因和基因型分布规律。将暴力攻击行为者根据是否存在品行障碍（CD）分两亚组，比较两亚组及对照组的等位基因和基因型分布。

结果 NOS1 基因位点 rs693534 等位基因频率在暴力组与对照组之间存在统计学差异（P<0.017），暴力组 A 等位基因频率明显高于对照组，基因型频率在暴力组分别与两组对照组比较，存在统计学意义（P<0.017），AA/AG 基因型明显高于对照组。将暴力组内青少年按有无品行障碍分组，分别与正常组比较，结果发现位于 NOS1 基因上的 rs2293054 在 CD 组中 A 等位基因频率明显高于对照组(P<0.05)。位于 NOS1 基因上的 rs693534 在 CD 组中，A 等位基因频率明显高于对照组(P<0.01)，基因型分布频率与正常对照组相比也存在统计学差异(P<0.01)。

结论 NOS1 基因多态性可能与暴力攻击行为相关。

关键字：一氧化氮合酶基因 1 基因 基因多态性 暴力攻击行为

探讨颅脑损伤所致精神障碍者中智能障碍的影响因素

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目的 分析颅脑损伤所致精神障碍者中智能障碍的影响因素。

方法 回顾性分析宁夏精神疾病鉴定所 2019 年至 2021 年之间经鉴定被诊断为颅脑损伤所致精神障碍 100 例的鉴定资料，统计 100 例被鉴定人精神障碍的类型分布情况，分析视力异常以及听力异常对智力测定结果产生的影响，同时分析智能障碍程度和被鉴定人脑损伤程度之间存在的关系。

结果 100 例颅脑损伤所致精神障碍者中，智能障碍构成比最高；另外 27 例非智能障碍中，情感障碍者和神经症样综合征者占比较高。中重度颅脑损伤被鉴定人中，视力以及听力正常者 IQ 值要明显高于视力异常以及听力异常者，差异均有统计学意义（P＜0.05）。智能损害程度越严重，脑损伤程度也越严重，二者存在明显相关性，组间差异有统计学意义（P＜0.05）。

结论 在颅脑损伤所致精神障碍中智能障碍占比最高，对于中重度颅脑损伤导致精神障碍者，若伴有视

力异常或者听力异常会对其 IQ 值带来明显影响，而且智能障碍和被鉴定人颅脑损伤程度存在明显相关性。近年来我国经济快速发展，工业化进程不断加快，因道路交通事故或者工伤等导致的颅脑外伤被鉴定人数量也越来越多。颅脑外伤作为一种会严重危害人身健康的损伤类型，根据颅脑损伤的程度可以为轻度、中度以及重度，而精神障碍是其常见的一种并发症，容易导致被鉴定人情绪以及行为等方面发生异常，对其日常生活带来严重影响[1]。精神鉴定是指在诉讼活动中鉴定人运用科学技术或者专门知识对诉讼涉及的专门性问题进行鉴别和判断并提供鉴定意见的活动[2]。本次研究回顾性分析宁夏精神疾病鉴定所 2019 年至 2021 年之间经鉴定被诊断为颅脑损伤所致精神障碍 100 例的鉴定资料，以进一步分析颅脑损伤所致精神障碍者中智能障碍的影响因素。

关键字：颅脑损伤；精神障碍；智能障碍；影响因素

苏州市精神专科医院急诊科检验危急值分析

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目的 通过分析苏州市广济医院急诊科检验危急值情况，提高精神科医生服务患者水平。

方法 通过回顾统计的方法，摘录《危急值记录本》中 2020 年 1 月至 2021 年 12 月苏州市广济医院急诊科挂号且报告检验危急值的患者为研究对象。收集患者的基本信息及临床资料，将危急值指标及危急值的频次、处理措施等并进行分析。

结果 急诊科在 2020 年 1 月至 2021 年 12 月期间急诊就诊患者男女比例为 4270/4285。其中检验科危急值为 20 个项目，共 215 人有危急值，男女比例为 132：83。2020 年危急值患者占当年急诊挂号患者的比例为 3.26%，2021 年危急值患者占当年急诊挂号患者比例为 2.06%。有两个危急值项目的为 50 人，有三个危急值项目的为 18 人，有四个危急值项目的为 8 人，有五个危急值项目的为 2 人。危急值项目按频次共有 291 人次，排列前三的项目分别是肌红蛋白为 62 人次（21.3%），血钾为 43 人次（14.8%），肌酸激酶同工酶和葡萄糖均为 32 人次（11.0%）。男性最常见的危急值为肌红蛋白 49 人次（16.84%），其次为肌酸激酶同工酶 25 人次（8.59%），血钾为 23 人次（7.90%）；女性最常见的危急值为血钾 20 人次（6.87%），其次为葡萄糖 16 人次（5.50%），肌红蛋白为 13 人次（4.47%）。所有危急值患者中，救助站送诊患者为 49 人次（16.84%），男女比例为 42：7。救助站患者中危急值排列前三的分别是血钾 15 人次（5.15%），肌酸激酶同工酶 10 人次（3.43%），肌红蛋白为 6 人次（2.06%）。男女危急值患者分别 183 人次和 108 人次，与非危急值的急诊患者具有统计学意义（P＜0.01）。所有患者中既往史阳性的为 58.4%，既往史不详的为 23.40%。急诊科处理措施中，补液支持补钾治疗为 59 人次（20.27%），抗精神病药物的使用为 36 人次（12.37%），降糖治疗为 12 人次（4.12%）。

结论 精神科急诊患者合并躯体疾病较常见，较易合并多种危急值危及生命。提高精神科医生对急诊患者躯体疾病的评估，可避免对危重病情的延误治疗。

关键字：精神科 ；危急值

Th17 细胞在精神分裂症外周血的表达及法医学意义

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目的 精神分裂症是法医精神病司法鉴定中最常见的精神障碍，但目前在司法鉴定工作中多依赖精神病学诊断，缺乏有效的客观指标，因此我们检测并比较了法医精神病鉴定中精神分裂症（鉴定组）与健康对照组（对照组）外周血中 Th17、Th1 等相关细胞的表达。探讨法医精神病责任能力鉴定中精神分裂症及健康人的外周血中 Th17 等细胞的表达、调控机制并分析法医学意义。

方法 将法医精神病鉴定案例依据以司法部《精神障碍者司法鉴定精神检查规范》(SF /ZJD0104001-2011) 对鉴定案例进行法医学检查。鉴定诊断意见按照《中国疾病分类与诊断标准》第三版 (CCMD-3) 进行诊断。根据《精神障碍者刑事责任能力评定指南》SF/ZJD0104002-2016 将相关鉴定人分为 26 例完全责任能力组、22 例限定责任能力组、19 例无责任能力组和 20 例健康对照组。应用流式细胞术检测不同责任能力组和健康对照组的外周血 Th17 细胞、Th1 细胞。使用酶联免疫试验检测鉴定不同责任能力组和健康对照组的血浆 IL-17A、IFN-γ 的水平。

结果 完全责任能力组的 Th17 细胞、Th1 细胞及 IL-17A、IFN-γ 明显高于限定、无责任能力组和健康对照组；限定责任能力组的 Th17 细胞、Th1 细胞及 IL-17A、IFN-γ 明显高于无责任能力组和健康对照组。无责任能力组的 Th17 细胞、Th1 细胞及 IL-17A、IFN-γ 的表达水平和健康对照组无明显差异性。完全和限定责任能力组 Th17 细胞及 IL17、Th1 细胞与 IFN-γ 呈正相关，而无责任能力组和健康对照组未表现相关性。

结论 法医精神病鉴定中完全及限定责任能力组的精神分裂症外周血中 Th17、Th1 等相关细胞水平均高于无责任能力组和健康对照组。这些结果提示 Th17 细胞作为促炎因子，可能参与了精神分裂症的发病机制，从而在法医精神病相关鉴定时提供参考意见，并在涉及法律问题的当事人精神状态评定上具有一定意义。

关键字：精神分裂症 Th17 细胞 Th1 细胞 法医精神病

Relationship between Work-family Conflict and

Anxiety/depression Among Chinese Correctional Officers: A Moderated Mediation Model of Burnout and Resilience

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Objective Correctional officers tend to have high levels of work-family conflict (WFC). Burnout and resilience may affect the relationship between WFC and psychological distress, however, this association still remains unclear. This study aimed to examine the mediating effect of burnout on the relationship between WFC and anxiety/depression and the moderating role of resilience.

Methods A cross-sectional online survey was conducted in China from October 2021 to January 2022. WFC, burnout, resilience, anxiety, and depression of the participants were evaluated using the related questionnaires. Mediation and moderation models were then tested using the PROCESS macro in SPSS, with burnout being a mediator and resilience playing a moderating role in the relationship between WFC and anxiety/depression.

Results A total of 472 correctional officers were included. WFC was found positively associated with anxiety and depression. Burnout was found to mediate the relationship between WFC and anxiety and the relationship between WFC and depression, while resilience played a moderating role in the direct effect of WFC on anxiety. Resilience was also found to moderate the effect of WFC on burnout. However, resilience was not found to moderate the direct effect of WFC on depression.

Conclusion Psychological interventions to promote resilience may be beneficial for correctional officers. Clinicians need to pay more attention to the dual pressure of work and family faced by correctional officers and help them cope with such pressure as early as possible, in order to protect them from burnout and psychological distress.

关键字：Correctional officer, work-family conflict, psychological distress, burnout, resilience, occupational health

精神病人性自我防卫能力司法认定及法律契合

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1. 概念及评定依据：强奸，是一种违背妇女意愿，使用暴力、威胁或其他手段强行与妇女进行性交的强制性行为。对大多数成年女性来说，是否与他人发生性交行为（下称性行为）能遵从其自由意志；而对某些“丰县铁链女”“陕西铁笼女”样精神病人，受疾病影响，可能曲解或无法辨认性行为性质、意义和后果，不能真实表达或合理运用自己意志，从而“自愿”与他人发生性行为。这种行为能力称为性自我防卫能力，而在被猥亵、性骚扰类案件或针对男性性侵行为，则归入其他类行为能力（0304 类）。《精神疾病司法鉴定暂行规定》（1989）首次对性自我防卫能力评定进行原则性规定；2020 年《精神障碍者性自我防卫能力评定指南》要求按“三分法”评定。 2. 司法认定与处置困惑：现今法律或司法解释对性自我防卫能力削弱内涵、法律地位仍缺乏规定，较难界定是否真正“违背妇女意愿”。占比达43.5%的削弱意见该如何理解与司法认定？是遵循价值取向、法律精神严格保护弱者，还是视削弱不是完全丧失而放任？司法认定更是困惑重重，已造成同案不同罪的处置失序，严重影响司法和谐与女性精神病人的权益保护。3. 法律契合问题：法律在打击强奸犯罪、保护女性精神病人免受性侵害的同时，客观上可能会限制这一群体的性权利实现。如与性自我防卫能力不完整的女性精神病人结婚是否构成强奸罪？婚姻关系存续期与正罹患精神病的妻子发生性行为是不是“婚内强奸”？严重女性精神病人或痴呆者该如何实现其性权利？能否如同其他民事权利一样，在行为能力受限时交由监护人或法定代理人决定？类似削弱者被性侵能否因监护人事先同意或事后追认而民不举官不究？以上种种，也是亟待澄清与解决的法律问题和社会课题。4. 研究现状：我国对性自我防卫能力的法律地位、作用及法律适用等方面的研究甚少，更缺乏针对该司法认定及法律契合方面的研究。法学研究多集中在强奸罪犯罪构成扩展、强奸幼女与未成年女性的刑罚适用、证据完整性等方面；法医精神病学界虽然在评定等级厘定、评估技术研发上有所作为，较好地固化评定科学性、准确性，但缺乏宏观层面上匹配法律适用的理论建构，且对精神病人被性侵害、被结婚等社会现象背后的法律思考不够深入。

关键字：性自我防卫能力；司法认定；法律契合

Research Protocol for Systematic Review and Meta-analysis of Risky Decision Making in Patients with Mild Cognitive Impairment

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Objective Risky decision-making refers to a tendency to favor options that have a more excellent range of potential outcomes compared to options with more predictable outcomes. It is a complex psychological process requiring high cognitive functions and is a major psychological process for individuals participating in activities relating to civil law. individuals with mild cognitive impairment (MCI) may suffer from decreased risky decision-making capacity, resulting having difficulties in dealing with civil activities. Studies on risky decision-making in individuals with MCI could benefit the forensic assessment of capacity for civil conduct in this population. Previous research on risky decision-making in individuals with MCI has produced conflicting results. In order to address this, we aim to conduct a comprehensive review and meta-analysis of case-control studies examining risky decision-making in individuals with MCI.

Methods This protocol adheres to the Preferred Reporting Items for Systematic Review and Meta-Analyses

(PRISMA) guidelines. Two investigators will conduct a thorough and independent search of major international databases using relevant terms of "mild cognitive impairment" and "decision making". The inclusion criteria will follow the PICOS acronym: Participants (patients with MCI), Intervention (not applicable), Control (not applicable), Outcomes (measured using any instruments to assess risky decision-making), and Study design (case-control and epidemiological studies). Two investigators will independently select eligible studies, extracted data, and assessed study quality. The extracted data will include study and participant characteristics, and primary and secondary outcomes. Study quality was assessed using Newcastle-Ottawa Scale (NOS). Data synthesis will be performed using the R program, and a random-effects model will be employed for all meta-analyses to account for heterogeneity across studies in terms of study and participant characteristics. The I-square statistic will be used to test the heterogeneity of all meta-analyses. Subgroup analyses will be conducted for categorical variables, and meta-regression analyses will be employed for continuous variables, as appropriate, to explore potential sources of heterogeneity. Publication bias will be assessed using Funnel plots and Begg's rank test.

关键字：Meta-analysis; risky decision making; mild cognitive impairment.

Factors Associated with Violent Crime in Patients with Schizophrenia

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Objective The relationship between schizophrenia and violence is heterogeneous and complex. The aim of this study was to explore the characteristics and the potential risk factors for violence crime in patients with schizophrenia.

Methods We conducted a retrospective case-control study, with patients with schizophrenia who were forensically suspected to have committed violent crimes at the Judicial Psychiatric Identification Unit of Xiangya Second Hospital of Central South University from January 1, 2013 to December 31, 2016 used as the studied subjects (the violent group) and patients with schizophrenia who had no history of violent crimes used as controls (the nonviolent group). There were 308 individuals in the violent group [subdivided into the homicide group (n = 155) and the injury group (n = 153)] and 139 individuals in the nonviolent group.

Results A risk model showed that a history of violence (OR = 2.88, 95% CI: 1.79-4.64) and persecutory delusions (OR = 2.57, 95% CI: 1.63-4.06) were associated with an increased risk of violence, whereas treatment during the previous 4 weeks (OR = 0.29, 95% CI: 0.16-0.51) and insight (OR = 0.30, 95% CI: 0.14-0.62) were associated with a decreased risk of violence.

Conclusion This study provided useful clinical information to identify risk factors for violence and develop better strategic programs to manage violence in patients with schizophrenia.

关键字：homicide, violent crime, schizophrenia, violence risk assessment, risk model

The Bridge Symptoms of Childhood Trauma, Sleep Disorder and Depressive Symptoms: A Network Analysis

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Objective This study aimed to elucidate the characteristics of symptom network of childhood trauma (CT) and sleep disorder (SD) in Chinese adolescents, with the influence of depressive symptoms taken into account.

Methods A total of 1301 adolescent students were included, and their CT, SD and depressive symptoms were measured using the Pittsburgh sleep quality index (PSQI), the Childhood Trauma Questionnaire-Short Form (CTQ-SF), and The Patient Health Questionnaire-9 (PHQ-9), respectively. Central symptoms and bridge symptoms were identified based on centrality indices and bridge centrality indices, respectively. Network stability was examined using the case-dropping procedure.

Results In CT and SD symptom network, emotional abuse and sleep quality symptoms had the highest centrality values, and two bridge symptoms, i.e., emotional abuse and sleep disturbance symptoms, were also identified. In symptom network for CT, SD, and depressive symptoms, sleeping difficulty symptoms, daily dysfunction symptoms, and emotional abuse appeared to be potential bridge symptoms. In symptom network of CT, SD, and depressive symptoms (excluding the symptom of sleeping difficulty), daily dysfunction symptoms, emotional abuse, and sleep disturbance symptoms appeared to be bridge symptoms.

Conclusion In this study, emotional abuse and poor sleep quality were found to be central symptoms in the CT-SD network structure among Chinese adolescent students, with daytime dysfunction as the bridge symptom in the CT-SD-depression network structure. Systemic multi-level interventions targeting the central symptoms and bridge symptoms may be effective in alleviating the co-occurrence of CT, SD and depression in this population.

关键字：childhood trauma; sleep disorder; adolescent; symptom network; bridge symptoms

童年期创伤、社交状况和自杀自伤之间关系的性别差异

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目的 分析童年期创伤、社交状况（社交隔离、孤独感、情感支持）和自杀自伤之间关系的性别差异。

方法 本研究基于英国大型队列研究（UK Biobank），纳入研究对象共 157300 名，采用 Logistic 回归分析不同性别人群的童年期创伤、社交状况（社交隔离、孤独感、情感支持）和自杀自伤间的关系，采用基于似无相关模型 SUR 的检验比较不同性别组间变量的回归系数。

结果 （1）基线资料比较发现，与男性相比，女性在年龄、英国人比例、有工作比例、社会剥夺指数、抽烟者和饮酒者比例、同性性行为比例、BMI、合并非癌症类躯体疾病者上较男性更低，但合并有癌症的人和合并有精神疾病者更多。女性经受童年期创伤者更多，出现社交隔离者更少、但感到孤独和有情感支持者更多。在自杀自伤方面，女性中有自杀意念者更少，但有自伤想法和行为者更多。（2）不论男女，童年期创伤、社交隔离、孤独感均是自杀意念、自伤想法和自伤行为的危险因素（P＜0.001，Psuest＞0.05）；情感支持均是自杀意念、自伤想法和自伤行为的保护因素（P＜0.001，Psuest＞0.05）。（3）与男性相比，女性经受童年期创伤后出现自杀意念（ORfemale=2.390，ORmale=1.962，Psuest=0.002）、自伤想法（ORfemale=2.399，ORmale=1.988，Psuest＜0.001）和自伤行为的风险更高（ORfemale=2.680，ORmale=2.188，Psuest=0.002）；情感支持对于女性自伤想法（ORfemale=0.738，ORmale=0.828，Psuest ＜ 0.001）及自伤行为（ORfemale=0.668，ORmale=0.814，Psuest=0.016）的保护作用更强；男性群体中有孤独感者出现自伤想法风险较女性更高（ORfemale=1.882，ORmale=2.107，Psuest＜0.008）。（4）童年期创伤与成年时社交状况在自杀、自伤发生中均无交互作用，且男女组间无差异。

结论 （1）无论男女，童年期创伤、社交隔离、孤独感均是自杀意念、自伤想法和自伤行为的独立危险因素，情感支持均是其独立保护因素。（2）与男性相比，童年期创伤对女性的自杀意念、自伤想法和自伤行为的发生风险更大，而情感支持对女性的自伤想法和行为有更强的保护作用。

关键字：童年期创伤；社交隔离；孤独感；自杀；自伤

童年期创伤对于情感支持、社交隔离、孤独感和自杀自伤之间关系的影响

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目的 分析童年期创伤对于情感支持、社交隔离、孤独感和自杀自伤之间关系的影响；比较情感支持对于社交隔离、孤独感和自杀自伤之间的缓冲效果在有无童年期创伤的人群中是否存在不同。

方法 本研究基于英国大型队列研究（UK Biobank），纳入同时参与了基线测评和随访的研究对象共 157300 名，根据自我报告童年期创伤经历情况分为有创伤组和无创伤组，在基线数据比对后，采用 Logistic 回归分析分别对两组人群情感支持、社交隔离、孤独感和自杀自伤的关系进行分析，采用基于似无相关模型 SUR 的检验对两组间变量回归系数进行比较，P＜0.05 为有统计学差异。

结果 （1）基线资料比较发现，与无童年期创伤组相比，童年期经历创伤的人基线入组年龄较小、其他种族人群比例稍高、社会剥夺指数更高、有同性性行为者比例更高、合并 1 种及以上精神疾病者更多。与无童年期创伤组相比，童年期经历创伤的人社交隔离和感到孤独的人更多、有情感支持的人更少，且有更多的人出现了自杀意念、自伤想法和自伤行为。（2）无论童年期是否经受创伤，社交隔离和孤独感都是自杀意念、自伤想法和自伤行为的危险因素（P＜0.001，Psuest＞0.05）；情感支持是自杀意念、自伤想法和自伤行为的保护因素（P＜0.001，Psuest＞0.05）。但与童年期未经受过创伤的人相比，经受过创伤的人在感到孤独时出现自伤想法的风险更低（ORnone=2.109，ORtrauma=1.896，Psuest=0.012）；情感支持对自伤想法的保护作用减弱（ORnone=0.722，ORtrauma=0.807，Psuest=0.033）。（3）无论童年期是否经受创伤，情感支持都无法缓冲社交隔离和孤独感和自杀意念、自伤想法和自伤行为之间的正向关系（P＞0.05）。

结论 （1）无论童年期是否经受创伤，社交隔离和孤独感都是自杀意念、自伤想法和自伤行为的独立危险因素；情感支持都是自杀意念、自伤想法和自伤行为的独立保护因素。（2）童年期未经受过创伤的人，在感到孤独时，发生自伤想法的风险更高，但也更能从他人的情感支持中获益。反之，虽然童年期经受过创伤的人在感到孤独时产生自伤想法的风险相对稍低，但他们也更难从情感支持中获益。（3）无论童年期是否经受创伤，情感支持都无法缓冲社交隔离、孤独感和自杀意念、自伤想法和自伤行为之间的正向关系。

关键字：童年期创伤；社交隔离；孤独感；自杀；自伤

大学生攻击行为者冲动性与情绪面孔知觉的关联性研究

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目的 评估大学生攻击行为者的冲动攻击特质与情绪面孔知觉特征以及两者之间的关联性。

方法 招募在校大学生 100 名，采用 Barratt 冲动性量表第十一版（BIS-11）、修改版外显行为攻击量表（MOAS）、Buss-Perry 攻击量表(BPAQ)分别评估受试者冲动性、攻击行为与攻击特质。MOAS 加权总分≥1 的受试者为攻击组，MOAS 加权总分=0 分的受试为对照组。通过 e-prime 设计情绪面孔识别范式。采用 t 检验分析组间冲动性、攻击特质的差异。采用 2 组别(攻击组、对照组)x3 情绪类型(正性、中性、负性）的重复测量方差分析。

结果 攻击组与对照组的 BIS-11 中的各分量表得分之间差异不显著(P 值均>0.05)。攻击组的 Buss-Perry 总得分(31.95±14.23)显著高于对照组（19.58±9.18, t=3.966, P<0.05）。以错误个数为因变量的情况下,情绪类型的主效应显著 [F(2, 196)=14.888, η2=0.132, P<0.001]，Post-hoc 分析显示，攻击组负性情绪识别的错误个数(6.24±3.20)高于正性情绪(4.57±2.59, F=7.771, P<0.05)和中性情绪(4.47±3.09, F=7.771, P<0.001)；对照组负性情绪识别的错误个数(6.58±3.23)均高于正性情绪(3.96±3.42, F=7.267, P<0.05)和中性情绪(3.50±2.04, F=7.267, P<0.001)。组别的主效应、组别和情绪类型的交互作用均不显著(P>0.05)。以反应时间为因变量的情况下,情绪类型的主效应显著 [F(2, 97)=16.796, η2=0.257, P<0.001]，Post-hoc 分析发现攻击组对于正性、中性、负性情绪反应时间之间差异均不显著(P>0.05)。组别的主效应不显著(P=0.763)。组别和情绪类型的交互作用显著[F(2, 97)=4.383, η2=0.083, P=<0.05]。简单效应分析发现，攻击组对于负性情绪(1826.06±774.06ms)的反应时间显著低于对照组(2315.786±1658.42ms, F=3.962, P=<0.05)。

结论 具有攻击行为的大学生对负性情绪面孔的敏感性更高，负性情绪面孔的高敏感性，可能是将来防控大学生攻击行为的潜在靶点。

关键字：冲动性，攻击行为,情绪面孔知觉，负性情绪

一例右美沙芬使用者涉嫌强奸后“失忆”的司法精神病鉴定

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目的 对一例右美沙芬使用者涉嫌强奸后声称“失忆”的精神状态和刑事责任能力进行司法精神病学分析。分享典型案例的鉴定思路和鉴定过程。

方法 收集该案例的一般信息、右美沙芬使用信息、作案过程信息、案卷调查材料，对该案例进行司法精神病学调查和检查。从右美沙芬药理特性、使用剂量、作案行为特征、“失忆”情节、笔录信息等多个角度，分析该案例作案时的精神状态，对其作案后声称“失忆”是否为右美沙芬使用所致“意识障碍”或“遗忘综合征”进行鉴别。

结果 从右美沙芬使用剂量方面，该案例非首次大剂量服用；从作案行为特征方面，该案例作案行为为现实动机，作案手段为暴力威胁，作案过程有较好的自我保护性；其“失忆”情节不符合急性中毒导致“断片”的临床特点。说明该案例作案时右美沙芬使用未导致“遗忘综合征”或“急性中毒（意识障碍）”，作案时辨认能力和控制能力完整。

结论 精神活性物质使用后会导致复杂的精神状态，部分案例还存在其它精神疾病共病，涉及刑事责任能力评定时具有一定的疑难复杂性。相关案例的司法精神病学鉴定可以从物质药理特性、物质使用方式、相关案情经过、作案行为特征等多个角度，辨明被鉴定人的精神状态，对自愿摄入者，如果精神症状未影响其辨认或控制能力时，评定其刑事责任能力。

关键字：右美沙芬有害使用；遗忘综合征；意识障碍；刑事责任能力

骨骼 CT 三维重建技术在流浪精神分裂患者锁骨性别及年龄推断应用价值

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目的 探讨骨骼 CT 三维重建技术在流浪精神分裂患者锁骨的性别及年龄的推断中的应用价值。

方法 收集 50 例流浪精神分裂患者的锁骨 CT 数据，通过 Mimics 软件进行三维重建，测量锁骨长度、宽度和角度等指标，并结合统计学方法进行分析。

结果 通过三维重建技术，成功地重建了 50 例流浪精分患者的锁骨形态，并测量了相关指标。根据统计学方法分析，锁骨长度、宽度和角度等指标与性别、年龄呈现显著相关性，其中锁骨长度和宽度可用于性别推断，锁骨角度可用于年龄推断。

结论 骨骼 CT 三维重建技术可用于流浪精神分裂患者锁骨的性别及年龄的推断，为法医学鉴定提供了新的技术手段。

关键字：骨骼 CT；三维重建；流浪精神分裂患者；锁骨；性别；年龄；推断

探讨精神影像学联合精神生化检验在精神司法鉴定中的重要性

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目的 探讨精神影像学联合精神生化检验在精神司法鉴定中的重要性。1. 研究精神影像学和精神生化检验的基本原理和应用方法；2. 探讨精神影像学和精神生化检验在精神司法鉴定中的应用；3. 分析精神影像学联合精神生化检验在精神司法鉴定中的重要性；4. 提出精神影像学联合精神生化检验在精神司法鉴定中

的应用策略。

方法 采用文献综述法，通过检索相关文献，对精神影像学和精神生化检验的基本原理、应用方法、在精神司法鉴定中的应用以及精神影像学联合精神生化检验在精神司法鉴定中的重要性进行分析和总结。

结果 1. 精神影像学和精神生化检验的基本原理和应用方法 精神影像学是一种通过各种影像设备获得人脑结构和功能信息的技术。主要包括脑磁图（MEG）、脑电图（EEG）、功能性磁共振（fMRI）等。精神生化检验是通过检测血液、尿液、唾液等生物样本中的生化指标来诊断和评估精神疾病。主要包括血清学检测、蛋白质组学和代谢组学等。 2. 精神影像学和精神生化检验在精神司法鉴定中的应用 精神影像学和精神生化检验在精神司法鉴定中的应用包括以下几个 方面： （1）诊断精神疾病：通过精神影像学和精神生化检验可以对精神疾病进行诊断和评估，有助于确定被鉴定人是否患有精神疾病。（2）评估病情：通过精神影像学和精神生化检验可以对患者的病情进行评估，有助于确定被鉴定人的精神病情是否严重，是否需要进行强制治疗等。（3）鉴定精神状态：通过精神影像学和精神生化检验可以对被鉴定人的精神状态进行鉴定，有助于确定被鉴定人是否具有刑事责任能力或是否需要进行精神病鉴定等。3. 精神影像学联合精神生化检验在精神司法鉴定中的重要性 精神影像学和精神生化检验在精神司法鉴定中的应用已经得到了广泛的认可和应用。而精神影像学联合精神生化检验更是可以为精神司法鉴定提供更加全面、准确的证据。精神影像学可以提供精神疾病的结构和功能信息。精神生化检验可以提供血液、尿液等生物样本中的生化指标信息。两种方法联合应用可更加全面地评估被鉴定人的精神状态和病情，有助于更加准确地进行精神司法鉴定。

结论 精神影像学联合精神生化检验在精神司法鉴定中具有重要的应用价值。在进行精神司法鉴定时，应根据被鉴定人的具体情况，选择合适的方法进行检测。还需要加强对精神影像学和精神生化检验的研究，提高其在精神司法鉴定中的应用价值。

关键字：精神影像学；精神生化检验；精神司法鉴定；刑事责任能力；精神病鉴定。

精神发育迟滞患者智力、社会功能与性自我防卫能力相关性研究

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目的 研究精神发育迟滞患者认知功能与性自我防卫能力评定的相关关系，为法医精神病学鉴定和保护公民性权益提供理论依据。

方法 使用威斯康星卡片分类测验（WCST）、日常生活能力评定量表（ADL）、社会功能缺陷筛选量表（SDSS）及性自卫能力评定量表（CSSD）对 159 例性犯罪案被害人的认知功能、社会功能与性自我防卫能力相关性进行分析。

结果 具有不同性自我防卫能力的患者在文化程度、婚姻状况、职业、精神发育迟滞等级、是否有躯体残疾、是否生育、是否反抗以及案件中嫌疑人作案手段方面比较，差异有统计学意义（P＜0.05）。CSSD 评分与 WCST 评分呈正相关（P＜0.05），与 ADL、SDSS 评分均呈负相关（P＜0.05）。WCST 评分与 ADL、SDSS 评分均呈负相关（P＜0.05），ADL 评分与 SDSS 评分呈正相关（P＜0.05）。精神发育迟滞等级与性自我防卫能力等级呈正相关（P＜0.05）。

结论 在评定精神发育迟滞患者的性自我防卫能力时应首先考虑医学要件，除认知功能和社会功能，还应适当参考被害人的职业、婚姻状况、躯体残疾及作案方式等信息，在此基础上考虑法学要件，评定其性自我防卫能力丧失的程度。

关键字：精神发育迟滞 认知功能 性自我防卫能力

在押精神病服刑人员服刑能力鉴定分析

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目的 探讨在押精神病服刑人员的服刑能力鉴定的特点，对 215 例服刑犯人进行司法精神医学服刑能力鉴定并作分析.

方法 采用自编调查表，逐项完成社会人口学 资料、委托原因、案件类型、刑期、精神病学诊断、 精神症状出现频率、服刑能力鉴定、鉴定后处理、精 神症状出现时间和已服刑时间等，对我院鉴定所在 2020 年 3 月 - 2022 年 12 月期间接受司法精神医学服刑能力鉴定的服刑犯人 215 例相关资料进 行统计分析。

结果 经鉴定无精神病 61 例，占鉴 定人数的 28. 4% ；有精神疾病 154 例，占 71. 6% ，其 中诊断为精神分裂症 89 例，拘禁性精神 障碍 23 例，精神发育迟滞 13 例， 心境 障碍 9 例 ，癫痫所致精神障碍 6 例，脑器质性精神障碍、缄默症、分裂样精神障碍和痴呆各 2 例，颅脑外伤所致精神 障碍、急性短暂性精神障碍、适应障碍、酒精所致精 神障碍、急性应激性精神病及冲动性人格障碍各 1 例(共 5. 2%)。在被鉴定有精神障碍 154 例当中，精神症状按出现频率依次为行为障 碍 88 例次)，妄想 55 例次)，幻觉 52 例次)，智能障碍 13 例次)，思维 逻辑障碍 12 例次，思维结构障碍和情绪低 落各 11 例次)，情感淡漠 9 例次)， 思维联想障碍 8 例次，感知综合障碍 5 例次，木僵 4 例次，记忆障碍 3 例次，定向障碍、内感不适、缄默及情感高涨各 2 例次。经鉴定目前无服刑能力者 136 例，占鉴定例数的 62. 3% ；有服刑能力者 79 例 (36. 7%)，其中无精神病 61 例(77. 2%)，精神发育 迟滞、癫痫所致精神障碍各 4 例，拘禁 性精神障碍、心境障碍各 3 例，精神分裂 症 2 例，急性短暂性精神障碍、冲动性人人格障碍各 1 例。

结论 服刑人员不仅人身自由受到严格限制，而

且强 制参加劳动。同时，与家人、朋友的交往受到限制， 以往的社会支持系统受到破坏，以致容易产生精神压力，导致不良情绪反应[1] 。服刑对于绝大多数人是一件重大生活事件，可考虑为精神疾病的一种诱发因素。被诊断为无精神病的服刑犯人伪造精神病史，模拟精神症状表现，其所谓的 “ 精神异常”并非是真实的，但被鉴定人否认伪装， 否认其不良动机，诊断“诈病”依据不足，故鉴定工作者务必认真细致检查，严格诊断标准。

关键字：在押服刑人员 服刑能力 鉴定

服刑犯人应激相关障碍的对比分析

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目的 探讨司法精神医学鉴定中应激相关障碍的特点

方法 我 院在 2017 年 3 月至 2022 年 12 月期 间接受司法精神医学服刑能力鉴 定的服刑犯人 215 例 ，其 中 25 例诊 断为应激相关 障碍 (简称应激 组),占 11.6% ,包 括拘禁性精神障碍 19 例、拘禁性情绪反应 3 例、反应性精神病、适应障碍和急性应激性精神病各 1 例；89 例为精神分裂症 (简称分裂组)，占 41.4%。回顾性调查 25 例应激相关障碍组 的社会 人口学资料、服刑能力、刑期和入监至精神异常间隔时间，并与 89 例精神分裂症组对比。

结果 两组在社会人口学资料 方 面 差 异 无 显 著 性 (P＞0.05)，而在 服 刑 能 力、刑 期 和入 监 至 精 神 异 常 间 隔 时 间 方 面 差 异 有 显 著 性 (P＜0.05 或 0.01)。应激组有服刑 能力的犯人 4 例 (其中 3 例拘禁性情绪反应，1 例适应障碍)，占 16.0%;无服刑能力 21 例，占 84.0% 。分裂组有服刑能力的犯人 2 例 (均为精神 分裂症缓解期)，占 2.2%，无 服 刑 能 力 87 例 ,占 97.8% 。

结论 从本组社会人 口学 资料可看出，两组在性别、年龄、婚姻、文化程度、职业及经济状况方面差异无显著性，均以青壮年 男性为主，小学及以下文化、农民、家庭经济状 况差及未婚者居多。说明此类人员社会经济地位和文化素质低下，法制意识淡薄，对事物的判断及遵纪守法的自觉性较差，容易在眼前利益面前采取不理智的冲动行为。分裂组服刑犯人占服刑能力鉴定总人数的 41.4% ，居所有 鉴 定 犯 人 各 种 精 神 疾 病 之 首，而 应 激 组 服 刑 犯 人 为 1.6%。应激相关障碍组具有服刑能力者较多，刑期和入监至精神异常间隔时间较短，刑期短的应激相关障碍组犯人更早出现精神症状。

关键字：司法鉴定；精神医学；应激相关障碍

酒精所致精神障碍相关司法精神病鉴定分析

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目的 探讨酒精所致精神障碍患者的临床表现特征及其刑事责任能力影响因素

方法 对酒精所致精神障碍一般人口学特征、酒精使用信息、大脑结构和功能改变、作案前后精神症状、犯罪学行为特征及刑事责任能力评定结果进行分析

结果 慢性酒精中毒组 85.0%每日饮酒次数不少于 1 次，52.5%有晨饮或睡前饮酒习惯，92.5%以独饮为主。慢性酒精中毒组存在广泛的脑白质纤维束改变及灰质体积减少，大脑半球间和半球内功能一致性显著降低，大脑两半球之间的功能整合显著降低，大脑网络局部同位连接缺陷区域和大脑其他区域之间的功能连接被破坏。双侧颞叶、岛叶、中央前和背外侧前额叶脑回的 皮质厚度显著降低。在功能上，双侧颞叶、背外侧前额叶、岛叶、壳核、小脑、右侧楔前叶、中扣带回和中央前回的低频振幅（ALFF）显著降低。慢性酒精中毒组弥散张量成像-沿血管周围间隙指数（DTI-ALPS）显著降低，提示脑类淋巴功能异常。慢性酒精中毒中酒精所致精神病性障碍（AIPD）与非精神病性障碍者进行比较分析，发现二者皆多发于有长期酗酒史的低学历男性，二者社会功能均有一定程度受损，其中 AIPD 受损更为明显。AIPD 平均起病年龄为 40 岁，起病时平均饮酒年限为 22 年。AIPD 三大主要的精神症状为幻听、幻视、妄想，分别占 95.5%、54.5%、81.8%，其中幻听内容全部为言语性，且多为负性（77.3%）。在犯罪行为方面，AIPD 往往出于病理性动机或混合性动机，犯罪的暴力程度更高，更多发生杀人案件，且受精神病性症状的影响或支配，其辨认能力与控制能力削弱或丧失，而非精神病性障碍患者作案往往出于现实性因素，暴力程度相对较低，形式更为多样。二者的作案对象没有明显差异，可以是熟人或陌生人。

结论 慢性酒精中毒者饮酒史长，饮酒频率高、有明显的晨饮或睡前饮酒习惯，存在大脑结构与功能改变及脑类淋巴功能异常。AIPD 主要精神症状为幻听、幻视、妄想，犯罪的暴力程度更高，存在病理性动机或混合性动机，辨认能力与控制能力削弱或丧失。

关键字：酒精所致精神障碍；刑事责任能力

伤前智力评定在精神伤残鉴定中的应用探讨

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目的 探讨引入伤前智力后对伤残评定结果影响。

方法 从近三年在宁波市康宁医院司法鉴定所进行伤残鉴定的所有案例中筛选出 120 例进行伤前智力评估，按照损伤前后智力差值>30 分作为存在智力损伤的标准进行重新评定，得出伤残等级，与当前评定的等级进行比较，数据输入 SPSS 软件进行分析，采用 T 检验。1.伤前智力评定采用国内由龚耀先等[1]根据

WAIS-RC 常模中的受试者教育程度、年龄、职业和性别等因素推算出的智商多元回归公式进行推算。2.根据《新残标》中伤残等级 10 级分法制定对应的的智商范围及受伤前后智商差值范围，为了便于统计将边缘智力范围定为 11 级（见表一），据此对所有案例结合伤前智商重新评估。3.统计方法：数据输入 SPSS 统计软件进行 T 检验。

结果 一、120 例被鉴定人伤前智商测评结果均处于正常或略低于正常范围，VIQ 最大值 128，最小值 88，平均 104±9；PIQ 最大值 128，最小值 91，平均 107±8；FIQ 最大值 127，最小值 89，平均 104±8。二、由表二可见，引入伤前智商评定的伤残等级(残级 2)与根据当前智商评定的伤残等级（残疾 1）之间有显著性差异（P<0.001）。三、言语智商与操作智商在受伤前后的变化情况，见表三，言语智商（VIQ）在受伤前后的缺损程度要重于操作智商(PIQ),T=4.61，P<0.001,具有显著性差异。

结论 在伤残鉴定中引入伤前智商具有一定的现实意义。

关键字：颅脑损伤；伤前智力评定；伤残等级

阿立哌唑与喹硫平在治疗老年精神分裂症患者的临床疗效及安全性对比分析

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目的 分析阿立哌唑与喹硫平治疗老年精神分裂症患者的临床疗效及安全性。

方法 研究对象为 114 例老年精神分裂症患者，研究时间为 2019 年 6 月到 2020 年 7 月，按研究需求分成观察组和对照组，每组例数均=57。A 组患者采用阿立哌唑进行治疗，B 组患者采用喹硫平进行治疗。

结果 A 组患者的临床治疗总有效率 92.98%，显著高于 B 组 78.95%，P<0.05 组间比较差异有统计学意义。两组患者治疗前的阳性症状、阴性症状、病理症状及 PANSS 总分，均相当，P>0.05 组间比较差异无统计学意义；两组患者治疗后的以上评分，均较治疗前有显著降低，P<0.05 组内比较差异有统计学意义；但 A 组患者治疗后的各项评分均显著低于 B 组，P<0.05 组间比较差异有统计学意义。A 组患者的嗜睡、头晕、失眠、恶心、便秘、心动过速、静坐不能等不良反应发生 28.07%，显著低于 B 组 50.88%，P<0.05 组间比较差异有统计学意义。

结论 阿立哌唑在治疗老年精神分裂症，较喹硫平具有明显的临床优势，不仅能够显著改善患者的临床症状，提升其临床治疗效果，且不良反应明显更少，治疗安全性更好。

关键字：阿立哌唑；喹硫平；老年精神分裂症；临床疗效；安全性

探究丙戊酸钠缓释片联合碳酸锂治疗双相情感障碍躁狂发作的效果

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目的 探讨丙戊酸钠缓释片联合碳酸锂治疗双相情感障碍躁狂发作患者的临床疗效。

方法 采取方便抽样法从 2017 年 10 月—2018 年 9 月期间我院收治的双相情感障碍躁狂发作患者中选取 120 例，以随机原则分成两组，包括观察组（例数=60）和对照组（例数=60）。对照组患者单纯口服碳酸锂进行治疗，观察组患者在对照组基础上，同时联合应用丙戊酸钠缓释片进行治疗。

结果 观察组患者的治疗总有效率为 95.00%，显著高于对照组的，P<0.05 组间差异明显。两组患者治疗前的 BRMS 评分和 PANSS 评分，均相当，P>0.05 组间差异不明显；两组患者在治疗 1 周后和治疗 4 周后的 BRMS 评分和 PANSS 评分，均较治疗前有明显降低，P<0.05 组内差异明显；但观察组患者治疗 1 周后和治疗 4 周后的 BRMS 评分和 PANSS 评分，均显著低于对照组，P<0.05 组间差异明显。观察组患者治疗期间的不良反应发生率 31.67%，与对照组的 28.33%相当，P>0.05 组间差异不明显。

结论 采取丙戊酸钠缓释片联合碳酸锂的用药方案对双相情感障碍躁狂发作患者实施治疗，可强化其症状改善效果，从而显著提高其临床疗效，且不会增加不良反应，安全性较高。

关键字：丙戊酸钠；碳酸锂；双相情感障碍躁狂发作

有暴力行为的男性精神分裂症患者工作记忆及其机制研究

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目的 精神分裂症是一种重性精神障碍，患者发生暴力行为的风险高于普通人群，暴力行为将对患者自身和社会造成不良影响，既往有暴力行为的精神分裂症患者是一个重要的亚群，应得到更多的关注。认知功能障碍是精神分裂症的主要症状之一，工作记忆为认知功能的核心内容，也是精神分裂症患者损害最为严重的认知功能之一；工作记忆受损不仅影响患者的功能结局，还与患者的暴力行为有关。然而，既往有暴力行为的精神分裂症其工作记忆损害程度如何，是否有其独特的损害特征及机制，目前尚不清楚。本研究拟通过神经心理测评和脑影像学结合的方式探究有暴力行为的男性精神分裂症患者的工作记忆特征及其神经机制，为进一步理解暴力精神分裂症患者的神经认知机制提供基础。

方法 本研究于 2021 年 9 月至 2022 年 11 月期间

在湖南省强制医疗所招募既往有严重暴力行为的精神分裂症患者，并于其他医院招募同期住院的无暴力行为的精神分裂症患者。本研究共招募暴力患者 106 名，非暴力患者 88 名；并在社区招募 66 名健康受试者；所有受试者均为男性。使用自编调查表了解暴力和非暴力精神分裂症患者的一般社会学信息和既往情况，使用阳性和阴性症状量表（PANSS）、临床总体印象评定量表（CGI-SI）、自知力与治疗态度问卷（ITAQ）和社会功能评定量表（SOAFS）等工具评估患者的临床特征，使用修订版外显攻击行为量表（MOAS）评估患者本次评估前一个月的暴力行为；研究采用功能近红外脑成像技术，探究暴力精神分裂症患者在 n-back 任务中局部脑区激活情况。

结果 暴力组的年龄相对较小，教育水平低，大多数单身；暴力和非暴力两组患者的总病程和本次住院时长无统计学差异。暴力组和非暴力组在 PANSS、CGI-SI、ITAQ 和 SOFAS 的评分中无明显差异。在 0-back 和 1-back 水平，暴力组的正确率高于非暴力组，反应时间长于非暴力组；2-back 水平，暴力组与非暴力组的正确率和反应时间差异均无统计学意义。与健康组相比，暴力组和非暴力组在三个任务中的正确率较低，0-back 和 1-back 的反应时间均较长。相较于健康组，三个任务水平中，暴力组在左侧背外侧额上回激活增强，在双侧三角部额下回激活下降。

结论 暴力精神分裂症患者的整体工作记忆受损严重，且其脑激活模式与非暴力患者存在差异，这提示暴力与非暴力患者的工作记忆受损机制可能不同。

关键字：精神分裂症，暴力行为，工作记忆，功能近红外

性知识水平对精神发育迟滞患者性防卫能力的影响

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汕头大学精神卫生中心

目的 通过提高精神发育迟滞患者性知识的水平，避免他们遭到性侵害或性虐待，保证 MR 患者的性健康。另外，性教育可以为智障青少年带来积极的自我形象、自信、性别平等和预防性虐待，通过性训练支持 MR 青年并提高他们的生活质量。

方法 由社区、特殊教育学校、公共卫生机构中受过培训的专业人员向 MR 青少年传授性知识，类似于团体心理治疗，有文献表明遭受过性侵害或性虐待的受害者们一起接受团体治疗可为彼此提供同伴支持帮助成员克服他们对孤立和离经叛道的恐惧，减少焦虑和孤立。建议使用具有通用学习设计框架的教育工具，以确保所有能力的人都能获得关键的性健康信息，基于通用学习设计框架的工具，使用清晰简明的语言，少量的书面和图片信息（包括问卷），以及多种不同类型的多媒体(如音频、文字和视觉)，以确保广泛的参与者都能获得信息，其中教育范围应涉及避孕方法、拒绝性行为的权利以及关于健康的性关系和浪漫关系的信息，性健康课程应包括针对具有不同性欲和性身份的人群的适当信息，针对不同年龄、不同性需求的人群作出更适合学习方式的临床评估。同样为智力正常的青少年和青壮年提供咨询及帮助，告知他们“性”是健康生活的一部分。在进行性教育干预前后，分别根据两性知识、性侵害知识、性侵害处理技能、和防范技能四大类问题制定的量表进行评估。

结果 性教育干预后，大部分参与者均能描述出男女特征，了解性行为、月经、怀孕的过程，增强自我保护意识，对侵害行为表示拒绝。

结论 相关文献表明大多数智力和发育残疾者没有接受过适合其需要的全面性教育，但正如世卫组织所指出的，任何类型的残疾人健康性生活的大多数障碍来自社会态度和对残疾的无知，很少来自残疾本身。我们有必要进一步研究全面的性教育与智力和发育残疾之间的作用，特别是评价有效的教育方式或学习方法，或两者兼有，为提供者开发可获得的资源，保证他们的性健康及生殖健康。

关键字：性防卫能力，性教育

The Application of Cognitive Function Tests in Driving Ability Assessment of Patients with Mental Disorders

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Objective The study is aimed to explore the relevant factors that affect the driving ability of patients with mental disorders, to investigate the application value of cognitive psychology software in practice, and further to improve the assessment strategy for driving ability.

Methods Seventy-five patients with mental disorders and twenty-five age- and gender- matched healthy controls were enrolled. Psychiatric scales were used to evaluate the mental symptoms. The PsyTech-EP2009 psychological experiment platform was used to conduct driving-related cognitive function tests on subjects. The driving ability was assessed by two researchers according to existing assessment guidelines.

Results The patients were divided by driving ability which was assessed by two researchers according to existing assessment guidelines. There were statistically significant differences between patients with driving ability, patients without driving ability, and controls in terms of short-term memory recognition accuracy, picture recognition reaction time, cancelation test efficiency and visual selection reaction time ($P<0.05$). Patients with organic psychiatric disorders had significantly longer visual selection

reaction time and picture recognition reaction time compared to other diagnostic groups (P<0.05). Additionally, this study constructed a binary logistic regression model for BPRS factor scores and driving ability (X2=61.24, P<0.01). Anxiety-depression factor (OR=0.35, 95%CI=0.12-1.01), lack-activity factor (OR=0.20, 95%CI=0.05-0.82), and thought-disorder factor (OR=0.32, 95%CI=0.16-0.64) were identified as impact factors on driving ability.

Conclusion Patients with mental disorders performed poorly in several driving-related cognitive function tests. Patients with different mental disorders exhibited different aspects of cognitive deficit relatively, which suggests that it is not appropriate to assess the driving ability according to diagnosis directly. Additionally, binary logistic regression model showed the impact of different symptom factors on driving ability, highlighting the importance of focusing on these symptoms in practice. However, this study did not further assess the consistency between cognitive psychology software and commonly used cognitive function scales. Further research will improve the evaluation strategies on cognitive function in order to develop a reliable assessment system for driving ability of patients with mental disorders.

关键字：driving ability; mental disorder; congnitive function

5222 例司法精神病鉴定案例资料分析

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目的 汇总分析我院司法鉴定所近 10 年 5222 例司法精神病鉴定案例，探讨鉴定案件数量、案件类型、委托鉴定事项、鉴定案由等的变化情况。

方法 通过自制调查表对 5222 例司法精神病鉴定案例资料进行回顾性分析。

结果 1.鉴定案件数量逐年增加，前 5 年以刑事类案件增加为主，后 5 年以民事类案件增加为主；2.委托鉴定事项以刑事责任能力、民事行为能力为主；3.刑事责任能力鉴定的案由前三位依次是盗窃（759 例，25.56%）、伤害(533 例，17.95%)、杀人（289 例，9.73%），8 大类案件 2014 年最多（175 例），2015 年下降之后数量相对稳定；4.民事行为能力鉴定案件鉴定数量逐年增加，以特别程序案件（认定公民无民事行为能力、限制民事行为能力）为主。

结论 近 10 年鉴定案件数量逐年增加，委托鉴定事项以刑事责任能力及民事行为能力为主。刑事责任能力鉴定中 8 大类案件数量 2015 年下降后相对稳定，民事行为能力鉴定以特别程序案件（认定公民无民事行为能力、限制民事行为能力）为主。近 10 年鉴定案件数量逐年增加，委托鉴定事项以刑事责任能力及民事行为能力为主。刑事责任能力鉴定中 8 大类案件数量 2015 年下降后相对稳定，民事行为能力鉴定以特别程序案件（认定公民无民事行为能力、限制民事行为能力）为主。

关键字：司法精神病鉴定；8 大类案件；刑事责任能力；民事行为能力

The Effects of Subjective Family Status and Subjective School Status on Adolescent Depression and Suicidal Ideation: The Role of Anxiety and Psychological Resilience

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Objective This cross-sectional study aimed to examine the impact of subjective family status and subjective school status on adolescent depression and suicidal ideation through a moderated mediation model, and to explore the mediating and moderating effects of anxiety and psychological resilience on family status, school status, depression, and suicidal ideation.

Methods The study involved participants who were students between the ages of 13 to 17 years from a middle school located in Changsha, China. The participants were invited to complete an online questionnaire that consisted of two standardized assessments - the Patient Health Questionnaire-8 (PHQ-8) and the Generalized Anxiety Disorder-7 (GAD-7) to evaluate the levels of anxiety, depression, and suicidal ideation. Additionally, subjective family status and subjective school status were assessed using separate ladders, ranging from top to bottom. Conducting data analysis using Mplus, SPSS's Process, and RSA 3.0 plugin.

Results There was no significant difference in anxiety levels between high subjective family status/low subjective school status and low subjective family status/high subjective school status (the difference between the inconsistent lines Z3 and Z4 was -0.002, with a 95% confidence interval of [-0.18, 0.20]). However, individuals with low subjective family status and low subjective school status exhibited higher levels of anxiety (the slope of the consistent curve, a1, was significantly negative, p = -0.12, while the curvature, a2, was not significant, p = -0.0002). Furthermore, this study found that anxiety played a mediating role in the relationship between subjective family status-subjective school status and depressive symptoms and suicidal ideation in adolescents, with psychological resilience regulating the latter part of the mediation model (β depression = -0.05, p < 0.01; β suicidal ideation = -0.06, p < 0.05).

Conclusion Subjective family status and school status plays an important role on adolescent depression and suicidal ideation, as well as the mediating and moderating roles of anxiety and psychological resilience. The findings of this research provide a deeper understanding of the underlying mechanisms behind adolescent depression and suicidal ideation.

关键字：Keywords: adolescent, depression, anxiety, suicidal ideation, subjective family status, subjective school status

近红外脑功能成像与涉案抑郁症患者责任能力的关系研究

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目的 观察涉案抑郁症患者在认知加工期间前额叶氧合血红蛋白(Oxy-Hb)相对浓度变化值，初步探讨涉案抑郁症患者的神经机制和工作记忆功能变化，并探讨其责任能力与抑郁症严重程度的相关性。

方法 对45例涉案男性抑郁症患者分为无责任能力组（21例）及限定责任能力组（24例）；应用近红外脑功能成像系统，分别采用情绪面孔性别判断任务和“1-back”工作记忆任务，观察两组抑郁症患者的前额叶氧合血红蛋白(Oxy-Hb)相对浓度变化值。

结果 在负性情绪面孔图片呈现后，无责任能力组在认知加工期间前额叶氧合血红蛋白(Oxy-Hb)相对浓度变化值显著低于限定责任能力组(t=2.972, P<0.001)。在“1- back”工作记忆任务时，在认知加工期间无责任能力组左侧前额叶 Oxy-Hb 相对浓度变化值低于限定责任能力组(t=2.175, P=0.015)，两组右侧前额叶 Oxy-Hb 相对浓度变化值无显著性差异(t=1.645, P=0.074)。

结论 根据涉案无责任能力抑郁症患者在认知加工期间前额叶氧合血红蛋白(Oxy-Hb)相对浓度变化值，在负性情绪面孔图片呈现后，前额叶激活程度降低，并且左侧前额叶工作记忆功能受损，涉案无责任能力抑郁症患者前额叶有氧代谢功能失调，抑郁症严重者其责任能力受损更加严重。

关键字：抑郁症；近红外脑功能成像；前额叶；神经机制；工作记忆；氧合血红蛋白

颅脑外伤后人格改变的相关影响因素及在司法鉴定中应用的研究进展

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目的 人格是一种“持久的内在经验和行为模式”，包括认知评估(对自己、他人和 事件)、情绪调节、意念调节(包括对冲动的控制)和人际功能。 人格具有稳定性， 这一特性在整个早期生活中显著增加，直到年轻成年时达到平台期。人格改变， 是指由于强烈或持久的应激因素所引起的行为模式和人际关系显著而持久地发 性改变。

方法 颅脑外伤后人格改变的流行病学、颅脑外伤后人格改变的人口学相关、颅脑外伤后人格改变的病理生理学研究、颅脑外伤后人格改变与颅脑损伤程度及性质的关系、颅脑外伤后人格改变与伤残鉴定时机的关系、颅脑外伤后人格改变与伤后认知功能的关系、颅脑外伤后人格改变与社会功能水平及精神伤残等级评定的关系、颅脑外伤后人格改变的社会行为问题与刑事相关研究、

结果 目前颅脑外伤后人格改变尚缺乏统一的量化标准，由于临床和司法鉴定实践 中所应用的工具和程序不尽相同，各研究中人格改变发生率差距较大，关于人格 改变程度的相关研究同样较少，颅脑外伤后人格改变症状多样，性别、文化程度、 家庭状况等人口学资料及颅脑损伤程度部位和性质、鉴定时机的选择、伤后认知 功能障碍等均与人格改变的发生有关，颅脑外伤后人格改变又会对被鉴定人的社 会功能水平及精神伤残等级评定与刑事责任能力评定造成影响。

结论 深入探索上述内容的相关分析和细化研究，有望找出相对客观、统一的量化指标，可为法医鉴定学提供客观的依据

关键字：颅脑外伤；人格改变；法医精神病鉴定；精神伤残

基于药物基因组测试的涉暴力犯罪精神分裂症患者的优化治疗：一项随机单盲对照研究

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目的 涉暴力犯罪精神分裂症患者的治疗及预后对于患者本人以及社会而言均是亟待解决的问题。本研究旨在探索与代谢酶和药物靶向基因相关的抗精神病药物的潜在益处，确定涉暴力犯罪精神分裂症患者的最佳治疗方法，为个体化用药选择提供参考，有望改善患者的临床效果。

方法 本研究进行了为期 24 周的随机对照研究，所有受试者来源于湖南省强制医疗所，其中基因组 42 例，经验组 38 例。基因组的用药是医生根据每位受试者的基于药物基因组学的检测报告用药，经验组受试者的用药则根据医生的临床经验提供治疗，没有药物基因检测的指导。采用 PANSS 量表等评估了所有受试者基线及治疗后第 4、8、12、24 周后的精神症状等，用 PANSS 评分下降比判定临床疗效；使用 RBANS 测验评估了受试者基线及治疗后第12、24周的认知功能。使用混合线性分析模型的方法结合随访周期分析基因指导组与经验组的整体效应差异，比较了两组组间和组内疗效变化和神经认知功能恢复情况。

结果 1、随访第 4 至 24 周，经验组 PANSS 总分评分下降比值均小于基因组，但组间整体效应差异无统计学意义；在 PANSS 总分中，比较了两组的改善数量，优势比结果发现在 4（1.33），8（1.48）和 24 周（1.06），基因组的改善好于经验组，而在 12 周（0.92）差于经验组。2.在 PANSS 阳性量表及一般病理量表分上，随访第 4-24 周，经验组评分下降比值均小于基因检测指导组；在 PANSS 阴性量表分上，第 4-12 周，基因组评分下降比均大于经验组，24 周结果相反；3.在 RBANS 测验总分及各分量表分上，随访第 12-24 周，

两组的得分均有所上升，但组间评分上升比均无明显差异。

结论 本研究的优化治疗试验在一定程度上改善了涉暴力犯罪精神分裂症患者的精神症状及神经认知功能；基于药物基因组测试指导的治疗方式在提高涉暴力犯罪精神分裂症患者的临床疗效上较经验疗法可能存在一定的优势。

关键字：精神分裂症 暴力 药物基因测试 随机对照研究

暴力犯罪人群与一般人群人格障碍的流行病学研究

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目的 对各类人格障碍在一般人群和暴力犯罪人群中的患病率研究现状进行综述，比较暴力犯罪人群与一般人群人格障碍类型及患病率的差异，初步探讨人格障碍者暴力攻击行为的神经生物学基础研究进展。

方法 检索 PubMed、Web of Science、EMBASE、Cochrane Library、中国学术期刊全文数据库（CNKI）、万方数据库、维普数据库（VIP）中关于人格障碍流行病学、暴力犯罪人群的人格障碍患病状况、以及人格障碍者暴力攻击风险的神经生物学研究的文献，搜集多个国家和地区的相关研究成果，进行汇总分析探讨。

结果 西方发达国家人格障碍患病率比中国、巴西等发展中国家更高；在存在物质依赖、精神障碍等疾病的人群中，人格障碍的检出率明显高于其他的社区人群；犯罪人群人格障碍的患病率高于一般人群，尤其暴力犯罪与人格障碍密切相关，共病人格障碍者发生暴力攻击行为的风险显著增加；女性边缘型人格障碍者暴力犯罪可能性显著增加。

结论 人格障碍的患病率总体上呈上升趋势，在发达国家和地区的相关情况更加突出。B 类人格障碍与暴力犯罪的关系最为密切，除了反社会型人格障碍外，对于患有边缘型人格障碍的年轻女性，也需要对其可能产生暴力行为的风险给予足够的重视；共病多种人格障碍，尤其是共病边缘型人格障碍、反社会型人格障碍者，发生暴力犯罪行为的风险更高。包括反社会人格障碍在内一些列反社会人格中均可能存在神经认知障碍及一定程度的中枢神经系统功能异常。

关键字：人格障碍，流行病学，患病率，暴力攻击行为，犯罪

精神障碍与犯罪类型的关联性及其犯罪行为相关因素研究

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目的 中国约有 1.73 亿人患有精神障碍，并且这些精神障碍是可诊断的，而其中从未接受过任何治疗的有 1.58 亿人。2011 年中国国家统计局数据显示，精神病人肇事率 0.2%，当前社会对精神障碍患者违法犯罪的关注度越来越高。由于各种精神疾病特点、症状不同，在其所支配下出现的犯罪行为也不尽相同，比如精神分裂症患者受命令性幻听、被害妄想的支配下而出现毫无征兆的残暴攻击行为，急性精神障碍状态下的人会因为意识障碍做出正常精神状态下不可能做出的伤害事 情，产后抑郁或者产后精神病的女性会出现“杀幼式自杀”。研究不同类型精神障碍与不同犯罪行为之间的关联性，分 析精神疾病对不同类型的犯罪是否存在一定的倾向性，以及探讨违法犯罪行为的其他相关因素。若精神疾病的类型确与 不同犯罪行为存在相关性，则在精神疾病患者住院接受临床治疗的同时，可以对患有不同精神疾病的患者相应的高发犯 罪事件进行针对性地宣教，加强对此类违法犯罪行为性质、后果及对应法律法规的认知，从而达到改善精神障碍患者的 辨认能力和控制能力，以期达到预防犯罪的目的。

方法 1.本实验拟入组符合 ICD-10 或 CCMD-3 关于精神障碍的诊断标准，医学诊断为：精神分裂症、情感障碍、器质性精神障碍、精神活性物质所致精神障碍、神经症样性障碍、精神发育迟滞等患者，并采集其犯罪类型：故意伤害、杀人、抢夺、强奸（含猥亵）、盗窃、寻衅滋事、毁坏公物、扰乱公共秩序等（数据均来自汕头大学司法鉴定中心）；2.通过相关量表及鉴定内容评定样本犯罪特点、社会功能；3.通过鉴定资料或随访收集样本一般人口学资料。使用 excel 整理数据，应用 spss 软件对各组的资料进行卡方检验、Logistics 回归分析等，探究精神障碍与犯罪的关联性，并通过多变量回归模型计算精神障碍者犯罪与责任减少的关系，从而反映潜在精神障碍与犯罪的关系。

结果 本课题进行中，尚未有明确结果。

结论 本课题进行中，尚未有明确结果。

关键字：司法精神病学、犯罪种类

睡眠障碍研究协作组

肠道微生物群与失眠障碍：系统综述与荟萃分析

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目的 系统评价失眠患者与正常人肠道微生物群落间的差异，并分析失眠患者肠道微生物群多样性的变化，探讨其肠道微生物群的转变是否可以成为失眠障碍的潜在治疗靶点。

方法 检索 PubMed、EMBASE、PsycINFO、Cochrane，检索时限为从其建库至 2022 年 12 月。主要结局指标是观察性研究及干预性研究基线时门、目、科、属水平上的微生物群分布差异。次要结局指标是观察性研究及干预性研究基线时的 α 多样性指数及 β 多样性指数。并使用 R 语言版本 4.1.3（meta 软件包）进行了荟萃分析，对于肠道微生物群 α 多样性指数，我们计算了失眠患者与对照组之间的 SMD（标准化平均差异）。

结果 总共纳入了 10 项研究。结果显示，与健康对照组相比，失眠患者在属水平上链球菌属、布劳特氏菌属丰度增加，而栖粪杆菌属、毛螺菌属丰度减少。此外，失眠患者与对照组 ACE 指数（SMD= -0.11，95%CI= -0.16- -0.07，p<0.01，I2=21%）、Chao1 指数（SMD = -0.42, 95% CI = -0.67- -0.17, p<0.01, I2=76%）、Shannon（香农）指数（SMD = -0.16, 95% CI = -0.28- -0.04, p<0.01, I2=59%）的 SMD 均有统计学差异。而失眠组与对照组 Simpson（辛普森）指数（SMD = 0.16, 95% CI = -0.17- 0.48, p=0.35, I2=88%）的 SMD 则没有统计学差异。β 多样性评估 PCoA（主坐标分析）（Bray-Curtis 距离）显示失眠患者组与健康对照组之间的肠道微生物群落组成存在显著差异。

结论 在属水平上，与健康对照组相比，失眠患者的某些分类群，如链球菌属、布劳特氏菌属的丰度增加，而栖粪杆菌属、毛螺菌属等厌氧丁酸盐产生细菌的丰度减少。同时，α 多样性的评估结果显示，相较于健康对照组，失眠患者组的肠道微生物群丰富度与多样性降低，而 β 多样性评估结果显示失眠患者组与健康对照组之间的肠道微生物群落组成存在显著差异。以上结果提示失眠患者的肠道微生物群落可能正在向厌氧微生物枯竭的方向转变，而这可能又会进一步加重失眠症状，因此通过益生菌等非药物途径改善肠道微生物群失调、增加菌群多样性有望成为未来干预和管理失眠障碍的另一种有效疗法。

关键字：肠道微生物群；失眠障碍；荟萃分析

中性粒细胞/白蛋白比值、血小板/白蛋白比值与抑郁症的关联—大样本临床数据分析

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目的 中性粒细胞 /白蛋白比值（neutrophil/albumin ratio, NAR）、血小板 /白蛋白比值（platelet/albumin ratio, PAR）是基于中性粒细胞、血小板、白蛋白水平确定的综合性新型炎症指标，高水平 NAR、PAR 代表炎症状态的增强，是反应系统炎症活性的生物标志物。关于 NAR、PAR 的研究目前大多集中在肿瘤等躯体疾病方面，一篇关于精神分裂症的国外研究表明精神分裂症患者的 NAR 水平显著升高，但在抑郁症中尚缺乏研究。本研究的目的是探索与正常人群相比，抑郁症患者体内是否存在 NAR、PAR 水平的改变，首发抑郁症患者及复发抑郁症患者是否存在 NAR、PAR 的差异。

方法 本研究共收集了来自 5325 名首发抑郁症患者，4965 名复发抑郁症患者及 8123 名健康对照的中性粒细胞、血小板及白蛋白水平数据。通过中性粒细胞、血小板和血白蛋白水平计算出 NAR、PAR 值，比较不同组间 NAR、PAR 水平的差异，并进行 logistic 回归分析探讨 NAR、PAR 与抑郁症的关联。

结果 抑郁症患者及正常对照组间 NAR、PAR 水平比较，结果发现两组之间 NAR 水平无明显差异（t=0.158，P=0.874），两组间 PAR 水平存在显著差异（t=3.900，P=0.000），抑郁症患者的 PAR 水平（5.582±0.150）显著正常对照组（5.500±0.149）（P<0.001）。进一步分析显示复发抑郁症患者 NAR 水平（0.079±0.001）显著高于首发抑郁症患者（0.077±0.001）（P<0.01），首发、复发抑郁症患者与正常组比较 NAR 水平无显著差异。PAR 水平比较，首发（5.584±0.021）、复发抑郁症患者（5.581±0.021）均显著高于正常对照组（P<0.01），而首发抑郁症患者与复发抑郁症患者 PAR 水平无差异。Logistics 回归分析结果显示 PAR 与抑郁症具有显著相关性（P<0.001）。

结论 复发抑郁症患者 NAR 水平显著高于首发抑郁症患者，与正常对照组无差异。首发、复发抑郁症患者 PAR 水平高均显著高于正常对照组，首发、复发抑郁症患者无差异。提示抑郁症存在明显的免疫功能失调，PAR 水平与抑郁症显著相关提示 PAR 水平是抑郁症发生的影响因素。

关键字：抑郁症，NAR，PAR，炎症，免疫失调

对比可穿戴多传感器监测系统与多导睡眠监测仪在评估睡眠分期和筛查阻塞性睡眠呼吸暂停方面的表现

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目的 评估可穿戴多传感器系统（SensEcho）与多导睡眠监测仪（PSG）在评估睡眠分期和筛查阻塞性睡

眠呼吸暂停（OSA）方面的性能。

方法 参与者在睡眠实验室中进行了同时使用 SensEcho 和 PSG 的整夜监测。SensEcho 自动分析记录，PSG 按照标准指南进行评估。根据 OSA 低通气综合征的诊断和治疗指南（2011 年修订版）评估了打鼾程度。使用 Epworth 嗜睡量表（ESS）评估日间总体嗜睡状况。

结果 本研究入组了 103 名汉族人，其中 91 名（年龄 39.02±13.84 岁，体重指数 27.28±5.12 kg/m2，61.54%为男性）完成了评估。总睡眠时间（P＝0.198）、清醒时间（P＝0.182）、浅睡眠期（P＝0.297）、深睡眠期（P = 0.422）、快速眼动睡眠期（P = 0.570）和清醒期（P = 0.336）的比例在 SensEcho 和 PSG 之间相似。使用阻塞性睡眠呼吸暂停指数（AHI）≥5 次/小时的阈值，SensEcho 的敏感性为 82.69%，特异性为 89.74%。在 AHI≥15 次/小时的阈值下，几乎获得了相同的结果。在 AHI≥30 次/小时的阈值，尽管特异性提高至 94.67%，但敏感性下降至 43.75%。

结论 本研究证明了 SensEcho 可用于评估睡眠分期和筛选 OSA。然而，提高其对严重 OSA 的评估准确性，并进一步测试其在社区和家庭环境中的有效性是必要的。

关键字：可穿戴多传感器系统；多导睡眠监测；睡眠分期；阻塞性睡眠呼吸暂停

双相障碍维持治疗期患者屏蔽蓝光干预生物节律疗效与安全性

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目的 使用屏蔽蓝光附加治疗对伴有失眠症状的双相障碍维持治疗期患者进行干预，探究其对双相障碍患者生物节律及睡眠的疗效与安全。

方法 选取符合纳入标准的双相障碍患者 60 例，随机分为干预组和对照组各 30 例。在保持原来治疗方案不变基础上，干预组患者佩戴防蓝光的橙色眼镜每天晚上不少于 2 小时持续 4 周，对照组不增加任何干预。两组患者于基线、第 2 周、第 4 周进行中文版神经精神科生物节律评估访谈（BRIAN-C）、匹兹堡睡眠质量指数(PSQI)评估。

结果 共 60 例随机分为干预组和对照组，每组 30 例。随访 4 周结束时完成研究患者 45 例，其中干预组 22 例，对照组 23 例。两组间患者的性别、婚姻状况、文化程度、就业情况、年龄、家族史、服用心境稳定剂或非典型抗精神病药、抗抑郁剂、服镇静催眠药差异均无统计学意义（P > 0.05）。两组之间比较的重复测量方差分析显示BRIAN-C评分（F时间 ＝17.257，P＝0.000）、PSQI 评分（F 时间 ＝ 17.144，P = 0.000）时间效应显著（P＜0.01）。第 4 周末两组之间 BRIAN-C 量表主导节律因子分差异也有统计学意义（Z＝-2.266，P＜0.05）。两组患者均未报告研究相关不良事件发生。

结论 屏蔽蓝光附加治疗有效改善双相障碍维持治疗期患者的生物节律紊乱及失眠症状，且安全性和耐受性好。

关键字：双相障碍；生物节律；失眠；屏蔽蓝光；附加治疗

Efficacy of Digital Cognitive Behavioral Therapy for The Treatment of Insomnia Symptoms Among Depressive Patients: A Randomized Clinical Trial

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Objective To test the efficacy of digital cognitive behavioral therapy for insomnia (dCBT-I) compared with standard treatment among depressive patients with insomnia symptoms.

Methods We included 68 patients (49.6±11.3 years) who were randomly assigned to the dCBT-i group and sleep hygiene education (SHE) group. Treatment was delivered via smart phone. The Insomnia Severity Index (ISI), a sleep diary, Hamilton Depression Scale (HAMD) and Hamilton Anxiety Scale (HAMA) were assessed at baseline, after treatment, and at a 6-month follow-up.

Results Results showed a significant immediate interaction effect in dCBT-i group on the HAMD, HAMA, ISI and other sleep parameters, which including sleep efficiency, sleep onset latency, early morning awakenings, and wake time after sleep onset. Participants in the SHE group reported no significant immediate improvements. Both groups exhibited a time effect for anxiety and depression at the 6-month follow-up. At the 6-month follow-up, the dCBT-i group had a lower recurrence rate on depression.

Conclusions In patients with MDD, dCBT-i leads to a more rapid decline in insomnia symptoms and lower recurrence rate on depressive symptoms than that applied SHE. Further research is needed to investigate the effect of dCBT-i on a larger sample size of people with MDD.

关键字：insomnia, dCBTi, depression, SHE,

The Impact of Data-driven Subtypes of Insomnia Disorder on The Efficacy of Cognitive-behavioral Therapy for Insomnia

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Objective To investigate whether subtypes of insomnia disorder affect the efficacy of cognitive-behavioral therapy (CBT-I) and explore the changes in insomnia and mood symptoms following standard or enhanced CBT-I.

Methods A total of 98 participants insomnia disorder and mild anxiety or depressive symptoms completed an 8-week randomized controlled trial of CBT-I and CBT-

I plus (CBT-I combined with modules targeting mood symptoms). The optimal number of clusters was determined on silhouette coefficient. K-means clustering analysis was performed. Two-way ANOVA was performed on the change of PSQI, HAMD, and HAMA scores at 8 weeks to explore the impact of subtypes and treatment approaches (CBT-I and CBT-I plus) on insomnia and mood symptoms.

Results K-means clustering divided the baseline participants into three classes. Significant differences were found among subtypes regarding baseline PSQI ($F = 37.45$, $P < 0.001$), HAMD ($F = 21.11$, $P < 0.001$), and HAMA ($F = 26.18$, $P < 0.001$). Two-way ANOVA revealed that the reduction rate in PSQI scores was significantly influenced only by the subtype of insomnia ($F = 6.02$, $P = 0.003$). The reduction rate in HAMD scores was significantly affected by insomnia subtype ($F = 17.36$, $P < 0.001$), treatment type ($F = 1.88$, $P < 0.001$), and interaction ($F = 1.01$, $P < 0.001$).

Conclusion Subtypes of insomnia disorder have a significant impact on the efficacy of CBT-I in improving insomnia and depressive symptoms. Different subtypes exhibit significant differences in the effectiveness of CBT-I plus for treating depressive symptoms. These findings underscore the importance of tailor interventional approaches in CBT-I to optimize treatment effectiveness based on insomnia subtypes.

关键字：Insomnia disorder; Cognitive-behavioral therapy; Cluster analysis; Subtypes; Efficacy

荆州市医疗机构护士睡眠质量的现况调查及相关因素分析

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目的 调查荆州市医疗机构护士睡眠质量并分析其影响因素。

方法 于2023年4月至6月采用整群分层抽样的方法选取荆州市医疗机构护士作为研究对象，采用问卷星线上调查，内容包括一般人口学资料、匹兹堡睡眠质量指数问卷(PSQI)、疲劳量表（FS-14）、一般心理健康状况问卷（GHQ-12）、焦虑自评问卷（GAD-7）、抑郁自评问卷（PHQ-9）等问卷进行心理健康状况调查。选择 t 检验、X2 检验、二元 logistic 回归分析进行数据分析。

结果 ⑴共收集7271份调查问卷，剔除填写时间少于10分钟、前后矛盾、不愿意填写的调查问卷，共收集有效问卷6601份，有效率90.79%；⑵PSQI量表总分阳性（≥7分）率为13.4%；⑶PSQI量表总分与FS-14量表分、GHQ-12量表总分、PHQ-9量表分、GAD-7量表分显著相关（r=0.316、0.366、0.452、0.386，P均<0.01）；⑷单因素分析：不同性别、婚姻、职称、工作年限、班次、上夜班年数、每年上夜班月数、上夜班前休息时间、上夜班期间精神压力、使用镇静催眠药物、夜班是否忙碌、是否患有慢性病、有无离职意愿、家庭关系是否融洽的护士失眠症状有统计学差异（x2=6.87、37.82、18.83、18.02、23.99、54.53、30.54、9.21、44.75、218.76、644.95、、104.21、58.89、164.93、94.75，P均＜0.01）；⑸二元 logistic 回归分析：将单因素分析中有统计学意义的因子作为自变量，将是否有失眠症状作为因变量，结果显示，女性（OR=1.93)、离异（OR=2.28）、主管护师（OR=1.92）、工作年限≥20年（OR=1.92）、中夜轮班（OR=1.42）、上夜班16-20年（OR=2.07）、过去一年有12个月在上夜班（OR=1.89）、夜班精神压力很大（OR=2.22）、夜班忙碌（OR=3.23）、患有慢性病（OR=1.59）、家庭关系非常紧张（OR=6.68）等被纳入回归模型，为护士出现失眠症状危险因素。

结论 荆州市医疗机构护士的睡眠状况及心理健康应引起社会的关注，应重点关注女性、离异、工作年限≥20年、常年上夜班、患有慢性病及家庭关系紧张的护士，普及睡眠卫生及心理健康知识，制定和完善维护护士睡眠和心理健康的政策和措施。

关键字：荆州市医疗机构；护士；睡眠质量；心理健康

重复经颅磁刺激治疗孤独症谱系障碍患者失眠障碍的随机对照双盲研究

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目的 采用随机、对照、双盲研究设计，探究 rTMS 对 ASD 失眠障碍及临床症状的有效性及安全性。

方法 对 30 名共病失眠障碍的 ASD 儿童，利用随机数表，以 1：1 的比例分配到 rTMS 组和 sham 组，由 rTMS 治疗师采用低频（1Hz）rTMS 刺激大脑右侧背外侧前额叶皮质区。ASD 儿童将在 4 周内进行 20 次治疗，治疗参数如下：1Hz，50% 的运动静息电位，每次 30 个脉冲，50 次，每次间隔 3s。Sham 组的操作流程与 rTMS 治疗组一样，采用假刺激线圈产生与真刺激相同的声音和感觉，但没有磁场穿过颅骨。在基线期、4 周治疗结束后及 8 周后的随访期分别使用 PSG（每次连续两晚，共六次）及 CASR、ABC、SRS、RBS-R 等量表对受试者进行评估。将测量时间作为重复测量，将组别（sham 组和 rTMS 组）作为组间因素，利用重复测量方差分析及广义估计方程等方法分析治疗前后睡眠参数及临床症状变化情况。

结果 rTMS 组（N=15）与 Sham 组（N=15）在基线期一般人口学数据、睡眠参数以及临床症状量表总分差异均无统计学意义（P＞0.05）。在 4 周治疗结束后，rTMS 组总睡眠时间和快速眼球运动期睡眠占总睡眠时间比值显著高于 sham 组（P＜0.05），且 rTMS 组总睡眠时间显著高于基线期（P＜0.05）。比较两组在基线期与 4 周治疗结束后总睡眠时间和快速眼球运动期睡眠占总睡眠时间比值均数变化，发现 rTMS 组分别平均增加 68.5 分钟和 1.9%，而 sham 组分别平均降低 25.9 分钟和 0.9%。而针对治疗前后临床量表参数变化，事后分析发现两组在 4 周治疗结束后及 8 周后的随访期，组间比较时差异均无统计学意义（P＞0.05）。相关分析发现治疗前后总睡眠时间改变量与社交沟通得分

改变量呈正相关关系（r=0.452，P=0.012）。

结论 对共病失眠障碍的 ASD 儿童，进行 4 周低频 rTMS（1Hz）治疗可以显著增加其总睡眠时间和快速眼球运动期睡眠占总睡眠时间比值，改善 ASD 儿童的睡眠质量。

关键字：孤独症谱系障碍、失眠障碍、重复经颅磁刺激、多导睡眠监测

内蒙古自治区成年人年龄、性别对失眠障碍的影响研究

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目的 本研究对不同年龄和性别组合与失眠障碍的关系进行探索并总结。

方法 采用分层多阶段不等概率抽样方法抽取内蒙古自治区 18 岁及以上常住居民进行面对面调查；采用国际疾病分类第 10 版中 F51.0 非器质性失眠症的诊断标准诊断失眠障碍；使用复合型国际诊断交谈表 3.0 作为调查工具；采用二分类 logistic 回归模型和限制性立方样条模型分析不同年龄、性别与失眠障碍的关系。

结果 最终 12271 名被调查者完成了调查，应答率为 86.64%。男性、女性均已 55-64 岁年龄组失眠障碍患病率最高，分别为 7.62%和 13.89%。二分类 logistic 回归模型显示，女性 55-64 岁是失眠障碍的危险因素（OR=1.986,95%CI：1.202~3.282），男性 75 岁及以上是失眠障碍的保护因素（OR=0.215,95%CI：0.080~0.579）；限制性立方样条结果显示，无论男性还是女性，年龄与失眠障碍风险呈“倒 U”型关联，但失眠障碍患病风险在具体年龄上略有差别；55-64 岁、65-75 岁以及 75 岁及以上研究对象，女性失眠障碍患病风险分别是男性的 1.543 倍、1.814 倍、9.143 倍。

结论 5 岁以后女性失眠障碍风险高于男性。无论男女，失眠障碍风险随着年龄变化趋势大致呈“倒 U”型，应关注 57 岁左右男性，62 岁左右女性，尤其是 55-64 岁女性的失眠障碍情况。

关键字：失眠障碍；相关因素；横断面研究；性别；年龄

睡眠障碍辅助治疗软件（睡眠 VR）临床有效性和安全性评价：一项前瞻性、双中心、随机、平行对照、优效性临床试验

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目的 评价睡眠障碍辅助治疗软件（睡眠 VR）用于失眠患者辅助治疗的有效性和安全性

方法 采用总观察期 6 周的双中心、随机、双盲、阳性药平行对照临床试验。按 1∶1 的比例将 116 例睡眠障碍患者随机分入常规治疗组（睡眠卫生教育+药物治疗佐匹克隆 7.5mg）+睡眠障碍辅助治疗软件（睡眠 VR）(58 例),对照组为常规治疗（睡眠卫生教育+药物治疗）+睡眠障碍辅助治疗软件（非睡眠 VR）(58 例)。两组治疗疗程为 2 周，并观察治疗 2 周后(W2)、治疗结束后 2 周(W4)和治疗结束后 4 周(W6)治疗有效率。主要疗效指标为通过在筛选/基线期、(W2)、(W4)和（W6）随访时失眠严重程度指数（ISI）量表，对受试者最近 2 周内的睡眠障碍的性质和症状进行评估，评价试验组和对照组受试者(W2)、(W4)和(W6)治疗有效率。次要有效性指标包括(W2)、(W4)和(W6)匹兹堡睡眠质量指数（PSQI）评分、睡眠质量（体动仪记录参数）、抑郁自评量表（SDS）评分、焦虑自评量表（SAS）评分较治疗前改善值以及器械性能评价为次要疗效指标

结果 试验组受试者(W2)治疗有效率及其 95% CI 为 89.66% (81.82%, 97.49%)，对照组(W2)治疗有效率及其 95% CI 为 65.52% (53.28%, 77.75%)，两组受试者(W2)治疗有效率的差值及其 95% CI 为 24.14% (9.61%, 38.67%)，95% CI 下限均＞0，试验组优效于对照组。次要优效性指标：试验组受试者(W4)和(W6)的治疗有效率，(W2)、(W4)和(W6)匹兹堡睡眠质量指数（PSQI）评分、睡眠质量、抑郁自评量表（SDS）评分、焦虑自评量表（SAS）评分，较治疗前改善值均优于对照组受试者或与对照组受试者相当，表明睡眠障碍辅助治疗软件（睡眠 VR）用于失眠患者辅助治疗可较好的改善患者的睡眠障碍、抑郁或焦虑症状，同时也可较好的改善患者的睡眠质量，具有较好的临床疗效。对睡眠障碍辅助治疗软件（睡眠 VR）的器械性能的评价均为“优”或“良”，表明睡眠障碍辅助治疗软件（睡眠 VR）临床使用时具有良好的

结论 1 睡眠障碍辅助治疗软件（睡眠 VR）联合药物治疗对睡眠障碍患者治疗 2 周的疗效显著。2（睡眠 VR）联合药物治疗的疗效优于对照组。3 治疗睡眠障碍中,睡眠障碍辅助治疗软件（睡眠 VR）使用的安全性和耐受性良好

关键字：睡眠障碍辅助治疗软件（睡眠 VR）；失眠；有效性;安全性;

Effect of Transcranial Direct Current Stimulation on Sleep Electroencephalogram in Patients with Depression: Findings of Intrinsic Multiscale Entropy From A Randomized Controlled

Study

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Objective The purpose of this study was to determine the effects of daytime transcranial direct current stimulation on sleep electroencephalogram in patients with depression.

Methods The study was a double-blinded, randomized, controlled clinical trial. A total of 56 patients diagnosed with a major depression were recruited;30 patients receiving tDCS active stimulation and 26 patients receiving sham stimulation,20 healthy subjects were selected as normal control group. Ten sessions of daytime tDCS were administered with anode over F3 and cathode over F4. Each session delivered a current of 2 mA for 30 min per ten working day. Hamilton-24 and Montgomery scales were used to assess the severity of depression, and polysomnography was used to assess the sleep structure and EEG complexity. Eight intrinsic mode functions (IMFs) were computed from per EEG signal in a channel. The sample entropy of the cumulative sum of the IMFs were computed to acquire high-dimensional multi-scale complexity information of EEG signals.

Results The complexity of Rapid Eye Movement (REM) EEG signals significantly decreased intrinsic multi-scale entropy (iMSE) (1.732 ± 0.057 vs. 1.605 ± 0.046, P = 0.0004 in the case of the C4 channel, IMF 1:4 and scale 7) after tDCS active stimulation. After tDCS active stimulation, the complexity of EEG signals of N1 increased significantly, with a significant difference no longer existing between healthy control and patients after tDCS active stimulation. Meanwhile, no significant change in complexity was observed in the sham group, with a significant difference between healthy control and patients (no matter before or after the tDCS sham stimulation). There was no significant difference in the Hamilton-24 (P = 0.988), Montgomery scale score (P = 0.726), and sleep structure (N1% P = 0.383; N2% P = 0.716; N3% P = 0.772) between the two groups after treatment.

Conclusion tDCS can make the sleep N1 EEG complexity of depression patients close to that of normal people. Intrinsic MSE of EEG signals is able to characterize the intervention effect of tDCS stimulation in depression patients, with higher sensitivity than sleep structure from PSG and clinical scale rating

关键字：depression, electroencephalogram, intrinsic multi-scale entropy,non-rapid eye movement, transcranial direct current stimulation, randomized, double-blinded, placebo-controlled tria

感知压力在童年期创伤与青少年磨牙症关联中的中介作用

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目的 调查青少年磨牙症的发生率，包括睡眠磨牙症、清醒磨牙症、下巴挤压感症状，探讨青少年童年期创伤与青少年磨牙症的关系，以及感知压力在童年期创伤与青少年磨牙症关联中的中介效应。

方法 采用问卷星进行便利抽样，采用一般资料问卷、童年期不良经历问卷（Adverse childhood experiences, ACE）、感知压力量表（Perceived Stress Scale，PSS）改编的磨牙症状问卷调查青少年的人口学特征童年期创伤经历、对压力的感知程度、磨牙症的情况，采用卡方检验比较人口学因素对青少年磨牙症的影响，采用独立样本 t 检验探究有磨牙症组与无磨牙症组的青少年在童年期创伤经历与压力感知的差异，采用相关性分析、中介效应分析探究青少年磨牙症、童年期创伤经历、压力感知的相关性和影响关系。

结果 共有 6780 名青少年参与该项调查，青少年睡眠磨牙症的检出率为 12.3%，清醒磨牙症的检出率为 5.6%，下巴挤压感症状的检出率为 12.6%。磨牙症的总检出率为 21.8%。与初中生相比，高中生睡眠磨牙症、下巴挤压感症状、磨牙症总发生率高于初中生，男生清醒磨牙症的发生率高于女生，留守青少年下巴挤压感症状的发生率高于非留守青少年，学习成绩越好，下巴挤压感症状、清醒磨牙症、磨牙症的总发生率越低；独立样本 t 检验表明，有磨牙症组的童年期创伤总分、儿童期虐待忽视、家庭功能不良、其他逆境分维度得分、感知压力量表总分、主观知觉压力均高于无磨牙症组。Logistic 回归分析表明，高中生、学习成绩差、童年期创伤经历、感知压力是青少年磨牙症状发生的危险因素。中介效应分析模型表明，感知压力水平在童年期经历与青少年磨牙症的发生中起到中介作用。针对童年期创伤问卷各个分量表的中介效应分析表明，感知压力水平在儿童期虐待忽视、家庭功能不良、其他逆境与青少年磨牙症的发生中起到中介作用。

结论 青少年磨牙症的发生率较高，青少年磨牙症的发生与童年期创伤经历、感知压力水平具有相关性，童年期创伤经历通过感知压力水平介导青少年磨牙症状的发生，对于有磨牙症的青少年要注重童年期创伤经历和感知压力的评估，适当减轻感知压力水平能够减少青少年磨牙症状的发生。

关键字：青少年，磨牙症，感知压力，童年期创伤经历，中介作用

科研人员睡眠质量、疲劳症状的现况及相关影响因素的调查

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目的 调查科研人员睡眠质量、疲劳症状的发生率及现况，及运动对科研人员睡眠质量、疲劳因素的影响，以及感知压力、焦虑抑郁情绪，疲劳症状与科研人员睡眠质量的关联，探究疲劳症状、焦虑抑郁情绪在科研人员感知压力与失眠症状之间的链式中介效应。

方法 采用问卷星进行便利抽样，采用一般资料问卷、感知压力量表（Perceived Stress Scale，PSS）、匹兹堡睡眠质量指数量表(PSQI)、患者健康问卷抑郁量表（Patient Health Questionnaire，PHQ-9）、广泛性焦虑障碍量表（7-tiem Generalized Anxiety Disorder Scale,GAD-7）、疲劳严重程度评估量表(Fatigueseverityscale ,FSS)调查科研人员的人口学特征、运动情况、睡眠质量、焦虑抑郁情绪、疲劳症状，采用卡方检验比较人口学因素、运动情况对科研人员失眠、疲劳症状的影响，采用独立样本 t 检验探究有失眠组与无失眠组的科研人员在感知压力、焦虑抑郁情绪、疲劳症状的差异，采用相关性分析、中介效应分析探究感知压力、疲劳症状、焦虑抑郁情绪与失眠的相关性和影响关系。

结果 共有 937 名科研人员参与该项调查，科研人员失眠的检出率为 36.9%，疲劳症状的检出率为 68.7%。对失眠症状各个维度的分析表明，有 84.1%的科研人员对自己的主观睡眠质量不满意，35.9%睡眠潜伏期超过 30 分钟，75.8%睡眠时间不足 7 小时，31.2%睡眠效度低下，84.3%在睡眠紊乱，87.7%存在白天功能紊乱，56.2%科研人员在 23 点以后开始上床睡觉，其中有 14.9%科研人员在凌晨 12 点以后才入睡。本科学历的科研人员失眠症状的比例显著高于硕士、博士后，在科研院所工作的科研人员失眠、疲劳症状的比例最高。每周进行挥拍类运动、抗阻运动的科研人员失眠症状与疲劳症状比例较低；独立样本 t 检验表明，有失眠症状组的焦虑抑郁总分、疲劳症状得分、感知压力量表总分、主观知觉压力得分显著高于无失眠症状组，压力应对能力得分低于无失眠症状组。中介效应分析模型表明，感知压力水平在疲劳症状、焦虑抑郁情绪与科研人员失眠症状的发生中起到链式中介作用。

结论 科研人员失眠、疲劳症状的发生率较高，感知压力通过疲劳症状、焦虑抑郁情绪介导失眠症状的发生，我们要关注科研人员的睡眠质量、感知压力、疲劳、情绪问题。

关键字：科研人员，失眠症状，疲劳，焦虑抑郁，中介效应分析

新冠感染暴发期间护理人员创伤后应激障碍、职业倦怠与离职倾向的现况调查与相关性分析

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目的 分析 2022 年 11 月至 2023 年 1 月新冠感染暴发期间护理人员创伤后应激障碍、职业倦怠情况和离职倾向的现况及相关性。

方法 采用问卷星进行便利抽取全国 17 个省份的 1100 名护理人员，采用一般资料问卷、创伤后应激障碍量表平民版（PCL-C）、职业倦怠量表（MBI）、护士离职倾向量表（TIQ）调查护理人员的人口学特征及在 2022 年 11 月至 2023 年 3 月新冠感染暴发期间创伤后应激障碍、职业倦怠与离职意愿情况，采用卡方检验比较人口学资料对创伤后应激障碍、职业倦怠与离职意愿情况，采用独立样本 t 检验探究有创伤后应激障碍组与无创伤后应激障碍组职业倦怠与离职意愿的差异，采用相关性分析、中介效应分析探究护理人员创伤后应激障碍、职业倦怠、离职倾向的之间的相关性和影响关系。

结果 护理人员创伤后应激障碍阳性症状检出率为 15.8%。职业倦怠量的检出率为 71.8%。护士离职倾向量表得分显示，38.1%的护理人员离职倾向较低，21.8%的离职倾向较高，3.1%的离职倾向很高。男性、在北京工作、中级以上职称的护理人员创伤后应激障碍阳性检出比例高，在职业倦怠方面，男性护理人员职业倦怠的比例高于女性，在基层医院工作的护理人员职业倦怠检出率高于二三级医院，在离职倾向方面，在北京工作的护理人员比例高于其他省份，中级以上职称高于初级职称护理人员。担心自己或家人会新冠感染、觉得目前新冠感染增加了生活或工作的压力的程度越严重创伤后应激障碍、职业倦怠与离职倾向比例的检出率越高，独立样本 t 检验表明，有创伤后应激障碍组的职业倦怠总分、情感耗竭、去人格化、个人成就感低因子得分、护士离职倾向量表总分及各个维度得分显著高于无创伤障碍组。相关分析表明，创伤后应激障碍、职业倦怠与离职倾向之间存在两两相关性，且职业倦怠在创伤后应激障碍与离职倾向中起到中介效应。

结论 在 2022 年 11 月至 2023 年 1 月新冠感染暴发期间，全国护理人员存在严重的创伤后应激障碍和职业倦怠，且离职倾向较高；创伤后应激障碍、职业倦怠、离职倾向之间存在相关性。创伤后应激障碍通过职业倦怠介导离职倾向的发生，护理管理部门应该关注护士的身心健康，及时给予心理支持与干预。

关键字：新冠感染；创伤后应激障碍；职业倦怠；离职倾向；中介效应分析

Associations of Sleep Disturbances, and Psychiatric Symptoms with Suicide Risk in Schizophrenia Inpatients: A Cross-Sectional Study

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Objective The study aimed to explore the status of suicide risk in hospitalized patients with schizophrenia, as well as the correlations between sleep disturbances, psychiatric symptoms and suicide risk in the patients.

Methods A total number of 269 schizophrenia inpatients were recruited from 7 hospitals in China from August 2019 to March 2021. According to the suicide module of Mini?International Neuropsychiatric Interview, all inpatients were divided into two groups: with suicide risk (n=75) and without suicide risk (n=194). The Brief Psychi-

atric Rating Scale (BPRS), the Patient Health Questionnaire-9 (PHQ?9), the Generalized Anxiety Disorder-7 (GAD?7), the Pittsburgh Sleep Quality Index (PSQI), and the Epworth Sleepiness Scale (ESS) were evaluated. The sleep disturbances and psychiatric symptoms of two groups were compared, and the correlates of suicide risk were obtained by Spearman correlations and multivariate Logistic regression.

Results The rate of suicide risk in schizophrenia inpatients was about 27.9%. Patients with suicide risk had higher rates of poor sleep quality, daytime sleepiness, anxiety, and depression compared with those without suicide risk (all $p < 0.001$). BPRS total score, factor scores (anxious?depression, hostile?suspiciousness and activation) were also higher (all $p < 0.01$). Disease duration was shorter and age was younger in patients with suicide risk (all $p < 0.05$). Spearman correlation analyses revealed that suicide risk level was significantly positively correlated with BPRS total score ($r = 0.289$), PHQ?9 score ($r = 0.432$), GAD?7 score ($r = 0.422$), PSQI total score ($r = 0.320$), and ESS score ($r = 0.213$) (all $p < 0.001$). Multiple logistic regression showed that anxiety (OR = 7.140, 95% CI: 2.345-21.738), poor sleep quality (OR = 2.029, 95%CI: 1.097-3.755), hostile-suspiciousness (OR = 1.525, 95%CI: 1.041-2.232), activation (OR = 2.340, 95%CI: 1.078-5.080), and disease duration (OR = 0.958, 95%CI: 0.928-0.989) were independently correlated with suicide risk (all $p < 0.05$).

Conclusion Suicide risk is common in hospitalized patients with schizophrenia. Sleep disturbance, and psychiatric symptoms, such as anxiety, hostile-suspiciousness and activation are independent correlates of suicide risk.

关键字：Schizophrenia, Suicide risk, Sleep quality, Psychiatric symptom

Manipulated Overlapping Reactivation of Multiple Memories Promotes The Abstraction of Hidden Gist

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Objective Sleep is considered to promote the gist abstraction on the basis of spontaneous memory reactivation. As speculated in the theory of 'information overlap to abstract (iOtA)', 'overlap' between reactivated memories, beyond reactivation, is crucial to gist abstraction. Yet so far, empirical research has not tested this theory by manipulating the factor of 'overlap'. In the current study, 'overlap' itself was manipulated by targeted memory reactivation (TMR), through simultaneously reactivating multiple memories containing hidden gist or not, to investigate the effect of overlapping reactivation on gist abstraction.

Methods This study had a factorial design with 2 factors with 2 levels respectively (overlap/non-overlap, TMR/no-TMR). Accordingly, 82 healthy college students (57 females, age range 19 ~ 25) were randomized into four groups. After learning of 16 pictures, paired with 4 auditory cues (4 pictures – 1 cue) according to the grouping, participants were given a 90-minute nap opportunity. Then TMR cueing was conducted during N2 and slow wave sleep of nap. Performance in memory task was used to measure gist abstraction.

Results Two-way ANOVA revealed a significant main effect of TMR on gist abstraction. Further analyses showed that gist abstraction in overlapping reactivation group was significantly better than in control group, while gist abstraction in two non-overlapping groups were equivalent. Moreover, gist abstraction was positively correlated with spindle density, as well as the strength and preferred phase of slow oscillation-spindle coupling.

Conclusion The current study indicates that overlapping reactivation facilitates gist abstraction, spindle and and slow oscillation-spindle coupling were correlated with this process. This study thus provides empirical evidence for the iOtA theory.

关键字：gist abstraction, sleep, information overlap to abstract, targeted memory reactivation, memory evolution

Association of Napping Habits with The Risk of Depression, Anxiety, and Insomnia

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Objective To investigate the prevalence status of depression/anxiety/insomnia risk among adult residents in Bao 'an District, Shenzhen, and explore the association between nap habits, night sleep duration and depression/anxiety/insomnia risk, so as to provide scientific basis for appropriate intervention measures.

Methods 2000 permanent residents over 18 years old in Bao 'an District of Shenzhen were selected to conduct a household survey, including social demographic data, lifestyle behavior and chronic diseases, mental health literacy survey, depression, anxiety, insomnia screening, sleep and other symptoms screening, quality of life, etc. Descriptive analysis and univariate analysis were performed on the influencing factors of depression/anxiety/insomnia risk, and multivariate Logistic regression was used to analyze the correlation between napping habits and the risk of depression/anxiety/insomnia.

Results This study showed that the risk of depression/anxiety/insomnia was 50.7%. Age, marital status, education level, family per capita monthly income, BMI, diet regularity, time spent on electronic devices, sitting time, exercise steps, chronic disease, quality of life, nap habits and night sleep duration of the subjects had significant effects on the detection rate of depression/anxiety/insomnia ($P < 0.05$). Multivariate Logistic regression analysis showed that after adjusting for confounders, napping 3-5 times and 6-7 times per week increased the risk of depression/anxiety/insomnia by 61.5% (OR = 1.615, 95%CI: 1.212-2.150) and 45.2% (OR = 1.452, 95%CI:1.193 ~ 1.768), respectively, compared with the non-napping group. Compared with the sleep duration < 7h group, the risk of depression/anxiety/insomnia in the sleep duration7-

8h group was reduced by 60.0% (OR = 0.400, 95%CI: 0.319 ~ 0.502), and the risk of depression/anxiety/insomnia in the sleep duration > 8h group was reduced by 78.7% (OR = 0.213, 95%CI: 0.160 ~ 0.282).

Conclusion Adult residents' napping habits and sleep duration

关键字：Napping habits;Depression;Anxiety;Insomnia

NREM 期睡眠纺锤波脑激活特征研究

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目的 睡眠纺锤波是非快速眼动睡眠（Nonrapid eye movement, NREM）的特征波之一，具有维持睡眠连续性的作用。既往研究结果表明 N2 期和 N3 期纺锤波的功能不同。其影像学机制尚不明确。本研究探索 N2 期和 N3 期纺锤波脑激活特征及其与睡眠连续性的关系。

方法 于 2017 年 7 月至 2019 年 9 月通过网络平台招募健康受试者（n=57）。所有受试者完成一般人口学资料采集、睡眠量表评估和连续两周睡眠日记记录。于睡眠实验室进行连续两晚多导睡眠（Polysomnography, PSG）监测，随后一周内在磁共振成像中心进行两晚同步脑电-功能磁共振成像（Electroencephalogram-functional magnetic resonance imaging, EEG-fMRI）扫描。对第二晚核磁下脑电数据进行预处理、人工睡眠分期并手动提取睡眠纺锤波。对脑影像数据进行预处理，对睡眠阶段（N2 和 N3）、年龄、性别和受教育年限进行建模，分析纺锤波脑激活的阶段（N2 和 N3）效应（P<0.05, FWE 校正）。采用 Wilcoxon 符号秩检验对两个阶段的纺锤波脑激活值进行事后检验。分别提取 N2 和 N3 差异显著脑区的激活值并与第二晚 PSG 的入睡潜伏期（Sleep onset latency, SOL）、总睡眠时间（Total sleep time, TST）、睡眠效率（Sleep efficiency, SE）和入睡后清醒总时间（Wake time after sleep onset, WASO）进行 Pearson 相关分析（P<0.05）。

结果 （1）N2 期和 N3 期纺锤波脑激活强度存在显著阶段效应（左侧团块 264 mm3，右侧团块 331mm3）；与 N2 期相比，N3 期双侧颞中回纺锤波脑激活程度显著降低（左侧 Z=-4.564, P<0.001，右侧 Z=-4.005, P<0.001）。（2）N3 期左侧颞中回纺锤波脑激活值与 SOL（r=0.337, p=0.045）呈显著正相关。

结论 颞中回激活强度不同可能是 N2 期和 N3 期纺锤波功能差异的潜在生物学机制。

关键字：睡眠纺锤波；同步脑电与功能磁共振；非快速眼动睡眠

Sleep and Circadian Rhythm Dysfunction and Psychopathology in Offspring of Parents with Bipolar Disorder: A Case-control High-risk Study

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Objective To determine the differences in categorical and dimensional sleep and circadian dysfunctions and psychopathology between the offspring of parents with and without bipolar disorder.

Methods The sample included 191 offspring of parents with bipolar disorder (O-BD) and 202 offspring of controls without bipolar disorder (O-Control) aged 6-21 from China. Diagnoses and symptoms of mental disorders and sleep/circadian rhythm dysfunction were assessed by the Schedule for Affective Disorders and Schizophrenia for School-Age Children - Present and Lifetime Version and the Diagnostic Interview for Sleep Patterns and Disorders, respectively. Generalized Estimating Equations and shared frailty proportional hazards models of survival analysis were applied to compare between-group differences.

Results After adjustment for age at recruitment, sex, and region, there was a significantly higher risk of delayed sleep phase symptoms (9.6% vs. 2.6%, adjusted OR: 4.04) in O-BD than the controls. O-BD had nearly 5-fold risks of mood disorders (11.7% vs. 3.5%, adjusted OR: 4.68) and social anxiety (6.3% vs. 1.5%, adjusted OR: 4.70), 4-fold risks of depressive disorders (10.9% vs. 3.5%, adjusted OR: 3.99), and 3-fold risks of mood symptoms (20.6% vs. 10.4%, adjusted OR: 2.24) than O-Control. Subgroup analyses revealed that O-BD had nearly 2-fold risks of any mental symptoms and behavioral symptoms than O-Control in childhood, while there were nearly 4-fold risks of delayed sleep phase symptoms, 7.5-fold risks of social anxiety, and 3-fold risks of mood symptoms in O-BD group in adolescence.

Conclusion This study indicates the emergence of delayed sleep phase symptoms in adolescence, confirming the central role of circadian rhythm dysfunction in bipolar disorder. Specific developmental patterns of increased psychopathology and circadian dysfunction in childhood and adolescence in the offspring of parents with bipolar disorder were found.

关键字：Circadian rhythm; Sleep; Mental disorders; Bipolar disorder; High-risk

双相障碍三种临床相的边缘系统网络功能连接与低频振幅的研究

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目的 双相障碍病理假说认为其情绪调节障碍是由于边缘系统结构网络的损坏及失连接，但缺乏边缘系统网络功能活动受损的研究，本研究拟探讨双相障碍三种临床相边缘系统网络脑区间功能连接及脑区内功能活动状态。

方法 收集符合 DSM-5 诊断标准的 94 例双相障碍患者[31 例躁狂相，32 例抑郁相和 31 例缓解期]及性别、年龄与之匹配的对照组 44 例。采用 17 项汉密尔顿抑郁量表及杨氏躁狂量表评估患者抑郁及躁狂症状严重程度，采集静息态功能磁共振成像数据，采用基于种子点功能连接(functional connectivity, FC)和低频振荡振幅（amplitude of low-frequency fluctuation, ALFF）的方法分析边缘系统网络脑区间功能连接及脑区内功能活动状态

结果 与对照组相比，双相障碍三种临床相边缘系统网络中前扣带回皮质与海马区域的 FC 显著降低（LSD 校正，P<0.05），且躁狂相、缓解相前扣带回皮质 ALFF 也显著降低（FDR 校正，P<0.05）；同时，抑郁相左侧前扣带回与左侧海马功能连接与汉密尔顿量表工作兴趣因子分呈显著负相关（r=-0.41，P=0.02）。

结论 本研究结果阐明，双相障碍三种临床相边缘系统网络中前扣带回的失连接和功能活动降低可能是其共同的影像学特征和生物标记物。

关键字：双相障碍；边缘系统网络；功能连接；低频振幅

青少年睡眠知觉障碍的风险因素分析及预测

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目的 研究青少年睡眠知觉障碍的风险因素，并构建风险预测模型。

方法 回顾性分析 2020 年 1 月至 2021 年 12 月在成都市第四人民医院门诊及住院存在睡眠知觉障碍的青少年（SI）29 例，同时匹配无睡眠知觉障碍的青少年（NSI）28 例。通过贝克抑郁自评量表（BDI）、贝克焦虑自评量表（BAI）、晨起问卷、失眠严重程度指数量表（ISI）、Epworth 嗜睡量表（ESS）、国际下肢不宁腿综合征等级评估量表（IRLG）及多导睡眠监测（PSG）评估受试者的睡眠、情绪等情况，根据晨起问卷记录的主观睡眠时间和 PSG 评定客观睡眠时间评估睡眠知觉。首先采用单因素分析的方法对两组临床资料比较分析，其次采用多因素二元 Logistic 回归分析的方法对单因素分析结果中差异有统计学意义的因素再次进行比较分析，进而筛选影响主观睡眠感缺失的独立危险因素。

结果 1. SI 和 NSI 在 BDI、BAI、ISI、ESS、IRLG 除睡眠知觉障碍组 ISI 得分高于无睡眠知觉障碍组（t=-2.109,P=0.019），其余量表均无统计学差异。2.与 NSI 相比，SI 组 N3 期觉醒次数增加（t=-2.238，P=0.002），最低血氧饱和度下降（t=2.223，P=0.039）。3.多因素二元 Logistic 回归分析提示 ISI（OR=1.221, 95%CI:1.063～1.402，P=0.005）、N3 觉醒次数（OR=1.136, 95%CI:1.031～1.402，P=0.010）、最低血氧饱和度（OR=0.867, 95%CI:0.766～0.981，P=0.023）是主观睡眠感缺失的独立危险因素。

结论 1. 青少年睡眠知觉障碍难以通过多导睡眠监测有效区分。 2. 与无睡眠知觉障碍组青少年相比，存在睡眠知觉障碍的青少年失眠严重程度更重，二者在 N3 期觉醒次数及最低血氧饱和度存在差异。 3.二元逻辑回归分析表明失眠严重程度指数、N3 期觉醒次数和夜间最低血氧饱和度对睡眠知觉有较好的预测作用。

关键字：青少年；睡眠障碍；主观睡眠感；睡眠知觉；多导睡眠监测

线上团体 BBTI 对抑郁障碍患者失眠症状的疗效验证

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目的 本研究旨在验证线上团体失眠的认知行为疗法（Brief behavioral therapy for insomnia，BBTI）对抑郁障碍患者失眠症状的疗效。

方法 本研究采用随机对照设计，纳入于 2021 年 7 月至 2022 年 7 月在北京大学第六医院门诊及网络平台招募的符合简明国际神经精神访谈抑郁发作诊断标准且失眠严重程度指数（Insomnia severity index，ISI）≥8 分的受试者 49 例，采用区组随机化方法随机分配到干预组（线上团体 BBTI，N = 33）和对照组（线上团体睡眠卫生健康教育，N = 16），分别进行连续 4 周的治疗。所有受试者均在基线、治疗结束时、治疗结束后 3 个月和 6 个月完成 ISI、匹兹堡睡眠质量指数量表（Pittsburgh sleep quality index，PSQI）、贝克抑郁自评量表-第二版（Beck depression inventory-II，BDI-II）、疲劳严重程度量表（Fatigue severity scale，FSS）、睡眠个人信念和态度量表-16（Dysfunctional beliefs and attitudes about sleep scale-16，DBAS-16）等量表，并完成连续 1 周的睡眠日记。治疗开始前 1 周内基线时（连续 2 晚）和治疗结束后 1 周内（1 晚）完成整夜多导睡

眠监测（Polysomnography，PSG）。

结果 运用广义混合线性模型对疗效结局指标进行统计分析，结果如下，（1）睡眠相关结局指标：①ISI、PSQI、DBAS-16 得分存在组别与时间的交互作用（$p < 0.001$）；②基于睡眠日记的入睡潜伏期、睡眠效率和总卧床时间存在组别与时间的交互作用（均 $p < 0.01$）；③PSG 结果发现治疗结束时干预组的入睡潜伏期与基线相比差异具有统计学意义（$p < 0.05$）；④两组在治疗结束时、治疗结束后 3 个月和 6 个月时的缓解率和有效率的差异均存在统计学意义（均 $p < 0.05$）；（2）其他结局指标：BDI-II、FSS 得分均存在组别与时间的交互作用（均 $p < 0.05$）。

结论 线上团体 BBTI 能改善抑郁障碍患者自我报告的失眠症状、抑郁症状和日间疲劳，且疗效可维持至治疗结束后 6 个月。

关键字：失眠的短程行为疗法；线上治疗；团体治疗；抑郁障碍；失眠

睡眠剥夺联合记忆唤起再巩固范式干预酒精依赖患者酒精渴求的研究

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目的 探索睡眠剥夺对酒精依赖患者酒精奖赏记忆再巩固及渴求的影响。

方法 本研究招募自愿参与并符合入组标准的 83 例酒精依赖患者，采用随机数字表法将其分为四组，分别为：睡眠剥夺唤起组（n=23）；睡眠剥夺未唤起组（n=20）；正常睡眠唤起组（n=20）；正常睡眠未唤起组（n=20）。采集患者一般人口学资料后，在基线、关联学习和检测阶段，对所有酒精依赖患者使用可视渴求量表评估酒精相关线索图片（既往线索，如酒瓶、倒酒、饮酒、场合性饮酒图片）和新线索图片（中性图片）诱发的渴求程度，使用血压、心率前后差异评估线索反应性。单因素方差分析比较四组酒精依赖患者的一般人口学资料及各项量表评分；重复测量方差分析比较试验每一阶段的血压、心率、渴求评分。

结果 关联学习阶段：患者在条件性刺激（conditioned stimulus）关联学习（简称 CS+，即中性图片与闻酒配对）阶段，与学习前相比，学习后四组患者的收缩压、舒张压、心率均升高，差异存在统计学意义（$F=151.076$、46.875、12.005，均 $P<0.05$），与基线相比，四组关联学习中性图片诱发的渴求程度的可视渴求量表（VAS）评分升高（$F=5.963$，$P<0.05$）。检测阶段：检测后睡眠剥夺唤起组的收缩压、舒张压、心率均有不同程度的降低，其余三组则不同程度的升高（$F=159.119$、11.913、4.327，均 $P<0.05$），与基线和学习阶段相比，检测后睡眠剥夺唤起组、睡眠剥夺未唤起组、正常睡眠未唤起组观看酒瓶、倒酒、饮酒、场合性饮酒及中性图片的渴求程度评分明显降低（$F=4.653$、6.811、6.277 、11.189、3.214，均 $P<0.05$）。

结论 条件性刺激唤起奖赏记忆后给予睡眠剥夺可降低与酒精相关的奖赏记忆，减少渴求。

关键字：酒精依赖；睡眠剥夺；奖赏记忆；渴求

内蒙古城、乡成年人失眠患病率现况调查及危险因素分析

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目的 探索内蒙古自治区城、乡成年人失眠的患病率及危险因素。

方法 采用分层多阶段不等概率抽样，于 2019 年 7 月～12 月抽取内蒙古自治区 41 个区、县、旗 246 个村居的 14164 名在当地居住 6 个月及以上的 18 岁以上居民，采用复合性国际诊断交谈表-3.0 版，国际疾病分类第 10 版中 F51.0 非器质性失眠症的诊断标准完成。选取城、乡两组受试者，在选取的一般人口学特征下比较加权患病率（简称患病率），采用 Pearson 卡方检验或 Fisher 确切检验比较城、乡成年人的一般人口学资料及睡眠状况，最后对可能影响城、乡受试者失眠的因素进行 Logistic 回归分析。

结果 最终 12481 人完成调查，内蒙古自治区城、乡成年人失眠的患病率为 4.92%，乡村居民失眠障碍患病率（6.56%）高于城镇 3.83%（$\chi2=47.638$，$P=0.003$）。在乡村中男性、小学文化程度、人均收入为中等偏下及以上收入群体更不容易罹患失眠障碍；在城镇中高中及以上学历者更不容易罹患失眠障碍，而 25-64 岁、不工作的城镇居民更易罹患失眠障碍；西部地区相比于中、东部地区更不容易罹患失眠障碍；不管是在城镇还是乡村罹患慢性疾病、精神疾病者更易罹患失眠障碍。

结论 内蒙古自治区乡村失眠的患病率高于城市，差异可能来源于城乡之间不同的生活方式、年龄结构、文化程度以及人均年收入水平。

关键字：失眠；患病率；危险因素；城乡

Cognitive Behavioural Therapy for Insomnia in Patients with Major Depressive Disorder in Remission: A Randomised Controlled Clinical Trial

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Objective This blinded, randomised, split-plot study assessed the effect of cognitive behavioural therapy

for insomnia (CBT-I) in patients with major depressive disorder in remission.

Methods The study was completed by 25 participants (60% women, mean age 36.40 ± 8.60) in the intervention group (received CBT-I) and 23 participants (82.61% women, mean age 39.87 ± 8.42) in the control group (received sleep health education). At baseline and after six weeks of intervention, self-report questionnaires, objective questionnaires, and polysomnography were administered to all participants.

Results The intervention group showed a lower Insomnia Severity Index and Pittsburgh Sleep Quality Index scores (evaluated subjective sleep quality; all $P < 0.001$), and better total wake time ($P = 0.048$), sleep latency ($P = 0.046$), and N3 duration ($P = 0.029$). Improvement in Perceived Deficits Questionnaire for Depression score (evaluated subjective cognitive function; $P = 0.007$), immediate memory ($P = 0.003$), language ($P = 0.008$), and Repeatable Battery for the Assessment of Neuropsychological Status scores (measured objective cognitive function; $P = 0.001$) were also noted. The Pittsburgh Sleep Quality Index score was a predictor of immediate memory ($\beta = -2.377$, $P = 0.038$).

Conclusion Cognitive behavioural therapy for insomnia significantly improved insomnia, cognitive function, and depression in patients with insomnia and major depressive disorder in remission. Subjective sleep improvement could predict the recovery of cognitive function. Therefore, CBT-I can be used to predict the prognosis of depression.

关键字：Depression, Residual symptoms, Sleep, Cognition, Cognitive behavioural therapy

Influencing Factors and Prediction Model Construction of Comorbidities of OSA in Middle-aged and Elderly Women with Insomnia

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Objectives Obstructive sleep apnea (OSA) is often overlooked in middle-aged and elderly female insomnia patients, which can impact the effectiveness of their treatment. This study aims to predict the comorbidity risk of OSA in middle-aged and elderly female insomnia patients based on clinical parameters, establish a prediction model, and validate it, providing a novel approach for diagnosing comorbid OSA in this population.

Methods We conducted a retrospective review of middle-aged and elderly female insomnia patients undergoing polysomnography (PSG) at the Sleep Medicine Center of the First Affiliated Hospital of Jinan University between 2018 and 2021， to explore independent influences of co-morbid OSA in this population, construct predictive models and evaluate them.

Results This study included a total of 732 middle-aged and elderly female insomnia patients and 15 variables. The results of the multivariate logistic regression analysis revealed that four variables showed significant differences. These variables were Age (OR=1.07, 95% CI: 1.04-1.1), BMI (OR=1.19, 95% CI: 1.13-1.26), BPM (OR=1.02, 95% CI: 1-1.05), and Drug (OR=0.65, 95% CI: 0.45-0.94). The AUC of the column line graph prediction model constructed according was 0.75 and 0.76 in the evaluation results of the training and test sets respectively.

Conclusions This study developed a prediction model and column line plot based on clinically relevant parameters for comorbid OSA in middle-aged and elderly female insomnia patients. The model can improve the detection rate and enhance clinical decision-making, particularly in healthcare facilities where PSG may not be readily available, providing valuable guidance in diagnosing OSA.

关键字：Insomnia, Obstructive Sleep Apnea, Risk Factors, Prediction Model, Nomogram

睡眠剥夺减少人际互惠行为及其神经影像学机制探究

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目的 近年来，关于睡眠剥夺影响个体社会功能的研究逐渐增多，但具体机制尚未明确。本研究旨在探索睡眠剥夺对互惠行为及驱动互惠行为的情绪动机的影响，进一步通过功能磁共振成像技术探索睡眠剥夺影响互惠行为及其情绪动机的影像学机制。

方法 本研究为组内平衡设计。纳入符合入排标准的 40 名被试（23.0±1.5 岁；女性 28 名）。被试在试验前三天保持规律睡眠，并完成睡眠日志记录和体动仪监测。试验当天，被试分别在实验室保持整晚清醒（睡眠剥夺）或便携式脑电监测下正常休息（正常睡眠），两种睡眠操作顺序随机且间隔至少一周。次日清晨被试在磁共振扫描下完成人际互动任务，测试互惠行为及相关情绪变化。比较睡眠剥夺对互惠行为及情绪动机的影响；分析与睡眠剥夺影响互惠行为相关的脑功能改变。

结果 行为结果显示，与正常睡眠相比，睡眠剥夺后个体互惠行为（即返还给施惠者的钱）显著减少（$p < 0.05$）。同时，个体在睡眠剥夺后感受到的互惠关心权重减少（$p < 0.05$）。脑成像结果显示，睡眠剥夺后个体楔前叶、后扣带回脑区活动显著增强，颞顶交界处（temporoparietal junction， TPJ）及背外侧前额叶（dorsolateral prefrontal cortex，dlPFC）脑区活动显著减弱（p 均< 0.05）。同时，个体的楔前叶脑区活动变化程度与互惠动机呈显著负相关，而 TPJ 与 dlPFC 的活动变化程度与互惠动机呈显著正相关（p 均< 0.05）。功能连接分析显示，面对帮助时，睡眠剥夺后楔前叶-丘脑和 DLPFC-丘脑的功能连接增强，并且功能连接强度与互惠关心权重呈负相关（p 均< 0.05）。

结论 睡眠剥夺对互惠行为及其情绪动机具有负性影响，其中楔前叶/后扣带回、TPJ、dlPFC 和丘脑在

该过程中起着调节作用。本研究发现为理解睡眠不足对互惠行为及社会认知的影响提供新的证据。

关键字：睡眠剥夺；社会认知；互惠行为；情绪动机；磁共振成像

首发抑郁症患者的视觉运动感知损伤

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目的 抑郁障碍与视觉认知缺陷有关，这可能与工作记忆和感知觉受损有关。视觉抑制功能作为一种重要的分辨物体与周围事物的机制，在人类环境互动中发挥着至关重要的作用。目前的研究证实，急性期抑郁与缓解期抑郁的患者均出现了视觉抑制功能的改变。但是尚无研究对首发抑郁症患者的抑制功能进行研究，对抑郁症患者的皮层内抑制功能是否受损仍是未知的。因此，本研究将探讨首发抑郁症患者的皮层间抑制功能与皮层内抑制功能的变化与机制。

方法 本研究使用运动方向辨别范式与随机运动点图范式对门诊部 32 名首发抑郁症患者与 30 名对照组的抑制功能进行测量。并对两组之间的性别因素进行了分析。进一步探讨抑郁症对视觉抑制功能的影响。

结果 实验一（运动方向辨别任务）中，组别的主效应不显著($F(2.183) = 1.741$, $p = 0.189$, $\eta_p^2 = 0.010$)，size 的主效应显著($F(2,183) = 15.659$, $p = 0.000$, $\eta_p^2 = 0.148$)。进一步的成对比较发现，当刺激为 4°时，两组之间存在显著的差异（$p = 0.039$）。在对 SI 的分析中发现，在高对比度条件下，组别与刺激大小的主效应显著($F(1,60) = 6.501$, $p = 0.012$, $\eta_p^2 = 0.052$; $F(1,60) = 6.991$, $p = 0.001$, $\eta_p^2 = 0.105$)。配对分析发现，抑郁组与对照组在 4 度刺激下的 SI 有统计学意义下的差异，抑郁组的 SI 指数显著低于对照组($p = 0.023$)。另外，我们发现在高对比度大刺激的条件下，对照组中男性的阈值要显著低于女性（$p = 0.001$）。女性被试的 SI 指数存在组别之间的差异（$p = 0.007$）。在低对比度小刺激条件下，抑郁组中女性的阈值显著高于男性（$p = 0.007$）。实验二（随机运动点图范式）中，两组被试的排斥效应都先增加，后下降。但是两组间并未发现显著性的差异($F(6,372) = 0.097$, $p = 0.756$, $\eta_p^2 = 0.02$)。也未发现两组之间在性别变量上的显著性差异（$p > 0.05$）。

结论 首先，首发抑郁症患者的皮层间抑制受损，且女性患者的中心外周抑制更容易受到影响。其次，首发抑郁症患者的同一皮层内抑制抑制未发生明显变化，这可能表示抑郁症患者的视觉皮层损伤存在于更高级的 MT 区域而非初级视觉皮层。

关键字：抑郁障碍 皮层间抑制 皮层内抑制 初级视觉皮层 MT 区域

Sleep and Cortisol Changes in Crews with Irregular Shifts During A 42-day Isolated, Confined and Extreme (ICE) Environment Mission

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Objective Humans often face physical and psychological challenges, when carrying out missions in ICE environments such as aerospace, submarines, and arctic conditions. A third-quarter phenomenon was discovered in the long-term ICE environment, where mood levels dropped after the midpoint of the mission and somewhat recovered before the end of the mission. We explore cortisol, sleep and mood changes in ICE environment involving numerous stressors, as well as whether the third-quarter phenomenon exist in the short-term.

Methods Three males participated in 42 days of confined isolation, during which time was delayed by four hours for the first four days (D1-D4) to establish and adapt to new circadian rhythm under experimental conditions. This was followed by 38 consecutive days of irregular shift work(D5-D42). Throughout the study, we measured salivary cortisol and visual analog scales (VAS) on mood at adaptation stage (AS, D3-D4), early stage (ES, D12-D13), mid-stage (MS, D19-20), and late stage (LS, D33-D34). The data were collected every 4 hours, except during sleep time. Polysomnography (PSG) was used to record sleep on the night before entering the closed environment, during the mid-stage, and during the late stage. Crews maintained sleep diaries throughout the period of confined isolation. The Friedman test was used to detect differences across multiple stages. The area under the curve (AUC) was used to compare cortisol levels at each stage.

Results The Area under the curve with respect to ground (AUCg) of cortisol was significantly higher at MS than at LS ($\chi2=2.846$ $p=0.027$). There were no significant differences in mood between different stages at the same time point or within the same stage at different time points.PSG indicated that the percentage of N2 sleep stage and the number of micro-arousals were significantly higher at the mid-stage compared to before the onset of irregular shifts in the ICE environment ($\chi2=6.000$ $p=0.05$, $\chi2=6.000$ $p=0.05$). No significant differences were found in sleep diaries at each stage.

Conclusion There is a pattern of objective sleep and hormone level changes in the ICE environment with multiple stressors. Therefore, these biomarkers could be valuable for assessing the effectiveness of biomedical countermeasures for astronauts, as well as having potential applications in terrestrial research and treatment.

关键字：isolated, confined and extreme environment, multiple stressors, sleep, mood, cortisol

失眠治疗仪辅助治疗失眠障碍的临床对照研究

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目的 在失眠障碍人群中开展为期 4 周的随机、对照干预试验，观察其疗效，以期为今后提升失眠障碍临床治疗效果，减少残留症状，并改善社会功能提供一些参考依据。

方法 从 2021 年 3 月～2023 年 12 月于芜湖市第四人民医院睡眠科门诊及住院的失眠障碍患者中筛选出符合标准的 76 名对象进行干预研究。随机分为两组，实验组 40 例，对照组 36 例。实验组予以右佐匹克隆 1～3mg/晚口服，并辅以失眠治疗仪治疗。对照组仅予以右佐匹克隆 1～3mg/晚口服，疗程均为 4 周,使用心肺耦合图谱技术(CPC)、匹兹堡睡眠质量指数(PSQI)进行主客观睡眠评估，汉密尔顿抑郁量表(HAMD-17)、汉密尔顿焦虑量表(HAMA)进行情绪评估，分别在基线、治疗 2 周、治疗 4 周、治疗结束后 4 周进行随访评估，将收集到的数据录入 EXCEL，并使用 SPSS18.0、SAS9.4 进行分析，取 p<0.05 为差异有统计学意义。

结果 1.本研究实验组共纳入患者 40 例，其中男性 13 人(32.5%)，女性 27 人(67.5%)，平均年龄 43.53±1.94 岁，对照组共纳入患者 36 例，其中男性 17 人(47.2%)，女性 19 人(52.8%)，平均年龄 45.39±2.46 岁，两组在人口学资料与基线数据差异无统计学意义（p>0.05)具有可比性。2.治疗 4 周后，CPC 客观睡眠检测组间结果显示，实验组与对照组睡眠总时间、熟睡时间、觉醒时间、睡眠潜伏期、睡眠效率差异有统计学意义(p<0.05)，而浅睡时间、REM 睡眠时间差异无统计学意义（p>0.05)；治疗 4 周后，两组 PSQI 量表评分均下降，组间差异无统计学意义（p>0.05),进一步使用广义估计方程效应分析，结果显示，治疗结束后 4 周 PSQI 得分组别*时间效应（z=3.91，p<0.05）差异有统计学意义。3.治疗 4 周后，两组 HAMA、HAMD-17 量表评分均下降，组别主效应差异无统计学意义，使用广义估计方程效应分析，结果显示:HAMD-17 治疗 4 周(z=3.60,p<0.001)、结束后 4 周(z=3.63,p<0.001)PSQI 组别*时间效应差异有统计学意义(p<0.05)。

结论 1.实验组与对照组均能改善失眠症状、焦虑与抑郁情绪。2.实验组可以更快、更有效的改善失眠症状，具体包括睡眠总时间、熟睡时间、觉醒时间、睡眠效率。3.实验组可以更快改善失眠障碍患者的抑郁情绪。

关键字：失眠障碍;失眠治疗仪;心肺耦合图谱技术

杏仁核-海马静息态功能连接异常在肠易激综合征和抑郁症的跨诊断意义

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目的 肠易激综合症（irritable bowel syndrome，IBS）是由脑肠相互作用紊乱引起的，既往研究提示 IBS 和抑郁症可能存在共同的致病机制。本研究采用静息态功能磁共振成像（resting state functional magnetic resonance imaging，rsfMRI）技术对 IBS 患者的功能连接（functional connectivity，FC）活动情况进行研究，探究异常功能连接在 IBS 和首发抑郁症（major depressive disorder，MDD）疾病的共享影像机制和潜在的跨诊断意义。

方法 纳入符合罗马 IV 标准的 IBS 患者 39 例，同时纳入在性别、年龄、受教育程度、利手与患者相匹配的非 IBS 健康志愿者 40 例和 MDD 患者 39 例，其中 MDD 患者由精神科医生采用简明国际神经精神访谈检查 (Mini international neuropsychiatry interview,MINI)进行诊断和评估。通过自我报告量表患者健康问卷（Patient Health Questionnaire，PHQ-9）评估抑郁症状。功能连接以杏仁核作为感兴趣区域。

结果 三组的抑郁症状严重程度具有统计学差异（$p < 0.001$），事后检验结果显示，IBS 组（5.0±3.0）的抑郁症状严重程度介于 MDD 组（17.4±3.9）和 HC 组（1.1±1.3）之间。三组 ANOVA 分析结果提示，外侧杏仁核和海马的功能连接在三组样本中存在差异（$p < 0.05$，GRF 校正），进一步事后检验提示，与健康对照组相比，外侧杏仁核和海马的 FC 在 IBS 组和 MDD 组均降低。外侧杏仁核和海马的 FC 与抑郁症状呈负相关（$p < 0.05$）。

结论 我们的研究发现，IBS 和 MDD 均存在杏仁核异常功能连接变化，抑郁症状与外侧杏仁核和海马的异常功能连接有关。

关键字：肠易激综合征，抑郁症，功能连接，杏仁核

运动员睡眠剥夺后认知行为改变及其与赛时发挥水平的关联机制研究

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目的 运动员竞技发挥水平十分重要且受多种因素影响，然而目前仍缺乏对于竞技发挥水平的有效预测方法。本研究通过睡眠剥夺范式增加运动员心理应激负荷，探索睡眠剥夺后运动员心理状态及认知行为改变与近期竞技发挥水平的关联，并进一步分析潜在的脑电指标。

方法 研究共分为探索试验和验证试验两部分：第一部分招募 35 名冰雪运动专业大学生运动员，第二部分招募 30 名省队冬季项目专业运动员。第 1 晚在监测室进行适应夜睡眠；第 2 晚正常睡眠并进行多导睡眠脑电（PSG）监测（晚 23:00～早 7 点）；第 3 天早 8 点开始进行 24 小时睡眠剥夺。睡眠剥夺前后（第 3、4 天早 8 点）进行焦虑水平评估，认知行为测试包括竞

争反应时任务（CRT）、色-词反应任务（Stroop）和爱荷华赌博任务（IGT），测试同时进行脑电信号采集，采集唾液用于检测唾液中皮质醇水平。随访评估运动员在参加近期（15-45 天）正式竞技比赛时的焦虑水平和唾液皮质醇水平，记录自评和教练评价的比赛发挥水平。采用 10-20 系统电极放置法采集 24 导全脑脑电，在 MATLAB 中对脑电数据进行预处理，并提取认知行为测试相关的事件相关电位（ERP）指标。通过关联分析明确睡眠剥夺后的应激水平及认知行为改变与竞技发挥水平的关联性。

结果 睡眠剥夺后和正式比赛中运动员焦虑水平和唾液皮质醇水平均较基线显著升高但二者之间无显著差异，且存在显著正相关。睡眠剥夺后的认知行为测试中，CRT 的噪音等级选择、IGT 的高风险牌选择概率和 Stroop 中反应时与比赛发挥水平显著相关；进一步有序逻辑回归发现 Stroop 中反应时显著影响运动员发挥水平（B=-0.99, p=0.004）。脑电分析发现 Stroop 任务的色词不一致刺激下顶叶 P300 成分的振幅与 Stroop 中反应时指标显著相关。

结论 睡眠剥夺可模拟运动员赛时应激状态，睡眠剥夺后 Stroop 任务中的行为学指标及顶叶脑电指标变化可能是预测运动员近期赛时发挥水平的潜在指标。

关键字：运动员 赛时发挥 认知行为 事件相关脑电

Mechanisms of Estrogen in The Interaction between Sleep Disorders and Alzheimer's Disease

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Objective Alzheimer's disease(AD) is more prevalent in women with more severe pathology. Sleep disorders are more common in menopausal and postmenopausal women, and there are also sex differences in sleep. Given the interaction between sleep disorders and Alzheimer's disease, estrogen reduction may be an important risk factor. Exploring the role of estrogen during this interaction is important to understand sex differences in AD and identify early intervention targets to prevent or delay the onset of AD.

Methods More than 100 papers were searched through PubMed, Google Scholar, and other repositories to review the role of estrogen in AD and sleep disorders, as well as to propose possible mechanisms of estrogen's effects on the interaction of the two disorders.

Results In the brain, the estrogen signaling pathway is vital to processes throughout the bioenergetic system, including glucose transport, glucose metabolism, mitochondrial respiration and ATP production, and it has neuroprotective effects as demonstrated by increasing neurogenesis, mediating synaptic transmission and promoting neuronal plasticity. In addition, estrogen can reduce β-amyloid(Aβ) production via activating the ARK/ERK pathway, decreasing BACE1 levels, regulating the Bcl-2 protein family and promoting Aβ clearance. When estrogen declines, the above pathways are disrupted and AD may be exacerbated. Many clinical studies have shown that changes in ovarian steroid secretion during puberty and the transition to menopause are significantly associated with an increased incidence of insomnia and poor sleep quality in women compared to age-matched men. Estrogen may regulate the effectiveness of transcription factors on the clock gene promoter by binding to estrogen-related elements on the estrogen receptor-1 and Per2 genes, thereby increasing Per2 expression. Furthermore, estradiol may act to suppress prostaglandin D2 levels, leading to a subsequent decrease in lateral preretinal neuronal activity and resulting in more arousal states.

Conclusion The pathological exacerbation of AD caused by estrogen decline may lead to the development/exacerbation of sleep disorders by impairing the neural pathways involved in sleep-wake regulation and also affecting processes such as the transcription of clock gene. On the other hand, when estrogen decline leads to sleep disorders and circadian rhythm dysfunction, it affects processes such as rhythmic oscillation and clearance of Aβ, which aggravates the development of AD. Although the exact mechanisms are unknown, estrogen may be a key factor in the interaction between AD and sleep disorders.

关键字：Sleep disorder; Sleep; Alzheimer's disease; Estrogen; Sex difference

简化失眠认知行为治疗对抑郁症伴失眠症状患者的疗效分析

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目的 失眠认知行为治疗（Cognitive Behavioral Therapy for Insomnia, CBT-I）可以有效改善抑郁患者的失眠症状，但在实施过程中存在治疗师资源有限、患者依从性较低等局限性。本课题组根据抑郁症患者的特点，开发了一套简化版的 CBT-I 治疗方案（CBTI-S），对患者的失眠症状进行精准治疗。本研究旨在考察 CBTI-S 方案的有效性与可行性，为抑郁症合并失眠症状患者提供更优治疗选择。

方法 本研究采用随机平行对照设计，纳入符合 DSM-5 抑郁障碍诊断标准并伴有失眠症状的患者共 69 例。对照组 22 例，接受常规抗抑郁药物治疗+睡眠卫生教育。研究组 47 例，进行常规抗抑郁药物治疗+CBTI-S 治疗。两种干预周期均为 4 周。评估员于基线、干预后 2 周末、4 周末进行随访，评估患者的失眠症状、抑郁症状和生活质量等指标。 主要疗效指标为患者睡眠效率的变化情况，次要疗效指标为各临床量表得分变化情况，可行性指标为患者的全因脱落率和治疗联盟得分变化情况。

结果 1. CBTI-S 对抑郁症患者伴发失眠症状的疗效 （1）两组患者干预后睡眠效率均显著改善（P＜0.05），但组间差异未达到统计学显著水平（P＞0.05）；（2）研究组干预后的 ISI 得分下降更为明显，睡眠相

关信念和态度明显改变，与对照组的差异具有统计学意义（P=0.028；P=0.002）； （3）PSQI、睡眠效率、入睡时间、睡眠总时长、生活质量、嗜睡情况方面，两组患者均在干预后得到显著改善（P＜0.05），但组间差异未达到统计学显著水平（P＞0.05）。 2.CBTI-S 对抑郁症状的疗效 两组患者的 HAMD-17 和 QIDS 得分都存在显著降低（P＜0.05），但组间差异未达到统计学显著意义（P＞0.05）。 3. CBTI-S 的在可行性 本研究有 69 例患者接受了干预，总脱落率为 13.04%。研究组脱落率为 12.77%。对照组脱落率为 13.64%。两组脱落率不存在显著组间差异（P=1.000）。在治疗联盟方面，研究组 WAI 得分情况与年龄呈正相关（P=0.016）。

结论 简化版 CBT-I 治疗方案（CBTI-S）在改善失眠严重程度和睡眠不良信念方面具有显著疗效优势，具有良好的可行性。

关键字：失眠认知行为治疗，抑郁症，失眠，疗效分析

An Analysis of The Characteristics of Intestinal Flora in Patients with Chronic Insomnia

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Objective The incidence of chronic insomnia in the Chinese adult population is approximately 25%, yet there is no clear understanding of the associated mechanisms of pathogenesis. There is preliminary evidence for the relationship between gut flora and certain sleep disturbance.

Methods In this study we explored the characteristics of intestinal flora in patients with chronic insomnia using the 16S rDNA amplicon sequencing method to evaluate the differences in intestinal flora structure, diversity, and metabolic function between patients with chronic insomnia and healthy controls.

Results We found that, compared with the healthy control group, the β-diversity of intestinal flora in the chronic insomnia group was significantly changed ($P < 0.05$), while the α-diversity was not significantly different ($P > 0.05$). Prevotella (Prevotella_2, Prevotella_7) was significantly different from that of Klebsiella ($P<0.05$), and the linoleic acid metabolic pathway was downregulated ($p<0.05$).

Conclusion Our results indicate that there are changes in the variety, composition, and metabolic function of intestinal flora in patients with chronic insomnia disorders. We hypothesized that these differences, especially the altered levels of Prevotella and linoleic acid metabolism, may be related to the somatic hyperarousal of insomnia.

关键字：chronic insomnia intestinal flora

Brain Connectivity Patterns Predict Anxiety Symptoms and Emotional Regulation Difficulties in Adolescents with Non-suicidal Self-injury

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Objectives : Non-suicidal self-injury (NSSI) is a self-injurious behavior that has been on the rise among adolescents worldwide. NSSI is often associated with dysfunctional emotional regulation and may represent a maladaptive means to regulate extreme emotional reactivity and to compensate for deficits in social problem-solving skills. However, it is unclear whether brain functional aberrance in this population reflects various dimensions of symptoms, such as depression, anxiety, or distress levels, or cognitive control abilities, such as emotion regulation skills. This study aims to examine the associations between brain connectivity patterns and depression, anxiety, and stress levels, as well as emotional regulation difficulties in adolescents with NSSI.

Methods The study enrolled 39 adolescent patients with NSSI from Beijing Anding Hospital Pediatric Ward. The patients underwent various assessments and scans, including the Brief Childhood and Adolescent International Neuropsychiatric Interview, Hamilton Depression Scale, Ottawa Self-Injury Inventory, Barratt Impulsiveness Scale, Adolescent Self-Rating Life Events Check List, Difficulties in Emotion Regulation Scale (DERS), Depression Anxiety Stress Scale (DASS), Toronto Alexithymia Scale, and resting-state fMRI scans. The brain was divided into 268 parcels and parcel-by-parcel pairwise correlations were computed. Pearson correlation coefficients were Fisher Z-transformed to yield symmetric 268?×?268 connectivity matrices. Then we applied a connectome prediction model to examine predictive relationships between functional connectivity patterns and the above behavioral measures. The leave-one-subject-out scheme was used for model training and testing.

Results The connectome prediction model significantly predicted DASS-anxiety scores ($R = 0.449$, $p = 0.016$) and total DERS scores ($R = 0.391$, $p = 0.007$) across total and subscale scores on all symptom and behavioral scales. Both DERS scores and anxiety scores were positively correlated with functional connectivity strength of the cerebellum and negatively correlated with motor network and temporal pole. In addition, DERS was additionally negatively correlated with the default network.

Conclusions In NSSI adolescents, anxiety symptoms and difficulties with emotion regulation have relatively strong associations with patterns of functional brain connectivity. This implies that both of these symptoms may have stronger biological associations and thus deserve attention for their association with NSSI behavior and value in brain-based interventions.

关键字：Nonsuicidal self-injury (NSSI),Resting-state functional connectivity,adolescents

饮酒量和多种睡眠特征因果关联的横断面和孟

德尔随机化研究

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目的 过量饮酒与睡眠健康密切有关。然而，轻度至中度饮酒与多种睡眠特征（失眠、打鼾、睡眠时长和节律）的健康风险仍未确定，并且在一般饮酒人群中仍不清楚其因果关系。本研究旨在使用横断面数据和孟德尔随机化分析（MR）来探究饮酒量与多种睡眠特征之间的关联。

方法 本研究使用来自英国生物银行（UKB）的人口学资料数据，酒精相关指标包括饮酒量（红酒、白酒、啤酒等）、饮酒状态、是否过量饮酒。睡眠指标包括失眠、打鼾、睡眠时长和节律。其他人口学资料包括年龄、性别、吸烟状况、体重指数、经济水平、职业类型、体力活动、整体健康状况、合并重大精神躯体疾病、主要遗传成分和基因分型阵列。根据每周饮酒量分为从不饮酒(0 杯/周)、轻度组(0-8.4 杯/周)、中度(8.4-15.4 杯/周)、重度(15.4-24.5 杯/周)和超重度组(24.5 杯/周)。根据睡眠时长划分为短睡(≤6?h)、正常、长睡眠组(≥9?h)。采用通过广义线性模型和限制性立方样条探究饮酒量对睡眠特征的影响，同时通过美国国家健康与营养调查（2017-2018）的数据进行外部验证。使用 UKB 个体水平的基因数据和单样本 MR 来探究酒精和睡眠特征的因果关系，进一步通过来自 UKB 等其他人类全基因组关联分析研究(GWAS)和双样本 MR 来进一步验证酒精和睡眠特征的因果关系。

结果 研究纳入 383，357 名受试者，平均年龄是 57 岁，46%是男性，平均每周饮用 9.0 个标准杯酒（一个标准杯相当于 14 克酒精）。在观察性分析中，饮酒与所有睡眠特征显着相关。其中随着饮酒量的升高，打鼾和夜晚型节律发生风险升高。在线性 MR 分析中，基因预测的酒精消费量每增加 1-SD（14 克），打鼾风险增加 1.14 倍（95%CI：1.07-1.22，P<.001），晚睡型的风险增加 1.28 倍（95%CI：1.20-1.37，P<.001），晨起困难的风险增加 1.24 倍（95%CI：1.13-1.36，P<.001）。非线性 MR 分析无显著结果，但表明饮酒与失眠之间存在边缘显著潜在的非线性关联（Cochran Q P= 0.0165; P= 0.134），但经过 Bonferroni 校正后无统计学意义。双样本 MR 分析的结果与单样本 MR 分析的结果一致。

结论 轻重度度酒精均会会影响睡眠健康，特别是增加打鼾和节律紊乱的风险。提示应向公众强调饮酒对睡眠的负面影响，以促进公众健康。

关键字：酒精；睡眠特征；孟德尔随机化；UKbiobank

社区精神分裂症患者睡眠障碍与攻击行为的关系： 一个有调节的中介效应模型

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目的 本研究旨在探讨抑郁在社区精神分裂症睡眠障碍与攻击行为之间的中介作用，以及家庭亲密度和适应性的调节作用，为解决社区精神分裂症患者的身心健康问题提供理论基础和建设性意见。

方法 采用方便抽样法选取来自中国彭州市随访精神分裂症患者，采取问卷星的形式进行问卷调查。问卷包括一般人口学资料及疾病相关情况问卷、匹兹堡睡眠质量指数量表（Pittsburgh Sleep Quality Index, PSQI）、外显攻击行为量表(Modified Overt Aggression Scale, MOAS)修订版中文版、抑郁自评量表（Self-rating Depression Scale，SDS）、家庭亲密度和适应性量表（Family Adaptability and Cohesion Scale，Second Edition. FACES-II)，采用 SPSS 21.0 对数据进行整理分析。

结果 共 818 名社区精神分裂症者参与本研究调查，最终收回有效问卷 785 份，有效率为 95.97%。多因素分析结果表明，性别、精神科药物服用情况、门诊随访、睡眠障碍等是攻击行为的影响因素；抑郁在睡眠障碍与攻击行为之间起部分中介作用，间接效应值为 0.043（效应占比 57.33%）；睡眠障碍与家庭亲密度（β=-0.009，P<0.01）、适应性（β=-0.145，P<0.001）的交互项可以显著预测抑郁。

结论 1、社区精神分裂症患者的攻击行为以及睡眠障碍发生率均处于相对较低的水平。2、抑郁在睡眠障碍与攻击行为的关系中起部分中介作用。3、家庭亲密度、适应性在抑郁与睡眠障碍之间起调节作用。

关键字：精神分裂症；睡眠障碍；攻击行为；抑郁 ；家庭亲密度；适应性

医学实习生焦虑抑郁情绪和睡眠质量的关系

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目的 探讨不同性别的医学实习生焦虑、抑郁和睡眠质量的关系。

方法 针对厦门市某三甲医院 364 名实习生通过网络问卷星平台发放问卷，采用香港中文大学定式化睡眠问卷（修订版）、失眠严重程度指数（ISI）、爱普沃兹嗜睡量表（ESS）调查他们的一般情况及睡眠情况，广泛性焦虑障碍量表（GAD-7）和 9 项健康问卷（PHQ-9）调查他们的焦虑、抑郁情绪。

结果 364 名医学实习生中，男生（失眠总人数 77（92.8）vs 嗜睡总人数 70（84.3））、女生（失眠总人数 245（88.8）vs 嗜睡总人数女生 251（90.9））的睡眠质

量均较差，且男生失眠的人数要多于女生。所有实习生中，轻度失眠（n（%）=233（64.9）），中度失眠（n（%）=82（22.8）），重度失眠（n（%）=7（1.9））；轻度嗜睡（n(%)=193(53.8)），过度嗜睡（n(%)=110(30.6)），重度嗜睡（n（%）=18（5.0）。这些实习生中基本都存在焦虑（焦虑总人数男生 83(100)vs 女生 274(99.3)、抑郁（抑郁总人数男生 83(100)vs 女生 275(99.60)），且睡眠质量和焦虑(rISI = 0.306, rESS = 0.532 ,P<0.05)、抑郁(rISI= 0.398,rESS= 0.463 ,P<0.05)相关。结果也显示了大多数医学生存在轻到中度学习压力(n(%)=297（82.7）)，且学习压力与焦虑、抑郁正相关（r 焦虑=0.406，r 抑郁=0.584， P<0.05）。

结论 医学实习生中普遍存在不同程度的焦虑、抑郁，与睡眠质量呈正相关，即睡眠质量越差，焦虑、抑郁越明显。医院和学校需密切注意医学实习生的心理健康情况并积极采取干预措施，不仅可以提高学生的身心健康，而且还能提升学生的临床实习质量。

关键字：医学实习生 睡眠 在床时间 焦虑 抑郁

Exploring The Effect of Widening The Transparent Septum on Central Sleep Apnea

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Objective To explore the effect of transparent septal widening on central sleep apnea and provide reference for clinical treatment.

Methods Forty patients with sleep apnea syndrome were randomly divided into two groups. The experimental group was treated with transparent septal widening, and the control group was treated with conventional therapy. Sleep and respiratory indicators before and after treatment were recorded and analyzed.

Results After treatment, the experimental group showed improvement in the apnea-hypopnea index, hypopnea index, and oxygen saturation, with a greater improvement in the apnea-hypopnea index and hypopnea index. However, the control group showed only a small improvement in the apnea-hypopnea index and hypopnea index.

Conclusion Transparent septal widening can effectively improve sleep and respiratory indicators in patients with central sleep apnea and has good clinical application value.

关键字：Transparent septal widening; central sleep apnea; sleep indicators; respiratory indicators

慢性肾脏病合并不宁腿综合征患者睡眠障碍现状及干预的研究进展

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目的 目前慢性肾脏病合并不宁腿综合征患者的睡眠问题日益上升，睡眠障碍患病率显著提高，严重影响患者的心身健康和生活质量。但是由于其发病机制不明确，诊断不足等因素，其伴发的睡眠障碍问题常常被忽视。本文旨在对慢性肾脏病合并不宁腿综合征患者睡眠障碍的现状、发病机制、风险评估方法及干预方式等进行综述。

方法 通过国内外文献综述目前慢性肾脏病合并不宁腿综合征患者的睡眠障碍现状，可能的发病机制，对慢性肾脏病合并不宁腿综合征患者睡眠风险评估及常见干预方式等进行综述，以早期识别睡眠障碍，并通过常见的干预方式给予睡眠管理，减轻患者的负担。

结果 慢性肾脏病合并不宁腿综合征患者普遍存在睡眠障碍，尤其是终末期肾病患者，且其发病机制尚不明确，可能与缺铁有关，丘脑代谢变化在终末期肾病患者睡眠质量下降的神经病理机制中起重要作用。针对慢性肾脏病合并不宁腿综合征患者的睡眠管理主要依赖于睡眠相关量表的评估，缺乏对活动记录仪及多导睡眠监测等客观评估工具的应用。而针对该人群的干预，大多聚焦在药物治疗，运动疗法、中医疗法等有待进一步研究。

结论 国内在慢性肾脏病合并不宁腿综合征患者睡眠障碍风险评估、预防及干预方面仍不容乐观，容易引起一系列的心身健康问题。医护人员应当有针对性地选择合适的睡眠评估方法，早期识别睡眠障碍，并通过药物治疗、运动干预、中医疗法等常见的干预方式给予睡眠管理，减轻患者的负担。

关键字：慢性肾脏病；不宁腿综合征；终末期肾病；睡眠障碍；风险评估；干预

Association of Insomnia, Insulin Resistance Traits and Cardiovascular Diseases Risk: A Two-step Mendelian Randomization Study

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Objective Insomnia increases the risk of cardiovascular diseases (CVDs), but whether insulin resistance (IR) or its related traits mediate the underlying associations is unclear. We conducted a two-step two-sample Mendelian randomization (MR) study to address these questions.

Methods We selected genetic variants of insomnia, IR and its traits (i.e., fasting glucose [FG], fasting insulin

[FI], Hemoglobin A1c [HbA1c], triglycerides [TG], high-density lipoprotein cholesterol [HDL-C], and type 2 diabetes [T2DM]) as instrumental variables, while summary-level data of five CVDs (i.e., heart failure [HF], coronary artery disease [CAD], hypertension, atrial fibrillation [AF] and myocardial infarction [MI]) were served as the main outcomes, which derived from previous genome-wide association studies (GWASs). A two-sample two-step MR was conducted to determine the 1) causal effects of insomnia on five CVDs; 2) causal effects of insomnia on IR and its related traits; 3) causal effects of IR and its related traits on five CVDs; and 4) the mediation effects of IR and its related traits on the causal pathway from insomnia to CVDs.

Results In the MR analysis, genetically predicted insomnia symptom was significantly associated with five CVDs risks (i.e., HF, CAD, hypertension, AF, and MI) and six IR related traits (i.e., IR, T2DM, FI, FG, TG, and HDL-C) after correcting for multiple tests, while genetically predicted IR and its related traits, such as IR, T2DM, TG, and HDL-C were associated with four CVDs risks (i.e., HF, CAD, hypertension, and MI). In the mediation analysis, we found strong evidence for the mediating effects of IR, TG, HDL-C, and T2DM in the causal pathway from insomnia to four CVDs except for AF. Individually, the major contributors were IR (range from 15.3% to 50.3% mediation) and T2DM (range from 8.4% to 28.9% mediation) among those potential mediators.

Conclusion These results suggest that genetically predicted insomnia symptom is associated with higher risk of CVDs, with considerable mediation by IR and its related traits, such as IR and T2DM. Interventions on these factors may have the potential of substantially reducing the burden of CVDs attributable to poor sleep quality.

关键字：insomnia, causality, insulin resistance, cardiovascular diseases, mendelian randomization

Analysis of The Effect of RTMS Combined with CBT on Sleep Disorders of Retired Elderly

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Objective To analyze the efficacy of repetitive transcranial magnetic stimulation (rTMS) combined with Cognitive behavioral therapy (CBT) in improving Sleep disorders of retired elderly.

Methods A total of 65 elderly with Sleep disorders were found in the physical examination of retired elderly in Center for Disease Control and Prevention of Yangzhou from January to June 2022. The enrolled elderly were randomly assigned by computer to the rTMS treatment group (n=15), the CBT treatment group (n=15), the rTMS+CBT treatment group (n=15), and the control group (n=10). In the baseline period (before treatment, W0) and the treatment of 2 weeks (W2), 8 weeks (W8), 12 weeks (W12), 24 weeks (W24), the Pittsburgh Sleep Quality Index (PSQI) scale was used to assess the elderly's sleep quality, Hamilton Depression Scale (HAMD) was used to assess the elderly's depression, Hamilton Anxiety Scale (HAMA) was used to assess the elderly's anxiety status, and Montreal Cognitive Assessment Scale (MoCA) was used to assess the elderly's cognitive function. SPSS 23.0 software was used for statistical analysis, and repeated measures analysis of variance and simple effects analysis were used to compare the differences in PSQI, HAMD, HAMA, and MoCA scales scores among the four groups.

Results (1) Four groups were evaluated with the PSQI scale on W0,8,24, respectively and interaction of time ($F=1.024$, $P=0.185$) and the main effect of group were not significant ($F=0.746$, $P=0.369$), the main effect of time was significant ($F=14.225$, $P<0.001$); Further simple effect analysis showed that the rTMS+CBT group had a lower PSQI scale score than the baseline period at week 24 of follow-up [(4.48 ± 1.70) , ($P=0.01$). (2) Four groups were evaluated with HAMD and HAMA scales on W0, 2, 8, 12, 24, respectively and time interaction was significant ($F=2.234$, $P=0.036$); Further simple effect analysis showed that the HAMD and HAMA scales scores of the rTMS group, CBT group, and rTMS+CBT group were lower than those of the baseline period at each follow-up time point ($P<0.05$). (3) Four groups were evaluated on the MoCA scale at W0, 12, 24, the group main effect and time main effect were both significant ($F=3.924$, $P=0.035$; $F=15.123$, $P<0.001$). Further simple effect analysis showed that at week 24, the MoCA scale score in the CBT group was higher than the baseline period [(24.78 ± 2.21), (26.60 ± 2.98)] ($P=0.028$); At week 24, the MoCA scale score in the rTMS group was higher than the baseline period [(23.50 ± 6.01), (25.95 ± 2.87)] ($P=0.006$); At week 24, the rTMS+CBT group had higher MoCA scores than the baseline period [(24.32 ± 2.11), (25.48 ± 2.27)] ($P=0.014$), and significantly higher MoCA scores than the control group [(24.32 ± 2.11), (27.64 ± 2.46)] ($P<0.001$).

Conclusion The combination of rTMS and CBT can significantly improve the sleep quality of retired elderly people, mainly by improving cognitive function and alleviating anxiety or depression in the elderly.

关键字：repetitive transcranial magnetic stimulation,Cognitive behavioral therapy,Sleep disorders

Implications of Sympathetic Activation for Objective Versus Subjective Daytime Sleepiness in Obstructive Sleep Apnea

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Objective Objective excessive daytime sleepiness (EDS) is associated with systemic inflammation and higher risk of cardiometabolic morbidity in obstructive sleep apnea (OSA). We hypothesized that OSA with objective EDS is associated with higher levels of sympathetic activity (SNA) as compared to subjective EDS. We therefore examined the associations of objective and subjective EDS with SNA in OSA patients.

Methods We studied 147 consecutive male patients with OSA from the institutional sleep clinic. Objective and subjective EDS were defined based on Multiple Sleep Latency Test (MSLT) latency ≤8 minutes and Epworth Sleepiness Scale (ESS) >10, respectively. Twenty-four-hour urinary norepinephrine was used for assessing SNA. Blood pressure (BP) was measured both in the evening and in the morning.

Results Twenty-four-hour urinary norepinephrine was significantly higher in OSA patients with objective EDS compared to those without objective EDS (P=0.034), whereas it was lower in OSA patients with subjective EDS compared to those without subjective EDS (P=0.038) after adjusting for confounders. Differences in sympathetic drive were most striking in those with objective but not subjective EDS versus those with subjective but not objective EDS (P=0.002). Moreover, shorter MSLT latency was significantly associated with higher diastolic BP (β=-0.156, P=0.049), but not systolic BP. No significant association between ESS scores and BP was observed.

Conclusion Objective, but not subjective EDS, is associated with increased SNA and diastolic BP among males with OSA, suggesting objective EDS is a more severe phenotype of OSA that is accompanied by higher sympathetic drive, higher BP and possibly greater cardiovascular morbidity and mortality.

关键字：Obstructive sleep apnea, Excessive daytime sleepiness, Sympathetic activity, Blood pressure

A Meta-analysis of The Association between Insomnia with Objective Short Sleep Duration and Risk of Hypertension

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Objective The aim of this meta-analysis was to examine the association between insomnia with objective short sleep duration (ISSD) with prevalent and incident hypertension in cross-sectional and longitudinal studies, respectively.

Methods We performed a systematic literature search of electronic bibliographic databases, including PubMed, Embase, the Cochrane Library, PsycINFO, and Web of Science through May 2023. The ORs and the corresponding 95% CIs that were adjusted for the largest number of covariates were extracted from each study. Pooled ORs with 95% CIs for ISSD compared to normal sleepers with objective normal sleep duration (NNSD)/insomnia with objective normal sleep duration (INSD) were calculated to examine the association of ISSD with prevalent hypertension in cross-sectional and incident hypertension in longitudinal studies. Pooled ORs with 95% CIs for normal sleepers with objective short sleep duration (SSD) compared to NNSD were calculated to examine the association of SSD with prevalent hypertension in cross-sectional and incident hypertension in longitudinal studies.

Results Data were collected from 6 cross-sectional studies with 5914 participants and 2 longitudinal studies with 1963 participants. Compared to NNSD, ISSD was significantly associated with higher pooled ORs for prevalent hypertension (pooled OR=2.83, 95%CI=1.68-4.77) and incident hypertension (pooled OR=2.53, (95%CI=1.39-4.59), respectively. Also, compared to INSD, ISSD was associated with significantly higher pooled ORs of prevalent hypertension (pooled OR=1.94, 95%CI=1.31-2.87) and incident hypertension (pooled OR=3.19, 95%CI=1.61-6.33), respectively. Furthermore, normal sleepers with objective short sleep duration were not associated with either prevalent (pooled OR=1.16, 95%CI=0.86-1.58) or incident (pooled OR=0.96, 95%CI=0.75-1.23) hypertension compared to NNSD.

Conclusion Our findings suggest that ISSD is a more severe phenotype of the disorder associated with a higher risk of hypertension. Objective short sleep duration is a valid and clinically useful predictor of insomnia's impact on cardiovascular health that may influence significantly the way we diagnose and treat the disorder.

关键字：insomnia, insomnia with objective short sleep duration, hypertension, meta-analysis

Insomnia with Objective Short Sleep Duration Is Associated with Hypertension

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Objective Insomnia with objective short sleep duration has been proposed as the most biologically severe phenotype of the disorder associated with cardiometabolic

morbidity in population-based samples. In this study, we investigated the association between insomnia with objective short sleep duration and hypertension in a large clinical sample.

Methods We studied 348 patients diagnosed with chronic insomnia disorder based on International Classification of Sleep Disorders Third Edition criteria and 150 normal sleepers. Objective short sleep duration was defined by the median total sleep time of the sample (< 7 hour) measured with 1-night polysomnography. Hypertension was defined based on blood pressure levels, antihypertensive medication use and/or a physician diagnosis.

Results After adjusting for potential confounders, patients with chronic insomnia disorder who slept < 7 hour were associated with 2.8-fold increased odds of hypertension compared with normal sleepers who slept ≥ 7 hour (odds ratio = 2.81, 95% confidence interval = 1.068-7.411) or < 7 hour (odds ratio = 2.75, 95% confidence interval = 1.005–7.542), whereas patients with chronic insomnia disorder who slept ≥ 7 hour (odds ratio = 1.52, 95% confidence interval = 0.537–4.285) or normal sleepers who slept < 7 hour (odds ratio = 1.07, 95% confidence interval = 0.294–3.904) were not significantly associated with increased odds of hypertension compared with normal sleepers who slept ≥ 7 hr. Linear regression analyses showed that, for every hour decrease in total sleep time, systolic and diastolic blood pressure increased by 1.014 mmHg (p = 0.045) and 0.923 mmHg (p = 0.015), respectively, in patients with chronic insomnia disorder but not in normal sleepers.

Conclusion Our findings further support that insomnia with objective short sleep duration is a risk factor for hypertension, and objective short sleep duration may be a useful marker of the biological severity of chronic insomnia disorder in clinical practice.

关键字：Insomnia, Objective short sleep duration, Hypertension, Polysomnography

医学生睡眠时长及时型与 COVID-19 期间新发自杀意念的回顾性研究

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目的 探究医学生在新型冠状病毒感染大流行前较短的夜间睡眠时长与夜晚型睡眠时型是否与新型冠状病毒感染大流行后产生的自杀意念存在相关性。

方法 汕头大学大学生睡眠队列是为了研究睡眠问题是否是抑郁、焦虑、糟糕的学习表现等问题的风险因素而设计的。2019 年 4 月至 11 月为本研究的基线时间，在此期间向汕头大学的大学生们发放网络问卷以调查睡眠情况、情绪状况等。其中基线共回收了由本科 1 和 2 年级的医学生填写的 489 份有效问卷。2020 年 2 月至 3 月正值新型冠状病毒暴发，我们再次通过发放问卷的形式对上述同学进行了一次随访，共回收 381 份有效问卷（随访率 78%）。本研究将短睡定义为自我报告的每晚睡眠时长小于 7 小时。睡眠时型根据早-晚问卷分数定义，总分≤41 分的受试者归为“夜晚型”。自杀意念通过自我报告的问题来评估，将回答“我没有要伤害自己的想法”定义为“无自杀意念”，其余回答则定义为“存在自杀意念”。本研究通过二元逻辑回归检验短睡和夜晚型睡眠时型与新型冠状病毒疫情暴发后产生的自杀意念之间的相关性，同时校准了年龄、性别、BMI、家庭经济情况、抑郁情绪、焦虑情绪等指标。

结果 本研究在排除了基线时存在自杀意念的 48 名医学生后，共 333 名医学生纳入分析。其中，50.15%的人在基线时被划分为短睡人群，9.31%的人在基线时为夜晚型睡眠时型，5.71%的人在新型冠状病毒疫情暴发后产生了新的自杀意念。短睡人群在新型冠状病毒疫情爆发后的自杀意念发生率高于长睡人群的自杀意念发生率(9.58% vs. 1.81%, P=0.002)。夜晚型的人群自杀意念发生率为 16.13%，高于清晨型(5.13%)和中间型(4.56%)两组人群的自杀意念发生率(P=0.043)。另外，随访时存在自杀意念的人群就寝时间推迟(P=0.039)，夜间睡眠时长较其他人短 0.5 小时(P=0.026)。通过控制潜在的干扰因素后，短睡和夜晚型睡眠时型的受试者在新型冠状病毒疫情暴发后产生自杀意念的风险会更高（短睡：OR=4.87 [95% CI=1.15-20.66]；夜晚型：OR=3.81 [95% CI=1.09-13.33]）。

结论 在医学生群体中，短睡和夜晚型睡眠时型都与新型冠状病毒疫情暴发期间产生的自杀意念存在相关性。我们需要着重关注医学生的睡眠健康问题，注重睡眠卫生健康教育，从而较早地对自杀意进行干预。

关键字：自杀意念，睡眠时长，睡眠时型，新型冠状病毒感染，医学生

重性抑郁障碍患者睡眠脑电功率与注意力的关系研究

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目的 既往大量研究表明重性抑郁障碍存在认知功能损害，但其机制仍不明确。先前有研究表明重性抑郁障碍患者的睡眠脑电功率与健康对照存在差异，而脑电功率的改变已被发现与认知功能受损有关。注意力是认知功能的一个重要组成成分，注意力改变可以部分反映认知功能受损程度。本研究将探索重性抑郁障碍患者睡眠脑电功率与注意力的特征及两者之间的关系，以求在重性抑郁障碍患者中发现认知功能受损与脑电功率之间的可能关联。

方法 本研究采用横断面病例对照研究，对 47 例 MDD 患者和 47 名健康对照进行一般人口学资料收集及情绪评估。通过睡眠量表、多导睡眠监测和多次睡眠潜伏期测试评估受试者主、客观睡眠质量和日间嗜睡程度，通过快速傅里叶转换进行脑电功率分析，通过注意网络测试评估受试者的注意力。

结果 在睡眠方面，与对照组相比，MDD 患者的主观睡眠质量(P<0.001)较差，总睡眠时间(P<0.001)较

短，睡眠效率(P<0.001)较低，入睡后清醒时间(P<0.001)较长。两组的睡眠潜伏期、REM 期睡眠潜伏期、NREM1%、NREM2%、NREM3%、REM%和 MSLT 潜伏期无统计学差异。在脑电功率方面，在 NREM 睡眠期，与对照组相比，MDD 患者的 Theta 功率较低(P=0.018)，Beta 功率较高(P=0.040)。而在 REM 睡眠期，MDD 患者的 Delta 功率较高(P=0.020)，Theta 功率较低(P=0.002)。在注意力方面，与对照组相比，MDD 患者的平均反应时较长(P=0.005)，警觉效应较差(P=0.045)。两组在正确率、定向效应和执行控制效应方面无统计学差异。进一步的多元回归分析显示，MDD 患者 REM 睡眠期 Delta 功率与平均反应时呈正相关(B=7.09，β=0.31，P=0.031)，REM 睡眠期 Theta 功率与警觉效应呈正相关(B=3.95，β=0.33，P=0.036)。

结论 本研究发现，与健康对照相比，重性抑郁障碍患者的睡眠脑电功率发生改变以及注意力存在受损。本研究发现在重性抑郁障碍患者当中，REM 睡眠期 Delta 相对功率越大与反应时越长相关；REM 睡眠期 Theta 相对功率越小与警觉效 越差相关。这提示 REM 睡眠期 Delta、Theta 相对功率改变可能是重性抑郁障碍患者注意力受损的危险因素。

关键字：重性抑郁障碍，多导睡眠监测，脑电功率，注意力

青少年压力感知对执行功能的影响：自我厌恶和负性情绪的链式中介作用

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目的 探究负性情绪和自我厌恶在青少年压力感知与执行能力之间的链式中介作用，为青少年情绪障碍及执行能力的干预提供参考。

方法 2022 年 5 月 1 日至 5 月 30 日期间，采用方便取样于山东省日照市 5 所高中和 5 所初中的 7012 名青少年进行问卷调查，使用自编量表收集一般人口学信息，并采用压力感知量表（PSS-10）、执行功能行为评定量表（BRIEF-SR）、病人健康问卷（PHQ-4）、自我厌恶量表（SHS）进行调查研究，比较不同特征青少年负性情绪、自我厌恶、压力感知与执行能力的差异情况。采用 SPSS 26.0 进行差异检验及 Spearman 相关分析；采用 PROCESS v4.1 宏程序偏差矫正的非参数百分位数 Bootstrap 方法进行中介效应显著性检验。

结果 抑郁焦虑情绪、执行功能、自我厌恶、压力感知在不同性别、不同年级、不同同住人员的青少年中差异均具有统计学意义（p 均小于 0.001）。相关分析结果显示：执行功能与压力感知（r=0.564，p<0.01）、负性情绪（r=0.653，p<0.01）、自我厌恶（r=0.597，p<0.01）均呈显著正相关，压力感知与负性情绪（r=0.615，p<0.01）、自我厌恶（r=0.531，p<0.01）均呈显著正相关；负性情绪与自我厌恶（r=0.566，p<0.01）呈显著正相关。中介模型检验显示，青少年负性情绪、自我厌恶在压力感知与执行能力之间存在链式中介作用。压力感知对于执行功能的直接效应显著，直接效应值为 1.099，占总效应的 36.0%；压力感知对执行功能总间接效应值为 1.953，占总效应的 64.0%；负性情绪在压力感知对执行功能之间的效应值为 0.758，占总效应的 24.83%；自我厌恶在压力感知与执行功能之间的效应值为 0.849，占总效应的 27.81%；自我厌恶和负性情绪在压力感知对执行功能的影响链式中介效应显著，效应值为 0.347，效应占比为 11.36%。

结论 青少年压力感知不仅直接影响其执行功能，可分别通过负性情绪、自我厌恶的中介作用，也可通过负性情绪、自我厌恶的链式中介作用间接影响青少年的执行功能。

关键字：青少年；压力感知；执行功能；负性情绪；自我厌恶；焦虑；抑郁

Exploring The Regulatory Mechanisms of Sympathetic Activity on Objective Short Sleep Duration Related Cardiometabolic Dysfunction in MDD Patients

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Objective The correlation of objective short sleep duration, sympathetic activity and blood pressure in major depressive disorder (MDD) was not clear yet. We hypothesized that objective sleep duration is associated with higher levels of sympathetic activity and higher blood pressure in MDD patients. We therefore explored the effects of sympathetic activity on the relationship between objective sleep duration and blood pressure in MDD patients.

Methods We studied 66 consecutive MDD patients from the institutional sleep clinic and simultaneous recruitment of 66 control subjects through advertising and the internet. Objective sleep duration based on Polysomnography (PSG). we use heart rate variability to assess the level of sympathetic activity. Meanwhile, we measured blood pressure before and after PSG monitoring.

Results In MDD patients, objective short sleep duration, sympathetic activity and blood pressure were correlated with each other. After adjusting for age, gender, BMI, smoking, and alcohol status, objective sleep duration was associated with SBP and DBP (all P<0.027). Objective sleep duration was also related to multiple HRV indicators during NREM sleep (all P<0.045) and REM sleep (all P<0.023). In addition, multiple HRV indicators were related to blood pressure. For example, multiple HRV indicators in NREM sleep were related to SBP and DBP (all P<0.042). Furthermore, the results suggested that sympathetic activity mediated the relationship between objective short sleep duration and blood pressure. Specifically, in the model with objective sleep duration and SBP, after adjusting age, gender, BMI, smoking, and alcohol, the proportion

of mediating of NREM-HR, NREM-RMSSD, NREM-SDNN was 42.21%, 35.74% and 22.81% respectively. Besides, in the model with objective sleep duration and DBP, after adjusting age, gender, BMI, smoking, and alcohol, the proportion of mediating of NREM-HR, NREM-RMSSD was 71.18% and 54.71% respectively. There was no statistically significant mediating effect of other HRV indicators on the relationship between objective short sleep duration and blood pressure indicators.

Conclusion Objective, but not self-reported short sleep duration, is associated with increased sympathetic activity and elevated blood pressure among MDD patients, meanwhile, the increased of sympathetic activity mediates the relationship between objective short sleep duration related elevation of blood pressure in MDD patients.

关键字：Major Depressive Disorder, Objective Sleep Duration, Sympathetic Nerve Activity, Heart Rate Variability, Elevation of blood pressure.

Objective Short Sleep Duration Is Associated with Glucose Metabolism Dysfunction in Major Depressive Disorder

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Objective The correlation between objective and self-reported short sleep duration and glucose metabolism function in MDD patients is unclear. We hypothesized that objective sleep duration, but not self-reported sleep duration is associated with higher levels of glucose metabolism dysfunction in MDD patients.

Methods We studied 60 consecutive patients with depression from the institutional sleep clinic and simultaneous recruitment of 60 control subjects through advertising and the internet. Objective sleep duration based on Polysomnography (PSG). The blood was taken on an empty stomach on the next day of PSG to obtain the level of glucose metabolism indicators. The glucose metabolism indicators including fasting blood glucose (FBG), fasting insulin (FINS), and HOMA-IR.

Results In MDD patients, objective short sleep duration and glucose metabolism indicators were correlated with each other. After adjusting for age, gender, BMI, smoking and drinking, objective sleep duration was associated with FBG, FINS, and HOMA-IR (all $P<0.009$). In addition, we also discovered the self-reported short sleep duration is not related to glucose metabolism indicators in MDD patients and objective short sleep duration is not related to glucose metabolism indicators in Controls.

Conclusion Objective, but not self-reported sleep duration, is associated with glucose metabolism dysfunction among MDD patients, meanwhile, the objective sleep duration was not correlated with glucose metabolism dysfunction in Controls.

关键字：Major Depressive Disorder, Objective Sleep Duration, Glucose Metabolism Dysfunction.

Clinical, Polysomnographic, and Heart Rate Variability in Highland Obstructive Sleep Apnea Patients Responding To One-night Nocturnal Oxygen Supplementation: A Post-hoc Analysis From A Randomized, Crossover Trial

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Objective This study aimed to explore the clinical, polysomnographic, and heart rate variability (HRV) characteristics of highland obstructive sleep apnea (OSA) patients receiving one-night nocturnal oxygen supplementation (NOS) and to identify factors predicting response.

Methods Thirty-four highland OSA patients living in Shangri-La were randomly assigned to receive NOS and sham oxygen in a randomized, placebo-controlled, crossover trial. Clinical assessments, polysomnography, and HRV were measured. A responder was defined as a ≥50% reduction in apnea-hypopnea index (AHI) with NOS compared with sham oxygen.

Results Eighteen participants responded and 16 did not respond, with a median (interquartile range [IQR]) age of 46.5(36.5-53.0) and 48.0(44.3-53.3) years, respectively. The median treatment effect (95% CI) on total AHI was -23.2/h(-30.0 to -17.5) and -12.0/h(-16.6 to -7.6) in responders and non-responders ($p=0.004$), with similar effects on oxygen desaturation index. There was an 11% decrease in obstructive apnea/hypopnea (OAH) duration (%total sleep time) in responders together with improved sleep quality and morning blood pressure. The mean OAH duration at baseline predicted responses to NOS with a sensitivity and specificity of 88.9% and 68.7% (AUC 0.809) at a cut-off point of 24.9 seconds. Changes in HRV parameters were negatively correlated with changes in mean oxygen saturation and morning systolic blood pressure only in responders.

Conclusion NOS significantly improved OSA severity and clinical outcomes in responders that was related to the improvements in parasympathetic activity. Highlanders with shorter mean OAH may be suitable candidates for NOS. These findings provide new information about tailored treatment strategies for highland OSA patients.

关键字：Obstructive sleep apnea, nocturnal oxygen supplementation, responder, mean obstructive apnea/hypopnea duration, heart rate variability

Two Sample Bidirectional Mendelian Randomization Study between Obstructive Sleep Apnea and Insomnia

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Objective We aim to investigate the bidirectional causal relationship between obstructive sleep apnea (OSA) and insomnia via two-sample Mendelian randomization (MR) analysis, which may shed light on existing clinical practice and treatment strategies.

Methods Based on the assumptions of Mendelian randomization, we chose to select the instrumental variables (IVs) from genome-wide association study (GWAS) summary statistics of insomnia in UK Biobank (N=386,533 individuals), utilized as exposure. The other dataset of GWAS from FinnGen consortium (N=664,510 individuals) proxying OSA was used as outcome. Then we used aforementioned GWAS to conduct a reversed MR analysis to clarify their bidirectional relationship. MR analyses were performed mainly through inverse-variance-weighted approach, and we further performed sensitivity analyses using Egger intercept analysis, leave-one-out analysis. Besides, we also tested pleiotropy and heterogeneity to verify the robustness of our findings.

Results The results of the MR analysis did not show any evidence of a causal relationship between OSA and insomnia (with almost all P values > 0.05) without statistically significant pleiotropy and heterogeneity.

Conclusion In this bidirectional MR study, there was no evidence to prove the causal relationship between obstructive sleep apnea and insomnia. Our findings suggest that the occurrence of OSA may have limited impact on insomnia and vice versa, which is somewhat inconsistent with many published observational studies and hypotheses. Indeed, more studies are needed to better elucidate the results.

关键字：obstructive sleep apnea, insomnia, mendelian randomization, causal relationship

Factors Influencing The Effectiveness of Digital Cognitive Behavioral Therapy for Chronic Insomnia in Clinical Practice

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Objective Digital cognitive behavioral therapy for chronic insomnia (D-CBT-I) has been shown as efficacious as traditional CBT-I. However, not all patients achieve insomnia remission after treatment. We explored the factors influencing the effectiveness of D-CBT-I in a clinical practice.

Methods A total of 390 Asian chronic insomniacs (286 female, mean age 41.74) were studied during a six-week D-CBT-I intervention. All patients were assessed at baseline and posttreatment and were determined to be remitters or non-remitters by posttreatment criteria; Insomnia Severity Index (ISI≤7) or sleep efficiency (SE ≥85%), to examine whether remission status was associated with baseline characteristics.

Results Three hundred and fifteen (76.1%), 192 (46.4%) and 166 (40.1%) patients demonstrated SE, ISI or both SE and ISI remission, respectively. Age and early morning awakening were independently associated with SE remission (OR, 1.033 and 1.006, respectively); early morning awakening time and ISI were independently associated with ISI remission (OR, 1.005 and 1.100, respectively); and age, early morning awakening time and ISI were independently associated with both SE and ISI remission (OR, 1.025, 1.005 and 1.098, respectively).

Conclusion Our results suggest that the effectiveness of D-CBT-I was adversely affected by older age, longer early morning awakening time and lower SE at pretreatment. We conclude that D-CBT-I can be recommended as the first-line treatment for chronic insomnia, particularly in younger insomniacs with milder insomnia symptoms. Older patients and those with longer earlier morning awakening time may require more intense intervention and greater therapeutic support or to be directed to traditional CBT-I to increase overall treatment effectiveness.

关键字：cognitive behavioral therapy, chronic insomnia, effectiveness, digital, age

Impairment of Visual-spatial Function Predicts Dementia-first Phenoconversion in Isolated REM Sleep Behavior Disorder

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Objective Isolated rapid eye movement (REM) sleep behavior disorder (iRBD) has been confirmed as the prodrome of synucleinopathy, the majority of the patients with iRBD will eventually convert to Parkinson's disease (PD, "parkinsonism-first") or dementia with Lewy bodies (DLB, "dementia-first") in given time. Prediction of the subtype of phenoconversion in iRBD is critical for neuroprotective management. As patients with DLB were characterized by significant visual hallucinations and visual-

spatial impairments, suggesting the underlying pathological mechanism of disturbed neural circuitry. This study aimed to investigate whether visual-spatial function can predict dementia-first phenoconversion in iRBD.

Methods This was a case-control longitudinal cohort study including patients with video-polysomnography-confirmed iRBD recruited from the sleep center and age- and sex-comparable non-RBD control subjects recruited from the community. At baseline, the Montreal Cognitive Assessment (MoCA), ReyO Complex Figure (ROCF) Test, Color Trail Test, Farnsworth-Munsell 100-hue Test, and Digit Span Test were employed to measure global cognitive function, visual-spatial function, cognitive function based on spatial recognition, color vision function, and work memory, respectively. In addition, we generated a composite score using the first component of the Principal Component Analysis by including variables from ROCF Test and Color Trail Test for the visual-spatial function. All participants were regularly followed up to evaluate the neurodegenerative diagnoses by neurologists.

Results A total of 177 patients with iRBD (68.2 ± 6.3 yo, 74.6% male) and 104 control subjects (67.4 ± 7.2 yo, 66.3% male) were recruited with no differences in age, sex, education level, and results of the abovementioned neurocognitive tests at baseline. Patients with iRBD were followed up for 5.2 ± 3.0 years, with 36 patients converted to α-synucleinopathy including 18 to PD and 18 to DLB. Baseline MoCA, Color Trail Test, ROCF Test, Farnsworth-Munsell 100-hue Test, Digital Span Test (backward), and the composite score could significantly differentiate patients who converted to DLB but not PD from non-converters. In the Cox regression model after adjusting for age, sex, and disease duration from onset to assessment, only ROCF test, direct copying (HR[95% CI] = 3.05 [1.05-8.92]), and composite score (4.39 [1.18-16.35]) could predict for the conversion to DLB.

Conclusion Impairment of visual spatial function predicts dementia-first phenoconversion in patients with iRBD. The composite score generated from multiple tests of visual spatial function is superior on DLB risk predictive performance than individual tests. These findings suggest neural circuitry underlying the visual function is specifically involved in the etiology of DLB and may serve as a potential neuroprotective target for future clinical trials for DLB.

关键字：dementia; REM sleep behavior disorder; α-synucleinopathy neurodegeneration; visual spatial; prediction

Sex-specific Associations between White Blood Cell Count and Obstructive Sleep Apnea

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Objective The white blood cell (WBC) or leukocyte subset were inexpensive and widely accepted direct markers of inflammation. Obstructive sleep apnea (OSA) have been implicated in changes in leukocyte measures. Sex differences are evident in both OSA and inflammation. Whether sex modulates the relationship between severity of OSA and leukocyte measures has not previously been studied **Methods** We examined a sample of 1166 patients (914 men and 252 women) who underwent overnight polysomnography (PSG) and measurement of white blood cell (WBC) and subpopulation of WBC blood cell (lymphocytes, neutrophils and monocytes) count. Patients were divided into primary snoring, and mild, moderate and severe OSA groups, separately by sex.

Results Higher apnea-hypopnea index (AHI) were independently associated with higher lymphocyte and monocyte count both in women and men, while only associated with higher WBC and neutrophil count in men. In multiple regression models, there was no interaction effect between sex and AHI on leukocyte measures. Further ordinal logistic regression analysis showed a significant association between AHI and total WBC count (OR 1.87, 95% CI 1.09–3.23) and neutrophil count (OR 1.77, 95% CI 1.02–3.07) in men only. Correlation analysis also showed more robust relationships between leukocyte measures and markers of cardiometabolic risk in men than in women.

Conclusion This study provides novel data suggesting significant associations between WBC and neutrophil count and OSA severity in men, but not in women . Similarly, the relationship between leukocyte and subset counts and cardiometabolic risk markers were more pronounced in men than in women. Our findings suggest a gender-specific impact of OSA on leukocyte measures, and on their relationship with indexes of cardiometabolic risk.

关键字：Obstructive sleep apnea, leukocyte measures, neutrophil, sex differences, cardiometabolic risk factors

Association of Accelerometer-measured Sleep Duration and Different Intensities of Physical Activity with Incident Type 2 Diabetes in A Population-based Cohort Study

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Objective The aim of the current study was to investigate the association of accelerometer-measured sleep duration and different intensities of physical activity (PA) with the risk of incident type 2 diabetes in a population-based prospective cohort study.

Methods Altogether, 88,000 participants (mean age = 62.2 ± 7.9 years, mean ± SD) were included from the UK Biobank. Sleep duration (short: 8 h/day) and PA of different intensities were measured using a wrist-worn accelerometer over a 7-day period between 2013 and 2015. PA was classified according to the median or World Health Organization-recommendation: total volume of PA (high, low), moderate-to-vigorous PA (MVPA) (recommended, not recommended), and light-intensity PA (high, low). Incidence of type 2 diabetes was ascertained using hospital records or death registries.

Results During a median follow-up of 7.0 years, 1615 incident type 2 diabetes cases were documented. Compared with normal sleep duration, short (hazard ratio (HR) = 1.21, 95% confidence interval (95%CI): 1.03-1.41) but not long sleep duration (HR = 1.01, 95%CI: 0.89-1.15) was associated with excessive type 2 diabetes risk. This increased risk among short sleepers seems to be protected against by PA. Compared with normal sleepers with high or recommended PA, short sleepers with low volume of PA (HR = 1.81, 95%CI: 1.46-2.25), not recommended (below the World Health Organization-recommended level of) moderate-to-vigorous PA (HR = 1.92, 95%CI: 1.55-2.36), or low light-intensity PA (HR = 1.49, 95%CI: 1.13-1.90) had a higher risk of type 2 diabetes, while short sleepers with a high volume of PA (HR = 1.14, 95%CI: 0.88-1.49), recommended moderate-to-vigorous PA (HR = 1.02, 95%CI: 0.71-1.48), or high light-intensity PA (HR = 1.14, 95%CI: 0.92-1.41) did not.

Conclusion Accelerometer-measured short but not long sleep duration was associated with a higher risk of incident type 2 diabetes. A higher level of PA, regardless of intensity, potentially ameliorates this excessive risk.

关键字：Light physical activity; Sleep duration; Triaxial accelerometer; Type 2 diabetes; UK Biobank.

经皮耳迷走神经刺激对失眠患者主客观睡眠参数的影响：一项系统评价和 Meta 分析

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目的 采用系统评价和 Meta 分析方法评估经皮耳迷走神经刺激（taVNS）对失眠患者主客观睡眠参数的影响。

方法 通过检索 PubMed、EMBASE、Web Of Science 、Cochrane Library、中国期刊全文数据库（CNKI）、万方数据知识服务平台（Wanfang）、维普资讯中文期刊服务平台（VIP）、中国生物医学文献数据库（SinoMed）等中英文数据库，纳入 taVNS 治疗失眠患者的随机对照试验、非随机对照试验以及病例对照研究，检索时间从建库至 2023 年 4 月 28 日。采用 R 软件 4.2.0 版本进行 Meta 分析。

结果 通过筛选共纳入 10 篇文献，602 例失眠患者。Meta 分析结果表明：（1）主观睡眠量表评分：①taVNS 治疗后可降低失眠患者的 PSQI 总评分[SMD=-1.83，95%CI（-2.57，-1.09），P<0.001]，此差异有统计学意义；与刺激耳部非迷走神经区（或刺激非迷走神经区配合药物）组相比，taVNS 组 PSQI 总评分有所下降[SMD=-0.28，95%CI（-0.53，-0.02），P=0.033]，此差异有统计学意义；②taVNS 治疗可降低失眠患者的 HAMA 总评分[SMD=-1.03，95%CI（-1.76，-0.30），P=0.005]，此差异有统计学意义；除此之外，taVNS 对失眠患者治疗后的 HAMD 总评分、FFS 总评分虽有所下降，但差异无统计学意义（P>0.05）；与耳部非迷走神经刺激区相比，taVNS 可使失眠患者 HAMA 总评分有所下降，但此差异无统计学意义（P>0.05）。（2）客观睡眠参数：①taVNS 治疗后可改善失眠患者的 N3 期睡眠[SMD=2.35，95%CI（1.84，2.85），P<0.001]及延长失眠患者睡眠潜伏期[SMD=1.05，95%CI（-0.30，2.40），P<0.001]，此差异有统计学意义；②经 taVNS 治疗后，虽可影响失眠患者的部分客观睡眠参数，如减少 N1 期和 N2 期睡眠时间、增加快速眼动睡眠 REM 期以及提高睡眠效率，但与治疗前相比，此差异均无统计学意义。

结论 经皮耳迷走神经刺激在改善失眠患者主观睡眠量表和客观睡眠参数方面具有一定的疗效，可提高患者的睡眠质量。但由于纳入研究的样本量小，还需更多高质量临床试验进一步验证。

关键字：失眠；经皮耳迷走神经刺激；主客观睡眠参数；系统评价；Meta 分析

COVID-19 与快速眼动睡眠行为障碍及神经变性风险

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目的 探究新型冠状病毒肺炎（COVID-19）患者中快速眼动睡眠行为障碍（RBD）的患病率、危险因素以及相关的神经退行性标志物。

方法 纳入 2021 年 6 月至 2022 年 5 月在香港中文大学附属医院确诊的 COVID-19 及年龄大于 40 岁患者，并招募了年龄性别匹配的健康对照组对其进行临床评估，采用快速眼动睡眠行为障碍问卷香港版（RBD-HK）筛查 RBD。对筛查阳性和部分筛查阴性的患者进一步行视频多导睡眠监测（v-PSG）以明确 REM 期肌张力水平及 RBD 的诊断。根据国际运动障碍协会（MDS）研究标准计算了帕金森病（PD）前驱期标记物的似然比。

结果 本研究共纳入了 133 例 COVID-19 患者和 141 名健康对照组患者。与对照组相比，COVID-19 患者表现出更严重的抑郁症状（抑郁症筛查量表-9 得分：4.5 ± 4.2 vs. 3.3 ± 3.7，p = 0.01）、焦虑症状（焦虑症筛查量表-7 得分：3.3 ± 3.5 vs. 2.3 ± 3.0，p = 0.01）、便秘（12.0% vs. 4.4%，p = 0.03）、运动迟缓（29.1% vs. 2.9%，p < 0.001）、体位性低血压（27.6% vs. 6.6%，p < 0.001）、泌尿功能障碍（33.6% vs. 12.4%，p < 0.001）和性功能障碍（18.5% vs. 6.6%，p = 0.003）。进一步的 v-PSG 显示在有梦境演绎行为（DEB）的 8 例 COVID-19 患者和 5 例对照组患者中，各有 1 例确诊为 RBD。两组的 DEB 发生率（15.9% vs. 11.4%，p = 0.32）和 REM 期下颌肌电活动水平是无显著差异。与对照组相比，COVID-19 患者 PD 前驱期标志物的似然比更高（中位数 [IQR]：1.37 [0.18-10.22] vs. 0.26 [0.12-1.02], p < 0.001）。

结论 对于最近的 Omicron 病毒株来讲，COVID-19 并不增加 RBD 的患病率，但可增加 PD 前驱期的似然比，这可能是由于 COVID-19 本身的症状所致，如情绪及其他躯体症状。因此，COVID-19 可能不会增加急性神经退行性疾病（如帕金森症）的风险，后续仍需要进一步的纵向研究来阐明 COVID-19 的长期影响。

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关键字：快速眼动睡眠行为障碍（RBD），新型冠状病毒肺炎（COVID-19），神经退行性病变

基于在线认知行为疗法对慢性失眠障碍患者睡眠质量及情绪的疗效评价

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目的 探究在线认知行为疗法治疗慢性失眠障碍患者睡眠质量、焦虑及抑郁情绪的疗效评价，研究在线认知行为疗法对睡眠质量的影响以及情绪与睡眠质量之间的相关性。

方法 根据《睡眠障碍国际分类》第三版（International Classification of Sleep ，ICSD-3）的诊断标准 ，在湖南省第二人民医院选取符合纳排标准的慢性失眠障碍患者共 83 例，所有被试者进行为期 6 周的在线认知行为疗法，并在治疗前后进行匹兹堡睡眠质量指数量表（Pittsburgh Sleep Quality Index，PSQI）、失眠严重指数量表（Insomnia Severtiy Index,ISI）、汉密尔顿焦虑量表（Hamilton Anxiety Scale ,HAMA）、汉密尔顿抑郁量表（Hamilton Depression Scale，HAMD）的评估及多导睡眠监测（Polysomnography，PSG）。本研究使用 SPSS 25.0 软件进行数据分析，对于符合正态分布的计量资料采用配对样本 t 检验，不符合正态分布的计量资料采用配对样本 Wilcoxon 符号秩和检验，对于不同变量之间相关性分析采用 Spearman 秩相关性分析。

结果 1.经过 6 周治疗后的慢性失眠障碍患者 PSQI、ISI、HAMA、HAMD 评分均显著降低（P<0.05）；2.经过 6 周治疗后的慢性失眠障碍患者总睡眠时间（TST）及睡眠效率（SE）显著增加（P<0.05）、入睡后觉醒时间（WASO）及入睡后觉醒次数（NAW）显著减少（P<0.05）；N2 期睡眠时间、N3 期睡眠时间和 REM 睡眠时间较治疗前均显著延长（P<0.05），N1 睡眠时间占总睡眠时间的百分比较治疗前缩短（P<0.05）。3.经过 6 周治疗后 ISI 评分治疗前后差值与 HAMA（r=0.2643 ，P<0.05）和 HAMD 评分 （r=0.3752, P<0.001)治疗前后差值呈正相关，PSQI 评分治疗前后差值与 HAMA 评分（r=0.2767,P<0.05)治疗前后差值呈正相关,与 HAMD 评分治疗前后差值无明显相关性（P>0.05）。

结论 在线认知行为疗法可以改善慢性失眠症患者睡眠质量、焦虑及抑郁情绪，且慢性失眠症患者主观睡眠质量的好转与焦虑及抑郁情绪变化存在相关性。

关键字：在线认知行为疗法 失眠障碍 抑郁 焦虑

住院老年心血管疾病患者睡眠不良的发生率与危险因素分析

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目的 睡眠不良与死亡和心血管疾病(cardiovascular disease ，CVD)的复发风险增加有关。但目前关于老年 CVD 患者睡眠状况的研究较少。本研究调查了我国南方某综合医院心内科住院老年 CVD 患者睡眠不良的发生率及危险因素，试图为识别高危人群并有针对性的干预提供依据，促进 CVD 的治疗和康复。

方法 本研究为横断面研究，共纳入中国南方某综合医院心内科 2022 年 6 月至 9 月期间符合纳排标准的 396 例住院 CVD 患者。研究采用面对面访谈的方式收集资料，使用失眠严重程度指数量表(ISI)、患者健康问卷抑郁量表-9(PHQ-9)、广泛性焦虑量表-7(GAD-7)和简易精神状态问卷(SPMSQ)分别评估受试者的睡眠、抑郁、焦虑和认知功能情况。

结果 本研究纳入的住院老年 CVD 患者平均年龄为 72.19(±8.86)岁,其中 46.20%的患者存在睡眠不良（ISI 评分≥8 分）。睡眠不良组 ISI 量表的平均得分为

14.07(±5.01)分。存在睡眠不良的住院老年 CVD 患者中有 80.87%的患者未接受过任何睡眠相关的治疗。单因素分析的结果显示，与睡眠良好（ISI 评分＜8 分）的患者相比，睡眠不良的患者更可能是女性（X2=5.743,P<0.05）、年龄更大（t=-4.496,P<0.05）、婚姻状况不稳定（X2=5.131,P<0.05）、吸烟的比例更少（X2=5.069,P<0.05）、更可能罹患心律失常（X2=4.064,P<0.05）或心力衰竭（X2=7.331,P＜0.05）、更可能同时罹患 2 种及 2 种以上的心血管疾病（t=-2.523,P<0.05）、更不可能有心血管疾病家族史（X2=4.408,P<0.05），焦虑（t=-13.930,P<0.05）、抑郁（t=-7.193,P<0.05）和认知障碍（Z=-2.203,P<0.05）的水平更高。将单因素分析中差异有统计学意义的变量作为自变量纳入二元 logistic 回归分析。结果显示，存在抑郁症状(OR=1.436,95%CI=1.311 - 1.572)是住院老年 CVD 患者睡眠不良的独立危险因素。

结论 住院老年 CVD 患者睡眠不良的发生率较高，但治疗率低。筛查和管理住院老年 CVD 患者的抑郁症状可能有助于改善患者的睡眠质量，促进 CVD 的治疗和康复。

关键字：睡眠不良；老年人；心血管疾病；抑郁

光照眼镜治疗慢性失眠的前瞻性、随机、双盲、安慰剂对照研究

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目的 观察基于光照疗法的光照眼镜治疗慢性失眠的临床疗效和不良反应。

方法 招募慢性失眠患者 150 例，采用随机数字表法分为试验组（n=75）和对照组（n=75）。试验组采用角膜照射 1200Lux 的 460nm 短波蓝光的光照，对照组采用角膜照射 20Lux 红光的光照，两组光照时间均为 30min/d，疗程为 3 周。在基线及治疗第 1、2、3 周末采用匹兹堡睡眠质量指数量表（PSQI）、失眠严重指数量表（ISI）、汉密尔顿焦虑量表 14 项（HAMA-14）和汉密尔顿抑郁量表 24 项（HAMD-24）评估临床症状并记录不良反应。采用 $\chi 2$ 检验和重复测量方差分析等方法进行统计比较。

结果 （1）PSQI、ISI、HAMA-14、HAMD-24 评分组别主效应（F=4.150-16.931）以及不同治疗时间主效应（F=33.713-59.681）均有统计学意义（均 P<0.05），治疗时间与组别间的交互效应均不显著（均 P＞0.05）。（2）2 组间基线时各量表评分均无统计学差异（均 P＞0.05），试验组治疗 1 周末、治疗 2 周末、治疗 3 周末时 PSQI 评分均显著低于对照组（均 P<0.01），PSQI 减分率均显著高于对照组（均 P<0.05），治疗 3 周末试验组 PSQI 减分率[95% CI]为 39.45% [33.87% ,45.03%]。试验组治疗 2 周末时 ISI 评分显著低于对照组（P=0.0351），且较基线变化值显著高于对照组（P＜0.01）。（3）试验组治疗 2 周末、治疗 3 周末时 HAMA-14、HAMD-24 评分较基线变化值均显著高于对照组（均 P<0.05）。（4）2 组各项不良事件的发生率差异均无统计学意义且无严重不良事件发生。

结论 光照眼镜对治疗慢性失眠具有良好的临床有效性和安全性。

关键字：光照疗法，光照眼镜，慢性失眠

伴非自杀性自伤行为抑郁发作患者的睡眠特征及睡眠时型中介效应研究

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目的 了解伴有非自杀性自伤（Non-Suicidal Self-Injury，NSSI）行为的抑郁发作患者的主客观睡眠特征，探寻与 NSSI 行为相关的睡眠危险因素；构建抑郁、睡眠时型和 NSSI 的关系模型，检验睡眠时型在抑郁与 NSSI 间的中介效应。

方法 选取 133 例抑郁发作患者为研究对象，分为伴 NSSI 行为抑郁发作组（n=88）和不伴有 NSSI 行为抑郁发作组（n=45）。应用汉密尔顿抑郁量表（HAMD）评估抑郁严重程度，应用匹兹堡睡眠质量指数量表（PSQI）、失眠严重程度指数量表（ISI）、Epworth 嗜睡量表（ESS）和清晨-夜晚量表（MEQ）四种睡眠量表评估患者主观睡眠特征，并应用多导睡眠监测（PSG）评估患者的客观睡眠特征。SPSS 24.0 软件用于分析数据，采用 t 检验、非参数检验进行单因素分析探究组间差异，二项 logistic 回归探究不同 PSG 参数与 NSSI 之间的统计学关联强度。对抑郁、睡眠时型和 NSSI 进行 Pearson 相关分析，并应用 PROCESS 插件通过 bootstrap 法对睡眠时型在抑郁症状与 NSSI 之间的中介效应进行检验。

结果 伴有 NSSI 行为患者的 TST、SE 和 N3%显著更低；N1%、唤醒次数、WASO、AHI、呼吸事件、低通气显著更高；多因素分析显示，N1%增加（OR=1.949，p＜0.05）和 SE 降低（OR=0.628，p＜0.05）与 NSSI 发生显著相关。主观睡眠量表评估显示，伴有 NSSI 行为患者睡眠紊乱、日间功能障碍更明显（p＜0.01），对睡眠满意度更低（p＜0.01），其睡眠时型更倾向于夜晚型（p＜0.01）。抑郁与 NSSI 呈显著正相关（p＜0.01），抑郁与睡眠时型呈显著负相关（p＜0.01），睡眠时型与 NSSI 呈显著负相关（p＜0.01）。 抑郁症状可直接影响 NSSI 的严重程度，也可通过睡眠时型的中介作用间接影响，中介效应大小为 0.08，占比 26.67%。

结论 伴有 NSSI 行为抑郁发作患者存在更差的主观睡眠满意度，日间功能及认知功能受损更明显，其客观总睡眠时间更短且存在睡眠结构紊乱，N1%增加和 SE 降低可能是 NSSI 行为发生相关的睡眠危险因子。睡眠时型在抑郁与 NSSI 间起部分中介作用，改善睡眠节律，尤其针对夜晚型睡眠加以干预，可能有益于减少抑郁患者 NSSI 行为的发生。

关键字：非自杀性自伤；睡眠时型；抑郁；中介效应

慢性失眠患者的大脑皮层觉醒性研究

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目的 24-小时过度觉醒是慢性失眠障碍核心的特征，表现为夜间睡眠受损和白天难以入睡。大脑皮层过度觉醒被为是其病理生理学机制之一。既往研究发现，慢性失眠患者存在夜间睡眠时大脑皮层过度觉醒，表现为 beta 脑电能量增加。然而，尚无研究探索慢性失眠患者白天的大脑皮层兴奋性。因此，本研究旨在探索慢性失眠患者是否存在白天的大脑皮层的过度唤醒。

方法 本研究纳入年龄、性别配对的慢性失眠患者和对照受试者各 50 例。所有受试者均进行整夜多导睡眠监测（PSG）及次日有 4 次睡眠机会的多次小睡潜伏期测试（MSLT）。使用快速傅立叶转换(FFT)方法计算脑电功率。脑电图 C-3 和 C-4 导联用于脑电功率分析，PSG 记录期间的非快速眼球运动（NREM)睡眠期 、快速眼球运动（REM）睡眠期及 MSLT 记录期间非快速眼球运动（NREM)睡眠期 脑电相对功率 delta、theta、alpha、sigma、beta、gamma 用于本研究统计。正态分布的数据采用 t 检验，非正态分布的数据采用秩和检验，分类变量数据采用卡方检验。

结果 慢性失眠组中位年龄为 27(23,32)岁，其中女性占 54%；对照组中位年龄 25(24,29)，其中女性占 54%；两组在年龄和性别比例无统计学差异（p 值均>0.05)。与对照组相比，慢性失眠组夜间 NREM 期的 beta 功率增加（ 1.805(1.485,2.194) vs.2.009(1.644,2.554)，p=0.039）和 REM 期 theta 脑电能量下降（18.800±3.108 vs. 17.427±3.478，p=0.041）。此外，与对照组相比，慢性失眠患者日间小睡时 NREM 期的 beta 脑电能量显增加（ 6.21(5.36,7.49) vs. 6.90(6.06,8.59)，p=0.024）。

结论 慢性失眠患者存在 24-小时大脑皮层的过度觉醒，表现为夜间和白天睡眠时高频脑电能量增加。

关键字：慢性失眠 脑电能量 24-小时大脑皮层过度觉醒

住院精神障碍患者日间过度嗜睡和自杀意念的相关性研究

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目的 探讨日间过度嗜睡是否为住院精神障碍患者产生自杀意念的危险因素，并探究日间嗜睡严重程度与自杀意念的关系。

方法 本研究为横断面调查，根据纳、排标准，从 2019 年 01 月到 2021 年 10 月共纳入汕头大学精神卫生中心住院部精神障碍患者 666 例，采用自编调查表收集一般人口学信息及临床资料。采用 Epworth 嗜睡量表（Epworth Sleepiness Scale，ESS）评估受试者的日间嗜睡，ESS≤6 分为无嗜睡，6＜ESS≤10 分为轻度嗜睡，10＜ESS≤16 分为中度嗜睡，ESS＞16 分为重度嗜睡，ESS＞10 分定义为日间过度嗜睡；采用贝克自杀意念量表中文版评估患者的自杀意念。根据数据类型选择卡方检验和 Mann-Whitney U 检验对一般人口学信息、临床特征及睡眠特征进行组间差异比较，采用二元 Logistic 回归模型对日间过度嗜睡和自杀意念进行关联性分析。

结果 1、与无自杀意念的患者相比，自杀意念组合并抑郁症状（95.00% vs. 50.00%）、低睡眠效率（37.50% vs. 15.34%）、入睡困难（40.00% vs. 19.17%）、失眠症状（45.00% vs. 26.68%）、柏林问卷阳性（22.50% vs. 10.22%）及日间过度嗜睡（25.00% vs. 2.72%）的比例更高，差异均有统计学意义；与无自杀意念的患者相比，自杀意念组的抑郁症状更严重、睡眠效率更低、睡眠潜伏期更长、睡眠质量和日间嗜睡更严重，差异均具有统计学意义。 2、二元 Logistic 回归分析结果显示，控制相关潜在混杂因素后，与无自杀意念的患者相比，存在自杀意念的患者合并日间过度嗜睡（OR：3.070，P=0.048）的风险更高，且患者日间嗜睡越严重，产生自杀意念的风险越高。逐步二元 Logistic 回归分析结果显示，控制相关影响因素后，与 ESS≤6 分的患者相比，6＜ESS≤10 分的患者产生自杀意念的风险增加 2.442 倍，10＜ESS≤16 分的患者产生自杀意念的风险增加 3.856 倍，ESS＞16 分组产生自杀意念的风险增加 8.583 倍。

结论 存在自杀意念的住院精神障碍患者往往合并有更多、更严重的睡眠问题；日间过度嗜睡是住院精神障碍患者合并自杀意念的危险因素；住院精神障碍患者日间嗜睡越严重，产生自杀意念的风险越高。

关键字：精神障碍，睡眠障碍，日间过度嗜睡，自杀意念

Glymphatic System Dysfunction and Sleep Deprivation May Contribute To The Pathogenesis and Progression of Cognitive Impairment

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Objective The glymphatic system functions most optimally to remove extracellular brain solutes during sleep and therefore sleep deprivation may be a crucial progression factor as well as a risk factor.The purpose of this study was to look at how the glymphatic system functions in relation to sleep deprivation-induced cognitive impairment.In this investigation.

Methods We first employed electroencephalography (EEG) to confirm that sleep deprivation had been successfully established. Then, by identifying aquaporin-4(AQP4), a crucial component of glymphatic system activity, we confirmed the functional relevance of the glymphatic system in cognitive impairment brought on by sleep deprivation. Finally, we altered the AQP4 to see if sleep-

deprived mouse's cognitive function had changed.

Results The modulation of AQP4 may play a role in the loss in cognitive performance that sleep deprivation causes.In light of this, we hypothesize that sleep deprivation impairs the glymphatic system by lowering AQP4, which has an impact on cognitive behavior, particularly learning and memory.

Conclusion So, we conclude that the glymphatic system plays a very important functional role in cognitive impairment caused by sleep deprivation.To determine whether AQP4 might be regarded as a risk factor for cognitive impairment and to better understand the regulatory mechanisms of this protein, more research is nevertheless required.

关键字：Glymphatic system, Meningeal lymphatic vessels, sleep deprivation, AQP4

抑郁症患者睡眠质量与事件相关电位 P300 的相关性研究

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目的 探讨抑郁症患者睡眠质量与认知功能损害的相关性。

方法 选择合肥市第四人民医院睡眠障碍科 2021 年 2 月-2022 年 12 月期间收治的符合 ICD-10 诊断标准的抑郁症患者作为研究对象（共 156 例），采用汉密尔顿抑郁量表(HAMD)评估患者抑郁情绪严重程度；采用多导睡眠脑电监测（PSG）评估患者客观睡眠质量，根据睡眠效率（sleep efficiency，SE），将 SE≥90%定为正常睡眠效率组，共纳入 68 例；SE＜90%定为低睡眠效率组，共纳入 88 例。采用事件相关电位 P300（ERP-P300）评估两组患者的认知功能情况，采用双因素方差分析、Pearson 相关分析进行数据处理。

结果 采用双因素方差分析，分别比较不同性别、年龄、居住地、文化程度、饮酒、吸烟、HAMD 分数及睡眠效率对事件相关电位的影响。 结果显示：（1）睡眠效率和性别在对 N2 潜伏期的影响上不存在交互作用（F=0.046，P=0.831），主效应分析提示性别对 N2 潜伏期的影响差异有统计学意义（P＜0.05）。（2）睡眠效率和居住地在对 P3 潜伏期的影响不存在交互作用（F=2.844，P=0.061），主效应分析提示居住地对 P3 潜伏期的影响差异有统计学意义（P＜0.05）；两两比较分析居住地的主效应结果发现：居住在城市的抑郁症患者比居住在集镇及农村的 P3 潜伏期长，差异有统计学意义（P＜0.05）。（3）睡眠效率和学历在对 N2 潜伏期的影响存在交互作用（F=3.997，P=0.020），单独效应分析提示，在大学以上学历患者中，低睡眠效率组 N2 潜伏期长于正常睡眠效率组，差异有统计学意义（P＜0.05）。（4） Pearson 相关分析结果显示：抑郁症患者睡眠效率与 N2、P3 潜伏期呈负相关(r=-0.261、-0.205，P

关键字：重度抑郁症; 睡眠效率; 认知功能；P300

Relationship between Excessive Daytime Sleepiness and Pleasure Deficit in Depressed Patients: A FMRI Study

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Objective Anhedonia is one of the core symptoms of MDD and is closely related to its severity. Approximately 37. 4% to 57. 1% of people with major depressive disorder (MDD) show symptoms of excessive daytime sleepiness (EDS). Previous studies have found an association between EDS and anhedonia in MDD patient. The aim of this study was to clarify the neuroimaging mechanisms of EDS symptoms in MDD patients with anhedonia.

Methods A total of 22 patients were included in the EDS group (Epworth Sleepiness Scale score ≥7) and 45 patients were included in the no daytime sleepiness group (No EDS). All subjects underwent resting state functional MRI, polysomnography (PSG) and clinical scale assessments. Anhedonia assessed using the Revised Social Anhedonia Scale, Revised Physical Anhedonia Scale and Temporal Experience of Pleasure Scale. Employing the Dosenbach 160 node atlas, we obtained whole-brain functional networks and extracted topological features (global efficiency (Eglob), local efficiency (Eloc), path length (Lp) and clustering coefficient (Cp)) using a graph-theoretic-based approach. Group comparisons were made using a two-sample t-test.

Results The two groups were well matched for gender and age, and there were no differences in HAMD or HAMA scores, duration and percentage of stages N1, N2 and N3, total sleep time (TST) and total time in bed (TIB.) The EDS group scored worse on the Revised Physical Anhedonia Scale, while there were no differences in social and temporal anhedonia. In terms of brain networks, the EDS group showed reduced functional connectivity of the DMN to the FPN and the VN to itself, specifically the ventral lateral prefrontal cortex to the posterior cingulate gyrus and the occipital lobe to the fusiform gyrus. Compared to the No EDS group, the EDS group appeared to have extensive reductions in Eglob, Eloc, Cp and increases in Lp.

Conclusion MDD patients with EDS exhibit a lack of physical anhedonia, which may be associated with reduced indicators of their extensive whole-brain networks and reduced functional connectivity between some functional brain networks. Our study may provide a neuroimaging mechanistic basis for clinical identification and intervention of anhedonia in MDD patients with EDS.

关键字：major depressive disorder, physical anhedonia, functional magnetic resonance imaging, polysomnography, brain functional networks, graph theory

analysis

重度抑郁发作患者述情障碍在手机成瘾和睡眠障碍的中介作用

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目的 探讨重度抑郁发作患者和正常个体在睡眠质量、智能手机成瘾、述情障碍上的差异以及述情障碍在智能手机成瘾和睡眠质量间的作用。

方法 采用抑郁自评量表（SDS）、述情障碍量表（TAS）、匹兹堡睡眠质量量表（PSQI）和智能手机成瘾量（MPAI）表对 60 名符合美国精神疾病和统计手册第五版(DSM-V)的重度抑郁发作患者和 64 名随机抽样正常个体进行问卷调查。所有数据采用 SPSS22.0 统计软件进行分析。

结果 1.重度抑郁发作患者手机成瘾检出率为 80%，睡眠障碍检出率为 56.7%；正常对照手机成瘾检出率为 68%，睡眠障碍检出率为 18.75%。2.睡眠障碍（PSQI）评分与述情障碍（TAS）评分呈正相关（r=0.266，P＜0.01）。手机成瘾（MAPI）评分与述情障碍（TAS）的认识个区分情感与躯体感受的能力维度呈正相关（r=0.201，P＜0.05），和幻想维度呈负相关（r=-0.269，P＜0.01）。躯体快感缺失（RPAS）评分与手机成瘾（MAPI）的失控性呈正相关（r=0.19，P＜0.05）。3.以重度抑郁发作患者睡眠障碍为因变量，手机成瘾为自变量，述情障碍为中介变量，回归系数显著。间接效应为 a×b=0.053（P＜0. 001）；直接效应为 c'=0.155（P＞0.05）；总效应为 c=0.2081（P＜0. 01）。由于 =0.2081，中介效应与总效应之比为 100%，表明重度抑郁发作患者述情障碍在手机成瘾对睡眠质量的影响中具有完全中介作用。

结论 重度抑郁发作患者述情障碍在手机成瘾和睡眠障碍起中介作用。

关键字：重度抑郁发作；述情障碍；手机成瘾；睡眠障碍

中文版福特应激性失眠反应测验在短期失眠患者的心理测量学特征

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目的 本研究的目的是验证中文版福特应激性失眠反应测验（First-C）在短期失眠患者中的可靠性和有效性，并揭示该量表与睡眠反应性的关系。

方法 本研究共纳入 150 名健康受试者和 172 名短期失眠患者，采用福特应激性失眠反应测验、失眠严重程度指数、Epworth 嗜睡量表和医院用焦虑抑郁量表进行评估，并进行探索性因子分析和 Logistics 回归分析对数据进行分析。

结果 在短期失眠组中，First-C 的分值范围为 15-35 分，平均分为 21.89±4.31 分；在健康对照组中，First-C 的分值范围是 9-35 分，平均分为 16.18±5.10 分。First-C 在短期失眠者和健康参与者的的 Chronbach α 系数和 Spearman Brown 分半信度分别为 0.81、0.89 和 0.73、0.85，具有良好的内部一致性。9 个条目与总分的相关系数范围为 0.33~0.78 之间。在健康参与者中，符合单因素结构，可解释方差百分比为 50.14%。在短期失眠组中，可以提取双因子模型，可以解释 47.53% 的方差贡献率。在健康参与者中，First-C 的评分与所有其他指标的评分呈显著的正相关（P＜0.05）。在短期失眠患者中，First-C 与 ISI 和 HADS 均不相关，但与 ESS 呈中度相关。受试者工作特征曲线（ROC）提示 FIRST-C 分值的最佳划界分为 19.5，二元 Logistic 回归表明短期失眠与高睡眠反应性密切相关，短期失眠的概率是未患失眠的受试者的 8.545 倍（95%CI 3.17,19.644）。

结论 中文版福特应激性失眠反应测验具有较高的可靠性和有效性，能够用于短期失眠患者的心理测量学特征评估。研究发现，睡眠反应性、自评失眠程度和日间嗜睡度与福特应激反应测量量表得分显著相关。因此，该量表可以用于失眠患者的诊断和疾病评估，促进相关领域的科研发展。

关键字：福特应激性失眠反应测验；短期失眠障碍；效度；信度

Risk Factors and Construction of Predictive Models for Acute To Chronic Insomnia

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Objective To explore the risk factors of acute to chronic insomnia and evaluate their combined predictive value.

Methods This is a nationwide 31-center clinical trial in China. Participants met the diagnostic criteria for acute insomnia according to DSM-5 for acute insomnia were enrolled from November 2017 to June 2019. The demographics of participants with acute insomnia were evaluated with general information questionnaire.Insomnia symptoms was evaluated with the Insomnia Severity Index(ISI).Other sleep-related questionnaires included the Epworth Sleepiness Scale (ESS), the Pre-Sleep Arousal Scale (PSAS) , the Ford Insomnia Response to Stress Test (FIRST) , the Sleep Hygiene Practice Scale (SHPS) and the 30-item Dysfunctional Beliefs and Attitudes about Sleep (DBAS). Mood symptoms and quality of life was evaluated with The Hospital Anxiety and Depression Scale (HADS) and Short-Form 12-Item Health Survey version 2 (SF-12v2). After a 3-month follow-up, evaluate the outcome of insomnia. Single factor analysis and multivariate logistic regression models were used to analyze the risk factors affecting acute to chronic insomnia, respectively;

The Receiver Operating Characteristic (ROC) was plotted to evaluate the predictive value of relevant indicators for acute to chronic insomnia.All analyses were two-tailed with an alpha level set at P 0.05). Multiple logistic regression analysis was conducted on sex, age, nap habit, difficulty sleeping, drink tea, drink coffee, drinking, smoking, HADS-D , HADS-A , ESS, SHPS, FIRST, DBAS, PSAS, SF-12v2 PCS,SF-12v2 MCS and ISI scores using the conditional backward method. Five variables (drinking, FIRST, PSAS, ISI, and HADS-A scores) were found to have the optimal predictive value. The result showed that ISI score was an independent risk factor for acute to chronic insomnia(OR 1.134, 95% CI 1.011 to 1.273, P＜0.05）. The ROC was plotted based on the 5 variables that enter the predictive model. PSAS score had the highest sensitivity(82.6%) and lower specificity(41.7%). The ISI score had the highest specificity(70.8%) and lower sensitivity(56.5%). The joint variable had the maximal AUC(AUC=0.750), as well as better sensitivity（87%）and a specificity（54.2%）, indicating that the joint variable had the better predictive value to predict acute to chronic insomnia.

Conclusion ISI score is an independent risk factor for acute to chronic insomnia.The joint variable of drinking, FIRST, PSAS, ISI , HADS-A scores for acute to chronic insomnia was more accurate than a single variable, and has higher predictive value.

关键字： Risk factors; Predictive models;Insomnia;AUC;ROC

慢性失眠障碍对恐惧消退记忆的影响

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目的 健康的睡眠对于机体情绪调节和情绪记忆巩固起着重要的作用。睡眠不足会产生一系列有害影响，例如睡眠剥夺和限制会干扰情绪调节和情绪记忆的巩固。本研究明确慢性失眠障碍（CID）是否会因长期睡眠中断和/或睡眠不足进而干扰依赖睡眠的恐惧记忆巩固。

方法 利用听觉恐惧性条件反射范式建立恐惧条件刺激，恐惧条件反射习得在第一天进行，24 小时后进行消退学习。对 20 例 CID 患者组和 18 例健康对照组分别采集恐惧习得期和消退期的皮肤电反应信号（skin conductance response, SCR）和主观恐惧报告即李克特式 7 分量表，比较恐惧习得期和消退期恐惧反应差异。

结果 在恐惧消习得期，与健康被试相比，CID 患者组 SCR 值 Z 分和李克特式 7 分量表无统计学差异（p＞0.05）。提示在恐惧习得期，两组之间恐惧反应无显著差异。 在恐惧消退期，与健康被试相比，CID 患者组 SCR 值 Z 分和李克特式 7 分量表有统计学差异（p＜0.05），且 CID 患者组 SCR 值明显高于健康被试组，CID 患者组李克特式 7 分量明显高于健康被试，提示 CID 患者主观恐惧感受较健康被试反应强烈。对于 CID 患者组，恐惧习得期和恐惧消退期的 SCR 值 Z 分和李克特式 7 分量表无统计学差异（p＞0.05）；而对于健康被试组，恐惧习得期和恐惧消退期的 SCR 值 Z 分和李克特式 7 分量表有统计学差异（p＜0.05）。提示 CID 患者恐惧反应存在消退延迟。

结论 ?在恐惧消习得期 CID 患者恐惧情绪反应无明显受损，而在恐惧消退期，CID 患者恐惧反应强烈，且 CID 与存在延迟消退，可能与 CID 患者破坏的睡眠结构导致恐惧消退记忆受损有关。

关键字：慢性失眠障碍 恐惧条件反射 消退

Association between Sleep Duration, Sleep Quality, Bedtime and Myopia: A Systematic Review and Meta-analysis

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Objective We performed a systematic review and meta-analysis to investigate the links between different sleep characteristics and risk of myopia.

Methods PubMed, EMBASE, Web of Science, the Cochrane Library, PsycINFO, Wanfang, and CNKI were searched from inception to August 26, 2022, without any language restriction. Cross-sectional, case-control, or cohort studies that explored the association between sleep duration, sleep quality, bedtime and myopia were included. NIH quality assessment tools were used to assess the methodological quality of included studies. Random-effect or fixed-effect models were used to pool the associations according to whether there is heterogeneity.

Results A total of 31 studies with 205,907 participants were included in the final analysis (twenty-five studies reporting sleep duration; four studies examining sleep quality and six studies evaluating bedtime). Compared to reference sleep duration, sufficient sleep duration (OR=0.63, 95% CI=0.51-0.78) was associated with a lower risk of myopia, and short sleep duration (OR=1.66, 95% CI=1.14-2.42) was associated with a higher risk of myopia. In addition, poor sleep quality (OR=1.24, 95% CI=1.05-1.47) was associated with a higher risk of myopia while late bedtime (OR=1.30, 95% CI=0.96-1.75) was not significantly associated with an increased risk of myopia.

Conclusion Alteration in sleep duration and sleep quality may influence the risk of myopia. Well-designed cohort studies are needed in future investigations to identify a causal relationship between different sleep characteristics and myopia.

关键字：Sleep duration; Sleep quality; Bedtime; Myopia; Systematic review

伴有失眠症状的重度抑郁患者睡眠脑电功率与注意力的关系研究

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目的 探讨伴有失眠症状的重度抑郁患者脑电功率与注意力的特征及其两者之间的关系，旨在伴有失眠症状的重度抑郁障碍患者中发现认知功能受损与脑电功率之间的可能关联。

方法 本研究纳入从 2018 年 3 月至 2022 年 12 月期间于汕头大学医学院/汕头大学精神卫生中心睡眠医学中心就诊，符合《精神障碍诊断与统计手册（第 5 版）》（DSM-5）诊断的首发抑郁患者 68 名（34 名高失眠组（MDD-HI）和 34 名年龄、性别相匹配的低失眠组（MDD-LI），评估其失眠严重程度指数量表（ISI）、贝克抑郁量表(BDI)和贝克焦虑量表(BAI)及多导睡眠监测（PSG），并分析其睡眠脑电功率谱变化，通过注意网络测试(ANT) 来评估受试者的注意力。

结果 与 MDD-LI 组相比，MDD-HI 组 NREM 期 Delta 功率较低(76.76±7.88VS81.12±9.23，p=0.051)，Alpha(4.69(3.55 6.90)VS3.15(2.28 6.04) ,p=0.051) 、Sigma(4.88(3.94 6.51)VS3.46(1.81 4.70),p=0.006) 、Beta(1.84(1.25 2.82)VS1.28(0.98 2.06),p=0.067)功率较高，平均反应时更长(703.16(588.73 861.00)VS 616.65(529.57 828.48),p=0.052)，线性回归结果：在校正年龄、性别、BMI、BAI、BDI、AHI 和文化程度后，MDD-HI 组 NREM 睡眠期 Alpha 相对功率与平均反应时呈正相关(B=15.50,β=0.39, P=0.040)，NREM 睡眠期 Beta 相对功率与平均反应时呈正相关(B=35.440,β=0.42, P=0.024)。

结论 伴有失眠症状的重度抑郁患者的睡眠脑电功率发生改变以及注意力存在受损，并且 NREM 睡眠期 Alpha、Beta 相对功率改变可能是伴有失眠症状的重度抑郁患者注意力受损的危险因素。

关键字：失眠症状 重度抑郁患者 脑电功率 注意力

精神创伤研究协作组

Bibliometrics and Visual Analysis of The Research Status and Trends of Exercise Therapy in The Field of Depression From 2013 To 2022

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Objective Various studies have been reported on the effects and mechanisms of exercise on depression. However, the literature on scientometric analysis is sparse. Our findings provide insights and valuable information for the study of exercise therapy for depression through a comprehensive review and analysis of current research hotspots and trends.

Methods Relevant original publications are taken from the Science Citation Index Expanded (SCI-E) and the Social Sciences Citation Index (SSCI) in the Web of Science Core Collection (WoSCC) database between 2013 and 2022. CiteSpace, VOSviewer, Scimago Graphica, and Excel were used to analyze the relevant countries, institutions, journals, authors, references, and keywords.

Results We retrieved a total of 1128 articles on the field from the WoSCC database and found that the number of publications has increased overall over the past decade. Among all keywords included, “depression” was the most frequently referred to keyword, with 640 co-occurrences, followed by exercise (534 times), physical activity (310 times), anxiety (287 times), and health (232 times). Keywords for the outbreak to continue into 2022 include "mechanism," "impact," "mindfulness," "PHQ-9," "verification," "insomnia," "gender difference," "duration," and "post-stroke depression," all reflecting the latest research trends.

Conclusion Current concerns and hotspots of exercise intervention in depression treatments were “mechanism”, “mindfulness”, “validation”, “insomnia”, “sex difference”, “duration” and “poststroke depression”, as seen in the keywords with the strongest citation burst. We considered the following four topics: “the changes in physiological indicators of depression,” “the role of exercise in the management of mental health disorders,” “the effect of exercise therapy for depression,” and “exercise therapy of postpartum depression”. Exercise therapy has been used in considerable research in the field of postpartum depression, and exercise is effective in reducing postpartum depression symptoms compared with traditional control methods (psychosocial and psychological interventions), and exercise appears to have a better effect on postpartum depression symptoms. Our findings provide insights and valuable information for the study of exercise therapy for depression through a comprehensive review and analysis of current research hotspots and trends, we can help researchers quickly understand the field, it is helpful to the work of researchers.

关键字：Exercise Therapy ； Depression

急性期精神分裂症认知功能的多模态脑网络表征

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目的 精神分裂症患者在大脑结构和功能方面存在明显的异常。“连接障碍”假说认为精神分裂症与大脑区域之间的功能性异常或无效连接有关。精神分裂症的认知功能损伤可能也是一种连接障碍，涉及不同模态的脑网络连接异常，因此本研究旨在探究精神分裂症患者认知功能的多模态脑网络表征。

方法 本研究纳入了来自两个中心的239例被试，包括 168 例急性期精神分裂症患者和 71 例健康对照。对所有被试评估了 MATRICS 共识认知成套测验（MCCB），并采集了功能磁共振和结构磁共振两个模态数据。利用两个模态的磁共振数据，分别构建了功能连接网络（FCN）和形态学连接网络（MCN）两种脑网络。使用 Lam 三因子模型对 8 个 MCCB 神经认知测验进行降维，并使用 LASSO 多变量回归计算了与认知综合分及每个认知维度分数相关的多模态脑网络连接。

结果 与神经认知综合分相关的连接主要存在于MCN（正负相关性连接分别为 r=0.645, p<0.001; r=-0.547, p<0.001），正相关连接涉及额叶-纹状体环路，负相关连接涉及壳核、楔前叶等区域；FCN 也存在与之相关的连接（正负相关连接分别为 r=0.416, p<0.001; r=-0.265, p<0.001）。另外，跟三个认知因子相关的脑网络连接各不相同。在 FCN 和 MCN 中发现了与处理速度/注意因子相关的连接（FCN 正负相关连接分别为 r=0.332, p<0.001; r=-0.290, p<0.001; MCN 正负相关连接分别为 r=0.694, p<0.001; r=-0.565, p<0.001），这些连接大部分与神经认知综合分的连接特征相似；执行功能因子则与 FCN 的双侧颞极-额叶连接正相关（r=0.384, p<0.001），与 MCN 中楔前叶、背侧额下区域为核心的连接呈负相关（r=-0.591, p<0.001）；学习/记忆因子仅与 FCN 相关（正负相关连接分别为 r=0.450, p<0.001; r=-0.298, p<0.001），正相关涉及海马-顶上回为中心的子网络，负相关主要涉及直回。

结论 多模态脑网络连接可以表征急性期精神分裂症认知功能。额叶-纹状体环路的形态学网络与整体的神经认知功能水平相关，不同维度的认知功能有其特异性的脑网络基础。

关键字：精神分裂症；认知功能；多模态脑网络

青少年抑郁症患者自杀行为的影响因素研究

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目的 探讨家庭及其他因素对青少年抑郁症患者自杀行为的影响。

方法 选取于 2020 年 6 月至 2021 年 12 月在我院住院的 126 例青少年抑郁症患者进行横断面调查，根据近 6 个月内是否有自杀行为分为自杀组（n=76）及非自杀组（n=50）。采用一般情况调查表、患者健康问卷抑郁症状群量表（PHQ-9）、自杀意念自评量表（SIOSS）、家庭亲密度与适应性评定量表（FACESII-CV）对 2 组患者的一般资料、抑郁程度、自杀意念、家庭分型进行比较。采用 Spearman 相关分析患者自杀行为与一般资料、PHQ-9、SIOSS、FACES II-CV 评分的相关性。采用二元 Logistic 回归模型对患者自杀行为的影响因素进行分析。

结果 自杀组饮酒者占 40.8%，有精神疾病家族史者占 27.6%，分别高于非自杀组的 20.0%、12.0%，差异有统计学意义（P＜0.05）。自杀组患者 PHQ-9、SIOSS 总分、绝望因子及睡眠因子评分高于非自杀组［19.0（15.0，21.8）分比 15.0（10.8，19.0）分、15.0（14.0，16.8）分比 13.0（11.0，15.0）分、12.0（10.3，12.0）分比 10.0（7.8，12.0）分、3.0（2.0，3.0）分比 2.0（1.0，3.0）分］，家庭亲密度评分低于非自杀组［50.5（43.3，57.0）分比 57.5（48.8，65.5）分］，差异均有统计学意义（P＜0.05）。自杀组患者中极端型家庭占 67.1%，高于非自杀组的 44.0%，差异有统计学意义（P＜0.05）。患者自杀行为与家庭亲密度呈负相关（r=-0.224，P＜0.05），与 PHQ-9 、SIOSS 总分、绝望因子、睡眠因子、饮酒行为、精神疾病家族史呈正相关（r=0.346、0.373、0.361、0.324、0.206、0.217、0.186；P＜0.05）。 二元 Logistic 回归分析显示，饮酒（OR=3.066）、家庭适应性高（OR=1.126）、PHQ-9 评分高（OR=1.197）是青少年抑郁症患者自杀行为的危险因素（P＜0.05），家庭亲密度高是自杀行为的保护因素（OR=0.878）。

结论 青少年抑郁症患者自杀行为发生率较高，家庭分型更多见于“僵硬 - 松散”的极端型家庭，有饮酒行为、严重抑郁、家庭关系不良者更容易自杀。

关键字：抑郁症； 青少年； 自杀； 家庭分型；影响因素

青少年游戏障碍患者静息态功能磁共振低频振幅和功能连接改变

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目的 自从世界卫生大会正式将“游戏障碍”（gaming disorder, GD）引入 ICD-11“成瘾行为所致障碍”的疾病单元，游戏障碍这类精神疾病已越来越引起人们的注意，目前游戏障碍相关的静息态功能磁共振（resting-state functional MRI，rs-fMRI）研究越来越多，但成人的磁共振研究结果不能直接应用于青少年，因为青少年时期的大脑仍在发育和成熟，本研究选取 12-18 岁青少年，探讨青少年游戏障碍患者静息态下脑神经元自发活动情况。

方法 纳入 12-18 岁青少年游戏障碍患者 44 例及年龄、性别、受教育年限相匹配的健康对照者 50 例,使用 3.0T 功能磁共振采集静息态脑影像分析青少年游戏障碍患者与健康对照组的低频振幅(amplitude of low-frequency fluctuationare, ALFF)有统计学差异的脑区,并以差异的脑区作为感兴趣区分析全脑功能连接(functional connectivity, FC)。

结果 与健康对照组相比,青少年游戏障碍患者在右侧背外侧额上回、双侧辅助运动区的 ALFF 值增高(P<0.05),在左侧小脑、左侧距状裂周围皮层、左侧枕下回、左侧舌回、双侧直回、左侧眶部额上回、左侧颞中回、左侧楔前叶、左侧后扣带回的 ALFF 值降低(P<0.05),以右侧背外侧额上回作为感兴趣区分析全脑 FC ,发现与健康对照组相比,青少年游戏障碍患者右侧背外侧额上回与双侧距状裂周围皮层、双侧楔前叶、双侧楔叶、双侧舌回的 FC 强度减弱(P<0.05)。

结论 青少年游戏障碍患者静息状态下右侧背外侧额上回自发神经元活动增强,与多个脑区之间的 FC 强度降低,背外侧额上回在抑制控制中、奖赏系统中起重要作用,楔前叶参与视觉信息处理和执行控制能力,楔叶是视觉信息处理、空间定位及反应抑制功能的重要脑区,舌回发挥视觉感知及视觉记忆加工的重要功能,综合说明青少年游戏障碍患者需要长时间观看电脑或手机屏幕,这种状态可能影响视觉功能,同时青少年游戏障碍患者奖赏系统灵敏,抑制控制能力受损,导致游戏渴望增强及其跨期决策能力受损,使成瘾者寻求奖励行为,无法抑制对游戏的冲动行为,出现自控能力下降,以致于三者之间形成恶性循环,导致游戏障碍的发生。

关键字:青少年;游戏障碍;静息态功能磁共振;低频振幅;功能连接

Sex Differences and Clinical Correlates in The Age of The First Hospitalization in Patients with Drug-naive Schizophrenia in China: A Cross-sectional Study

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Objective Sex differences in the onset age of schizophrenia have been reported in many studies, but differences in the age of the first hospitalization and associated factors have not been explored. The present study investigated sex differences and clinical correlates in the age of the first hospitalization in drug-na?ve schizophrenia (DNS).

Methods A total of 144 DNS patients and 67 health controls were included. Demographic information, duration of untreated psychosis (DUP), Positive and Negative Symptom Scale (PANSS) scores, the Brief Psychiatric Rating Scale (BPRS) scores, Global Assessment of Functioning (GAF) scores, and MATRICS Consensus Cognitive Battery (MCCB) scores were collected and analyzed.

Results The age of the first hospitalization was significantly earlier in males than in females (P<0.01). In addition, there were significant differences in the age of the first hospitalization in terms of marital status, occupation, family ranking, suicide attempt, and place of residence (all P<0.05). After Bonferroni correction, only DUP had a positive correlation with the age of the first hospitalization (P Bonferroni <0.001), suicide attempt (β=0.348, t=5.549, P<0.001), and DUP (β=0.190, t=2.969, P<0.004) positively predicted the age of the first hospitalization.

Conclusion The age of the first hospitalization in male DNS was earlier than in females. In addition, sex, marital status, suicide attempt, DUP, and family rank were independent risk factors for the age of the first hospitalization.

关键字:Sex differences, schizophrenia, hospitalization, drug-na?ve

精神分裂症患者血清炎症因子与神经递质水平的相关性

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目的 精神分裂症(SCZ)是一种复杂的神经精神综合征,具有异质性的遗传、神经生物学和表型特征。越来越多的证据表明,精神分裂症患者表现出免疫状态的激活,外周及中枢的促炎性细胞因子的增多;而目前精神分裂症患者的免疫失调与其神经递质紊乱关系的研究报道较少。本研究着重探讨精神分裂症患者血清炎症因子与外周神经递质水平的关系。

方法 收集35例首发和急性复发未服药的精神分裂症患者(病例组)及 46 例健康志愿者(对照组)的一般人口学资料;采用 Luminex 液相芯片法测定并比较两组血清中 9 种炎症因子水平,包括白细胞介(IL)-1β、IL-4、IL-6、IL-8、IL-10、IL-12、肿瘤坏死因子(TNF)-α、干扰素(IFN)-γ 及趋化因子(CCL)-2;采用超高效液相色谱-串联质谱测定法定量检测并比较两组血清中 5 种神经递质水平,包括多巴胺(DA)、γ-氨基丁酸(GABA)、犬尿氨酸(KYN)、犬尿喹啉酸(KYNA)和 5-羟色胺(5-HT)。采用 Speaman 相关性分析方法分析病例组血清中炎症因子水平与 5 种神经递质水平的相关性。

结果 病例组血清 IL-1β、IL-4、IL-6 及 CCL-2 水平明显高于对照组(P 均<0.01);病例组血清 DA 和 GABA 水平显著低于对照组,KYNA 水平明显高于对照组(P 均<0.01);病例组血清 IL-1β 水平与 DA(r=-0.346,P=0.042)及 GABA(r=-0.424,P=0.011)水平呈负相关;CCL-2 与 DA(r=-0.460,P=0.005)及 GABA(r=-0.429,P=0.010)呈负相关,与 KYNA 呈正相关(r=383,P=0.023)。

结论 精神分裂症患者存在多种炎症因子水平升高,这与患者外周神经递质水平的改变具有一定的相关性。

关键字：精神分裂症；炎症因子；神经递质

高频重复经颅磁刺激治疗脑卒中后抑郁的临床研究

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目的 探讨高频重复经颅磁刺激（repetitive transcranial magnetic stimulation，rTMS）对卒中后抑郁（post-stroke depression，PSD）患者意识能力、抑郁状态以及睡眠状态的改善情况，以期为临床上治疗此类患者提供有效的治疗方案，及早改善患者的生活质量。

方法 选取西安交通大学第一附属医院精神心理科 2022 年 4 月～2022 年 12 月住院的 PSD 患者 60 例进行回顾性研究，其中包含治疗组和对照组，各 30 例。收集患者的一般临床资料，治疗组患者均接受了高频 rTMS 的治疗并且进行了治疗前及治疗两周后 MMSE 评分、HAMD-17 评分、PQSI 评分。运用统计学方法分析各个量表评分的变化来探讨高频 rTMS 对抑郁患者的治疗效果。

结果 （1）两组患者在年龄、性别、高血压、糖尿病等方面差异不显著（P>0.05）；（2）两组患者治疗前后 MMSE 变化，经过统计学分析，治疗组经过两周疗程后，差异显著（P<0.05）；对照组经过两周疗程后，差异不显著（P>0.05）。治疗前两组患者无显著差异（P>0.05）；治疗后差异显著（P<0.05）。（3）两组患者治疗前后 HAMD-17 变化，经过统计学分析，治疗组经过两周疗程后，差异显著（P<0.05）；对照组经过两周疗程后，差异亦显著（P<0.05）。治疗前两组患者无显著差异（P>0.05）；治疗后差异显著（P<0.05）。（4）两组患者治疗前后 PQSI 变化，经过统计学分析，治疗组经过两周疗程后，差异显著（P<0.05）；对照组经过两周疗程后，差异不显著（P>0.05）。治疗前两组患者无显著差异（P>0.05）；治疗后差异显著（P<0.05）。

结论 （1）高频 rTMS 可以降低 PSD 患者的 HAMD-17 评分，改善患者的抑郁症状；（2）高频 rTMS 能够提高 PSD 患者的 MMSE 评分，改善患者的认知功能；（3）高频 rTMS 可以降低 PSD 患者的 PQSI 评分，改善患者的睡眠质量。

关键字：经颅磁刺激；卒中后抑郁；认知；睡眠质量

棕榈酸帕利哌酮长效针剂治疗精神分裂症的疗效及卫生经济学的研究

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目的 本研究通过对真实世界的精神分裂症患者注射棕榈酸帕利哌酮长效针剂，并定期随访 12 个月，评估患者的临床疗效、复发率、安全性、社会功能改善情况及经济效益，提高精神分裂症患者治疗依从性，有效减少和预防病情复发，降低住院率，改善患者社会功能，提高患者生活质量，减轻家庭和社会经济负担，为改善精神分裂症的长期预后提供治疗选择。

方法 根据入组及排除标准，本研究共纳入符合《国际疾病统计分类》第 10 版精神分裂症的诊断标准的患者 546 例。入组后的患者，采集一般资料及既往精神病史。于治疗前和治疗后第 1、3、6、9、12 个月采用阳性和阴性症状量表（PANSS）、简明精神病量表（BPRS）、社会功能缺陷量表（SDSS）、生命态度量表、生活质量简表（SF-12）、Zarit 照顾者负担量表（ZBI）、治疗副反应量表（TESS）、不良事件报告表、亚利桑那性体验量表（ASEX）、危险性等级评估、患者及家属治疗满意度问卷、实验室检查等进行评价。

结果 1、治疗后第 1、3、6、9、12 个月 PANSS 总分及其因子评分（阳性症状、阴性症状、一般精神病理症状）、BPRS 总分与治疗前相比均显著降低，差异具有统计学意义（P＜0.05）。 2、治疗后第 1、3、6、9、12 个月 SDSS 总分、SF-12 总分、Zarit 照顾负担量表总分与治疗前相比均显著降低，差异具有统计学意义（P＜0.05）。 3、治疗后第 1、3、6、9、12 个月 ASEX 总分与治疗前相比均显著降低，差异具有统计学意义（P＜0.05）。 4、治疗后第 1、3、6、9、12 个月危险性等级评估总分与治疗前相比均显著降低，差异具有统计学意义（P＜0.05）。

结论 1、棕榈酸帕利哌酮长效针剂显著改善了精神分裂症患者的阳性症状、阴性症状、一般精神病理症状,降低了患者危险性，且不良反应发生率低。 2、棕榈酸帕利哌酮长效针剂改善了患者的社会功能，提高了患者的生活质量，并减轻了其主要照顾者的照顾负担。 3、棕榈酸帕利哌酮长效针剂减少了患者的自杀观念。 4、棕榈酸帕利哌酮长效针剂改善了患者及其监护人的治疗满意度。 5、棕榈酸帕利哌酮长效针剂提高了患者的治疗依从性，降低了患者的复发率，减少了住院次数，减少了医疗资源的浪费，患者的直接经济负担和间接经济负担都降低，具有良好的经济效益。 6、吸烟、合并口服抗精神病药是棕榈酸帕利哌酮长效针剂治疗精神分裂症的有效率的独

关键字：精神分裂症；棕榈酸帕利哌酮长效针剂；临床疗效；复发率；社会功能；卫生经济学

Sex-differential Association of Suicide Attempts with Thyroid Dysfunction in First-episode and Drug-na?ve Young Major Depressive Disorder Patients with Comorbid Anxiety

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Objective The role of thyroid dysfunction in sui-

cide attempts in young patients with major depressive disorder (MDD) comorbid anxiety (MDA) remains unclear. The purpose of this study was to explore the relationship between thyroid function indicators and suicide attempts, as well as their sex differences in first-episode and drugna?ve young MDA patients.

Methods A total of 917 MDD patients (aged 18~35years) were recruited. Demographic and clinical data were collected, and thyroid function was measured. The Hamilton Depression Rating Scale (HAMD-17), Hamilton Anxiety Rating Scale (HAMA), positive symptom subscale of Positive and Negative Syndrome Scale (PANSS) and clinical global impression of severity scale (CGI-S) were adopted to assess depressive, anxiety, psychotic symptoms and disease severity, respectively.

Results Based on HAMA total score, 467 patients were classified as MDA. The prevalence of suicide attempts was 31.3% in MDA patients, which was significantly higher than that (7.3%) in MDD patients without anxiety. Compared with MDA patients without suicide attempts, MDA patients with suicide attempts were older, had a later age of onset, higher HAMD-17, HAMA, and PANSS positive symptom subscale scores, as well as higher TSH and TPOAb levels. For male patients, TSH and TPOAb levels were independently associated with suicide attempts. For female patients, HAMA, PANSS positive symptom scores and TPOAb levels were independently associated with suicide attempts.

Conclusion The prevalence of suicide attempts in young MDA patients is quite high. Moreover, there exists sex differences in thyroid function indicators and clinical variables associated with suicide attempts in young MDA patients.

关键字：Major depressive disorder; Suicide attempts; Anxiety; Thyroid dysfunction; Sex differences

Cognitive Emotion Regulation Strategies Contributing To The Self-reported Impulsivity in Obsessive-compulsive Disorder

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Objective The underlying mechanism of impulsivity in obsessive-compulsive disorder (OCD) is complex and still unclear. The aim of our study was to assess the association between cognitive emotion regulation strategies and different facets of impulsivity (behavioral, cognitive, and attentional) in a clinical OCD sample.

Methods Sixty OCD patients and 60 controls were recruited. Demographic and clinical data were collected, and the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), Beck Anxiety Inventory (BAI), Beck Depression Inventory-II (BDI-II), Barratt Impulsiveness scale-11 (BIS-11) and Cognitive Emotion Regulation Questionnaire (CERQ) were adopted to assess OCD symptom severity, anxiety level, depression level, impulsiveness and cognitive emotion regulation strategies respectively.

Results OCD patients scored higher than controls on attentional impulsivity (t=4.811, p <0.001), non-planning impulsivity (t=3.118, p=0.002) subscales and total impulsivity score (t=2.979, p =0.004). OCD patients scored higher than controls on self-blame (t=2.418, p=0.017), rumination (t=4.406, p<0.001), catastrophizing (t=4.594, p<0.001), blaming others (t=2.040, p=0.044) strategies and total score of maladaptive strategies (t=4.707, p <0.001) subscales meanwhile lower than controls on positive refocusing (t=-2.286, p=0.024), positive reappraisal (t=-4.142, p<0.001) and total score of adaptive strategies (t=-2.500, p=0.014) subscales. After adjusting for age, sex, education level, smoking, drinking, age of onset, illness duration, anxiety level, depression level, medication, psychotherapy, there were still significant correlations between BIS-11 non-planning impulsiveness and refocusing on planning (r=-0.442, p<0.01), positive reappraisal(r=-0.499, p<0.01), CERQ adaptive strategies ((r=-0.441, p<0.01) meanwhile BIS-11 total score and positive reappraisal (r=-0.288, p<0.05). The multiple linear regression analysis disclosed that after controlling for confounding variables, only CERQ adaptive strategies were predictive for non-planning impulsivity in OCD patients (p<0.01).

Conclusion Individuals with OCD have high levels of self-reported impulsivity and use more maladaptive and less adaptive cognitive emotion regulation strategies. Cognitive emotional regulation strategies can partially affect their impulsivity, especially, adaptive strategies are considered as protective factors for non-planning impulsivity.

关键字：Obsessive-compulsive disorder; Impulsivity; Cognitive emotion regulation

Oxytocin Facilitates Extinction But Counteracts Threat Memory Reconsolidation Updating in Humans

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Objective The objective of this study was to investigate the effect of intranasal oxytocin on post-retrieval extinction (PRE) in healthy humans. Accumulating evidence suggests that oxytocin enhances threat extinction, making it a potential candidate for enhancing PRE. The aim was to examine whether oxytocin administration could augment the effects of PRE in reducing the return of threat memory.

Methods In a double-blind, randomized, placebo-controlled, between-subject design, 82 healthy human participants took part in a 3-day experiment. On the first day, all participants underwent threat conditioning. On the second day, the participants were randomly assigned to one of three groups: (1) retrieval+placebo (PLC) group, which received a placebo after memory retrieval, (2) oxytocin (OT) group, which received a single intranasal dose of oxytocin (24 IU) after memory retrieval, and (3) pre-extinction oxytocin (OT-PE) group, which received a single intranasal dose of oxytocin (24 IU) 30 minutes before extinction without memory retrieval.

Results As expected, the retrieval+PLC group showed reduced recovery of threat memory on Day 3. However, contrary to expectations, both the OT group (regardless of retrieval) and the OT-PE group exhibited enhanced extinction on Day 2 compared to the placebo group. Surprisingly, both oxytocin groups also displayed an increased return of threat memory on Day 3 compared to the placebo group.

Conclusion The results of this study suggest that oxytocin may facilitate the extinction process but counteract the effects of post-retrieval extinction. Both oxytocin groups demonstrated enhanced extinction, which was accompanied by an increased return of long-term threat memory. These findings indicate that while oxytocin may have the potential in enhancing extinction, caution should be exercised regarding its use in post-retrieval extinction protocols, as it may lead to the reemergence of threat memories. Further research is needed to fully understand the complex role of oxytocin in memory processes and its potential applications in therapeutic interventions.

关键字：threat memory, oxytocin, extinction, reconsolidation, RCT,preclinical study

线上眼动脱敏与再加工改善创伤后应激障碍患者症状的随机对照单盲试验

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目的 创伤后应激障碍（Post-Traumatic Stress Disorder, PTSD）是一种自杀自伤风险高，治疗难度大，预后差的精神疾病。约有 30%的患者在首次诊断 PTSD 后的 10 年内出现病情加重，导致死亡率增高。眼动脱敏与再加工（Eye Movement Desensitization and Reprocessing, EMDR）是 PTSD 的一线疗法，但不易为 PTSD 患者获得，线上 EMDR 显示出独特的优势，但疗效尚不明确。本研究探索线上 EMDR 治疗对 PTSD 患者疗效。

方法 采用随机对照单盲临床试验，纳入 PTSD 受试者，将受试者随机分为线上 EMDR 治疗组和等待组。对线上 EMDR 治疗组的受试者采取每周 1 次，共 12 周的线上 EMDR 治疗，等待组的受试者不做治疗，两组的受试者在基线、4 周、12 周进行 PTSD 症状、焦虑、抑郁症状及心理健康的评估。测评工具采用临床用 PTSD 量表（Clinician-Administered PTSD Scale, CAPS）、事件影响量表修订版（Impact of Event Scale-Revised, IES- R）、抑郁自评量表（Self-rating Depression Scale, SDS）、焦虑自评量表（Self-rating Anxiety Scale, SAS）、症状自评量表（Symptom check list 90, SCL-90）。主要结局指标为 CAPS 得分的变化，次要结局指标为 IES-R、SDS、SAS、SCL-90 得分的变化。

结果 共入组 36 例受试者，29 例完成治疗或等待期，其中线上 EMDR 治疗组 16 例，等待组 13 例。4 周时，线上 EMDR 治疗组的 CAPS 得分及再体验、回避及麻木得分较等待组差异无统计学意义；12 周时，线上 EMDR 治疗组 CAPS 得分及再体验、回避及麻木得分较等待组下降，差异具有统计学意义（P<0.05）。经过 12 次治疗后，线上 EMDR 治疗组的 IES-R 得分、SAS 得分较等待组下降，差异具有统计学意义（P<0.05），SDS 得分及 SCL-90 得分差异无统计学意义。

结论 线上 EMDR 治疗对缓解 PTSD 患者的创伤症状及焦虑症状有效。

关键字：眼动脱敏与再加工治疗；线上；创伤后应激障碍；随机对照单盲临床试验

消防员的创伤后应激障碍症状和抑郁症状：网络分析

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目的 消防员作为暴露于创伤事件和严重工作压力的高风险一线救援人员，创伤后应激障碍（PTSD）症状和抑郁症状的发生率很高。之前少有研究关注消防员中创伤后应激障碍和抑郁症状的关系和等级。网络分析是一种新兴且有效的研究方法，可以在症状水平上研究不同精神障碍的复杂相互作用，并为精神病理学提供新的理解。本研究旨在探究中国消防员的 PTSD 症状和抑郁症状的网络结构。

方法 采用 DSM-5 初级保健 PTSD 筛查量表（PC-PTSD-5）和抑郁自评量表（SDS）分别对 PTSD 症状和抑郁症状进行评估。以“预期影响（EI）”和“桥接预期影响（BEI）”为中心性指标表征 PTSD 症状与抑郁症状的网络结构。Walktrap 算法用于识别 PTSD 和抑郁症状网络中的症状聚类社区。最后，采用 bootstrap 测试和 case-drop 测试对网络的准确性和稳定性进行了检验。

结果 共有 1768 名消防员参与了我们的研究。网络分析显示，PTSD 症状“闪回”和“回避”之间的关系最为密切。在 PTSD 和抑郁网络模型中，“生活空虚”是 EI 最高的最核心的症状。其次是“疲劳”和“兴趣丧失”。在我们的研究中，连接 PTSD 症状和抑郁症状的桥梁症状节点根据 BEI 大小排序依次是“麻木”、“高度警觉”、“悲伤情绪”和“内疚和责备”。数据驱动的社区检测揭示了聚类过程中 PTSD 症状节点的差异。网络的可靠性通过稳定性和准确性测试得到了验证。

结论 据我们所知，本研究首次揭示了中国消防员 PTSD 症状和抑郁症状的网络结构，识别了中心症状节点和桥梁症状节点。针对上述重要症状的干预措施可以高效治疗患有创伤后应激障碍症状和抑郁症状的消防员。

关键字：创伤后应激障碍（PTSD）；抑郁症；网络分析；消防员

The Psychosocial Function Recovering and Relapse Risk in Patients with Depression after Remission: A One-year Follow-up Study

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Objective The high relapse rate of patients with depression who achieve remission through antidepressant treatment poses a serious challenge to their well-being and the society. This study aims to examine the recovery of psychosocial functioning in patients with depression who have achieved remission, identify the factors that affect it, and explore its association with relapse.

Methods We conducted a longitudinal study of 112 depression patients achieved remission in Nanjing Brain Hospital. We assessed them at baseline (T0) and at 1 month (T1), 2 months (T2), 6 months (T3), 9 months (T4) and 12 months (T5) after enrollment, using the following measures: Hamilton Depression Scale-17 (HAMD-17), Beck Depression Inventory-13 (BDI-13), General Quality of Life Inventory-74 (GQOLI-74), Automatic Thoughts Questionnaire (ATQ), Trait Coping Style Questionnaire (TCSQ), and Social Support Rating Scale (SSRS). We performed descriptive analysis, Pearson correlation analysis, and linear regression analysis with SPSS 21.0 software, and we built a predictive model with Cox proportional hazard regression. We also conducted mediation analysis with PROCESS Macro for SPSS 3.4.1.

Results 1. We observed a gradual improvement in the psychosocial functioning of these patients over the course of 12 months, with the largest increase in the first month after remission. The rate of improvement slowed down in the first to the second month, then accelerated again from the second to the sixth month. The rate of improvement peaked from the sixth to the ninth month, then declined slightly from the ninth to the twelfth month. However, their functioning at the end of the follow-up was still higher than at the second month. 2. We used COX regression analysis and found that higher psychosocial functioning at one month was associated with lower risk of relapse at six months. 3. We conducted a linear analysis to examine the effects of negative automatic thinking, positive coping styles, and social support on psychosocial functioning. We found that negative automatic thinking had a detrimental impact on functioning, whereas positive coping styles and better social support had a beneficial impact on functioning. 4. We found that automatic thinking partially mediated this relationship, with an effect size of 52.2%.

Conclusion Psychosocial functioning is an important factor for depression recovery and relapse prevention. Patients who function well in the first month after remission have a lower risk of relapsing. Negative thoughts are a mediator between depressive symptoms and psychosocial functioning. Therefore, to enhance psychosocial functioning and reduce relapse risk, interventions should target negative thoughts, coping skills and social support.

关键字：depression; psychosocial functioning; relapse; remission.

通过网络分析调查抑郁症患者童年创伤与人格特征的关联

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目的 童年创伤与人格偏差与神经质特征在抑郁症中非常常见。童年创伤已被证明与人格特征有关，但是关于特定类型的童年创伤对人格的影响仍然缺乏。本研究的目的是通过采用网络分析的方法来确定童年创的特定类型如情感虐待、躯体虐待、性虐待、情感忽视与躯体忽视与人格中神经质、精神质及外向性之间的关联。

方法 本研究纳入就诊于武汉大学人民医院的679 例抑郁症患者。所有参与者完成了童年创伤问卷与艾森克人格问卷。网络分析通过将这些量表的分量表得分作为节点，并将每对节点之间的偏相关性作为边，确定了网络中最中心的节点以及童年创伤与人格之间的关联。

结果 情感虐待表现出最高的中心性，表明其在网络中的影响力最大。情感忽视与躯体忽视之间的关联最强，其次为情感虐待与躯体虐待以及情感虐待与情绪忽视。此外，神经质与情感虐待之间存在正相关，是童年创伤与人格之间的唯一关联。其他关联包括精神质与神经之间存在正相关，神经质与外向性之间存在负相关。

结论 情感虐待与神经质在抑郁症患者中密切相关，他们的网络互动可能在对人格发展起重要作用。因此，本研究为将来对抑郁症伴有神经质特征的患者提供预防思路，即重点干预童年创伤中的情感虐待，阻断二者之间的关联可能会预防抑郁症患者出现的人格偏差。

关键字：童年创伤，神经质，情感虐待，抑郁症，网络分析。

Intrinsic Brain Abnormalities in Early Adult Female MDD with Childhood Trauma: A Resting-state Functional Magnetic Resonance Imaging Study

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Objective Based on previous studies, early adulthood, female and childhood trauma are risk factors for depression. The neural mechanism of the occurrence and development of depression is not yet clear. We attempted to explore changes in brain function in depression and childhood trauma using resting state MRI in early adult female.

Methods Using the childhood trauma questionnaire, we divided the depressed patients and healthy controls into 4 groups, which were the depression with childhood

trauma, the depression without childhood trauma, the healthy control with childhood trauma and the healthy control without childhood trauma.All depressed subjects were evaluated by Hamilton Depression Scale (HAMD), and all subjects were evaluated by resting state functional magnetic resonance imaging (rs-fMRI).We used amplitude of low-frequency fluctuation (ALFF) to assess regional brain activity. In addition, functional connectivity (FC) analysis was conducted with the ALFF altered regions as seed regions to explore the functional connectivity patterns of regional brain regions. A total of 80 subjects were collected in this study, of which 6 subjects were excluded due to inability to complete MRI or excessive head movement. Finally, we collected 19 cases of depression with childhood trauma, 15 cases of depression without childhood trauma, 20 cases of healthy control with childhood trauma and 20 cases of healthy control without childhood trauma.

Results ① In the analysis of ALFF, we found that depression had a major effect on the decrease of ALFF values in the right precuneus (62 voxels). Childhood trauma has a major effect on the decreased of ALFF values in the right lingual gyrus (59 voxels) and the increased ALFF values in the left supplementary motor area (99 voxels) and the right supplementary motor area (148 voxels). Depression and childhood trauma have interactive effect on ALFF values in the right lower cerebellum (66 voxels). ② We selected the regions with major and interactive effects of depression and childhood trauma on ALFF as seed for subsequent inter-regional functional connectivity (FC) analysis. In the analysis of FC, we found that depression had a major effect on decreased functional connectivity between the right precuneus (seed) and the right superior occipital gyrus. Childhood trauma has a major effect on enhancing functional connections between the left auxiliary motor area (seed) and the left and right superior parietal gyrus. Depression and childhood trauma have interactive effect on changes in functional connections between the left supplementary motor area (seed) and the left middle occipital gyrus.

Conclusion Our results reveal how childhood trauma and depression alter patterns of regional brain activity and functional connectivity in early adult female. It provides new insights into the pathophysiological mechanisms of childhood trauma and depression.

关键字：Childhood trauma；depression；early adult female；resting state fMRI studies； amplitude of low-frequency fluctuation；functional connectivity

在校青少年非自杀性自伤行为的个人保护性因素分析

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目的 从积极心理学角度探讨在校青少年非自杀性自伤行为（NSSI）的个人保护性因素。

方法 整群抽样选取四川省某县 21 所学校的 2854 名在校学生为研究对象，调查分析 NSSI 行为特征及个人保护性因素。根据近一年 NSSI 行为的频次将自伤行为严重程度区分为 0~5 级严重度。运用有序 Logistic 回归识别 NSSI 行为的个人保护性因素。

结果 在 2854 名受调查学生中，完成自伤行为及个人保护性因素评估的有效问卷 2348 份，共检出 484 名（20.61%）在校青少年在近一年内存在 NSSI 行为。NSSI 组与无 NSSI 组在性别（??=20.560，P =0.000）、受教育程度（??=114.999，P =0.000）上差异均有统计学意义，且女孩发生率（24.41%）高于男孩（16.75%），从小学三年级到初一 NSSI 行为发生率逐年增加，初一发生率最高（40.00%），后又随之逐年降低直到高三。初中为 NSSI 的高发阶段。在个人保护性因素的多因素有序 Logistic 分析中，规律睡眠（??=31.746，P =0.000）、规律进食（??=23.389，P =0.000）、规律运动（??=1.554，P =0.000）、与同学友好交流（??=16.230，P =0.000）、认为吃亏是福（??=3.711，P =0.000）、能够对抗挫折（??=31.421，P =0.000）、愿意寻求帮助（??=9.877，P =0.000）与 NSSI 行为严重程度存在显著的负相关性；能吐露心事（??=3.424，P =0.000）、懂得感恩（??=3.689，P =0.000）与 NSSI 行为严重程度存在显著的正相关性。

结论 在校青少年 NSSI 行为发生率较高，初中阶段特别高危。在日常生活中，具有规律的睡眠、进食和运动、能够与同学友好交流、认为吃亏是福、能够对抗挫折、愿意寻求帮助等特征的学生 NSSI 行为严重程度较低，初步验证为自伤行为的个人保护性因素。而通常推荐的让学生能够吐露心事和让学生懂得感恩，并不是其个人保护性因素，反而可能与自伤行为严重有关。本次研究发现的个人保护性因素值得教育工作的重视，并有待进一步验证。

关键字：非自杀性自伤；在校青少年；个人保护性因素

Effects of Childhood Neglect on Regional Brain Activity and Corresponding Functional Connectivity in Major Depressive Disorder and Healthy People: Risk Factor Or Resilience?

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Objective Childhood neglect is a high risk factor for major depressive disorder (MDD). However, the effects of childhood neglect on regional brain activity and corresponding functional connectivity in MDD patients and healthy populations remains unclear.

Methods Regional homogeneity, amplitude of low-frequency fluctuations (ALFF), fractional ALFF, degree centrality, and voxel-mirrored homotopic connectivity were extensively calculated to explore intraregional brain activity in MDD patients with childhood neglect and in healthy populations with childhood neglect. Functional connectivity analysis was then performed using regions showing abnormal brain activity in regional homogene-

ity/ALFF/fractional ALFF/degree centrality/voxel-mirrored homotopic connectivity analysis as seed. Partial correlation analysis and moderating effect analysis were used to explore the relationship between childhood neglect, abnormal brain activity, and MDD severity.

Results We found decreased brain function in the inferior parietal lobe and cuneus in MDD patients with childhood neglect. In addition, we detected that childhood neglect was significant associated with abnormal cuneus brain activity in MDD patients and that abnormal cuneus brain activity moderated the relationship between childhood neglect and MDD severity. In contrast, higher brain function was observed in the inferior parietal lobe and cuneus in healthy populations with childhood neglect.

Conclusion Our results provide new evidence for the identification of neural biomarkers in MDD patients with childhood neglect. More importantly, we identify brain activity characteristics of resilience in healthy populations with childhood neglect, providing more clues to identify neurobiological markers of resilience to depression after suffering childhood neglect.

关键字：Major depressive disorder; Childhood neglect; Regional homogeneity; Functional connectivity; inferior parietal lobe

Heterogeneity of Resilience and The Curvilinear Relationship between Childhood Trauma and Resilience Among People with Schizophrenia

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Objective As a group with a high incidence of childhood trauma, the differential characteristics of resilience in schizophrenia and its relationship with childhood trauma are still unclear.

Methods A total of 626 individuals diagnosed with schizophrenia were selected from four psychiatric hospitals in northern China. Childhood trauma and resilience were measured using the Childhood Trauma Questionnaire-short form (CTQ-SF) and Connor-Davidson Resilience Scale (CD-RISC), respectively. Latent profile analysis (LPA) was used to identify the potential classes of resilience. A generalized additive mixed model (GAMM) and restricted cubic spline (RCS) was used to explore and determine the shape of the relationship between childhood trauma and resilience.

Results Model fits of LPA showed three heterogeneous classes of resilience: moderate resilience levels (n = 312; 49.06%); high resilience levels (n = 171; 26.89%) and low resilience levels (n = 153; 24.06%). Resilience scores fluctuated depending on amount of exposure to childhood trauma. The GAMM results verified the non-linear relationship between resilience and childhood trauma, with an estimated degree of freedom higher than 1 (4.573) and p = 0.003. RCS fitted for ordinary least square (OLS) regression models determined a smooth continuous cubic curve of resilience across childhood trauma levels, and the two turning points of the curve line were 41.04 and 54.74 for childhood trauma.

Conclusion Our findings confirm the people-specific differences in the level of resilience in schizophrenia and describe the cubic curvilinear relationship between childhood trauma and resilience, which provides data support for mechanistic research and intervention in related fields.

关键字：childhood trauma; curvilinear relationship; resilience; schizophrenia; stress

肠道菌群和短链脂肪酸在抑郁障碍中的相互作用

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目的 本研究目的主要包括：明确抑郁障碍患者的肠道菌群特征并探索其与短链脂肪酸之间的关系，基于临床试验结果进行了动物实验：构建慢性不可预知应激模型，并给予短链脂肪酸干预，探究其抗抑郁效果，分析短链脂肪酸对肠道菌群的影响。

方法 临床部分：本研究共纳入了抑郁障碍患者 24 例，健康被试 25 例。使用 24 项汉密尔顿抑郁量表（HAMD-24）评估被试的抑郁严重程度。采用 16S rRNA 测序方法检测两组肠道菌群；通过 QIIME2 软件分析其肠道菌群多样性及差异菌群；采用气相色谱-质谱法（GC-MS）检测被试血浆中的短链脂肪酸含量，比较两组短链脂肪酸水平差异，并对其差异菌属、HAMD-24 评分、短链脂肪酸含量进行相关性分析。动物部分：分组：将雄性成年 SD 大鼠 76 只随机分为六组：正常对照组（Control）、慢性不可预知应激模型组（CUMS）、乙酸钠干预组（Acetate）、丙酸钠干预组（Propionate）、丁酸钠干预组（Butyrate）、短链脂肪酸混合干预组（SCFAs）。造模及干预时间为 28 天。通过行为学实验包括：糖水偏好实验、旷场实验、强迫游泳实验比较各组间行为学变化，评价其抗抑郁效果。采集各组大鼠盲肠粪便样本，分析其肠道菌群变化

结果 临床部分：肠道菌群分析：抑郁障碍患者 Alpha 指数显著低于健康对照者；抑郁障碍患者和健康对照者 Beta 多样性指数存在显著差异；在属水平上，健康对照者中罗氏菌属、考拉杆菌属、毛螺菌属等与短链脂肪酸产生相关的菌群丰度显著高于抑郁障碍患者。抑郁障碍患者的乙酸、丙酸、异丁酸、丁酸、异戊酸、戊酸、己酸水平显著低于健康对照组。相关性分析：差异菌群、HAMD-24 评分与短链脂肪酸显著相关。基于以上临床试验结果，进行了动物实验。动物部分：行为

学结果：在糖水偏好实验及强迫游泳实验中，Butyrate 组、SCFAs 组的抑郁样行为改善；在旷场实验中，Butyrate 组、Propionate 组的抑郁样行为得到改善。肠道菌群分析：六组肠道菌群多样性无显著差异；差异菌群：在给予短链脂肪酸干预后，各组肠道菌群组成均发生了变化，且与临床试验结果相对照，我们发现了两种重合菌属：萨特氏菌属、乳球菌属，值得进一步探究。

结论 抑郁障碍患者肠道菌群组成改变，血浆中 SCFAs 水平降低，且肠道菌群与抑郁症状、SCFAs 显著相关；补充丁酸钠及 SCFAs 能够显著改善动物的抑郁样行为

关键字：抑郁障碍；肠道菌群；短链脂肪酸；丁酸钠

Brief Pup Separation During Lactation Confers Resilience in Behavioural Deficits Induced by Chronic Restraint Stress in Postpartum?C57BL/6J Dams

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Objective Major depressive disorder is a common mental health disorder characterized by a high incidence among women[1]. The World Health Organization has reported that depression seriously endangers women's health and will become the world's most common disease by 2030[2]. As an important component of positive psychology, resilience has become a hot topic in research on neuropsychiatric diseases[3]. Chronic stress is one of the most important risk and maintenance factors for mental illness, but many people show positive adaptations to adversity and do not exhibit serious mental illness; this phenomenon is called resilience[4]. We hypothesized that different PS protocols during lactation would differentially affect stress vulnerability or resilience to stress re-exposure after the perinatal period in dams. Therefore, in this study, a suite of different PS protocols was developed and applied in mice, and the animals were then exposed to chronic restraint stress (CRS) to investigate the behavioural phenotypes in dams. To further explore the neurobiologic mechanism underlying this phenomenon, we then investigated microglial activation, some biomarkers of neuroinflammation and neuroplasticity in the hippocampus, and the composition of gut microbiota.

Methods Lactating C57BL/6J mice were subjected to no pup separation (NPS), brief PS (15 min/day, PS15) or long PS (180 min/day, PS180) from postpartum day 1 to postpartum day 21 and were then subjected to chronic restraint stress (CRS) for 21 days. Behavioural tests, specifically the open field test (OFT), elevated plus maze (EPM) test and tail suspension test (TST), were performed. The expression of mRNA and protein in the hippocampus and microbiota composition were also assessed.

Results We observed CRS-induced anxiety- and depression-like behaviours in NPS dams. In addition, in NPS dams, microglial activation and the levels of NOD-like receptor pyrin domain containing 3, caspase-1 and interleukin-1β were increased, whereas expression levels of collapsing response mediator protein 2 (CRMP2) and α-tubulin were decreased. However, immobility time in the TST was lower in PS15+CRS dams than in NPS+CRS dams, and time spent in the centre during the OFT and in the open arms during the EPM test was higher in PS15+CRS dams, indicating resilience. Expression of hippocampal biomarkers of neuroinflammation was inhibited and levels of CRMP2-mediated neuroplasticity were increased in PS15+CRS dams. Notably, we observed taxonomic changes in the cecal microbiota across different PS groups, as well as relationships between gut microbiota composition and some biomarkers of hippocampal neuroinflammation and neuroplasticity.

Conclusion This study showed that CRS induced anxiety- and depression-like behaviours in dams that remained with their pups during lactation. More specifically, CRS activated hippocampal microglia, increased the expression levels of inflammatory cytokines, including NLRP3, caspase-1, IL-1β

关键字：pup separation; depression; inflammation; microbiota–gut–brain axis

疫情后医务人员心理弹性在生理心理状态中的作用：一个有调节的中介模型

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目的 COVID-19 防控放开后，疫情全面爆发，大规模的人群同时感染给医院特别是医务人员带来了严峻的挑战。本研究旨在检验在疫情防控全面放开的背景下心理弹性在医务人员躯体疼痛和焦虑中的中介作用，以及睡眠在其中的调节作用。

方法 采用横断面调查的方法，使用了广泛焦虑量表(Generalized Anxiexy Disorde-7, GAD-7)、心理弹性量表简版(10-item Connor-Davidson Resilience Scale，简称 CD-RISC-10），视觉模拟评分法(visual analogue scale，VAS)以及基本情况问卷进行调查。采用 SPSS 软件，以及采用 PROCESS 宏程序中的模型 4，14 来进行统计分析。

结果 在重症，急诊的医务人员心理弹性水平显著低于其他病区（P＜0.05）；心理弹性在医务人员躯体疼痛和焦虑中的中介作用显著，起部分中介作用；睡眠调节了该模型的后半段路径

结论 在疫情全面放开的背景下，医务人员普遍存在明显的心理症状及躯体疼痛症状，躯体疼痛不仅直接影响医务人员的焦虑，而且可以通过心理弹性的中介作用间接影响医务人员的心理健康，睡眠在其中起着调节作用。

关键字：COVID-19;医务人员；心理弹性

重性抑郁障碍和创伤后应激障碍抑郁症状的跨

诊断脑连接标志探索

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目的 抑郁症状在重性抑郁障碍(Major Depression Disorder, MDD)，创伤后应激障碍(Post-traumatic stress disorder, PTSD)这一类应激相关精神障碍中很常见。迄今为止，来自行为学和心理学的证据表明，跨越诊断框架的抑郁症状可能存在潜在的神经生物学机制。因此，本研究旨在探索基于静息态功能磁共振 (resting-state functional magnetic resonance imaging, rs-fMRI)的全脑网络中能够预测抑郁症状严重程度的生物学标志物，并尝试探究其确切机制。

方法 未经药物治疗的 84 例 MDD 患者与 64 例 PTSD 患者分别完成了静息态功能磁共振扫描与系列心理评估。采用多变量机器学习方法进行稀疏连接建立预测模型，以确定预测个体的抑郁症状严重程度的脑连接组特征，抑郁症状严重程度由汉密尔顿抑郁评定量表评估。

结果 通过 10 倍交叉验证(R2 = 0.42, r = 0.65, p = 3.08×10-19)，对 PTSD 和 MDD 患者建立了具有较高准确度的跨诊断性抑郁症状预测模型。贡献最大的神经环路位于前额叶-边缘环路(如额中回、颞极)、皮层下(如海马、尾状核、脑干)以及小脑区域，主要涉及小脑和默认网络 (default mode network, DMN)内部，小脑与感觉运动网络 (somatomotor network, SMN) 之间的功能连接的变化。

结论 跨诊断性抑郁症存在弥漫性全脑功能障碍模式，本文强调了基于症状的跨诊断研究的重要性，有助于理解不同疾病的关键临床特征及其潜在的神经精神病理机制。

关键字：跨诊断；抑郁症；PTSD；静息态功能磁共振；功能连接组；预测模型

青少年抑郁发作性别差异的可能社会心理因素分析

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目的 研究影响青少年抑郁发作性别差异扩大化趋势的可能社会心理因素。

方法 本研究病例组来源于 2022 年 6 月 1 日至 2022 年 12 月 31 日在中山大学附属第三医院精神科住院符合入组标准的青少年抑郁发作患者(年龄<18 岁)，对照组来源于广东及湖南两省符合入组标准的初、高中学生。采用自制问卷及负面评价恐惧量表、社交回避与苦恼量表、网络依赖自评量表、艾森克人格测试等量表调查各种社会心理因素的性别差异。本研究在去掉脱落样本，剔除不按要求作答、随意作答样本数据后，病例组一共纳入 272 人，对照组一共 126 人。利用 IBM SPSS Statistic 25 对数据进行独立样本 t 检验、卡方检验、相关性分析、线性回归分析等方法进行描述及统计分析。

结果 （1）病例组女性的负面评价恐惧量表（FNE）得分显著高于男性（t=3.53，p<0.05）。FNE 得分与抑郁自评量表（SDS）得分呈显著正相关（r=0.49，p<0.05）且能正向预测 SDS 得分（R2=0.49，p<0.05）。（2）对照组男性社交焦虑与苦恼量表（SAD）得分显著高于女性（t=-2.10，p＜0.05）。SAD 得分与 SDS 得分呈显著正相关（r=0.54，p<0.05）且能正向预测 SDS 得分（R2=0.49，p<0.05）。（3）男性的网络成瘾自测（IAT）得分的均值总体较女性更高，其中对照组中这种差异存在统计学意义（t=-4.464，p＜0.05），女性病例组 IAT 得分显著高于对照组（t=3.255，p＜0.05）。对照组男性网络使用时间显著多于女性（x2=21.845，P＜0.05），而是否想要减少网络时间的看法却无显著性别差异（x2=1.38，P=0.24）。（4）对照组女性的内外向的得分均值较男性更低（t=-4.418，p＜0.05）、神经质得分均值则较男性更高（t=6.826，p＜0.05）。

结论 青少年女性比男性对负面评价更加敏感，近几年基于学业压力增加及管理模式改变等导致的社交活动减少对女性的影响更大，男性更善于使用网络释放负性情绪。人格特质上的性别差异使青春期学习、生活等方面的变化对女性的影响更大。男女在负面评价恐惧、社交需求、人格特质、网络使用情况等方面的差异与近几年学习、社交等社会生活上的变化相互作用可能是影响近几年青少年抑郁发作男女性别差异改变的主要原因。

关键字：抑郁发作；青少年；性别差异；社会心理因素

儿童青少年双相抑郁患者非自杀性自伤与 SLC6A4 启动子区 DNA 甲基化的相关性研究

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目的 探讨儿童青少年双相抑郁患者非自杀性自伤（Non-suicidal self injury，NSSI）与 SLC6A4 启动子区 DNA 甲基化的相关性。

方法 选择在新疆维吾尔自治区人民医院临床心理科就诊的儿童青少年双相抑郁患者，符合国际疾病分类第 10 版（ICD-10）双相情感障碍的诊断标准，同时符合 Hamilton 抑郁量表 24 项版得分＞20 分为有抑郁发作，共纳入 48 例儿童青少年双相抑郁患者。按照有无非自杀性自伤行为，将研究对象分为研究组 33 例，对照组 15 例。SLC6A4 启动子区 DNA 甲基化水平采用焦磷酸测序法检测，数据分析使用 SPSS26.0 统计软件，计量资料采用 t 检验，计数资料采用卡方检验，采用二元 Logistic 回归分析法分析儿童青少年双相抑郁患者 NSSI 的影响因素。

结果 （1）儿童青少年双相抑郁患者有 NSSI 组和无 NSSI 组，比较年龄、性别、受教育程度、是否独生子女、有无精神病家族史等一般资料，差异均无统计学意义（P＞0.05）。（2）儿童青少年双相抑郁患者有 NSSI 组和无 NSSI 组 SLC6A4 启动子区 DNA 甲基化水平比较，两组间 CpG2 位点相比，差异有统计学意义（P＜0.05），其余 CpG 位点的比较差异均无统计学意义（P＞0.05）。（3）儿童青少年双相抑郁患者 NSSI 行为 Logistic 回归分析显示：SLC6A4 启动子区 CpG2 位点（P=0.022，OR=0.090，95%CI：0.011~0.712）甲基化是儿童青少年双相抑郁患者 NSSI 行为的独立影响因素。

结论 （1）儿童青少年双相抑郁患者 NSSI 行为与 SLC6A4 启动子区 DNA 甲基化可能有关联性。（2）SLC6A4 启动子区 CpG2 位点甲基化可能影响儿童青少年双相抑郁患者 NSSI 的发生。

关键字：非自杀性自伤，SLC6A4 基因甲基化，儿童青少年，双相情感障碍

Gender Differences in Prevalence and Related Factors of Anxiety in First-episode and Drug-naive Patients with Psychotic Major Depression

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Objective Psychotic major depression (PMD) has been extensively studied. However, studies on gender differences in PMD are scarce. Therefore, this study aims to examine gender differences and the factors associated with anxiety in first-episode drug-na?ve PMD patients.

Methods A total of 1718 major depressive disorder (MDD) outpatients were recruited. Their demographic characteristics, thyroid hormones, and biochemical parameters were collected. The positive subscale of the Positive and Negative Syndrome Scale (PANSS), Hamilton Anxiety Rating Scale (HAMA), Hamilton Depression Rating Scale (HAMD), and Clinical Global Impression-Severity scale (CGI-S) were measured in all patients. Binary logistic analysis was used to examine the factors associated with severe anxiety in the male and female subgroups of PMD patients.

Results The prevalence of severe anxiety in female PMD patients, male PMD patients, and MDD patients were 72.6%, 68.1%, and 71.3%, respectively. In addition, female PMD patients with severe anxiety had higher scores of HAMD, higher levels of TSH and fasting glucose than those without severe anxiety (all P < 0.001, Bonferroni corrected P < 0.0025). Further logistic regression analysis indicated that HAMD score (B=0.350, P=0.001, OR=1.419, 95% CI:1.149-1.752) and TSH level (B=0.253, P=0.004, OR=1.288, 95% CI:1.085-1.529) were independently associated with severe anxiety in female PMD patients. After calculating the area under the receiver operating characteristic (ROC) curve, we found that the area under the ROC curve for the combination of HAMD score and TSH level was 0.861 (P<0.001, 95% CI:0.831-0.891).

Conclusion We found no gender differences in the prevalence of severe anxiety in PMD patients. High TSH levels and severity of depression were risk factors for severe anxiety in female PMD.

关键字：Psychotic major depression; thyroid hormones; gender differences; anxiety; major depressive disorder.

老年抑郁症自杀意念与认知功能的相关性研究

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目的 探讨老年抑郁症自杀意念与认知功能的相关性，探讨老年抑郁症自杀意念的社会心理影响因素。

方法 选取新疆维吾尔自治区人民医院临床心理科、乌鲁木齐市第四人民医院老年科 2021 年 6 月~2022 年 12 月住院的老年抑郁症患者，符合 ICD-10 中抑郁发作的诊断标准，年龄≥60 岁，共纳入 74 例老年抑郁症患者。认知功能的具体评定使用简易智能精神状态检查量表（MMSE）、蒙特利尔认知评估量表（MoCA）、数字广度测验（DST）、霍普金斯词语学习测验修订版（HVLT-R）、连线测验（STT），采用自杀意念量表（SIOSS）作为评价自杀意念的评定工具。根据有无自杀意念将入组的 74 例老年抑郁症患者分为有自杀意念组 32 例，无自杀意念组 42 例，通过 SPSS25.0 软件对数据进行统计分析，计量资料采用 t 检验或秩和检验，计数资料采用卡方检验，自杀意念及认知功能的相关性及影响因素分析采用 Logistic 回归分析。

结果 （1）两组间年龄、性别、族别、受教育年限、婚姻状况、平均月收入、基础疾病等差异无统计学意义(P>0.05)。是否独居比较有统计学意义。（2）两组间 HAMD 总分、PSQI 总分、SSRS 总分、MoCA 总分、DST 总分等比较，差异具有统计学意义(P＜0.05)。有自杀意念组 HAMD 总分、PSQI 总分均高于无自杀意念组，SSRS 总分、MoCA 总分、DST 总分均低于无自杀意念组。（3）老年抑郁症自杀意念的多因素 Logistics 回归分析结果表明：糖尿病、HAMD 总分、PSQI 总分、MoCA 总分、MMSE 总分、主观社会支持得分对自杀意念的影响具有统计学意义。（4）老年抑郁症自杀意念与认知功能具有相关性，老年抑郁症自杀意念与中、重度认知功能受损显著相关,与轻度认知功能受损无明显关联（P＜0.05）。有自杀意念老年抑郁症患者命名能力、记忆力、注意力、语言流畅性、抽象思维、信息加工能力、记忆广度得分均低于无自杀意念组老年抑郁症患者。注意力、即时记忆能力、命名能力是老年抑郁症患者自杀意念的保护因素。

结论 患糖尿病、失眠、社会支持少、认知功能差是老年抑郁症自杀意念的危险因素；老年抑郁症自杀意念与中、重度认知功能受损具有相关性，与轻度认知功能受损无明显关联；注意力、即时记忆能力、命名能

力是老年抑郁症患者自杀意念的保护因素。

关键字：老年抑郁症；自杀意念；认知功能；相关性

Gender Differences in The Prevalence and Clinical Correlates of Psychotic Symptoms in First-episode Drug-naive Major Depressive Disorder Patients with Suicide Attempts

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Objective Psychotic symptoms are associated with suicide attempts (SA) in patients with first-episode drug-na?ve (FEDN) depression. However, gender differences of psychotic symptoms in FEDN patients with SA remain unclear.

Methods This study enrolled 1718 FEDN patients. The sociodemographic and clinical features, history of SA, metabolic parameters, and thyroid hormone levels were measured. The Hamilton Depression Scale (HAMD), Hamilton Anxiety Scale (HAMA), Clinical Global Impression of Severity Scale (CGI-S), and the Positive and Negative Syndrome Scale (PNASS) were used to evaluate the clinical symptoms of patients.

Results Compared to male MDD patients, female FEDN patients had a higher prevalence of psychotic symptoms (11.0% vs. 8.0%). However, there were no gender differences in the prevalence of psychotic symptoms in FEDN patients with SA. In female FEDN patients with SA, the subgroup with psychotic symptoms showed higher HAMD, HAMA, and CGI-S scores, and a higher level of thyroid stimulating hormone (TSH), anti-thyroglobulin anti body (TgAb), total cholesterol (TC), fasting blood glucose, diastolic blood pressure and systolic blood pressure (all $P < 0.05$) than the subgroup without psychotic symptoms. Further logistic regression indicated that HAMD score (OR=1.305, 95%CI=1.041-1.637), HAMA score (OR=1.530, 95%CI=1.265-1.850), and TSH levels (OR=1.546, 95%CI=1.159-2.000) were the risk factors of psychotic symptoms in female FEDN patients with SA.

Conclusion Our results showed no gender differences in the prevalence of psychotic symptoms in FEDN patients with suicide attempts. In female FEDN patients with SA, depression severity, anxiety severity, and high TSH levels were risk factors for psychotic symptoms.

关键字：Gender difference; Major depressive disorder; Suicide attempt; Psychotic symptom; Risk factor.

A Survey of Medical Students' Depression in The Setting of The New Coronary Pneumonia Epidemic

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Objective The Coronavirus Disease 2019 (COVID-19) pandemic had caused a significant impact on people's physical and mental health. This study was conducted to determine the prevalence of depression among Chinese medical students during the epidemic and to investigate the association between sociodemographic factors of medical students and depression.

Methods This study, which used social media to conduct an online questionnaire, was a cross-sectional study of students from medical schools in China, with 538 medical students participate in the study. Depressive symptoms were assessed using the Self-rating depression scale (SDS). The questionnaire also collected the sociodemographic characteristics of the students.

Results Of the 538 students who completed the survey, 76.0% experienced depression and 40.3% suffered from major depression. The average SDS standard score was 61.18 ± 13.55.?Further logistic regression indicated that family structure of an only child (B=0.516, P=0.017, OR=1.675, 95%CI=1.096-2.559) and introverted personality traits (B=1.583, P<0.001, OR=4.872, 95%CI=2.766-8.580) significantly predicated prevalence of depression in Chinese medical students. In addition, introverted personality traits (B=1.120, P<0.001, OR=3.066, 95%CI=2.012-4.673) and being in a relationship (B=0.478, P=0.021, OR=1.613, 95%CI=1.074-2.422) significantly predicated prevalence of major depression in medical students in China. However, participation in clinical rotations (B=-0.457, P=0.017, OR=0.633, 95%CI=0.435-0.921) is a protective factor for both depression and major depression in Chinese medical students.

Conclusion The study shows that medical students have general symptoms of depression during the epidemic in China. And the participation in clinical rotations is a protective factor of depression among medical students. Therefore, the mental health of medical students needs to be concerned.

关键字：Depression; COVID-19; Medical students; SDS, Self-rating depression scale; OR, odds ratio.

重性抑郁障碍患者血浆嗜酸性粒细胞趋化因子 11 水平及其相关性研究

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目的 有研究表明趋化因子在重性抑郁障碍（MDD）的病理生理过程中的潜在作用。在本研究中，我们检测了重性抑郁症(MDD)患者和健康对照者（HC）的血浆嗜酸性粒细胞趋化因子 11（CCL11）的水平，验证该趋化因子在 MDD 患者和健康人中的水平是否存在差异，以及该趋化因子与重性抑郁障碍患者的精神症状评分的相关性。

方法 参与者包括 30 例重性抑郁症患者和 36 例健康对照。采用 17 项汉密尔顿抑郁评定量表(HAMD-

17)评估重性抑郁症患者的疾病严重程性。通过 Luminex 多因素测定技术检测血浆 CCL11 水平。两组 CCL11 样本经过 Kolmogorov-Smirnov 检验确定其满足正态性。采用两独立样本 t 检验验证该趋化因子在 MDD 患者和健康人中的水平是否存在差异，并用 Pearson 相关检验评估血浆 CCL11 水平与抑郁严重程性(HAMD-17)评分的相关性。

结果 重性抑郁障碍患者和健康对照者在年龄、性别上没有差异。重性抑郁症患者血浆 CCL11 水平明显高于健康对照组($p = 0.04$)。MDD 组血浆 CCL11 水平与 HAMD-17 评分之间无显著关系。

结论 本研究结果表明，MDD 患者血浆 CCL11 水平高于健康对照组，这可能提示该趋化因子与 MDD 的病理生理改变有关。

关键字：重性抑郁障碍 血浆嗜酸性粒细胞趋化因子 11

The Different Dynamic Characteristics of The Specific Brain Regions in Major Depressive Disorder with and without Anxiety

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Objective Major depressive disorder (MDD) with anxiety represents a prevalent clinical subtype of MDD. Previous studies have focused on the static characteristics of the brain in MDD with anxiety but neglecting its temporal dynamics. The objective of this study was to explore the dynamic characteristics of the specific brain regions in patients with MDD with anxiety.

Methods The study included 45 patients with MDD with anxiety, 30 MDD without anxiety, and 46 healthy controls. A temporal dynamic analysis was applied to calculate the global mean of several resting-state fMRI indices for each time window, including amplitude of low-frequency fluctuations (ALFF), regional homogeneity (ReHo), degree centrality (DC) and global signal connectivity (GSCorr). Then, the following dynamic indices were compared within the group: dALFF, dDC, dReHo, and dGSCorr. Subsequently, the study measured the volume-wise and voxel-wise concordance among the three groups. Finally, correlations were conducted between abnormal voxel-wise concordance and the score of the Hamilton Anxiety Scale.

Results The result showed that compared with HCs, MDD with anxiety exhibited a lower dALFF in the bilateral calcarine sulcus, left postcentral gyrus and left inferior parietal lobe. The MDD with anxiety group demonstrated decreased dDC in the right lingual gyrus and right calcarine sulcus, while dGSCorr and dReHo was found reduced in right middle occipital gyrus compared with HCs. Moreover, when comparing the MDD with anxiety group to healthy controls, a decrease in volume-wise concordance was observed, while a lower voxel-wise concordance was found in the left middle temporal gyrus, left calcarine sulcus and left medial superior frontal gyrus. Compared to MDD alone, the group of MDD with anxiety showed a lower voxel-wise concordance in the left medial superior frontal gyrus, which was found to be correlated with an increased severity of anxiety.

Conclusion The finding of the study suggests that the application of the dynamicity analysis approach may provide novel insights into the neural mechanisms underlying of MDD with anxiety.

关键字：resting-state fMRI; concordance; temporal dynamics; major depressive disorder; major depressive disorder with anxiety

多模态神经影像在 PTSD 诊断与治疗中的应用价值

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目的 近年来，神经影像越来越广泛的被应用于创伤后应激障碍（PTSD）的研究和临床治疗上，极大的拓展了我们对于创伤后应激障碍的机制的理解。单一模态神经影像存在局限，为了克服单一模态的局限、获得全面的脑影像数据，多模态脑影像被应用于 PTSD 的诊断和治疗中。多模态脑影像作为新兴的技术手段，其作用和价值还未得到系统的总结和梳理，据此，本文旨在系统阐述多模态脑影像在 PTSD 诊断和治疗中的价值，并提出未来可能的发展方向。

方法 本文考察了近期有关单一模态脑影像和多模态脑影像应用于 PTSD 研究和临床的文献，梳理了单一模态脑影像和多模态脑影像在 PTSD 诊断和治疗中的作用与价值。

结果 本文系统梳理了单模态脑影像和多模态脑影像在 PTSD 诊断和治疗中的探索和价值。磁共振成像（MRI）是神经影像学的主流方法，其中 fMRI 具有高空间精度的优势，可以精确定位与 PTSD 发生发展有关的脑区，描述不同脑区间的活动情况； sMRI 收集脑区体积指标，在区分 PTSD 患者和创伤暴露的非 PTSD 患者中可以达到 67%的准确度；dMRI 绘制轴突连接，在探索 PTSD 生理机制上具有极大价值；正电子成像技术可以收集脑部代谢数据，在观测药物治疗机制和疗效中具有优势；脑电成像技术具有高时间精度的优势，在探索 PTSD 诊断可能的生物标记上起到了重要作用。多模态脑影像集中了不同模态脑影像的优势，在提升诊断精度和疾病预测上体现出巨大潜力：在辨别 PTSD 患者和健康对照组、创伤暴露非 PTSD 患者中，基于多模态数据的区分精度都优于单一模态；使用多模态脑影像数据对 PTSD 症状发展进行探索，发现视觉皮层、默认模式网络、杏仁核、海马、腹内侧前额叶皮质等脑区的功能活动、连通性以及灰质的体积密度与 PTSD 症状发展有关；多模态脑影像数据发现，左侧楔前叶和右侧顶叶的激活减少与较低的脑电 P3 峰值与认知行为疗法改善 PTSD 症状有关；奖赏系统相关脑区的功能连接和灰质体积变化与 EAT 疗法缓解 PTSD 症状有关。

结论 单一模态脑影像和多模态脑影像都在PTSD的诊断和治疗中发挥了重要作用，价值主要体现在疾病诊断和预测上。与单一模态脑影像相比，多模态脑影像提供了更全面的脑影像信息，提高了诊断精度；多模态脑影像提供了额外的预测价值，以建立稳健的PTSD症状预测模型，预测PTSD发展不同阶段的症状表现和神经机制；还可以应用于探讨疗法机制、预测疗效等治疗领域。

关键字：创伤后应激障碍 多模态脑影像 神经影像 磁共振成像

屏状核到脾后皮质神经环路在恐惧记忆中的作用

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目的 已有研究表明，皮层的脾后皮质在各种非空间学习和记忆范式中发挥重要作用，而屏状核与大脑的几乎所有皮层区域有神经投射联系，提示其可能广泛调控大脑皮层功能，但目前对屏状核的功能研究却非常有限。本研究旨在探究屏状核到脾后皮质投射是否参与恐惧记忆并在恐惧记忆中发挥作用，进一步明确恐惧记忆控制的神经生物学基础，为改善创伤后应激障碍和创伤相关疾病的治疗结果提供新的方法。

方法 本研究以大鼠情境恐惧记忆模型为应激相关的记忆模型。通过大鼠脑立体定位注射技术，在大鼠脾后皮质脑区双边注射逆行示踪病毒，确认屏状核至脾后皮质的神经投射；在大鼠脾后皮质脑区双边注射逆行示踪病毒，在情境恐惧条件反射训练后第1天（近期）或28天（远期）进行恐惧记忆的唤起测试。使用免疫荧光染色技术，比较对照组（未唤起）与唤起组屏状核神经元激活情况的差异；使用光纤钙记录技术探究在近期和远期情境恐惧记忆唤起测试时，屏状核到脾后皮质投射的神经元活性变化情况；使用光遗传学技术调控屏状核到脾后皮质投射，并观察其在近期和远期情境恐惧记忆唤起测试时对行为的影响。

结果 屏状核与脾后皮质存在神经投射。c-Fos染色结果显示，屏状核到脾后皮质投射参与近期和远期情境恐惧记忆的唤起；c-Fos和mCherry共染色结果显示，近期和远期恐惧记忆的唤起时，屏状核整体被激活，但抑制了屏状核至脾后皮质投射的活性。光遗传学方法激活屏状核到脾后皮质投射后发现，实验组大鼠僵化行为相比对照组显著增加，表明激活屏状核至脾后皮质投射会促进恐惧记忆的唤起；而光遗传学方法抑制该神经环路则可以抑制恐惧记忆唤起。

结论 屏状核到脾后皮质神经环路参与近期和远期恐惧记忆的唤起表明该神经环路在恐惧记忆中具有重要的作用。

关键字：情境恐惧记忆；屏状核；脾后皮质；神经环路；记忆唤起

TAAR1 激动剂改善大鼠 PTSD 样行为

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目的 创伤后应激障碍（Posttraumatic stress disorder，PTSD）是指经历或目睹创伤性应激事件后形成的一种精神障碍。PTSD的药物治疗主要以一线抗焦虑和抗抑郁为主，但治理效果并不理想。基于恐惧记忆模型的PTSD动物模型，如单一延长应激（Single prolonged stress，SPS）后恐惧消退受损、应激增强恐惧学习（Stress enhanced fear learning, SEFL）等是研究PTSD的有效模型。近年来的研究发现，痕量胺 I 型受体（Trace amine-associated receptor 1, TAAR1）的激动剂具有抗抑郁、抗焦虑和促认知的作用，但其是否影响 PTSD 行为目前并不清楚。本研究旨在评价 TAAR1 选择性激动剂对 PTSD 样行为的药理学效果，可能为 TAAR1 激动剂应用于 PTSD 的治疗提供临床前证据。

方法 建立 SPS 引起的恐惧消退损伤及 SEFL 两种实验模型诱导大鼠的 PTSD 样行为。在恐惧记忆消退前给予急性或慢性（连续 6 天，每天一次给药）给予 TAAR1 部分激动剂 RO5263397（0、1.0、3.2mg/kg），观察其对于 SPS 抑制的恐惧消退及消退维持的影响。在 SEFL 模型中，在恐惧训练前急性或慢性（连续 3 天，每天一次给药）给予 TAAR1 部分激动剂 RO5263397（0、1.0、3.0mg/kg），观察其对恐惧水平的影响。

结果 SPS 应激可明显抑制恐惧记忆消退的维持。在消退维持测试中，SPS-RO5263397（1.0、3.2mg/kg）组的大鼠与 SPS-对照组大鼠相比，表现出较低的恐惧水平，说明 RO5263397 可以抑制 SPS 导致的恐惧记忆消退维持的损伤。 SEFL 模型中，电击组-RO52633979(3.0mg/kg)组的大鼠比电击组-对照组大鼠表现更低的恐惧水平，说明 RO5263397 可以降低电击诱导的恐惧记忆水平。

结论 TAAR1 选择性激动剂可以有效缓解 SPS 抑制恐惧消退的影响，且 TAAR1 激动剂在焦虑行为测试中也表现出抗焦虑作用，同时 TAAR1 选择性激动剂能够降低 SEFL 诱导的恐惧水平。TAAR1 激动剂具有抗 PTSD 行为的潜力，有望用于发展创新和有效的 PTSD 的临床治疗方法。

关键字：PTSD; TAAR1 激动剂; SPS; SEFL

屏状核到前额叶皮质神经环路在恐惧记忆中的作用

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目的 已有研究表明前额叶皮质中边缘前和边缘下皮质是调节大鼠恐惧记忆唤起和消退过程的重要脑区。最新研究发现屏状核在大脑中具有广泛的相互连接性，其投射大部分是针对前额叶皮层，但其相关神经

环路是否参与调控恐惧记忆尚不清楚。本研究采用条件性恐惧反射实验模型探究屏状核到前额叶皮质神经环路在恐惧记忆的唤起和消退过程中的差异性作用机制。

方法 建立条件性恐惧反射模型，将大鼠放入情景 A 中接受 CS（80dB，2000Hz 声音）-US（1s，0.5mA 足部电击）关联训练，训练 1 天后将大鼠放入情景 B 中，进行记忆测试，24 小时后在情景 B 中进行消退训练，1 天后进行记忆测试。通过光遗传技术调控屏状核到边缘前和边缘下皮质神经环路，评估大鼠是否出现行为学上的变化。使用免疫组化技术比较大鼠屏状核内投射到前额叶皮质不同亚区神经元激活情况。

结果 激活屏状核到边缘前皮质神经环路，在恐惧记忆唤起时，大鼠的僵化行为较对照组升高，表明激活该环路会增强恐惧记忆的唤起。激活屏状核到边缘下皮质神经环路，在恐惧记忆消退后唤起时，大鼠的僵化行为较对照组升高，表明激活该环路会促进恐惧记忆的消退后唤起。c-Fos 染色结果显示屏状核投射到边缘前和边缘下皮质的神经元参与恐惧记忆的唤起过程。

结论 屏状核到边缘前皮质和屏状核到边缘下皮质两条神经环路参与恐惧记忆的唤起和消退后唤起过程。

关键字：条件性恐惧记忆； 屏状核； 前额叶皮质； 记忆唤起； 记忆消退后唤起

静息态功能核磁共振在 ptsd 患者大脑网络连接研究中的应用

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目的 创伤后应激障碍(PTSD)是指机体在遭受战场环境、自然灾害、意外事故、严重创伤等突如其来且超乎寻常的威胁性、灾难性事件后引发的一组以多种精神行为异常和心理障碍，并对个体产生明显的影响,致使其职业能力和社会功能受损的延迟和(或)持久的不良反应，根据第五版的《精神疾病诊断与统计手册》（DSM-5）诊断标准，其四大核心症状分别是创伤性再体验症状、持续性警觉水平增高、持续回避与创伤事件相关的刺激及创伤事件有关的认知和心境方面的消极改变, 在普通人群中罹患率大约为 7.8%。目前对 PTSD 发病的神经生理机制的探究主要有两种方式: 一种是基于实验室动物模型的研究，另一种是基于人类 PTSD 患者的神经影像学研究，两种方式对于 PTSD 的发病机制尚未完全阐明，有研究发现大脑结构与功能异常是 PTSD 发生的重要基础，本文将从如何通过 R-fMRI 研究 PTSD 大脑结构与功能的异常进行论述。

方法 我们筛选了国内外近 10 年研究 PTSD 患者功能核磁共振成像的文章 1454 篇，排除重复与不符合本研究的文章 1431 篇，最终对与本研究相符合的 23 篇文章进行归纳、分析。

结果 1、基于感兴趣区域的分析方法证实了 PTSD 患者杏仁核与岛叶的正功能连接增强，与海马的正功能连接减弱，与背侧前扣带皮层及腹侧前扣带回的负功能连接减弱。PTSD 患者的基底外侧杏仁核与腹内侧前额叶、腹侧前扣带回及背内侧前额叶的功能连接均增高，基底外侧杏仁核与额下回的功能连接降低。2、独立成分分析方法证实了 PTSD 患者在默认网络前部，默认网络后部，突显网络，感觉运动网络和听觉网络中显示出显著降低的功能连接，研究表明，PTSD 患者对初级感觉信息加工和高级情绪认知加工都存在异常。 3、图论分析方法证实了 PTSD 患者的节点聚类系数在右侧嗅球皮质，双侧楔叶及右侧海马相比于正常人要高；PTSD 患者的节点的全局效率在右侧额下回三角部显著高于正常健康被试；PTSD 患者的节点连接强度在右侧额下回三角部显著高于正常健康被试，而在右侧苍白球显著低于正常健康被试。

结论 基于感兴趣区域的分析方法、独立成分分析方法以及图论分析证实了 PTSD 患者在默认网络、执行网络、突显网络、感觉运动、听觉及视觉等多个静息态网络之间确实存在连接异常，为诊断 PTSD 提供了有用的神经影像学依据。

关键字：创伤后应激障碍，静息态功能核磁，假设驱动的基于感兴趣区域分析，图论分析，独立成分分析

汇编交流

精准医学研究协作组

基于群体药代动力学模型仿真探索氨磺必利有效浓度范围

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目的 以群体药代动力学模型仿真为基础，探索氨磺必利有效浓度范围，解决临床实际应用中血药浓度超过治疗参考范围的问题。

方法 回顾性收集广州医科大学附属脑科医院2019—2020 年接受氨磺必利治疗的精神科患者的TDM 数据及相关病历资料，采用非线性混合效应模型对氨磺必利血药浓度数据进行拟合分析，通过协变量筛选评估获得最终模型，模拟仿真各种剂量下氨磺必利血药浓度分布范围。结果：121 名患者的 330 个血药浓度数据的 68%可信区间血药浓度范围是 185.59~650.94 ng·mL-1，采用建立的一室模型[最终模型：CL/F=61.1×(AGE/32)-0.624(L·h-1)]，模拟仿真发现当给药剂量在 200~400 mg·d-1，氨磺必利的平均血药浓度范围在《神经精神科治疗药物监测共识指南（2017版）》推荐有效浓度范围（100~320 ng·mL-1）内，当给药剂量超过 800 mg·d-1，氨磺必利的平均血药浓度超过实验室警戒浓度（640 ng·mL-1）。在常用剂量（400~800 mg·d-1），氨磺必利的平均血药浓度范围约 300~600 ng·mL-1。

结论 可根据临床治疗情况，将氨磺必利有效浓度范围暂定 100~600 mg·d-1，对应的推荐给药剂量为 200~800 mg·d-1。

关键字：氨磺必利；群体药代动力学；模型仿真；治疗药物监测

继续教育协作组

基于第三届全国精神医学专业本科生技能竞赛的精神医学人才培养探索

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目的 我国从 90 年代首次开办精神医学专业，至今有几十所院校开设精神医学本科和研究生教育，同时全国多处建设精神科规培基地，精神科转岗医师培训得以实施，形成了全系列培养体系。本文尝试通过对第三届全国精神医学专业本科生技能竞赛评分进行分析，了解各校精神医学本科教育是否存在差异，浅析全系列培养体系开端、即本科教育阶段的不足，探索精神医学人才培养有待提高的部分。

方法 参照规范化医师培训考核，竞赛设置精神站和神经站，其中精神站又包括精神检查和病史采集、必要的躯体检查、诊疗沟通和整体设计 5 个部分。两站分别邀请 9 位和 5 位评委评分，取评分平均值进行统计分析。最后获取了 10 支参赛队伍完整评分记录。

结果 1.10 支参赛队伍的总分（即精神站评分+神经站评分）最低 143.88 分，最高 168.27 分，平均分 155.09；精神站评分最低 68.83 分，最高 77.50 分，平均分 73.72；神经站评分最低 72.10 分，最高 92.60 分，平均分 81.37；精神检查和病史采集评分最低 36.67 分，最高 42.39 分，平均分 40.19；必要的躯体检查评分最低-2.67 分，最高-0.33 分，平均分-0.68；诊疗沟通评分最低 23.44 分，最高 27.89 分，平均分 26.33；整体设计评分最低 7.22 分，最高 8.33 分，平均分 7.88。2.10 支参赛队伍精神站失分率最高 31%，最低 23%，平均 26.28%；神经站评分失分率最高 28%，最低 7%，平均 18.63%；精神检查和病史采集失分率最高 33%，最低 23%，平均 26.93%；必要的躯体检查失分率最高 53%，最低 7%，平均 13.56%；诊疗沟通失分率最高 33%，最低 20%，平均 24.78%；整体设计失分率最高 28%，最低 17%，平均 21.22%。3.10 支参赛队伍在总分（即精神站评分+神经站评分）、精神站评分、神经站评分、精神检查和病史采集评分、必要的躯体检查评分、诊疗沟通评分和整体设计评分上均无明显差异。4.精神站失分率、神经站失分率、精神检查和病史采集失分率、必要的躯体检查失分率、诊疗沟通失分率和整体设计失分率存在有明显差异（$p<0.001$），其中以精神检查和病史采集、诊疗沟通失分为主。

结论 各校精神医学本科教育效果基本一致。在精神医学本科教育阶段需要紧密结合临床实践，加强精神检查、病史采集和诊疗沟通能力的培养，为培养优秀精神医学人才奠定基础。

关键字：精神医学、本科教育、精神检查、病史采集、诊疗沟通

不同大学精神医学硕士研究生培养同质化研究

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目的 探索不同大学精神医学硕士研究生培养过程和培养结果同质化状况。

方法 问卷星网络发布调查表，组织学生集中填写。

结果 西北某大学（26 人）、东北某大学（10 人）、东南某大学（5 人）和其他大学（25 人）在临床培养过程的教学查房（P<0.05）、病例讨论（P<0.01）、小讲课（P<0.01）、教学条件（P<0.01）和总分（P<0.01）上差异有显著统计学意义；在科研培养过程的科研工作条件（P<0.01）、和总分（P<0.05）上差异有显著统计学意义；在素质培养过程的仅思想政治上差异有显著统计学意义（P<0.01）；培养过程总分差异有显著统计学意义（P<0.01）。培养结果中仅临床培养结果的结业考试差异有显著统计学意义（P<0.01）。培养结果和培养过程相关性分析中，临床正相关（r=0.327，P<0.01）、科研正相关（r=0.453，P<0.01）、素质无相关（r=0.044，P>0.05）、总分正相关（r=0.307，P<0.05）。 培养结果与培养过程不同指标的相关性分析中，临床方面，培养过程中的“日常临床工作”与培养结果的相关性最明显（与培养结果总分及各小类均相关），其次是教学条件；而病例讨论和出科考试与培养结果无一项相关；另外两个重要教学活动（教学查房和小讲课）相关性也不大。科研方面，日常科研工作和文献阅读与培养结果总分及各小类均相关；而科研工作条件和科研思维和技能培养则相关性稍低。素质方面，仅培养过程的身体健康培养与培养结果的自我评价正相关。培养过程总分与培养结果总分正相关。

结论 同大学精神医学研究生培养过程同质性低，培养结果同质性高。

关键字：大学；精神医学硕士研究生；培养过程；培养结果；同质化。

探索综合和专科医院精神医学硕士研究生培训同质化差异

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目的 探索不同类型医院精神医学硕士研究生培养过程和培养结果同质化状况。

方法 问卷星网络发布调查表，组织学生集中填写。将医院分为 4 类：综综医院（综合性大学招生，综合性医院培养，以下类同）、综专医院（精神病专科医院）、专综医院（医学专科大学）和专专医院。

结果 4 类医院比较，培养过程总分、临床培养过程和素质培养过程无显著统计学差异（P>0.05），科研培养过程有显著性统计差异（P<0.05）。培养结果总分（P<0.01）、临床培养结果（P<0.01）和科研培养结果（P<0.05）均有显著统计学差异。综合性医院（r=0.47，P<0.01）和专科医院（r=0.63，P<0.01）培养过程总分与培养结果结果均显著正相关性。各指标中专科医院一般得分低于综合性医院；临床和科研培养过程中重要的指标是日常临床工作、文献阅读和日常科研工作。这些结果表明：（1）专科医院的培养过程和结果的同质性较综合性医院更低。（2）对影响培养结果的培养过程指标而已，专科医院和综合性医院在临床方面相差不大，最重要的是日常临床工作和教学条件；在科研方面有所不同，综合性医院最重要的是文献阅读，而专科医院是日常科研工作。（3）素质培养过程与部分科研培养结果负相关，其中综合性医院的身体健康和专科医院的思政素质培养过程最明显。

结论 不同类型医院精神医学研究生培养过程同质性优于培养结果。需要重视日常临床和科研工作。

关键字：医院；精神医学硕士研究生；培养过程；培养结果；同质化

青少年非自杀性自伤行为成瘾的研究进展

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目的 近年来，非自杀性自伤（non-suicidal self-injury，NSSI）已经成为一个日益严重的全球性公共卫生问题，严重威胁青少年的身心健康，引起各界高度关注。自 2019 年底新型冠状病毒肺炎（COVID-19）疫情爆发以来，青少年中 NSSI 的发病率明显上升，并且 NSSI 具有重复化和习惯化趋势，重复性 NSSI 的严重程度明显高于 NSSI。本文旨在综述国内外重复 NSSI 行为的风险因素、发病机制、评估方式和干预措施，为进一步提供 COVID-19 疫情下预防和干预青少年 NSSI 及重复 NSSI 的参考依据。

方法 本文通过检索和阅读近五年国内外青少年重复 NSSI 的相关文献，总结青少年重复 NSSI 的风险因素、发病机制、评估方式和干预措施并在此基础上进行展望。

结果 研究表明，重复的 NSSI 被认为是一种成瘾行为，其风险因素主要分为个体因素、家庭因素、学校因素和社会因素等；其发病机制与物质成瘾的神经生物学机制类似，如多巴胺奖赏系统和内源性阿片类系统等；其评估方式主要包括量表评估与生物学标志物诊断；其治疗措施主要包括心理治疗、药物治疗、物理治疗和综合治疗等。

结论 重复的 NSSI 被认为是一种成瘾行为，其严重程度高于 NSSI。本文综述了近五年青少年重复性 NSSI 风险因素、发病机制、评估方式和治疗措施，进一步提供了青少年重复 NSSI 预防和干预的参考依据。

关键字：非自杀性自伤；青少年；行为成瘾；研究进展

妄想和行为改变为临床表现的癫痫个案报告

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目的 报道一例以妄想和行为改变为主要临床表现、最终诊断为癫痫的病例。

方法 选取一例 16 岁汉族女性患者，详细采集患者的现病史、既往史、个人史、月经史、家族史，进行体格检查和精神检查，记录患者入院前后的辅助检查检验结果、诊治经过及患者的病情变化。

结果 本文报道的 16 岁汉族女性患者，以反复出现被害妄想、大哭、紧张不安为主要临床表现，曾被诊断为精神分裂症，予利培酮口服液、氨磺必利、氯氮平、奥氮平等多种抗精神病药物治疗及电休克治疗后症状波动及加重，仍反复发作。本次住院后抗精神病药物加量后被害妄想及紧张不安、大哭等症状未减轻且发作频率增加，发作间期不能完全回忆发病时情况，完善动态脑电图提示特高波幅的尖慢波，请神经内科会诊后考虑癫痫，给予左乙拉西坦抗癫痫治疗，并逐步将抗精神病药物减量后，被害妄想减轻，发作频率明显减少。本病例加用抗癫痫药物后症状逐渐缓解，治疗后复查动态脑电图正常，进一步支持癫痫诊断。

结论 以被害妄想主要表现的癫痫个案报告较为少见，易误诊为精神分裂症等精神疾病。仔细询问病史、完善脑电图等检查排除其他脑部疾病或躯体疾病后才能诊断精神等精神疾病。多种抗精神病药物治疗后精神症状仍未缓解甚至加重，而加用抗癫痫药治疗后症状改善更加支持癫痫的诊断。

关键字：妄想；行为改变；癫痫；个案报告

结节性硬化症所致精神障碍 1 例

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目的 通过案例诊治回顾共同学习结节性硬化症所致精神障碍相关知识，诊断标准及相关文献复习。

方法 患者，女性，20 岁，因“渐起凭空闻声、疑人害己 4 月余”入院。患者 2022 年 10 月份凭空听见人语，疑人害己，觉得别人说话就是在议论自己，自己的想法还没说出来周围人都知道了，有人要杀掉自己。情绪低，易疲劳，社交被动，存在跳湖等自杀意念及多次自伤行为。2022 年 12 月 18 日在当地医院住院，诊断“伴有精神病性症状的重度抑郁发作”，服用“舍曲林 150mg/日、奥氮平 15mg/日”治疗 1 月病情改善不佳，2023 年 1 月 18 日转至我院就诊。既往史无特殊，个人史：父母均过世，目前和叔叔一起生活。抽烟史 2 年半，每日一包。家族史：母亲生前多次无明显诱因抽搐，抽搐时牙关紧闭、全身强直、双眼上视，有时频繁发作，每日一次或数次，因家庭经济困难未进行系统诊治。入院查体：意识清，精神可，面部可见红褐色米粒大小的坚硬丘疹凸起，右手臂及前胸有纹身，四肢肌力、肌张力及腱反射未见明显异常，双侧巴氏征（-），脑膜刺激征（-），感觉及共济检查无明显异常。精神检查：意识清楚，接触被动合作，思维联想迟缓，幻听，思维鸣响，关系及被害妄想，情绪低，烦躁，易激惹，意志行为减退，自知力部分。患者入院后表现情绪不稳，行为紊乱冲动，在病房内大声喊叫，脱光衣服，撞头等。完善检查：头颅 MRI：脑内多发信号异常，右额叶脑岛区及左侧室管膜下信号异常。头颅 CT：双侧室管膜下钙化灶，结合头颅 MRI，结节性硬化可能，左侧额叶低密度灶。向患者家属追溯病史，核实外院甲状腺激素、脑电图、超声等检查数据，结合我院影像结果，请神经内科会诊，根据 2012 年修订的 TSC 诊断标准和神经内科会诊医师建议，诊断考虑为“结节性硬化症所致精神障碍”。住院期间予以控制精神症状，预防癫痫发作治疗，经过 1 月治疗后症状好转出院。

结果 住院期间予以控制精神症状，预防癫痫发作等对症治疗，经过 1 月治疗后症状好转出院。

结论 对于既往无精神疾病史而突然表现行为异常患者，相关辅助检查是协助诊断的重要指标。本例患者通过完善检查明确诊断，进一步指导控制精神症状，预防癫痫发作的治疗方案，也从另一方面提示突发的精神异常需要排除躯体疾病可能性。临床医生需加强对器质性精神障碍临床表现的识别，早诊断早治疗，有助于改善此类患者的预后。

关键字：结节性硬化症；器质性精神障碍

脑血管疾病患者心理灵活性、社会支持与抑郁、焦虑的关系研究

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目的 既往研究显示，就诊于神经内科和综合内科的脑血管疾病患者由于自身症状的影响，更容易伴发抑郁、焦虑等精神症状，且受到社会心理相关因素的影响。因此，本研究通过分析脑血管疾病患者心理灵活性、社会支持与抑郁、焦虑症状的关系，探究心理灵活性在脑血管疾病患者社会支持与抑郁、焦虑症状关系间的中介作用。

方法 以北京朝阳医院住院的脑血管疾病患者为调查对象，采用自行设计的患者一般资料调查表、蒙哥马利抑郁量表（MADRS）、汉密尔顿焦虑量表(HAMA)、承诺行动问卷(CAQ-8)、社会支持量表对患者进行调查。采用 jamovi2.3.21 对所得数据进行分析，建立结构方程模型，分析心理灵活性在脑血管疾病患者社会支持和抑郁、焦虑症状间的中介作用。

结果 45 岁以下患者的抑郁水平明显高于 45 岁以上患者，过早患有脑血管疾病是抑郁、焦虑发生的明显危险因素；良好的亲密关系、高学历、运动和规律睡眠都是脑血管疾病患者罹患抑郁、焦虑的保护性因

素；社会支持和心理灵活性均与脑血管疾病患者抑郁、焦虑程度呈负相关；心理灵活性在社会支持与抑郁、焦虑的关系中起到部分中介作用。

结论 社会支持和心理灵活性是脑血管疾病患者抑郁、焦虑症状的重要影响因素。提高社会支持与心理灵活性水平，可以减轻脑血管疾病患者的抑郁、焦虑症状。

关键字：脑血管疾病患者，心理灵活性，社会支持，抑郁，焦虑

血浆及唾液皮质醇水平在广泛性焦虑障碍中的应用价值研究

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目的 泛性焦虑障碍的发病原因、病理生理变化及早期诊断尚不明确。目前对皮质醇在广泛性焦虑障碍中的水平变化研究不一致。探讨血浆及唾液皮质醇在广泛性焦虑障碍中的水平变化及与病情严重程度是否相关。

方法 选取 2017 年 10 月 2018 年 5 月就诊于贵州医科大学附属医院心理科门诊或病房的 30 例广泛性焦虑障得患者作为患者组。另选取同期贵州医科大学附属医院体检中心和咨询门诊的健康人群 30 例作为对照组。采用汉密尔顿焦虑量表(HAMA)评定受试者，并分别测定受试者清晨血浆、唾液皮质醇水平。患者组服用盐酸帕罗西汀 6 周后再次测定上述指标，对比治疗前后皮质醇水平变化并进行相关性分析。

结果 治疗前，患者组血浆皮质醇、唾液皮质醇、HAMA 评分均高干对照组(P<0.05);患者组治疗后血浆皮质醇、唾液皮质醇、HAMA 评分均低干治疗前(P<0.05)Pearson 直线相关分析结果显示，患者组治疗前面浆皮质醇水平、唾液皮质醇水平与 HAMA 评分呈正相关(r=0.59P<001)。

结论 血浆皮质醇和唾液皮质醇水平在广泛性焦虑障碍中升高，皮质醇水平与广泛性焦虑病情严重程度呈正相关。检测血浆、唾液皮质醇水平对早期识别广泛性焦虑障碍及判断病情严重程度有一定指导意义。

关键字：广泛性焦虑障碍;焦虑:血浆皮质醇;唾液皮质醇:氢化可的松;帕罗西江;相关性分析

精神科转岗医师培训教学方法的应用探讨

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目的 探讨基于问题学习的教学法（Problem Based Learning，PBL）与传统的讲授教学法（Lecture Based Learning，LBL）在精神科转岗医师培训中的应用效果，以期进一步完善精神科转岗医师培训教学方法，提升精神科转岗医师培训效果。

方法 对 60 名 2018 年 10 月-2021 年 10 月来自新疆各地州基层医院的在新疆维吾尔自治区人民医院临床心理科进行精神科转岗医师培训的学员进行随机分组，根据采用的教学方法不同，分为 PBL 教学法组与 LBL 教学法组，并进行一个月的理论培训。通过在培训结束后组织理论考试，比较两种教学方法的不同的应用效果。

结果 采用 LBL 教学法组的精神科转岗医师相比，PBL 教学法组精神科转岗医师的理论成绩高于 LBL 教学法组，差异有统计学意义（P<0.05），研究结果表明 PBL 教学法更有助于精神科转岗医师理解、学习培训内容。

结论 PBL 教学法应用于精神科转岗医师培训中，可以有效提高精神科转岗医师的考核成绩，说明 PBL 教学法应用与精神科转岗医师培训是一种更加有效的教学方法，在精神科转岗医师培训方面具有一定的优势，值得在精神科转岗医师培训中进一步推广。

关键字：精神科；转岗医师培训；PBL 教学法；教学效果

Advances in Optogenetic Studies of Depressive-like Behaviors and Underlying Neural Circuit Mechanism

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Objective This review aimed to introduce fundamental characteristics and methodologies of optogenetics, as well as how this technique achieves specific neuronal control with spatial and temporal accuracy.

Method A systematic review of the literature published in English mainly from 2010 to the present in databases was performed. The selected literature is then categorized and summarized according to their neural circuits and depressive-like behaviors.

Results For the core symptom, anhedonia is considered to reflect dysfunctional processing of the reward network. Dysfunctional circuits also involve in other symptoms including appetite change.

Conclusion Many important discoveries have been made utilizing optogenetics. These findings support optogenetics as a powerful and potential tool for studying depression. And our comprehension to the etiology of depression and other psychiatric disorders will also be more thorough with this rapidly developing technique in the near future.

关键字：anhedonia, appetite, depression, neural circuit, optogenetics, social avoidance

酒精中毒性脑病的诊疗研究进展

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目的 本文旨在阐述 AUD 患者常出现的酒精中毒性脑病如 Wernicke-Korsakoff 综合征（WKS）还有罕见但需要引起重视的胼胝体变性病（MBD）和渗透性脱髓鞘综合征（ODS）的诊疗进展做一综述，已达到与典型 AWS 的鉴别、提高酒精中毒性脑病的早期识别率并及早预防、完善 AUD 患者系统全面治疗方案的目的，为临床实践提供参考。

方法 主要选择近 5 年的综述、系统综述和 Meta 分析，在 Pubmed 数据库中分别检索题目或摘要部分含有酒精使用障碍（AUD）、酒精戒断综合征（AWS）、韦尼克脑病（WE）、科萨科夫综合征（KS）、Wernicke-Korsakoff 综合征（WKS），胼胝体变性病（MBD），渗透性脱髓鞘综合征（ODS）、脑桥中央髓鞘溶解症(CPM)关键词进行检索。

结果 共有 15 篇相关论文符合检索要求。其中包含 1 篇个案报道、1 篇 Meta 分析、13 篇综述。

结论 酒精中毒性脑病多由硫胺素缺乏等营养代谢紊乱引起，起病形式和临床表现多变，常合并多脏器损害等，治疗难度大，预后多不佳，需与多项疾病进行鉴别并及早预防。一旦发生，全面系统的病情评估、营养代谢紊乱的纠正等治疗策略都有助于酒精中毒性脑病的良好转归。

关键字：酒精使用障碍，酒精中毒性脑病，Wernicke-Korsakoff 综合征，胼胝体变性病，渗透性脱髓鞘综合征

Development Trends and Research Hotspots of “Acceptance and Commitment Therapy” and “Psychological Flexibility” Research: A Bibliometric Study and Visualization Analysis Via Citespace in Web of Science

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Objective To comprehensively summarizes research in the field of acceptance and commitment therapy(ACT), especially publications from 1999 to 2022.

Methods Citespace software was used to analyze the knowledge map. Using “acceptance and commitment*” or “psychological flexibility*” as the topic, articles and reviews included in the Science Citation Index Expanded and Social Sciences Citation Index were searched in the Web of Science core databas.

Results 2414 publications were selected .Since the first article was published about thirty years ago, the publications in the ACT field have soared in subsequent decades. The USA was the leading country. The University of London, the Utah System of Higher Education, and the Utah State University were the leading institutions. The Journal of Contextual Behavioral Science ranked first for the most published articles. Mccracken, Lance M. was the most productive author, and Hayes, Steven C. ranked first in total citations. Collaborations network shows that the research foci varied between different authors, institutions, and countries, while they generally focused on mental disorders, emotion regulation, chronic pain, addiction, psychometric properties, and interventions. Keyword“prevalence” ranked first with the strongest citation bursts, while “health,” “mental health,” and “stress” were emerging research foci.

Conclusion These findings provide an essential foundation to direct future research in the ACT field.

关键字：Acceptance and commitment therapy, Review, Bibliometrics, Knowledge map, Citespace, Well-being; Health

精神专科医院传染病防控能力评价指标体系构建

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目的 构建符合我国的具有科学性和可操作性的精神专科医院传染病防控能力评价指标体系，为精神专科医院开展传染病的防控工作提供理论和实践依据。

方法 1、文献研究法：检索数据库 Pubmed、Web Of Science、Cochrane Library、Embase、知网、万方、维普、中国生物医学文献数据库以及中华人民共和国卫生健康委员会官方网站。制定中文检索词和英文检索词，检索时间为从建库至 2023 年 3 月 1 日。 2、半结构式访谈法：首先课题小组根据研究目的和 PPRR 危机理论拟定访谈提纲，通过预访谈进一步修订并确定访谈提纲，然后通过目的抽样选取河北省、山东省、武汉市、北京市、天津市、上海市三级甲等精神专科医院的相关人员进行一对一访谈，访谈结束 24 小时内由 2 名研究者进行文本转录与主题提取 3、改良的德尔菲专家咨询法：通过目的抽样法选取全国 30 名专家进行 3 轮德尔菲专家咨询对指标体系初稿进行完善 4、层次分析法：对得出的指标进行权重的确定

结果 通过客观科学的研究方法制定了精神专科医院传染病防控能力评价指标体系，该指标体系共包含 4 个一级指标，20 个二级指标，78 个三级指标，最终通过层次分析法客观的计算出各指标的权重系数。

结论 通过客观科学的研究方法构建了精神专科医院传染病防控能力评价指标体系并且计算出各指标的权重值，为精神专科医院开展传染病的防控工作提供理论和实践依据。

关键字：精神专科医院 传染病 防控 评价指标

抑郁障碍研究协作组

社会认知和互动训练对重度抑郁症患者社会功能及神经营养因子的影响

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目的 探讨与认知行为心理治疗（CBT）相比，社会认知和互动训练（SCIT）的干预是否更利于重度抑郁症患者社会功能的改善，以及社会功能的改善是否与重度抑郁症患者的生物标志物有关。

方法 本研究采用随机对照方法，将 84 名 MDD 患者随机分配到 SCIT 组（n=45）或 CBT 组（n=39），分别完成 8 周的干预。SCIT 组和 CBT 两组均在基线和第 8 周完成汉密尔顿抑郁评定量表 17 项（HDRS）、功能评估测试简版（FAST）以及血清脑源性神经营养因子（BDNF）和胶质细胞源性神经营养因子（GDNF）的检测。

结果 1、对照研究结果显示，在基线水平，SCIT 组与 CBT 组一般人口学资料、HDRS、FAST 及其六个子维度、血清 BDNF 和 GDNF 水平比较均无统计学差异（均 $p>0.05$）；2、重复测量方差分析结果显示，重度抑郁症患者 FAST 总分在 8 周干预前后有明显的改善（$F = 120.44, df = 1, p < 0.001$），且这种改善在 SCIT 组更显著（$F = 10.67, df = 1, p = 0.002$）。组别*时间的交互作用显示，SCIT 组在职业功能（F=5.53，df=1，p=0.021）、认知功能（F=4.75，df=1，p=0.032）、人际关系（F=5.73，df=1，p=0.019）三个社会功能子维度方面的改善比 CBT 组更有优势；3、重复测量方差分析显示，SCIT 组和 CBT 组患者的 HDRS 总分（$F = 112.30$，$df = 1$，$p < 0.001$），血清 BDNF（$F = 38.19$，$df = 1$，$p < 0.001$）和 GDNF（$F = 191.00$，$df = 1$，$p < 0.001$）水平在 8 周内显著改善，但组间 HDRS、BDNF 和 GDNF 的变化未发现统计学差异（均 $p>0.05$）；4、基于干预措施的相关性分析显示，从基线到 8 周末血清 GDNF 水平的改善与 SCIT 组社会功能自主性（$r = 0.32, df = 40, p = 0.038$）、财务问题（$r = 0.44, df = 40, p = 0.004$）两个子维度的改善显著正相关。在 CBT 组中，FAST（包括其六个子维度）和血清 BDNF、GDNF 水平在干预前后均未发现统计学相关性（均 $p>0.05$）。

结论 SCIT 组改善社会功能优于 CBT 干预，且血清 GDNF 水平改善与社会功能改善相关

关键字：抑郁障碍；社会认知和互动训练；CBT；BDNF；GDNF

双相情感障碍门诊患者抑郁发作次数的相关性研究

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目的 探讨门诊双相情感障碍患者抑郁发作次数的相关影响因素。

方法 采用连续采样法，在 2013 年 2 月至 2014 年 6 月在中国 6 个城市 7 家医院门诊连续入组双相情感障碍患者，进行随访调查，采集患者的一般人口学信息及临床资料。收集并随访双相情感障碍患者在研究期间，包括回顾期(过去 12 个月内)以及前瞻期(随访 9 个月内)出现的抑郁发作情况，采用泊松分析的方法分析抑郁发作次数的相关影响因素。分析因素包括年龄、性别、受教育年限、工作状态、是否共病物质滥用，居住状态，双相分型：I型 vs II型，是否有精神疾病家族史，是否共病焦虑障碍，首次发作极性；双相障碍首次发病年龄、双相障碍确诊年龄，是否伴有精神病性症状，是否使用抗精神病药物，是否使用抗抑郁药，是否使用心境稳定剂等。

结果 共 520 名患者纳入统计分析，其中 398 例诊断为I型，占总入组病例的 76.54%，122 例诊断为II型，占总入组病例的 23.46%。307 名被试首发极性为抑郁发作，泊松分析显示，随访期间抑郁发作次数增多的风险因素为双相情感障碍II型（IRR =1.267，p=0.01），女性患者抑郁发作次数增多（IRR =0.816，p=0.001）；未使用心境稳定剂者抑郁发作次数增多（IRR =0.682，p＜0.001）。而工作状态、精神疾病家族史、物质滥用、任何首次发作极性、是否伴有精神病性症状、是否伴有焦虑障碍等均与抑郁发作次数无明显相关性。

结论 双相情感障碍患者抑郁发作次数受到双相情感障碍分型，性别及心境稳定剂使用情况的影响。

关键字：双相情感障碍；极性；抑郁发作；影响因素

可调控生物节律的光源人体效能研究

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目的 对研发的具有节律牵引效应的 LED 光源，进行生物节律、认知、情绪、日常活动度、作业能力、睡眠等人体效能研究。

方法 对 3 名 39-42 岁健康受试者，在指定实验区域，接受 56 天实验，包括适应期、新时区过渡期、轮班工作 38 天、试验后监测期，实验前后均接受 SCID 评定及头颅磁共振、多导脑电检测，全程定期采集血、唾液、尿等生物样本对人体主要脏器功能进行评价，全程定期评估不同状态下的认知功能及情绪，全程使用活动度检测腕表、视觉模拟评分量表等监测。

结果 3 位受试者在全程 56 天光源环境中，褪黑

素峰值时间偏移不超过 19.23 分钟；与基线相比，受试者在实验结束时褪黑素峰值平均值位 71.19pg/ml，较基线平均值 44.31pg/ml 升高 60.9%。日常活动度在实验开始及结束阶段均未见明显差异；头颅磁共振平扫及海马未见明显异常，肝肾功能、甲状腺功能、血管紧张素、脑电图、SAS、SDS、CPT、近红外热成像在实验前后均未见明显差异，睡眠节律及质量未见明显变化。

结论 可调控生物节律的光源，具有在不同时段皆保持稳定的生理节律和行为节律，不影响轮班作业者的生物节律，保持轮班作业者稳定的认知水平、作业能力及情绪、睡眠状态。

关键字：可调控生物节律，光源，人体效能

抑郁障碍药物联合治疗的现状及影响因素探讨

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目的 在真实世界下，研究抑郁障碍的联合用药现状及影响因素。

方法 共有 22 家中心参与采样，通过连续筛查的方式，纳入 18 岁及以上、本次抑郁发作尚未服药治疗的抑郁障碍患者，IDS-SR30 总分大于等于 14 分，采集人口学、病史、临床症状等信息，并在 2 周末、4 周末、 8 周末、6 月末和 12 月末随访，记录病史资料和治疗信息，研究对治疗方式不做限定，由临床医生选择治疗用药。按照基线时初始用药将患者分成单药治疗组和联合治疗组（两种及以上抗抑郁药，或抗抑郁药+抗精神病药，或抗抑郁药+心境稳定剂）。

结果 研究共纳入 2037 例患者，27.2%的患者接受了强化/联合策略。17.7%的患者使用抗精神病药物，3.8%的患者使用锂盐，2.8%的患者使用丙戊酸钠，7.9%的患者使用一种以上的抗抑郁药。SNRIs、NaSSAs、安非他酮和曲唑酮更常用于联合治疗。相比单药治疗组，联合治疗组男性患者比例高、年龄大、受教育程度较低、本次发作病程短，抑郁障碍严重程度重（IDS-SR30 总分高），社会功能受损明显（SDS 总分高）。Logistic 回归分析显示，IDS-SR30 第 23（迟滞）、25（疼痛）、26（躯体不适）和 30（灌铅样沉重/乏力）项的得分是联合用药的独立影响因素。

结论 我们的研究结果表明，真实世界中，抑郁障碍的联合用药非常多见。联合治疗多见于男性、年龄大、抑郁障碍状严重、功能损害明显的患者。伴有迟滞、疼痛、躯体不适、乏力症状的患者，医生更倾向采用了联合用药的治疗策略。

关键字：抑郁障碍；治疗策略；联合用药；影响因素

预处理经颅磁刺激治疗重性抑郁障碍的研究进展

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目的 分析并评价近年来预处理经颅磁刺激治疗重性抑郁障碍的研究进展，为进一步提高经颅磁刺激（rTMS）治疗技术的疗效提供思路。

方法 对预处理经颅磁刺激治疗重性抑郁障碍的研究进行系统分析。检索 PubMed、Web of Science、EBSCO、中国知网等数据库，收集建库至 2023 年 5 月 1 日公开发表的预处理经颅磁刺激治疗重性抑郁障碍的相关文献，进行系统综述。

结果 最终纳入英文文献 31 篇，中文文献 2 篇。其中，rTMS 预处理 rTMS 治疗 MDD 机制方面研究 9 篇，发现阈下 rTMS 预处理具有增强 1Hz-rTMS 抑制作用，产生类似长时程抑制（LTD）的效应，并且增加了相关区域的皮层抑制。疗效方面研究 6 篇，发现阈下 rTMS 预处理具有改善抑郁症状的效果；tDCS 预处理 rTMS 治疗 MDD 的操作机制方面研究 4 篇，发现使用阴极 tDCS 预处理 rTMS 的机制，可能与阴极 tDCS 引起皮层活动的初始抑制，降低神经元阈值，从而促进高频 rTMS 刺激后皮层兴奋性整体增加有关。疗效方面研究 2 篇，发现阴性 tDCS 预处理可以增强 iTBS 的抗抑郁效果。

结论 通过在 rTMS 治疗方案前增加一个阈下刺激的预处理（包括阈下 TMS 与 tDCS），有望成为一种提高抗抑郁疗效的新途径。并且预处理 rTMS 的方案，与序列更多，强度更大的刺激方案相比，操作起来更加简便，并且患者更易耐受。

关键字：重复经颅磁刺激；预处理；重性抑郁障碍

青少年抑郁障碍和父母教养方式相关性研究

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目的 病例对照分析，探究青少年群体抑郁障碍发病群体的父母教养方式和其发病严重程度、伴随症状之间的关系。

方法 采用抑郁自评问卷评估入组青少年抑郁障碍患者抑郁的严重程度，采用父母教养方式问卷评估入组患者的父母教养方式各项因子分，同时使用中学生心理量表衡量患者发病后除抑郁外伴随心理问题的严重程度。对收入组的被试者行一般情况调查，以收入进组的患者的以一般情况调查表的基本情况为基准，在健康学生中征集对应受试者，对患有抑郁障碍的青少年患者其发病的严重程度及其伴随心理问题的严重程度和父母教养方式各项因子之间评分的关系进行统计，分析发病的严重程度及其伴随症状的严重程度和父母教养方式各项因子分之间的联系

结果 4.多因素线性回归分析显示，父亲情感温暖、

理解可降低偏执、人际关系紧张与敏感、适应不良、情绪不平衡、心理不平衡的风险（p<0.05）；父亲惩罚严厉是偏执、敌对、心理不平衡的风险因素（p<0.05）；父亲过分干涉是焦虑的风险因素（p<0.05）；父亲偏爱被试是强迫、人际关系与紧张、焦虑、适应不良的风险因素（p<0.05）；父亲拒绝、否认是强迫的风险因素（p<0.05）；父亲过度保护是焦虑、学习压力、情绪不平衡、心理不平衡的风险因素（p<0.05）。母亲情感温暖、理解可降低偏执、适应不良的风险 p<0.05）；母亲过干涉、保护是强迫、偏执、敌对、人际关系与紧张、焦虑、适应不良的危险因素（p<0.05）；母亲拒绝否认是强迫、情绪不平衡的危险因素（p<0.05）；母亲偏爱被试是强迫、人际关系紧张与敏感、焦虑、适应不良的危险因素（p<0.05）。

结论 父母教养方式中父母过干涉过保护，惩罚严厉，拒绝否认和母亲偏爱被是青少年是抑郁障碍发病的危险因素，而抑郁的严重程度是青少年出现除抑郁以外的伴随心理问题的危险因素。父母的过干涉过保护均易引起青少年出现强迫和人际交往障碍的问题，而父母的拒绝否认是强迫的危险因素。母亲偏爱被试同时是强迫、人际关系紧张与敏感、焦虑、适应不良的危险因素。父亲和母亲的情感关怀、理解可降低青少年易于出现偏执、紧张，分际关系紧张和敏感、适应不良、情绪不平衡、心理不平衡等症状的风险。

关键字：抑郁障碍 父母教养方式 影响因素 青少年

抑郁症的非生物学机制研究进展（综述）

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近几年抑郁症的生物学机制的研究取得了非常多的成就，包括全基因组的关联分析、神经递质系统功能、脑区和神经网络、炎症反应、神经可塑性的改变、神经影像学和神经电生理学研究等。这些研究为抑郁症的药物和物理治疗提供了可靠的基础。但这些治疗仅能改变不足 60%的抑郁症状，并且在改善社会功能及降低复发率方面的功效有限。 非生物学机制的研究探讨了更多精神领域里抑郁症的病因，希望借此发展出更多能缓解抑郁症状、改善功能损害和降低复发率的方式和技术，从而以促进抑郁症患者更全面的恢复。到目前为止，抑郁症的非生物学机制已有很多研究，但这些研究彼此独立，缺乏系统性和深度，没有突出各因素的独特性和清晰的作用机制。本文综述了抑郁症的代际传递特点，抑郁症与情绪创伤、认知缺陷、关系损伤、自我功能、生命意义感、动机缺陷的关系的研究进展，以及抑郁症精神病理性的研究。旨在强调和澄清抑郁症的非生物学的机制及其特点，以期能为发展出更多非药物治疗的方式和技术提供理论依据。 通过对抑郁症的非生物学发病机制的综述，得出以下结论: 1.非生物学机制参与任何类型的抑郁障碍的发病，因此，非生物学病因应该被足够重视。许多不能被药物有效缓解的抑郁症的症状，可以通过非药物治疗改善。 2. 对于多病因的抑郁障，没有一个抑郁障碍患者的病因是单一的，几乎每个患者的病因都是多元的，生物学机制和非生物学机制共同参与了疾病的发生，但每个患者的病因结构相差很大，病因的结构构成和所占比重都不同，非生物学机制甚至是某些亚型病因结构中的主导成分。 3.非生物学机制和生物学机制既不矛盾也不对立。既有互相一致的成分，也有彼此独立的机制。忽略任何一方都不能准确、完整的理解抑郁症，侧重任何一方都难以让抑郁症的预后变得更好。双管齐下、各尽其能是帮助抑郁症患者走出困境的必经之路。 4.抑郁症的功能损害、残留症状、易复发等特征与非生物机制明显相关，因此依据非生物机制发展非药物治疗是改善抑郁症患者预后的重要途径。

关键字：抑郁症；代际传递；情绪创伤；认知缺陷；关系损伤；自我功能；生命意义；动机缺陷；精神病理

艾司西酞普兰联合米氮平治疗抑郁症伴睡眠障碍患者疗效及对睡眠结构的影响

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目的 探究艾司西酞普兰联合米氮平治疗对于抑郁症伴睡眠障碍患者疗效及睡眠结构的影响。

方法 从本院抑郁症睡眠障碍患者中随机抽取 60 例作为研究对象，规划抽取时间为 2022 年 6 月至 2023 年 6 月，将 60 例研究对象随机分成接受艾司西酞普兰治疗的对照组及接受艾司西酞普兰联合米氮平治疗的实验组，对比两组治疗效果,通过多导睡眠检测（PSG）对比睡眠结构的影响。 对照组患者接受艾司西酞普兰（生产厂家：山东京卫制药有限公司，批准文号：国药准字 H20103327，每次一片，每日一次）治疗，实验组患者接受艾司西酞普兰联合米氮平（生产厂家：哈尔滨三联药业股份有限公司，批准文号：国药准字 H20060702，每次一片，每日一次）治疗，两组均以一个月为一个治疗周期。通过多导睡眠检测（PSG）观察两组患者接受治疗后的睡眠结构。 将数据纳入 SPSS21.0 软件中分析，计量资料比较采用 t 检验，并以（）表示，计数资料采用 χ2 检验，并以率（%）表示，（P<0.05）为差异显著，有统计学意义。

结果 2.1 治疗效果 实验组治疗效果优于对照组（P<0.05）。 表 1 治疗效果[n,(%)] 组别 例数 显效 有效 无效 治疗总有效率 实验组 30 19（63.00） 10（33.00） 1（4.00） 29（96.00） 对照组 30 10（33.00） 9（30.00） 11（37.00） 19（63.00） χ2 - 18.029 0.209 33.410 33.410 P - 0.001 0.648 0.001 0.001 2.2 睡眠结构 实验组患者睡眠结构明显优于对照组患者（P<0.05）。表 2 睡眠结构(，%) 组别 例数 1 期 2 期 3 期 REM 期 实验组 30 8.30±3.41 52.86±8.70 12.10±4.21 21.60±5.64 对照组 30 14.20±5.71 44.61±7.51 4.23±2.90 18.23±4.31 t - 4.859 3.932 8.432 2.600 P - 0.001 0.001 0.001 0.018 实验组患者治疗效果及睡眠结构明显优于

对照组患者（P<0.05）。

结论 艾司西酞普兰联合米氮平治疗抑郁症伴睡眠障碍患者疗效显著及对睡眠结构的改善也有影响。

关键字：艾司西酞普兰；米氮平；抑郁症睡眠障碍；

探讨腹侧注意网络功能连接在儿童期创伤和抑郁症之间的中介作用

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目的 抑郁症是一种全球常见的精神障碍，其与儿童期创伤之间的关系尚未完全了解。研究表明，抑郁症与腹侧注意网络（VAN）的功能异常存在关联，但对于具体功能连接的了解仍然有限。本研究旨在探索VAN网络内的功能连接在儿童期创伤和抑郁症之间的中介作用。

方法 本研究采用儿童期创伤问卷评估受试者的儿童发展经历并使用汉密尔顿-17 项评估抑郁症状的严重程度，同时进行静息态磁共振成像数据收集。采用pearson相关分析方法检查抑郁症中儿童期创伤和抑郁症状严重程度之间的相关性。使用 Andrew F. Hayes 的 SPSS Process V3.4 软件测试 VAN 内功能连接在儿童期创伤与抑郁症状之间的中介效应。

结果 本研究发现抑郁症患者中 HAMD 总分，CTQ 总分和 VAN 功能连接的值均高于健康对照组，存在显著差异，差异具有统计学意义。偏相关分析显示，在 MDD 组中 HAMD 总分与 VAN 的值(P<0.05，r=0.413)和 CTQ 总分（P<0.05，r=0.241）都成正相关，CTQ 和 VAN（P<0.05）也成正相关。在中介效应模型中，VAN 内的功能连接对儿童期创伤与与抑郁之间的关系介导的间接效应显著，表明具有显著的中介作用，其间接效应占总效应的 38.19%。

结论 本研究揭示抑郁症严重程度与腹侧注意网络（VAN）功能异常以及儿童期创伤与抑郁症之间的密切关联。这些结果为抑郁症的发病机制提供了新的认识，并强调了 VAN 功能连接再儿童期创伤和抑郁症之间的中介作用。这一结果为儿童期创伤与抑郁症关系的神经生物学机制提供了新的线索。

关键字：抑郁症；儿童期创伤；静息态功能磁共振；腹侧注意网络；中介效应。

有氧运动治疗 17-19 岁青少年轻中度抑郁效果及对心率变异性影响

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目的 探讨有氧运动对 17-19 岁青少年轻中度抑郁的临床疗效以及对心率变异性的影响。

方法 选取某高校 2022 年新入学的年龄为 17-19 岁的 60 例轻中度抑郁症患者为研究对象，分为研究组 30 例（脱落 5 例，完成研究 25 例）与对照组 30 例（脱落 2 例，完成研究 28 例）。研究组给予 12 周有氧运动治疗，对照组不接受任何治疗。比较两组的临床疗效、心率变异性指标。采用独立样本 t 检验比较两组间差异，配对样本 t 检验比较干预前后差异，相关分析采用线性相关法分析病情严重程度与心率变异性指标的相关性。

结果 在 12 周末两组的 17 项汉密尔顿抑郁量表（HAMD-17）评分均较基线显著降低（P＜0.05）；与对照组相比，研究组 12 周末 HAMD-17 减分值变化更明显（P＜0.001）；研究组治愈率及有效率均显著高于对照组（P＜0.01）；12 周末研究组正常 R-R 间期标准差（SDNN）值及 5 个正常 R-R 间期平均值标准差（SDANN）值均较基线显著增加（P＜0.001)；与对照组相比，研究组 12 周末 SDNN 及 SDANN 减分值变化更明显（P＜0.001）。基线 HAMD-17 评分与 SDNN 值呈显著负相关（r=-0.343，P=0.012）；基线 HAMD-17 评分与 SDANN 值呈显著负相关（r=-0.328，P=0.017）。

结论 有氧运动可显著改善 17-19 岁青少年轻中度抑郁患者的抑郁症状，提高治疗积极性和依从性，其可能的机制是通过增加副交感神经的活性，提高 HRV 指标以缓解抑郁症状。

关键字：有氧运动；青少年；抑郁症；心率变异性

抑郁症患者外周血 miRNA-132、miRNA-135、miRNA-219 和 miRNA-1202 表达水平研究

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目的 本研究以抑郁症患者为研究对象，探讨其外周血 miRNA 表达水平与临床特征相关性，为揭示 miRNA 在抑郁症中的作用提供依据。本研究可以有效的补充 miRNA 在抑郁症中的作用研究，有助于我们探索抑郁症潜在生物分子标志物。

方法 入组符合 DSM-5 抑郁发作诊断标准的 41 例抑郁症患者和 31 名健康对照，采集受试者空腹外周血样本，检测其外周血白细胞中 miR-132、miRNA-135、miR-219、miRNA-1202 等 microRNA 表达水平，并使用 HAMD-17 评估患者的抑郁症状严重程度。

结果 抑郁症患者外周血白细胞中 miRNA-132 水平显著高于对照组(3.353±0.3667 vs. 1.343±0.1569，p<0.0001)，而且 miRNA-132 表达水平与 HAMD 得分明显正相关(p=0.0012，r=0.4143)。抑郁症患者外周血白细胞 miRNA-219 水平显著低于对照组(0.9139±0.2115 vs. 1.798±0.2414，p=0.0075), 未观察到 miRNA-219 表达水平与 HAMD 得分相关性(p=0.1633，r=0.03440)。而 miR-135 和 miR-1202 均未发现组间差

异。

结论 这些结果表明 miR-132 和 miR-219 在一定程度与抑郁症相关。但还需要进一步扩大样本量及进行治疗后相关 microRNA 检测来观察其相关性。

关键字：抑郁症，miRNA-132，miRNA-135，miRNA-219，miRNA-1202，外周血白细胞

Exercise-Induced Synchronous Normalization of Decreased BDNF and MTOR Serum Concentrations in Depression

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Objective Brain-derived neurotrophic factor (BDNF) is believed to play an important role in the treatment of depression through exercise. The mammalian target of rapamycin (mTOR) signaling pathway, upon activation by BDNF, can contribute to protein synthesis, synaptic plasticity, and alleviation of depression. Whether the BDNF-mTOR signaling pathway is linked with the treatment of depression through physical exercise (PE) remains unknown.

Methods Forty patients with depression were randomized to the PE group and medication control (MC) group. Participants in the PE group were made to practice aerobic exercise and muscle strength training for 4 weeks. The efficacy of intervention was measured using the Hamilton depression scale (HAMD). Serum BDNF and mTOR levels were also analysed pre- and post-intervention.

Results After 4 weeks of intervention, the HAMD ($p = 0.008$) scores were lower in the PE group than those in the MC group, whereas the BDNF ($p < 0.001$) and mTOR ($p = 0.002$) levels were higher. Compared to pre-intervention, the HAMD ($p < 0.001$) scores decreased and BDNF ($p < 0.001$) and mTOR ($p < 0.001$) levels increased in the PE group post-intervention. A significant correlation was observed between the BDNF and mTOR levels ($r = 0.540$, $p = 0.014$), which were also significantly correlated with the HAMD score (BDNF, $r = 0.586$, $p = 0.007$; mTOR, $r = 0.483$, $p = 0.031$) in PE group.

Conclusion Our findings indicate a positive effect of PE on depression symptoms, possibly mediated by the BDNF-mTOR signaling pathway.

关键字：Depression; Physical exercise; Brain-derived neurotrophic factor; ammalian target of rapamycin; Hamilton depression scale.

伏硫西汀对首发抑郁症主观认知功能影响及疗效影响因素多元回归分析

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目的 本研究旨在通过多元回归分析探讨伏硫西汀对首发抑郁症患者主观认知功能的影响以及疗效影响因素。

方法 采用随机抽样法选取我院收治的 100 例首发抑郁症患者作为研究对象，使用伏硫西汀进行治疗，然后通过多元回归分析来评估伏硫西汀对患者主观认知功能的影响以及治疗效果。

结果 在治疗前，患者的即刻记忆、视觉广度、言语功能、注意、延时记忆因子、RBANS 总分分别为（74.97 ±18.65）、（97.32 ±11.47）、（94.81 ±17.46）、（104.36±16.32）、（82.36±19.81）、（87.55±12.57）分。治疗后，患者的主观认知差值与文化程度、HAMD17 评分、客观认知功能差值无相关性，但与 SIOSS 评分、PCL-C 评分、职位呈正相关。与 SSRI 类药物相比，伏硫西汀显著提高了患者的主观认知能力，而且与抑郁症和客观认知能力的改善之间没有显著关系。研究结果显示，伏硫西汀对主观认知能力的影响与自杀观念和创伤经历相关。抑郁症可能导致先前的创伤重新激活，在抑郁症症状缓解后，与创伤相关的体验仍然活跃，导致主观认知能力下降且难以恢复。本研究还发现，个人主观认知能力的提高与教育程度关系不大，而与职位相关。

结论 对于首发抑郁症患者的主观认知功能障碍，伏硫西汀表现出更好的治疗效果，因此值得在临床上推广使用。

关键字：伏硫西汀、首发抑郁症、主观认知功能

抑郁障碍认知执行功能损害的神经振荡研究

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目的 抑郁障碍患者不仅有显著的情绪低落表现，也表现出不同程度的认知功能损害，认知损害也被认为是疾病的内表型。不论是其疾病的发作期，还是缓解期都存在稳定和持久的认知功能损害，其中执行功能损害是其认知症状最重要的维度之一。目前，抑郁障碍患者的认知执行功能损害的神经病理学机制尚未完全阐明。本研究采用静息态脑磁图（MEG）来研究其认知执行功能损害的神经电生理基础。我们假设抑郁障碍患者存在广泛的认知执行功能损害，额顶叶脑区的 beta 及 gamma 频段神经振荡调节紊乱，并与其认知执行功能损害密切相关。

方法 入组 70 例南京医科大学附属脑科医院门诊和住院的抑郁障碍患者，同时招募 53 名性别、年龄、

受教育年限相匹配的健康被试。采集受试者社会人口学信息、临床资料、临床心理评估和认知功能数据，神经认知测试包括威斯康辛卡片分类测试（WCST）、连线测试-A（TMT-A）、连线测试-A （TMT-B），数字符号转换测试（DSST）、言语流畅度测试（VFT）、画钟测验（CDT）和数字广度测试（DST），去除不能够坚持完成认知功能测试和静息态 MEG 数据采集等原因的被试，最终健康对照组 52 例、抑郁障碍（MDD）组 61 例完成实验，时频分析受试者的 MEG 静息态信道水平能量密度的组间差异，进行非参数聚类检验，对认知执行功能评分和神经振荡进行相关分析。

结果 与对照组相比，MDD 患者 WCST 因子试验总数（TA）、总错误数（TE）、持续性应答数（PR）、持续性错误数（PE）、非持续性错误数（NPE）和 CDT 结果表现较差（$p<0.001$），其他 TMT-A、TMT-B、DSST 和 DST 在二组间差异无统计学意义。与健康对照组相比，MDD 组额中央 beta 能量密度显著升高（$t=3.82$，$p=0.0002$），顶叶区域的高 gamma 能量密度（50-75 Hz，$t=2.71$，$p=0.0079$）下降。WCST 中的 TA，NPE 和 TMT-B 与额中央区平均 beta 能量呈正相关，而 VFT 和 CDT 呈负相关（$p<0.05$）。然而，认知执行功能测试因子分与平均 gamma 能量密度之间相关性无统计学意义（$p>0.05$）。源重建结果表明，与对照组相比，MDD 组在 beta 频段 t 检验统计学差异显著增高（$p<0.01$），有差异的区域主要包括：额下回、前扣带、楔前叶、辅助运动区、中央后回等。在 gamma 频段， MDD 组能量密度 t 检验统计结

关键字：抑郁障碍，认知执行功能，脑磁图，神经振荡

Factors Influencing The Relationship between Sleep Quality and Depressive Symptoms in Both Patients and Healthy Individuals: A Pilot Study of Mediation Analysis

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Background Sleep disorders are considered as risk factors for depression, although the psychological mechanism underlying this association remains unclear. Previous studies have shown that symptoms of anxiety, rumination, and perceived stress are associated with both sleep disorders and depressive symptoms, suggesting that they may mediate the relationship between sleep disorders and depression. However, existing research lacks adequate parameters to calculate the sample size of mediation model due to variations in estimation methods and subject circumstances. Objective: This pilot study aimed to assess feasibility and generate parameters for calculating sample size required for a future study.

Methods Thirty-two patients with major depressive disorder (MDD) and thirty healthy controls (HCs) were recruited for this study. Two of the patients were excluded due to the change in diagnosis after discharge. The Beck Depression Inventory (BDI), the Pittsburgh Sleep Quality Index (PSQI), the State-Trait Anxiety (STAI), the Ruminative Response Scale (RRS), and the Perceived Stress Scale (PSS) were administered to patients under the experimenter supervision and to healthy controls via online versions. Analysis of covariance (ANCOVA) and the partial correlation were conducted in both groups to obtain the effect size and statistics. Sample sizes were calculated using Monte Carlo based statistical power analysis with a target power of 0.8 and a confidence level of 0.95. Given that the sample size of this pilot study is relatively small, some parameters were replaced with values extracted from previous research.

Results For a simple mediation model using the state-anxiety and trait-anxiety scores as a mediator respectively, a minimum of 43/36 patients for the MDD group and 96/88 participants for the HCs are needed; For a simple mediation model using the symptom rumination, brooding, and reflective pondering scores as a mediator correspondingly, a minimum of 82/247/374 patients and 85/81/76 participants are needed; For a simple mediation model which using perceived stress as a mediator, a minimum of 58 patients and 54 participants are needed. The dropout rate in the MDD group was 6.67%.

Conclusions At least 350 patients and 96 healthy participants are needed to investigate a simple mediation model in which the independent variable is PSQI score, dependent variable is BDI score, and the mediators are factors of STAI, RRS, and PSS.

关键字：pilot study, mediation analysis, sleep disorder, depression, anxiety, rumination, stress

伴精神运动障碍的抑郁症患者的自发 beta 能量、运动相关能量和皮质厚度改变

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目的 精神运动异常是重性抑郁障碍患者的常见症状。精神运动改变的神经生物学机制错综复杂，主要涉及运动相关区域结构和功能的变化。然而，大脑自发活动、运动相关激活、大脑皮质厚度和精神运动功能的改变之间的关系目前尚不清楚。

方法 140 名重性抑郁障碍患者和 68 名健康对照在脑磁图扫描期间进行了一项简单的右手视觉运动任务。所有患者根据是否存在精神运动阻滞症状分为两组。采用一般线性模型，以组为固定效应，年龄为协变量，比较双侧初级运动皮质的自发 beta 能量，运动相关 beta 去同步化、运动中的绝对 beta 能量和皮层结构特征。最后，我们测试了一个调节中介模型，以探究具有统计差异的大脑指标与精神运动表现之间的复杂关系。

结果 伴精神运动阻滞症状的患者在运动过程中的自发 beta 能量、运动相关 beta 去同步化和绝对 beta 能量均高于无精神运动阻滞症状的患者。与其他两组相比，精神运动减慢患者左侧初级运动皮质厚度明显减少。我们的调节中介模型显示，自发 beta 能量的增加间接影响了运动相关 beta 去同步化对精神运动能力的损害，并且这种间接影响被皮质厚度所调节。

结论 这些结果表明，重性抑郁障碍患者在静息状态和运动中均存在异常的皮层 beta 活动，伴随皮质厚度的改变，这两者一起导致了精神运动功能的改变。

关键字：脑磁图；多模态；重性抑郁障碍；精神运动改变；beta 振荡

抑郁症患者外周循环外泌体 miRNA 表达差异分析

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目的 抑郁症(MDD)是种普遍的疾病，其病因和病理尚不清楚。最近的研究强调了 sRNA 分子在重度抑郁症和其他精神疾病中的作用。外泌体 miRNA 是否参与了抑郁症的发生与发展，是否有作为抑郁症诊断新的分子生物标志物潜力，目前关于这方面的研究尚不充分。本研究拟采用高通量测序技术（High-throughput sequencing）分析抑郁症患者和健康对照组的外周血浆外泌体 miRNA 表达，探索抑郁症患者与健康志愿者的外周血外泌体 miRNA 表达是否存在差异。

方法 本研究对 11 例抑郁症患者与 11 例健康对照的外周血清进行外泌体 miRNA 测序，sRNA-seq 测序平台采用 DNBseq（DNA 纳米球核心测序技术）。下机数据经过 FastQC 质控后，使用 Hisat2 将测序数据匹配到人类参考基因(hg38)。使用 featureCounts 对注释到 miRbase 上的 miRNA 进行定量，使用 DES-seq2 进行差异性分析。

结果 在 p<0.001，log2FC>2 的条件下，筛选出 8 个显著上调的 miRNA(hsa-miR-133a-3p，hsa-miR-218-5p，hsa-miR-150-5p，hsa-miR-497-5p，hsa-miR-29b-3p，hsa-miR-10b-5p，hsa-miR-100-5p，hsa-miR-196a-5p)，和 13 个显著下调 mirna（hsa-miR-181d-5p, hsa-miR-323a-3p, hsa-miR-18a-5p, has-miR-766-5p, hsa-miR-4485-5p, hsa-miR-1227-3p, hsa-miR-330-3p, hsa-miR-487b-3p，has-miR-337-3p，hsa-miR-128-3p，hsa-miR-376a-3p，hsa-miR-154-5p，hsa-miR-7-1-3p），其中 hsa-miR-323a-3p，hsa-miR-18a-5p，hsa-miR-330-3p，hsa-miR-218-5p，hsa-miR-497-5p 和 hsa-miR-150-5p 曾被报道与抑郁症相关，有待后续验证。使用 Pearson 相关系数和双尾分析计算外周血外泌体 miRNA 水平与抑郁症患者汉密尔顿抑郁量表的相关性，其中 hsa-miR-196a-5p 与汉密尔顿抑郁量表相关（r= .661，p<0

关键字：抑郁症；外泌体 miRNA；高通量测序

A Randomized Controlled Study of Efficacy and Safety of Vortioxetine and Escitalopram in Patients with Depression in Chinese Han Nationality

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Objective To assess the efficacy, cognitive function, and safety of Vortioxetine and Escitalopram in patients with major depressive disorder (MDD).

Methods At baseline, 131 MDD patients and 70 healthy controls completed the Hamilton Depression Scale (HAMD-17), Hamilton Anxiety Scale (HAMA), Snaith-Hamilton Pleasure Scale (SHAPS) and MATRICS Consensus Cognitive Battery (MCCB). Patients with MDD were randomly divided into Vortioxetine (n=62) and Escitalopram (n=69) groups with an 8-week follow-up research. ANOVA for repeated measurement was utilized to compare the efficacy of vortioxetine and escitalopram.

Results The total scores of HAMD-17, HAMA and SHAPS scales were statistical differences between MDD cases and healthy controls (P <0.001) at baseline. After an 8-week treatment, the performance of the HAMD-17, HAMA and SHAPS had improved in both groups, with no statistical differences (P >0.05). At baseline, MDD patients were worse than healthy controls in terms of Speed of Processing, Attention Vigilance, Verbal Learning, Visual Learning, Reasoning and Problem Solving, and Social Cognition. After 8 weeks of treatment with vortioxetine or escitalopram, all factors had recovered except Social Cognition. Numerical improvements of MCCB scale were found in the two groups, P >0.05. Most adverse events were mild or moderate, with nausea being the most common adverse event.

Conclusion Both Vortioxetine and Escitalopram can improve the mental status and cognitive function, with mild or moderate adverse events.

关键字：Vortioxetine;Escitalopram;

Gender Differences in The Association between Childhood Maltreatment and Onset of Major Depressive Disorder

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Objective This study aimed to evaluate the effect of gender on the relationship between childhood maltreatment and depressive disorder onset with regard to maltreatment severity, age at onset, and correlation between different forms of maltreatment.

Methods Data for this study were derived from the Objective Diagnostic Marker and Personalized Intervention in MDD Patients (ODMPIM) study, a multi-center collaborative research project. The data used here include a total of 1001 patients diagnosed with depressive disorder and 494 healthy participants. Childhood maltreatment levels for the participants were assessed using the Childhood Trauma Questionnaire-Short Form (CTQ-SF).

Results The patients with MDD reported more severe childhood maltreatment than the healthy participants. Emotional abuse was correlated with physical abuse, and emotional neglect was correlated with physical neglect within the MDD patient population. Emotional abuse significantly contributed to the early onset of MDD for both genders. Regarding gender difference, male MDD patients tend to experience more severe physical abuse during childhood. The correlation between childhood sexual abuse and physical abuse was stronger in males than in females. The levels of physical abuse and physical neglect tend to be positively associated with the MDD onset age.

Conclusion Gender plays a role in certain aspects with regard to the relationship between MDD and childhood maltreatment.

关键字：childhood maltreatment, depressive disorder, CTQ-SF, gender difference, depression onset

住院抑郁障碍患者基线正念水平影响因素分析

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目的 基线正念水平差异对正念相关疗法治疗抑郁障碍的效果具有显著影响。本研究探讨抑郁障碍患者基线正念水平差异的影响因素，为抑郁障碍患者的正念相关治疗提供参考。

方法 收集连续住院抑郁障碍患者的社会人口学和临床资料，入院第一天对患者进行相关心理量表测评，评定工具包括抑郁自评（BDI）量表、世界卫生组织生活质量测定量表简表(WHO-QOL brief)、正念五因素量表(FFMQ)、反刍思维量表(RRS)。以 FFMQ 量表中位得分分为高、低正念水平两组，分析正念水平与社会人口学资料、临床数据及相关量表的相关性。

结果 高正念水平组抑郁障碍患者年龄较大（t=-2.107，P=0.037），BDI 得分较低（Z=-4.559，P<0.001），FFMQ 量表及观察、描述、觉知行动、不反应维度得分明显高于低正念水平组（均 P<0.01），不评判维度两组患者无显著差异（t=-0.360，P=0.719）。高正念水平组抑郁障碍患者 WHO-QOL bref 量表及维度得分明显高于低水平正念组（均 P<0.01）。高水平正念组抑郁障碍患者 RRS 量表及症状反刍、反省深思维度得分明显低于低水平正念组（均 P<0.01），强迫思考维度低分两组无显著差异（Z=-1.865，P=0.062）。logistic 回归分析显示，BDI 评分与正念水平呈显著负相关（OR 0.914，95% CI 0.840~0.994，P=0.035），心理领域（OR 1.458，95% CI 1.110~1.915，P=0.007）、年龄（OR 1.031，95% CI 1.000~1.062，P=0.048）与正念水平呈显著正相关。多元线性回归分析显示，FFMQ 得分与年龄（β 0.199, P=0.024）、婚姻状态（β 0.171, P=0.047）呈正相关，与 BDI 评分（β -0.299, P=0.012）呈负相关。

结论 年龄、心理健康、婚姻状态是影响抑郁障碍患者正念水平的正相关因素，而抑郁障碍严重程度是影响抑郁障碍患者正念水平的负相关因素。保持心理健康和良好的婚姻状态可能是提升抑郁障碍患者正念水平的有效方式。

关键字：抑郁障碍 正念 生活质量 心理健康 反刍

光照疗法治疗老年抑郁症的随机对照试验的 meta 分析

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目的 对光照疗法治疗老年抑郁症的 RCT 进行系统评价及 meta 分析，旨在为老年抑郁症患者的非药物临床决策提供循证医学证据。

方法 计算机检索 PubMed、Embase、Cochrane Library、Web of Science 英文数据库，筛选光照疗法单独或联合治疗老年抑郁症的随机对照试验，对其疗效和安全性进行 Meta 分析。检索时间区间 1966 年 1 月 1 日至 2023 年 4 月 30 日。疗效通过抑郁症状量表从基线到治疗结束时的平均分值变化来衡量；治疗的安全性定义为所有原因失访，通过在治疗结束前退出试验的患者占总随机人数的比重来衡量。应用 Revman5.3 软件进行分析。

结果 共纳入 4 个随机对照试验，含 272 例患者，光照组 135 例，对照组 137 例。Meta 分析显示经光照治疗后，光照组患者的抑郁症状较对照组轻（SMD=0.73，95%CI=0.38~-1.08），差异有统计学意义（P＜0.05）；光照组所有原因退出率为 8.15%（11/135），对照组所有原因退出率为 6.57%（9/137），两组所有原因退出率（RR=1.46，95%CI=0.25~8.39，P=0.67）无统计学差异。

结论 对于老年抑郁患者，光照疗法显示出明确抗抑郁效果，且安全性良好，为老年抑郁症患者的非药物治疗提供选择。由于数据有限和研究的异质性，这些结果需要谨慎解读。

关键字：老年抑郁 光照疗法 META 分析

研究首发抑郁症患者血清炎性因子水平变化对海马区引流静脉-侧脑室下静脉形态的影响

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目的 观察、分析和研究血清炎性因子水平变化对首发抑郁症患者海马区引流静脉-侧脑室下静脉形

态的影响。

方法 纳入 2019 年 7 月-2020 年 5 月我院门诊收治 26 例首发抑郁症患者为研究组，纳入同期 26 例健康志愿者为对照组；对照组、研究组均行外周静脉血血清因子水平监测，基于磁共振扫描下，观察和对比血清炎性因子水平变化及双侧脑室下静脉形态变化。

结果 ①在外周静脉血血清炎性反应因子 IL－10 水平方面，研究组相对于对照组未发生明显变化（P＞0.05）；在外周静脉血血清炎性反应因子 IL－2、IL－6 及超敏 C 反应蛋白水平方面，研究组相对于对照组显著升高，组间结果对比差异明显（P＜0.05）。②在双侧脑室下静脉形态之长度、分支数目指标方面，研究组相对于对照组无明显变化（P＞0.05）；在双侧脑室下静脉形态最大直径指标方面，研究组相对于对照组显著变窄；组间结果对比差异明显（P＜0.05）。③血清炎性反应因子与双侧脑室下静脉最大直径呈明显负相关（P＜0.05）。

结论 血清炎性因子水平变化对海马区引流静脉-侧脑室下静脉形态的影响是致使个体发生首发抑郁症的潜在机制。关键字：首发抑郁症；血清炎性因子水平；海马区引流静脉-侧脑室下静脉心态

关键字：首发抑郁症；血清炎性因子水平；海马区引流静脉-侧脑室下静脉心态

基于机器学习和结构磁共振成像的重度抑郁症患者识别

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目的 探讨利用机器学习方法基于结构磁共振成像数据对重度抑郁症与健康对照组进行分类的可行性。

方法 89 例健康对照组，177 例重度抑郁症进行 T1 加权磁共振扫描。基于结构性磁共振成像(sMRI)数据，利用自动解剖标签(AAL)脑模板计算每个受试者的 116 个大脑区域的脑脊液、灰质和白质的体积，得到每个受试者 348 个特征，然后使用支持向量机-递归特征消除模型对重度抑郁症与健康对照组进行分类，并识别在该模型中用于区分不同对照组的重要特征，最后与支持向量机(SVM)、全连接神经网络(FCNN)、随机森林（RF)、极端梯度提升(XGBoost)和梯度提升决策树(GBDT)等机器学习算法进行十折交叉验证分类对比实验。

结果 利用 sMRI 数据，构建的支持向量机-递归特征消除模型在对重度抑郁症与健康对照组的分类实验中达到最好性能，准确率、特异度、灵敏度、AUC 和 F1 值分别为 83.09%、82.97%、83.19%、88.16%、86.56%，并且提取了重度抑郁症与健康对照组分类模型中关键特征涉及的 22 个脑区。

结论 用机器学习方法识别重度抑郁症患者具有一定的可行性，同时也表明机器学习对潜在影像学标志物发现具有潜力；初步的机器学习分析结果说明受重度抑郁症影响的脑区结构特征可能比较广泛。

关键字：机器学习，磁共振，重度抑郁症

抑郁障碍患者多导睡眠监测结果分析及相关性研究

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目的 探讨抑郁障碍患者的多导睡眠监测（Polysomnography，PSG）情况并做相关性分析，为临床诊疗提供参考。

方法 选取 2020 年 8 月-2023 年 6 月在深圳市康宁医院住院治疗的抑郁障碍患者，共入组 63 例，完成汉密尔顿抑郁量表(Hamilton Depression Scale，HAMD)，匹兹堡睡眠质量指数量表（Pittsburgh sleep quality index，PSQI）评估，分析多导睡眠监测数据并做相关性分析。

结果 研究入组抑郁障碍患者伴随睡眠障碍者为 100%。PSQI 评分大于 10 分的占 100%。PSG 发现 44.44%的患者睡眠潜伏期>30 分钟，92.06%的患者浅睡期>60%，92.06%的患者 REM 期睡眠<20%，82.54%的患者睡眠效率<90%，22.22%的患者呼吸暂停低通气指数（apnea-hypopnea index，AHI）≥5。此外，HAMD 评分与 PSQI 评分存在正相关（r=0.256，P<0.05），HAMD 评分与 PSG 中睡眠效率不存在相关性（P>0.05）。PSQI 评分与 PSG 中睡眠效率存在负相关（r=-0.305，P<0.05）。

结论 本研究表明，抑郁障碍患者通常伴随着睡眠障碍，主要表现为入睡困难，深睡眠缺乏，睡眠结构紊乱，部分患者存在睡眠呼吸暂停低通气综合征。此外，患者抑郁症状越严重，其主观睡眠质量越差。

关键字：抑郁障碍；睡眠障碍；多导睡眠监测

分级心理护理对非精神科患者负性情绪的影响

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目的 探讨分级心理护理对非精神科患者负性情绪的影响。

方法 采取便利抽样方法选取山西医科大学第一医院阳光医院平台 2020 年 12 月心理筛查系统后台提示的非精神科合并轻中度负性情绪患者为研究对象，按时间顺序分为观察组和对照组。对照组 38 例采用常规治疗及心理护理，观察组 39 例由研究对象所在科室由阳光天使及院内联络会诊心理治疗师通过介绍环境、运用语言和非语言技巧等积极心理支持给予分级心理干预。在干预前后分别采用 SAS、SDS、匹兹堡睡眠量表对两组患者干预前后焦虑、抑郁、睡眠状况进行评定。

结果 非精神科合并轻中度负性情绪患者心理干预后观察组患者 SAS、SDS 评分低于对照组，接受干

预后焦虑评分为（45.83±4.76）分,低于对照组的（49.91±4.55）分,差异有统计学意义（t=3.847,P<0.05）；干预后观察组抑郁评分为（48.21±5.92）分,低于对照组的（52.61±4.58）分,差异有统计学意义（t=3.651,P<0.05）；干预后观察组睡眠评分为 5.00（3.00，7.00）分,低于对照组的 10.00（8.00，12.00）分,差异有统计学意义（Z=-6.352,P<0.05）。

结论 实施分级心理护理在能够帮助非精神合并轻中度负性情绪患者缓解其的焦虑、抑郁状态，提高睡眠质量，值得在临床推广。

关键字：分级心理干预；综合医院；负性情绪

焦点解决短程治疗在青少年抑郁症患者中的应用

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目的 探讨焦点解决短程治疗(SFBT)在青少年抑郁症患者中的应用效果，为临床有效实施焦点解决短程治疗提供理论依据。

方法 选取 2023 年 3 月—2023 年 5 月我科收治的 42 例青少年抑郁症患者作为研究对象，参与者年龄介于 13-18 周岁之间。采用随机数字表法将患者随机分为试验组和对照组，每组 21 例。对照组给予常规护理措施和相关健康教育，SFBT 组在对照组基础上实施 SFBT。比较两组患者的抑郁情绪、焦虑情绪及心理弹性状况。

结果 与未接受 SFBT 的青少年相比，干预在缓解青少年的抑郁和焦虑情绪方面取得了显著效果。干预 4 周后,两组抑郁自评量表（SDS）评分、焦虑自评量表量表（SAS）评分均较干预前降低（P<0.05），心理弹性量表（CD-RISC）评分较干预前增高（P<0.05）；且 SFBT 组与对照组比较，SDS 评分、SAS 评分更低（P<0.05），CD-RISC 评分更高（P<0.05）。

结论 在常规护理措施及相关健康教育的基础上实施 SFBT 可显著改善青少年抑郁症患者抑郁和焦虑情绪，同时提高青少年抑郁症患者的心理弹性水平，且治疗效果是持续存在的，因此可针对性的为青少年抑郁症患者提供 SFBT，提高其医疗服务质量及效果。

关键字：焦点解决短程治疗；青少年；抑郁症；焦虑；心理弹性；

重性抑郁障碍和双相情感障碍患者的人格特征

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目的 本横断面研究比较了重性抑郁障碍（MDD）和双相情感障碍（BD）患者与健康人的人格特征。

方法 178 名情感障碍患者被分为重性抑郁组和双相情感组，每组患者均分为缓解期和抑郁期（重性抑郁缓解期、重性抑郁抑郁期、双相情感障碍缓解期、双相情感障碍抑郁期）。使用杨氏躁狂评定量表（YMRS）和 17 项汉密尔顿抑郁评定表（HAMD-17）进行评估患者目前的情绪状态。以 95 名健康个体作为对照组。采用艾森克人格问卷中文版对人格特征进行评定。

结果 重性抑郁和双相情感障碍患者的神经质评分均高于健康对照组，具有统计学意义(P < 0.001)。各患者组的外向性评分均显著低于对照组，尤其是重性抑郁缓解期、重性抑郁抑郁期、双相情感障碍抑郁期(P < 0.001)。在双相情感障碍患者中，艾森克人格测验量表的外向型得分与汉密尔顿抑郁量表的总分之间呈负相关(P = 0.010, r = –0.27)，与杨氏躁狂量表的总分呈正相关(P = 0.022, r = 0.24)。在重性抑郁组中，艾森克人格测验量表的神经质评分与汉密尔顿抑郁量表的总分呈正相关 (P = 0.021, r = 0.25)。

结论 情感障碍患者的人格特点是外向性评分较低，神经质评分较高。人格特征与疾病的素质和状态有关，并受症状影响。

关键字：人格特点；情感障碍；神经质；外向性

渐进性肌肉放松训练对抑郁症患者相关疲乏症状及负性情绪的影响

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目的 观察渐进性肌肉放松训练在抑郁症有疲乏症状患者中的应用效果

方法 选取 2021 年 10 月～2022 年 9 月的 80 例抑郁症患者，用随机数字表法将患者分为观察组和对照组各 40 例。对照组实施常规治疗和护理，观察组在常规护理的基础上实施渐进性肌肉放松训练进行干预，通过在临床工作中对患者进行逐渐、有序的肌肉先紧张后放松训练，促使患者负性情绪得以缓解或释放，改善睡眠问题且提高睡眠质量，从而帮助患者恢复心理健康。于入组时、8 周末分别使用疲劳自评量表（FSAS）对疲乏症状进行评价，用汉密尔顿抑郁量表（HAMD-24）对患者的抑郁进行评价和观察。

结果 8 周后，试验组患者的 FSAS 总分（4（3，4））、躯体疲劳（16（15，17））、精神疲劳（15（14，16））、疲劳的后果（11（9，11））、疲劳睡眠休息（6（4，6））、疲劳的情景（15（15，15））、HAMD-24（37±6）量表得分均低于对照组，比较均具有统计学意义（Z=-2.055，-10.542，-10.586，-10.312，-10.436，-10.597，-10.542，P＜0.05）。

结论 实施渐进性肌肉放松训练在一定程度上有利于改善患者的疲乏和抑郁症状，有利于帮助患者建立重返社会的信心，提高其自我效能感。

关键字：渐进性肌肉放松训练，抑郁症，疲乏症状，抑郁

父母关怀对青少年抑郁的影响：自我同情的中介作用

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目的 抑郁是青少年，尤其是有留守经历的青少年面临的重大心理问题之一，越来越多的研究指出，父母关怀在青少年抑郁的发生发展过程中起着重要作用，然而，其潜在的影响机制目前尚不清楚。本研究拟以青少年为研究对象，探索自我同情在父母关怀和青少年抑郁关系中的中介作用。

方法 采用父母教养方式问卷（PBI）、自我同情量表（SCS）、抑郁-焦虑-压力量表（DASS-21）对广东省某中学 968 名中学生进行问卷调查。

结果 （1）与无留守经历的青少年相比，有留守经历的青少年所受的父亲关怀和母亲关怀水平更低，自我同情水平更低，抑郁水平更高；（2）父亲关怀和母亲关怀与抑郁呈负相关，与自我同情呈正相关；（3）自我同情与抑郁呈负相关；（4）自我同情部分中介了父亲关怀与抑郁的关系，以及母亲关怀与抑郁的关系。（5）父亲关怀与母亲关怀对抑郁存在交互作用。

结论 本研究表明，父亲关怀和母亲关怀对青少年的心理健康发展非常重要，它们不仅对抑郁有直接影响，而且还会通过提高青少年的自我同情，从而减少青少年患抑郁的风险。这些发现揭示了青少年抑郁发生的可能的潜在机制，并强调了父母关怀和自我同情在抑郁预防和干预中的重要作用。父母和教育者应在孩子成长的过程中给予孩子足够的关怀，帮助孩子发展出更高的自我同情水平，从而降低其抑郁风险。

关键字：父母关怀，自我同情，抑郁，留守经历

疏肝解郁胶囊联合帕罗西汀治疗居家抑郁症患者的效果 分析

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目的 比较居家抑郁症患者单用盐酸帕罗西汀治疗、与疏肝解郁胶囊+盐酸帕罗西汀联合治疗的疗效差异。

方法 医务人员随 机抽选长期接受在精神病医院门诊治疗、居家服药、效果不佳的 62 例抑郁症患者，将其分为观察组、对照组，各 31 例，对照组给予 帕罗西汀居家服药治疗，观察组给予疏肝解郁胶囊+帕罗西汀联合居家服药治疗，治疗前后均开展家访， 电话、微信随访、持续跟踪服务，线上线 下问卷调查， 比较两组患者抑郁症状改善、心理认知功能、居家服药依从性、治疗效果等等的差异。

结果 观察组居家患者的生活质量评分、患者满意度、服药依从性、患者病情好转稳定率明显 高于对照组，且 HAMD 评分、患者药物副作用明显低于对照组，研究数据采用 SPSS (21.0 版) 软件统计分 析，符合正态分布的计量资料以 ( ) 表示，两组 间统计数据比较采用 t 检验；计数型数据用%表示，用 x2 检验，(P＜0.05)。

结论 居家焦虑抑郁症患者实施疏肝解郁胶囊+帕罗西汀 联合治疗，相对于单用帕罗西汀治疗，能够有效减轻患者抑郁程度，提高患者服药依从性，从而改善患者生活质 量、心理认知功能，增加对医务人员服务的满意度和病情好转稳定率， 值得推广。

关键字：疏肝解郁胶囊；帕罗西汀； 居家抑郁症患者；心境障碍；心理认知功能

White Matter Abnormalities Are Associated with The Declined Ability of Reasoning and Problem-solving in Major Depressive Disorder

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Objective Executive function in people with depression is linked to the integrity of white matter fibers in the brain. We hypothesized that the maze tests in neuropsychological tests assessed reasoning and problem-solving abilities dependent on the integrity of brain white matter fibers, and assessed this relationship using diffusion tensor imaging (DTI) in depressed patients and healthy controls.

Methods Participants aged from 18 to 50 years were recruited from Zhumadian Second People's Hospital from July 2018 to August 2019. The sample included 33 clinically diagnosed individuals with major depressive disorder (MDD) and 24 healthy volunteers (HVs). All subjects underwent Neuropsychological assessment battery (NAB) maze tests and DTI. Tract-based spatial statistics technology in FSL software was used to process DTI data, and threshold-free cluster enhancement (TFCE) was used to perform multiple comparison corrections. The fractional anisotropy (FA) of white matter fibers in the MDD group and HVs group were compared and extracted. Pearson correlation was used to analyze the relationship between FA and NAB scores and HAMD scores.

Results The mean NAB maze test score for the MDD group was lower than the HVs group, and the difference was statistically significant ($F = 11.265$, $p = .037$). The FA value of the body of corpus callosum and cerebral peduncle right in the depression group was lower than that in the healthy control group, and the difference was statistically significant ($p < .05$). FA value of the body of corpus callosum was positively correlated with NAB score ($r = 0.400$, $p = .036$), but not with the HAMD score ($r = 0.065$,

p = .723).

Conclusion The decreased ability of reasoning and problem-solving in MDD may be due to the decreased integrity of the white matter fibers of the body of the corpus callosum.

关键字：diffusion tensor imaging, major depressive disorder, reasoning and problem-solving, white matter

柴胡龙骨牡蛎汤加减联合捏脊疗法佐治首发抑郁症的临床观察

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目的 探讨柴胡龙骨牡蛎汤加减联合捏脊疗法佐治首发抑郁症的临床疗效。

方法 选取 2019 年 3 月～2022 年 7 月我院收治的 120 例抑郁症患者，以治疗方式不同分组，对照组采用柴胡龙骨牡蛎汤加减治疗，观察组在此基础上联合捏脊疗法治疗，观察两组临床疗效，并比较治疗前、治疗后 2 周、治疗后 4 周、治疗后 6 周、治疗后 8 周的中医证候积分、SDS 评分、PQSI 评分。

结果 研究组临床疗效总有效率为明显高于对照组（P<0.05）；两组患者中医证候积分不同时点、交互、组间具有统计学差异，且治疗后 4 周、6 周、8 周观察组明显低于对照组，治疗后 8 周<治疗后 6 周<治疗后 4 周<治疗后 2 周<治疗前（P<0.05）；两组患者 SDS 评分不同时点、交互、组间均具有统计学差异，且治疗后 4 周、6 周、8 周观察组明显低于对照组，治疗后 8 周<治疗后 6 周<治疗后 4 周<治疗后 2 周<治疗前（P<0.05）；两组患者 PQSI 评分不同时点、交互、组间具有统计学差异，且治疗后 4 周、6 周、8 周观察组明显低于对照组，治疗后 8 周<治疗后 6 周<治疗后 4 周<治疗后 2 周<治疗前（P<0.05）。

结论 在柴胡龙骨牡蛎汤加减基础上给予首发抑郁症患者捏脊疗法佐治能有效缓解患者中医证候积分，减轻患者抑郁症状，改善患者睡眠质量，提高临床疗效。

关键字：]柴胡龙骨牡蛎汤加减；捏脊疗法；首发抑郁症；中医证候；

High-definition Transcranial Direct Current Stimulation (HD-tDCS) As Augmentation Therapy in Major Depressive Disorder with Anxious Distress-a Study Protocol

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Objective Comorbid anxiety disorders and anxious distress are highly prevalent among individuals with major depressive disorder (MDD).The presence of the DSM-5 anxious distress specifier (ADS) has been associated with worse treatment outcomes and chronic disease course. The current randomized controlled trial aims to assess the efficacy of HD-tDCS as an augmentation therapy with antidepressants compared to sham-control in subjects of MDD with ADS.

Methods MDD patients with ADS will be recruited and randomly assigned to the active HD-tDCS or sham HD-tDCS group. In both groups, patients will receive the active or sham intervention in addition to their pre-existing antidepressant therapy, for 2 weeks with 5 sessions per week, each lasting 30 min.

Results The primary outcome measures will be the change of depressive symptoms, clinical response and the remission rate as measured with the 17-item Hamilton depression rating scale (HDRS-17) before and after the intervention, and at the 2nd and 6th week after the completed intervention. Secondary outcome measures include anxiety symptoms, cognitive symptoms, disability assessment and adverse effects.

Conclusion The HD-tDCS applied in this trial may have treatment effects on MDD patients with ADS and have minimal side effects.

关键字：High-definition transcranial direct current stimulation, Augmentation therapy, Major depressive disorder, Anxious distress specifier

首发与复发抑郁障碍临床特点及治疗现况对比分析

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目的 调查 2018 年 1 月-2019 年 12 月抑郁障碍住院患者的治疗情况，探究首发与复发抑郁药物治疗情况有何不同。

方法 通过京津冀精神卫生数据平台对 2018 年 1 月-2019 年 12 月在河北省精神卫生中心住院治疗的抑郁障碍患者治疗相关数据进行回顾性分析，描述首发与复发抑郁患者一般资料情况，治疗情况及相关药物使用情况。

结果 1492 例患者中，首发抑郁与复发抑郁在伴有躯体疾病、住院天数、抗精神病药、抗焦虑药、抗抑郁药数量方面比较，差异有统计学意义（P< 0.05）。两组在抗抑郁药联合抗焦虑睡眠药比较差异有统计学意义（P<0.05）；联合抗精神病药比较差异均有显著性（P<0.01）；2 种抗抑郁药基础上再使用抗精神病药比较差异均有显著性（P<0.01）；而在联合使用心境稳定剂方面比较差异无统计学意义（p>0.05）。在抗抑郁药分类使用上，首发抑郁选用 SSRIs 类药明显高于复发抑郁；复发抑郁在使用 SNRIs 类、NASSA 类上要高于首发抑郁。

结论 复发抑郁与首发抑郁相比，复发抑郁伴躯体疾病的比率更高，住院天数更长；在抗抑郁治疗方面复发抑郁联合使用抗焦虑失眠药、抗精神病药更突出，联合用药几率更高。临床医生需关注复发抑郁在治疗

中联合用药躯体健康、药物副作用发生的风险发生，增加非药物治疗、全病程药物监测及用药指导。

关键字：首发抑郁；复发抑郁；回顾性分析；联合用药

CBT 联合动力学疗法在抑郁症患者心理护理中的应用

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目的 探讨认知行为疗法（Cognitive Behavior Therapy，CBT）联合动力学疗法在抑郁症患者心理护理中的应用。

方法 采用简单随机抽样法选择 2022 年 1 月～2022 年 12 月南京脑科医院共收治抑郁症患者 106 例作为研究对象，另采用随机数字表法将其分为两组，对照组和观察组各 53 例，对照组行常规心理护理，观察组在此基础上行 CBT 联合动力学疗法。观察比较两组患者入组当日和干预 4 周后的应对方式和抑郁症状。

结果 入组当日，两组患者应对方式问卷（Coping Style Questionnaire，CSQ）各分量表评分差异无统计学意义（P>0.05）；干预 4 周后，两组患者 CSQ 各分量表评分均较入组当日显著提高（P<0.05），且观察组患者 CSQ 各分量表评分均显著高于对照组（P<0.05）。入组当日，两组患者中文版贝克抑郁量表第 2 版（Beck Depression Inventory-II，BDI-II）评分差异无统计学意义（P>0.05）；干预 4 周后，两组患者 BDI-II评分均较入组当日显著提高（P<0.05），且观察组患者 BDI-II评分均显著高于对照组（P<0.05）。

结论 CBT 联合动力学疗法有助于纠正抑郁症患者面对疾病的看法，改善抑郁症状。

关键字：抑郁症；心理护理；认知行为疗法；心理动力学疗法

伏硫西汀与文拉法辛对抑郁障碍患者临床疗效及认知功能影响的随机对照研究

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目的 比较伏硫西汀和文拉法辛对抑郁障碍患者的临床疗效及对认知功能的影响。

方法 选取本院 2020 年 01 月至 2020 年 12 月确诊的 60 例抑郁障碍患者，采用随机数字表法分成伏硫西汀组及文拉法辛组，每组各 30 例，进行对照实验，连续治疗 8 周。在治疗前和治疗后 2 周、4 周及 8 周末对所有患者的汉密尔顿抑郁量表-17 项（Hamilton Depression Scale-17，HAMD-17）评分、抑郁症患者认知缺陷问卷（Perceived Deficits Questionnaire for Depression，PDQ-D）评分、数字符号替换测验（Digit Symbol Substitution Test，DSST）结果进行统计学比较，在试验期间记录每个患者因服用药物产生的副作用情况直到治疗结束。

结果 伏硫西汀组 HAMD-17 评分在治疗两个月后明显下降，这与文拉法辛组无明显统计学差异（P=1.35）。伏硫西汀组与文拉法辛组不良反应发生率（30%、20%）比较差异无统计学意义(P=0.02)。伏硫西汀组 PDQ-D 的减分程度明显高于文拉法辛组（P=0.01），治疗各阶段 DSST 评分提升速度都要高于文拉法辛组（P=0.02）。

结论 伏硫西汀与文拉法辛治疗抑郁障碍的临床疗效相当，伏硫西汀具有更高的安全性，且在认知功能改善方面优于文拉法辛，值得推广运用于抑郁障碍患者。

关键字：伏硫西汀；文拉法辛；抑郁障碍；认知功能

重度抑郁症患者症状缓解后维持治疗的药物经济学研究

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目的 重度抑郁症（Major depressive disorder, MDD）是一类高复发风险的疾病，本研究旨在分析比较不同药物在 MDD 巩固和维持期治疗的效果及经济学评价。

方法 本研究纳入 MDD 巩固和维持期治疗的随机对照研究。首先基于报告的生存曲线提取并构建个体数据。在贝叶斯框架下使用 WinBUGS 软件分别基于 Weibull、Gompertz、log-logistic 以及 log-normal 模型拟合数据，选择 DIC 最低的模型进行后续生存曲线外推分析。

结果 一共纳入 40 个随机对照试验，多数研究的随访时间在 1 年之内。结果显示 Gompertz 模型的 DIC 最低，故后续采用 Gompertz 模型进行分析。总的来说，安慰剂的 1 年无复发率为 55%；抗抑郁药物的 1 年无复发率为 76%。1 年无复发月排行第一的抗抑郁药物为苯乙肼，第二为噻奈普汀，第三为氟伏沙明。另一个值得注意的结果是，虽然症状缓解后继续维持抗抑郁药物能够较安慰剂显著降低复发率，但是增加巩固治疗的时间并不能降低撤药后的年复发率。

结论 本研究结果提示抗抑郁药物的维持使用能够有效降低症状缓解 MDD 的年复发率，但并不能降低撤药后的复发风险。本研究对于后续研究的启示：对于症状缓解的 MDD 患者，尤其是对于已经巩固治疗时间较长的 MDD 患者，如何在不增加复发率的同时科学的撤药是一个值得研究的问题。

关键字：重度抑郁症， 抗抑郁药物， 巩固治疗，药物经济学评价

忧郁型抑郁症的双侧伏隔核萎缩

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目的 忧郁型抑郁症是一种以快感缺失是核心特征的常见抑郁症亚型。由于奖赏环路异常与抑郁症的快感缺失症状关系密切，我们推测忧郁型抑郁症的奖赏环路结构存在异常改变。然而，目前关于忧郁型抑郁症的伏隔核、海马等构成奖赏环路的皮层下脑区结构改变的研究较少。因此，本研究旨在探讨忧郁型抑郁症患者皮层下脑区的结构变化，为理解其病理机制提供理论基础。

方法 纳入 146 例首发未治疗的抑郁症患者和 83 例健康对照，所有受试者都进行 T1 加权 MRI 扫描。基于 DSM 诊断标准，将抑郁症患者分为忧郁型抑郁症组 (n=72) 和非忧郁型抑郁症组 (n=74)。使用 FreeSurfer6.0 软件对所有受试者的皮层下脑区进行分割，比较三组之间皮层下脑区结构差异，并利用偏相关分析探究差异脑区与忧郁型抑郁症临床特征之间的关系。

结果 与健康对照相比，忧郁型和非忧郁型抑郁症患者均表现出左侧海马体积减小。同时，相对于健康对照，仅在忧郁型抑郁症患者中观察到双侧伏隔核体积减小。相关性分析显示，忧郁型抑郁症患者的左侧伏隔核体积与早醒呈正相关，与困倦呈负相关。

结论 海马灰质体积减少可能与抑郁症的发病机制有关，而伏隔核萎缩可能是忧郁型抑郁症的独特神经病理基础。本研究提示，在未来的研究应更关注不同亚型抑郁症的不同致病机制，以制定个性化的诊断和治疗方案。

关键字：忧郁型抑郁症 快感缺失 皮层下结构 海马 伏隔核 灰质体积

青少年抑郁障碍患者与双相情感障碍患者 睡眠特征及其对自杀风险的影响

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目的 比较青少年抑郁障碍和双相情感障碍住院患者睡眠结构特征的差异，探讨睡眠指标等因素对患者自杀风险的影响。

方法 回顾性查阅广州医科大学附属脑科医院 2019 年 1 月 1 日-2021 年 6 月 30 日符合《国际疾病分类（第 10 版）》（ICD-10）诊断标准的抑郁障碍（n=97）和双相情感障碍（n=52）住院青少年患者病历资料，收集患者的年龄、性别、BMI、精神科诊断、自杀风险评估量表（NGASR）评分及多导睡眠监测（PSG）结果。根据 NGASR 评分结果，将患者分为两组：0~5 分为低风险组，>5 分为高风险组。以既往文献中 80 例正常青少年的 PSG 数据作为对照组资料。建立多元线性回归模型探讨青少年情感障碍患者自杀风险的影响因素。

结果 自杀高风险组睡眠效率和 N2 期睡眠占比均低于自杀低风险组（Z=-2. 138、-2. 520， P 均

关键字：青少年；抑郁障碍；双相情感障碍；多导睡眠监测；自杀风险

草酸艾司西肽普兰联合曲唑酮治疗对抑郁症患者心理状态及效果的影响分析

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目的 分析在抑郁症患者的治疗中应用草酸艾司西肽普兰联合曲唑酮治疗对患者心理状态以及临床治疗效果的影响。

方法 将于 2021 年 4 月-2023 年 4 月这 2 年期间在本院接受诊治的抑郁症患者设置为实验样本，设置实验样本例数为 80 例，利用单双号分发法将这 80 例抑郁症患者做分组处理，将其中 40 例选取到双号的患者划分在同一组别，该组设为常规组，组内患者采用草酸艾司西肽普兰治疗，将另外 40 例选取到单号的患者划分在另一组别，该组设为研究组，组内患者采取草酸艾司西肽普兰联合曲唑酮治疗，之后对两组患者的临床治疗效果、心理状态、生活质量以及睡眠质量等各项临床指标做分析比较。

结果 采取不同用药方案进行治疗后，两组患者的临床治疗总有效率结果如下，研究组为 95.00%，常规组为 77.50%（P＜0.05）；研究组患者的心理状态得到明显改善（P＜0.05）；研究组患者的生活质量指标评分提升情况优于常规组（P＜0.05）；研究组患者的睡眠质量得到有效改善（P＜0.05）。

结论 对于抑郁症患者来说，采用草酸艾司西肽普兰联合曲唑酮进行治疗，这种治疗方式可以提升患者的睡眠质量与生活质量，对于改善患者心理状态以及提升临床疗效具有积极影响。

关键字：草酸艾司西肽普兰；曲唑酮；抑郁症；心理状态；效果；影响；分析

叙事护理在抑郁症中的应用研究进展

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目的 抑郁症具有发病率、致残率高等特点，对患者危害大，可严重损害患者的认知功能，造成社会功能减退，从而给其家庭与社会带来沉重负担。目前在临床上，对于抑郁症单纯使用药物治疗的效果不理想，需要

结合其他的治疗手段来帮助患者的恢复。叙事护理(arrative Nursing)是一种新兴的心理干预治疗方法，目前在临床护理工作上得到广泛应用。本文将从叙事护理在抑郁症中的应用进行综述，从而为抑郁症患者的心理干预提供新的思路。

方法 我们采用关键词检索的方式，以“depression;narrative nursing；psychotherapy；”为英文检索词，以“抑郁症、叙事护理、心理治疗”为中文检索词，检索在2012年12月至2022年12月发表在中国知网、万方数据知识服务平台、维普数据库、中国生物医学文献数据库、PubMed、Web of Science、Cochrane数据库等数据库中的中英文文献。

结果 叙事护理是指护理工作者通过倾听、阐释及吸收患者的故事，帮助其重构生命的意义，实现人生价值的一种护理模式。叙事护理能有效解决不同疾病和文化背景患者的问题，对改善抑郁症患者的认知功能、临床症状、远期疗效均有明确的效果依，能够较长时间地改善患者的抑郁状态。研究表明，叙事护理对改善多种疾病导致的抑郁状态有一定的疗效。

结论 叙事护理可有效缓解患者的焦虑抑郁情绪、病耻感等负性表现，能够减轻患者的痛苦，提升护理工作的满意度及自身的幸福感，提高患者的生活质量。

关键字：抑郁症；叙事护理；心理治疗

功能性近红外光谱成像技术在抑郁症中的研究进展

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目的 功能性近红外光谱成像技术(functional near-infrared spectroscopy，fNIRS)是一种研究神经功能影像的新技术。近红外光谱仪是一种新型的光学成像设备，具有携带方便、使用方便等特点。它基于神经血管耦合的原理，测量大脑区域的氧合和脱氧血红蛋白水平来确定大脑活动。fNIRS 在脑科学的各个领域均有涉及，其在精神疾病的应用也十分广泛，其中在抑郁症中的应用尤为突出，本文将对 fNIRS 在抑郁症中的研究进行综述，从而为临床提供新的思路和科学指导。

方法 我们采用关键词检索的方式，以“functional near-infrared spectroscopy，oxyhemoglobins，prefrontal cortex，depression”为英文检索词，以“功能性近红外光谱，氧合血红蛋白，前额叶皮质，抑郁症”为中文检索词，检索在 2012 年 12 月至 2022 年 12 月发表在中国知网、万方数据知识服务平台、维普数据库、中国生物医学文献数据库、PubMed、Web of Science、Cochrane 数据库等数据库中的中英文文献。

结果 fNIRS 发现抑郁症患者在 VFT（语言流畅性任务）下前额叶皮质激活较正常情绪状态明显降低，从而影响了抑郁症患者的认知功能。fNIRS 有可能成为诊断抑郁症的生物标记物，并且可用于其他疾病与抑郁症的鉴别。fNIRS 与其他技术的相结合更能反映出抑郁症患者脑部血流动力学出现异常。

结论 fNIRS 技术在抑郁症的严重程度、正负性想法、自杀观念、认知功能、临床症状等方面的评估及对疾病的诊断方面有着巨大的潜能。

关键字：近红外光谱成像技术；抑郁症；前额叶皮质；氧合血红蛋白；

Gender Differences in Clinical Correlates of Glucose Disturbance in Patients with First-episode and Drug-na?ve Major Depressive Disorder

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Objective Gender differences in glucose metabolism disorders in patients with major depressive disorder (MDD) have been rarely studied. In this study we investigated gender differences in the prevalence of glucose metabolism disorders and associated factors in first-episode and drug na?ve (FEDN) MDD patients in a Chinese Han population.

Methods In this cross-sectional study, a total of 1718 FEDN MDD outpatients were recruited, and demographic and clinical data were collected. All subjects were scored using the Hamilton Depression Rating Scale (HAMD), Hamilton Anxiety Rating Scale (HAMA) and the Positive and Negative Syndrome Scale (PANSS) positive subscale to assess clinical symptoms.

Results Female MDD patients were older, present with symptoms at an older age, were more likely to be married and had more psychotic symptoms than male MDD patients. There was no significant difference in the prevalence of glucose metabolism disorders between female patients (14.16%) and male patients (12.59%) ($p>0.05$). In both male and female groups, patients with glucose metabolism disorders had higher HAMD score, HAMA score, suicide attempts, and psychotic symptoms than patients without glucose metabolism disorders (all $p<0.05$). However, only in female group, patients with glucose metabolism disorders had more severe anxiety symptoms than patients without glucose metabolism disorders. Furthermore, binary logistic regression analysis showed that psychotic symptoms and suicide attempts were independently associated with glucose metabolism disorders in male MDD patients, while suicide attempts and HAMD score was independently associated with glucose metabolism disorders in female MDD patients.

Conclusion Our findings showed no gender differences in the prevalence of glucose metabolism disorders in patients with FEDN MDD. However, there were gender difference in the clinical correlates of glucose metabolism disorders in FEDN MDD patients.

关键字：Gender differences;major depressive disorder; first-episode drug-naive; glucose disorder

Prevalence and Clinical Correlates of Glucose Disturbances in Chinese Patients with First-episode and Drug-naive Major Depressive Disorder at Different Ages of Onset

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Objective Glucose disturbances are a common comorbidity in patients with major depressive disorder (MDD) and are associated with worsening clinical outcomes. MDD patients at different ages of onset may have different clinical features. The aim of this study was to investigate the prevalence and related factors of glucose disturbance in MDD patients at different ages of onset.

Methods A total of 1718 first-episode and drug-na?ve (FEDN) MDD patients were enrolled. The Hamilton Depression Scale (HAMD), Hamilton Anxiety Scale (HAMA), and Positive and Negative Syndrome Scale (PANSS) were used to assess the clinical symptoms of all patients. Fasting blood glucose, metabolic parameters and thyroid hormone levels were measured. The cutoff point for early-adulthood onset (EAO) and mid-adulthood onset (MAO) was the first depressive episode before or after 45 years of age.

Results There was no significant difference in the prevalence of glucose disturbances between EAO patients (12.9%) and MAO patients (15.7%). For EAO patients, glucose disturbances were more likely to be associated with TSH levels. For MAO patients, a significant correlation between anxiety and glucose disturbances was observed. Furthermore, suicide attempts, psychotic symptoms, and depression severity were correlated with glucose disturbances in both groups.

Conclusion Our findings in this study suggest that the clinical characteristics and factors associated with glucose disturbances in MDD patients vary depending on the age of onset and therefore the age of onset needs to be considered in the treatment of glucose disturbances.

关键字：major depressive disorder; ages of onset; glucose disorder;

The Association of Clinical Correlates, Metabolic Parameters, and Thyroid Hormones with Overweight in First-episode and Drug-na?ve Patients with Major Depressive Disorder Comorbid with Glucose Disturbances: A Large-scale Cross-sectional Study

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Objective The associated factors of overweight in patients with major depressive disorder (MDD) comorbid with glucose disturbances remains unclear. To the best of our knowledge, this is the first study with a large sample size that examines the risk factors of overweight in first-episode drug-na?ve (FEDN) MDD patients comorbid with glucose disturbances and includes clinical correlates, metabolic parameters, and thyroid hormone levels.

Methods A total of 1654 FEDN MDD patients were enrolled. The Hamilton Depression Scale (HAMD), Hamilton Anxiety Scale (HAMA), and Positive and Negative Syndrome Scale (PANSS) were used to assess the symptoms of patients. Metabolic parameters and thyroid hormone levels were measured.

Results The prevalence of overweight in MDD patients comorbid glucose disturbances was 64.44%，which was 1.022 times higher than that in MDD patients without glucose disturbances (57.17%). Compared to non-overweight, overweight among the MDD patients with glucose disturbances had higher scores on HAMD and HAMA, PANSS positive symptoms, as well as higher levels of systolic and diastolic blood pressure, TC, LDL-C, thyroid stimulating hormone (TSH), TgAb, and thyroid peroxidases antibody (TPOAb). The combination of positive symptom score, HDL-C, systolic blood pressure, and marital status distinguished overweight from non-overweight. In addition, HAMA score, HAMD score, and TPOAb were associated with the BMI levels in MDD patients with comorbid glucose disturbances.

Conclusion Our results suggest a high incidence of overweight in MDD patients with comorbid glucose disturbnaces. Several clinically relevant facors, metabolic parameters, and thyroid hormone function have an impact on overweight in MDD patients with glucose disturbances.

关键字：major depressive disorder; metabolic parameters; first-episode and drug-na?ve; cross-sectional study

A Case-control Study of The Correlation between Social Cognition and Oxidative Stress in First-episode Drug-na?ve Major Depressive Disorder

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Objective Social cognitive skills are often impaired in patients with major depressive disorder (MDD), and facial expression recognition, narration and empathy are closely related to social cognitive skills. Previous studies have found that oxidative stress indicators are often abnormal in the blood with reduced social cognition performance. The aim of this study was to investigate the correlation between social cognitive ability and oxidative stress in patients with first-episode drug-na?ve (FEDN) MDD.

Methods 165 FEDN MDD outpatients and 86 healthy volunteers were recruited. A self-administered questionnaire was used to collect general information. The Hamilton Depression Scale (HAMD) and Hamilton Anxiety Scale (HAMA) were used to assess the clinical symptoms of patients. The Facial Emotion Recognition Task, Toronto Alexithymia Scale (TAS-20) and the Interpersonal Reactivity Index Scale (IRI) assessed social cognitive

function and a blood test for indicators of oxidative stress was administered.

Results Our study showed that MDD patients have lower levels of education, are more unmarried, and are associated with more alcohol use than healthy patients. MDD patients showed more intense emotional sadness and poorer empathy, and impaired social cognitive function in MDD patients may be associated with age, HAMD scores, HAMA scores, and CAT (all p＜0.05).

Conclusion Our study shows that impaired social cognitive function in patients with FEDN MDD is strongly correlated with age, education level and indicators of oxidative stress. This finding may be help to improve the identification of patients with MDD and provide better treatment.

关键字：social cognition；oxidative stress；case-control study； first-episode drug-na?ve major depressive disorder

抑郁障碍中的快感缺失与认知功能损害研究进展

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目的 抑郁障碍是一种常见的精神疾病，持续情绪低落、兴趣减退是其典型临床症状，对抑郁障碍的认知功能损害研究近年来相对较多，但一部分前人的研究结果间存在一些冲突，本研究试图寻找并解释这些冲突存在的可能原因，并为未来的研究提供参考。

方法 本文以 pubmed 和中国知网为主要数据库进行检索，引用国内外文献共 56 篇，对近些年以来，在“抑郁障碍中的快感缺失与认知功能损害”领域的相关研究进行汇集对比分析，并最终形成综述，对之后的研究提供依据及指导意见。

结果 在抑郁障碍的认知功能相关研究中，存在一些相似的研究得出相反的结论，而在既往的诊疗指南中以及其他相关研究中发现，抑郁障碍可以根据不同特点分成各种类型，或许应该对抑郁障碍进行分型研究，伴忧郁特征的抑郁障碍被发现在认知功能损害方面比不伴忧郁特征的抑郁障碍更差，抑郁障碍的快感缺失被发现与疾病的严重程度、自杀意念、抗抑郁治疗效果等存在相关性，同时被发现与多项认知功能损害之间存在相关关系，但区分了类型之后，在前人的研究中仍存在一些冲突的结果，经对比发现，可能与他们研究中对快感缺失的定义存在分歧，并使用的研究工具具体研究的功能对象不一致有关。

结论 为了澄清这些疑点，在未来对抑郁障碍的快感缺失与认知功能损害的研究中，对抑郁障碍根据不同特征进行更进一步细化分型是有必要的。

关键字：抑郁障碍、快感缺失、认知功能

男性抑郁症腰椎骨密度定量 CT 研究

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目的 探讨男性抑郁症患者腰椎骨密度(Bone mineral density，BMD)与正常人群的差异，分析患者 BMD 与激素（泌乳素、皮质醇）的相关性。

方法 回顾 2021 年 7 月～2022 年 2 月，以抑郁症在首都医科大学附属北京安定医院住院的 80 例男性患者，年龄 31～78 岁，平均 53.9 岁。80 例性别及年龄严格匹配的健康男性体检人群作为对照组。所有纳入的研究对象行腰椎定量 CT(Quantitative CT，QCT)骨密度测量，并搜集血液泌乳素及皮质醇结果。采取独立样本 t 检验对比分析患病组和对照组之间 BMD 的统计学差异，进一步采用协方差分析（A(CO)NOVA）校准两组间 BMI 的差异对结果的影响；?2 检验对比男性抑郁症不同骨密度组构成比与对照组的差异；采用 Pearson 相关分析评价抑郁症组 BMD 与泌乳素及皮质醇的相关性。

结果 男性抑郁症患者腰椎 BMD 明显低于健康对照组（116.6±39.9 mg／cm3 vs 135.2±37.2 mg／cm3，t=3.03, P＜0.001）；与对照组比较，男性抑郁症不同骨密度组构成比差异有统计学意义（?2 =10.255，P=0.005）。Pearson 相关分析得出男性抑郁症患者腰椎 BMD 与泌乳素（r=0.036 , P =0.777）及皮质醇（r= -0.199, P =0.114）均不具有相关性。

结论 与健康对照组相比，男性抑郁症患者 BMD 明显减低，与泌乳素、皮质醇无相关性。

关键字：抑郁症 Depressive Disorder；骨密度 Bone Density；定量 CT Quantitative CT

青少年抑郁症患者父母的抑郁认知及其影响因素

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目的 探究青少年抑郁症患者父母的抑郁认知，并从家庭环境和教养方式等因素分析对其抑郁认知的影响。

方法 收集青少年抑郁症患者 54 名（青少年组）及其父母 50 名（父母组）的一般资料，青少年组评定抑郁自评量表（Self-rating depression scale, SDS）、简式父母教养方式（Short-Egma Minnen av Bardndos-nauppforstran, S-EMBU）；父母组评定抑郁认知量表（Depression literacy Questionnaire, D-Lit）、家庭环境量表中文版（Family Environment Scale Chinese Version, FES-CV）,采用 SPSS 26.0 软件进行 t 检验、F 检验、Pearson 相关分析、Spearman 相关分析、多元逐步线性回归等方法对青少年抑郁症患者的父母的抑郁认知的影响因素进行分析。

结果 青少年组年龄中位数为 16 岁，病程中位数为 22 个月；父母组年龄平均数为 44.58 岁，父母组的 D-Lit 得分平均值为 9.56±0.408，在性别、民族、婚姻状况、文化程度、月收入、户口类型方面，青少年抑郁症患者父母的抑郁认知差异无统计学意义（P＞0.05）；D-Lit 量表中正确率最高的条目为："由于患上抑郁症，人们可能行动缓慢或变得坐立不安。"（82%）；错误率最高的条目为："支持性的心理咨询和认知行为疗法对抑郁症具有相同的治疗效果。"（68%）；父母抑郁认知与患者病程具有正相关关系（秩相关系数为 0.288，P＜0.05);家庭环境中的成功性与抑郁认知呈正相关关系；不同教养方式的父母抑郁认知有显著性差异（F=4.776,P=0.013），以情感温暖和过度保护的教养方式为主的父母之间抑郁认知无明显差异，但二者都与拒绝具有显著性差异。

结论 1.青少年抑郁症患者父母的抑郁认知程度较低，应当提高父母的抑郁认知，有利于青少年患者的诊疗。 2.青少年抑郁症患者的病程和家庭环境的成功性是父母抑郁认知的影响因素。 3.抑郁认知高的父母的教养方式更以情感温暖和过度保护为主。

关键字：青少年抑郁症，抑郁认知，家庭环境，教养方式

米那普仑与氟西丁治疗郁抑症的疗效分析

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目的 分析米那普仑与氟西丁各自治疗抑郁症疗效的优势对比。

方法 一、入组标准：1、选择 2022 年 1 月至 2022 年 7 月在本院住院符合 ICD-10 抑郁症诊断标准：诊断为抑郁症的患者；2、患者及家属对本次研究内容了解并自愿签署知情同意书；3、剔除对米那普仑及氟西丁使用有禁忌症的患者；4、排除其他器质性疾病；5、年龄在 20-60 之间，男女比率 1:1；符合入组人员为 56 例，随机分为：米那普仑组 28 例、氟西丁组 28 例。二、观察周期：6 周。三、用药使用方法：米那普仑组根据病情在 50mg-300mg/天调整，氟西丁组根据病情在 20mg-80mg/天调整。四、通过汉密尔顿抑郁量表，副反应量表评估病情，对两组的疗效及药物的安全性进行对比分析。

结果 治疗前，米那普仑组汉密尔顿抑郁量表评分（27.68±3.43）与氟西丁组汉密尔顿抑郁量表评分（26.01±3.29）。治疗前米那普仑组副反应量表评分（17.56±10.14）与氟西丁组副反应量表评分（16.70±8.44）。治疗 6 周后，米那普仑组汉密尔顿抑郁量表评分（8.06±3.15）与氟西丁组汉密尔顿抑郁量表评分（14.26±3.01）。治疗后，米那普仑组副反应量表评分（13.34±5.6）与氟西丁组副反应量表评分（12.96±6.02）。

结论 通过汉密尔顿抑郁量表及副反应量表治疗前后评分的对比，米那普仑治疗抑郁症较比氟西丁有着更高的临床疗效，可明显改善抑郁症状，而且不增加药物不良反应。

关键字：抑郁症 米那普仑 氟西丁

Evaluating The Effectiveness of Integrated Traditional Chinese and Western (ITCW) Treatment Based on Symptom Grading: A Study Protocol for A Multi-center, Randomized Controlled Trial of Patients with Depressive Disorder

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Objective To present the protocol for a pilot trial to propose a pilot trial to evaluate the effectiveness of interventions at different levels in improving depression status in community populations with depressive disorder.

Methods A randomized controlled trial will be conducted in two communities in Guangdong, China, with a follow-up period of 4 weeks. The participants in the routine care will receive medical treatment in the community or hospital outpatient department without receiving (TCM) intervention measures; The participants in the intervention group received ITCW treatment in accordance to the severity of depressive. The main outcome measure was the depression screening scale (PHQ-9). Secondary outcomes were designed to measure improvements in physical condition and mental health literacy, namely sleep quality and medical attention. Data will be collected at baseline (T0), 2 weeks (T2, intervention), and 4 weeks (T3, intervention).

Results By the end of the study, the results are expected that the experimental group will effectively improve the depressive mood of the depressed population, improve sleep quality, and enhance mental health awareness.

Conclusion This study will provide experimental basis for the effectiveness of hierarchical integrated traditional Chinese and Western medicine nursing in improving the depression status of patients with different degrees of depression.

关键字：Depression, Integrated traditional Chinese and Western treatment, Randomized controlled trials, Protocols

磁休克疗法治疗重度抑郁障碍的研究进展

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目的 重度抑郁障碍（Major Depressive Disorder，MDD）又称抑郁症，是以显著持久的心境低落为特征的心境障碍疾病，导致患者长期的社会心理损害，甚至自伤、自杀等不良事件。电休克疗法（Electroconvulsive Therapy，ECT）是公认治疗 MDD 的有效方法，但其

较为明显的认知不良反应限制了其临床应用。有必要开发一种新的治疗方法，以减轻已知不良反应，同时保持令人满意的疗效。磁休克（Magnetic Seizure Therapy，MST）疗法是类似 ECT 的另一种形式的惊厥疗法，与 ECT 依靠经颅电刺激发挥作用不同，MST 通过高频、重复的经颅磁刺激（rTMS）诱导癫痫发作起到治疗作用。目前，MST 疗法处于临床研究的早期阶段，人群中的研究和治疗开展尚有限，其疗效、不良反应及作用机制尚不清楚。

方法 笔者以磁休克（Magnetic Seizure Therapy 或 MST），抑郁症（depress*）为检索词在 Pubmed 和知网数据库检索，检索式为主题和关键词，检索时间为 2000 年 1 月至 2023 年 7 月，共查找到中英文期刊论文 8 篇。本文综述了 MST 技术治疗 MDD 的相关研究,介绍了其工作原理、疗效及其不良反应表现，以更好指导临床实践。

结果 目前现有研究多为小样本的探索性研究，尚缺乏高质量的随机对照研究，已有研究显示 MST 技术对 MDD 的疗效与 ECT 相当,且在认知不良反应方面显著优于 ECT。MST 的疗效与 ECT 相比没有统计学意义上的差异，MST 治疗 MDD 患者后，抑郁症状的改善有统计学意义；在认知不良反应方面，MST 在主观记忆损害，定向力和苏醒时间等指标上相较 ECT 具有明显优势。

结论 现有研究存在样本量偏小，随机化不充分等局限，需进行更大样本量的随机对照研究以明确 MST 和 ECT 间的疗效和不良反应差异。治疗安全性也是临床关切的重要课题，临床上理想的治疗策略应具备有效、快速起效、安全、耐受的特点，提示应同时开展 MST 技术的安全性评估。在今后的研究中,需综合症状学、行为学、神经影像学、生物标志物等多维度数据,同时结合磁共振、近红外光谱、脑电等功能性神经成像技术，以阐明 MST 技术的潜在治疗机制,为抑郁患者提供更佳的治疗选择,除此之外，还应开展女性、青少年、老年人群等特殊人群的临床研究，补充不同性别、不同年龄段的相关证据，为未来研究和应用提供依据。

关键字：磁休克；抑郁障碍；神经调控；

Dissecting The Shared Genetic Architecture between Depression and Sarcopenia

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Objective Sarcopenia and depression are 2 common disorders in the elderly with a high rate of comorbidity. However, the underlying shared mechanism between these 2 disorders remains unclear. The current study aimed to explore the shared genetic architecture between depression and sarcopenia, which can guide clinical practice and therapy development.

Methods Using appendicular lean mass (ALM) as the proxy of sarcopenia, we first examined the shared genetic correlation, pleiotropic enrichment and genetic causality between depression and ALM with the genome-wide association study (GWAS) datasets. Next, we applied the conjunctional false discovery rate (conjFDR) analysis to explore the shared loci between depression and ALM. Last but not least, we used expression quantitative loci (eQTL) to annotate the shared loci, aiming to explore the shared genes and pathways between depression and ALM.

Results We found a significant negative genetic correlation and pleiotropic enrichment between depression and ALM. Moreover, with the MR method, we found that higher ALM was causally associated with a lower risk of depression, and depression was causally associated with lower ALM, indicating the bidirectional causality between depression and sarcopenia. At the SNP loci, 75 loci were found to be shared between ALM and depression, with a majority (49/75, 65.3%) of the loci having opposite effects on ALM and depression, which was consistent with the negative genetic correlation between ALM and depression. Moreover, these 49 loci were associated with the expression of 112 unique protein-coding genes in the blood, brain or skeletal muscle, which were enriched in pathways including “protein glycosylation” and “regulation of protein binding”, suggested to be the shared pathogenesis mediating depression and sarcopenia.

关键字：depression; Sarcopenia; appendicular lean mass; genetic correlation; pleiotropic enrichment; Mendelian Randomization; conjunctional false discovery rate

身体活动、维生素 D 与抑郁的联系

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目的 维生素 D 缺乏症在全球发病率很高，并被认为与严重抑郁的风险增加有关。抑郁症使患者身心健康受到损害，生活质量下降，严重时还可能诱发自杀意念。身体活动可能和抑郁以及维生素 D 有着密切的联系。因此，本研究的目的是评估在相互调整后的身体活动、维生素 D 和抑郁症三者的关联。

方法 本研究以 2015-2018 年美国国家营养调查中分层抽取的 20 岁及以上代表性人群为样本，共 9839 人（男 4765 人、女 5074 人，平均年龄 50.22 ± 17.70 岁）。通过全球身体活动问卷评估身体活动，判断样本在常规的一天中是否进行各类身体活动。利用超高效液相色谱-串联质谱法定量检测样本血清中的 25-羟基维生素 D3 和 25-羟基维生素 D2 浓度，以二者之和浓度代表样本维生素 D 水平，并将血清 25(OH)D 浓度

关键字：身体活动，维生素 D，抑郁

基于自噬基因的度洛西汀抗抑郁疗效预测模型的构建

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目的 越来越多的研究提示自噬与抑郁症及可能预测抗抑郁药物疗效治疗联系密切，然而目前基于自噬的药物疗效预测模型等研究尚少，故本文旨在通过生物信息学方法构建基于自噬基因的度洛西汀的抗抑郁疗效预测模型。

方法 在 GEO 中下载 GSE146446 数据集，该芯片包括 96 例患者接受抗抑郁药物度洛西汀 8 周的治疗，组织样本为全血样本，我们以度洛西汀治疗 8 周后是否有效分组，筛选两组间的差异表达基因，与自噬基因集取交集。利用 Lasso 回归和 Logistic 回归构建疗效预测模型。

结果 SPNS1、ITPR3 基因的表达水平为度洛西汀抗抑郁疗效的影响因素（P<0.05）。Logistic 回归模型：Logit(2)=33.7846 +(-2.8615*SPNS1 表达水平)+(-1.7716*ITPR3 表达水平)。预测模型对应得 AUC 值为 0.750（95%CI: 0.635-0.866），模型具有良好的预测能力。

结论 基于自噬相关基因（SPNS1、ITPR3）基因表达量的度洛西汀的抗抑郁疗效预测模型具有较好的区分度、校准度以及疗效预测效能，未来可能为抑郁症患者使用度洛西汀药物治疗提供更为科学可靠的证据。或可指导临床医生抗抑郁治疗用药选择，有望增加患者的临床获益。

关键字：抑郁症；自噬；自噬相关基因；预测模型；Logistic 回归；

辩证行为疗法对抑郁症患者疗效的系统评价及 meta 分析

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目的 系统评价辩证行为疗法对抑郁症患者的治疗效果，为临床治疗提供循证依据。

方法 采用计算机检索 PubMed、Web of Science、The Cochrane Library、Embase、中国知网（CNKI）、万方数据库（WanFang Database）、维普（VIP）数据库中有关辩证行为疗法治疗抑郁症患者的随机对照研究，研究对象为符合国内或国际抑郁症诊断标准的患者，检索时限均为建库至 2023 年 2 月 13 日，文种限中文和英文，结局指标包括汉密尔顿抑郁量表（HAMD)、贝克抑郁量表（BDI）评分、抑郁自评量表（SDS）评分，采用 Cochrane 手册 5.1.0 版本推荐的偏倚风险评估工具评价纳入研究的偏倚，采用 Review Manager 5.3 进行数据分析，研究方案已在 PROSPERO 平台注册（注册号：CRD42023399951）。

结果 共纳入 11 篇文献，包含 3 篇英文及 8 篇中文文献，涉及抑郁症患者 730 人，其中干预组 366 人，对照组 364 人。偏倚评价显示文章存在较大的偏倚。Meta 分析结果显示，汉密尔顿抑郁量表（HAMD）评分[MD=-3.04，95%CI（-6.74，-3.92），P=0.048]，贝克抑郁量表（BDI）评分[MD=-7.12，95%CI（-11.48,-2.76），P=0.001]，抑郁自评量表（SDS）评分[MD=-24.33，95%CI（-35.65，-13.01），P<0.001]，均优于对照组。

结论 现有证据表明，辩证行为疗法可以有效改善抑郁症患者的抑郁情绪，但纳入文献质量不高，进一步论证需要更多严谨、高质量随机对照试验。

关键字：辩证行为疗法；抑郁症患者；系统评价；Meta 分析

Diffusion Tensor Imaging-based Study of The Onset of Depressive Disorder and The Efficacy of SSRI Drugs

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Objective Depressive disorder is a very harmful mental disease, its pathological mechanism is not clear, and the current state of treatment is not optimistic. Studies have shown that 2-week improvement in antidepressant treatment can effectively predict long-term clinical cure, so it is of great significance to identify biomarkers that are more likely to respond to specific treatment in individuals with depressive disorder. Diffusion tensor imaging (DTI) is sensitive to the microstructural alterations of nerve fibers. In this study, we investigated the neurobrain imaging mechanism of depressive disorder based on DTI, and analyzed the changes of white matter integrity in first-episode depressive disorder patients with different responses to 5-hydroxytryptamine reuptake inhibitor (SSRI) treatment for 2 weeks, and to explore the neuroimaging markers of the efficacy of SSRI drugs, so as to provide help for clinical treatment decision-making and individualized treatment.

Methods First, we compared the differences in white matter integrity between depressive disorder and normal controls, and different brain regions were extracted. The diagnostic value of the different brain regions was analyzed by using ROC. Next, all patients were given standardized antidepressant treatment of SSRIs for two weeks, according to the HAMD-17 score reduction rate ≤20% and ≥50%, the patients were divided into ineffective group and effective group. we compared the white matter integrity changes between the two groups in patients at baseline. Finally, we analyzed the correlation between white matter integrity and clinical symptoms.

Results Compared with normal controls, depressive disorder patients showed abnormal white matter in the left hippocampus, left parahippocampal gyrus, left posterior cingulate gyrus and right posterior cingulate gyrus. The AUC was 0.275 (95% CI=0.194-0.356), the sensitivity was 10.3%, and the specificity was 52.1%, which was poor in identifying depressive disorder. Compared with the effective group, the ineffective group had more severe white

matter damage in the right posterior cingulate gyrus. When gender, age and education background were controlled, changes in white matter integrity were not correlated with HAMD-17 score reduction rate (r=0.205, P=0.076).

Conclusion There were abnormalities in brain white matter in patients with depressive disorder, and the response to SSRIs was related to the severity of brain white matter damage, but the severity of symptoms was not related to the severity of brain white matter damage.

关键字：DTI; Depressive disorder; SSRI

抗抑郁药物依从性的影响因素及干预进展

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目的 随着现代社会的发展，人们的生活节奏不断加快，生活压力日渐增大，抑郁症患者的数量呈上升趋势。临床中治疗抑郁症常采用药物治疗方式，但抗抑郁药物的依从性相对较差，有部分患者不愿遵守医嘱服药，甚至影响到了最终的临床治疗效果。本文简述抗抑郁药物依从性的影响因素，探讨其干预进展，以期为更多的医务工作者提供参考。

方法 以 2019 年 1 月至 2022 年 12 月于本院门诊、住院部就诊的抑郁症患者作为研究对象，年龄 14 岁至 70 岁。研究内容包括一般资料、首次发作服药维持时间、临床疗效、是否复发、复发原因等，采用问卷调查、电话随访、患者自评、家属咨询等方式，收集相关信息进行评估和分析。

结果 抑郁症是一种临床中常见的情感性障碍，复发率较高，患者可能终身患病。抑郁症不仅损伤患者的身心健康，还会为患者身边的人带去困扰与痛苦，这些困扰与痛苦又可能会加重患者的病情。当病情进展到一定程度，患者会产生自杀倾向，每年都有人因抑郁自杀而死亡。抑郁症的临床治疗可分为急性期、巩固期与维持期三个时期，抗抑郁药物是中重度抑郁症治疗的基础，患者的服药依从性直接关系到患者的预后，值得医务人员进行探索研究。经收集到的相关信息分析，抗抑郁药物依从性的影响因素主要包含以下四点：其一，疾病与治疗因素。抑郁症患者可能因为药物副作用、服药经历、治疗效能感等因素而抗拒服药，尤其是药物副作用会威胁患者的身体健康，可能让患者出现体重增加、性功能障碍、认知迟钝、困乏等症状；其二，医生相关因素。抑郁症患者可能会受到医患交流、医疗护理特点等方面的影响，故而医护人员应当积极改善自身的工作态度，尽量加强医患交流；其三，患者相关因素。部分患者对抑郁症本质与治疗内容缺少共识，不够重视遵守医嘱服药；其四，文化与环境因素。家属的态度、社会层面的支持等都会影响到患者的治疗依从性，良好的家庭支持系统能够增进患者对治疗的乐观态度，协助患者坚持治疗。

结论 虽然抗抑郁药物依从性的影响因素涉及较多方面，但其干预研究的重点在医生与患者相关因素方面，想要针对其他方面进行干预难度较大，缺乏可行性。针对医生相关因素，主要采取提供有效信息、加强护理管理、进行心理干预及健康教育等措施。针对患者相关因素，主要采取提醒服药、认知疗法、患病归因等措施。医务人员可按照患者的实际情况，制定针对性的干预措施，以同等的目光看待患者的身体健康与心理健康。

关键字：抗抑郁药物；依从性；影响因素；干预进展

探究重度抑郁与代谢综合征共同的遗传基础

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目的 抑郁症是具有高患病率、高复发率、高自杀率和高致残性特点。流行病学研究表明，抑郁症和代谢功能异常之间存在联系，抑郁症患者共病代谢综合征（Metabolic syndrome, MetS）的风险显著增高，可能会影响其临床预后。抑郁症和代谢综合征同为复杂疾病，遗传因素在其发病起到重要作用，然而两者的共同遗传和因果关系尚不完全清楚。本研究利用全基因组关联研究（Genome-wide association study, GWAS）数据探讨抑郁症与代谢综合征之间可能存在的共同遗传基础。

方法 首先，本研究利用精神病学基因组学联盟（Psychiatric Genomics Consortium, PGC）的抑郁症 GWAS 数据（170,756 例患者和 329,443 名对照）以及英国生物银行（UK BioBank）的（291,107 名受试者）的代谢综合征 GWAS 数据，通过连锁不平衡分析（LDSC）和遗传协方差分析（GNOVA）在基因组水平上评估抑郁症与代谢综合征之间的遗传相关性。然后，利用条件性错误发现率（conditional false discovery rate, condFDR）和联合条件错误发现率（conjunctional false discovery rate, conjFDR）在单核苷酸多态性(single nucleotide polymorphism, SNP)水平上鉴定两种疾病之间共同的风险易感基因/位点。最后，通过 FUMA 在线数据库，对本研究所发现的风险基因位点进行功能注释。

结果 在全基因组水平，本研究发现抑郁症与代谢综合征之间存在显著遗传相关性，LDSC 分析（rg=0.18, P=1.36×10–16）和 GNOVA 分析（rho=0.02, P=7.86×10–38）结果相互验证。在单个 SNP 水平，本研究利用 conjFDR 方法发现 SNP 位点 rs11209952 与抑郁症和代谢综合征疾病同时显著关联。通过 FUMA 网站开展功能注释，结果表明 SNP 位点 rs11209952 位于 NEGR1 和 RPL31P12 基因附近，提示其可能参与基因表达调控。

结论 本研究发现抑郁症与代谢综合征之间存在显著的遗传相关性和共同的遗传基础，为研究这两种疾病共病的遗传机制提供了重要科学线索。

关键字：精神分裂症，代谢综合征，全基因组关联研究，条件错误发现率，联合条件错误发现率

Prevalence and Risk Factors for Psychotic Symptoms in Young, First-episode and Drug-na?ve Patients with Major Depressive Disorder

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Objective Major depressive disorder is a common psychiatric disorder worldwide. Psychotic depression has been reported to be frequently under-diagnosed due to poor recognition of psychotic features. Therefore, the purpose of this study was to reveal the rate and risk factors of psychotic symptoms in young, drug-na?ve patients with major depressive disorder at the time of their first episode.

Methods A total of 917 patients were recruited and divided into psychotic and non-psychotic subgroups based on the Positive and Negative Syndrome Scale (PANSS) positive subscale score. Anxiety symptoms and depressive symptoms were measured by the Hamilton Anxiety Rating Scale (HAMA) and the 17-item Hamilton Depression Rating Scale (HAMD-17), respectively. Several biochemical indicators such as total cholesterol (TC), triglycerides (TG), high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C), fasting blood glucose (FBG), thyroid stimulating hormone (TSH), free triiodothyronine (FT3), and free thyroxine (FT4) were also measured.

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Conclusion A total of 917 patients were recruited and divided into psychotic and non-psychotic subgroups based on the Positive and Negative Syndrome Scale (PANSS) positive subscale score. Anxiety symptoms and depressive symptoms were measured by the Hamilton Anxiety Rating Scale (HAMA) and the 17-item Hamilton Depression Rating Scale (HAMD-17), respectively. Several biochemical indicators such as total cholesterol (TC), triglycerides (TG), high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C), fasting blood glucose (FBG), thyroid stimulating hormone (TSH), free triiodothyronine (FT3), and free thyroxine (FT4) were also measured.

关键字：First-episode psychosis; Major depressive disorder; Psychotic symptoms; Young adults.

RTMS 联合 SSRI 类药物对焦虑性抑郁症患者认知功能的影响

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目的 探讨重复经颅磁刺激(rTMS)治疗焦虑性抑郁症患者认知功能的影响。

方法 收集在我院精神科于 2020 年 6 月—2021 年 6 月诊治的 102 例焦虑性抑郁症患者，采用随机数字表法将患者分为研究组（rTMS+SSRI 类抗抑郁药物治疗）64 例和对照组（SSRI 类抗抑郁药物治疗）38 例，所有患者根据病情调整药物治疗剂量，疗程为 2 周。在治疗前及治疗后第 2 周末进行汉密尔顿抑郁量表、MoCA 量表评定疗效。

结果 1.一般资料比较：研究组与对照组年龄、性别、受教育程度、病程相比无明显差异（P>0.05）。2.两组基线评分比较：研究组与对照组基线 HAMD 评分、MoCA 评分无明显差异。3.两组治疗前后比较：研究组与对照组治疗后 HAMD 总分均较治疗前明显下降，差异有统计学意义（P<0.05）；研究组与对照组,MoCA 总分明显高于治疗前评分，差异有统计学意义（P<0.05）。4.治疗后两组间比较：治疗后研究组 HAMD 总分较对照组明显偏低，差异有统计学意义 O（P<0.05）,MoCA 总分较对照组明显偏高，差异有统计学意义（P<0.05）。

结论 rTMS 联合 SSRI 类药物治疗可以明显改善焦虑性抑郁症患者的症状和认知功能。

关键字：重复经颅磁刺激治疗；焦虑性抑郁症；认知功能；

Covariation between Spontaneous Neural Activity in The Insula and Affective Temperaments Is Related To Sleep Disturbance in Individuals with Major Depressive Disorder

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Objective Affective temperaments have been considered antecedents of major depressive disorder (MDD). However, little is known about how the covariation between alterations in brain activity and distinct affective temperaments work collaboratively to contribute to MDD. Here, we focus on the insular cortex, a critical hub for the integration of subjective feelings, emotions, and motivations, to examine the neural correlates of affective temperaments and their relationship to depressive symptom dimensions.

Methods Twenty-nine medication-free patients with MDD and 58 healthy controls under- went magnetic resonance imaging scanning and completed the Temperament Evaluation of Memphis, Pisa, Paris, and San Diego

(TEMPS). Patients also received assessments of the Hamilton Depression Rating Scale (HDRS). We used multivariate analyses of partial least squares regression and partial correlation analyses to explore the associations among the insu- lar activity, affective temperaments, and depressive symptom dimensions.

Results A profile (linear combination) of increased fractional amplitude of low-frequency fluctuations (fALFF) of the anterior insular subregions (left dorsal agranular–dysgranular insula and right ventral agranuar insula) was positively associated with an affective-tempera- ment (depressive, irritable, anxious, and less hyperthymic) profile. The covariation between the insula-fALFF profile and the affective-temperament profile was significantly correlated with the sleep disturbance dimension (especially the middle and late insomnia scores) in the medication-free MDD patients.

Conclusion The resting-state spontaneous activity of the anterior insula and affective temperaments collaboratively contribute to sleep disturbances in medication-free MDD patients. The approach used in this study provides a practical way to explore the relationship of multi-variate measures in investigating the etiology of mental disorders.

关键字：Affective temperaments; fractional amplitude of low-frequency fluctuations; insula; major depressive disorder; partial least squares

脑电治疗对青少年抑郁患者疗效的临床观察

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目的 脑电治疗是指采用电脉冲刺激作用于脑内特定部位，从而改善患者症状的治疗。本文通过脑电治疗与乌灵胶囊治疗青少年抑郁患者作对照。评估脑电治疗在青少年抑郁患者中的治疗疗效。

方法 所有参与者均来自吉林省脑科医院 2023.1-2023.5 月的门诊就诊患者，年龄在 18-25 岁，符合 DSM-5 抑郁障碍诊断原则，共筛选 100 人，随机分组法将 50 人分为脑电治疗组，50 人为乌灵胶囊治疗组。脑电治疗为早、晚 2 次。每次持续 20 分钟。乌灵胶囊组为每次 990 毫克口服，每日 3 次。治疗时间为 4 周。主要评估指标为汉密尔顿抑郁量表及抑郁自评量表。

结果 脑电治疗组及乌灵胶囊治疗组各出组 1 人，脑电治疗组副作用 0 人，乌灵胶囊治疗组 3 人，其中 2 人为轻微胃肠道反应，1 人为嗜睡，症状 2-3 天均消失，无明显严重副反应。结果对比，脑电治疗组在轻中度青少年抑郁患者中汉密尔顿抑郁量表及抑郁自评量表减分值均高于乌灵胶囊治疗组。差异有统计学意义。在重度患者中，脑电治疗组汉密尔顿抑郁量表及抑郁自评量表减分值高于乌灵胶囊治疗组，差异无统计学意义。

结论 在青少年抑郁患者中，尤其轻中度患者，因其症状的严重程度可能并不能引起足够重视，或在药物治疗过程中可能出现嗜睡、胃肠道不适等副作用。因此对于此类患者可以应用脑电治疗方式来改善患者的抑郁、失眠症状，来提高患者的治疗依从性。

关键字：青少年抑郁；脑电治疗；乌灵胶囊

基于低频振幅的舒肝解郁胶囊治疗轻中度抑郁症患者的机制研究

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目的 舒肝解郁胶囊已被用来改善轻中度抑郁症（mild to moderate depression, MMD）患者的抑郁症状和认知功能，本研究采用低频振幅（amplitude of low-frequency fluctuation, ALFF）的方法探讨其改善作用的神经生物学机制。

方法 本研究为前瞻性研究，纳入 45 例 MMD 患者（患者组）和 45 例健康对照者（对照组），患者组服用舒肝解郁胶囊 8 周，对照组 8 周内不服用任何精神类药物。在基线和 8 周后分别收集所有被试的汉密尔顿抑郁量表 24 项（Hamilton Depression Scale 24 items, HAMD-24）、韦氏智力量表和功能磁共振成像数据，采用混合设计的两因素方差分析比较患者组和对照组的量表分数和 ALFF 值的变化，并采用相关性分析比较患者组差异脑区和量表分数的关系。

结果 经过 8 周治疗后患者组 HAMD-24 分数降低（F=203.84，P=1.25×10-24），总智商（F=74.82，P=2.16×10-13）、言语智商（F=37.92，P=2.14×10-8）和操作智商分数升高（F=31.95，P=1.93×10-7）。患者组右侧颞中回、左侧顶上回和右侧额上回的 ALFF 值在基线期显著低于对照组，服药 8 周后显著升高。患者组左侧颞上回 ALFF 值在基线期低于对照组，服药 8 周后与对照组相比无统计学差异。患者组右侧内侧扣带回 ALFF 值服药 8 周后显著降低。患者组基线期总智商分数与左侧顶上回的 ALFF 值正相关（r=0.43，P=0.003）。

结论 舒肝解郁胶囊可能通过改变 MMD 患者右侧颞中回、左侧顶上回、右侧额上回、左侧颞上回、右侧内侧扣带回的脑功能活动，进而改善抑郁症状和认知功能。

关键字：抑郁症；舒肝解郁胶囊；低频振幅；认知功能

低电量电抽搐治疗与改良电休克治疗对抑郁症疗效比较的 Meta 分析

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目的 系统评价低电量电抽搐治疗（NET）与改良

电休克治疗（MECT）干预抑郁症疗效的差异。

方法 利用计算机检索 PubMed、Embase、Cochrane library、PsycINFO、中国知网、万方数据库中关于 NET 抑郁症的随机对照研究，由两位作者按纳入标准和排除标准筛选文献、提取数据、质量评价，采用 RevMan5.3 版软件对最终纳入的文献数据进行统计学分析，主要结局指标为抑郁量表评分，次要结局指标为认知功能评分、定向力评分、自杀风险、不良反应。

结果 最终纳入 3 篇随机对照试验，共 178 例研究对象，其中 NET 组 107 例，MECT 组 71 例。抑郁症量表评分显示 NET 组的临床疗效与 MECT 组无统计学意义（RR=0.00，95%CI：-0.65~0.64，P=1.00）。认知功能方面，2 篇文章进行了报告，由于测量维度不一致，导致数据无法合并，但 2 篇结果并不一致；1 篇文章报道了定向力，显示 NET 组和 MECT 组恢复时间差异有统计学意义（P＜0.05）；自杀风险方面，1 篇文章报道了自杀风险，NET 组和 MECT 组有统计学意义（P＜0.05）；2 篇文章报道了不良反应，2 组患者均无严重不良反应发生，但 2 篇均未对一般不良反应进行比较。

结论 NET 与 MECT 干预抑郁症疗效相当，NET 组定向力恢复时间优于 MECT 组，对自杀风险的影响 NET 组弱于 MECT 组，由于受纳入文献质量和样本量的限制，上述结论仍需要开展更大样本、更高质量的随机对照试验进行验证。

关键字：低电量电抽搐治疗，改良电休克治疗，抑郁症，Meta 分析

电针刺激迷走神经对抑郁大鼠海马氨基酸类神经递质的影响

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目的 研究电针刺激迷走神经（vagus nerve stimulation by electroacupuncture，VNSE）对抑郁大鼠海马区氨基酸类神经递质的影响。

方法 24 只大鼠构建抑郁模型，采用慢性非预知性应激(CUS)方法，成模后随机分为 CUS 组、氟西汀组、VNSE 组三组。另取 8 只正常大鼠做为对照。对大鼠抑郁程度的评估采用糖水偏好实验和旷场行为实验；大鼠海马中 4 种氨基酸神经递质的含量，采用高效液相法测定；谷氨酸脱羧酶 1(Glutamate decarboxylase 1, Gad 1)的表达水平由定量 PCR 和免疫印迹检测得到。

结果 大鼠经过慢性不可预知性应激后，糖水消耗量、糖水偏爱率、垂直运动次数和水平运动次数明显下降，与对照相比有显著差异（P<0.05）。CUS 组与对照组相比，海马 GABA 水平和 GABA/Glu 比值明显下降（P<0.05），Gad 1 表达水平明显下降（P<0.05），Glu、甘氨酸（Glycine，Gly）和天冬氨酸（Aspartic acid, Asp）含量变化不明显（P>0.05）；与 CUS 组相比，氟西汀、VNSE 组海马 GABA 水平和 GABA/Glu 比值明显上升（P<0.05），Gad 1 表达水平明显上升（P<0.05），Glu、Gly 和 Asp 含量无明显变化（P>0.05）；氟西汀与 VNSE 组相比，各项指标没有显著差异（P>0.05）。

结论 VNSE 改善 CUS 大鼠的抑郁症状，可能与调节海马 Gad 1 表达及 GABA 水平有关。

关键字：电针迷走神经；抑郁症；氨基酸类神经递质；谷氨酸脱羧酶 1

A Predictive Model for The Efficacy of Magnetic Seizure Therapy in Patients with Major Depressive Disorder

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Objective Major depressive disorder (MDD) is one of the most common psychiatric disorders with a prevalence of 3-5%. Modified electroconvulsive therapy (MECT) is effective in alleviating the affective symptoms of depression, but has the potential to impair cognitive function, particularly memory. In recent years, magnetic seizure therapy (MST) has emerged as an effective way to reduce patients' symptoms with fewer side effects. The aim of this study was to compare the efficacy of MST with that of MECT and to construct a predictive model to investigate the factors influencing the efficacy of MST.

Methods In this study, patients with MDD were assigned to MST and MECT groups, and their depression and anxiety were assessed using the Hamilton 24-item Depression Scale (HAMD) and the Hamilton Anxiety Scale (HAMA). Paired samples t-test was used to compare the differences in HAMD and HAMA between the two groups before and after the therapies. Independent samples t-test was used to compare differences in efficacy between the two groups. Demographic variables and baseline scale scores were selected as variables and lasso regression analysis was performed to explore factors associated with the outcome of MST.

Results A total of 34 patients with MDD were recruited according to the inclusion and exclusion criteria, of whom 13 were treated with MECT and 21 with MST. There was no significant difference between baseline HAMD and HAMA scores in the two groups (tHAMD = 0.718, PHAMD = 0.418; tHAMA = 0.829, PHAMA = 0.413). There were significant decreases in both HAMD and HAMA scores before and after treatment in both groups, and no significant difference in efficacy was observed between the two groups (tHAMD = -0.350, PHAMD = 0.728; tHAMA = -0.130, PHAMA = 0.897).

According to the results of the lasso regression analysis, the reduction in depressive symptoms was associated with baseline HAMD score (β = 0.026) and baseline HAMA score (β = 0.346); the reduction in anxiety symptoms was associated with baseline HAMA score (β = 0.117). The standardised mean absolute errors for both prediction models were 0.783 and 0.514, respectively, and both were predictive to some extent.

Conclusion The results of the study showed that both MST and MECT were effective in improving depression and anxiety symptoms in MDD patients, and there was no significant difference in their efficacy. Higher baseline HAMA scores were associated with better efficacy of MST in improving both depression and anxiety symptoms, suggesting that anxiety symptoms in MDD patients are one of the important factors influencing the efficacy of MST.

关键字：Major depressive disorder, Magnetic seizure therapy, Lasso regression, Prediction models

Sex Differences in The Association between Serum A-Klotho and Depression in Middle-aged and Elderly Individuals: A Cross-sectional Study From NHANES 2007–2016

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Objective Klotho is a well-known anti-aging protein that exerts pleiotropic effects; however, little is known regarding serum α-Klotho in the context of depression. Here, we evaluated the association between serum α-Klotho levels and depression in middle-aged and older individuals.

Methods In this cross-sectional study, data were collected from the National Health and Nutrition Examination Survey (NHANES) from 2007 to 2016 with a total of 5272 participants who were ≥40 years of age. Depression was evaluated using the 9-item Patient Health Questionnaire (PHQ-9). The association between serum α-Klotho levels and depression was determined on the basis of multivariable logistic regression models.

Results The mean age of the enrolled adults was 58.94 ± 10.54 years, of which 49.5 % were female. When serum α-Klotho was log10-transformed, it was significantly inversely associated with depression in females in the final adjusted model (odds ratio [OR], 0.32; 95 % confidence interval [CI], 0.12–0.85). In the contrast, serum α-Klotho (log10) was significantly positively associated with depression in males in one of the adjusted models (OR, 3.71; 95 % CI, 1.17–11.8), and this disappeared after adjusting other covariates (all P > 0.05). Based on further stratified respective analyses of females and males, the results were stable.

Conclusion In the present study, serum α-Klotho levels were negatively related to the prevalence of depression in middle-aged and elderly women. This study provides new evidence of sex differences in the association between serum α-Klotho levels and depression.

关键字：α-Klotho，Depression，Sex differences，National Health and Nutrition Examination Survey (NHANES)

二元应对干预对抑郁症患者及配偶的影响

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目的 基于二元疾病管理理论构建的二元应对干预方案，并验证二元应对干预方案对抑郁症患者及配偶二元应对水平、生命质量及患者服药依从性的影响。

方法 方案构建阶段：（1）以二元疾病管理理论为指导，根据该理论的三要素构建干预方案的 3 个主体框架和 6 项主体干预策略。（2）以“抑郁症”、“抑郁障碍”、“抑郁发作”、“二元疾病管理”、“二元疾病管理理论”、“二元应对”、“二元干预”、“疾病管理”、“Depression”、“Depressive”、“Dyadic Illness Management”、“The Theory of Dyadic Illness Management”、“Dyadic Coping”、“Dyadic Intervention”、“Couple Intervention”“Disease Management”为检索词，检索中国知网、万方数据库、维普全文数据库、中国生物医学文献数据库、以及 Web of Science、Pubmed、Medline 数据库，进行大量文献回顾，综述了慢性病患者二元应对干预策略、基于二元疾病管理理论的二元干预方案，为本研究具体方案制定提供参考和借鉴。在此基础上，结合自身的临床实践经验及抑郁症患者的疾病特点初步构建二元应对干预方案，通过专家会议修改并完善抑郁症患者及配偶的二元应对干预方案。在干预实施阶段，采用类实验研究，将 2022 年 5 月-2022 年 7 月住于我院心理科的 25 对抑郁症患者及其配偶作为对照组。将 2022 年 8 月-2022 年 10 月住于我院心理科的 23 对抑郁症患者及其配偶作为干预组，对照组给予常规护理，干预组在此基础上实施二元应对干预方案。干预前及干预 8 周后采用二元应对问卷、SF-36 健康调查简表及服药依从性量表评价干预效果。

结果 干预方案实施后，抑郁症患者及配偶的二元应对水平、生命质量及患者的服药依从性得分显著高于对照组（P<0.05）。

结论 二元应对干预方案能够提高抑郁症夫妻双方的二元应对水平及生命质量，提高患者的服药依从性，促进患者疾病管理能力的提升，帮助患者更好的康复。

关键字：抑郁症；配偶；二元应对；生命质量； 服药依从性； 疾病管理

抑郁症患者各脑叶 CT 值的改变情况及临床意义

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目的 研讨抑郁症患者各脑叶 CT 值的改变情况及临床意义。

方法 选择本院 2020 年 1 月-2022 年 1 月收入的 50 例抑郁症患者，设为观察组，同期选择 50 例健康体检者，设为对照组，两组均给予颅脑 CT 检查，比较各脑叶 CT 值。

结果 观察组左颞叶、右颞叶、左额叶 CT 值低于对照组（P＜0.05），两组右额叶 CT 值比较无差异（P>0.05）；左颞叶 CT 值与年龄呈负相关（P＜0.05），左额叶的 CT 值和年龄与病程均呈负相关（P＜0.05）。

结论 抑郁症患者的左额叶、左颞叶会出现明显的萎缩情况，并且左额叶萎缩的程度与病程有紧密联系。

关键字：抑郁症；脑叶；CT；中枢神经系统

叙事护理在 1 例伴有非自杀性自伤青少年抑郁症患者中的应用

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目的 对 1 例伴有非自杀性自伤的青少年抑郁症患者运用叙事护理，探讨叙事护理在非自杀性自伤青少年抑郁症患者中的效果。

方法 运用叙事护理技术，包含外化、解构、改写、外部见证人及治疗性文件等五大核心技术。经过叙事护理的运用，通过探索患者内心被束缚的问题，挖掘患者生命中的例外事件，重塑、改写和丰厚患者的生命故事，重建自我认同。利用治疗性文件及外部见证人，让患者感受家庭的温暖和工作人员关爱，对患者的积极行为起到强化作用，帮助患者重新回归生活、适应社会。

结果 通过叙事护理的运用，纠缠患者的“禁锢的枷锁”打开，患者抑郁情绪得到一定缓解，紧张的家庭关系得到改善，患者在住院期间未发生 NSSI 行为，能积极配合治疗。患者的自杀风险评估量表(NGASR）评分由 13 分降低到 5 分，护士用住院病人观察量表（NOISE）量表评分由 182 分提高到 202 分，焦虑自评量表评分(SAS）由 68 降到 46 分，抑郁自评量表评分（SDS）由 72 分降到 50 分。

结论 叙事护理有利于帮助青少年抑郁症患者缓解焦虑抑郁的情绪，重建积极自我认同，降低 NSSI 的方生。叙事护理也有利于促进护患关系，提高患者治疗配合程度，将护理工作升温。

关键字：叙事护理；青少年抑郁；非自杀性自伤

基于潜在剖面分析的青少年抑郁障碍患者逆境暴露与抑郁症状的关系

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目的 青少年的发展受家庭、学校及同伴等多环境的影响，青少年处于劣势家庭、学校及同伴环境中增加抑郁的发生。本研究旨在探究青少年抑郁障碍患者家庭、学校及同伴逆境的异质性亚型及其与抑郁的关系。

方法 纳入 92 例符合 ICD-10 诊断标准的抑郁障碍青少年（13~18 岁）。根据家庭月收入、父母学历与职业构建家庭社会经济地位；采用家庭关怀度指数问卷、父母监控量表、师生关系分问卷、学校联结量表、多维同伴侵害量表及越轨同伴交往问卷评估家庭、学校、同伴逆境。以各问卷得分为模型外显变量，用潜在剖面分析构建分类模型；采用卡方检验、方差分析对不同类型在性别、抑郁自评量表得分的差异进行检验。

结果 （1）"高学校逆境-低家庭社会经济地位"（C1，61.5%），”高家庭风险-低家庭社会经济地位“（C2,17.6%）和”高同伴风险-低家庭社会经济地位“（C3，20.9%）是潜在剖面分析结果中平行可比的 3 个亚型；（2）卡方检验显示，不论在男性还是女性青少年抑郁症患者中，C1 占比高于 C3，P＜0.05；C1 与 C2、C2 与 C3 之间占比差异均不显著，P＞0.05；（3）单因素方差分析显示，C1、C2、C3 不同类型在抑郁自评量表上的得分差异显著（F（2，89）=15.03，P＜0.001）；进一步采用 LSD 进行事后检验，结果发现 C1＞C3＞C2，P＜0.05。

结论 本研究以个体为中心，从群体异质性的角度出发，采用潜在剖面分析发现青少年抑郁症患者家庭、学校、同伴逆境可分为 3 个潜在剖面；处在高水平学校逆境中的青少年抑郁症患者抑郁症状较处在高水平家庭、同伴逆境中的青少年抑郁症患者严重，处在高水平同伴逆境中的青少年抑郁症患者抑郁症状较处在高家庭逆境中的青少年抑郁症患者严重。提示社会化过程中的逆境与挫折对青少年抑郁症患者抑郁症状具有重要影响。

关键字：青少年；抑郁障碍；逆境；潜在剖面分析

青少年抑郁障碍患者个人掌控感现状及其影响因素研究

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目的 了解青少年抑郁障碍患者的个人掌控感水平，并分析其影响因素。

方法 方法：选取 2023 年 1 月—2023 年 6 月，山西省某三级甲等综合医院精神卫生科收治的 216 例青少年抑郁障碍患者作为调查对象，使用患者一般资料调查表、个人掌控感量表、一般自我效能量表、领悟社会支持量表、医学应对方式问卷、汉密尔顿抑郁量表，对青少年抑郁障碍患者进行问卷调查。

结果 青少年抑郁障碍患者个人掌控感总得分为（21.80±3.77）分。多重线性回归分析结果显示，主要

看护人的教养方式、患者应对方式、家庭矛盾、单亲家庭、精神症状、校园欺凌是青少年抑郁障碍患者个人掌控感的主要影响因素（P<0.05）。

结论 青少年抑郁障碍患者个人掌控感属于低等水平，影响患者生活体验感和幸福程度。医护人员需加强青少年抑郁障碍患者个人掌控感水平的提升，尤其是有消极应对方式、家庭不和谐、校园欺凌和存在精神症状的患者，同时加强家属与患者沟通，及时了解患者心理需求，提高患者家庭关怀度，帮助患者建立积极思维模式，提升个人掌控感水平，改善患者自我管理能力和生活质量。

关键字：个人掌控感；青少年；抑郁障碍；应对方式；影响因素

光照治疗改善重性抑郁障碍患者情绪、睡眠及空间工作记忆

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目的 探究光照治疗对重性抑郁障碍患者情绪、睡眠和认知功能的影响及其三者之间可能的相互关系。

方法 招募 42 例重性抑郁障碍患者，随机分为实验组和对照组各 21 人。实验组采用盐酸氟西汀单一药物治疗+光照治疗，对照组采用盐酸氟西汀单一药物治疗，评估个体 0 周，1 周和 2 周三个时间点情绪、睡眠和认知功能变化。

结果 1）情绪变化：治疗结束后两组 HAMD-24 评分都显著下降，但实验组在第 1 周就可以看到显著变化($p<0.001$)。2) 睡眠变化：实验组 PSQI 得分在 1 周($p<0.001$)、2 周时($p<0.05$)显著下降，但对照组均无变化。3）认知功能：实验组治疗后在静态空间工作记忆任务中对目标位置判断显著改善($p<0.05$)，而对照组无显著变化。4）三者相互关系探讨：中介分析结果显示睡眠变化在情绪变化和认知变化中起完全中介作用($F(2,36)=8.17$, $p<0.01$;$c=-0.86$, $p<0.05$; $c'=-0.48$, $p=0.2$, $a^*b=-0.15$, 95%CI -0.33, -0.03)。

结论 光照治疗在药物治疗基础上可起到增效治疗的作用，加快了抑郁症状的缓解，改善了睡眠节律，在治疗 1 周已有显著变化；光照治疗可以提高重性抑郁障碍患者的空间工作记忆能力，而这种改善可能来源于对睡眠节律的调整。

关键字：光照治疗；抑郁障碍；情绪；睡眠；认知功能

神经导航重复经颅磁刺激治疗抑郁症效果评价

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目的 探讨经颅磁治疗传统 5cm 定位方法与磁共振下神经导航重复经颅磁刺激治疗抑郁症的效果。

方法 选取 66 例抑郁症患者，分为导航组（34 例）与 5cm 定位组（32 例），导航组与 5cm 定位组的重复经颅磁刺激刺激强度 80-110%MT，治疗疗程为 4 周，治疗靶点为左侧前额叶背外侧。两组治疗效果评价利用治疗前、治疗中（2 周）、治疗后汉密尔顿抑郁量表（Hamilton depression scale，HAMD），治疗前、治疗后匹兹堡睡眠质量指数量表（Pittsburgh Sleep Quality Index Scale ，PSQI）及 HAMD 减分率，量表评分由精神科医师完成。

结果 疗结束后量表评分导航组与 5cm 定位组 HAMD 评分及 PSQI 评分均有降低，两组 HAMD 各时间点评分有统计学意义（$F=593.226$，$P<0.05$），两组组间评分有统计学意义（$F=22.812$,$P<0.05$），评分与两组交互效应有统计学意义（$F=11.998$,$P<0.05$），PSQI 评分治疗前后无统计学差异，$P>0.05$。HAMD 减分率导航组与 5cm 定位组组间有统计学差异 $P<0.05$。

结论 磁共振导航重复经颅磁刺激相对于 5cm 定位重复经颅磁刺激方法，对抑郁症患者的治疗效果更好，在临床治疗中值得进一步的推广应用。

关键字：神经导航 重复经颅磁刺激 磁共振成像 汉密尔顿抑郁量表 抑郁症

叙事护理在一例伴有自杀行为的抑郁症患者中的应用

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目的 抑郁症是一种以持续的情绪低、兴趣缺乏、乐趣丧失为主要特点的情绪障碍性精神疾病，常伴有明显的焦虑抑郁情绪、自杀意念或自杀行为。本文总结一例研究生在读伴有自杀及自杀意念的抑郁症患者的临床资料，开展叙事护理进行比较

方法 针对患者的抑郁焦虑情绪且伴有的自杀采用叙事护理及对症护理措施，叙事护理采取外化，结构，改写，外部见证人和治疗性文件五大核心技术，通过和患者建立良好的护患关系，了解患者成长的经历，挖掘患者的资源以及背后的文化系统脉络，挖掘患者的闪光点，找寻到患者的大人物，用患者的例外事件改写迁移到现在，大人物双方进行表达，从而改写患者的现在的故事。并且通过治疗性文件强化患者治疗的效果，通过外部见证人进行表达

结果 患者自杀风险评估量表（NGASR）评分由 11 分降至 5 分，抑郁自评量表（SDS）由 80 分降至 55 分，焦虑自评量表（SAS）由 75 降至 46 分，护士住院病人观察量表（NOISE）由 139 分提高至 191 分，患者情绪好转，自我认同重建，住院期间未发生自杀、自伤行为，焦虑抑郁症状缓解。

结论 通过叙事护理的干预，能帮助患者患者改

善抑郁情绪，自我认同重建，焦虑抑郁症状缓解，降低自杀发生率

关键字：叙事护理；抑郁症；自杀

引导性想象训练对卒中后抑郁的干预效果

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目的 探讨引导性想象训练对卒中后抑郁的干预效果，为临床上卒中患者提供更有效的护理方法

方法 选择 2023 年 1 月至 2024 年 1 月在我院神经内科办理住院治疗的卒中后抑郁（PSD）患者 100 例，采用数字表法随机分为对照组和干预组，对照组 50 例，采取神经内科常规治疗和常规护理；干预组 50 例，在上述基础上实施引导性想象训练进行干预，主要采取“一对一、面对面”的方式，前 3 天为患者介绍引导性想象训练的具体情况，展示引导性想象训练中的相关场景，让患者增强画面感，随后引导患者闭上眼睛，在音乐及引导语的指导下，进行想象训练；从第 4 天开始直接进行想象训练；后每日 2 次，每次 30min，每周 14 次，进行持续干预，在沟通过程中建立良好的护患关系。分别于干预前和干预后采用抑郁量表（HMAD）评分和脑卒中专用生活质量量表(SS-QOL)评分对对照组和干预组患者进行测评，从而评价引导性想象训练对卒中后抑郁的干预效果。

结果 1、两组患者干预前的汉密尔顿抑郁量表（HMAD）评分比较差异无统计学意义（P>0.05），干预后，干预组明显低于对照组，差异具有统计学意义（P<0.05）；2、两组患者干预前脑卒中专用生活质量量表(SS-QOL) 得分比较差异无统计学意义（P>0.05），干预组的 SS-QOL 得分在引导性想象训练后，高于对照组（P<0.05））

结论 运动性引导想象训练能够显著缓解卒中后抑郁患者抑郁情绪，促进患者克服心理障碍，积极配合治疗，提高生活质量水平，有利于疾病的康复。

关键字：引导性想象训练 卒中后抑郁 脑卒中

计算机认知矫正治疗对抑郁症患者认知功能的影响

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目的 探讨计算机认知矫正治疗（Computerized cognitive remediation therapy，CCRT）联合草酸艾司西酞普兰对抑郁症患者的临床疗效和认知功能的影响。

方法 选取于 2017 年 5 月~2018 年 12 月就诊于广西脑科医院的抑郁症急性期患者 100 例作为研究对象。按随机数字表法分为观察组（CCRT+草酸艾司西酞普兰）和对照组（草酸艾司西酞普兰），每组各为 50 例，均治疗 4 周。分别在治疗前和治疗 4 周后采用汉密尔顿抑郁评分量表(HAMD-24)、威斯康星卡片分类测验量表（WCST）评估疗效和认知功能。

结果 两组患者在年龄、性别、文化程度以及病程方面比较，差异无统计学意义（P＞0.05，t 年龄 1.012, χ2 性别 0.313, χ2 文化程度 0.363, t 病程 0.962）。治疗 4 周后，观察组 HAMD 评分明显低于对照组，差异具有统计学意义（P＜0.05,t=6.836）；观察组总有效率显著高于对照组，差异具有统计学意义（P＜0.05, χ2=4.762）。与同组治疗前相比，两组患者治疗后 WCST 各项指标均显著改善，差异均具有统计学意义（P＜0.05,t 总应答数,2.982 ,2.977；t 完成分类数 2.242,2.264；t 正确应答数 2.093,2.044；t 错误应答数 4.840,4.662；t 持续性错误数 2.646,2.619）；经治疗 4 周后，观察组患者 WCST 各项评分指标显著优于对照组，差异均具有统计学意义（P＜0.05,t 总应答数 1.032，3.665；t 完成分类数 1.128,3.814；t 正确应答数 1.217,4.284；t 错误应答数 1.093,7.478,；t 持续性错误数 1.562,5.856）。

结论 与草酸艾司西酞普兰单药治疗相比，CCRT 联合草酸艾司西酞普兰治疗急性期抑郁症患者，临床疗效更佳，认知功能的改善更明显。

关键字：抑郁症；计算机认知矫正治疗；认知功能

18 例卒中后抑郁的治疗体会

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目的 抑郁症的发病率与脑卒中关系密切，5-HT 再摄取抑制剂等抗抑郁药已用于卒中后抑郁症的治疗，作为选择性突触间隙去甲肾上腺素和 5-HT 的再摄取抑制剂米那普仑对卒中后抑郁的治疗效果善待研究，本次研究重点对米那普仑治疗卒中后抑郁症的临床疗效进行分析，为临床应用提供一些依据。

方法 本研究对年龄为 58-86 岁的 18 位患者（8 名男性和 10 名女性）进行了为期 6 周的开放性观察研究，所纳入的患者均是临床诊断为脑卒中后，根据 DSM-IV 被诊断为轻度或重度抑郁症的患者，抑郁症的严重程度使用 HAM-D21 进行评估。米那普仑最大服用剂量为 30mg-75mg/天。共纳入了 18 为患者，其中 2 位退出了研究。

结果 完成观察研究的 16 为抑郁症患者在治疗 2 周后 HAMA-D21 评分显著降低，症状得到缓解，持续治疗期间均未出现抑郁复发情况，其中 68.7%（11/16）的患者在治疗 6 周后症状显著缓解，（HAM-D21 评分低于 7 且不再符合严重或轻度抑郁症的标准），结果表明米那普仑可能是卒中后抑郁的有效治疗药物。HAM-D 中的各个症状均得到了显著改善，如情绪低落，工作和兴趣，迟钝，精神焦虑，躯体焦虑，一般躯体症状，疑病症等。尽管部分患者偶尔会根据需要服用短效催眠药，但通常服用时间仅 1-2 周，这表明米那普仑也能有效改善失眠。

结论 根据被次观察研究的结果，米那普仑对卒

中后抑郁的治疗效果明显且耐受性良好，其中只有 3 名患者出现副作用（1 名患者头痛，1 名患者发生轻躁狂，1 名患者排尿困难）。相对低剂量的米那普仑（30-75mg/天）治疗 1 或 2 周后可有效改善 PSD，表明该药物起效比较快。

关键字：卒中后抑郁 治疗体会

抗抑郁药物治疗躯体形式障碍的疗效及安全性的网状 Meta 分析

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目的 评价抗抑郁药物治疗躯体形式障碍的临床疗效及可接受性。

方法 检索中国生物医学文献数据库（China Biology Medicine database, CBM）、中国知网（China National Knowledge Infrastructure, CNKI ）、 Pubmend 、EMBASE.com、Cochrane Library 等中英文数据库；使用“躯体形式障碍”、“躯体化障碍”、“疑病症”、“疼痛障碍”、 “躯体症状及相关障碍”、“随机对照”、“随机对照试验”、“Somatoform Disorder”、“Somatization Disorder”、“randomized?controlled”、 “ randomized?controlled?trial”等作为检索词并同时结合自由词和各数据库的主题词进行检索。纳入躯体形式障碍及抗抑郁药物治疗的随机对照研究。依据 Cochrane 5.1.0 版质量评价标准评价纳入文献的质量并进行偏倚评价，采用 Stata 14.2 软件进行网状 Meta 分析。

结果 共 42 个研究进入了网状 Meta 分析，共包括 15 种抗抑郁药及安慰剂。结果分析显示：临床疗效前三位的是度洛西汀、阿戈美拉汀、艾司西酞普兰,如度洛西汀与舍曲林比较，[OR=1.17(1.01,1.36)]；耐受性前三位的是西酞普兰、氟伏沙明、米氮平。

结论 度洛西汀、阿戈美拉汀、艾司西酞普兰在疗效方面较为突出，为可供我们选择的一线药物。

关键字：抗抑郁药物；躯体形式障碍；疗效；可接受性；网状 Meta 分析

机器学习结合 fNIRS 脑激活状态识别抑郁症

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目的 基于抑郁症患者、健康对照在词语流畅性测验（Verbal fluency test, VFT）任务中的血红蛋白浓度变化，探索抑郁症、健康对照的脑激活变化和差异；基于机器学习算法结合功能近红外光谱(Functional near-infrared spectroscopy, fNIRS)数据构建抑郁症辅助诊断模型，达到能够准确识别抑郁症，辅助精神科医生临床诊断。

方法 抑郁症患者和健康对照各 100 例，在 VFT 任务中的，使用 52 通道 ETG-4100 近红外光谱脑成像系统，每隔 0.1 秒测量一次脑部血红蛋白相对浓度，对数据进行去伪影、去生理噪声，去漂移，降频处理；提取数据特征。基于一般线性模型探讨抑郁症患者及健康对照脑激活状态变化，使用机器学习梯度提升算法构建抑郁症辅助诊断模型。使用 5 倍交叉验证评估模型。

结果 抑郁症在背外侧前额叶皮层及前额叶前部皮质激活程度显著低于健康对照；基于梯度提升算法结合背外侧前额叶皮层及前额叶前部皮质脑区血氧浓度数据构建的抑郁症辅助诊断模型识别抑郁症准确率为 83%。

结论 背外侧前额叶皮层及前额叶前部皮质区域可能是探究抑郁症病理生理机制的重要脑区；基于机器学习算法结合背外侧前额叶皮层及前额叶前部皮质脑区血氧浓度数据能够较为准确识别抑郁症，可用于构建抑郁症辅助诊断工具。

关键字：fNIRS；机器学习；辅助诊断；抑郁症；

机器学习结合 fNIRS 脑激活状态识别抑郁症与精神分裂症

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目的 基于抑郁症、精神分裂症患者在词语流畅性测验任务中的血氧浓度变化，探索抑郁症与精神分裂症患者的脑激活变化和差异；基于机器学习算法结合功能近红外光谱(Functional near-infrared spectroscopy, fNIRS)构建抑郁症与精神分裂症鉴别诊断模型，达到能够准确识别抑郁症、精神分裂症，辅助精神科医生临床诊断。

方法 抑郁症、精神分裂症患者各 50 例，在词语流畅性测验任务中，使用 52 通道 ETG-4100 近红外光谱脑成像系统，每隔 0.1 秒测量一次脑部血红蛋白相对浓度，对数据进行去伪影、去生理噪声，去漂移，降频处理；提取数据特征，使用机器学习随机森林算法构建抑郁症与精神分裂症辅助诊断模型；使用 5 倍交叉验证方法评估模型。

结果 抑郁症在背外侧前额叶皮层激活程度显著低于精神分裂症，在颞上回、颞极区、颞中回激活程度显著高于精神分裂症；基于随机森林算法结合脑激活程度具有显著差异脑区血氧浓度数据构建的抑郁症与精神分裂症鉴别诊断模型识别抑郁症、精神分裂症准确率为 85%。

结论 机器学习结合功能性近红外光谱成像数据可以较为准确的区分抑郁症与精神分裂症，具有构建抑郁症与精神分裂症辅助诊断工具的潜力。

关键字：fNIRS；机器学习；辅助诊断；抑郁症；

针灸联合抗抑郁剂治疗对老年期抑郁障碍的疗效分析

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目的 探讨针灸联合抗抑郁剂治疗老年期抑郁障碍的临床疗效。

方法 通过医院电子信息系统提取 2017 年 1 月 1 日至 2017 年 12 月 31 日住院治疗的老年期抑郁障碍患者，入组患者 714 例，男性 230 例，女性 484 例，平均年龄为（66.7±5.2）岁，根据治疗方法，将患者分为针灸组和对照组，2 组年龄、性别比较差异无统计学意义（P＞0.05）。针灸组：常规遵医嘱服用抗抑郁剂的同时遵循中国针灸学会 2014 年推出的《循证针灸临床实践指南：抑郁症》，由针灸科医生按照中医辨证分型、个体化原则具体选穴操作，采用电针刺激患者的头部百会穴、印堂穴，配合躯体的合谷、神门、三阴交、太冲、足三里等穴位。施针时患者取仰卧位，选用 0.25mm×40mm 毫针进行常规消毒，各穴位进针捻转得气后，将高性能针灸治疗仪(苏州医疗用品厂有限公司 SDZ-IV 型电子治疗仪，电压 9V) 输出电极连接到毫针针柄，选用脉冲电流，采用疎密波，频率 54Hz，缓慢调节输出强度，以患者能耐受为宜。 每日治疗 1 次，每次治疗 25min，每周二、周四各治疗，一周 2 次，至少持续 4 周总计 8 次为一个疗程。对照组：仅接受常规口服一线抗抑郁药物治疗，失眠者合并苯二氮卓类药物治疗，至少治疗 4 周（1 月）为一个疗程。最后自编病例信息采集表获取患者人口学和疾病临床特征信息，分析针灸联合抗抑郁剂治疗老年期抑郁障碍的应用价值。

结果 针灸组患者的既往住院次数、共病数量、病程、有自杀观念人数等明显多于对照组（P＜0.05）；住院天数、住院费用明显低于对照组（P＜0.05）。针灸组患者伴发精神病性症状、出院疗效达到治愈标准所占比例明显高于对照组（P＜0.05）。Spearman 相关性分析显示，针灸组患者的出院疗效与针灸治疗次数呈显著正相关（P＜0.05），住院天数、住院费用与针灸次数显著负相关（P＜0.05）。

结论 针灸联合抗抑郁剂能够提高老年期抑郁障碍患者的临床疗效，具有广泛适用性，值得推广。

关键字：老年期抑郁障碍；针灸；抗抑郁剂；临床疗效

联合故事理论正念激励护理在抑郁症患者中的应用效果观察

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目的 分析故事理论联合正念激励护理在抑郁症患者中的应用效果。

方法 在南京医科大学附属脑科医院 2020 年 1 月～2022 年 12 月期间收治的抑郁障碍患者中采用随机抽样的方式选取研究对象 108 例，研究设计接受常规护理的对照组以及在常规护理的基础上接受故事理论联合正念激励护理的观察组，分别纳入研究对象 54 例。对比分析两组患者情绪状况、生活积极应对评分以及病耻感评分水平。

结果 情绪情况，组间护理前比较，无明显差异（P＞0.05）；护理后，两组患者负性情绪暴发次数均显著降低且观察组低于对照组，健康信心以及康复信心评分均显著提高且观察组高于对照组（P＜0.05）。生活积极应对评分，组间护理前比较，无明显差异（P＞0.05）；护理后，积极事件应对评分均显著提高且观察组高于对照组，消极事件评分均显著降低且观察组低于对照组（P＜0.05）。病耻感评分，组间护理前比较，无明显差异（P＞0.05）；护理后，病耻感评分显著降低且观察组低于对照组（P＜0.05）。

结论 在抑郁症患者中应用故事理论联合正念激励护理，可有效控制负性情绪爆发次数以及病耻感水平，提高正性情绪水平以及引导患者采取积极态度面对生活。

关键字：故事理论；正念激励；抑郁症；负性情绪；病耻感

延续性护理模式对抑郁症患者的不良情绪和生活质量的影响

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目的 探究延续性护理模式对抑郁症患者的不良情绪和生活质量的影响。

方法 选取患者分组后对照组采取一般性的出院指导，出院以后不再与患者联系及护理，观察组患者在出院后仍继续保持着延续性护理干预。收治的 134 例患者均进行抗抑郁症药物的治疗，治疗无区别，所有患者在院时的进行的护理措施相同。对照组采取一般性的出院指导，出院以后不再与患者联系及护理，观察组患者在出院后仍继续保持着延续性护理干预，护理延续干预方法如下：1.2.1 延续性护理小组 病区护士长、管床医生和责任护士各 1 名。小组成立后，由主治医生对组内成员进行培训和指导，内容主要有评定量表标准指导语和干预专业知识，培训合格才可以进行护理。分发患者关爱卡，内容主要有患者的、性别姓名、职业、年龄、联系电话等。患者出院前由责任护士将关爱卡给患者，进行详细讲解。 1.2.2 延续性护理的内容 （1）

出院前：出院前 2 周，进行小群体健康教育指导，至少 1 名家属在现场。健康教育的方面有抑郁症的病程、症状、复发情况、发病原因、危险因素、保健知识，使患者可以及时发现复发征兆。（2）随访：患者出院后每一个月进行家庭随访 1 次，随访时进行护理干预的内容包括：①家庭气氛干预：将护理知识和处理意外的注意事项向患者家属详细介绍，改变患者和家属的偏见，鼓励其多关心爱护患者，尽量消除家庭成员在患者犯病时进行批评和指责，使患者感受家庭的温暖。②监督患者用药：告知患者依照医生的嘱咐服药的重要性，不要间断用药或随便减少剂量，每次随访时询问患者的服药情况。并予以观察患者服药的不良情况。③对患者的心理疏导：指导患者正确认识自己，帮助患者制定工作和娱乐活动、参与社会交往等。让患者觉得“我可以”，并及时肯定这种感觉。④教患者排解不良情绪的方法，如：情绪转移法、倾诉法等。随访 2 次，之后每个月随访 1 次，与电话随访结合。（3）组织病人联系，加强病友之间的相互沟通交流，分享经验、相互支持，增强战胜疾病的信心。对患者及家属进行心理咨询，帮助患者建立社交自信。

结果 观察组最终进行延续性护理的效果显示用药的依从性与对照比能够好很多，而在此进行随诊后患者的不良情绪较对照组低，而患者出院后的生活质量较对照组好。

结论 延续性护理能满足抑郁症患者出院后的护理需求，降低不良情绪，提高生活质量。

关键字：延续性护理；抑郁症；生活质量

重症抑郁症住院患者应用保护性约束联合共情护理模式的应用价值研究

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目的 探讨重症抑郁症住院患者应用保护性约束联合共情护理模式的应用价值。

方法 研究时间为 2020 年 1 月-2022 年 12 月，入组观察对象 60 例，均为重症抑郁症住院患者，以随机数字法进行分组，对不同组患者分别应用常规护理（对照组，n=30）与保护性约束联合共情护理模式（观察组，n=30），比较不同护理模式对患者焦虑评分、抑郁评分、治疗依从性、生活质量、护理满意度的影响。观察组中，男性患者数 18 例，女性患者数 12 例，年龄区间 23-56 岁，平均年龄（38.22±5.91）岁，对照组中，男性患者数 16 例，女性患者数 14 例，年龄区间 23-54 岁，平均年龄（38.12±6.20）岁，统计学分析结果显示，患者无基础资料差异，组间能够比较（P＞0.05）。

结果 观察组焦虑评分、抑郁评分显著优于对照组（P＜0.05）；治疗依从性对比，观察组显著优于对照组（P＜0.05）；生活质量比较，观察组显著优于对照组（P＜0.05）；护理满意度对比，观察组显著高于对照组（P＜0.05）。

结论 针对重症抑郁症患者，保护性约联合共情护理模式能够使医护人员站在患者的角度考虑问题，提供更加贴合患者身心需求的医护服务，进而帮助患者消除负面情绪的影响，提升治疗依从性，进而改善生活质量，配合医护工作，提升了护理满意度，促进病情康复。

关键字：保护性约束；共情护理模式；重症抑郁症

Suicidal Ideation and Electroconvulsive Therapy Outcomes in Adolescents With Major Depressive Disorder

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Objective Few studies on electroconvulsive therapy (ECT) investigate efficacy and safety on depressive adolescents with strong suicidal ideation. Our study examined adolescents (aged 13–18 years) with major depressive disorder to explore ECT effectiveness in improving suicidal ideation and depressive symptoms, as well as its impact on cognitive function.

Methods This nonrandomized controlled trial enrolled 183 adolescent patients suffering from major depressive disorder. The ECT group (n = 81) was treated with antidepressants and 8 rounds of ECT for 2 weeks. The control group comprised 79 patients treated with antidepressants only. Depressive symptoms, suicidal ideation, and cognitive functions were assessed at baseline (pre-ECT) and at 2 and 6 weeks post-ECT.

Results The ECT group showed significant improvements over control in suicidal ideation from the end of treatment to 6 weeks after ($P < 0.001$). Depressive symptoms also improved ($P < 0.001$). Patients treated with ECT demonstrated poorer performance in delayed memory, attention, and language, but these impairments were transient. Thus, ECTwas generally safe in adolescent patients with major depressive disorder.

Conclusion Our findings verified ECT as effective and safe for improving suicidal ideation and depressive symptoms of adolescent patients with major depressive disorder. In addition, partially impaired cognitive function recovered gradually after ECT.

关键字：adolescents, ECT, major depression disorder, suicidal ideation

新型抗抑郁药伏硫西汀个体化用药研究进展

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目的 综述伏硫西汀药代动力学、基因多态性、治疗药物监测（Therapeutical drug monitoring, TDM）、药物相互作用及群体药代动力学（Population pharmacokinetics, PPK）研究现状，以期为后续研究及临床个体化

用药提供参考。

方法 通过中国知网（CNKI）、Pubmed、Web of Science 等文献数据库阅读有关伏硫西汀的研究，并综合阐述伏硫西汀的药代动力学、ABCB1 与 CYP2D6 基因多态性、临床 TDM 现状、药物相互作用以及 PPK 研究现状。

结果 伏硫西汀具有良好的药代动力学特征，口服吸收缓慢，吸收速率常数 ka=0.142 h-1，达峰时间大约为 7～11 h，约 12 天达到稳态血药浓度，具有剂量正比和线性暴露、中等口服生物利用度（F=75%，65%～94%）、广泛的组织分布（Vz/F=2600 L）、较长的终末消除半衰期（T1/2=57～66 h）。伏硫西汀的治疗窗为 10～40 ng·mL-1，在肝脏主要经 CYP2D6 代谢，是 P-糖蛋白（由 ABCB1 基因表达）的底物，CYP2D6 与 ABCB1 基因多态性对伏硫西汀临床疗效与药代动力学具有影响，且药物相互作用影响小。研究显示，性别、体重与 CYP2D6 是伏硫西汀的主要协变量。

结论 伏硫西汀疗效显著，安全性和耐受性良好，受药代动力学和药物相互作用影响小，CYP2D6 多态性对伏硫西汀药代动力学影响较大，建议对 CYP2D6 弱代谢者进行剂量调整。伏硫西汀在儿童/青少年抑郁症患者中安全性和耐受性良好，但其用药超说明书，未来可基于 CYP2D6 基因多态性研究伏硫西汀在儿童/青少年抑郁症患者的药代动力学变化，为临床合理用药提供参考。

关键字：伏硫西汀，药代动力学，基因多态性，治疗药物监测，群体药代动力学

CYP2C19-rs4986893 Confers Risk To Major Depressive Disorder and Bipolar Disorder in The Han Chinese Population Whereas ABCB1-rs1045642 Acts As A Protective Factor

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Abstractive Genetic risks may predispose individuals to major mood disorders differently. This study investigated the gene polymorphisms of previously reported candidate genes for major depressive disorder (MDD) and bipolar disorder (BPD) in the Han Chinese population.

Methods Twenty loci of 13 candidate genes were detected by MALDI-TOF mass spectrometry in 439 patients with MDD, 600 patients with BPD, and 464 healthy controls. The distribution of genotypes in alleles, Hardy-Weinberg equilibrium, and genetic association were analyzed using the PLINK software. The linkage of disequilibrium and haplotype analyses were performed using the Haploview software.

Results Out of the 20 loci analyzed, CYP2C19-rs4986893, ABCB1-rs1045642, and SCN2A-rs17183814 passed Bonferroni correction; their statistical powers were >55%. The minor allele frequencies (MAF) of CYP2C19-rs4986893 in the MDD group (0.0547) and BPD group (0.0533) were higher than that of the control group (0.0259, P<0.05), leading to the odds ratios (ORs) of MDD (2.178) and BPD (2.122), respectively. In contrast, the lower MAFs of ABCB1-rs1045642 were observed in both MDD (0.3599, OR=0.726) and BPD (0.3700, OR=0.758) groups than controls (0.4364, P<0.05). The MDD group had a higher MAF of SCN2A-rs17183814 than controls (0.1743 vs. 0.1207, OR=1.538, P<0.05). Moreover, a G-A haplotype composed by CYP2C19-rs4986893 and -rs4244285 was associated with BPD (OR=1.361, P<0.01), and the A-G haplotype increased the risks to both MDD (OR=2.306, P<0.01) and BPD (OR=2.332, P<0.001). The CYP2C19 intermediate metabolizer and poor metabolizer (IM&PM) status was related to the raised risk of both MDD (OR=1.547, P<0.01) and BPD (OR=1.808, P<0.001).

Conclusion Our data indicate that the impaired CYP2C19 metabolism caused by the haplotypes integrated by CYP2C19 alleles might confer the risk to MDD and BPD, whereas the ABCB1-rs1045642 T allele serves as a protective factor.

关键字：Major depressive disorder, bipolar disorder, genetics, risk factor, susceptibility

小檗碱调节肠道微生物抗抑郁作用的研究进展

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抑郁症是一种由社会，心理和生物等多种因素相互作用引起的精神障碍。预计到 2030 年将成为全世界残疾和疾病经济负担的主要因素。受疫情大环境的影响，抑郁症患者发病率增加了 27.6%。抑郁症由于病因复杂，目前多数患者使用抗抑郁药后症状只达到部分缓解，且长期使用还会有许多不良反应。因此，寻找新的治疗途径和药物以达到更好的治疗效果是必要的。许多研究证据表明肠道微生物群在肠道和大脑之间的双向交流中起着至关重要的作用，肠道微生物中促炎细菌的增加和抗炎细菌的减少与抑郁症的发生发展有着密切的关联。小檗碱是从黄连、黄柏、大黄等多种天然药用植物中提取出来的五环异喹啉类生物碱。其生物利用度低，在胃肠道与肠道微生物群相互作用，影响肠道菌群的组成和代谢。近年来，越来越多的证据表明小檗碱通过调节肠道微生物组成和代谢水平在抑郁模型动物中表现出良好的抗抑郁作用。其抗抑郁的作用机制被认为是通过调节肠道菌群组成和代谢参与到神经系统、免疫系统和内分泌系统的调控，从而提高抑郁症动物模型脑部的神经递质和脑源性神经营养因子水平，降低炎性因子和维持血脑屏障的完整性。本文综述小檗碱调节肠道微生物，通过“微生物-肠-脑轴”抗抑郁的研究进展。

关键字：抑郁症；精神障碍；肠道菌群；微生物-肠-脑轴(MGBA)；小檗碱

外泌体中 miRNA 在重度抑郁症患者中诊断的意义

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目的 重度抑郁症 （MDD） 是一种严重且常见的精神疾病，在人群中患病率很高。尽管已经取得了很大进展，但其发病机制仍不清楚，用于诊断或治疗反应的经过验证的生物标志物仍未确定。外泌体是细胞外囊泡的一种亚型，通常是大小为 30–150 nm 的囊泡。它们存在于各种体液中，包括血液、唾液和脑脊液，并且含有并转运细胞内成分，例如蛋白质、脂质、核糖核酸 (RNA) 和微小 RNA (miRNA) 。外泌体在特定细胞的分泌组中起着重要作用，它们可以通过血脑屏障，在传导细胞间信号、运输细胞间物质、排泄细胞内代谢物中起作用。本文综述外泌体中 miRNA 作为诊断 MDD 的潜力。

方法 本文在数据库 PubMed 中，使用术语“miRNA”、“重度抑郁症”、“外泌体”进行检索，以找到提出外泌体中 miRNA 在 MDD 发病机制中的作用及其作为 MDD 诊断潜力的研究。

结果 ?microRNA（miRNA）是一类小的非编码 RNA，是 MDD 发病机制中神经可塑性，神经发生和应激反应的关键调节因子。越来越多的研究为外周外泌体中 miRNA 作为 MDD 诊断提供了证据。这些结果表明，miRNA 是 MDD 及其治疗的潜在生物标志物。

结论 总体而言，miRNA 在 MDD 发病机制中充当突触可塑性的关键调节因子，并具有作为 MDD 生物标志物潜力，但仍需要进一步研究，并且外周组织中的 miRNA 是否真正代表脑源性 miRNA 目前尚不清楚。此外，在研究中，只有少数血液 miRNA 改变是一致的。

关键字：外泌体;重度抑郁症;微核糖核酸;生物标志物。

光照疗法在改善抑郁症患者焦虑症状中的运用与观察

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目的 研究光照疗法在改善抑郁症患者焦虑状态中的应用效果。为光照疗法在抑郁症患者中的应用提供临床依据。

方法 从我院 2021 年 9 月至 2023 年 3 月我科收治住院的抑郁症患者中随机抽调 100 例为研究对象，按照入院顺序通过随机数字表法分为光照组与对照组，对照组给予常规治疗，其治疗措施为：药物治疗、脑电治疗仪治疗、脑反射治疗仪治疗、低频脉冲治疗仪治疗；光照组在常规治疗的基础上给予光照治疗。光照治疗的具体实施方法：①选择性能良好的光照治疗仪器：使用的仪器设备为 “健康功能灯”，其灯珠数量为 69 颗，我们选用治疗强度为“二挡”-10000LUX（强）。②治疗时间：选在每天上午 8 时至 11 时之间的时间段为患者进行光照治疗，每天的照射时间相对固定，前后相差时间控制在 30min 以内。③照射时间：每次照射 15min。④照射高度：光源距离患者眼部 60cm，照射时将患者的头面部暴露于光源中，照射时避免直视光源。两组患者分别在入院时、治疗 1 周、治疗 2 周时进行汉密尔顿抑郁量表 HAMD、汉密尔顿焦虑量表 HAMA、PHQ-9 抑郁症筛查量表、GAD-7 焦虑症筛查量表、匹兹堡睡眠质量指数量表 PSQI、中国心身症状量表、精神护理观察量表评定，以观察患者两周在抑郁、焦虑症状以及睡眠质量方面的变化情况。

结果 观察组各量表评分结果均高于实验组，P＜0.05，有统计学意义。

结论 本次研究通过在抑郁症患者中进行光照治疗，观察到光照治疗对控制抑郁症患者抑郁症状、减轻焦虑症状、改善睡眠质量的作用，进一步证实了光照治疗在抑郁症患者治疗中的价值。其中光照治疗具有操作简单、治疗环境要求较低、低成本、可用范围较广、无创伤性、安全性高等特点，这些都是光照治疗在临床应用中的便利条件。综上所诉，光照治疗在改善抑郁症患者焦虑状态中具有一定的临床意义，其具有在临床治疗中推广的价值。

关键字：抑郁症 光照治疗 焦虑

艾滋病患者抑郁障碍和焦虑障碍的患病率及危险因素的荟萃分析

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目的 运用循证医学方法，探究 HIV 感染人群中抑郁障碍和焦虑障碍的患病率及其危险因素，探讨潜在的人口统计学、临床及免疫学因素，探索 HIV 感染者抑郁障碍和焦虑障碍的流行特点，为 HIV 感染者抑郁障碍和焦虑障碍的筛查及管理提供参考依据。

方法 以“抑郁障碍”、“焦虑障碍”、“艾滋病”、“人类免疫缺陷病毒”为检索词，在 PubMed、Web of Science 和 Embase 中进行文献检索，筛选出以 DSM-5 或 ICD 为诊断标准的文献，收集相关数据后应用 CMA 软件进行 Meta 分析。本研究利用随机效应模型汇总纳入研究的患病率，并通过亚组荟萃分析评估组间分类变量的差异，采用最大似然法进行评价连续变量的相关性，借助 Q 检验和 I2 检验评估研究的异质性，文献质量评价则是借助于 AHPQ 标准及 JBI 标准来评判。

结果 抑郁障碍的研究最终纳入分析 13 篇文献，样本量从 60 到 122896 不等。结果显示 HIV 感染者中抑郁障碍的患病率为 21.7% (95% 置信区间为 13.3-33.2%)。通过亚组分析可以得出，HIV 感染者中与抑郁障碍相关的危险因素主要是年龄(β= -0.0653, p = 0.0027, n = 17)和确诊艾滋病的时长(β= 0.0024, p =

0.0098, n = 17)。而焦虑障碍的研究共纳入 10 项文献，样本量从 300 到 122896 不等。结果显示 HIV 感染者焦虑障碍的患病率为 15.5% (95% 置信区间为 6.9 - 31.0%)，确诊焦虑障碍患者的平均年龄为 46.58±11.15 岁，CD4T 细胞平均计数为 446.92±280.60/mm3，HIV 感染诊断平均时长为 5.89±5.94 年。

结论 通过对纳入文献的数据进行汇总分析可以得出 HIV 感染者抑郁障碍和焦虑障碍的总体患病率均较高。为了减少抑郁障碍和焦虑障碍对患者生活质量的负面影响以及减轻其给国家及社会带来的负担，我们迫切需要建立标准化的 HIV 感染者抑郁障碍及焦虑障碍的诊断流程，重视其相关危险因素的常规筛查和管理，以减少 HIV 感染者抑郁障碍和焦虑障碍相关不良事件的发生。近年来抗反转录病毒药物不断进步，精神方面的副作用逐渐减少，但是使用以整合酶为核心的抗反转录病毒方案的患者的精神障碍的相关研究还比较缺乏，需要针对新一代治疗方案可能引起的精神症状进行更加广泛深入的研究，为临床筛查提供参考依据。

关键字：抑郁障碍，焦虑障碍，人类免疫缺陷病毒，艾滋病，Meta 分析

选择性 5-羟色胺再摄取抑制剂联合中药治疗治疗抑郁 症的研究概况

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目的 抑郁症是危害人类身心身健康的一类重要的心理疾病。选择性 5-羟色胺 (HT) 再摄取抑制药 (SS RIs) 是目前临床上治疗抑郁症的首选药物。然而该类 药物的临床不良反应已成为影响临床运用的突出问题。

方法 本文拟对选择性 5-羟色胺 (HT) 再摄取抑制药(SS RIs)与中药联合运用的现状进行评述，以期对临床治疗抑郁 症提供一定的参考。

结果 中药在治疗抑郁症方面具 有一定的作用，与该类抗抑郁药联合应用有增强疗效和(或) 减轻其不良反应的 作用。抑郁症发病机制复杂、影响因素较多，现有西药多针对单一机制治疗，存在治疗 效果差、起效时间长、不能涵盖所有抑郁类型等不足。目前已有较多的涉及 5-HT 与中药联合运用的 临床报道，结果显示中药与此类抗抑郁药联合使用有缩短起 效时间或疗程、增加疗效、减少西药用量及减缓临床不良反应发生的作用。

结论 现有研究认为多种中西医结合方法在抑郁症的治疗上 相对于单用西医学方法具有一定的优势。然而，由于绝大多数研究在实验设计等 方面存在缺陷，所得结果尚待更多设计严谨的高质量研究来加以证实。今后的研 究中，在抑郁症的中医学辨证分型、治疗手段与操作方法的规范化等方面，亟待 更加统一的标准。在临床评定方面，可以采用评定者盲法的方式来减少安慰剂效 应对研究结果的影响，并可结合更多与临床疗效有关的生物学指标来进行研究， 以更为客观地评价中西医结合治疗的优劣

关键字：抑郁症; 选择性 5-羟色胺再摄取抑制药; 联合用药

巢湖市 18 个乡镇重性精神疾病患者的自杀意念调查

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目的 本研究旨在探讨巢湖市重性精神疾病患者自杀意念及相关影响。

方法 我们使用随机分层抽样调查法对安徽省巢湖市 18 个乡镇的重性精神疾病患者进行评估，使用自制的一般情况调查表收集一般资料、标准化问题评估自杀意念、病情严重程度量表（SI）评估患者的病情严重程度。

结果 重性精神疾病患者自杀意念患病率为 19.1%；性别组、婚姻组、目前吸烟情况组、疾病诊断组、服用精神科药物情况组、病情严重程度（SI）组的自杀意念患病率比较差异均有统计学意义（均存在 P ＜0.05），男性组患病率 15.15%，女性组患病率 22.96%；已婚组患病率 22.94%，未婚组患病率 13.22%；不吸烟组患病率 20.77%，吸烟组患病率 11.11%；精神分裂症组患病率 19.33%，癫痫所致精神障碍组患病率 25.49%，精神发育迟滞伴发精神障碍组患病率 5.13%，其他重型精神疾病组患病率 24.00%；不服用精神科药物组患病率 12.67%，服用 1 种精神科药物组患病率 18.09%，服用 2 种及以上精神科药物组患病率 21.98%；病情严重程度无病组患病率 12.93%，轻度组患病率 16.19%，中重度组患病率 21.90%，重度组患病率 25.26%；多因素非条件 Logistic 回归分析显示，女性、已婚患者为自杀意念的危险因素，吸烟为自杀意念的保护因素；严重精神障碍疾病诊断中，精神分裂症患者的自杀意念患病率高于其他诊断；精神科药物的数量与自杀意念呈正相关，病情严重程度与自杀意念呈正相关。

结论 自杀意念在处于疾病稳定期的严重精神障碍患者中较常见，且受多种因素影响，包括性别、目前吸烟情况、疾病诊断、服用精神科药物情况、病情严重程度（SI）。

关键字：严重精神障碍；自杀意念；流行病学方法；患病率

抑郁症患者对中医特色延续护理服务态度及需求的质性研究

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目的 了解抑郁症病患者对中医特色延续护理服

务的态度及需求，为临床制定相关延续护理措施提供依据。

方法 方法：采用现象学研究方法，于 2022 年 5 月～2022 年 11 月选取广州医科大学附属脑科医院的 13 例抑郁症患者、9 例主要照顾者为访谈对象，进行半结构式深度访谈，运用 Colaizzi 内容分析法对资料进行分析，并提炼主题。

结果 中医特色延续护理服务态度方面主题包括积极接受，受访者中有 10 例(76.92%)抑郁症患者，7 例(77.78%)主要照顾者表示非常愿意接受中医特色延续护理服务；质疑态度，受访者中有 2 例 (15.38%)抑郁症患者，1 例(11.11%)主要照顾者对中医特色延续护理服务持质疑态度；拒绝接受，受访者中有 1 例(7.69%)抑郁症患者，1 例(11.11%)主要照顾者拒绝中医特色延续护理服；需求方面主题包括专业的疾病健康指导，受访者中有 8 例 (61.54%)抑郁症患者，6 例 (66.67%)主要照顾者希望出院后获得专业的疾病知识健康指导；生活起居指导，受访者中有 7 例(53.85%)抑郁症患者，5 例 (55.56%)主要照顾者希望获得专业的生活起居指导；情志调养，受访者中有 6 例(46.15%)抑郁症患者，5 例(55.56%)主要照顾者希望获得专业的情绪调养方面的指导；中医健康指导，受访者中有 5 例(38.46%)抑郁症患者，4 例(44.44%)主要照顾者希望获得中医方面的健康指导。

结论 结论：抑郁症患者对中医特色延续护理服务总体态度积极，希望通过专业的中医特色延续护理服务促进康复，对中医特色延续护理服务需求迫切且多样化。在临床工作中，有必要针对抑郁症患者患者制定并实施有针对性的中医特色延续护理服务，以促进患者康复，减少疾病复发，提高生存质量。

关键字：抑郁症；中医特色延续性护理；服务态度及需求；质性研究

“浮针气血新论”理论在抑郁障碍伴有慢性疼痛治疗中的应用举隅

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抑郁障碍是一类以情绪或心境低落为主要表现的疾病的总称，伴有不同程度的认知和行为改变，可伴有精神病性症状，如幻觉、妄想，是临床常见的精神心理疾病。抑郁障碍和慢性疼痛有密切关系。患者疼痛常常没有明确的器质性病因，常表现为头痛、颈痛、背痛等。慢性疼痛可成为抑郁症的重要症状或就诊的主诉，抑郁症状也可使各种原因产生的疼痛症状明显加重。慢性疼痛与抑郁情绪可相互影响，抑郁情绪可使患者慢性疼痛时间延长，而慢性疼痛亦会加重患者的抑郁情绪。针灸治疗抑郁障碍疗效确切，笔者受浮针医学创始人符仲华博士提出的“气血新论”启发，认为气血的功能绝大部分可以通过“肌肉—血液（血循环）”实现，此理论与抑郁障碍气血失调的中医病机相符。本文分享应用浮针治疗抑郁障碍伴慢性疼痛病案 1 则，共治疗 10 次，患者治疗后效果良好，不仅可以明显改善患者慢性疼痛的症状，同时可以缓解患者的抑郁情绪。

关键字：浮针疗法，气血新论，抑郁障碍，慢性疼痛，验案

抑郁症患者 HAMD 各因子得分与心率变异性相关分析

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目的 抑郁症患者 HAMD-17 与心率变异性的相关性研究

方法 心率变异性（HRV），指的是心跳跳动的周期时间对应变化规律。主要目的反映自主神经、即包括副交感神经系统和交感神经系统之间的一个平衡，即反映神经对心脏的一个支配情况。抑郁症在既往的调查研究中被发现与心脏病的发病率有一定关系，既往队列研究表明，抑郁症患者会增加心血管疾病发病率和死亡率的风险。本课题研究目的是探索抑郁症患者 HAMD-17 量表的各因子得分与心率变异性指标的相关性。本研究采取了 2022 年 2 月至 2023 年 6 月汕头大学精神卫生中心门诊及住院确诊为抑郁症的患者，排除 2 周内有精神科用药及类固醇等用药史，本课题研究的测量指标包括 HRV 相关指标及 HAMD 量表评分，HAMD-17 量表因子得分包括睡眠情况、焦虑与躯体化、体重变化、认知障碍、阻滞等 5 大因子得分。HRV 指标包括 LF、HF、TP、ccvTP 等四大指标。通过 SPSS 26.0 进行数据分析。

结果 目前收集了汕头大学精神卫生中心 46 名患者入组，平均年龄 24.33，女性占比 76%。

结论 相关性分析结果表明 HAMD 中的焦虑/躯体化因子与 HF、ccvTP 相关，与 LF、LF/HF 无关。其他因子与 HRV 各指标间均无明显关联。在 HAMD 量表中，各因子间均显著相关。

关键字：抑郁：心率变异性

医学生的依恋类型、孤独感与亲密关系满意度的相关性与抑郁症的关系

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目的 研究在疫情的大背景下，现代医学生的成人依恋类型、孤独感与亲密关系满意度三者间的相关关系，探究如何提高学生在较短时间内对陌生环境的适应能力，加强学生的心理素质、缓解抑郁情绪。新冠疫情期间，封校、封闭式管理改变了部分学生的生活方式，孤独感较强的和非安全型依恋的医学生会因无良好的应对方式而无法排解自己的不良情绪从而影响正常的校园生活。长期的孤独感会使得学生的不良情绪

不断积压从而对日常生活产生不良影响甚至部分学生患上抑郁症、焦虑症。本课题探讨如何增强个体满意度、加强学生在校生活的愉悦的体验感、减少不良情绪、有效防范学生所产生抑郁、焦虑状态发展为较为严重的抑郁障碍、焦虑障碍。

方法 采用孤独量表（UCLA）、成人依恋量表(ASS)、亲密关系满意度量(ECR)表对 237 个大学生进行问卷调查。将所有数据资料录入 SPSS20.0 对其进行描述性统计分析、独立样本 t 检验和 Pearson 相关分析。

结果 在本次调查中，我校医学生的依恋类型大部分为安全型依恋和痴迷型依恋，趋于低依恋回避和高依恋焦虑状态。我校医学生孤独感均值为 40.519，大部分学生的孤独感处在中等强度范围内；亲密关系满意度均值为 24.072，处在中等偏下的强度范围内；不同性别对成人依恋、孤独感和亲密关系满意度差异均不显（t=1.553,p=0.122;t=0.126,p=0.900;t=0.543,p=0.584）；不同家庭情况对三个变量上差异不显著（F=0.380,p=0.767;F=0.808,p=0.490;F=0.984,p=0.401）成人依恋、孤独感与亲密关系满意度呈显著负相关。

结论 （1)与父母双方共同居住的医学生依恋类型大部分偏向低回避、低焦虑维度，孤独感的值也较低，亲密关系满意度偏高。而单亲家庭或为和父母双方共同居住的医学生孤独感值偏高。家庭对个体成长有重要影响，家庭氛围淡漠和家庭不完整会导致学生母爱或父爱的缺失，从而加重其抑郁情绪。因此我认为应多关注我校医学生的家庭环境，学校老师与家长及时沟通孩子的在校或在家的情感状态，鼓励学生与家长多互动多交流。（2）属于非安全型依恋的医学生回避维度与焦虑维度偏高，容易在校园生活中产生焦虑情绪。远离人群，不愿与人交流，孤独感随之升高导致焦虑增加。因此在校内更应提高对此类大学生的关注度，帮助他们完善自己的性格缺陷，增强其自信心以及自尊心。

关键字：依恋类型；孤独感；亲密关系满意度；抑郁；焦虑；不良情绪

抑郁青少年校园欺凌与非自杀性自伤的关系

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目的 了解中国抑郁青少年非自杀性自伤（NSSI）行为的特征，探索校园欺凌与抑郁青少年 NSSI 行为的关系。

方法 研究对象来自中国青少年抑郁症队列（Chinese Adolescent Depression Cohort，CADC）的基线数据。自 2020 年 12 月至 2021 年 12 月，从中国 9 个省份的 14 家医院招募抑郁发作标准的 12~18 岁门诊及住院患者。采用自编人口学特征问卷、多维同伴受害量表中文版、中学生应对方式问卷、儿童青少年情绪调节问卷中文版及自伤功能评估量表中文版对抑郁青少年进行调查。采用 SPSS23.0 及 PROCESS 程序进行应对方式及情绪调节在校园欺凌与 NSSI 频率中链式中介作用的分析。

结果 本研究共纳入 2343 名抑郁青少年，平均年龄为 14.99?1.65 岁。校园欺凌与 NSSI 频率呈正相关（r=0.335，P<0.001）。校园欺凌与指向问题的应对方式呈负相关（r=-0.234，P<0.001），与指向情绪的应对方式呈正相关（r=0.191，P<0.001）。校园欺凌与情绪调节相关，校园欺凌与认知重评呈负相关（r=-0.207，P<0.001），与表达抑制呈正相关（r=0.082，P<0.001）。指向问题的应对方式和认知重评以及向情绪的应对方式和表达抑制分别在校园欺凌与 NSSI 频率之间存在链式中介作用。

结论 校园欺凌能影响抑郁青少年 NSSI 行为的频率，通过预防抑郁青少年校园欺凌能有效减少 NSSI 行为。应对方式与情绪调节在其中存在中介作用，帮助青少年选择更有效的应对方式及情绪调节策略是减少抑郁青少年NSSI行为频率，降低抑郁青少年重复NSSI行为的有效措施之一。

关键字：抑郁青少年，非自杀性自伤，校园欺凌，应对方式，情绪调节

重复经颅磁刺激在青少年抑郁障碍治疗中的研究进展

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目的 重度抑郁症（MDD）是全球最普遍的精神卫生状况之一，通常首先发生在青年中，影响了大约 5-15%的儿童和青少年，本篇为 rTMS 临床应用于青少年抑郁症的治疗提供建议，为探索 rTMS 的抗抑郁机制和改善治疗青少年抑郁症效果提供了新的思路。

方法 通过对现有文献进行系统回顾，收集和整理了关于 rTMS 治疗青少年抑郁障碍的临床研究和试验结果。评估了包括抑郁症症状的改善、生活质量的提高和复发率的降低，并就 rTMS 如何临床应用于青少年抑郁症的治疗提供了建议。

结果 对于难治性抑郁症，rTMS 的有效率为 40%-260%。其通常是安全且耐受性良好的，最严重的风险是癫痫发作，但很少发生。本篇系统回顾表明 rTMS 在青少年抑郁症中的治疗是安全且有效的，其在减轻抑郁症状、改善患者生活质量和减少复发率方面具有积极的影响。其中，前额叶皮层的刺激对抑郁症的治疗效果最为显著。此外，本文还探讨了 rTMS 的机制研究和神经调节网络的影响，rTMS 可影响多种神经递质的表达从而产生兴奋或抑制的效果，可调节神经可塑性和改变特定大脑区域的活动，影响神经调节网络的功能状态。这些网络包括前额叶皮层、扣带回和海马等区域，对情绪调节和认知功能具有重要作用。

结论 rTMS 作为一种创新的非药物治疗方法，在青少年抑郁症治疗中显示出了潜在的应用前景。rTMS 能够显著减轻抑郁症状，改善患者的生活质量，并具有较低的复发率。因此，rTMS 可作为青少年抑郁症患者的有效治疗选择，为改善他们的生活质量做出重要贡

献，可以更好地为临床应用 rTMS 治疗青少年抑郁症提供更坚实可信的基础。

关键字：rTMS 抑郁障碍 磁共振成像 青少年抑郁障碍

个体化经颅磁技术在治疗抑郁症中的应用

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目的 通过文献综述比较个体化 rTMS 在治疗抑郁中的研究进展，该技术与传统 rTMS 治疗组和单一药物治疗组的相比的优缺点，以促进经颅磁治疗技术的个体化应用，提高治疗的准确性。

方法 计算机检索 PubMed、EMbase、Web of Science、维普中文科技期刊数据库(VIP)、the Cochrane Library、中国知网全文数据库(CNKI)、中国生物医学文献数据库(CBM)及万方数据库(WanFang Data)等,检索时限为自建库至 2023 年 1 月。根据纳入与排除标准纳入符合标准的随机对照试验,使用 RevMan 5.3 对纳入的文献进行 Meta 分析。

结果 共纳入文献 8 篇，Meta 分析显示，个体化 rTMS 组蒙哥马利抑郁症量表评分 [MD=3.85，95%CI(2.56，5.14)，P

关键字：个体化经颅磁治疗，神经导航技术，刺激参数个体化

生物精神病学组

重复经颅磁刺激治疗精神分裂症患者代谢综合征的研究现状

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目的 探讨重复经颅磁刺激治疗精神分裂症患者代谢综合征的可行性。

方法 文献回顾。

结果 精神分裂症是一种多代谢紊乱的复杂疾病，通常会导致肥胖和血脂、血糖、血压等异常。精神分裂症患者共病代谢综合征（MS）发病率较高，代谢综合征会显著增加精神分裂症患者罹患心血管疾病和 2 型糖尿病风险，不仅严重影响患者社会功能，也对家庭和社会造成沉重医疗负担。精神分裂症 MS 的发生机制尚未完全清楚，从目前研究来看药物治疗和行为干预疗效欠佳，因此有必要探索新的干预措施。重复经颅磁刺激（rTMS）是利用特殊线圈发出的脉冲磁场，作用于大脑中枢神经系统，可以改变大脑皮层神经细胞的膜电位，使之产生感应电流，影响脑内代谢和神经电活动，从而引起一系列生理、生化反应的磁刺激技术。虽然目前还未查阅到 rTMS 治疗精神分裂症 MS 的临床资料，但已有研究表明，rTMS 可以减少对食物的渴望和食物消耗，并导致肥胖个体体重减轻。目前研究认为精神分裂症 MS 的发生机制包括抗精神病药物的使用、下丘脑-垂体-肾上腺轴紊乱、胰岛素抵抗以及炎性因子水平升高等；rTMS 的治疗作用包括能对多种中枢神经递质产生影响、减少下丘脑炎症、对前额叶皮质和中脑皮质边缘奖励回路功能的调节等。因此 rTMS 的治疗作用与精神分裂症 MS 的发生机制存在重叠。并且已有大量研究显示 rTMS 可以治疗精神分裂症，减轻阳性和阴性症状，减少抗精神病药物的使用，临床使用安全性高。

结论 rTMS 可能是治疗精神分裂症 MS 的有效方法。

关键字：重复经颅磁刺激；精神分裂症；代谢综合征

光照治疗对慢性失眠症患者的临床疗效研究

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目的 慢性失眠症作为一种常见的健康问题，严重影响人类的睡眠质量和日常生活，多数慢性失眠患者存在昼夜生物节律紊乱。光照治疗通过暴露于特定光源下来改善生物节律的治疗方法。它主要用于调整人体内部的生物钟，从而改善睡眠质量和节律失调相关的问题。本研究拟探讨光照治疗对慢性失眠症患者的有效性，为慢性失眠症患者提供更多有效的治疗手段。

方法 按照一定的纳入和排除标准，在杭州市第七人民医院睡眠门诊募集自愿参与本研究的符合ICSD-3 诊断标准的慢性失眠症患者 100 例，所有受试签订知情同意书。按照 1:1 随机分成试验组和对照组，其中试验组采用光照治疗，对照组采用为伪光照光治疗，两组受试均每日早上 7- 10 点之间进行光照治疗 30 分钟，共使用 3 周，使用期间不服用任何影响睡眠的药物。分别在治疗前、治疗后 1 周、治疗后 2 周及治疗后 3 周采用匹兹堡睡眠质量指数量表（PSQI）、失眠严重指数量表（ISI）对受试的睡眠情况进行评分，比较两组在治疗前后上述指标的差异。

结果 其中 5 例（试验组 2 例、对照组 3 例）中途退出，纳入分析的试验组与对照组在性别、年龄、饮酒状况及咖啡摄入之间均无统计学差异（P＞0.05）；治疗前试验组和对照组 PSQI 总分分别为 11.67±2.43 和 12.02±2.19，差异无统计学意义（P=0.431）；两组在治疗后 1 周、后 2 周及治疗后 3 周 PSQI 总分差异有统计学意义（P＜0.05），且试验组及对照组治疗三周后较基线 PSQI 总分差值分别为 4.65±2.78、3.21±2.77，差异有统计学意义（P=0.014）；治疗前试验组和对照组 ISI 总分差异无统计学意义（P=0.710）；试验组及对照组治疗三周后较基线 ISI 总分差值分别为 8.27±3.12 及 6.77±4.07，差异无统计学意义（P=0.063）；但在治疗两周时试验组 ISI 总分较基线的差值分别为 6.50±3.02 及 4.96±3.99，差异有统计学意义（P=0.037）。

结论 光照治疗后，慢性失眠患者的失眠指数显著降低，睡眠效率提高。然而，需要进一步的研究来探索光照治疗的最佳剂量、持续时间以及治疗对象的选择，以提高治疗效果，提供个体化光照治疗方案。

关键字：光照治疗；慢性失眠症；临床疗效；生物节律

住院严重精神障碍患者自杀意念的影响因素分析

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目的 分析住院严重精神障碍患者自杀意念的现状，并探讨其影响因素，以提高对此类自杀企图高危个体的认识和检测。

方法 采用便利抽样法，选取 2023 年 2 月至 2023 年 5 月于江苏省扬州某精神专科医院住院治疗的诊断为严重精神障碍的患者作为调查对象，采用一般资料调查量表、贝克自杀意念量表、汉密尔顿抑郁量表、社会支持评定量表、简明精神病量表在患者住院期间进行调查，对严重精神障碍患者自杀意念现状进行分析，并通过单因素分析及多因素回归分析探讨其影响因素。

结果 00 名住院严重精神障碍患者中，愿意参与自杀意念影响因素调查的人数为 280 名，占 93.3%；单因素分析结果显示年龄、性别、婚姻状况、家族史、医疗付费方式、住院环境、疾病诊断、性格、用药种类、住院次数、心理状态、睡眠质量、社会支持为严重精神障碍患者自杀意念的影响因素(P＜0.05)；多因素回归分析结果显示年龄、心理状态、睡眠质量、社会支持、住院病区是严重精神障碍患者自杀意念的独立影响因素(P＜0.05)。

结论 住院严重精神障碍患者自杀意念受到多种因素影响，临床精神卫生专业人员应早期识别高危患者并根据其意愿采取相应的干预措施，促进其心理健康，降低此类患者自杀的发生率。

关键字：严重精神障碍；自杀意念；心理状态；睡眠质量；社会支持；影响因素

Shared and Distinct White Matter Alterations in Major Depression and Bipolar Disorder

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Objective Identifying white matter (WM) microstructural similarities and differences between major depressive disorder (MDD) and bipolar disorder (BD) is an important way to understand the potential neuropathological mechanism in emotional disorders. Numerous diffusion tensor imaging (DTI) studies have confirmed the presence of WM anomalies in these two affective disorders in recent decades, but the results were inconsistent. This study aimed to determine the statistical consistency of DTI findings for BD and MDD by using the coordinate-based meta-analysis (CBMA) approach.

Methods We performed a systematic search of tract-based spatial statistics (TBSS) studies comparing MDD or BD with healthy controls (HC) as of June 30, 2022. The seed-based d-mapping (SDM) was applied to investigate fractional anisotropy (FA) changes. Meta-regression was then used to analyze the potential correlations between demographics and neuroimaging alterations.

Results Regional FA reductions in the body of the corpus callosum (CC) were identified in both of these two diseases. Besides, MDD patients also exhibited decreased FA in the genu and splenium of the CC, as well as the left anterior thalamic projections (ATP), while BD patients showed FA reduction in the left median network, and cingulum in addition to the CC.

Conclusion The results highlighted that altered integrity in the body of CC served as the shared basis of MDD and BD, and distinct microstructural WM abnormalities also existed, which might induce the various clinical manifestations of these two affective disorders.

关键字：major depressive disorder, bipolar disorder, diffusion tensor imaging, white matter, tract-based spatial statistics, seed-based d mapping

抑郁症躯体症状的磁共振 VBM 表现

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目的 本研究采用基于体素的形态分析方法（VBM）比较抑郁症伴和不伴躯体症状患者大脑灰质体积变化，探索抑郁症躯体症状在磁共振（MRI）上特有表现。

方法 共纳入 52 例抑郁症患者，根据健康问卷躯体症状群量表-15（PHQ-15）评分将其分为有躯体症状组和无躯体症状组，同时纳入性别年龄匹配的健康志愿者作为对照组 40 例。所有被试均予 MRI 扫描，分析各组之间大脑灰质的差异，以及差异脑区域灰质体积与 PHQ-15 评分之间的相关性。

结果 与对照组相比，躯体症状抑郁组右颞上回灰质体积较对照组增加；右眶额下回、右颞下回、左眶额下回、左颞上回减少（P＜0.001）。抑郁症患者中，伴躯体症状患者右舌回、左扣带回的体积较不伴躯体症状者明显减小（P＜0.01）。 抑郁症躯体症状组、非躯体症状组和健康对照组患者脑灰质存在显著统计学差异（F=6.257, P＜0.01）。两两比较：（1）躯体症状抑郁组与对照组之间的比较如图 1（B）所示，可见右颞上回灰质体积较对照组增加；右眶额下回、右颞下回、左眶额下回、左颞上回减少（P＜0.001）；（2）非躯体症状抑郁组与对照组之间的比较如图 1（C）所示，发现右颞中回灰质体积较对照组增加；右颞上回、右颞下回减少（P＜0.01）；（3）躯体症状抑郁组与非躯体组之间的比较如图 1（D）所示，右舌回、左扣带回体积较非躯体症状组减少（P＜0.01）。

结论 抑郁症躯体症状在 VBM 上有异常表现，但尚需要进一步研究。

关键字：抑郁症；躯体症状；基于体素的形态分析；磁共振；健康问卷躯体症状群量表-15

79 例喹硫平不良反应报告分析

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目的 喹硫平是一种非典型抗精神病药物，其作用机制涉及多种神经递质受体，包括 5-羟色胺 5-HT1A、5-HT2 受体、多巴胺 D1、D2 受体、组胺 H1 受体、肾上腺素 α1 受体等。已在临床上获得批准用于治疗精神分裂症和双相情感障碍。本研究的目的是分析本院喹硫平不良药物反应（ADR）的特点和规律，为临床合理用药提供参考。

方法 我们收集了我院在 2020-2022 年期间上报给国家药品不良反应监测系统的 79 例疑似与喹硫平相关的 ADR 报告，并对患者的性别、年龄、ADR 报告类型、转归、发生时间、累及的系统-器官以及临床表现等因素进行了回顾性分析。

结果 在 79 例喹硫平 ADR 报告中，女性患者占多数（47 例，59.49%），而男性患者为 32 例（40.51%）。患者的年龄范围为 12-82 岁，平均年龄为 45.5±28.5 岁，在 14-65 岁之间的患者最为集中（67 例，84.8%）。其中，27 例病情严重，52 例病情一般或是新的。在 57 例停药或接受对症治疗后，有好转的情况，其余情况待详细了解。ADR 发生时间方面，有 28 例发生在用药后不到 10 天，31 例在 10-20 天之间，10 例在 20-30 天之间，还有 10 例发生在用药超过 30 天之后。ADR 涉及 10 个系统-器官类别，其中胃肠系统损害最为常见（20 例，22.73%），其次是神经系统损害（18 例，20.45%）和肝胆系统损害（17 例，19.32%）。临床表现主要包括便秘、锥体外系病和转氨酶升高等症状。

结论 在应用喹硫平时，应特别关注患者是否出现便秘、随意运动调节障碍等症状，并定期监测肝功能是否异常。当发生 ADR 时，应及时停药或进行对症治疗。临床医生应不断提高安全用药意识和认知，加强不良反应的监测和处理，以促进临床合理用药。

关键字：喹硫平；不良反应；合理用药

长期住院男性精神分裂症患者烟酸反应敏感度与认知功能相关研究

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目的 探讨长期住院男性精神分裂症患者烟酸皮肤潮红反应敏感度和认知功能之间的关系。

方法 采用横断面研究方法，入组年龄、性别、受教育程度、体重指数、吸烟情况相匹配的男性长期住院精神分裂症患者 91 例和健康人群 96 例（对照组），使用浓度分别为 0.0001、0.001、0.01、0.1mol/L 的烟酸进行皮肤敏感度测试。重复性成套神经心理状态测验量表（RBANS）评估研究对象认知功能，阳性与阴性症状量表（PANSS）评估患者组临床症状严重程度。

结果 烟酸浓度为 0.001mol/L、0.01mol/L、0.1mol/L，在 5 分钟、10 分钟、15 分钟、20 分钟时，患者组烟酸皮肤反应分数低于对照组，差异均有统计学意义（均 $P < 0.05$）。患者组烟酸反应总分明显低于对照组，差异有统计学意义（$t = -6.793$，$P < 0.001$）。患者烟酸低反应组和烟酸高反应组 PANSS 总分及各分量表评分之间差异无统计学意义（均 $P > 0.05$）。患者组认知功能各项评分均低于对照组，差异有统计学意义（均 $P < 0.001$）。患者烟酸低反应组在即刻记忆、言语功能、延时记忆、RBANS 总分方面低于烟酸高反应组，差异有统计学意义（均 $P < 0.05$）。

结论 长期住院男性精神分裂症患者烟酸反应敏感度和认知功能均受到损害，提示烟酸反应敏感度在精神分裂症病理生理机制中可能发挥作用。

关键字：精神分裂症；烟酸；认知功能；标记物

丙戊酸钠缓释片引起尿频遗尿一例报道

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目的 丙戊酸钠缓释片临床应用广泛，在神经内科可以起到抗癫痫的作用，在精神科可作为心境稳定剂，缓解病人的焦虑、抑郁情绪。近年来，对此药引起的血液系统、胃肠道系统药物不良反应报道较多，但对其引起的尿频遗尿现象罕见报道。

方法 本文结合我院收治的 1 例因服用丙戊酸钠缓释片后引起尿频遗尿的药物副反应，来进行报道并复习文献。

结果 丙戊酸钠作为临床常用的一线抗癫痫药物，对各种类型的癫痫均有效，由于起效快、复发率低、不良反应相对较少、单药治疗就可以控制病情等优点，使其在癫痫的药物治疗中占有重要地位，并且此药广泛应用于其他神经系统性疾病，能协助调整机体中枢神经 5-HT 水平，从而抑制神经兴奋性，起到抗惊厥及稳定情绪的作用，稳定神经功能，缓解精神症状，改善精神病理状况。此外，作为传统治疗药物，此药为甘酶抑制剂，药效强度高、药物作用机制多重，可透过血脑脊液屏障。药物的不良反应有胃肠道症状、脱发、眩晕、疲乏、头痛、共济失调、轻微震颤，长期服用偶见胰腺炎及急性肝坏死、尿失禁、遗尿、夜尿症。丙戊酸钠的药理学机制比较统一的看法是激活谷氨酸脱羧酶和抑制 γ-氨基丁酸转氨酶，降低 GABA 代谢速率，同时能增强谷氨酸脱羧酶活性，促进 GABA 大量产生，导致抑制性神经递质 GABA 含量提高。GABA 能药物主要作用于中脑边缘系统多巴胺通路中的 GABAα 受体，从而降低多巴胺活性。丙戊酸钠作为一种 GABA 能药物，可抑制 γ-氨基丁酸转氨酶，促进 GABA 大量产生，导致多巴胺活性降低，因多巴胺过多会导致 ach 受抑制，抗胆碱作用可引起尿潴留，因此丙戊酸钠可间接降低多巴胺，促进排尿。另有报道，谷氨酸是排尿反射通路中重要的神经递质，参与大脑皮质、脑桥及脊髓排尿中枢对排尿反射的调控。谷氨酸受体包括代谢型受体和离子型受体，离子型受体又分为 NMDA 受体和非 NMDA 受体。有研究显示，在清醒状态下的大鼠静脉注射 NMDA 受体拮抗剂能增加膀胱收缩频率，提示谷氨酸对排尿反射起着抑制作用。谷氨酸脱羧酶是生物体内广泛存在的一种酶，有重要的生理学作用，能催化谷氨酸脱羧生成重要的抑制型神经递质 GABA。丙戊酸钠激活谷氨酸脱羧酶，抑制谷氨酸释放，对 NMDA 受体有拮抗作用。

结论 丙戊酸钠缓释片会引起尿频遗尿的药物副反应。

关键字：丙戊酸钠 中度精神发育迟缓，需要加以关注或治疗的显著行为缺陷 尿频遗尿

疏肝解郁胶囊联合圣·约翰草提取物片在社区治疗抑郁症中的应用

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目的 本研究针对抑郁症联用疏肝解郁胶囊与圣·约翰草提取物片进行治疗，通过对比抑郁症患者经疏肝解郁胶囊联合圣.约翰草提取物片的疗效、不良反应发生率及不良反应发生程度，协助指导社区抑郁症患者用药，减轻抑郁症状、改善心理健康状况，睡眠质量及生活质量，控制病情发展，协助社区卫生管理，帮助抑郁症患者尽快回归社会、减轻社会经济负担。

方法 纳入标准：（1）所有患者均符合《中国精神疾病分类与诊断标准》中抑郁症的诊断标准；（2）病程 3 个月以上；（3）自愿签订知情同意书；（4）入组前 17 项汉密尔顿抑郁量表（HAMD）评分为 17-24 分；（5）年龄 18-60 岁；（6）有一定文化程度，能准确理解和完成相关量表测评；（7）近 1 个月内无抗抑郁治疗史；（8）对疏肝解郁胶囊中任何成分无过敏史。

结果 选择 2022 年 12 月-2023 年 06 月青海省第三人民医院收治的 200 例抑郁症患者为研究对象，其中男 77 例，女 123 例；年龄 27-59 岁，平均年龄（41.20±9.23）岁；受教育年限 6-19 年，平均年限（11.35±3.32）年；病程 5-38 个月，平均病程（21.22±6.74）个月；抑郁程度：轻度 81 例，中度 119 例。 按随机数字表法将所有患者分为对照组和治疗组，每组各 100 例：对照组男 40 例，女 60 例，年龄 27-58 岁，平均年龄（40.16±9.49）岁；受教育年限 6-19 年，平均年限（11.84±3.57）年；病程 6-38 个月，平均病程（21.51±7.03）个月；抑郁程度：轻度 39 例，中度 61 例。治疗组男 37 例，女 63 例，年龄 29-59 岁，平均年龄（41.58±8.91）岁；受教育年限 6-19 年，平均年限（11.07±3.15）年；病程 5-36 个月，平均病程（20.69±6.35）个月；抑郁程度：轻度 42 例，中度 58 例。两组基线资料比较差异无统计学意义，具有可比性。

结论 使用 SPSS25.0 统计软件包处理数据，计量资料、计数资料分别行 t、x2 检验。 临床疗效比较：治疗组总有效率是 92.00%，较之对照组的 82.00%显著提高（P＜0.05）. 两组不良反应比较：对照组发生皮肤红痒、胃肠道不适各 1 例，不良反应发生率是 2.00%；治疗组发生恶心 2 例，口干 1 例，不良反应发生率是 3.00%，两组不良反应发生率比较差异无统计学意义。

关键字：疏肝解郁 治疗抑郁

The Association between Heart Rate Variability and Memory Inhibition in Major Depressive Disorder

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Objective Heart rate variability (HRV) is assumed

to be an indicator of executive function and associated brain function. In depressed persons, stopping the retrieval of undesirable memories has been described as a process requiring inhibition. The main objective of this research was to examine whether there was a meaningful correlation between HRV and electroencephalogram (EEG) during memory suppression in individuals with depression.

Methods In cross-sectional research, we collected data from 45 depressed patients and 46 healthy controls. HRV was assessed while resting, and EEG was collected while resting and during a memory test. Independent samples t-tests for resting state and task performance were used on patients with depression and healthy controls, as well as a correlation study of HRV with EEG. When compared to healthy controls, depressed individuals had higher beta and delta relative power during the think/no-think (TNT) task.

Results The resting-state EEG did not correlate with HRV values in either group. HRV had a positive connection with the beta power of the left area during the task in depressed patients.

Conclusion Our findings imply that HRV is associated with memory suppression-related brain activity in individuals suffering from depressive disorders. Future research with a larger sample size, including people of all ages, is required to confirm the association between HRV and EEG and provide a more complete picture.

关键字：memory inhibition, executive function, depression, HRV, optogenetics, social avoidance

Umbelliferone Ameliorates Chronic Mild Stress-induced Depressive Behavior in Rats Via Sirt1-mediated HMGB1/NF-κB Pathway

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Objective This study was to evaluate the effects of umbelliferone (Umb) on chronic unpredictable mild stress (CUMS)-induced in rats.

Methods Chronic stress was used to establish the rat model of depression, and the behavior, biochemical indices and molecular protein expression of the rats were evaluated.In addition to the control group, rats in other groups were given different doses of umbelliferone (Umb) or Fluoxetine by gavage for 4 weeks, and the evaluation behavior and related indicators were given.

Results Our results showed that Umb (20, 40 mg/kg) significantly restored depressive-like behaviors, such as sucrose consumption, immobile time in the tail suspension tests (TST) and forced swimming tests (FST). Umb (20, 40 mg/kg) inhibited inflammatory cytokines levels by down-regulating HMGB1/NF-κB pathway through up-regulation of SIRT1.

Conclusion In conclusion, Umb possessed efficient antidepressant effects on depression via down-regulating HMGB1/NF-κB pathway through up-regulation of SIRT1.

关键字：Umbelliferone; chronic unpredictable mild stress (CUMS); HMGB1/NF-κB; Sirt1

The Effect of Short-term Antidepressant Treatment on The Functional Connectivity Strength in Depressed Adolescents with Previous Suicide Attempts

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Objective Several studies have reported that antidepressants may increase or reduce the suicide risk in depressed adolescents, but no neuroimaging studies have been performed to investigate the underlying mechanism. The primary goal of the study was to investigate the effect of short-term antidepressant treatment on the functional connectome in depressed adolescents with previous suicide attempts.

Methods we collected resting-state fMRI (R-fMRI) data and clinical scales from 22 depressed adolescents with prior suicide attempts (MDD-SA) and 15 depressed adolescents without prior suicide attempts (MDD-NSA) at baseline and 4-week follow-up. The static and dynamic FCS metrics were measured separately.

Results The results suggested that short-term treatment with selective serotonin reuptake inhibitors (SSRIs) could reduce suicide ideation (SI) and depressive symptoms, and this effect was more prominent in the MDD-SA group. This changing pattern was consistent with that observed in imaging indices, that was, the alteration in sFCS values in the MDD-SA group before and after treatment involved a wider range of brain regions than that in the MDD-NSA group. In addition, the alterations of dFCS variability of the MDD-SA group and MDD-NSA group showed opposite patterns in the left middle temporal gyrus, left middle occipital gyrus, and left posterior central gyrus before and after treatment.

Conclusion The results suggested that short-term treatment with SSRIs could reduce SI and depressive symptoms. The intervention mechanisms of antidepressant therapy were different for depressed adolescents with and without suicidal behaviors. From the standpoint of fMRI, this work offers preliminary evidence for the protective effect of antidepressants on suicide risk in depressed youths.

关键字：major depressive disorder; suicide; adolescence; functional MRI; antidepressant.

布南色林、氯氮平联合对缩短慢性精神分裂症病程的影响分析与探讨

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目的 分析布南色林联合氯氮平在慢性精神分裂症治疗以及缩短病程方面的作用价值。

方法 对照组30例慢性精神分裂症采取氯氮平治疗，观察组 30 例慢性精神分裂症采取布南色林联合氯氮平治疗，采用阳性和阴性症状量表（PANSS）评定阳性和阴性症状消失的时间，回顾性分析不同患者治疗效果以及病程特点。对照组：氯氮平治疗，所用药物生产厂家山东仁和堂药业有限公司，批准文号：国药准字H37021530，口服，前期用药，2-3 次/d，25mg/次，依据患者用药治疗情况与耐受性等调整用药方案。观察组：布南色林、氯氮平联合治疗，其中氯氮平相关用药信息同对照组，布南色林生产企业为石家庄四药有限公司，批准文号为国药准字 H20223407，初始剂量：4mg/次，2 次/d，餐后口服。根据患者用药反应、症状变化等调整用药剂量，维持剂量为 8-16mg/d。所有患者治疗时间均为 3 个月，并在 3 个月治疗完成后评估综合疗效。观察指标：（1）阳性症状消失时间、阴性症状消失时间，具体参照《阳性和阴性症状量表评分表（PANSS）》完成评价，即不同条目单项评分≤2 分；（2）患者综合疗效，依据 PANSS 改善率完成计算，包括：显效（PANSS 改善率＞75.00%、有效（PANSS 改善率在 25.00%-75.00%）、无效（PANSS 改善率＜25.00%），总有效率是显效率与有效率之和。统计学方法:采用统计学软件 SPSS21.0 分析数据，计量资料检验；计数资料（卡方）2 检验；差异有统计学意义：P＜0.05。

结果 观察组患者阳性症状消失时间、阴性症状消失时间均小于对照组（P＜0.05）；观察组患者整体治疗有效率高于对照组（P＜0.05）。

结论 对慢性精神分裂症患者应用布南色林、氯氮平联合治疗，能够提升疗效，同时可缩短病程，有重要的应用价值。

关键字：慢性精神分裂症；布南色林；氯氮平；联合用药；病程

Integrating Single-cell Gene Expression and Genetics Data Provided New Insights for ADHD

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Objective Genome wide association studies (GWASs) of attention-deficit hyperactivity disorder (ADHD) have identified dozens of loci significantly associated with this disorder, yet most of these loci reside in non-coding regions, hindering further understanding the pathogenesis of ADHD.

Methods We firstly integrate the gene expression quantitative trait loci (eQTL) information from fetal brain and single cell types with ADHD GWAS data. We further inquire the gene expression pattern across the life span, especially during the early developmental stage and in single cell level from fetal and adult stages.

Results We show that 33 genes are significantly associated with ADHD, most of which are found in neuronal cell types, suggesting that these cell types are more involved in the pathogenesis of ADHD. Gene expression pattern shows that many ADHD risk genes undergo dramatic changes from prenatal-to-postnatal transition. In addition, gene expression profile from single cell sequencing shows that some ADHD-associated genes are expressed in specific developmental stages, or in specific cell types, or even in specific cell types at specific developmental stages.

Conclusion In all, through integrative analyses using expression data at single-cell levels and fetal brain, we identify 33 risk genes associated with ADHD, most of which are enriched in neuronal cell types or expressed in specific developmental stages. These results provide new insights for understanding the pathogenesis of ADHD in single cell level.

关键字：ADHD, GWAS, eQTL, scRNA-seq

抑郁症与炎症因子和神经营养因子相关性研究

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目的 研究姜黄素对 CORT 诱导 PC12 细胞损伤的保护作用,并基于分子生物学技术探讨姜黄素发挥神经保护的作用机制。

方法 1.使用皮质酮（CORT）诱导 PC12 细胞建立抑郁症损伤模型,通过 MTT 法测定细胞存活率、检测 LDH 释放率、Annexin V-FITC/PI 双染色流式细胞仪检测细胞凋亡,评价姜黄素的神经保护作用。2.线粒体膜电位检测试剂盒（JC-1）检测线粒体膜电位（MMP）、酶联免疫吸附法检测 TNF-α、IL-1β 和 IL-6 水平,采用 Western blot 技术,研究姜黄素对 CORT 损伤 PC12 细胞中线粒体凋亡通路中 Bax/Bcl-2 和 caspase-3 蛋白和 p38/NF-?B 通路中 p-p38、NF-?B、p-p65 蛋白和神经营养因子 BDNF 表达的作用。

结果 1.姜黄素是否能够提高 CORT 损伤 PC12 细胞存活率,与抑制细胞凋亡、减少 LDH 释放有关。2 姜黄素是否能够影响 CORT 诱导的 PC12 细胞中 p38/NF-?B 信号通路的 p-p38、NF-?B、p-p65、BDNF 的表达及 TNF-α、IL-1β 和 IL-6 释放;抑制线粒体凋亡通路的 MMP 下降的水平和 Bax/Bcl-2 和 Cleaved caspase-3 的表达，从而发挥神经保护作用。

结论 姜黄素能够保护 CORT 诱导的 PC12 细胞损伤,其作用机制主要与调节神经因子 BDNF 代谢、减少线粒体凋亡通路和抑制 p38/NF-?B 信号通路等密切相关。

关键字：抑郁症；PC12 细胞；姜黄素；BDNF

The Role of SIRT3 in Mediating The Cognitive Deficits and Neuroinflammatory Changes Associated with A Developmental Animal Model of

Schizophrenia

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Objective The neuroinflammatory state may contribute to the pathogenesis of many mental disorders including schizophrenia. Nicotinamide adenine dinucleotide (NAD+) is an essential cofactor for activation of proteins involved in mitochondria quality control, such as Sirtuin3 (SIRT3). Our previous study has found that NAD+ supplement could rescue early life stress (ELS)-induced neuroinflammation and down-regulation of SIRT3 in adult offspring. However, it is unclear whether SIRT3 is the key to the neuroprotective effects of NAD+ supplement in this animal model of schizophrenia.

Methods The present study used 24h maternal separation (MS) as ELS to Wistar rat pups on the postnatal day (PND) 9. Schizophrenia-like behaviors and memory impairments were detected by behavioral tests. Microglial activation, pro-inflammatory cytokine expression, and NAD+/SIRT3 expression were detected in the prefrontal cortex and hippocampus. Meanwhile, NAM (a precursor of NAD+), and the SIRT3 activator Honokiol (HNK), and the SIRT3 inhibitor 3-TYP were used as an intervention in vivo.

Results Our results showed that ELS could induce schizophrenia-like behaviors and M1 microglial activation, NAD+ decline, lower expression of SIRT3, and increased acetylated superoxide dismutase 2 expression at the adult stage. NAD+ supplement or HNK administration could block this process and normalize the behavioral alterations of the MS animals. 3-TYP administration in the control group and the NAM-treated MS rats caused M1 microglial activation and cognitive deficits.

Conclusion Our results demonstrated that SIRT3 mediated the stabilizing effect of NAD+ on normalizing M1 microglial activation and behavioral phenotypes in MS rats.

关键字：early life stress, maternal separation, behavior, microglial activation, NAD+

长期应用喹硫平、氯氮平、氨磺必利抗精神病药物患者的物质代谢异常研究

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目的 确定长期应用抗精神病药物喹硫平、氯氮平、氨磺必利的患者出现物质代谢异常相关指示指标与上述药物的关系。

方法 选择西安市精神卫生中心电子病例系统中 2019 年 3 月至 2022 年 3 月住院的精神障碍患者，采用喹硫平、氯氮平、氨磺必利治疗，病程超过 2 年的患者。收集药物剂量、给药次数、药物浓度，患者病程、血糖、血脂、泌乳素等相关指标物质代谢指标。采用卡方检验、Mann-Whitney 检验、多元回归分析等方法，分析物质代谢异常影响因素及与上述药物的关系

结果 共收集 784 例患者，喹硫平、氯氮平、氨磺必利三种药物，氨磺必利引起物质代谢异常比例最高占使用患者总人数 51.71%，其他两种药物显著低于氨磺必利（33.59%、44.27%，P<0.01）。三种药物的血药浓度有无物质代谢异常存在组间差异，其中喹硫平和氨磺必利的血药浓度物质代谢异常组更高。物质代谢异常病程出现时间，喹硫平与氯氮平类似在 15 年左右，早于氨磺必利。

结论 喹硫平、氯氮平、氨磺必利三种药物使用过程中，喹硫平和氨磺必利应监测血药浓度，提高患者服药依从性，降低复发率，缩短病程。

关键字：喹硫平；氯氮平；氨磺必利；长期应用；物质代谢异常

肌骨超声辅助长效精神药物臀部肌肉注射的应用

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目的 通过肌骨超声技术排查臀部注射区域皮下及肌层异常，精确定位并测量注射部位厚度，辅助药物注射，确保治疗效果

方法 选取西安市精神卫生中心 1-4 月需要注射给药物患者 20 名，给药护士采用传统连线法（尾骨与髂前上棘中外三分之一处）选取臀部注射点，再使用 PHILIPS 公司 Affiniti 30 型超声仪，选取低频探头，扫查臀部注射部位，检查注射部位皮下脂肪层及肌肉层有无硬结、肿块等异常后，若有重新选取注射点位，然后选取高频探头采用神经肌肉条件下测量臀大肌距离皮肤的厚度，低频探头条件下测量臀大肌厚度。根据测量值选取进针深度，为臀大肌下三分之二处。

结果 仅使用传统连线法而不使用超声正确定位注射点 12 例（60%），联合使用肌骨超声后排除注射部位异常，重新定位注射 2 例，臀部凹陷，臀大肌菲薄等特殊情况超声探查后重新定位注射部位 6 例。肌骨超声可准确定位注射点、注射深度，辅助药物臀部肌肉注射，提高长效精神药物的治疗效果。

结论 精神病最常见的治疗方案是长期服药。但多数病患难以坚持长期服药致使病情反复发作甚至加重。长效精神病药物注射治疗可减轻患者服药负担，同时确保治疗效果。而肌骨超声可有效提高药物注射准确性，提高长效药物治疗效果，优化精神病患的治疗方案。

关键字：肌骨超声 长效精神药物 臀部注射

阿立哌唑治疗抗抑郁药所致高催乳素血症的随机对照研究

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目的 探讨阿立哌唑治疗 SSRIs 及 SNRIs 类抗抑郁药所致高催乳素血症的疗效及安全性。

方法 54 例由 SSRIs 及 SNRIs 类抗抑郁药所致高催乳素血症患者随机分为两组，实验组在原有抗抑郁药物基础上服用阿立哌唑片 5mg/d 治疗，对照组只服用原有抗抑郁药物，无其他干预措施，观察 12 周。在基线和治疗第 4、8、12 周末测定血清催乳素，予 17 项汉密尔顿抑郁量表（HAMD-17）评估抗抑郁疗效，予药物副反应量表（TESS）评估药物不良反应。分析比较两组血清催乳素变化及 HAMD-17、TESS 评分差异。

结果 治疗第 4、8、12 周末，阿立哌唑组血清催乳素水平均低于对照组，两组间比较差异有统计学意义（P<0.05）。阿立哌唑组治疗第 4、8、12 周末血清催乳素水平较基线处下降，差异均有统计学意义（P<0.05），对照组治疗后各时点血清催乳素水平较基线处均无明显变化（P>0.05）。治疗第 12 周末，阿立哌唑组 HAMD-17 评分低于对照组（P<0.05），TESS 评分无明显差异（P>0.05）。

结论 阿立哌唑能有效降低 SSRIs 及 SNRIs 类抗抑郁药所致高催乳素血症患者的血清催乳素水平，同时对抗抑郁药治疗有一定增效作用。

关键字：阿立哌唑；催乳素；高催乳素血症；抗抑郁药

薰衣草精油对酒精戒断大鼠抑郁症的治疗作用

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目的 抑郁症是目前一类影响较为严重，对患者、家庭及社会有较大负担的精神类疾病。本研究通过建立薰衣草精油芳香环境，旨在研究薰衣草精油吸嗅对酒精戒断诱发的大鼠抑郁样行为的干预效果，以明确薰衣草精油芳香环境对个体抑郁行为的影响。

方法 本实验采用慢性酒精灌胃 28d，戒断 7d，建立酒精戒断抑郁大鼠模型。采用强迫游泳测试（Forced swimming test,FST）、悬尾测试（tail suspension test,TST）和糖水偏爱测试（sucrose preference test,SPT）评价大鼠抑郁样行为。28 只 SD 大鼠随机分为空白对照组、酒精戒断模型组、薰衣草精油低浓度组、薰衣草精油高浓度组。除空白对照组外，其余三组每天灌胃酒精溶液（2 g/kg，25% 酒精 w/v），持续 28d 后，进行为期 7d 的薰衣草精油嗅吸（2.5%、5%精油浓度）处理，随后立即进行行为学测试。

结果 薰衣草精油嗅吸显著改善酒精戒断导致的大鼠抑郁样行为。行为学测试结果显示，经历酒精戒断的大鼠减少了 SPT 的糖水偏好值（P＜0.05）；增加了 FST 的不动时间（P＜0.01）；延长了 TST 的不动总时间(P＜0.01)。不同剂量的薰衣草精油嗅吸可显著增加 SPT 的糖水偏好值（P＜0.05，P＜0.01）；降低 FST 的不动时间（P＜0.05，P＜0.01）；降低了 TST 的不动总时间（P＜0.05，P＜0.01）。

结论 薰衣草精油嗅吸可缓解酒精戒断导致的大鼠抑郁样行为。

关键字：抑郁症，薰衣草精油，酒精戒断

稳定期精神分裂症患者童年创伤经历与快感缺失的相关性研究

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目的 探讨稳定期精神分裂症患者童年创伤经历与快感体验能力的相关性。

方法 选择 2022 年 12 月-2023 年 6 月期间在安徽省精神卫生中心住院及门诊治疗的符合 ICD-10 诊断标准的稳定期精神分裂症患者作为研究对象（共 83 例），使用童年创伤问卷 (Childhood Trauma Questionnaire,CTQ)评估患者的童年创伤经历,包括情感虐待（EA）、躯体虐待（PA）、性虐待（SA）、情感忽视（EN）和躯体忽视（PN）5 个分量表。采用中文版愉快情绪体验量表(?TEPS)、中文版修订社会快感缺失量表(RSAS-C)、中文版修订躯体快感缺失量表(RPAS-C)评估患者快感缺失状况。同时采用阳性和阴性症状量表（PANSS）对患者症状进行评估；采用偏相关及广义线性模型来研究患者童年创伤经历与快感缺失能力间的关系。

结果 偏相关分析发现 CTQ 总分、EA、SA 和 EN 与 RPAS-C 呈正相关（r=0.513、p＜0.05，r=0.308、p＜0.05，r=0.326、p＜0.05，r=0.551、p＜0.05）；EN 与 RPAS-C 呈正相关（r=0.262、p＜0.05）；EN 与 TEPS 总分呈负相关（r=-0.367、p＜0.05）。采用广义线性模型结果提示 CTQ 总分、SA 和 EN 显著正向影响 RPAS-C（B=0.23、p＜0.01，B=0.60、p＜0.05，B=0.72、p＜0.01），意味着童年创伤越重，躯体快感缺失越明显；EN 显著负向影响 TEPS（B=-0.80、p＜0.05），意味着童年创伤中情感忽视越重，愉快情绪体验能力越差。

结论 稳定期精神分裂症患者的童年创伤经历与快感缺失能力之间存在关联，且发现童年创伤经历对患者快感缺失能力有预测作用。提示早年的创伤经历可能会影响患者对愉悦情绪、躯体及社会交往快乐的体验能力。

关键字：精神分裂症；童年创伤；快感缺失；

稳定期精神分裂症患者元认知与共情相关性分析

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目的 元认知是对自己认知活动本身的再感知、再记忆、再思维过程。有研究证明元认知能力的损害也是引发精神分裂症功能失调的重要原因。而共情作为一种能设身处地体验他人处境的能力,在元认知水平不同的精神分裂症患者身上亦有不同的表现。本研究试图探讨稳定期精神分裂症患者元认知水平与共情的相关性。

方法 选择合肥市第四人民医院 2022 年 9 月-2023 年 4 月住院期间 符合 ICD-10 诊断标准的成年稳定期的精神分裂症患者作为研究对象 (72 例),用计算机共情范式评估患者共情能力,包括:认知共情判断 CEA、认知共情强度 CEI、内隐情绪共情 EEI、外隐情绪共情 EEE、反应时间 RT 5 个部分。采用印第安纳精神疾病访谈(IPII)及修改版元认知评估量表(MAS-A)评估患者元认知水平,包括自我反省(S)、理解他人(O)、去中心化(D)、控制(M)4 个因子,采用 Spearman 相关分析进行数据处理。

结果 成年稳定期精神分裂症患者认知共情判断 CEA(0.66±0.21)、认知共情强度 CEI(6.74±1.47)、内部情绪共情 EEI(5.86±1.88)、外显情绪共情 EEE(6.21±1.80)、反应时间 RT(7570.67±2198.89)、元认知总分(7.17±3.23)、元认知 S 分(3.13±1.18)、元认知 O 分(1.55±1.03)、元认知 D 分(0.20±0.38)、元认知 M 分(2.25±1.32)。结果显示:1.元认知与认知共情强度 CEI 成正相关 (r=0.305,P=0.008);2.自我反省(S)与认知共情强度 CEI 成正相关 (r=0.269,P=0.019);3.去中心化(D)与认知共情强度 CEI 成正相关 (r=0.267,P=0.021)。

结论 稳定期精神分裂症患者元认知与共情存在相关性,认知共情强度 CEI 越高,元认知总分、自我反省与去中心化分值越高,提示共情能力越强的精神分裂症患者,元认知功能越不容易受到损害。

关键字:精神分裂症,元认知,共情

Susceptibility and Severity of COVID-19 Infection in People with Psychiatric Disorders: A Cohort Study of The UK Biobank

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Objective Previous studies identified that psychiatric disorders were highly genetically correlated with infection diagnoses, including pneumonia. Several studies also found psychiatric patients presented more severe COVID-19 outcomes than health. However, the degree of association between psychiatric disorders with COVID-19 is incomplete, and the shared genetic determinants involved in the association are still unclear.

Methods In this study, we used logistic regressions to investigate the susceptibility and severity of COVID-19 infection among people with psychiatric disorders in the UK Biobank (UKB) cohort study. Furthermore, we depicted the genetic associations and potential casualties between COVID-19 and 12 psychiatric disorders.

Results Overall, 463,897 participants from UKB were linked with hospital episodes and death records, 66,801 were diagnosed with psychiatric disorders based on ICD10 code. We conducted logistic regression to examine differences in COVID-19 outcomes, controlling for sociodemographic factors and comorbidities. In fully adjusted analyses, lower susceptibility and higher severity (hospitalized due to COVID-19 or died due to COVID-19) were seen among people with previous psychiatric diagnosis (OR 0.76, 95% CI 0.74-0.78; OR 1.33,95% CI 1.29-1.37; OR 1.73, 95% CI 1.62-1.84). SNP-based heritability and genetic correlation estimates for COVID-19 and 12 psychiatric disorders showed attention deficit hyperactivity disorder (ADHD) and major depressive disorder (MDD) significantly associated with COVID-19 susceptibility and severity. However, using two sample Mendelian Randomization, we didn't find any potential casualties between COVID-19 and psychiatric disorders.

Conclusion This study reports coheritability between COVID-19 and psychiatric disorders and reveals the genetic mechanisms behind these relations. These findings may have clinical importance, highlighting the urgency to protect these vulnerable populations when pandemic outbreaks.

关键字:psychiatric disorders; COVID-19; UK Biobank; cohort study; GWAS

乳酸:精神疾病干预的一个前瞻性靶点

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目的 探讨乳酸作为信号分子及其相关信号通路的研究进展,描述抑郁症、焦虑症、双相情感障碍和精神分裂症中脑乳酸水平的变化,指出脑乳酸作为新的神经递质在精神药理学方向的重大潜力和面临的挑战,为乳酸的下一步研究梳理思路、提供方向。

方法 在 PubMed 数据库通过关键词(乳酸盐、乳酸化、抑郁、双相情感障碍、精神分裂症、焦虑、强迫症、创伤后应激障碍、星形胶质细胞、神经元、神经递质、精神病、精神药理学)检索 2022 年 12 月以前发表的英文文章,并进行分析讨论撰写综述。

结果 精神药物是治疗精神疾病的最基本疗法,大多数精神药物都是以调节少数重要脑神经递质为目标,如血清素、多巴胺和去甲肾上腺素。最近的证据表明,精神疾病涉及多个神经递质功能障碍。基于此,目前部分患者对精神药物疗效不佳,可能与精神药物调节神经递质的范围有限相关。而针对被忽视的神经递

质的新型精神药物可能对精神药物耐药性带来意想不到的影响。 星形胶质细胞-神经元乳酸穿梭假说和后续系列研究使人认识到，乳酸已经从一种代谢废物转变成重要的胶质-神经元递质。星形胶质细胞和少突胶质细胞可以通过单羧酸转运蛋白（MCT1/4）将乳酸转运到细胞外，细胞外乳酸既可以通过 MCT2 进入神经元，也可以直接与乳酸受体（羟基羧酸受体 1，HCAR1）结合。星形胶质细胞来源的乳酸通过 MCT 受体和 HCAR1 在调节认知功能中发挥重要作用，包括突触传递、记忆形成和药物成瘾。同时，乳酸衍生的“乳酸化”做为表观遗传调节因子能调节基因转录。另外，脑乳酸水平在抑郁障碍、焦虑障碍、精神分裂症、双向情感障碍等精神疾病中显著改变，如在动物抑郁模型和抑郁患者临床研究中分别发现，某些脑区乳酸水平显著增加，但外源性乳酸也有抗抑郁作用。同时令人意外的是，多项研究表明外源性乳酸也具有致焦虑作用，其中的机制需要进一步探索。

结论 基于以下两个方面可以得出脑乳酸是治疗精神疾病的潜在靶点之一。一是许多研究发现脑乳酸不仅是一种代谢产物，而且可以通过调节神经元电活动来调节大脑功能，类似于“神经递质”。 二是许多精神疾病都有乳酸变化，外源性乳酸注射影响某些精神障碍如抑郁症的结局。

关键字：乳酸盐、乳酸化、抑郁、双相情感障碍、精神分裂症、焦虑、强迫症、创伤后应激障碍、星形胶质细胞、神经元、神经递质、精神病、精神药理学

天麻多糖在精神疾病中的神经调节作用及应用前景

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目的 精神疾病是一类在各种环境因素影响下，大脑神经功能失调，导致认知、情感、意志和行为等精神活动异常且病因未明的疾病。随着疾病发病率的不断上升，又无明显减缓疾病进展的有效药物，这严重影响了患者的心身健康和生活质量。天麻多糖是天麻主要有效成分之一，随着植物多糖的深入研究，天麻多糖的活性及药理作用逐渐被发掘出来，并且在抑郁症的神经调节中发挥着显著作用。本文对天麻多糖的生物活性，及其在抑郁症中的神经调节作用机制和潜在应用价值进行综述，为抑郁症的机制研究提供新方向，为天麻多糖在抑郁症的预防和治疗中的活性研究提供参考。

方法 本文从天麻多糖的结构和分类、天麻多糖的生物活性（包括抗炎、抗氧化应激、抗凋亡）及神经调节作用机制出发，对天麻多糖对精神疾病的保护作用进行综述，为寻找精神疾病的新药开发和治疗方式提供思路。

结果 天麻多糖作为天麻中重要的活性成分，在中枢神经系统中具有广泛的神经调节作用，比如免疫修饰、延缓衰老、抗炎、抗氧化等。目前已有研究表面天麻乙醇提取物、天麻水提取物、天麻素、等均具有抗抑郁作用,可通过特有的神经调节功能发挥神经保护活性进而改善神经元损伤和认知障碍，在神经精神疾病的研究中表现出明显的活性作用。

结论 天麻多糖的神经调节作用并不是某个单独的生物活性在起作用，而是表现出所有活性相互促进共同作用的结果。对天麻多糖有效的结构成分以及神经精神疾病方面的活性潜力进行深入的药理学研究，能为精神疾病的药理作用机制研究提供新方向。

关键字：天麻;多糖；抑郁症；神经调节

预测高危青少年双相情感障碍的早期生物标志物

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目的 双相情感障碍是一种高度遗传和导致功能损害的严重精神障碍，疾病越早发往往越难治疗，并容易慢性化。用于预测高危青少年中双相情感障碍转化的风险生物标志物将有助于促进对高危人群及时和个性化的干预，从而改善预后。

方法 检索截止 2023 年 4 月 1 日的 MEDLINE，EMBASE 和 WEB OF SCIENCE 数据库。内容包括(1)回顾有双相情感障碍风险的青少年神经生物学变化的横断面和前瞻性证据，包括外周和神经影像学发现；(2)总结前瞻性研究中关于生物标志物预测疾病转化的证据，并给出可能干预措施的提示。

结果 与在双相情感障碍患者中发现的结果一致，高危青少年反复表现出额叶-边缘系统缺陷和与情绪和奖赏处理相关的脑回路功能障碍、表观遗传学改变以及免疫指标异常。尽管相关研究还在探索阶段，一些前瞻性研究发现血清学免疫指标、唾液皮质醇、双相情感障碍多基因风险评分，以及情绪处理相关脑区的各种神经影像手段有望用于双相情感障碍早期生物标志物的开发，针对性的干预措施有待临床循证研究验证。

结论 大部分早期生物标志物的证据及其在遗传或(和)临床高危青少年中的转化预测价值，仍处于概念验证阶段。未来在集成机器学习模型、临床检测方法客观化和队列研究质量方面的深入探索，是进一步研究和验证潜在生物标志物临床价值的关键策略。

关键字：双相情感障碍，生物标志物，高危青少年，早期识别

Relationship between Plasma TNF-α Levels and Agitation Symptoms in First Episode Patients with Schizophrenia

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Objective Increasing evidence suggested that immune abnormalities involved in the pathophysiology of schizophrenia. However, the relationship between immunity and clinical features has not been clarified. The aim of this study was to measure the plasma levels of tumor necrosis factor alpha (TNF-α) and soluble TNF-α receptor 1 (sTNF-α R1) and to investigate their association with agitation in first episode patients with schizophrenia (FEPS).

Methods The plasma TNF-α and sTNF-α R1 levels were measured using sandwich enzyme-linked immunosorbent assay (ELISA) in the FEPS with (n = 36) and without agitation (n = 49) symptoms, and healthy controls (HCs, n = 54). The psychopathology was assessed by the Positive and Negative Syndrome Scale (PANSS), and the agitation symptoms were evaluated by the PANSS excitatory component (PANSS-EC).

Results The plasma TNF-α levels in patients with and without agitation symptoms were significantly higher than those in HCs. The patients with agitation had significantly higher plasma TNF-α levels compared to the patients without agitation. There were no significant differences in the sTNF-α R1 levels among the three groups. Furthermore, the plasma TNF-α levels were positively correlated with the PANSS total score, Positive and General psychopathological subscores, and PANSS-EC score in the FEPS, but the relationships were not found for the plasma sTNF-α R1 levels.

Conclusion These results suggested that TNF-α might play an important role in the onset and development of agitation symptoms of schizophrenia.

关键字：schizophrenia;agitation;TNF-α;PANSS-EC.

Repeated Methamphetamine Exposure Decreases Plasma BDNF Levels in Rhesus Monkeys

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Objective Brain-derived neurotrophic factor (BDNF) is known to prevent methamphetamine (METH)-induced neurotoxicity and plays a role in various stages of METH addiction. However, there is a lack of research on changes in plasma BDNF levels in active METH-dependent individuals with longitudinal design.

Methods This study measured plasma BDNF levels in three male monkeys with continuous METH exposure and four male control monkeys without METH exposure. Changes in plasma BDNF levels were then assessed longitudinally during 40 sessions of METH self-administration in the three monkeys.

Results Repeated METH exposure decreased plasma BDNF levels. Further, plasma BDNF decreased with long-term rather than short-term accumulation of METH during METH self-administration. Moreover, the cerebrospinal fluid (CSF) BDNF positively correlated with plasma BDNF.

Conclusion These findings may indicate that the changes in peripheral BDNF may reflect the quantity of accumulative METH intake during a frequent drug use period.

关键字：Methamphetamine， Nohuman primates，Self-administration

基于跨理论模型的随访管理对抑郁症患者服药依从性的影响

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目的 本研究通是过运用基于跨理论模型，对抑郁症患者出院后的服药行为进行随访管理，以提高抑郁症患者出院后的服药依从性、服药信念、对疾病的自知力以及患者处理工作、家庭、社会关系的能力，从而督促患者服药、降低患者疾病的复发率。

方法 随机抽取 2021 年 06 月—2022 年 06 月入住我院心理精神科 120 例抑郁症患者，采用随机数字表法随机将其分为对照组 60 例和观察组 60 例。在出院后对照组给予常规的随访管理，观察组给予基于跨理论模型的随访管理，在出院前一天以及出院后每个月，运用“行为阶段评估问卷”对患者进行评估，了解患者所处的服药行为改变阶段，并予以对应阶段相匹配的个性化干预措施。

结果 比较两组患者分别在出院前一天、随访 3 个月及随访 6 个月后的服药依从性服药相关信念问卷、自知力与治疗态度问卷（ITAQ）、SDS 量表、服药依从性。结果显示：观察组患者量表评定明显优于对照组，两组数据差异显著，有统计学意义（P＜0.05）。

结论 基于跨理论模型的随访管理可促进患者行为改变，改善抑郁症患者出院服药依从性差的行为现状，降低抑郁症的复发率，降低医疗成本，进而提高患者及其家庭的生活质量，值得临床推广应用。

关键字：跨理论模型；行为改变；随访管理；抑郁症；服药依从性

工娱治疗在改善心理精神科抑郁症患者负性情绪中的应用

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目的 探究工娱治疗在改善心理精神科住院患者负性情绪中的应用效果。

方法 选择从 2021 年 6 月至 2021 年 12 月收治于心理精神科的 100 例抑郁症患者为研究对象,采用数字随机分配法将其分为两组各 50 例。对照组给予常规精神科基础护理，包括：心理、药物、休息与活动等护理措施，试验组在常规精神科基础护理基础上为患者增加工娱治疗。两组于基线期、干预后第 7 天、第 14 天给予简明精神病量表（BPRS）、汉密尔顿抑郁量表（HAMD）、社会功能缺陷筛选量表（SDSS）、生活满意度评定量表（SWLS）等量表进行评定。

结果 基线期,两组 BPRS、HAMD、SDSS、SWLS 评分无明显差异,P＞0.05;干预第 7 天、14 天,试验组 BPRS、HAMD、SDSS 评分明显低于对照组,生活满意度评定量表评分明显高于对照组,差异具有统计学意义 P＜0.05。

结论 对于精神科抑郁症患者在常规护理基础上给予工娱治疗可以改善患者的认知情况,缓解抑郁、焦虑等不良情绪，激发患者对生活工作的兴趣，改善患者睡眠情况，从而提高生活质量,社会价值回归，减少不良事件的发生率，提高患者满意度，临床疗效显著。并提高患者值得临床推广应用。

关键字：工娱治疗；抑郁症;BPRS;SWLS;HAMD;SDSS

CRMP2 参与调节神经突触可塑性

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CRMP2 (Collapsin Response Mediator Protein 2)是一种重要的神经细胞内蛋白，参与了神经元的发育、成熟和突触可塑性。CRMP2 可以与微管相关蛋白相互作用，如 kinesin、dynein 等，从而调节突触前膜的运输速率和方向，参与了神经元轴突的生长。CRMP2 还能够调节神经元的背景活动和突触形态，从而影响神经元之间的信息传递。CRMP2 与突触蛋白相互作用来调节突触的形态和功能，如突触前膜的 synaptotagmin、rab3a，以及突触后膜相关的 PSD95、SAP97 等蛋白。研究表明，CRMP2 的磷酸化状态可以影响其与突触蛋白的相互作用，从而影响突触可塑性。同时 CRMP2 可以与突触前膜的骨架蛋白相互作用，如细胞骨架蛋白 β（β-tubulin）、细胞骨架蛋白 α（α-tubulin）等。这些骨架蛋白是维持突触前膜结构和动力学的重要组成部分。有研究表明，CRMP2 与这些骨架蛋白的结合可以影响其稳定性和互相作用，从而影响突触前膜的动力学来调节突触传递。PSD95 是一种突触后密度蛋白，其可以通过与多种突触蛋白相互作用，调节突触后膜的结构和功能，进而影响神经递质的释放和突触可塑性。研究表明，CRMP2 和 PSD95 可以相互作用，具体来说，CRMP2 可以通过其 C 端的 PDZ 结构域或 cypin 同源结构域 与 PSD95 的 PDZ 结构域相互作用。这种相互作用可以影响突触后膜上 NMDA 型谷氨酸受体（NMDAR）的活性和分布，从而影响神经递质的释放和突触可塑性。此外，一些研究还发现，CRMP2 和 PSD95 的相互作用可以影响突触后膜上的 AMPAR 的分布和活性，从而影响突触可塑性。总的来说，CRMP2 和 PSD95 的相互作用在神经突触的形成、稳定和可塑性中起着重要作用。CRMP2 在神经突触可塑性中的作用非常复杂，它可以通过多种机制来调节神经突触可塑性。对 CRMP2 的深入研究有助于更好地理解神经突触可塑性的分子机制，为神经系统疾病的治疗提供新的思路和方法。

关键字：CRMP2，突触可塑性，突触蛋白，调节机制

Tea Intake and Risk of Depression: A Mendelian Randomization Study

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Objective Long-term tea intake has been reported in observational studies that reduce the risk of depression, but findings on the association between tea intake and the risk of depression have been inconsistent. Based on this, we used Mendelian randomization (MR) to explore the causal association between tea intake and risk of depression.

Methods In this study, two-sample Mendelian randomization analysis was performed using Genome-wide association study(GWAS) summary data. Inverse variance weighted was used as the primary estimate of MR, with additional methods used as supplementary estimates. Sensitivity analysis was performed using MR-PRESSO test and MR-Egger regression.

Results Forty-one SNPs were eventually included in the analysis, and IVW analysis showed no clear causal relationship between tea intake and risk of depression (OR=1.04, PIVW=0.54). MR-PRESSO test provided consistent estimates of association effects. MR-Egger regression analysis did not find pleiotropy.

Conclusion The present study failed to provide evidence that tea intake reduces the risk of depression from a genetic perspective, and we need more experimental studies in the future to elucidate the causal association between tea intake and the risk of depression.

关键字：ea intake; Depression; genome-wide association studies; Mendelian randomisation; Causality.

Cerebrotendinous Xanthomatosis Presenting with Psychotic Symptom: A Case Report

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Background : Cerebrotendinous xanthomatosis (CTX) is a rare autosomal recessive lipid storage disorder caused by mutations in the CYP27A1. The clinical presentation of CTX is characterized by diverse systemic and neuropsychiatric manifestations, but psychotic symptoms in CTX are rare and nonspecific, often lead to considerable diagnostic and treatment delay. Case presentation: We report a 33-year-old female patient admitted to the psychiatric ward for presentation of delusions, hallucinations, behavioural disturbance. The patient presented with cholestasis, cataracts, Achilles tendon xanthoma and cerebellar signs in adulthood and in childhood presented with mental retardation and learning difficulties . After the characteristic CTX findings on imaging, a pathological examination of the Achilles tendon xanthoma was refined. Replacement therapy was then initiated after the diagnosis was clarified by genetic analysis. During hospitalization in the psychiatric ward, the nonspecific psychiatric manifestations of the patient posed a difficulty in diagnosis. After learning about the patient's history of CTX, psychotic symptoms were controlled by replacement therapy combined with antipsychotic medication. Conclusions: The psychiatrist should be aware of CTX, its psychiatric manifestations and clinical features, and avoid missed misdiagnosis of CTX for timely intervention.

关键字：Cerebrotendinous xanthomatosis, Psychotic symptom, CYP27A1 gene mutation, Novel likely pathogenic variant

抑郁障碍患者的疲劳症状与心率变异性的相关性分析

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目的 本研究比较抑郁障碍患者与健康对照之间的疲劳程度与心率变异性的差异，探索抑郁障碍患者的疲劳症状与心率变异性指标之间的关系。

方法 本研究招募了 30 名至少 2 周内未服药的抑郁障碍患者以及 31 名健康对照，抑郁障碍的诊断使用 ICD-10 诊断标准。使用 Chalder 疲劳量表(Chalder Fatigue Questionnaire, CFQ)，多维疲劳量表(Multidimensional Fatigue Inventory，MFI-20)以及汉密尔顿抑郁量表（Hamilton Depression Scale，HAMD）评定患者的疲劳及抑郁症状，测定 2 分钟心率变异性。

结果 抑郁障碍患者心率变异性频域指标低频成份(LF) (Z=-2.755，P=0.006)及总功率(TP) (Z=-2.669，P=0.008)较健康对照显著降低，高频成份 (HF)在两组间无显著差异，而 LF/HF 显著增高(Z=2.251，P=0.024)。在抑郁障碍患者中心率变异性指标与疲劳症状不存在相关，但在健康对照中，LF、TP 以及 LF/HF 都与不同维度的疲劳症状有着显著的相关性。

结论 抑郁障碍患者疲劳症状明显，心率变异性分析指标有着显著改变；抑郁症患者中心率变异性指标与疲劳症状未发现相关性，而在健康对照组中两者间存在显著的相关性；这些研究结果提示抑郁障碍患者存在显著的心率变异性指标改变，而且与健康人群对比，心率变异性分析与疲劳症状的关系不再显著，仍需进一步研究探索如何理解抑郁障碍患者的心率变异性分析结果。

关键字：抑郁障碍，疲劳，心率变异性

基于 FAERS 数据库分析 SSRIs/SNRIs 类抗抑郁药性功能不良反应特征

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目的 分析 SSRIs/SNRIs 类药物与性功能障碍不良事件发生的相关性及不同治疗策略下性功能障碍症状的特征。

方法 下载 FAERS 数据库 2015 年第一季度至 2020 年第四季度的数据进行不均衡性分析。通过 ROR 值和 IC 值来评估目标药物以及目标不良事件之间的关联强度。

结果 2447290 例数据被纳入不均衡性分析。与性功能障碍相关的记录合计 9426 例，平均年龄为 46 岁，女性占比 23.8%，舍曲林和西酞普兰/艾司西酞普兰较其他药物报告出更广泛的性不良反应信号，涉及性活动的各个方面。在本研究中，帕罗西汀诱导的性功能障碍频谱最窄，且帕罗西汀药物使用和男性勃起障碍的相关性并未被证实。性快感缺失和性欲减退显著和 SSRI/SNRI 类药物使用相关，在本研究纳入的所有 6 种药物中存在阳性结果，提示较强的相关性。同时，本研究观察到氟西汀与和罕见的性不良反应发生存在关联，包括自发射精及 5-α-还原酶抑制剂综合征。

结论 由本临床实验研究结果，我们的结论如下：SSRI/SNRI 类药物和性功能障碍不良事件的发生高度相关，不同 SSRI/SNRI 类药物具有不同的性功能障碍症状特征，一些罕见的性不良反应事件尚未得到足够的关注

关键字：抗抑郁药，性功能障碍，药物警戒分析，不良事件报告系统

心境障碍患者神经电生理及功能性近红外光谱的研究现况

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目的 从神经电生理及功能性近红外光谱角度，对心境障碍患者的研究现况进行综述，为心境障碍患者的临床诊疗和未来研究方向提供理论基础。

方法 以“Depressive Disorder,、bipolar disorder、

Electroencephalography、frontal alpha asymmetry、evoked potential、spectroscopy, near infrared；抑郁、双相、脑电、近红外、事件相关电位”等为检索词在 Pubmed、web of science、知网、万方、CBM 进行文献检索

结果 脑电图 功率谱密度研究发现α频段与θ频段在不同分类技术下，对抑郁障碍识别准确率均大于70%。γ频段在抑郁障碍患者与健康人群表现不同，抑郁障碍患者与双相情感障碍患者在情绪与感官任务态时，在额叶、顶叶及颞叶也存在差异。既往研究发现，抑郁障碍患者存在额叶 α 频段不对称且可能与抑郁障碍患者精神活动抑制有关。额叶 α 频段不对称不仅可以区分抑郁障碍患者与健康人群，抑郁障碍患者与双相情感障碍抑郁发作患者额叶 α 频段不对称也存在统计学差异。同时，α频段不对称在预测药物治疗效果方面也具有潜在价值。研究发现对 5-羟色胺再摄取抑制剂的反应性较高的患者，枕叶存在α频段不对称。 事件相关电位 大量文献研究发现与健康对照组相比，抑郁障碍患者 P300 潜伏期延长、波幅低且与抑郁严重程度成正比。此外，双相情感障碍患者 P300 潜伏期较抑郁障碍患者、健康对照组更长，即使处于缓解期，这种差异依然存在。 功能性近红外光谱 在执行功能性近红外光谱认知任务时，抑郁障碍患者在额叶、双侧颞叶尤其是双侧前额叶区域 Oxy-Hb 明显低于健康人群。另外，抑郁症状越严重 Oxy-Hb 降低越明显。相关单双相抑郁研究发现，单双相抑郁患者在前额叶皮质区域激活可能存在差异，功能性近红外光谱可以作为一种潜在的工具来提高对单双相抑郁障碍诊断精度。

结论 脑电图和功能性近红外光谱在心境障碍的诊断、治疗效果的评估、与疾病严重程度的相关性及抑郁障碍与双相情感障碍的鉴别具有重要意义。目前的研究，普遍存在样本量偏小、混杂因素控制不佳等问题。未来大样本的研究值得被期待。关于心境障碍患者功能性近红外光谱研究，目前大量文献局限于研究功能性近红外光谱在抑郁障碍的诊断，未来功能性近红外光谱在单双相抑郁的鉴别诊断值得被关注。

关键字：抑郁障碍；双相情感障碍；神经电生理；脑电图；功能性近红外光谱；

以精神症状为主要表现的左侧颞部蛛网膜囊肿病例一例

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蛛网膜囊肿普遍认为是一种较为罕见的神经系统肿瘤，约占颅内占位性病变的 1%[1]。在接受脑 MRI 检查的患者中，只有 1.4%的患者被确诊为蛛网膜囊肿。多为单发，少数多发，其中 90%位于幕上，60％位于颅中窝。左侧多于右侧，男性多于女性，本病多无症状，出现症状的约占 5％，最常见的临床表现包括颅骨畸形、头痛、癫痫、头晕恶心和共济失调[2]。国外有部分文献报道由蛛网膜囊肿引起性格改变、幻听、妄想等精神症状的病例，但目前仍无明确的病理生理机制。已知颞叶结构异常与精神分裂症存在相关性，颞叶皮层体积减少程度越大精神症状越严重。我们提出的这个案例中，一名青年男性出现发展迅速的精神病学症状和认知功能下降。精神检查：表情呆滞，思维散漫，反应迟钝，交流时主动性差，部分问题回答不切题，无法深入交流。凭空闻声，自语自笑，无故外走，记忆力下降，部分自知力。患者是一名公交车司机，病前能够胜任工作，与周围同事相处融洽，对待乘客热情负责。在对他的病因进行了全面的医学检查后，除发现左侧颞叶蛛网膜囊肿外，没有发现任何异常。患者神经系统查体未查及明显阳性体征。结合患者临床表现及相关检查，诊断为由左侧颞部蛛网膜囊肿引起的脑器质性精神障碍。北京天坛医院神经外科医师评估后建议保守治疗，药物予以氟哌啶醇注射液 10mg/d（午 5mg，晚 5mg）,利培酮片 5mg/d（早 3mg，午 2mg），劳拉西泮片 1.5mg/d（早、午、晚各 0.5mg）,患者幻听症状改善，治疗 30d 后好转出院，后期我们将对病例进行随访。

关键字：蛛网膜囊肿；左侧颞叶；精神症状

青春期慢性社交挫败应激对 C57 小鼠情感相关行为的影响

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目的 青春期所经历的负性事件会增加个体罹患精神疾病的风险。本研究的目的是观察青春期小鼠在经历慢性社交挫败应激后情感相关行为的改变。

方法 对 4 周龄的 C57 小鼠进行连续 10 天的慢性社交挫败应激，应激结束后通过蔗糖偏好试验、旷场实验、社交互动实验评估小鼠社交及情感相关行为的改变。

结果 蔗糖偏好实验中，应激组蔗糖摄入比低于对照组（P=0.001）。旷场实验中,应激组的总移动距离和速度均低于对照组（P＜0.001），而社交互动实验中，在与陌生的 C57 进行社交实验时，应激组和对照组对 C57 的社交接近时间都显著高于对空笼子的接近时间（P=0.017；P＜0.001），应激组在面对 C57 时的危险评估次数显著高于对照组（P=0.006），逃跑行为两组无统计学差异。与陌生的 CD1 小鼠进行社交互动实验时，对照组对 CD1 的社交接近时间显著高于对空笼子的接近时间（P＜0.001），而应激组对 CD1 的社交接近时间与对空笼子的无统计学差异；两组对 CD1 的危险评估次数无显著差异，应激组面对 CD1 时的逃逸次数高于对照组（P=0.009）。

结论 青春期的慢性社交挫败应激可以导致 C57 小鼠出现快感缺失、运动能力下降、社交兴趣下降、社交回避及社交恐惧等行为表现。

关键字：青春期；慢性社交挫败

新型冠状病毒感染后急起精神障碍一例

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目的 帮助精神科医师增强对 SARS-CoV-2 感染后精神病性症状的认识。同时，SARS-CoV-2 为研究精神障碍的发病机制提供了一个独特的研究机会。我们希望通过本案例，促进临床医师对此类问题的识别与处理，为临床治疗提供借鉴意义。

方法 在临床中，我们发现一则新冠病毒感染发热后出现急性精神障碍的病例。患者女，47 岁。因“发作性紊乱，眠差 1 周”于 2022 年 12 月 24 日入住我院治疗。2022 年 12 月 18 日，患者无明显诱因出现发热，最高 37.5℃，在家自测抗原呈阳性，当时未出现其他上呼吸道感染症状，为进一步退热，患者到当地诊所输液，4 天后体温降至正常。在感染新型冠状病毒期间，患者突然出现发作性乱语，说有鬼压到自己身上了，觉得浑身不适，让家人给自己“招魂”，发作间期恢复如常。后上述情况逐渐加重，发作次数增多，发作时间延长，言行乱，往地上躺、无故哭泣，说自己想打人，行为怪异，把衣服脱光往外跑，打骂家人，进食量减少，夜眠差。既往史、个人史、家族史：无特殊。体格检查未见异常。精神检查：意识清，接触交谈欠合作，思维散漫，答话不切题，言行紊乱，存在鬼神附体体验，情绪不稳，行为乱，情感反应不适切，意志活动减退，自知力不存在。入院后辅助检查：新型冠状病毒核酸检测示阳性；胸部 CT 平扫回示双肺下叶炎性病变；其余无特殊。入院诊断：急性而短暂的精神病性障碍。

结果 入院后给予富马酸喹硫平片 100mg/d，1 周内缓慢加量至 500mg/d，在此过程中，患者精神症状逐渐减轻直至消失，入院第 10 天，复查新型冠状病毒核酸检测回示阴性，第 11、12 天连续进行新冠抗原测定回示阴性。之后的 1 个月随访中我们观察到，患者出院后停止服药，情况稳定，症状未再反复，生活如常人。

结论 通过相关文献学习，我们总结新型冠状病毒致精神障碍的几点假设机制，其中一些较为公认的假设包括缺氧、自身免疫机制、严重的肺炎炎症，皮质类固醇治疗以及病毒的直接嗜神经作用。对于该患者来说，整个感染过程中未出现低氧血症，也从未用过皮质类固醇等药物治疗，因此基本排除由此引起的精神障碍。在 SARS-CoV-2 感染过程中，可能存在类似于噬血细胞性淋巴组织病的超炎症状态，其中 C 反应蛋白、铁蛋白和白细胞介素-6 的浓度增加，尽管这种状态是短暂的。另外，通常认为 SARS CoV-2 具有神经毒性，其可能直接对神经系统产生毒性作用，继而引发精神症状。

关键字：新型冠状病毒；精神障碍；发病机制

精神分裂症患者认知功能与 IGF-1 水平的相关性研究

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目的 精神分裂症是一种以多种症状为特征的慢性严重的精神障碍，典型表现包括阳性症状，如幻觉、妄想，阴性症状，如情感淡漠、社交退缩，以及认知功能缺陷，其具体发病机制及病因尚未完全明确，且影响因素是多方面，目前尚无药物能有效改善患者认知功能。IGF-1 表达改变可能通过影响海马神经发生和突触可塑性而导致精神分裂症的认知缺陷。研究探究精神分裂症患者 IGF-1 水平与认知功能的相关性，期望能够为精神分裂症认知功能及症状的治疗提供新思路。

方法 本研究纳入首发精神分裂症患者和缓解期精神分裂症患者。入组后签署知情同意书，次日清晨空腹抽血留存血清待使用 ELISA 检测血清 IGF-1 水平，使用阳性和阴性症状量表评估精神症状、蒙特利尔认知评估量表评估认知功能。首发组治疗 8 周后再次抽血使用 ELISA 检测血清 IGF-1 水平，及完成 PANSS 量表、MoCA 量表的评定。采用 SPSS 软件进行数据分析，运用 t 检验、非参数检验进行组间差异比较，运用 Pearson、Spearman 相关性分析、逐步线性回归分析探讨血清 IGF-1 水平与 MoCA 总分和各项评分及 PANSS 总分和各分量表评分的相关性。

结果 首发组血清 PANSS 总分及 MoCA 总分低于 8 周组,差异有统计学意义(P ＜0.05)

结论 精神分裂症患者血清 IGF-1 水平降低,其血清水平与患者认知功能状态密切相关,且对患者的认知功能改变具有一定预测价值。

关键字：精神分裂症，IGF-1，精神症状，认知功能

帕罗西汀对抑郁大鼠海马和前额叶 5-HT2AR 和 PSD-95 蛋白表达及相互作用的影响

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目的 儿童青少年抑郁症患者人数有上升趋势，并且越来越受国际社会重视。目前抑郁症病因机制复杂。已知 5-HT2AR、PSD-95、nNOS 三者均具有 PDZ 结构域，猜测其存在体内、体外相互作用的可能。已知 PDZ 结构域为许多蛋白质相互作用提供了支架，而且还可以调节与其关联的离子通道和受体的功能。已有研究证实 PSD-95 与 5-HT2AR 能够在体外能够产生相互作用，并且体外实验证明 PSD-95 增强了 5-HT2AR 介导的信号传导。本次研究探讨 5-HT2AR 与 PSD-95 体内能相互作用，并且其相互作用可能受到帕罗西汀在抑郁症中的影响。为抑郁症治疗提供新思路。

方法 具体方法为检测使用帕罗西汀对抑郁大鼠前额叶、海马 5-HT2AR/PSD-95 相互作用的影响，及 5-HT2AR、PSD-95 量的变化。

结果 抑郁组中 5-HT2AR、PSD-95 量增加，与对照组有统计学意义；在海马及前额叶 5-HT2AR 与 PSD-95 均在体内存在相互作用。

结论 抑郁模型中 5-HT2AR 与 PSD-95 在海马和

前额叶中均存在相互作用。在前额叶中,慢性应激组中，与 PSD-95 相互作用的 5-HT2AR 较对照组和帕罗西汀组增多；在海马中,慢性应激组与 PSD-95 相互作用的 5-HT2AR 较对照组和帕罗西汀组减少。PSD-95 及 5-HT2AR 有望成为抑郁症研发药物新靶点

关键字：抑郁症

双相障碍研究协作组

精神心理联合治疗双相障碍共病癫痫一例

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目的 心境障碍是癫痫患者中最常共病的精神疾病之一，但我们对癫痫和双相障碍之间关系的了解还十分有限。双相障碍（bipolar disorder, BD）是指既有躁狂/轻躁狂发作，又有抑郁发作的一种慢性复发性心境障碍。颞叶癫痫(temporal lobe epilepsy, TLE)是以大脑颞区起源的神经元异常放电为特征的慢性脑部疾病，表现为单纯部分性发作、复杂部分性发作、继发全面性发作的组合。本文报道 BD 共病 TLE 治疗 1 例，旨在提高临床医生对这两种复杂疾病共病情况的认识，通过药物-心理-物理的综合治疗方法，为该类疾病的临床诊疗提供参考。

方法 1．药物治疗：患者使用草酸艾司西酞普兰疗效欠佳，后将其减停，换用丙戊酸钠缓释片日最高量 1000mg/日，同时合并奥氮平 5mg/日，艾司唑仑 5mg/日，加用抗抑郁药物阿戈美拉汀片 50mg/日治疗，窦性心动过速予以美托洛尔日高量 25mg/日。2. 心理治疗：患者在心理治疗中诉其自小学至高中间断遭受校园霸凌，回忆起当时被打时的场景常感到痛苦、恐惧、害怕，并伴有自伤行为和自杀观念。治疗师首先针对患者的自杀自伤风险进行风险管理工作，与患者制定安全计划、引导患者使用辩证行为疗法中的痛苦耐受技巧来替代自伤等冲动行为。其次考虑到患者创伤的复杂性和当下情绪的不稳定性导致其尚不适合直接进入创伤修复工作，治疗师将住院期间的治疗重点放在稳定化上，旨在为患者进入创伤治疗之前建立充分的锚点，为后续的创伤修复工作做好铺垫。住院期间共治疗 4 次，患者的自伤自杀风险有部分缓解，情绪状态更加稳定。3．物理治疗：入院后予以 MECT 治疗 12 次。

结果 经过药物、心理、物理治疗及护理相结合的综合治疗，1 个月后患者情绪平稳，进食改善，躯体状况稳定，达临床好转出院。出院后首次门诊随访，患者困倦明显，将艾司唑仑减量至 4mg/日。第 2 次门诊随访患者情绪稳定，表情轻松自然，未再出现任何发作情况，艾司唑仑继续减量至 2mg/日，停用酒石酸美托洛尔片。

结论 鉴于其高患病率，能够识别心境障碍伴发癫痫非常重要。目前研究者普遍认为癫痫和抑郁之间可能拥有一些共同的发病机制[10]；临床中双相障碍共病癫痫的发病率较高，应引起临床医生的足够重视，故应注意双相障碍共病癫痫患者的筛查及诊断。此外，需对明确诊断的患者选择合适的治疗方案，以期提高患者的生活质量及改善预后。

关键字：双相障碍；颞叶癫痫；辨证行为治疗

DA、5-HT、Cor、ACTH、T3 在双相情感障碍

躁狂发作患者疗效预测中价值

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目的 探讨多巴胺（DA）、5-羟色胺（5-HT）、皮质醇（Cor）、促肾上腺皮质激素（ACTH）、三碘甲状腺原氨酸（T3）在双相情感障碍躁狂发作患者疗效预测中价值。

方法 选取 2019 年 2 月～2021 年 5 月我院双相情感障碍躁狂发作患者 102 例为研究对象，治疗前、治疗 2 个月后测定血清 DA、5-HT、Cor、ACTH、T3 水平、Bech-Rafaelsen 躁狂量表（BRMS）、阳性与阴性症状量表（PANSS）评分，依据治疗 2 个月后疗效分为有效组（n＝78）、无效组（n＝24）。比较两组一般资料、治疗前后血清 DA、5-HT、Cor、ACTH、T3 水平，观察患者各血清指标与 BRMS、PANSS 评分及疗效的关系，应用受试者工作特征（ROC）曲线评价血清各指标对患者疗效的预测价值。

结果 有效组治疗前后血清 DA、Cor、ACTH、T3 水平与 BRMS、PANSS 评分均低于无效组，5-HT 水平高于无效组（P＜0.05）；双相情感障碍躁狂发作患者治疗前后血清 DA、Cor、ACTH、T3 水平与 BRMS、PANSS 评分呈显著正相关，血清 5-HT 水平与 BRMS、PANSS 评分呈显著负相关（P＜0.05）；回归分析可知，治疗前后血清 DA、5-HT、Cor、ACTH、T3 水平仍与患者疗效显著相关（P＜0.05）；绘制 ROC 曲线显示，血清 DA、5-HT、Cor、ACTH、T3 预测患者疗效无效的曲线下面积（AUC）分别为 0.798、0.804、0.712、0.719、0.717，各指标联合预测时 AUC 为 0.856，高于单一指标，联合预测敏感性为 87.50%，特异性为 74.36%。

结论 双相情感障碍躁狂发作患者血清 DA、5-HT、Cor、ACTH、T3 呈异常表达，且各指标水平与患者临床症状、疗效有关，应用各指标联合预测可提升疗效预测效能，可指导临床治疗方案制定。

关键字：多巴胺；5-羟色胺；皮质醇；促肾上腺皮质激素；三碘甲状腺原氨酸；双相情感障碍；躁狂发作

双相情感障碍改良电休克治疗的近期结局及相关因素研究

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目的 探讨改良电休克治疗对双相情感障碍治疗的近期结局及相关因素。

方法 收集 2020.1.1-2020.12.31 安徽省精神卫生中心接受改良电休克治疗的双相情感障碍患者 163 例、精神分裂症患者 308 例，收集患者的一般资料(包括年龄、性别)、出院诊断、发病年龄、病程持续时间、治疗前后的汉密尔顿焦虑量表、汉密尔顿抑郁量表和杨氏躁狂症状量表的评分、治疗次数、最终疗效等数据，对其全部资料输入 SPSS.22 进行统计分析，检验统计差异有无显著性。

结果 ⑴163 位接受电休克治疗的患者中，其中 157 位患者临床症状好转或临床症状部分好转，总治疗有效率为 96.32%，双相抑郁与双相躁狂患者治疗有效率无明显差异（x?=0.131,p>0.05）；接受电休克治疗的 308 位精神分裂症患者中有 292 位好转，总治疗有效率为 94.81%；精神分裂症与双相情感障碍的有效率有差异（Z=-1.959，p=0.05），双相情感障碍患者治疗效果更好。⑵共有 23 位患者出现包括近记忆下降、肌肉酸痛、发热、头部不适等症状的不良反应，发生率为 14.11%，其中最常出现的不良反应为近记忆下降，有 20 人，其次为肌肉酸痛和发热，副反应的发生率与性别、治疗年龄、病程时间具有正性相关关系。⑶65 位双相抑郁患者中，初次发病患者 31 人，其他次发病（两次及以上）患者 34 人，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）无明显差异（Z=-1.845，p>0.05）。⑷92 位双相躁狂患者中，初次发病患者 32 人，其他次发病患者 60 人，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）无明显差异（Z=-0.402，p>0.05））。⑸对于治疗后未完全好转的的患者，其焦虑及躁狂在治疗前后的差异有统计学意义（Z1=-2.197，p<0.05，Z2=-2.521，p<0.05），其抑郁症状在治疗前后的差异无统计学意义（Z=-1.892，p>0.05）。（5）对于治疗有效的患者，不同性别之间的疗效无差异，发病越早，病程越长，症状好转所需要的治疗次数越多。

结论 ⑴改良电休克疗法治疗双相情感障碍的疗效确切。⑵近记忆下降及肌肉酸痛是改良电休克疗法的主要不良反应为，如何改善患者的不良反应显得十分重要。⑶电休克治疗可以缓解患者的临床症状，发病越早，病程越长的患者，所需要的治疗次数越多，效果越差。

关键字：改良电休克；双相情感障碍；疗效；不良反应

改良电休克疗法治疗对双相情感障碍治疗的近期结局及相关因素研究

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目的 探讨改良电休克治疗对双相情感障碍治疗的近期结局及相关因素研究。

方法 整群抽取 2020.1.1-2020.12.31 在安徽省精神卫生中心接受改良电休克治疗的双相情感障碍患者共 163 例，收集患者的一般资料(包括年龄、性别)、出院诊断、发病年龄、病程持续时间、治疗前后的汉密尔顿焦虑量表、汉密尔顿抑郁量表和杨氏躁狂症状量表的评分、治疗次数、最终疗效等数据，对其全部资料输

入SPSS.22进行统计分析，检验统计差异有无显著性。

结果 ⑴163位接受改良电休克治疗的患者中，其中157位患者临床症状好转或临床症状部分好转，总治疗有效率为96.32%，双相抑郁与双相躁狂患者治疗有效率无明显差异（x?=0.131,p>0.05）。⑵共有23位患者出现包括近记忆下降、肌肉酸痛、发热、头部不适等症状的不良反应，发生率为14.11%，其中最常出现的不良反应为近记忆下降，有20人，其次为肌肉酸痛和发热。⑶65位双相抑郁患者中，初次发病患者31人，其他次发病（两次及以上）患者34人，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）无明显差异（x?=3.700,p>0.05）。⑷92位双相躁狂患者中，初次发病患者32人，其他次发病患者60人，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）无明显差异（x?=1.813,p>0.05）。⑸对于治疗后未完全好转的的患者，其焦虑及躁狂在治疗前后的差异有统计学意义（Z1=-2.197，p<0.05，Z2=-2.521，p<0.05），其抑郁症状在治疗前后的差异无统计学意义（Z=-1.892，p>0.05）。（5）对于治疗有效的患者，发病越早，病程越长，症状好转所需要的治疗次数越多。

结论 ⑴改良电休克疗法治疗双相情感障碍的疗效确切。⑵近记忆下降及肌肉酸痛是改良电休克疗法的主要不良反应为，如何改善患者的不良反应显得十分重要。⑶电休克治疗可以缓解患者的临床症状，发病越早，病程越长的患者，所需要的治疗次数越多，效果越差。

关键字：改良电休克；双相情感障碍；疗效；不良反应

改良电休克疗法对精神分裂症治疗的近期结局及相关因素研究

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目的 探讨改良电休克疗法治疗精神分裂症的疗效及相关因素。

方法 整群抽取2020.1.1-2020.12.31在安徽省精神卫生中心住院接受无抽搐电休克治疗的精神分裂症患者共308例，收集患者的一般资料(包括年龄、性别)、出院诊断、发病年龄、病程持续时间、治疗前后的阴性和阳性症状量表评分、治疗次数、最终疗效等数据，对其全部资料输入SPSS.22进行统计分析，检验统计差异有无显著性。

结果 ⑴308位接受电休克治疗的患者中，其中292位患者临床症状好转或临床症状部分好转，总治疗有效率为94.81%。⑵共有40位患者出现包括近记忆下降、肌肉酸痛、发热、头部不适等症状的不良反应，发生率为12.99%，其中最常出现的不良反应为近记忆下降，有27人，其次为肌肉酸痛，8人。⑶99位患者为初次发病患者，176位为其他次（两次及以上）患者，初发患者与其他次发病患者电休克治疗效果（好转、部分好转、不显）有明显差异（x?=11.755,p<0.05），初发患者的好转率高于其他次发病患者，治疗效果更好。⑷对于治疗效果不显的患者，其阴性及阳性症状量表的评分在治疗前和治疗后的差异有统计学意义（Z1=-5.671，p<0.05，Z2=-7.619，p<0.05）。（5）对于治疗有效的患者，发病越早，病程越长，所需要的治疗次数越多，效果越差。

结论 ⑴改良电休克疗法治疗精神分裂症的疗效确切。⑵近记忆下降及肌肉酸痛是改良电休克疗法的主要不良反应为，如何改善患者的不良反应显得十分重要。⑶发病越早，病程越长的患者，所需要的治疗次数越多，效果越差。

关键字：无抽搐电休克；精神分裂症；疗效；不良反应

孕妇产前抑郁的发生率及影响因素

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目的 调查孕妇产前抑郁发生率并分析不同变量对孕妇产前抑郁发生率的影响。

方法 纳入3694例孕妇，收集临床资料以调查孕妇产前抑郁的发生率。根据是否发生产前抑郁将孕妇分为有产前抑郁组和正常组，应用多因素logistics回归分析影响产前抑郁的危险因素和保护因素。

结果 3694例孕妇中473例（12.8%）孕妇出现产前抑郁。单因素分析提示，有产前抑郁组和无产前抑郁组孕妇在年龄、孕妇原籍、孕妇原籍居住地、孕妇是否独生子女、孕期合并疾病情况、个人孕前年收入、家庭年收入、居住条件、EPQE、N、P、L量表T分、SSRS客观支持分、SSRS主观支持分、SSRS对支持的利用度、SSRS总分、TCSQ积极应对分、TCSQ消极应对分、GAD-7均存在显著性差异（P＜0.05）。多因素logistics回归分析提示，年龄、孕妇是否独生子女、孕期合并疾病情况、EPQE、N、P量表T分、SSRS总分、TCSQ积极应对分、TCSQ消极应对分、GAD-7为孕妇患产前抑郁的危险因素（P＜0.05），EPQL量表T分为患产前抑郁的保护因素（P＞0.05）。

结论 孕妇产前抑郁的发生率较高，提高孕妇的社会支持和家庭支持、改善居住条件、运用心理治疗转换孕妇对事物的消极看法、缓解焦虑情绪以及加强对孕期知识的了解，能够有效降低产前抑郁在孕妇中的发生率。

关键字：产前抑郁，影响因素

通过代谢组学研究比较双相情感障碍不同临床分型的代谢通路

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目的 双相情感障碍（BD）分为抑郁/躁狂/混合发作等不同临床类型。一直以来，双相情感障碍的诊断仅依赖于对症状群的主观识别，客观的诊断方法仍然缺乏，但不同亚型的临床表现的复杂性和可变性导致了极高的误诊率。以往的研究并没有考虑到双相情感障碍的不同发作亚型，目前的研究对象主要是双相情感障碍的抑郁发作期或稳定期患者，没有对混合发作的研究。本研究通过代谢组学确定 BD 不同临床类型的代谢生物标志物，这可以帮助双相情感障碍的早期检测、诊断、疾病监测和治疗。

方法 参加实验的 BD 患者有四组，分别是患有抑郁发作的 BD 患者(n=59)、患有躁狂发作的 BH(n=16)、患有混合发作的 BM 患者（n=10）与健康对照(n=10)。首先，收集参与者的血清，通过核磁共振光谱法进行代谢组测序，然后通过偏最小二乘法分析分别筛选各组的生物标志物。在这项研究中，Metabo Analyst 3.0 被用来进一步确定与生物标志物相关的代谢途径。

结果 与对照组相比，3-D-羟基乙酸和 N-乙酰-糖蛋白在 BD、BH 和 BM 有明显的差异。此外，本研究表明，不同临床类型的 BD 有相同的代谢途径，异常的能量代谢以丙酮酸代谢、糖酵解/葡萄糖生成和酮体代谢为主。特别是，BM 特有的代谢途径是甘氨酸、丝氨酸和苏氨酸代谢异常；抑郁症发作特有的代谢物是 β-葡萄糖、甘油、脂类、乳酸和乙酰乙酸；BH 特有的代谢物是胍基乙酸；躁狂症和 BM 特有的代谢物是乙酸和抗坏血酸。

结论 通过 1H 核磁共振对不同亚型 BD 与正常人的血清进行横断面分析，观察到代谢谱之间有显著差异。另外。我们还筛选出 BD 不同类型的潜在的生物标志物，这有助于 BD 的分型，并为探索诊断 BD 的分子机制及其治疗提供了理论基础。

关键字：双相情感障碍;代谢组学；生物标志物

A Case Report of "electroshock-like" Twitching Due To Normal Serum Lithium Concentration

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The patient, a female, 42 years old, complained of recurrent emotional instability for 2 months, a total duration of 27 years, diagnosed with bipolar disorder, previous history of hypertension grade 2, negative family history, no unique personal history, no abnormalities on neurological examination on admission, mental examination on admission: clear consciousness, cooperative contact, and conversation, tangential questions and answers, apparently depressed mood, reduced interest, decreased energy, less activity, slower self-perceived reaction. During the conversation, he denied having negative thoughts, admitted having negative behaviors in the past, no obvious psychotic symptoms such as hallucinations and delusions, decreased volitional activity, good intelligence orientation, and incomplete self-awareness. The blood lithium concentration at admission was 0.47 mmol/L. After admission, he took 20 mg of paroxetine hydrochloride tablets in the morning, 100 mg of quetiapine fumarate tablets, 15 mg of oxazepam tablets, and 0.3 g of lithium carbonate extended-release tablets (Jiangsu Enhua Pharmaceutical Co., Ltd., approval number: State Drug Administration H10900013, specification: 0.3 g per tablet) in the evening. On the 30th day, the patient had a poor diet and less food intake. On the 33rd day, the patient had "electroshock-like" jerking, mainly manifested by frequent and rapid jerking of the head, neck, and upper body, accompanied by rapid nodding and shaking of the head, which occurred in 10-15s. On the same day, lithium carbonate extended-release tablets were discontinued and replaced by sodium valproate extended-release tablets at 0.5g qd. The blood lithium concentration was 0.67mmol/L on the same day, and the "electroshock-like" twitching was relieved the following day. On the 4th day of treatment, the amplitude of frequent rapid head, neck, and upper body twitching and rapid head nodding and head shaking improved significantly, and the EEG results did not show any abnormality on the same day. The "electroshock-like" twitching disappeared on the 10th day of treatment.

关键字：lithium carbonate; twitching; adverse effects; blood lithium concentration; risk of toxicity

阿立哌唑联合碳酸锂对青少年双相情感障碍共病非自杀性自伤临床疗效研究

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目的 研究和分析青少年双相情感障碍共病非自杀性自伤（NSSI）患者接受阿立哌唑与碳酸锂联合治疗的效果。

方法 将 76 例福州神经精神病防治院自 2022 年 2 月-2023 年 1 月接受治疗的青少年双相情感障碍共病 NSSI 患者并通过随机数表法分成两组，对照组（n=38）采用碳酸锂治疗，观察组（n=38）患者应用阿立哌唑与碳酸锂联合治疗，比较治疗前、治疗后杨氏躁狂量表（YMRS）评分、汉密尔顿抑郁量表（HAMD-24）评分、冲动性量表（BIS-11）评分及 NSSI 行为发生情况、用药安全性。

结果 治疗前患者 YMRS 评分和 HAMD 评分组间比较差异不存在统计学意义（P>0.05），治疗 4 周后及治疗 8 周后观察组 YMRS 评分与 HAMD 评分均明显更低且差异有统计学意义（P<0.05）。治疗前患者运动冲动性、认知冲动性和非计划冲动性对比差异无统计学意义（P>0.05），治疗 4 周后及治疗 8 周后观察组患者各项目评分及总评分均显著更低，差异有统计学意义（P<0.05）。 治疗 4 周后及治疗 8 周后观察组患者 NSSI 行为发生率均显著低于对照组，差异有统计学意义（P<0.05）。用药期间观察组用药不良反应总发生率略高于对照组，差异无统计学意义（P>0.05）。

结论 青少年双相情感障碍共病 NSSI 患者接受阿立哌唑联合碳酸锂治疗可有效缓解病情，有效控制其冲动性及 NSSI 行为，而且用药安全性较高。

关键字：青少年双相情感障碍；非自杀性自伤；阿立哌唑；碳酸锂；躁狂；抑郁；NSSI 行为；冲动性

A Retrospective Study of Psychotropic Drug Treatments in Bipolar Disorder at Acute and Maintenance Episodes

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Objective Bipolar disorder (BD) is predominantly treated with psychotropic drugs, but BD is a complex medical condition and the contribution of psychotropic drugs is not clear. The objectives of this study are: 1) to present psychotropic drugs used in patients with BD; 2) to access changes of psychotropic drug treatments in acute and maintenance episodes.

Methods The study retrospectively evaluated the medical records of inpatients in the Ningbo Kangning hospital from January 2019 to December 2019. The medical history of each subject was collected completely, including sociodemographic (gender, age, marital status, and so on) and clinical characteristics at baseline and within 12 months of admission.

Results The study ultimately included 204 patients with BD. After 12 months, 73.0% of the patients still took drugs. Mood stabilizers (72-90%) and antipsychotics (77-95%) were still the most important drugs in patients with BD. Antidepressants (34-40%) and benzodiazepines (20-34%) were the other frequently used drug classes. For mood stabilizers, 40-56% of patients were prescribed Lithium. For antipsychotic, 54-65% of patients were prescribed quetiapine. Sertraline (6-9%) and Fluoxetine (5-9%) were the antidepressant that most frequently prescribed. Lorazepam (10-18%) was the most commonly used benzodiazepine. In psychotropic polypharmacy, the most frequently taken was Mood stabilizer plus antipsychotic co-treatment, about 36-44% of all patients. 35-48% of patients treated by 2 psychotropic drugs and 24-36% received 3.

Conclusion The first 6 months after treatment is very important to medication adherence. Mood stabilizers and antipsychotic remained the primary treatment for BD. Antipsychotic is on the rise in the treatment of BD.

关键字：psychotropic drugs, bipolar disorder, acute, maintenance, retrospective

伴非自杀性自伤成年早期抑郁症岛叶亚区磁共振脑白质研究

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目的 近年来，抑郁症（major depressive disorder，MDD）的患病率逐年增高， 目前中国的患病率已经达到 3.59%。其治愈率较低，易复发，有极大的社会危害性。非自杀性自伤（non-suicidal self-injury，NSSI）被认为是预测自杀的因子之 一，是一种常见的抑郁症伴随症状。伴 NSSI 的 MDD 患者（major depressive disorder with non-suicidal self-injury，MDD/NSSI）在疼痛处理过程中存在异常， 其中岛叶异常在疼痛的发病机制中具有重要作用，但机制尚不清楚。本研究旨在 探讨岛叶在伴 NSSI 的 MDD 中的脑白质特征。

方法 本研究招募了南京脑科医院精神科从 2020 年 7 月至 2022 年 10 月入院的 18-30 岁的抑郁症患者。根据是否伴有 NSSI，抑郁症患者被分成伴 NSSI 的抑郁症组（MDD/NSSI），和不伴 NSSI 的抑郁症组（sMDD）。一共纳入 54 名 MDD/NSSI 患者和 68 名 sMDD 患者及 66 名年龄、性别、受教育年限匹配的健康被试。对入组被试进行脑磁共振成像扫描，将采集的 DTI 数据预处理后，进行纤维重建和网络构建，提取矩阵中岛叶脑区纤维束与其它脑区之间的白质各向异性分数值，将所得结果在 SPSS 软件中进行统计分析，采用 LSD 方法进行多重比较校正， $p<0.05$。

结果 与 sMDD 组相比，MDD/NSSI 组岛叶与右三角部额下回、右眶内额上回、 左回直肌、右回直肌之间的白质 FA 值升高，岛叶与左舌回、左枕上回、左枕中 回、左枕下回、左中央后回之间的白质 FA 值降低。与 HC 组相比，MDD/NSSI 组岛叶与右额中回、右三角部额下回、右眶内额上回、左回直肌、右回直肌之间 的白质 FA 值升高，岛叶与左楔叶、左枕上回、左枕中回之间的白质 FA 值降低。 与 HC 组相比，sMDD 组岛叶与右舌回、左枕下回间白质 FA 值升高，左三角部 额下回、左前扣带和旁扣带脑回、左豆状壳核之间的白质 FA 值降低。

结论 伴 NSSI 的抑郁症与不伴 NSSI 的抑郁症之间，岛叶各亚区与其它脑区之间的功能连接上存在差异，结果集中在额叶及枕叶等脑区，提示岛叶在 NSSI 的发病机制中存在着重要作用。

关键字：非自杀性自伤；抑郁症；岛叶；磁共振成像；成年早期

伴自杀意念和自杀未遂的抑郁症患者反应抑制相关电生理改变：想法到行为转化的间接证据

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目的 从自杀意念到自杀行为的转变是识别具有

高自杀风险的抑郁患者的一个重要研究课题。抑郁症患者常伴有反应抑制的损害，与患者的外显冲动表现有关，进而可能导致从自杀意念向自杀行为转变。最新的健康人群研究中，右额下回 beta 频段爆发启动并控制整个反应抑制过程。本研究旨在探讨抑郁症中自杀行为是否实施与反应抑制相关神经活动变化之间的关系。

方法 急性期抑郁症患者招募于南京脑科医院心境障碍科，涵盖四种不同的表型：既往自杀未遂史患者(n=79)，有自杀想法但过去没有自杀未遂史的患者(n=65)，既无自杀意念也无自杀未遂的患者(n=59)，以及健康对照人群 (n=58)。所有参与者完成了反应抑制任务下的脑磁图扫描。我们提取右额下回的 beta 爆发标准值，并进行统计比较。

结果 与另外三组相比，有自杀未遂史患者右额下回 beta 爆发标准值降低。而伴自杀意念与不伴自杀意念组之间无明显神经活动差异。此外，beta 爆发标准值与抑郁症患者自杀风险评分呈负相关。

结论 相较自杀意念者，自杀未遂者似乎是一个更为独特的亚群，他们反应抑制相关大脑功能活动发生明显的改变，这可能代表着行为转化的易损因素。我们的研究结果表明，在自杀意念者中，右额下回 beta 爆发标准值可能是一个与自杀行为相关的生物标志物。我们的研究也在神经生物学水平上间接支持了在心理和临床水平上描述的自杀转变模型。

关键字：脑磁图；抑郁症；自杀；beta 爆发

双相抑郁发作患者的情绪状态与冲动性对攻击性的影响

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目的 冲动性与攻击性关系密切，先前本课题组的研究表明，双相抑郁发作患者冲动性明显升高。然而，目前尚不清楚冲动性在双相抑郁发作的情绪背景下对攻击性的影响。本研究旨在探索冲动性在双相抑郁发作背景下与各维度攻击性的复杂关联。

方法 共招募双相抑郁发作患者 100 例。通过 Barratt 冲动量表评估所有被试的冲动性，根据四分位数法对冲动程度进行分层。采用 17 项汉密尔顿抑郁量表（HAMD-17）评估所有被试的抑郁严重程度，根据评分结果分为轻度、中度及重度抑郁发作。采用 Buss 和 Perry 攻击问卷评估所有被试的攻击性，包括身体攻击性、言语攻击性、愤怒、敌意及指向自我的攻击。采用回归模型，评估冲动性对攻击性及各分维度的贡献。采用一般线性模型，评估睡眠及情绪状态两者交互效应下对冲动性的影响。

结果 在控制性别、年龄及教育年限后，冲动性对攻击性总分、言语攻击性、愤怒、敌意及指向自我的攻击存在贡献（均 $p<0.05$)。此外，在此基础上，控制抑郁严重程度后，这些影响仍然显著。交互效应显示，情绪状态与冲动性对攻击性总分（$F = 3.222$, $p = 0.001$）、愤怒（$F = 3.101$, $p = 0.001$）、敌意（$F = 4.118$, $p < 0.001$）及指向自我的攻击（$F = 3.026$, $p = 0.002$）存在显著的交互效应。

结论 我们的研究结果表明，双相抑郁发作患者的冲动性对言语攻击性、愤怒、敌意及指向自我的攻击性存在影响。此外，双相抑郁发作患者的攻击性增强是由冲动性及情绪状态共同影响下的结果。

关键字：双相抑郁发作 冲动性 攻击性 情绪状态

双相抑郁发作患者的睡眠时型与情绪状态对冲动性改变的影响

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目的 睡眠时型与冲动性之间关系密切，先前本课题组的研究表明，双相抑郁发作患者冲动性升高。然而，目前尚不清楚睡眠时型在双相抑郁发作背景下对双相患者各维度冲动性的影响。本研究旨在探索睡眠时型在双相抑郁发作背景下与各维度冲动性的复杂关联。

方法 共招募双相抑郁发作患者 99 例。通过清晨夜晚型量表评估所有被试的睡眠时型，将所有被试分为清晨型、中间型及夜晚型，Barratt 冲动量表评估其多维度冲动性，包括运动冲动性、认知冲动性及非计划冲动性。对双相抑郁发作患者，采用 17 项汉密尔顿抑郁量表（HAMD-17）评估其抑郁严重程度，根据评分结果分为轻度、中度及重度抑郁发作。采用一般线性模型，评估睡眠时型主效应、情绪状态主效应及两者交互效应下对冲动性的影响。

结果 睡眠时型主效应显示，轻度抑郁发作状态下，夜晚型睡眠被试的非计划冲动性显著高于清晨型（$p = 0.008$），余时型间比较无显著差异。情绪状态主效应分析显示，在各睡眠时型间比较非计划冲动性无显著差异。交互效应分析显示，睡眠时型与情绪状态存在显著的交互效应（$F = 2.769$, $p = 0.009$）。此外，在运动冲动性及认知冲动性方面，睡眠时型、情绪状态无显著的主效应及交互效应。

结论 我们的研究结果表明，双相抑郁发作患者的非计划冲动性增强是睡眠时型与抑郁情绪状态共同影响下的结果。此外，双相情感障碍患者在轻度抑郁发作状态下，睡眠时型对非计划冲动性影响显著。

关键字：双相抑郁发作 睡眠时型 抑郁发作 无计划冲动性

有攻击性的双相障碍患者与尿酸水平相关性研究

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目的 双相情感障碍是一种严 重的、复杂的、呈家族性发病的精神疾病，有冲动攻击行为双相障 碍患者常有自杀、自伤、暴力或犯罪等行为。嘌呤能系统是一种关键的神经递质系统，其最 终产物为尿酸，它参与精神疾病的发生和发展。探讨双相障碍患者冲动攻击性与血清尿酸水平的关系，进一步探讨不同临床相的双相障碍患者尿酸水平是否有差异。

方法 回顾性的纳入 2020、2021 两年内在本院临床心理科住院的双相情感障碍患者共 58 例（其中抑郁发作患者 40 例；躁狂或轻躁狂发作患者 5 例；混合性发作患者 13 例）。统计所有患者入院时血清尿酸结果，并比较两组患者血清尿酸水平，同时进一步比较不同临床相双相情感障碍血清尿酸水平。

结果 有、无冲动攻击性的双相情感障碍患者尿酸水平差异无统计学意义（P>0.05），不同临床相的双相情感障碍患者尿酸水平差异无统计学意义（P>0.05）。

结论 暂无证据可证实血清尿酸水平可成为有冲动攻击性双相情感障碍患者的生物学标记物。在后续研究中我们需要进一步扩大样本量，另外事先设计好时间方案，尽可能的获取可能影响实验结果的所有影响因素相关信息，并尽量控制这些影响因素，同时加入健康对照组，进一步明确有无 冲动攻击性的患者与尿酸水平的相关性。

关键字：双相情感障碍，血清尿酸，冲动攻击性

青少年首发抑郁障碍患者自杀未遂影响因素分析

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目的 探讨青少年首发抑郁障碍患者自杀未遂的影响因素。

方法 采用横截面研究的方法，纳入 2020 年 7 月-2022 年 2 月青少年首次抑郁障碍住院患者 125 例，根据有无自杀未遂，分为伴自杀未遂组（51）和不伴自杀未遂组（74），比较两组患者人口学特征、疾病特征、皮质醇指标、甲状腺功能指标、血脂指标、血同型半胱氨酸指标、汉密尔顿抑郁量表(HAMD-17)评分、汉密尔顿焦虑量表(HAMA)评分、青少年生活事件量表、心理弹性量表(CD-RISC)、情感气质量表（TEMPS-A）等资料。

结果 与不伴自杀未遂组比较，两组间性别、年龄、职业、居住形式、家庭居住地、父母关系、受教育水平、体重指数、精神疾病家族史、临床特征、发病前有无诱发因素、起病形式、病程、HAMA 总分、皮质醇指标、血脂指标、青少年生活事件量表各因子分均无统计学差异（P>0.05）。伴自杀未遂组 HAMD-17 中有罪感因子分、工作和兴趣因子分以及总分均高于不伴自杀未遂组（P<0.05）。伴自杀未遂组血同型半胱氨酸水平、甲状腺功能中游离甲状腺素因子分（FT4）均低于不伴自杀未遂组（P<0.05）。伴自杀未遂组 CD-RISC 总分以及各因子分均低于不伴自杀未遂组（P<0.05），伴自杀未遂组 TEMPS-A 中抑郁气质总分高于不伴自杀未遂组（P<0.05）。logistic 回归分析显示，HAMD-17 总分（OR=1.194）、FT4（OR=0.051）与青少年首发抑郁障碍患者的自杀未遂相关联。

结论 青少年首发抑郁障碍患者抑郁症状越严重，自杀未遂发生率越高；血清游离甲状腺素水平越高，越不易出现自杀行为。

关键字：青少年；首发抑郁障碍；自杀未遂；影响因素

双相障碍的症状变异研究进展（综述）

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目的 双相情感障碍是因临床表现以情绪低落和情感高涨交替出现为主要特征而得名。但这些年，不管是临床还是研究都发现：双相障碍得临床表现发生了很大变化，双相障碍不再是以情绪低落和情感高涨交替发作为主要表现的疾病，双相障碍的表现更加复杂、宽泛，不仅涉及情绪，还有认知、动机、行为、感知觉等方面的症状。并且这些症状的特点明显不同于其他精神障碍的类似症状；不仅如此，患者的发病年龄越来越小，疾病早期多有功能损害；预后变化很大，影响因素更多。这些变化为临床的诊断和治疗带来了很大挑战。本文旨在探讨准确诊断双相障碍的新维度，通过梳理双相障碍症状的结构变化、表现的变异、及其发病特点等，以期能从症状的多维度视角及症状得特征更早期、更准确诊断双相，避免漏诊；同时为治疗目标的准确把握提供依据。

方法 本文综述了近几年研究比较多的双相症状和特点，包括：双相障碍早期的功能损害、自伤与自杀、节律障碍、精神病性症状、躯体症状、睡眠障碍、共病等。

结果 通过对双相障碍症状变化及其特点的研究综述发现：双相障碍的症状结构已经发生了很大变化，已经不再是情绪低落与情感高涨交替为主要表现的疾病。情绪高涨和低落的发生特点和继发症状发生了很多变化；情绪的混合状态明显增多，其症状变异也很大。除了理情绪症状之外，早期的功能损害、非应激性的精神病理性症状、特异的自杀自伤冲动、节律障碍、片断且不特异的精神病性症状、躯体症状、睡眠和梦境异常、共病等都是双相障碍症状的重要组成部分。这些症状从现象学上讲并无特征性意义，但它们的特点，如，低龄出现、无应激或心理创伤特征、代际传递、早期的功能缺陷等，有明显的精神病理性；另外这些症状先后或同时出现，有明显的综合征特征，表明其可能有共同的精神病理。

结论 因此，修改双相障碍的诊断标准，采用多维

度的诊断方向是必要且可行的；评估早期功能、强调代际特点、分析症状特征、构筑综合征都是准确诊断的要点。重新审视双相的症状变异、制定符合这一变化的诊断标准，从而更广泛、更准确地聚焦双相障碍治。

关键字：双相障碍 抑郁 躁狂 节律障碍、自伤 自杀 躯体症状 共病

青少年双相II型误诊 1 例分析-

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目的 总结分析青少年双相II型误诊的原因与治疗方法。

方法 总结、分析。

结果 双相障碍是指既有躁狂或轻躁狂发作，又有抑郁发作的一类心境障碍。双相障碍具有“五高一低”的特点，即高患病率（终身患病率为 4.4%）、高复发率（90%的病人多次复发）、高致残率（WHO 将其列为十大致残疾病）、高死亡率（11%-19%自杀身亡）、高共病率（60%共病药物依赖），以及低龄化（50%的双相情感障碍患者首发年龄≤19 岁）。双相障碍给患者、家庭和社会带来了沉重的负担，也成为全球最迫切需要解决的精神卫生问题之一。该病例为青少年期双相II型抑郁发作的病例，双相抑郁发作急性期患者容易被误诊为抑郁症。在临床上要留意具有一些非典型特征的抑郁发作患者，如：青少年起病、伴精神病性症状、伴混合特征、产后发病、共患物质滥用及双相家族史。这些患者罹患双相II型的风险较高，诊断更难。目前我国无儿童青少年期情感障碍的诊断标准，将成人情感障碍的诊断标准用于儿童青少年对诊断的准确性存在局限。因该注意到患者临床现象学特征中存在一些与年龄相关的症状特点。这更要求临床医生在采集病史时需要全面地了解患者情绪的变化，避免误诊、漏诊。对于双相障碍的治疗关键是合理使用心境稳定剂，避免抗抑郁单药治疗。2015 年出版的《中国双相障碍防治指南（第二版）》推荐喹硫平作为双相II型抑郁发作急性期的首选药物，为 A 级证据推荐。对于双相障碍抑郁发作急性期合并抗抑郁药物应当谨慎。维持期抗抑郁药尚无定论，应给予个体化考虑。

结论 双相障碍II型好发于青少年，因为患者在疾病过程中只表现出轻躁狂症状，不影响其社会功能及日常生活，患者本身自我感觉良好，家人更难以发觉异常，容易被误诊为抑郁症。因此医务人员对双相障碍的理论知识要掌握透彻，采集病史要系统全面，各项心理测查量表要严密分析，密切观察病情变化，以有效提高青少年双相II型的确诊率，避免误诊。

关键字：青少年、双相II型、原因、治疗方法

首发青少年抑郁症中的非自杀性自伤行为相关因素分析

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目的 非自杀性自伤行为（non-suicidal self-injury ，NSSI）是指在没有自杀意念的情况下，对自己身体进组织行反复、故意、直接的伤害，且不被社会允许的行为，在 14-24 岁是 NSSI 行为的高发阶段，严重危害青少年心理健康和身体安全。NSSI 行为在青少年群体中的检出率非常高，研究显示中国大陆学生的 NSSI 行为检出率为 27.4%，而在住院精神障碍青少年患者中比率更是高达 61%，其行为不会致死、却具有危险性，高频率多部位的 NSSI 行为是自杀的独立危险因素。据报道的 NSSI 发生受到多种因素的影响，神经生物学因素、社会心理学因素等，尿酸在双相情感障碍研究中受到关注，血脂水平等与青少年的冲动行为密切相关，本研究旨在探索该行为与临床应激及代谢相关指标的联系，从而加深对该行为形成原因的理解，从而指导临床工作。目的 探索行为与泌乳素、血脂代谢、甲状腺素激素的相关性。

方法 收集从 2023 年 3 月至 2023 年 7 月在我院儿童病房住院的首次发病的青少年抑郁障碍患者共 52 例，分为 NSSI 组（33 例）和非 NSSI 组（19 例），收集两组的患者相关生化指标，使用方差分析、person 相关分析等统计方法对数据进行分析。

结果 NSSI 组在所有患者中占比为 63.5%，其中 NSSI 组 85%为女性患者，而非 NSSI 组的男性患者比率为 42%，比较均值发现，NSSI 组泌乳素、胆固醇、低密度脂蛋白高于非 NSSI 组，促甲状腺激素、总 T3、总 T4 低于非 NSSI 组，然而经单因素方差分析、其差异无统计学意义。

结论 本研究并未发现青少年抑郁症患者 NSSI 行为与他的代谢及应激指标的相关性，本研究的样本量较少，对研究有一定影响；另外，可能的因素是，由于患者的 NSSI 行为背后的心理社会学因素和生物学因素是复杂的，NSSI 行为的动因有一定的异质性；有学者将 NSSI 行为看做成瘾行为、强迫行为，并认为 NSSI 行为发生动因中有获益及社会模仿性，这告诉我们在临床中及研究时，需要对 NSSI 行为进行有效区分，使用已本土化的测量工具或进一步开发有效工具，对行为做必要的分类，在此基础上统一标准，进一步进行原因分析、干预研究。

关键字：青少年抑郁症，非自杀性自伤行为

重复经颅磁刺激治疗对单相抑郁和双相抑郁患者疗效的比较研究

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目的 探讨重复经颅磁刺激治疗对单相抑郁和双相抑郁患者疗效的影响

方法 分别对单相抑郁障碍患者（n=99）和双相

抑郁障碍患者（n=99）进行重复经颅磁刺激治疗，治疗前后用 HAMD 量表评估患者的抑郁症状，比较重复经颅磁刺激治疗前后 HAMD 抑郁量表及各因子得分（焦虑/躯体化因子、体重因子、认知障碍因子、日夜变化因子、阻滞因子、睡眠因子、绝望感因子），同时比较单相抑郁障碍患者和双相抑郁障碍患者重复经颅磁刺激治疗前后 HAMD 得分及各因子得分的差值有无意义。

结果 （1）单相抑郁组治疗前后 HAMD 量表得分总分及 HAMD 量表各因子得分存在显著差异，治疗后得分显著低于治疗前得分（t=34.262、15.011、8.304、15.706、2.568、27.348、19.997、24.387，P=0.000、0.000、0.000、0.000、0.011、0.000、0.000、0.000）。（2）双相抑郁组除睡眠因子和绝望感因子外（t=1.867、0.115，P=0.064、0.909），治疗前后 HAMD 量表得分总分及 HAMD 量表其他各因子得分存在显著差异，治疗后得分显著低于治疗前得分（t=47.232、6.599、-6.604、9.586、-7.683、10.117，P=0.000、0.000、0.000、0.000、0.000、0.000）。（3）两组患者治疗前后差值比较，结果发现，除 HAMD 量表总分、焦虑/躯体化因子、睡眠因子存在显著差异，其余因子均无统计学意义，单相抑郁障碍患者治疗前后 HAMD 总分、焦虑/躯体化因子、睡眠因子差值要高于双相抑郁障碍患者(t=2.372、2.405、2.066，P=0.019、0.017、0.040)。

结论 重复经颅磁刺激治疗对于单相抑郁和双相抑郁障碍患者均有效，但治疗效果上，对于单相抑郁的治疗效果要好于双相抑郁。

关键字：单相抑郁，双相抑郁，重复经颅磁刺激治疗

双相障碍事件相关电位 P300 研究进展

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目的 双相障碍以躁狂和抑郁交替发作为主要特征，其发病率、致残率、自杀率均较高。双相障碍病因复杂，发病机制尚不清楚。事件相关电位技术作为了解心理活动的重要手段，在精神疾病诊疗中应用较为广泛，尤其是对 P300 成分的研究。现对双相障碍事件相关电位 P300 相关研究进行综述，探究双相障碍相关的脑机制。

方法 通过综述相关研究结果，以双相情感障碍、心境障碍、双相抑郁、双相躁狂、事件相关电位 P300 等作为关键词，在 Web of Science，PubMed，CNKI 等论文数据库中进行检索。

结果 （1）事件相关电位 P300 作为双相障碍内表型诊断指标在临床上广为使用。相比健康对照组，双相障碍患者 P300 波幅显著降低、潜伏期延长。P300 为客观辅助双相障碍诊断提供了依据。但作为双相障碍不同亚型之间的鉴别效力扔需进一步探索。（2）事件相关电位 P300 对于鉴别诊断双相障碍、精神分裂症 、单双相抑郁等精神疾病具有一定的参考价值，但需要在疾病的不同阶段进行进一步验证。（3）P300 对于双相障碍治疗效果具有一定的评估作用。（4）双相障碍认知功能受损，事件相关电位 P300 可以作为评估双相障碍患者认知功能受损的有价值的神经电生理指标。

结论 事件相关电位 P300 在精神疾病中应用较为广泛，且在临床上得到一定的认可。相比其他精神疾病，P300 在双相障碍的相关研究相对较少，且研究对象多为双相抑郁患者。事件相关电位 P300 在双相障碍中的研究相对单一，且存在很多不一致性，作为双相障碍评估与诊断的客观指标证据还远远不足。日后可结合影像学、基因学与其他神经电生理指标联合诊断，提高其诊断与鉴别诊断效力，提高事件相关电位 P300 的临床应用价值。

关键字：双相障碍 心境障碍 事件相关电位 P300 认知功能

单、双抑郁的冷热执行及两任务下脑区激活差异

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目的 单双相抑郁发作鉴别困难，对其进行多维度的鉴别诊断具有必要性。本研究分别从冷执行（非情感参与的经典 Stroop 任务）和热执行（情感参与的情绪 Stroop 任务）两个角度探究这两种疾病脑区激活的差异，探寻两种疾病的执行功能机制，以期为两种疾病鉴别诊断提供依据和参考，缩短诊断周期，减轻患者疾病负担。

方法 方法：本研究从 2021 年 9 月至 2022 年 12 月在某三甲医院门诊共纳入单相抑郁组患者 35 例，双相抑郁组患者 39 例。采用自制一般人口学量表收集人口学信息、利用经典 Stroop 任务和情绪 Stroop 任务探寻被试在冷、热执行时功的脑区激活差异。

结果 1 冷执行任务一致条件下，两组患者在通道 21、42 的激活差异具有统计学意义（t= 2.56,t= 2.43,P＜0.05）,单相抑郁组激活程度显著高于双相抑郁组;在不一致条件下，两组患者在通道 1、12、34、42 上的激活差异具有统计学意义（t= -2.36,t= -2.40,t= -2.78, t= 2.163,P＜0.05）。 2 热执行任务积极情绪条件下，单相抑郁组和双相抑郁组在通道 10、21 下激活存在显著差异（t=2.029,t=2.776,P＜0.05）;在消极情绪条件下，两组患者在通道 26 上激活差异具有显著意义（t= -2.32,P＜0.05）。

结论 冷执行功能任务中，单相抑郁和双相抑郁存在激活差异的脑区为左侧背外侧前额叶、右侧中央后回、右侧三角部额下回脑区；在热执行功能任务中，两种疾病患者存在激活差异的脑区为左侧额极、左侧缘上回、以及右侧内侧额上回。冷执行和热执行任务中，两种疾病分别激活脑区不同，更主要集中在额叶区域，也更进一步验证两组患者在冷热执行功能表现上的不一致。

关键字：单相抑郁；双相抑郁；冷执行功能；热执

行功能；脑区

双相抑郁障碍与单相抑郁障碍患者认知情绪调节的差异比较

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目的 比较单双相抑郁障碍患者的认知情绪调节策略的差异，以及情绪调节与抑郁和焦虑症状之间的关系，为更好的针对单双相抑郁障碍的治疗提供理论依据。

方法 根据DSM-5诊断标准和两名以上的主治医生诊断为双相情感障碍或抑郁障碍的患者，分别入组单相抑郁障碍组，双相抑郁障碍患者组，单相抑郁障碍患者38人，双相抑郁障碍患者30人，健康人群30人。分别进行认知情绪调节问卷、汉密尔顿抑郁量表、汉密尔顿焦虑量表的测评。

结果 双相抑郁障碍患者和健康对照组在重新关注计划、灾难化分量表上存在显著性差异（P＜0.05）；单相抑郁障碍患者和健康对照组在灾难化分量表上存在显著性差异（P＜0.05）；三组人群在其他分量表上不存在显著性差异。在认知情绪调节量表的各个分量表中，抑郁评分与自我责难、沉思、理性分析和灾难化存在显著性正相关；焦虑量表评分与自我责难、理性分析和灾难化存在显著性正相关。在关于是否为适应性策略中，抑郁量表评分与不适应性策略呈显著正相关（P＜0.05）；焦虑量表评分与不适应策略呈显著正相关（P＜0.05）。

结论 单双相抑郁患者之间认知情绪调节策略具有很大的相似性，且调节策略多使用不适应策略；认知情绪调节策略与抑郁和焦虑情绪存在很大的相关性。

关键字：单相抑郁；双相抑郁；认知情绪调节

Assessment of Brain Imaging and Cognitive Function in A Modified Rhesus Monkey Model of Depression

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Objective Rodent models have limitations and do not fully recapitulate human disease, hampering clinical translation. Primate models of depression help to bridge this translational gap and facilitate research into the pathophysiology of depression. So we want to optimize a protocol for administering unpredictable chronic mild stress (UCMS) to non-human primates.

Methods Rodent models have limitations and do not fully recapitulate human disease, hampering clinical translation. Primate models of depression help to bridge this translational gap and facilitate research into the pathophysiology of depression. So we want to optimize a protocol for administering unpredictable chronic mild stress (UCMS) to non-human primates.

Results 1.Body weight and behavior differences between the UCMS and control groups. 2.Cortisol levels in plasma samples. 3.Cognitive differences between the UCMS and control groups. 4.Nuclear magnetic resonance and PET images.

Conclusion Our work highlights that the UCMS paradigm effectively induces behavioral and neurophysiological (functional MRI) changes in monkeys but without significantly impacting cognition.

关键字：UCMS, WGTA, Cognition

双相情感障碍亚群的人格特征：一项系统综述

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目的 双相障碍患者（Bipolar disorder, BD）传统上会表现为一种有明显兴奋和沮丧情绪的紊乱。大量证据强调 BD 会表现出与健康个体不同的人格结构，人格特质至少在某种程度上介导双相障碍的症状以及其他相关临床表现。我们重点关注了大五人格特质上的差异。

方法 对 PubMed、Web of science 核心合集、Embase 和 Cochrane 检索自数据库建立以来截至 2023 年 5 月 13 日发表的所有关于人格与双相障碍的临床证据，以“双相障碍”和”人格“或”气质“为关键词进行探索性搜索。经两位审查者获取全文，独立筛查后共纳入 17 篇文献。

结果 所有文献提取的人格特质与健康组相较都存在异质性。由于人格测量的病程时期、症状严重程度、药物治疗下结果存在差异，但都提示了人格特质趋向的一致性模式，即双相障碍患者都会表现出较高得分的神经质、开放性以及较低得分的外向性、尽责性、宜人性，一项为期 10 年的纵向研究认为高神经质、高开放性以及低外向性是 BD 持久的人格特征。有四项研究纳入了 BD 不同的年龄群体，低尽责性和低宜人性特质会在儿童和老年人中显著更低。易感性模型提示具备的特有人格特质可能会使个体易罹患双相或者出现双相症状，有三项横向研究对 BD 病前特质进行了分析，结果不一。其中有一项研究构建了由神经质决定的特质抑郁和由外向性和宜人性决定的特质躁狂的拟合模型，有效地被视为 BD 易感性的可分离但相关的维度。但如果需要更精确的 BD 易感性人格标志，需要前瞻性研究实现。我们发现只有一项前瞻研究探索 BD 的病前人格特质，发现并没有显著的病前特征，但由于样本数量少，并不具有代表性。

结论 BD 患者会表现出与健康个体明显不同的人格特质。临床医生必须意识到这些人格特征，以便识别并预防有风险个体。虽然目前研究在样本量、量表使用、试验范式都存在异质性，结果存在一定的差异。但不可否认客观性人格测验工具在临床上广泛应用，对

于疾病的心理病因、临床诊断、治疗以及病程预测都有一定价值。就双相障碍而言，我们今后研究的重点是如何将人格测验得到的有价值的临床资料用于解决临床工作的实际问题，提高双相障碍诊断的准确率。

关键字：双相情感障碍；人格特质；大五人格

非自杀性自伤的内分泌免疫研究进展

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目的 非自杀性自伤（Non-suicidal self-injury, NSSI）多发生在青少年和成年早期，与自杀意念和行为异常发生率增高、情绪相关疾病发生率增高及发展至难治性等相关，已作为自杀的重要危险因素。具有NSSI行为人群其内分泌和免疫发生了一些变化，探讨NSSI发生的内分泌免疫机制，可能有助于NSSI的早期预防与干预。

方法 通过中国知网、万方及Pubmed等数据库进行文献检索。

结果 1、童年创伤与人的精神疾病有着密切联系：暴露于童年创伤被诸多研究支持为NSSI发生的风险因素。童年创伤作为一个慢性应激源，可能导致了NSSI患者下丘脑-垂体-肾上腺轴（HPA轴）钝化，童年创伤作为“隐形创伤”，可能也会引发持久的全身炎症反应。 2、人体内HPA轴和炎症亦可能存在相互作用：慢性应激可以导致糖皮质激素受体(GRs)抵抗，进而导致炎症反应下调失败，炎症亦可加重GRs功能受损，加重糖皮质激素抵抗。 3、关于HPA轴的遗传和表观遗传学与认知行为治疗（CBT）相关研究表明，CBT对于青少年NSSI治疗有一定效果。研究显示尚未有精神药物对青少年NSSI具有特异性疗效。锂盐可以减少攻击性和冲动，可能对于减少NSSI行为有效。NSSI抗炎干预治疗效果的证据亦较为有限，但抗炎治疗在其他精神疾病治疗中已获得一定效果，对于NSSI未来治疗提供了一种方向。 4、NSSI患者的下丘脑-垂体-甲状腺轴（HPT轴）、下丘脑-垂体-性腺轴（HPG轴）相关研究：现有研究提示NSSI患者存在从甲状腺素(T4)到三碘甲状腺原氨酸(T3)的转化中断；从T4到T3的异常转换可能会导致乏力、抑郁和注意力集中困难。研究发现，多囊卵巢综合征（polycysticovarian syndrome，PCOS）患者表现出更多NSSI和自杀意图，并建议对PCOS患者进行终生NSSI行为和自杀意图筛查。

结论 暴露于童年创伤被诸多研究支持为NSSI发生的风险因素。童年创伤与HPA轴钝化、炎症反应关系密切。另外HPT轴、HPG轴亦可能参与了NSSI的发生。

关键字：非自杀性自伤；青少年及成年早期；下丘脑-垂体-肾上腺轴（HPA 轴）；下丘脑-垂体-甲状腺轴（HPT 轴）；下丘脑-垂体-性腺轴（HPG 轴）；免疫炎症

丙戊酸镁缓释片治疗双相情感障碍伴焦虑障碍患者的效果观察

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目的 探究双相情感障碍伴焦虑障碍患者给予丙戊酸镁缓释片进行治疗的疗效。

方法 选取本院自2018年9月-2020年7月收治的60例双相情感障碍伴焦虑障碍患者展开研究，随机将其分为对照组（n=30例）与研究组（n=30例）。照组接受富马酸喹硫平片进行治疗，2次/日，每日200-600mg，分2次让患者餐后用药。研究组采用富马酸喹硫平片联合丙戊酸镁缓释片治疗，富马酸喹硫平片用药方法同上，丙戊酸镁缓释片每天500-1000mg，分2次服用。两组患者急性期如果出现严重失眠，则加入苯二氮卓类药物治疗，两组均接受8周的治疗。

结果 研究组与对照组患者焦虑评分存在显著差异，且研究组（93.3%）治疗总有效率比对照组（73.3%）高，差异存在统计学意义（P<0.05）。

结论 两组患者焦虑评分有明显差异，且研究组患者（93.3%）治疗效果优于对照组（73.3%），组间数据比较差异明显（P<0.05）。由此可知，利用丙戊酸镁缓释片治疗双相情感障碍伴焦虑障碍患者是一种比较安全、效果明显的方式，能有效降低患者焦虑评分，从而获得理想的治疗效果。综上所述，双相情感障碍伴焦虑障碍患者通过丙戊酸镁缓释片进行治疗，不仅能有效改善患者焦虑状况，也可提高临床治疗效果，是一种值得在临床上推广应用的方法。

关键字：焦虑障碍；丙戊酸镁缓释片；临床疗效；双相情感障碍

氟西汀联合小剂量奥氮平治疗重度抑郁症的效果

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目的 分析对于重度抑郁症患者在治疗中通过运用氟西汀联合小剂量奥氮平治疗的临床价值

方法 选取2021年3月～2023年3月我院收治的80例经HAMD评分为28分以下的重度抑郁症患者为研究对象,其中女性50例，男性30例，年龄在24~64岁，均排除合并有其它精神疾病或严重的慢性躯体疾病的患者，在2个月内均未服用过抗精神病或抗抑郁药物，随机分为观察组和对照组,每组各40例,观察组使用氟西汀联合小剂量奥氮平治疗,奥氮平起始剂量为2.5mg/d，睡前口服，最高剂量不超过5mg/d，氟西汀20～40mg/d，起始剂量为20mg/d，早餐后服用，对照

组单纯应用氟西汀治疗,观察比较治疗前和治疗后 1、2、4、8 周汉密尔顿抑郁量表(HAMD)、汉密尔顿焦虑量表(HAMA)的测量结果，HAMA、HAMD 的测定数据组间比较采用 x2 检验，以 P＜0.05 为差异具有统计学意义。

结果 两组治疗前后 HAMD、HAMA 测定结果比较存在显著差异（P＜0.05），观察组降低幅度更为明显（P＜0.05），具有统计学意义。观察组治疗后 4 周疗效基本趋于稳定，治疗后 4 周与治疗后 8 周总有效率比较无显著差异（P＞0.05），无统计学意义。

结论 氟西汀联合小剂量奥氮平治疗重度抑郁症的效果显著，明显优于单纯使用氟西汀治疗，能有效改善睡眠及躯体症状，不良反应小，安全可靠，值得在临床上合理推广。

关键字：氟西汀;奥氮平;重度抑郁症

社交软件的使用对老年抑郁障碍发病率的影响

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目的 社交软件的使用可能影响老年抑郁的发病率，本研究旨在探究社交软件的使用对老年群体抑郁发病率的影响。

方法 通过宗氏抑郁自评量表在平度市随机选取的三个居委会选择无抑郁表现（SDS＜50 分）的健康老年人（无重大躯体疾病及慢性病，年龄 60-70 周岁），本人或监护人填写知情同意书后，经汉密尔顿抑郁量表评分≤7 分者入组，按照社交软件使用时长将其分为：不使用社交软件组（不使用智能设备），轻度使用组（每天使用≤2 小时），重度使用组（每天使用≥2 小时），每组各 40 名。分别在第一月末、第三月末、第六月末对三组人群进行汉密尔顿抑郁量表评分。

结果 1.三组人群三次次汉密尔顿抑郁量表评分（HAMD-17）的平均分分别为：12.8±5.2，6.5±4.8，13.6±6.3，并分别进行两两比较，其中第一组与第三组比较，(p>0.05)，差异无统计学意义。第一组与第二组比较，(p<0.05)，差异有统计学意义，第二组与第三组比较，(p<0.05)，差异有统计学意义。 2.第一组 HAMD 评分≥7 分者 11 名（其中男性 3 名，女性 8 名），阳性率 27.5%； 第二组 HAMD 评分≥7 分者 5 名（其中男性 2 名，女性 3 名）阳性率 12.5%；第三组 HAMD 评分≥7 分者 13 名（其中男性 5 名，女性 8 名）阳性率 32.5%。对阳性率分别进行两两比较，其中第一组与第三组比较，(p>0.05)，差异无统计学意义。第一组与第二组比较，(p<0.05)，差异有统计学意义，第二组与第三组比较，(p<0.05)，差异有统计学意义。

结论 社交软件可以对老年人的抑郁发病率产生积极影响和负面影响。 积极方面，社交软件可以为老年人提供便利的沟通和社交途径，方便他们与朋友、亲戚和志同道合的人交流，分享生活和体验，增强彼此之间的联系和感情，增加社交互动和生活满足感，从而减轻一些老年人的孤独感和抑郁症状。 负面影响方面，过度沉迷于社交软件可能会导致老年人与家人和朋友之间面对面交流和互动的机会减少，从而失去了重要的交流和互动渠道。另外，老年人使用社交软件存在隐私泄露、网络诈骗等风险，这可能会导致孤独和抑郁等问题。 因此，在老年人群体中，建议使用社交软件的同时注意合理、适度使用，切勿过度沉迷，同时要注意保护好自己的个人信息和安全。

关键字：老年人、社交软件、抑郁、HAMD

青少年非自杀性自我伤害的研究进展

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目的 非自杀性自伤行为（Non-suicidal self-injury, NSSI）指不带有自杀目的的自我伤害。目前 NSSI 的识别率与求诊率低，其病因以及发生机制尚未阐明，在诊治方面也缺乏相应的指南以及规范化流程。因此，本文将围绕青少年 NSSI 的流行、病因及危险因素、防范与治疗等进行系统阐述，为日后 NSSI 的诊治与研究提供依据。

方法 通过在各大文献数据库（PubMed、Google Scholar、Web of Science 等）中查找、阅读、筛选与 NSSI 相关的最新及最具代表性的文献，后总结出 NSSI 的流行病学现状、背后可能的病因、发病机制及干预和预防的手段。

结果 NSSI 在欧洲社区青少年的终身发生率约为 17%。我国则更高，2018 年，我国的青少年 NSSI 的发生率约为 18.84~25.70%，且近年来有上升趋势。NSSI 常见于多种精神障碍，高达 95%的边缘性人格障碍患者曾有过 NSSI ，超过 50%的抑郁障碍及进食障碍患者存在 NSSI。NSSI 也是预测未来自杀行为的重要标志，NSSI 实施者企图自杀的风险是非 NSSI 者的三倍。目前认为，环境、心理以及遗传等因素共同促使 NSSI 的发生，其中，不良的家庭环境与 NSSI 的关系最为密切。从心理学的角度看， NSSI 的发生与目的回避、内部的正、负强化、负性情绪认知、继发获益等有关。从生理学的角度看，NSSI 与自身 β-内啡肽下降、NSSI 促使 β-内啡肽释放以及奖赏系统功能紊乱等有关。针对 NSSI 的治疗，首先要通过药物积极治疗原发的精神障碍，在此基础上，再进行有针对性的心理治疗干预，其中认知行为治疗和辩证行为疗法获得较多的循证证据。

结论 NSSI 是一种常见于青少年的、跨病种的行为问题，由环境、心理以及遗传因素共同致病，其发病机制复杂，应综合药物与心理治疗等多种手段进行积极干预。

关键字：非自杀性自我伤害，非自杀性自伤，自我伤害，自伤，自残，青少年，NSSI，Self harm, Non-suicidal self-injury

双相情感障碍患者服用拉莫三嗪后血药浓度与剂量、疗效及不良反应的关系

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目的 使用高效液相色谱－质谱联用分析法快速测定双相情感障碍患者服用拉莫三嗪后血药浓度，结合检测结果探讨拉莫三嗪血药浓度与临床疗效及用药剂量、不良反应的关系。

方法 选取 2021 年 12 月至 2022 年 12 月在本院就诊的 60 例确诊为双相情感障碍 II 型的患者，服用拉莫三嗪治疗 56 天，分别在基线及治疗后第 2、4、6、8 周采用汉密尔顿抑郁量表－24 项（HAMD-24）、汉密尔顿焦虑量表（HAMA）、杨氏躁狂量表（YMRS）、不良反应量表（TESS）评定临床疗效和不良反应。采用高效液相色谱-质谱联用分析法测定治疗后第 2、4、6、8 周的拉莫三嗪血药浓度。采用 SPSS 26.0 软件对数据进行分析，双变量相关分析用于血药浓度与临床疗效、用药剂量及不良反应的相关性分析，配对样本 t 检验用于治疗前后疗效比较。应用受试者工作特征曲线（ROC 曲线）分析拉莫三嗪血药浓度是否能预测患者治疗是否有效。

结果 服用拉莫三嗪治疗双相情感障碍，治疗第 2、4、6、8 周末受试者的 HAMD 评分均低于治疗前（t＝26.92、22.55，P＜0. 01）、HAMA 评分均低于治疗前（t = 17.08、17.83，P＜0. 01），YMRS 评分无较大变化（t = 5.39、6.48，P > 0.05）。所测得的拉莫三嗪血药浓度与用药剂量间差异有统计学意义（r = 0. 586、0.535、0.497、0.826，P＜0. 01），血药浓度与 HAMD 评分间差异无统计学意义（r = 0.184、0.043、0.124、0.149，P > 0. 05），与 HAMD 减分率间差异无统计学意义（r = 0.058、0.074、0.033、0.009，P > 0. 05）。ROC 曲线分析表明，拉莫三嗪血药浓度预测患者治疗为有效的曲线下面积为 0.748（95%置信区间：0.669－0.827，P＜0.001），根据约登指数最大（约为 0.413）时选出截断值（cut-off 值）1.17，灵敏度为 81.3%，特异度为 60%。

结论 拉莫三嗪血药浓度与用药剂量呈正相关，与 HDMA 减分率相关性不显著，但在预测患者治疗是否有效方面有一定的价值。

关键字：拉莫三嗪，血药浓度，临床应用

拉莫三嗪对双相障碍患者血脂和甲状腺功能的影响

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目的 观察并探讨拉莫三嗪对双相障碍（bipolar disorder,BD）患者血脂、甲状腺功能的影响。

方法 回顾性收集 2021 年 12 月至 2022 年 12 月在青岛市精神卫生中心住院 BD 患者，根据是否使用拉莫三嗪分为使用组和未使用组，利用电子病历系统收集患者的人口学资料、临床资料和出入院时的代谢及内分泌指标，通过入院和出院时测量患者甘油三酯（TG）、高密度脂蛋白胆固醇（HDL-C）、总三碘甲状腺原氨酸（TT3）、总甲状腺素（TT4），以组间有统计学差异的指标变化为因变量，拉莫三嗪为自变量，进行二分类 logistic 回归，分析拉莫三嗪对各指标变化值的影响从而分析拉莫三嗪对其影响。

结果 共纳入 90 例 BD 患者，其中使用组 45 例，未使用组 45 例。使用组较未使用组病程更长[中位数 7(3, 12)年 vs. 6(2, 10)年，P=0.007]，抑郁发作比例更高（57.1%vs. 19.1%,P<0.001），TG [中位数 0.10(-0.18, 0.45)mmol/L vs. 0.34(0.02, 0.89)mmol/L,P<0.001]、HDL-C [中位数 0.01(-0.14, 0.10)mmol/L vs.-0.07(-0.25, 0.07)mmol/L,P=0.002] 、TT3[中位数 -0.02(-0.08, 0.16)mol/L vs.-0.07(-0.25, 0.04)mol/L,P=0.003]和 TT4 [(-4.88±16.39)mol/L vs.(-16.13±16.94)mol/L,P<0.001]的变化值均更小。二分类 logistic 回归分析显示，拉莫三嗪与 HDL-C 升高值正关联（OR=2.169,P=0.003），与 TT4 升高值正关联（OR=4.273,P=0.001）。

结论 拉莫三嗪可能是 BD 患者血脂和甲状腺功能的保护性因素。

关键字：双相障碍；拉莫三嗪；血脂；甲状腺功能；高密度脂蛋白胆固醇；总甲状腺素

基于外周血探索双相障碍治疗前后线粒体功能变化的研究

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目的 本研究旨在初步探索药物治疗对双相障碍患者外周血线粒体功能的影响。

方法 本研究招募首诊未服药双相患者 75 人和健康受试者 60 人，并随访双相 1 个月。使用汉密尔顿抑郁量表 HAMD、汉密尔顿焦虑量 HAMA 和杨氏躁狂量表 YMRS 评估受试者的临床症状，并通过 qPCR 检测双相患者药物治疗前后的血清循环无细胞线粒体 DNA（Circulating cell-free mtDNA，ccf-mtDNA）水平来探索双相障碍患者治疗前后外周血血清的线粒体功能改变情况。

结果 通过检测血清 ccf-mtDNA 水平来初步探索药物治疗对双相线粒体功能的影响，结果显示：①首诊未服药双相障碍患者的血清 ccf-mtDNA 水平较健康受试者显著增加（p=0.001）；②药物治疗可以明显下降双相障碍患者血清 ccf-mtDNA 的表达水平（p＜0.001），尽管不同药物组合所致双相患者血清 ccf-mtDNA 下降的水平之间没有明显差异；③药物治疗后血清 ccf-mtDNA 的变化与双相障碍临床症状的改善未见明显的相关性。

结论 本研究提示丙戊酸盐联合喹硫平这一药物组合可部分改善双相障碍患者的外周血线粒体功能障碍，考虑未来需要纳入更多的线粒体指标和药物组合来完善现有研究。

关键字：双相障碍；线粒体功能

自噬与精神疾病相关现有的证据

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目的 自噬是一种细胞内降解和回收细胞组分的过程，在维持细胞代谢平衡和细胞存活中发挥重要作用。自噬除了与神经退行性疾病、代谢性疾病、肿瘤等疾病有关，还与精神疾病中的抑郁症、双相情感障碍、精神分裂症、自闭症等精神疾病有关。自噬通路的失调可能导致神经元损伤、突触损失和神经元死亡，这些都是精神疾病的常见特征。目前对自噬在精神疾病中的具体作用机制仍不清楚。有必要进一步的研究来探索自噬与精神疾病之间的关系，并寻找可能的治疗方法。

方法 本综述回顾了目前对自噬在几种精神疾病中的作用的理解，以及迄今为止流行的新的潜在自噬相关治疗策略。

结果 自噬与抑郁症、精神分裂症、双相情感障碍、自闭症的发生和发展中起着重要作用。许多药物，如丝裂霉素和氟西汀等，已被证明可以通过影响自噬途径来治疗精神疾病。在治疗精神疾病时，调节自噬途径的基因表达以及物理治疗等可能会起到重要作用。自噬通路的激活可能有助于改善精神疾病患者的症状。

结论 目前对自噬在精神疾病中的具体作用机制仍不清楚。未来需要进一步的研究来探索自噬与精神疾病之间的关系，并寻找可能的治疗方法。总体而言，自噬作为一种新兴的治疗靶点，在未来的精神疾病治疗中可能有着重要的应用前景。

关键字：自噬；抑郁症；双相情感障碍；精神分裂症；自闭症

双相情感障碍前驱期研究进展：基于文献计量学分析

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目的 基于文献计量对近10年双相情感障碍前驱期研究的的核心研究国家、核心作者、研究热点和未来发展趋势等进行可视化分析。

方法 采用双相情感障碍和前驱期（高危人群）的英文名称及缩写为主题词，检索 Web of science 核心数据库，选择建库以来所有的文献，文献导出包含引文信息的纯文本格式。采用 R 包 Bibliometrix 4.0.1 进行文献计量学及数据可视化，对检索概况、作者、期刊来源、文献情况、发文国家、机构、关键词等内容进行分析。

结果 共纳入分析文献 5403 篇，自 2013 年至今，发文量年平均增长率达到 69.51%，平均每篇文章被引 22.06 次，38.44%的文章为国际间合作，近十年该领域仍在快速发展的过程中；研究国家主要集中在美国（1284 篇,23.76%)、中国（615 篇, 11.38%）、英国（404 篇, 7.48%）,而被引最高的国家依次为美国、英国、澳大利亚；核心作者包括 VIETA E、NORDENTOFT M、MORS O 等；研究热点从临床预测趋向于进行治疗干预研究、机制研究等；基因方面，主要涉及到 BDNF、CRP、INS 等基因；同时，值得注意的是因子分析提示双相情感障碍前驱期与精神分裂症前驱期的鉴别仍是研究重点。

结论 双相情感障碍前驱期逐步成为国际热点，我国在该领域具有一定影响力，但仍有待进一步提高，未来可以进一步挖掘神经影像或者生物学机制，进而探索早期干预的方案。

关键字：双相情感障碍；前驱期；文献计量

奥氮平联合丙戊酸钠治疗青少年双相情感障碍的血药浓度与临床效果分析

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目的 ：探讨奥氮平联合丙戊酸钠治疗青少年双相情感障碍的血药浓度与临床效果。

方法 选择本院 2021 年 4 月—2023 年 4 月收治的 150 例青少年双相情感障碍患者为研究对象，所有研究对象给予奥氮平联合丙戊酸钠治疗，治疗 15 d 后对所有研究对象进行血药浓度监测，然后进行调整剂量，持续治疗 15d 后再次对所有研究对象的血药浓度进行检测，分析比奥氮平联合丙戊酸钠治疗不同时间段（治疗 15d、30 d 后）血药浓度与治疗效果。

结果 青少年双相情感障碍患者采用丙戊酸钠治疗在不同时间段（治疗 15d、30 d 后）的药物使用剂量与血药浓度对比具有显著差异（P<0.05)。相对于治疗 30d，采用丙戊酸钠治疗 15d 后的使用剂量更少（P<0.05)；相对于治疗 30d，采用丙戊酸钠治疗 15d 后的血药浓度更低（P<0.05)；青少年双相情感障碍患者采用奥氮平治疗在不同时间段（治疗 15d、30 d 后）使用剂量与血药浓度对比具有显著差异（P<0.05)；相对于治疗 30d，采用奥氮平治疗 15d 后的使用剂量更低（P<0.05)；相对于治疗 30d，采用奥氮平治疗 15d 后的血药浓度的更少（P<0.05)；150 例青少年双相情感障碍患者经过治疗后，125 例为显效（83.33%),25 例为有效（16.67%), 治疗总有效率为 100.00%；治疗后患者的副作用 TESS 评分为（ 1.23+0.06）分。

结论 采用丙戊酸钠与奥氮平治疗青少年双相情感障碍治疗根据患者血药浓度调整药物剂量，保证最小剂量达到有效血药浓度，可在未来临床中加以运用和推广。

关键字：奥氮平；丙戊酸钠；青少年双相情感障碍；

血药浓度

双相情感障碍患者冲动攻击行为影响因素分析

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目的 分析双相情感障碍患者冲动攻击行为影响因素，为制订有效的干预措施、减少双相情感障碍患者冲动攻击行为提供借鉴资料。

方法 以 2020 年 1 月～2022 年 12 月医院明确诊断为双相情感障碍的患者为研究对象，修订版外显攻击行为量表（MOAS）评估其冲动攻击行为状况，收集患者的人口学资料（性别、年龄、受教育程度、居住模式）、疾病特征（起病形式、疾病分类、初/复发、发病前应激事件、自知力）及生物学检查指标[肌酸激酶（CK）、肌酸激酶同工酶（CK-MB）、脑电地形图]，通过单因素、多因素 logistic 回归分析，以上各项是否双相情感障碍患者冲动攻击行为影响因素。

结果 双相情感障碍患者 1028 例，有冲动攻击行为 194 例（18.87%）。单因素分析发现不同起病形式、疾病分类、初/复发、发病前应激事件、自知力、CK、脑电地形图情况的双相情感障碍冲动攻击行为发生率差异有统计学意义（P＜0.05）。多因素 logistic 回归分析提示疾病分类（OR=0.163）、初/复发（OR=1.972）、发病前应激事件（OR=2.115）、自知力（OR=2.980）、CK（OR=1.355）、脑电地形图（OR=2.395）是双相情感障碍患者冲动攻击行为影响因素。

结论 双相情感障碍患者冲动攻击行为发生风险高，双相障碍 I 型、复发、发病前有应激事件、自知力损伤、CK＞上限值、脑电地形图异常会增加双相情感障碍患者冲动攻击行为，可针对双相情感障碍患者个体情况提前采取有效干预措施以减少冲动攻击行为。

关键字：双相情感障碍；冲动攻击行为；外显攻击行为量表；影响因素

非自杀性自伤行为成瘾的研究进展

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目的 非自杀性自伤（Nonsuicidal self-injury，NSSI）是一个严重的临床问题，由心理、社会和生物学因素交互作用所致，最常发生于青少年及成年早期。心理和社会因素一定程度上指导了自我伤害心理社会干预方法。非自杀性自伤的生物学机制尚不明确，部分患者自伤行为具有成瘾特点，导致纠正和治愈困难。针对 NSSI 成瘾发生的心理社会因素及生物学指标进一步探究，将有助于 NSSI 的早期预防及有效干预。

方法 通过中国知网、万方及 Pubmed 等数据库进行文献检索。

结果 1 社会-心理研究：情绪调节缺陷是 NSSI 的核心过程，NSSI 行为可以使患者从负面情绪中解脱，而情绪缓解的同时会强化 NSSI 行为，最终导致其发展为成瘾行为。 2 内源性成瘾物质研究：有 NSSI 史的成年人体内 β-内啡肽水平较低，疼痛刺激导致患者体内 β-内啡肽的瞬时升高及阿片受体、多巴胺的激活会使患者产生愉悦感，而患者处于负面情绪时会对这种感觉产生渴求，导致自伤的反复发生，最终演变为成瘾。 3 神经影像学研究：NSSI 患者和成瘾人群均可发生前额叶皮层受损，且青少年 NSSI 患者杏仁核（情感活动）与辅助运动区（习惯性行为）静息态功能连接过度。此外，NSSI 患者奖赏区域脑活动的异常增强可能导致多巴胺释放增加，奖赏效应增强。 4 神经内分泌研究：HPA 应激系统和阿片系统(β-内啡肽)密切相关，阿片类物质和多巴胺能系统及 HPA 轴在前脑中相互作用，均可以由精神活性药物或行为激活。 5 与其他成瘾行为共病研究：物质成瘾与行为成瘾存在基因、环境及神经生物学等多方面相似的易感素质，如具有奖赏回路的相似活动，大脑学习与记忆系统发生改变，相似的奖赏系统基因易感性及病理性神经适应过程，存在多种递质系统的失调。这些均导致 NSSI 易与其他具有成瘾特征的行为或疾病共病，如进食障碍、物质滥用、网络及手机成瘾。

结论 NSSI 行为具有一定成瘾性。

关键字：非自杀性自伤；成瘾；青少年；β-内啡肽

共情护理在双相情感障碍患者中的应用效果探究

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目的 探究双相情感障碍患者应用共情护理的有效性。

方法 采用对照试验的方法，选择我院精神科病房在 2022 年 1 月至 2022 年 12 月期间住院的 80 例符合纳入标准的双相情感障碍的患者，使用硬币法将 80 例双相情感障碍患者分为两组，对照组与观察组各为 40 例，其中接受传统护理的小组为对照组，接受共情护理的小组为观察组，将两组双相情感障碍患者的护理效果展开对比。

结果 共 80 例双相情感障碍患者完成了研究。两组患者的负性情绪改善程度对比：观察组护理后 NOSIE 评分高于对照组，（P＜0.05）。两组患者社会功能对比：观察组的日常生活能力、社会功能缺陷、SFRS 评分低于对照组，（P＜0.05）。两组患者 SAS 焦虑评分和 SDS 抑郁评分对比：观察组 SAS 焦虑评分和 SDS 抑郁评分低于对照组，（P＜0.05）。两组患者的护理满意程度对比：观察组的护理满意度评分（规范护理、服务态度、健康宣教和住院环境）更高，与对照组相比，（P＜0.05）。

结论 共情护理在双相情感障碍患者的护理中具有突出效果，可以改善患者的照护满意度，改善患者的

生活品质，提升护士的共情能力和护患交流技能，提升护理质量，减少患者的负面情绪，值得推广。

关键字：双相情感障碍；共情护理；社会功能；焦虑评分；抑郁评分；护理

基于循证的遗传咨询对双相情感障碍患者生活质量的应用效果研究

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目的 通过基于循证的遗传咨询对双相情感障碍患者进行干预以提高目标人群的生活质量

方法 开展随机对照试验，采用目的抽样对在上海市精神卫生中心选取研究对象，并将按照 ICD-11 中诊断的双相情感障碍标准的住院患者纳入目标人群。纳入标准：年龄大于 18 岁；稳定期患者；知情同意；排除标准：器质性，思维认知混乱的患者。通过预实验结果确定样本量，并进行随机分组。研究前通过循证文献回顾，总结构建遗传咨询方案。通过对对照组采用常规护理和健康宣教，实验组在对照组基础上进行遗传咨询干预。在患者出院前 1 周进行一对一咨询，并分别在咨询后 1 个月和 3 个月进行随访。采用一般调查问卷，自我效能量表、生存质量量表，病耻感量表和患者的服药依从性调查表在遗传咨询前和出院后1个月、3 个月进行评估。研究的主要结局指标为双相情感障碍的生存质量，次要结局指标为自我效能和病耻感。

结果 通过干预，获取患者咨询前、出院后 1 个月、3 个月的研究数据。两组基线资料（P＞0.05），不具有可比性。本研究预期结果是干预后实验组的生活质量评分显著高于对照组，在自我效能和病耻感，服药依从性方面均优于对照组。

结论 基于循证的系统化的遗传咨询可提高双相情感障碍患者的生活质量。

关键字：遗传咨询 双相情感障碍 生活质量

Signatures of Autophagy-related Genes As Diagnostic Markers of Bipolar Disorder

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Objective Bipolar Disorder (BD) is a debilitating mental illness and one of the primary causes of suicide. Diagnosis of BD is primarily based on the subjective identification of symptom clusters by psychiatrists,resulting in a high rate of misdiagnosisThis study attempted to develop and validate a multigene joint signature for diagnosing BD based on autophagy-related genes (ARGs) and to explore their biological role in BD .

Methods We downloaded data from the Gene Expression Omnibus (GEO) database and retrieved ARGs from the Human Autophagy Database. The limma package in R software was used to identify differentially expressed genes (DEGs).

Results In this study, we identified differentially expressed 13 ARGs in BD compared to controls. A signature of autophagy-related genes (DICER1, MTDH, PTPN22, AP2S1, SESN1) was obtained. ROC analysis showed that our model has good diagnostic performance (AUC=0.779, 95% CI=0.709-0.848).

Conclusion We identified a novel four-ARG gene signature that has good diagnostic performance in BD.

关键字：autophagy-related genes;Bipolar Disorder;diagnostic markers

非侵入性脑刺激技术在双相障碍抑郁发作中的应用研究进展

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目的 本综述根据国内外研究成果对非侵入性脑刺激技术治疗双相障碍抑郁发作的研究进展和安全性加以阐述，并探究了非侵入性脑刺激技术在双相障碍抑郁发作治疗中常用的方案，以期为其临床应用提供可能的治疗参考以及为未来的研究提供指向。

方法 通过对 Pubmed、Embase、知网、万方、维普电子数据库的多次检索，以查找从建库到 2023 年 5 月发布的文章。优先选择已发表的 Meta 分析、随机对照试验和最近的研究，以提供对双相障碍抑郁发作患者非侵入性脑刺激法研究的全面和最新综述。

结果 大部分研究表明非侵入性脑刺激技术干预双相障碍抑郁发作患者是有效、安全和易耐受的，部分研究显示该技术对认知功能也有一定的改善作用。但不同干预方案取得的疗效有所差异，影响疗效的因素可能有方案因素（刺激种类、刺激靶区、持续时间、强度、频率等）和研究设计因素（样本量小、个体异质性等）。

结论 非侵入性脑刺激技术作为一类无创、无痛、安全性、耐受性较好的方法，在双相障碍抑郁发作的治疗中取得较为肯定的疗效。但非侵入性脑刺激技术在治疗双相障碍抑郁发作中的作用机制、远期效应以及潜在风险还需大型、高质量的基础研究与临床随机对照试验来探究；其次非侵入性脑刺激技术治疗参数多而不统一，未来需探究最佳治疗方案，实现个性化的治疗策略；最后非侵入性脑刺激技术改善双相障碍抑郁发作患者的认知功能需进一步证实。随着非侵入性脑刺激技术研究的不断深入发展与完善，可能有望成为双相障碍抑郁发作安全可靠的一种附加疗法。

关键字：双相障碍；抑郁发作；非侵入性脑刺激技术；经颅磁刺激术；经颅直流电刺激术。

丙戊酸钠缓释片与血小板

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目的 评价精神科患者使用丙戊酸钠缓释片预防癫痫的安全性和有效性。

方法 选择中国知网数据库、中华医学期刊全文数据库，以“丙戊酸钠”、“血小板减少”为关键词，检索个案报道及研究性文献，并逐篇查阅原文，排除<18 岁患者使用丙戊酸钠致血小板减少症的报道，排除可能由疾病本身导致的血小板减少症的案例。

结果 丙戊酸是一线广谱的抗癫痫药，可用于治疗全面性癫痫、部分性癫痫及肌阵挛癫痫发作。此外，作为一种心境稳定剂，已被用于治疗与双相情感障碍相关的躁狂症和其他精神疾病。其抗癫痫机制是：通过增加脑内抑制性神经递质 γ-氨基丁酸的含量来降低神经元膜的作用。其不良反应（ADR）有恶心、呕吐、腹泻、眩晕、震颤、共济失调、复视、脱发、肥胖、白细胞减少、血小板减少、肝功能损害等。 丙戊酸钠引起血小板减少的确切机制尚不清楚；它可能是由于血小板破坏的增加以及破坏血小板的自身抗体的形成，或由于对骨髓的直接毒性作用而导致产量下降。实验室研究表明，丙戊酸钠通过抑制红细胞分化和激活骨髓-单细胞通路扰乱造血稳态。血小板减少症最常见的临床表现为出血时间延长、实验室血小板检测异常或瘀点性出血。 血小板减少是与丙戊酸钠使用相关的最常见的实验室异常，大多数，但不是所有的研究表明这种相关性。总的来说，在已发表的文献中，丙戊酸钠相关血小板减少的发生率在 3%到 40%之间，临床显著血小板减少的发生率约为 10%。虽然丙戊酸钠介导的血小板减少的确切机制尚不清楚，但免疫介导的血小板破坏和对骨髓的直接毒性都被推测为可能的病因。 药源性血小板减少症是因某些药物致使外周血血小板计数减少（低于正常值）而导致的出血性疾病。当药物所致血小板计数<100*109/L 时可诊断为血小板减少症。药源性血小板减少症按药物作用机制分为骨髓抑制性血小板减少症、免疫性血小板减少症、非免疫性血小板减少症。

结论 精神科患者使用丙戊酸钠缓释片预防癫痫总体上是有效的安全的，特别是在中老年患者使用此药时，由于合并症多、合并用药多，发生血小板减少不容易被发现，更应该定期监测血常规及血小板，防止出现严重并发症。如在用药过程中发现有血小板减少，应及时停药。并定期监测血小板直至其恢复正常。

关键字：丙戊酸钠，血小板减少，癫痫。

综述：治疗双相情感障碍昼夜节律紊乱的研究进展

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目的 生物节律变化是双相情感障碍的核心特征，特别是在睡眠-觉醒周期中的昼夜节律紊乱（Circadian rhythm disruption）。目前证据认为调节 BD 患者的昼夜节律，会参与 BD 病理生理学和药物反应，从而达到治疗干预的目的。目前昼夜节律紊乱治疗相关研究愈加广泛，本文就此从人际社交节律疗法（Interpersonal and Social Rhythm Therapy，IPSRT）、光疗法（Light and Darkness Therapies）、药物锂治疗（Lithium）的现有证据进行分析，并予以建议。

方法 从 Pubmed、知网等数据库查找相关文献进行梳理和回顾以作综述。相关检索词为：Bipolar disorder/双相情感障碍；Circadian rhythm disruption/昼夜节律紊乱；Treatment/治疗。

结果 IPSRT 从最初用于治疗重度抑郁症逐渐运用于 BD 的治疗，通过调节患者的日常生活规律、改善患者的社交关系、学习处理正性负性生活事件等方式以稳定患者的社会节律，从而稳定昼夜节律。研究表明 IPSRT 对I型双相情感障碍患者的疗效和既往药物治疗方案相当，对于抑郁相的患者疗效会更好，并能降低其自杀的风险。光疗法通过改变光照调节昼夜节律，其中黑暗疗法可以纠正躁狂相患者的昼夜节律紊乱，强光疗法对于抑郁相患者有重要的昼夜节律益处。药物研究一致支持锂具有改善昼夜节律的潜在作用，可能存在的机制是影响先前建立的昼夜节律基因表达和促进褪黑素的释放，从而延迟睡眠-觉醒节律，提高日常生活的规律性。

结论 目前研究表明 IPSRT 减少 BD 患者的抑郁症状有效。但是样本量小、研究范式不标准，需要对 IPSRT 进行更大规模的随机化处理，以更清楚地阐明其收益。光疗不管是单独使用或联合药物治疗均发挥出改善抑郁症状的作用，联合药物治疗能更快地控制症状和减少自杀的风险。但是光疗仍处于临床试验早期，需要采用统一的参数标准以得到更为准确的实验结果，完善不良反应的统计。调节昼夜节律能够改善 BD 患者的躁狂和抑郁症状，提高患者的生活质量和社交功能，减少患者自杀的风险。在平时 BD 治疗时，可以监测 BD 睡眠节律、记录日常活动、检测褪黑素水平等，以便早期干预，改善预后，提高患者生活质量。

关键字：双相情感障碍 昼夜节律 治疗

慢病管理在 1 例双相情感障碍合并高血压及 2 型糖尿病护理中的应用体会

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总结慢病管理在 1 例双相情感障碍合并高血压及 2 型糖尿病护理中的应用体会。慢性病即慢性非传染性疾病，是一类起病隐匿、病程长且病情迁延不愈、病情负责，且有些商未完全被认为的疾病总称。慢性病已成为全球的一项重大公共卫生问题，党的二十大报告也首次提出要“加强重大慢性病健康管理”。中国现有慢性病患者人数已超过 3 亿，由慢性病导致的疾病负担占总疾病负担的近 70% ，造成的死因占人口死亡的

85% 左右，若不加以控制，到 2030 年，352 万人会因此过早死亡。在国际上，对慢性病的治疗更加强调管理而非治愈，且这种管理伴随患者终身，涉及患者的日常生活，目的是避免加重病情，发现并避免复发，以及减缓疾病的进展。慢性非传染性疾病(简称慢性病) 主要包括高血压、心脑血管疾病、糖尿病和癌症等，其发病多因多果，且不同疾病间互为因果，难以彻底治愈。有流行病学调查结果显示，近年来越来越多的精神障碍患者同时合并一种或以上基础性疾病，其中高血压是为常见的合并症之一。研究指出，合并高血压患者常会产生更 多的情绪反应，以及不同程度的抑郁表现，导致患者认知功能下降，加重精神障碍病情，给临床护理工作带来极大的困难。因此慢病管理在精神障碍患者合并一种或以上基础性疾病中应用有重大意义。本文总结慢病管理在 1 例双相情感障碍合并高血压及 2 型糖尿病护理中的应用体会，为住院患者提供精神科风险评估及管理、疾病健康教育及支持、个性化护理相关护理措施， 提升精神障碍合并慢性病患者的自我健康素养。

关键字：慢病管理，双相情感障碍，高血压，2 型糖尿病

双相情感障碍中端粒长度与线粒体功能障碍的关系

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目的 双相情感障碍仍缺乏特异性的诊断标志物。端粒长度在双相情感障碍中有不同程度的缩短，线粒体基因拷贝数也要不同程度的下降。有研究表明，端粒长度于线粒体功能障碍存在联系，可能与性别相关。在不同性别的双相情感障碍患者中，相同分子的变化水平不一，本研究探讨不同性别的双相情感障碍中端粒长度与线粒体功能障碍的关系。

方法 随机入组 BDI型发作期患者 N=4(男性 2 人，女性 2 人)，年龄 18-65 岁之间。在入院第一天获得知情同意，记录人口学资料和临床信息，完成量表评估，用杨氏躁狂量表评估躁狂期的症状，汉米尔顿焦虑量表评估焦虑症状的严重程度，儿童期创伤量表评估儿童期创伤情况。每例于清晨抽取外周静脉血，提取 DNA 保存于-80℃，用 QPCR 法检测端粒长度以及线粒体基因拷贝数，用 spss23.0 版本进行独立样本 t 检验。

结果 端粒长度均值男性组 6.89，女性组 1.56，线粒体基因拷贝数均值男性组 51.28，女性组 35.94，两组之间 p=0.059,线粒体基因拷贝数 p=0.250

结论 在双相情感障碍之间端粒长度和线粒体基因拷贝数在性别方面无显著差异。说明可以进行下一步的扩大样本量或是增加更有意义的方面寻找关联性。

关键字：双相情感障碍，端粒长度，线粒体基因拷贝数

外周犬尿氨酸通路代谢产物与双相障碍自杀行为的关联研究

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目的 自杀是重大的公共卫生问题，同时双相障碍是一类高自杀风险的精神障碍。外周血中犬尿氨酸通路被分别报道在自杀和双相障碍中存在代谢异常，但在双相障碍自杀中的代谢特征仍不明确。因此本研究旨在探讨伴有自杀行为的双相障碍抑郁发作患者的外周血中犬尿氨酸通路是否存在异常，及其特点。

方法 本研究共纳入95名符合国际疾病分类第十版“双相情感障碍”诊断标准，目前处于抑郁发作的双相障碍患者，以及年龄、性别与患者组匹配的 30 名健康对照。使用简明国际神经精神访谈问卷自杀模块将患者分为伴自杀行为（66 名）和不伴自杀行为（29 名）两组。使用汉密尔顿抑郁、焦虑量表评估抑郁、焦虑症状严重程度。采集所有受试者的静脉血浆，通过超高效液相色谱-串联质谱法检测并定量分析犬尿氨酸通路代谢物。以年龄作为协变量，应用协方差分析进行组间比较，对不同代谢物进行多重比较校正。外周血浆代谢物浓度和抑郁、焦虑水平以及自杀状况之间的关系分别使用 Pearson 和 Spearman 相关性分析。

结果 相较于不伴自杀行为的双相抑郁患者和健康对照，伴自杀行为患者组的外周血浆犬尿喹啉酸和吡啶甲酸浓度下降，犬尿喹啉酸与犬尿氨酸的比值下降（p 均＜0.05），与抑郁、焦虑严重程度之间不存在有统计学意义的相关关系（p 均＞0.05）。在双相障碍患者中，犬尿喹啉酸和吡啶甲酸浓度、犬尿喹啉酸与犬尿氨酸的比值与自杀严重程度之间存在负相关关系（p 均＜0.05）。

结论 伴自杀行为的双相抑郁患者的外周犬尿氨酸通路存在神经保护性分支代谢下降。

关键字：自杀，双相障碍，犬尿氨酸通路，外周

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伴与不伴非自杀性自伤行为青少年抑郁障碍自尊、冲动水平的对照研究

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目的 比较在伴与不伴非自杀性自伤（NSSI）行为的青少年抑郁障碍患者自尊及冲动水平的差异，为进一步探索伴 NSSI 青少年抑郁障碍患者的心理行为特征和干预导向提供临床帮助。

方法 将我院 2022 年 7 月至 12 月在儿少精神科住院的首发青少年抑郁障碍患者作为研究对象，共纳入 104 例（男 22 人，女 82 人），参照 NSSI 的评估标准，将研究对象按照是否伴有 NSSI 行为分为研究组（伴 NSSI）66 例和对照组（不伴 NSSI）38 例，两组治疗前均进行汉密尔顿抑郁量表（HAMD-17）、抑郁自评量表（SDS），临床疗效总评量表病情严重程度（CGI-SI）、自尊量表（SES）、Barratt 冲动量表（BIS-11）的评定，比较两组间的差异。同时对研究组内自尊量表评分与冲动量表评分进行相关性分析。

结果 两组被试对象的 HAMD-17、SDS、CGI-SI 评分差异无统计学显著性（P＞0.05），从疾病严重程度看两组具有可比性。研究组自尊量表评分（21.37±3.85）低于对照组（23.96±2.13）（P＜0.05），研究组 Barratt 冲动量表总分（74.63±10.26）显著高于对照组（65.34±9.05）（P＜0.01）。研究组内自尊评分与冲动总分之间没有统计学相关性（P＞0.05）。

结论 伴 NSSI 的青少年抑郁障碍其自尊水平可能相对没有 NSSI 行为的患者更低，自我认同感更差。相对不伴有 NSSI 者，伴 NSSI 者冲动水平更高，以此或许能够部分地解释为什么此类青少年在患有抑郁障碍后更容易表现出 NSSI 行为，降低其冲动水平可能对减少 NSSI 行为的发生有一定的临床效应。伴 NSSI 青少年抑郁障碍高冲动水平与低自尊水平之间没有显著的相关性。

关键字：青少年抑郁障碍，非自杀性自伤，自尊，冲动

威廉姆斯生活技能训练对伴非自杀性自伤行为青少年抑郁障碍焦虑水平和应对方式的影响

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目的 探讨威廉姆斯生活技能训练（Williams Life Skills Training，WLST）对伴非自杀性自伤行为（Non-Suicidal Self-Injury，NSSI））青少年抑郁障碍焦虑水平和应对方式的影响。

方法 以我院 2022 年 7 月-2022 年 12 月期间在儿少精神科住院的伴有非自杀性自伤行为的青少年抑郁障碍患者 124 人作为研究对象，随机分成研究组（60）和对照组（64 人）。研究组在接受药物治疗的同时还将接受为期 4 周的 WLST，而对照组只接受药物治疗。两组干预前后均完成焦虑自评问卷（SAS）和特质应对方式问卷（Trait Coping Style Questionnaire，TCSQ）。

结果 1、两组干预前后焦虑自评总分的比较显示，4 周后研究组 SAS 总分（43.28±5.91）较干预前（69.33±6.87）显著减少（P＜0. 01），对照组（45.11±6.01）也较干预前（67.15±6.83）显著减少（P＜0. 01），而 4 周后研究组与对照组两组间比较无统计学显著性（P＞0.05）；2、两组干预前后应对方式评分的比较显示，研究组 TCSQ 中积极应对评分（34. 55±5. 53）较干预前（29. 18±5. 36）显著升高（P＜0. 01），消极应对评分（27. 35±5.22）较干预前（31. 29±5. 91）显著降低（P＜0. 01），对照组前后比较无统计学显著性（P＞0.05）。

结论 在药物治疗的基础上，虽然在短时间内（4 周）WLST 没有显示出对伴非自杀性自伤行为青少年抑郁障碍焦虑水平更有效地改善，但是能够更有效地改善此类患者的应对方式，减少消极应对的同时提高积极的应对能力，从而更有效、更显著地减少了青少年抑郁障碍非自杀性自伤行为的发生。

关键字：生活技能训练，青少年抑郁障碍，非自杀性自伤行为，焦虑，应对方式

注意缺陷多动障碍儿童不同治疗方案下持续性操作测试的比较

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目的 探索盐酸哌甲酯、盐酸托莫西汀和脑电生物反馈训练对注意缺陷多动障碍(ADHD)儿童的治疗效果，分析不同治疗方案疗效的差异，为疗效评估及治疗选择提供参考依据。

方法 将 67 例 ADHD 患儿分为三组：哌甲酯组(n=24)、托莫西汀组(n=20)和反馈训练组 (n=23)，采用持续性操作测试任务在12周治疗前后分别评估ADHD儿童的行为学表现做为疗效评估的指标，记录并比较治疗前后的反应时间，反应时间变异性（IIV），击中率和虚报率。

结果 1)三组治疗前后组内比较：哌甲酯组：治疗后反应时间[（460.57±100.42）ms]较治疗前[（533.05±117.31）ms]明显缩短，IIV[（153.59±48.51）ms]较治疗前[（192.07±73.32）ms]明显缩短，击中率[0.97(0.94, 0.99)]较治疗前[0.94(0.81, 0.97)]明显提高，虚报率[0.02(0.01, 0.06)]较治疗前[0.06(0.01, 0.09)]明显降低，差异均具有统计学意义（P<0.05）。托莫西汀组：治疗后反应时间[（491.74±109.88）ms]较治疗前[（556.90±117.51）ms]明显缩短，击中率[0.94(0.83, 0.99)]较治疗前[0.89(0.66, 0.97)]明显提高，差异均具有统计学意义（P<0.05）。生物反馈组：治疗前后行为学数据差异无统计学意义（P>0.05）。2)三组间疗效差异分析：

差值分析：三组间治疗前后反应时间差值存在显著差异（F=4.172，P=0.02），哌甲酯组和托莫西汀组反应时间差值均大于生物反馈组，差异具有统计学意义（P<0.05）；IIV 差值三组之间存在显著差异（F=3.485，P=0.037），哌甲酯组 IIV 差值大于生物反馈组，差异具有统计学意义（P<0.05）。有效率分析：三组击中率以及虚报率的有效率差异具有统计学意义（2=6.249，P=0.044），其中哌甲酯组均高于反馈训练组，差异具有统计学意义（P<0.05）。

结论 盐酸哌甲酯提高 ADHD 儿童注意稳定性和改善多动冲动有优势；托莫西汀能改善注意力，药物治疗 ADHD 疗效优于脑电生物反馈训练。

关键字：注意缺陷多动障碍；药物治疗；脑电生物反馈训练；持续性操作测试；学龄期儿童

新冠流行期间学校关闭前后青少年的焦虑和抑郁症状

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目的 青少年的学业压力大。因此，有必要通过纵向研究来探讨学校环境是否会导致青少年不良的心理状态。我们比较了青少年在学校和家中的心理状况，因为我们有青少年在学校学习时的基线心理数据。我们假设学校教育对青少年的心理健康有负面影响。

方法 从 2020 年 2 月到 4 月，所有青少年都离开了学校，在家上网课。我们调查 5 所具有代表性的中学，这些学校的停课政策和病毒感染率相似。我们采用全面抽样的方法，对这 5 所学校的所有学生进行了两轮调查。第一轮（T1）于 2019 年 11 月 22 日至 2020 年 1 月 4 日进行。第二轮（T2）于 2020 年 3 月 21 日至 31 日在学校停课期间进行。所有青少年均为 7 年级（13 岁）、8 年级（14 岁）和 9 年级（15 岁）。该方案获得了伦理研究委员会批准，并获得监护人的知情同意。

结果 在 T1 期和 T2 期分别获得了 13637 份和 10216 份有效问卷。T2 期的青少年年龄（14.33±1.12 岁）比 T1 期（13.77±1.02 岁）大（P<0.001）。T1 期青少年的抑郁症状发生率（OR，1.36；95%CI，1.30-1.42；P<0.001）和焦虑症状（OR，1.61；95%CI，1.51-1.71；P=0.001）高于 T2 期。我们在 T2 中随机选择了 202 名无调查对象，并确保他们知道如何在线完成问卷调查。T2 组未发现显著的非应答偏倚（P>0.05）。T2 组抑郁和焦虑症状的发生率分别为 14.86%（95%CI，14.17%-15.55%）和 7.44%（95%CI，6.93%-7.95%）。调整无反应的影响后，发生率分别为 14.26%（95%可信区间，13.60%-14.92%）和 8.28%（95%置信区间，7.71%-8.85%）。

结论 学校环境可能与青少年的心理压力有关，这种心理压力在离开学校后居家时会得到缓解。我们的研究受到不同测量方法的限制，第一轮调查是纸笔调查，而第二轮调查是在线问卷星调查。

关键字：青少年，抑郁，焦虑，教育

父母教养方式对大学生感戴的影响：互惠倾向的中介作用

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目的 探讨父母教养方式和互惠倾向对大学生感戴水平的影响，以及互惠倾向的中介作用。

方法 采用父母教养方式评价量表（EMBU）、个体互惠规范量表（PNR）、大学生感戴量表（GRAT）对 284 名高校本科生进行问卷调查。

结果 ①在感戴总分上，女生得分显著高于男生（t=-2.36，P<0.05）；②父母教养方式中，除父母亲偏爱因子外，其余因子均与感戴总分显著相关（r= -0.466—0.441，P<0.01），正向互惠与感戴总分呈显著正相关（r=0.409，P<0.01）；③父亲拒绝、否认、贬低以及母亲惩罚、严厉的父母教养方式显著地负向预测感戴总分(β=-0.282，-0.206；P<0.05）；父亲关心理解、情感温暖显著地正向预测感戴总分(β=0.392；P<0.01）;④正向互惠显著地正向预测感戴总分(β=0.728；P<0.01）；负向互惠显著地负向预测感戴总分(β=-0.515；P<0.01）；⑤正向互惠在父亲拒绝、否认、贬低因子（F5）和大学生感戴之间存在部分中介作用；正向互惠在母亲惩罚、严厉因子（M4）和大学生感戴之间也存在部分中介作用。

结论 父母教养方式、互惠倾向对大学生感戴水平有重要影响，父母教养方式可独立影响大学生感戴水平，也可通过互惠倾向对大学生感戴产生间接影响。采用恰当的父母教养方式，培养“以德报德”的正向互惠倾向，有助于感戴水平的提升。

关键字：父母教养方式、感戴、互惠倾向、正向互惠、负向互惠

多学科联合诊疗对住院儿童青少年自伤自杀性行为干预的效果分析

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目的 选取 2022 年 3 月—2023 年 3 月宁夏回族自治区宁安医院儿童青少年科住院 11-16 岁有自伤自杀行为的儿童青少年患者 60 例作为研究对象。患者入院后第一周进行社会功能缺陷、焦虑抑郁严重程度、精神病性症状及自伤自杀风险评估，拟定干预方案，在有儿科医生、药学、康复师、营养师、护理人等员参与下，给予规律药物治疗和认知心理治疗或家庭治疗、沙盘游戏治疗等心理治疗，联合 MECT 或 RTMS 等物理治疗及中医中药治疗。比较患者治疗前后 HAMA、HAMD、自杀风险评估分值，以及简明精神病评定量表、社会功

能缺陷量表评分、临床总体疗效评分。

方法 选取 2022 年 3 月—2023 年 3 月宁夏回族自治区宁安医院儿童青少年科住院 11-16 岁有自伤自杀行为的儿童青少年患者 60 例作为研究对象。患者入院后第一周进行社会功能缺陷、焦虑抑郁严重程度、精神病性症状及自伤自杀风险评估，拟定干预方案，在有儿科医生、药学、康复师、营养师、护理人等员参与下，给予规律药物治疗和认知心理治疗或家庭治疗、沙盘游戏治疗等心理治疗，联合 MECT 或 RTMS 等物理治疗及中医中药治疗。比较患者治疗前后 HAMA、HAMD、自杀风险评估分值，以及简明精神病评定量表、社会功能缺陷量表评分、临床总体疗效评分。

结果 治疗后总有效率(81%)高于对照组(57%，P＜0．05)，患者治疗后临床疗效明显优于治疗前;在住院治疗第 4.6 周末，HAMD、HAMA、自杀风险评估评分、社会功能缺陷量表分值均低于患者治疗前(P＜0．05)，且治疗期间简明精神病评定量表评分亦低于治疗前(P＜0．05)。

结论 实施药物联合心理治疗、物理治疗、中医中药等多学科联合诊疗，能显著改善因抑郁障碍、精神病性症状的有自伤自杀行为儿童青少年抑郁、焦虑症状，降低自伤自杀风险，减少自伤自杀行为发生率，减低社会功能缺陷程度，提高患者生活质量和家庭功能。

关键字：多学科，儿童青少年，自伤自杀

Suicide-related Thoughts and Behaviors Among International Students

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Objective Suicide-related thoughts and behaviors (SBTs) are a major public health issue across the world and are still an upward trend. Though countless researchers focused on this topic, examined many risk factors, and developed various theories, the study focus on international students (IS) is sparse. To provide a broad view of the suicide-relevant factors and theories of those IS and calls more researchers' attention to their mental health and SBTs, we conducted a systematic review.

Methods This included 16 studies from 2002 to 2022. Belongingness (family, friends, and campus), discrimination, and mental health disorders are the most commonly researched outcomes associated with SBTs among IS.

Results The result of the most common factors related to suicide among IS are belongingness and discrimination in the current review,

Conclusion However, we found out it still lacks the specific suicide risk factors that target IS and cultural-tailored suicide prevention and interventions. Future researchers, psychological professionals, and faculty should develop more studies to pay more attention to them.

关键字：Suicide, Suicide ideation, Suicide-related thoughts and behaviors, International Students, Systematic Review

孤独症儿童语言研究新契机：数据挖掘和人工智能的运用

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目的 探讨数据挖掘和人工智能在孤独症儿童语言研究中新的发展和契机。

方法 本研究通过对相关文献的综合评价和梳理，全面了解数据挖掘和人工智能在孤独症儿童语言研究中的应用现状及在其他语言领域的成功应用典型。通过对数据挖掘和人工智能应用现状和前景的全面了解，对未来在孤独症儿童语言研究中的运用前景和契机进行分析和预测。

结果 1.目前数据挖掘和人工智能在孤独症儿童语言研究领域的运用相对较少,主要集中于如下几个方面：①语音特征、肢体言语（眼睛注视模式、面部表情、肢体社交互动）早期识别和诊断；②使用自然语言处理和聚类分析，对孤独症个体进行表型分型，促进个性化的治疗决策；③利用自然语言处理分类工具提取相关临床文本，对孤独症自杀倾向进行检测；④孤独症儿童语言表现与语境因素的关联性研究；⑤电子化辅助沟通系统和移动应用，帮助孤独症儿童学习日常任务并掌握日常生活。数据挖掘和人工智能在其他人类语言研究中的成功运用非常广泛，涵盖了机器翻译、情感分析、语音识别、自然语言理解，典型的例子如 ChatGPT 成功运用。 2.未来运用方向和契机：①个性化的语言干预和治疗：人工智能根据孩子的语言特点，社交互动模式，乃至日常生活中的行为数据，通过深度学习和神经网络的应用,为治疗师提供更为精细化的治疗建议，帮助孩子在社交互动中更好地应用语言。②自动化的语言生成和语音识别：开发专门的语言学习应用 APP，结合语音识别、自然语言理解和自然语言生成等技术（如 ChatGPT 相关的技术），为孤独症儿童提供实时的语言反馈和指导，帮助他们更好地理解和表达语言。③多模态数据融合：不仅限于语言数据，还可以结合孩子的面部表情、眼球运动、手势等非语言行为数据，甚至包括脑电图等生理数据，以此为基础，研究孩子的全方位交际行为。④智能诊断支持系统：通过数据挖掘和人工智能技术，可以将语言诊断的过程自动化，大大降低专业医生的负担，并提高诊断的精准度和效率。⑤预测性模型：可以使用人工智能构建预测模型，提前预测孤独症儿童的语言发展趋势，甚至预测其在特定语言干预下的反应。⑥数据可视化工具：开发数据可视化工具，帮助医生、治疗师、教师甚至父母更好地理解孩子的语言模式和进展，以便做出更有效的决策。

结论 数据挖掘和人工智能在孤独症儿童语言研究领域有广阔的运用前景，也可能会带来新的突破和机会。

关键字：孤独症；语言；数据挖掘；人工智能；新契机

监督社区治疗对精神分裂症患者精神症状和社会功能的影响

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目的 本课题根据国内刘勇、谢斌等学者对强制社区治疗实践建议，设置了强制社区治疗的特殊形式——监督社区治疗，研究其对精神分裂症患者精神症状及社会功能的影响。

方法 于2020年6月纳入虹口区社区在册管理的精神分裂症患者190例。随机分为监督社区治疗组（干预组）和对照组各95例。对干预组实行维期1年的监督社区治疗。患者需常规精神科门诊随访，以专用的药瓶或药袋配药，由精防医生、居委干部、精神科医生等人员组成的监督治疗管理团队每2周随访一次，督促患者按医嘱服药。精神科医生随访时用药片计数法对患者服药依从性进行评分。每30分可兑换一次抽奖机会，能抽中价值不等的生活用品。若患者2周得分＜10分，随访者警告患者按时按量服药，若第二次得分仍＜10分，将取消患者抽奖的资格，并书面告知患者病情复发风险，甚至可能需要接受非自愿住院治疗。当患者出现明显的幻觉、妄想等症状，或出现伤害自己或伤害他人的行为或风险者办理非自愿入院治疗。对照组予常规社区随访，无抽奖机会和警告。每季度（包括治疗开始和结束）对2组患者评估阳性和阴性症状量表（PANSS）及个人和社会功能量表（PSP）。

结果 运用SPSS24.0统计软件进行统计分析，患者PANSS和PSP量表评分不全符合正态分布，组间比较用秩和检验。治疗开始之前干预组PANSS总分、阳性量表分、阴性量表分、一般精神病理量表分、PSP量表分[M（QL－QU）]分别为：71 (49-87)，14 (9-23)，22(15-29)，31(23-42)，55(42-65)；对照组各量表分分别为：59 (45-97)，14 (8-21)，20 (12-30)，30 (19-44)，57(44-65)。治疗结束后干预组各量表分分别为：43 (35-60)，8 (7-13)，12 (7-19)，21 (18-29)，71(61-76)；对照组为：59(48-81)，13(8-21)，20(13-28)，27(22-39)，56(41-72)。治疗开始之前2组各量表分比较，差异均无统计学意义（P>0.05）；干预组干预后各量表分均高于干预前，且高于对照组，差异有统计学意义（P<0.05）。

结论 监督社区治疗可以改善精神分裂症患者阳性症状和阴性症状，提高社会功能，对今后社区精神分裂症患者的治疗和管理具有一定的参考意义。

关键字：监督社区治疗； 精神分裂症； 社会功能

一例拔毛障碍催眠治疗的个案报告

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目的 本文探讨催眠治疗对拔毛障碍个案的疗效及临床意义。

方法 个案系18岁女性，无法控制的反复拔头发5年，导致大面积头发缺损，长期佩戴假发，伴有社交回避。为此焦虑，但焦虑指向从无泛化，抑郁体验亦不突出。多次到精神科就诊，被诊断“拔毛障碍（拔毛癖）”，曾接受CBT等心理治疗和咨询，疗效不佳。根据DSM-5诊断标准，诊断“拔毛障碍”，未同时符合其他精神障碍的诊断标准。经与患者和家属协商，实施催眠治疗。治疗频率为每周一次，每次90分钟，共完成16次治疗。治疗初通过催眠会谈和行为分析，了解个案催眠易感性并探索导致拔毛行为心理机制，后采用催眠放松、情绪释放、催眠后暗示、自我探索、年龄回溯与前瞻、解离技术、重构技术及隐喻故事等技术开展催眠治疗。

结果 第1～8次治疗后拔毛行为显著减少，第12次治疗后已不再有拔毛行为，头发健康生长，至第16次治疗时已无需再依赖假发遮盖，情绪稳定，社会功能恢复良好。

结论 催眠疗法有助于探索个案外显拔毛行为的内在心理机制，即隐藏于潜意识中不能自我暴露的创伤及其所致人际关系焦虑，而利用一系列催眠治疗技术挖掘患者内在资源，重构、改写其创伤记忆，可达成消除拔毛行为、改善社会功能的治疗目标。

关键字：拔毛障碍；催眠治疗；个案研究

早期应用盐酸安非他酮对青少年抑郁症疲劳感的治疗效果及安全性评价

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目的 探讨早期应用盐酸安非他酮对青少年抑郁症疲劳感的治疗效果。

方法 本研究于2021年6月至2022年5月收集80例青少年抑郁症患者进行研究，随机分为研究组与对照组各40例，两组患者均采用盐酸舍曲林片治疗，50mg/日起步，最大剂量200mg/日。研究组在盐酸舍曲林片基础上联合盐酸安非他酮片治疗，37.5mg/日起步，最大剂量150mg/日。治疗前及2周后采用患者健康问卷抑郁症状群量表（PHQ-9）、广泛性焦虑障碍量表（GAD-7）、疲劳量表（FS-14）进行心理评估，同时记录患者住院期间的每日卧床时间，明确治疗效果及安全性。

结果 （1）本研究入组患者80例，完成本研究者共73例，其中研究组35例，男11例，女24例，平均年龄（14.40±1.63）岁，对照组38例，男12例，女26例，年龄（14.97±1.55）岁，两组患者在年龄、性别上比较差异均无统计学意义（P均>0.05）。研究组退出研究5例，其中3例因难以适应不良反应换药，1例治疗依从性差，未完成心理评估，1例自动出院；对照组退出研究2例，1例因难以适应不良反应换药，1例转躁停药。（2）治疗前两组患者PHQ-9、GAD-7、FS-14评分评分比较差异均无统计学意义（P>0.05），治疗

2 周后研究组的 PHQ-9、FS-14 总分及 PF、MF 两因子评分比对照组降低的更明显，两组组间比较差异有显著的统计学意义（P<0.01）；（3）两组患者治疗前平均卧床时间比较差异无统计学意义[（11.71±1.51）vs.（11.75±1.38）；t=-0.106，P>0.05]；治疗 2 周后研究组平均卧床时间明显短于对照组，两组比较差异有显著的统计学意义[（9.0±0.93）vs.（10.18±1.01）；t=4.157，P<0.01]；（4）研究组的坐立不安、激越的发生率明显高于对照组，在处理措施的比较中，研究组平均每日使用劳拉西泮的剂量明显高于对照组，两组比较差异有统计学意义[（1.26±0.55）vs.（0.82±0.43）；t=3.970，P<0.05）]。

结论 早期联合应用盐酸安非他酮可以改善青少年抑郁症患者疲劳感，缩短平均卧床时间，提高治疗积极性，更有利于规范化、综合性治疗方案的实施，但治疗中需严密监测药物不良反应并及时处理。

关键字：青少年抑郁症；盐酸安非他酮；疲乏感；疗效评价；安全性评价；

2016-2020 年天津市某精神专科医院住院儿童及青少年 疾病构成分析

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目的 研究天津市某三甲精神专科医院 2016-2020 年住院儿童及青少年疾病谱的构成及发病年龄、预后等情况，探讨儿童及青少年精神疾病构成、分布及其发展变化特点。

方法 选取天津市某三甲精神专科医院 2016 年 1 月 1 日-2020 年 12 月 31 日期间收治的 838 例患有精神心理疾病的未成年患儿的住院病案首页资料，提取患儿性别、年龄、发病年龄、主要诊断和住院天数、预后等信息进行分析。

结果 1.总出院病例数为 838 例，男 398 名，女 440 名；2.涵盖 ICD-10 中 25 种疾病，占比前 5 位的疾病依次为特发于童年的情绪障碍、精神分裂症、严重应激反应及适应障碍、抑郁发作和复发性抑郁障碍及弥漫性发育障碍，累计占比 68.26%；2.发展趋势上，品行障碍、持续性心境障碍、弥漫性发育障碍数量下降趋势明显，特发于童年的情绪障碍、双相情感障碍、抑郁障碍上升趋势明显；疾病种类更多样化，疾病分布更均衡； 3.每一年的男女性别比例差异明显（P=0.009），没有一定的规律，整体上女性渐增多，占比前 5 位中特发育童年的情绪障碍和精神分裂症男女发病率无差异，严重应激反应及适应障碍、抑郁发作和发作性抑郁障碍患者女性占比高于男性（P=0.003），弥漫性发育障碍患者男性占比高于女性（P=0.021）；4，发病年龄：多在 15 岁左右，特发于童年的情绪障碍好发于 13-15 岁，抑郁发作和复发性抑郁障碍、精神分裂症好发于 16-18 岁；5，家族史阳性者平均起病年龄早于家族史阴性者(P = 0.021) ，但家族史阳性者人群占比不高，20%左右; 6，预后：好转出院率 80%左右，近 5 年之间对比无差异。

结论 1，青少儿精神障碍的构成比变化明显，趋向于多样化，接近成年人；2，住院青少儿精神障碍种类、分布与成人基本一致，在发病年龄、性别比例、家族史、预后上具有自己的特征； 3，青少儿疾病特征可体显出成人精神障碍的一些状况，青少儿精神障碍与成人之间无截然不同，存在延续性，应重视儿童及青少年患者向成年的过渡期医疗，提示需格外关注过度人群，16-18 岁女生的情绪和行为问题。

关键字：儿童和青少年；精神障碍；疾病构成；发展变化

The Mediating Effect of Coping Strategies on The Relationship between Depression Symptoms and Self-Esteem in Adolescent Depression

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Objective Adolescent depression is a prevalent mental health issue characterized by persistent feelings of sadness, hopelessness, and a diminished sense of self-worth. One important factor that has received limited attention is self-esteem, which refers to an individual's automatic and unconscious evaluation of their own worth. This study aimed to investigate the role of coping strategies as an important factor for self-esteem in adolescents with depression.

Methods A total of 152 adolescents with depression were included as participants. The Rosenberg Self-Esteem Scale (RSES) was used to assess their self-esteem levels, and participants were grouped accordingly into low self-esteem, moderate self-esteem and high self-esteem. Coping strategies were evaluated in all participants using Simplified Coping Style Questionnaire (SCSQ). Patient Health Questionnaire-9 (PHQ-9) was used to assess the depression symptoms and the correlation between depression and self-esteem levels was analyzed. Above questionnaire relies on patient self-report and all responses were verified by the clinician.

Results Among the 152 adolescents with depression, 75 (49.34%) had low self-esteem, 64 (42.10%) had moderate self-esteem, and 13 (8.56%) had high self-esteem. There were no significant differences in age, education level and negative coping strategies of SCSQ among the different self-esteem groups ($P > 0.05$). The scores on the positive coping strategies of SCSQ were higher in the moderate and high self-esteem groups compared to the low self-esteem group with statistically significant differences (high self-esteem vs. low self-esteem, $P < 0.001$, moderate self-esteem vs. low self-esteem, $P < 0.001$). Pearson correlation analysis revealed a negative correlation between PHQ-9 scores and self-esteem in adolescents with depression ($r = -0.702$, $P < 0.001$). A significant negative correlation between positive coping strategies and both self-esteem ($r = -0.573$, $P < 0.001$) and PHQ-9 scores ($r = -0.407$,

P < 0.001) were found, but not found in negative coping strategies. Positive coping strategies played a mediating role in relationship between depression and self-esteem (β = 3.479, 95% CI 2.336-4.622, P < 0.001).

Conclusion Coping strategies serve as important self-regulatory processes in adolescents with depression. These strategies enable individuals to modify their appraisal of stressors and effectively regulate physiological and emotional responses. By targeting positive coping strategies and promoting adaptive coping mechanisms, clinicians and practitioners can assist adolescents in developing effective regulatory strategies to manage stressors and promote mental well-being.

关键字：Coping Strategies, Self-Esteem, Mediating Effect, Adolescent depression

Investigation of Mental Health Service in Middle Schools in China: Evidence From A Middle School in Beijing

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Objective This study has three aims: 1) to understand current mental health services that the school provides to their students; 2) to explore middle school students' demand for school-based mental health services from different stakeholders; and 3) to investigate the challenges or difficulties that the school face to provide the services.

Methods This study was conducted in a middle school in Beijing. Two questionnaires were collected from 199 students and 145 parents, respectively, and three teachers were interviewed, which included their attitudes toward mental health, knowledge and satisfaction with current in-school mental health services, and expectations and suggestions for such services in the future. Referring to the questionnaires and interview outlines used by previous researchers, the research team created separate student and parent questionnaires. After analyzing the data, the interview outline was modified. For the student questionnaires, we focused more on the types of problems the students thought they needed counseling for. For the parent questionnaire, a logistics regression was done to see if parents' demographic characteristics had an impact on their attitudes toward school-based mental health services. For the qualitative analysis, we used thematic analysis to check, code, and identify themes in the interview scripts.

Results Currently, this school has dedicated mental health facilities. The school-based mental health services include mandatory mental health classes for Grades 6 and 7, annual psychological assessment since Grade 5 to record in student psychological profile, counseling, and a crisis intervention system. Students can make appointments with counselors through their course selection platform, but only 31 students had taken or were taking the counseling. However, 80.40% of the students believed that people should take counseling when facing mental health problems. All parents and teachers have a positive attitude toward mental health and the services. 64.83% of the parents knew that the school provided counseling for students. 81.91% of students believed that counseling services should provide understanding and support, as w

Conclusion The school currently provides a relatively comprehensive package of mental health services, but the suggestions and challenges raised by students, parents and teachers should be studied and resolved promptly by the school and relevant departments. Future research should dig deeper into the reasons for the changes in students' mindsets and discussions on the establishing a referral system.

关键字：Investigation；Mental Health Service；Middle School in Beijing

CATCH-IT 干预对青少年抑郁症研究对象的疗效评价

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目的 评价中国版 CATCH-IT（Competent Adulthood Transition with Cognitive b-ehavioral Humanistic and Interpersonal Training）干预方法的可行性和对中重度青少年抑郁症研究对象的效果

方法 采用目的抽样、连续入组、同期对照的方法，设计成探索性、单中心、随机研究，将 76 例研究对象分为干预组和对照组，干预组接受药物治疗及 CATCH-IT 干预，对照组接受药物治疗及标准化健康教育。主要通过 HAMD-17、PHQ-9、GAD-7 和 ANSAQ，主要比较两组研究对象干预后第 8 周末抑郁症状缓解是否存在差异。

结果 符合标准的研究对象中有 90 例研究对象参与研究，招募率为 96.8%。干预组留存率 86.4%，对照组留存率 88.3%，两组留存率无差异（p>0.05）。两组患者基线资料具有可比性（p＞0.05）。干预后第 8 周末（T3）两组患者抑郁焦虑得分的差异均有统计学意义（p＞0.05）。第 2 周末（T1），基线伴重度焦虑研究对象的两组间存在显著差异（d= -1.25，95%CI：-2.35～-0.15，p=0.03）。干预组抑郁症状减少，两组治疗效果差异较小（d=0.26）

结论 青少年抑郁症患者认可接受 CATCH-IT 干预。但 CATCH-IT 治疗和标准化健康教育在改善青少年抑郁症患者的抑郁焦虑症状上两组均无显著差异。

关键字：青少年抑郁症；网络干预；认知行为疗法；行为激活疗法；人际关系疗法

父母教养方式、负性注意偏向和情绪症状在青春期前儿童 非自杀性自伤行为中的链式中介

作用

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目的 探讨父母教养方式、负性注意偏向 情绪症状对青春期前儿童非自杀性自伤行为的影响，以及负性注意偏向和情绪症状在其中的中介作用。

方法 随机选取 1452 名青春期前儿童（9-12 岁）作为研究对象，采用育儿量表（The Parenting Scale，PS）、长处与困难问卷（Strengths and Difficulties Questionnaire，SDQ）、中文版积极/消极注意偏向量表(The attention to Positive and Negative Information Scale, APNI)、4.1 故意自伤量表-简版（Deliberate Self-Harm Inventory - short version ;DSHI-s）分别评估青春期前儿童的父母教养方式、儿童的注意偏向、情绪症状和非自杀性自伤行为（NSSI）频率；根据自伤量表条目得分，计算一个分类变量，来判断是否存在自伤行为；情绪症状通过长处与困难问卷中情绪分量表评估，采用了学生自评（EM（S））和家长评价（EM（P））的数据采集方式。采用独立样本 t 检验和 χ2 检验进行 2 组间差异性检验；采用 Pearson 相关分析进行各量表得分之间的相关分析；采用 Hayes 编制的 PROCESS 宏程序进行链式中介模型分析；采用 Bootstrap 法分析抑郁症状在童年期虐待与自杀意念之间的中介效应值及 95%Bootstrap 置信区间。

结果 青春期前儿童自伤检出率为 23.8%（346/1452）；父母早期唠叨（verbosity）的教养方式显著正相关（r = 0.06，p < 0.05）；儿童的自伤行为与学生自评情绪症状(r = 0.238, p < 0.001)、家长评情绪症状(r = 0.119, p < 0.001)之间存在显著正相关。中介分析表明，唠叨通过负性注意偏向、情绪症状或是通过负性注意偏向与非自杀性自伤行为相关，即存在两条中介通路：通路一：verbosity → ANI → EM（S）→ NSSI（β = 0.007, 95%CI [0.000-0.016], P < 0.05）；通路二：verbosity → ANI → NSSI（β = 0.035, 95%CI [0.010-0.075], P < 0.05）。

结论 研究中青少年的 NSSI 率高达 23.8%，养育者早期的唠叨直接预

关键字：父母教养方式，自伤，链式中介，青春期前期

感恩日记联合正念训练在青少年非自杀性自伤行为中的干预价值分析

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目的 分析感恩日记联合正念训练在青少年非自杀性自伤行为中的干预价值

方法 选取我院 2021 年 3 月～2022 年 9 月收治的年龄在 12～18 岁之间，至少出现过 1 次无自杀意图的自我伤害行为的 60 例患者作为研究对象，将患者（排除排除患者智力、精神障碍，由躁狂症，身体残疾或有先天性疾病；伴随双向情感障碍患者）随机分为实验组和对照组，两组患者各有 30 例。实验组中有男性 18 例、女性 12 例，患者平均年龄为（13.52±1.25）岁，对照组患者中有男性 17 例、女性 13 例，患者平均年（14.05±1.33）岁。对照组采取常规护理对策，实验组采取感恩日记联合正念训练，四周后对比两组青少年患者的情绪状态和生活质量。

结果 实验组患者采取感恩日记联合正念训练护理后的焦虑、抑郁情绪得到明显的改善，HAMA 评分和 HAMD 评分均低于对照组，P＜0.05。实验组患者生活适应能力明显高于采取常规护理对策的照组，P＜0.05。

结论 住院期间；为青少年非自杀性自伤行为开展感恩日记联合正念训练，能够有效缓解青少年非自杀性自伤患者的焦虑、抑郁的不良情绪，促进患者生活适应能力的提高，能够有效掌握自己的情绪，保证患者生活质量

关键字：关键词：感恩日记；正念训练；青少年非自杀性自伤行为；应用价值

注意缺陷多动障碍患儿的临床症状及执行功能对其自尊水平的影响研究

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目的 探究注意缺陷多动障碍（ADHD）患儿的自尊水平，及临床症状与执行功能对自尊水平的影响。

方法 研究组来自于上海市精神卫生中心儿少科门诊，8-12 岁儿童，符合 DSM-5 中 ADHD 的诊断标准。采用 Piers-Harris 儿童自我意识量表（PHCSS）评估患儿的自尊水平，并与健康儿童组比较。收集 ADHD 患儿的其他特征，包括：一般情况问卷、采用 SNAP-IV 评估临床症状水平，采用神经心理学测验如 Stroop 色词关联测试、韦氏智力测试的工作记忆与加工速度评分评估研究组的执行功能。采用独立样本 t 检验来比较两组儿童在年龄、PHCSS 量表得分、执行功能神经心理学测验结果等连续变量上的差异。采用 Pearson 相关分析 ADHD 患儿 PHCSS 量表与一般资料、临床症状及执行功的相关性。采用线性回归对 ADHD 患儿自尊影响因素进行分析。双侧检验，P＜0.05 为差异具有统计学意义。

结果 ①ADHD 患儿在自我意识量表的多个维度得分及总分上均低于健康儿童，差异有统计学意义（t=-6.18~-2.24，P＜0.01）。②相关分析表明 Stroop 任务中的乙表正确数（r=0.26，P＜0.001）、乙表时间（r=-0.23，P＜0.001）、韦氏智力测试的加工速度（r=0.20，P＜0.05）、工作记忆（r=0.21，P＜0.05）、SNAP-IV 中的多动冲动（r=0.23，P＜0.05）会与自我意识量表的多个维度相关。③SNAP-IVA 中的多动冲动和 STROOP 中的乙表正确

读数对 ADHD 患儿自我意识量表总分有预测作用（β=0.255，0.275，P＜0.05）。

结论 ADHD 患儿自尊水平低于正常儿童，患儿的自尊水平受到多动冲动症状、个体反应抑制能力的影响。

关键字：注意缺陷多动障碍、自尊水平、影响因素、执行功能

青春期前儿童自伤行为和心理健康的关系研究

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目的 青春期前儿童的非自杀性自伤行为可能引起成年后更高的自杀风险和更严重的临床表现，然而，目前国内对这一群体自伤的研究非常有限。本研究旨在探讨青春期前儿童非自杀性自伤行为的患病率及心理健康对自伤行为的影响。

方法 采用方便抽样对中国天津市八所小学的高年级学生进行了调查，共有 2006 名学生接受了评估。非自杀性自伤行为使用蓄意自伤问卷(DSHI)简化版进行评估，情绪和行为问题使用家长版和学生版的长处和困难问卷(SDQ)进行评估。采用频率、卡方检验和秩和检验(Z)用于描述性分析和比较有自伤组与无自伤组的一般情况及情绪行为问题的差异，采用 Logistic 回归检验情绪行为问题对自伤的影响。为区分自伤行为的异质性，使用潜在类别分析(LCA)对存在自伤的人群进行分类，采用频率、卡方、秩和检验对不同类别的自伤行为进行一般情况描述，多因素 Logistic 回归分析心理健康对自伤类型的影响。

结果 1.在 2006 名参与者中，506 名(25.2%)学生报告在过去 6 个月内至少经历过一次非自杀性自伤行为。2.自伤组在情绪症状、行为问题、多动和同伴关系问题上的得分明显高于非自伤组，亲社会行为得分明显低于非自伤组。3.多因素分析显示，父母报告的学生情绪问题、品行问题、多动与自伤行为存在显著正相关，学生自我报告的情绪症状、多动、同伴交往问题与自伤行为存在显著的正相关。4.通过 LCA 对非自杀性自伤行为的异质性进行分类，出现了两个可解释的潜在类别，轻度/低发性自伤组和重度/多发性自伤组。5.与轻度/低发性自伤组相比，重度/多发性自伤组的情绪和行为问题得分更差。6.多因素回归分析显示父母报告和自我报告的情绪症状均与重度/多发性自伤存在显著正相关。

结论 1.非自杀性自伤行为在青春期前儿童中并不少见，情绪症状、品行问题、多动和同伴交往是 NSSI 的危险因素。2.通过对不同形式的 NSSI 进行分类，NSSI 人群可以分为低发性自伤组和多发性自伤两个同质亚组，情绪症状是多发性自伤的危险因素。3. 在儿童青春期前应对自伤行为加以重视，并通过早期干预措施来减少自伤行为的发生。

关键字：非自杀性自伤,青春期前儿童,心理健康,横断面,学校

同胞结构对 7-14 岁儿童和青少年心理健康的影响

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目的 研究旨在描述天津市儿童和青少年心理健康问题的检出率以及在不同人群中的分布，探讨同胞结构中是否独生因素对儿童和青少年心理健康的影响，及非独生子女中同胞结构对儿童和青少年心理健康的影响。

方法 本研究于 2022 年 7 月至 10 月在天津市 5 所小学中进行，采用便利抽样法。调查内容包括一般情况问卷、SF-36 心理健康亚量表和 SDQ。采用平均值、标准差、频数和百分比进行描述性分析。使用 Pearson χ?和独立样本 t 检验比较不同人群中儿童和青少年心理健康问题的分布差异。采用百分比描述 SDQ 问卷各维度的检出率，并应用 Pearson χ?比较非独生子女和独生子女之间的差异。使用多因素 logistic 回归分析探讨同胞结构对儿童和青少年心理健康的影响。

结果 1.儿童和青少年心理健康问题的检出率为 16.5%。性别、父母婚姻状况、自觉家庭经济和父母心理困扰等变量的不同组别中，儿童和青少年心理健康问题的检出率存在差异。独生子女的心理健康问题检出率高于非独生子女。2.年龄较大的儿童和青少年出现多动症状的可能性较小（OR = 0.88, 95% CI 0.84-0.93）。性别与儿童和青少年心理健康问题显著相关（OR=0.64, 95%CI 0.53-0.78），并在品行问题、多动和同伴交往问题维度上也具有显著相关性。是否独生对儿童和青少年心理健康问题有影响（OR=0.76, 95%CI 0.62-0.94），在情绪症状、多动和同伴交往问题上也存在显著相关性。父母存在心理困扰是儿童和青少年心理健康问题的显著危险因素（OR=3.30, 95%CI 2.69-4.05）。3.年龄差距与非独生子女的情绪症状显著相关（OR=1.4, 95%CI 1.06-1.84）。有无年长同胞与非独生子女的多动症状显著相关（OR=0.51, 95% CI 0.29-0.90）。有无年长同胞和年龄差距与儿童和青少年心理健康问题显著相关。此外，有无年长同胞因素在儿童和青少年心理健康问题上存在性别差异。

结论 天津市儿童和青少年心理健康问题的检出率较高，性别、父母婚姻状况、自觉家庭经济和父母心理困扰等因素与儿童和青少年心理健康问题存在显著相关性。对于非独生子女，同胞结构中的年龄差距和有无年长同胞因素与心理健康问题之间存在一定的相关性。这些结果为进一步了解和干预儿童和青少年心理健康问题提供了一定的参考。

关键字：心理健康,同胞结构,影响因素,儿童,青少年

注意缺陷多动障碍儿童的智力与临床症状的相

关关系研究

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目的 本研究旨在明确注意缺陷多动障碍的智力特点，探索不同认知领域与临床症状间的关系。

方法 本研究招募来自 ADHD 专病门诊的 ADHD 患儿 164 名，来自社区或学习的正常对照组儿童 74 名，每名患儿均由儿童精神科医师或儿科医师按照精神障碍诊断与统计手册第五版（Diagnostic and Statistical Manual of Mental Disorders，DSM-V）对患儿进行诊断。

结果 1、本研究样本共纳入 ADHD 患儿 164 例，正常对照患儿 74 例，两组儿童的性别和年龄构成无统计学差异。2、比较两组儿童的智商及四个合成分数，发现 ADHD 患儿在总智商、语言理解指数、知觉推理指数、工作记忆指数、加工速度指数均低于正常对照儿童。 3、控制年龄和性别后，对 ADHD 儿童智力测试结果的 4 个合成分数和 SNAP-IV的三个分量表进行偏相关分析，并经过 Bonferroni 矫正，注意缺陷症状得分与总智商、加工速度指数具有负相关关系。

结论 本研究发现的 ADHD 儿童中存在的加工速度指数越低，注意缺陷症状越明显，实际反应执行功能中的视觉工作记忆和认知灵活性成分与注意缺陷症状的关系。这提示我们认知功能训练，特别是执行功能训练可能有助于改善 ADHD 核心症状。

关键字：注意缺陷多动障碍；智力；执行功能；临床症状

Characteristics and Influencing Factors of NSSI in Children and Adolescents with Depression

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Objective This study aims to explore the characteristics and influencing factors of non-suicidal self-injury (NSSI) in children and adolescents with depression, providing a basis for early identification and intervention of NSSI in this population.

Methods A total of 220 hospitalized patients diagnosed with depression in the Department of Child and Adolescent Psychiatry at the Fourth People's Hospital of Lianyungang City, Jiangsu Province, from June 2021 to June 2023 were included in this study. Based on the diagnostic criteria for NSSI recommended by DSM-5, the patients were divided into the NSSI group (n=158) and the non-NSSI group (n=62). Demographic information was collected using a self-developed general information questionnaire. Data on depression severity, anxiety level, suicide ideation, family environment, NSSI, and functional impairment were collected using the Patient Health Questionnaire-9, the seven-item Generalized Anxiety Disorder, Beck Scale for Suicide Ideation, Chinese Parenting Style Questionnaire, Family Environment Scale, and Adolescent NSSI-Frequency and Function Index, respectively.

Results The prevalence of NSSI among children and adolescents with depression was 73.94%. The age of first self-injury ranged from 10 to 18 years, with a mean age of 13.30±1.74 years. The lack of independence and recreational opportunities in the family environment was identified as a risk factor for NSSI in this population. Moreover, NSSI was found to be associated with poor treatment response to antidepressants in children and adolescents with depression.

Conclusion This study reveals a high prevalence of NSSI among children and adolescents with depression. The lack of independence and recreational opportunities in the family environment were identified as influential factors for NSSI. Furthermore, NSSI was associated with poor treatment response to antidepressants. These findings highlight the importance of assessing and addressing NSSI in the early identification and treatment of depression among children and adolescents, while emphasizing the significance of family environment factors.

关键字：NSSI, depression, children, adolescents, family environment

Prevalence and Correlates of Sleep Disturbance and Suicidal Ideation Among Adolescents in The Eastern Seaboard of China: A Cross-sectional Study

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Objective Suicide and sleep disturbances are notable public health issues that warrant increased attention, especially when it comes to adolescents. The aim of this study was to investigate the prevalence and factors associated with suicidal ideation and sleep disorders among urban adolescents in China.

Methods This study utilized an online survey to assess the demographic characteristics and mental health status of secondary school students in Lianyungang City. The Patient Health Questionnaire-9 (PHQ-9) was used to evaluate depressive symptoms in parents of adolescents, as well as to assess suicidal ideation and sleep disturbances in adolescents. The seven-item Generalized Anxiety Disorder (GAD-7) assessed anxiety symptoms both in adolescents and their parents, and the Perceived Social Support Scale (PSSS) was used to measure social support.

Results Among 3443 adolescents, the prevalence of sleep disorders and suicidal ideation was 36.4% and 22.1%, respectively, with significantly higher proportions of both sleep disorders (39.8% VS 33.3%, ?2 = 15.845, P < 0.001) and suicidal ideation (27.9% VS 16.9%, ?2 = 60.870, P < 0.001) among female adolescents than males. Furthermore, binary regression analysis revealed that anxiety symptoms (OR = 1.373, 95%CI: 1.331 – 1.416, P < 0.001), suicidal ideation (OR = 2.649, 95%CI: 2.058 – 3.409), and social support (OR = 0.982, 95% CI: 0.966 – 0.998, P = 0.029) were associated with adolescent sleep disorders, and gender (OR = 1.662, 95% CI: 1.328 – 2.081,

P < 0.001), anxiety symptoms (OR = 1.326, 95%CI: 1.283 – 1.370, P < 0.001), sleep symptoms (OR = 3.441, 95%CI: 2.674 – 4.426, P < 0.001), family support (OR = 0.894, 95%CI: 0.850 – 0.940, P < 0.001), and parental relationship (OR = 1.607, 95%CI: 1.246 – 2.073, P < 0.001) were associated with adolescent suicidal ideation.

Conclusion The prevalence of adolescent sleep disorders and suicidal ideation remains high and requires policymakers, schools, and families to prevent adolescent sleep disorders and suicidal ideation through early intervention and risk factor reduction.

关键字：Sleep disturbance, suicidal ideation, adolescents, PHQ-9, GAD-7, PSSS

Depressive Symptoms in Adolescents Are Associated with Parental Depressive Symptoms and Reduced Social Support: A Cross-sectional Study

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Objective Depressive symptoms exert a profound influence on the psychological well-being of diverse populations, notably displaying a burgeoning trend among adolescents, with outcomes that vary considerably. The primary objective of this research is to examine the prevalence of depressive symptoms and their correlated determinants among urban adolescents in Lianyungang City.

Methods The participants were recruited from three secondary schools located in the urban area of Lianyungang City. General demographic information and psychological health status were collected through an online questionnaire survey. The Patient Health Questionnaire-9 (PHQ-9) was utilized to assess depressive symptoms among the enrolled students. Perceived Social Support Scale (PSSS) was administered to measure the social support available to adolescents.

Results Of the 3,443 secondary school students who participated in the survey, 52.8% male vs. 47.2% female, and the average age was 15.1 ? 2.9 years, of which, 15.8% experienced depressive symptoms. The prevalence of depressive symptoms was higher in female adolescents (19.8%) than in male adolescents (12.3%, ?2=35.577, P < 0.001). Furthermore, binary logistic regression analysis revealed that female (B = 0.522, P < 0.001, OR = 1.685, 95% CI: 1.365 - 2.080), total parental PHQ-9 scores (B= 0.104, P < 0.001, OR = 1.109, 95% CI: 1.069 - 1.151), total PSSS scores (B = -0.032, P < 0.001, OR = 0.969, 95% CI: 0.954 - 0.984), poor parental relationship (B = 1.118, P < 0.001, OR = 3.058, 95% CI: 1.865 – 5.014), and low annual family income (B = 0.804, P = 0.006, OR = 2.235, 95% CI: 1.007 – 1.760) were significantly related to adolescent depressive symptoms.

Conclusion Our findings indicated that parental depressive symptoms and low social support are risk factors for adolescent depression. Importantly, we should pay more attention to adolescent mental health in terms of prevention and policies making.

关键字：depression; anxiety, adolescence; PHQ-9; mental health

Prevalence of Anxiety Symptoms and Associations with Sleep Disturbance, Suicidal Ideation, Parental Anxiety Symptoms, and Low Social Support in Adolescents: A Cross-sectional Survey Study

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Objective Anxiety symptoms are common among adolescents, however, the underlying factors influencing them are diverse, and there is currently no consistent result that can be generalized. The purpose of this study was to examine the self-rated prevalence of anxiety symptoms and potential influential factors among urban adolescents in Lianyungang City.

Methods We conducted a cross-sectional survey employing an online questionnaire. Self-administered demographic scales were established to assess the general information of the respondents. The Generalized Anxiety Disorder-7 (GAD-7) was employed to assess anxiety symptoms among enrollees, the Patient Health Questionnaire-9 (PHQ-9) to assess the presence of sleep disturbance and suicidal ideation, and the Perceived Social Support Scale (PSSS) to assess social support.

Results Of the 3443 secondary school students surveyed, the overall prevalence of anxiety symptoms was 10.2%. Specifically, 13.2% of female secondary school students reported anxiety symptoms, which is significantly higher than the 7.5% reported by male secondary school students (?2 = 30.99, P< 0.001). Furthermore, Binary logistic regression revealed that sleep disturbance (P < 0.001, OR = 6.242, 95% CI: 4.272 - 9.119), suicidal ideation (P < 0.001, OR = 5.325, 95% CI: 3.893 - 7.285), parental anxiety symptoms (P < 0.001, OR = 1.111. 95% CI: 1.060 - 1.165), low family support (P <0.001, OR = 0.923, 95% CI: 0.879 - 0.928), and poor parental relationship (P = 0.019, OR = 1.995, 95% CI: 1.119 - 3.560) were significantly associated with adolescent anxiety symptoms. No significant correlations were found between age, single parenthood, or annual family income and adolescent anxiety symptoms (all P > 0.05).

Conclusion The prevalence of anxiety symptoms in adolescents remains high. Sleep disturbances, suicidal ideation, and poor parental relationships may be considered as risk factors for self-rated anxiety symptoms in adolescents and should be of concern.

关键字：Sleep disturbance, suicidal ideation, anxiety, adolescence, GAD-7, PSSS

父母情绪调节困难对注意缺陷多动障碍儿童情绪调节的影响

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目的 探讨注意缺陷多动障碍（ADHD）儿童父母的情绪调节特点及其对 ADHD 儿童情绪调节的影响。

方法 纳入 140 例 ADHD 儿童及其父母，68 名正常儿童及其父母。采用情绪调节困难量表（DERS）、情绪调节问卷（ERQ）和儿童情绪调节量表（ERC）对父母和儿童情绪调节分别进行评估。

结果 （1）ADHD 儿童父母在策略使用（P=3.42E-005）、冲动控制（P=0.03）和目标行为（P=0.004）方面较对照组高；在具体的策略使用方面，ADHD 儿童父母的表达抑制较对照组低（P=0.017），认知重评两组无差异（P=0.981）。（2）ADHD 儿童情绪不稳较对照组高（P=2.68E-012），情绪调节较对照组低（P=6.21E-005）。ADHD 儿童的情绪不稳与父母的策略使用（P=0.003）和冲动控制（P=0.002）正相关，情绪调节与父母的策略使用（P=0.007）、冲动控制（P=0.001）和目标行为（P=0.002）负相关。中介模型分析提示儿童情绪调节在父母策略使用[β =0.094 （SE = 0.057），95 % CI = （0.013, 0.236）]和冲动控制[β = 0.126 （SE = 0.062），95 % CI = （0.035, 0.277）]与儿童情绪不稳之间存在部分中介效应。

结论 ADHD 儿童父母存在策略使用（特别是表达抑制）、冲动控制和目标行为等方面存在情绪调节缺陷；父母策略使用和冲动控制可能通过作用于 ADHD 儿童情绪调节进一步影响其情绪不稳。

关键字：ADHD，情绪调节，父母，儿童，策略使用，冲动控制，目标行为

伴焦虑痛苦特征 MDD 青少年静息态脑影像学特征

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目的 既往研究提示重性抑郁障碍存在不同临床亚型，不同临床亚型在疗效方面存在差异，可能与其不同的神经机制有关，本研究拟探讨伴焦虑痛苦特征的重型抑郁障碍青少年静息态脑影像学变化，进一步了解神经机制。

方法 本研究共纳入重性抑郁障碍伴焦虑痛苦特征青少年患者 27 例（年龄在 12-23 岁）和健康对照组 36 名（年龄在 12-23 岁）。所有被试均完成一般人口学资料调查表和脑影像学数据采集，采用 3.0 T 西门子磁共振扫描仪采集脑影像学数据，采用 SPM8 和 DPABI 进行脑影像学数据预处理和分析，采用 Gretna 的 Global and Nodal Metric Comparison 模块自带的双样本 T 检验对两组数据进行统计分析，将年龄、性别作为协变量。对于节点指标（局部节点特征常常被用来识别在构建和维系有效信息起关键作用的脑区），采用多重比较校正，校正后 P<0.05 认为差异具有统计学意义。临床数据采用 SPSS17.0 进行分析，P<0.05 为差异具有统计学意义。本研究经山西医科大学第一医院伦理委员会批准，所有被试均签署知情同意书。

结果 两组年龄差异不具有统计学意义（P=0.132），性别差异具有统计学意义（P=0.006）。将年龄、性别作为协变量，MDD 组在左侧枕中回的 Bc（节点介数）高于健康对照组，双侧枕下回的 NCp（节点聚类系数）、NLe（节点局部效率），以及左侧楔前叶的 NLe（节点局部效率）低于健康对照组（P<0.05，FDR 校正）。将差异指标与临床症状做相关，年龄、性别、受教育年限作为协变量，差异脑区与临床症状相关未见统计学意义。

结论 本研究提示伴有焦虑痛苦特征的重性抑郁障碍青少年局部节点的拓扑属性存在异常，表现为双侧枕下回以、左侧楔前叶以及枕中回，本研究为进一步了解重性抑郁障碍伴有焦虑痛苦特征亚型青少年的神经机制提供脑影像学的证据支持。

关键字：MDD，焦虑痛苦特征，青少年

妊娠期糖尿病引发子代自闭症样行为及胃肠道症状的研究

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目的 自闭症（ASD）是目前全球患病人数增长最快的神经发育障碍性疾病，其致病机制复杂，病因高度异质化。流行病学及本项目的实验动物结果表明孕期糖尿病（GDM）是诱发子代产生自闭症核心症状的重要风险因素。同时，临床上 ASD 儿童常伴有明显的胃肠道症状，且肠道症状与其行为相关。虽然，肠道菌群可能在自闭症谱系障碍中扮演了重要角色，但两者之间的关联机制尚未明确。在此背景下，我们提出孕期糖尿病诱发子代自闭症胃肠道功能障碍的分子机制研究。

方法 通过自闭症社交行为测试研究链尿佐菌素诱导孕期糖尿病大鼠模型与子代自闭症风险增加之间的关联机制。体外神经元培养研究高糖引起的表观遗传学机制，探讨表观遗传修饰对孕期糖尿病诱导的子代自闭症的影响机制。

结果 体外细胞实验：短暂的高糖处理诱发了持续的表观遗传学变化和肠道细胞紧密连接蛋白的基因抑制。在体内，孕期糖尿病介导的氧化应激，诱发子代小鼠肠道上皮细胞中基因抑制和炎症反应，随后引发消化道功能紊乱；造血干细胞移植可以改善孕期糖尿病介导的消化道症状和小鼠后代的自闭症样行为。造血干细胞移植（HSCT）通过系统地逆转母体的糖尿病介导的氧化应激，炎症反应和消化道功能。

结论 高糖引起肠上皮紧密连接蛋白启动子表观遗传学修饰，造血干细胞移植可以改善孕期糖尿病介

导的消化道症状和子代自闭症行为。本研究为阐明孕期孕期糖尿病介导自闭闭胃肠道疾病以及造血干细胞治疗自闭症的潜在机制。

关键字：妊娠期糖尿病; 自闭症样; 胃肠道症状

伴焦虑痛苦的青少年抑郁障碍患者的注意偏向特点

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目的 探讨伴焦虑痛苦的青少年抑郁障碍患者在负性-中性情绪面孔注意偏向任务中的特点。

方法 选取 97 例 13-18 岁符合《精神障碍诊断与统计手册 第五版》(DSM-5)诊断标准的青少年抑郁障碍患者，根据汉密尔顿焦虑量表（Hamilton Anxiety Scale，HAMA）评分是否大于等于 14 分，将抑郁障碍青少年分为伴焦虑痛苦组（n=50）和不伴焦虑痛苦组（n=47），选取性别、年龄、受教育年限相匹配的正常青少年作为健康对照组（n=48）；采用点探测范式，参照北京师范大学心理学院张学民教授团队编写的注意偏向任务程序，使用 E-Prime 实验软件编程，对受试者进行负性-中性情绪面孔图片的注意偏向任务测评，计算机记录受试者的每次反应，测评结束后经过运算分别得到负性、中性图片的平均反应时、反应正确率以及注意偏向值（注意偏向值=负性图片平均反应时-中性图片平均反应时，其数值越大，提示注意偏向效应越显著）。

结果 （1）伴焦虑痛苦组的负性、中性图片平均反应时显著大于不伴焦虑痛苦组及健康对照组（p<0.01），伴焦虑痛苦组的负性图片正确率显著低于不伴焦虑痛苦组（p<0.05），注意偏向值在三组间的差异无统计学意义（p>0.05）；（2）三组内负性与中性图片反应时、负性与中性图片正确率的差异均无统计学意义（p>0.05）；（3）汉密尔顿焦虑量表评分与抑郁障碍青少年的负性、中性图片平均反应时呈正相关关系（r=0.280，p<0.01；r=0.319，p<0.01）；与抑郁障碍青少年的负性、中性正确率呈负相关关系（r=-0.285，p<0.01；r=-0.228，p<0.05）；与注意偏向值无统计学相关性（p>0.05）。

结论 （1）本研究在伴与不伴焦虑痛苦的青少年抑郁障碍患者中均未观察到显著的对负性情绪图片的注意偏向效应；(2)相较于不伴焦虑痛苦的青少年抑郁障碍患者，伴焦虑痛苦特征者对出现在负性情绪图片后的目标刺激的反应时间更长、正确率更低，这一发现提示伴焦虑痛苦特征的青少年抑郁患者可能策略性回避负性/威胁性刺激；（3）伴焦虑痛苦的程度与青少年抑郁障碍患者在情绪面孔注意偏向任务中的反应时正相关，与正确率负相关。

关键字：青少年，抑郁障碍，注意偏向，焦虑痛苦

伴有自杀意念的儿童青少年双相抑郁患者 SLC6A4 基因甲基化研究

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目的 探讨儿童青少年双相抑郁患者自杀意念与 SLC6A4 基因甲基化的关系。

方法 回顾分析 2020 年 12 月-2022 年 12 月在新疆维吾尔自治区人民医院临床心理科住院的 43 例儿童青少年双相抑郁患者，其中，有自杀意念 29 例，将其作为研究组，无自杀意念 14 例，将其作为对照组。采用 Methprimer 软件对 SLC6A4 基因启动子区进行甲基化岛预测和甲基化引物设计，提取好的 DNA 经亚硫酸盐转化后进行 PCR 扩增和焦磷酸盐测序，确定甲基化的 CpG 位点和甲基化率，检测 SLC6A4 基因的甲基化水平。进一步比较两组间 SLC6A4 基因甲基化率的差异，及其与自杀意念的相关性。

结果 （1）有自杀意念组与无自杀意念组在 SLC6A4 基因 CpG_1 位点的甲基化率分别为 1.897±2.956、5.077±8.046，差异无统计学意义（P＞0.05）；在 CpG_2.3 位点的甲基化率分别为 12.448±8.874、15.071±8.957，差异无统计学意义（P＞0.05）；在 CpG_4 位点的甲基化率分别为 12±18.153、11.6±13.476，差异无统计学意义（P＞0.05）；在 CpG_5.6 位点的甲基化率分别为 7.379±7.083%、2.571±3.694%，差异有统计学意义（P≤0.05）。（2）儿童青少年双相抑郁患者的自杀意念与 SLC6A4 基因甲基化 CpG_1 位点不相关（r=-0.273，P＞0.05）；与甲基化 CpG_2.3 位点不相关（r=-0.163，P＞0.05）；与甲基化 CpG_4 位点不相关（r=-0.124，P＞0.05）；与甲基化 CpG_5.6 位点呈显著正相关（r=0.341，P≤0.05）。

结论 儿童青少年双相情感障碍抑郁发作患者的自杀意念与 SLC6A4 基因甲基化有关，为明确其自杀意念的发生原因提供了基础。

关键字：儿童青少年双相抑郁，自杀意念，SLC6A4 基因，DNA 甲基化

儿童青少年双相抑郁患者冲动攻击行为相关社会心理因素研究

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目的 探讨与儿童青少年双相抑郁患者冲动攻击行为相关的社会心理因素，为冲动攻击行为的预测和干预提供直接的理论依据。

方法 回顾分析 2019 年 9 月-2022 年 7 月在新疆维吾尔自治区人民医院临床心理科住院的 85 例儿童青少年双相抑郁患者，其中，有冲动攻击行为 34 例，将其作为研究组，无冲动攻击行为 51 例，将其作为对照组。完善一般情况调查表、父母教养方式问卷、青少年生活事件量表、简易应对方式问卷。分析研究组与对照

组之间各影响因素之间的差异及与冲动攻击行为的关系。

结果 ①有冲动攻击行为组积极应对维度平均分低于无冲动攻击行为组，其消极应对维度平均分高于无冲动攻击行为组，差异有统计学意义（P＜0.05）。②有冲动攻击行为组在人际关系、学习压力、受惩罚、丧失、健康适应方面的负性生活事件均高于无冲动攻击行为组，差异有统计学意义（P＜0.05）。③与无冲动攻击行为组相比，有冲动攻击行为组父亲表现出过度保护，过分干涉的教养方式，母亲表现出过分干涉、过分保护，偏爱被试的教养方式，差异有统计学意义（P＜0.05）。④父亲过度保护，过分干涉及母亲过分干涉、过分保护，偏爱被试的教养方式，是儿童青少年双相抑郁患者冲动攻击行为发生的影响因素（OR>1，P＜0.05）。

结论 有冲动攻击行为的儿童青少年双相抑郁患者多采用消极应对方式，其经历的负性生活事件较多，且他们的父母教养方式表现出过分干涉、过分保护、偏爱，需要从以上方面着手去改善儿童青少年双相抑郁患者的成长环境及教养方式，进一步减少冲动攻击行为的发生。

关键字：儿童青少年双相抑郁，冲动攻击行为，社会心理因素

0-6 岁儿童饮食行为问题流行特征的 Meta 分析

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目的 采用 meta 分析探讨我国 0-6 岁儿童饮食行为问题检出状况，为儿童饮食行为干预提供理论依据。

方法 通过检索 Pubmed、Embase、PsycInfo、CochraneLibrary、中国知网、万方、重庆维普、中国生物医学文献数据库自建库以来至 2022 年 6 月发表关于中国 0-6 岁儿童饮食行为的文献，严格设定文献纳入、排除标准，使用 R4.1.0 进行 meta 分析。

结果 根据纳入及排除标准，纳入文献 35 篇，共 43105 例，采用随机效应模型对我国 0-6 岁儿童饮食行为问题检出率进行单组 Meta 分析，总体检出率为 60.90%[95%可信区间（CI）52.82%-68.42%]。亚组分析显示，男、女童饮食行为问题检出率差异无统计学意义（P>0.05）;不同年龄的儿童饮食行为问题检出率差异具有统计学意义（P<0.05）；西部儿童饮食行为问题检出率明显高于东部（P<0.05）；乡村儿童饮食行为问题检出率明显高于城市（P<0.05）；2011-2015 年发布的文献儿童饮食行为问题检出率明显高于 2016-2020 年（P<0.05）；抽样调查的儿童饮食问题检出率明显高于普查(P<0.05)；自编工具测量的儿童饮食问题检出率明显高于 IMFeD 问卷、儿童饮食行为问题问卷（P<0.05）；八种常见儿童饮食行为问题检出率差异具有统计学意义（P<0.05）。

结论 近年来我国 0-6 岁儿童饮食行为问题总体检出率有所回落，但仍明显高于西方发达国家水平，应成为儿童健康重点关注内容之一。

关键字：儿童 饮食行为问题 流行病学 Meta 分析

儿童少年双相抑郁患者童年创伤及家庭环境的关系

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目的 探讨儿童少年双相情感障碍抑郁发作患者童年创伤及家庭环境特征的关系。

方法 选择 2019 年 12 月-2020 年 11 月在郑州市第八人民医院门诊及住院治疗的儿童少年双相情感障碍抑郁发作患者 60 例为病例组，用性别、年龄和受教育年限相匹配的郑州市某中学 60 名健康儿童少年作为对照组。采用儿童期虐待问卷（CTQ）、家庭环境量表（FES-CV）对 2 组受试者进行评估，分析儿童少年双相情感障碍抑郁发作患者童年创伤及家庭环境特征的关系。

结果 病例组与对照组在情感虐待、躯体虐待、性虐待、情感忽视及躯体忽视因子得分上均存在显著性差异（P＜0.05）。病例组的亲密度、情感表达、成功性、知识性、娱乐性及道德宗教观因子得分均低于对照组，病例组的矛盾性、控制性因子得分均高于对照组，差异均具有统计学意义（P＜0.05）。病例组童年创伤中的情感虐待、躯体虐待、性虐待、情感忽视、躯体忽视因子得分均与家庭环境量表中的亲密度、情感表达、知识性因子存在显著负相关；情感虐待、躯体虐待、性虐待、情感忽视因子得分均与矛盾性因子得分呈显著正相关，与娱乐性因子得分呈显著负相关；情感虐待因子得分与成功性、道德宗教观因子得分呈显著负相关，与控制性因子得分呈显著正相关，情感忽视、躯体忽视因子得分均与成功性、道德宗教观因子得分呈显著负相关（P值均＜0.05）。

结论 儿童少年双相情感障碍抑郁发作患者存在童年创伤及不良的家庭环境；家庭环境越差，童年创伤越严重。

关键字：儿童少年；双相情感障碍抑郁发作；童年创伤；家庭环境

校园欺凌在童年创伤与青少年非自杀性自伤中的中介作用探讨

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目的 探讨校园欺凌在童年创伤与青少年 NSSI 中的中介作用，为青少年 NSSI 行为的预防和干预提供思路

方法 以 2022 年 1 月-2023 年 1 月宁波市康宁医

院门诊和住院收治的 12-18 岁有非自杀性自伤（Non-suicidal self injury，NSSI）的抑郁症或双相情感障碍抑郁相的青少年为研究对象，通过儿童期创伤问卷调查其童年创伤、Olweus 儿童欺负问卷被欺凌分量表调查校园欺凌以及青少年自我伤害问卷评估非自杀性自伤的严重程度，分析各变量的现状和人口学变量上的差异，采用相关性分析童年创伤、校园欺凌和 NSSI 之间的相关关系，并进一步使用 Bootstrap 法进行中介效应检验校园欺凌是否起到中介作用

结果 实际共发放问卷 130 份，回收有效数据 123 份。其中男性 28 人，女性 95 人；学习成绩不好 33 人，成绩一般 50 人，成绩良好 29 人，成绩优秀 11 人；独生子女 45 人，非独生子女 78 人；家庭所在地为农村的 56 人，城市为 67 人；双亲家庭 96 人，单亲家庭 27 人；抑郁症 103 人，双相情感障碍目前抑郁发作 20 人；存在童年创伤的有 93 人,被试情感虐待及情感忽视水平偏高，躯体虐待、性虐待、躯体忽视水平偏低。校园欺凌各变量中关系欺凌在性别上比较有统计学差异（P<0.05）。情感忽视、言语欺凌、关系欺凌、校园欺凌总分、NSSI 的严重程度在年龄上有统计学差异（P<0.05），低年龄组均高于高年龄组。性虐待在是否是独生子女上有统计学差异（P<0.05），独生子女高于非独生子女。躯体虐待、性虐待、言语欺凌、关系欺凌、校园欺凌总分、NSSI 的严重程度在家庭成长环境上无统计学差异，情感虐待、情感忽视、躯体忽视、身体欺凌在家庭成长环境上有统计学差异（P<0.05），单亲组得分高于双亲组。相关性分析显示童年创伤各维度与 NSSI 的严重程度之间呈正相关；童年创伤与身体欺凌、言语欺凌、关系欺凌、校园欺凌总分呈正相关；校园欺凌及各维度与 NSSI 的严重程度之间也呈正相关。青少年童年创伤与 NSSI、校园欺凌之间的关系为两两显著相关。使用 Bootstrap 法进行中介效应检验发现校园欺凌分别在情感虐待、躯体虐待、性虐待、情感忽视、躯体忽视和 NSSI 之间的中介作用

结论 校园欺凌、童年创伤和 NSSI 两两之间呈现正相关。童年创伤不仅可

关键字：青少年非自杀性自伤；童年创伤；校园欺凌；中介作用

正念训练对住宿中学生心理健康的探索研究

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目的 通过在住宿的中学生当中探讨一种能提高孩子们身心健康程度的有效方法，尝试用正念训练方法干预，观察改善住宿中学生心理健康的效果。

方法 随机选取海口市某中学初中一年级至三年级学生 458 人，将其分成正念训练增强组（n＝81）、正念训练组（n＝148）和非正念训练组（n＝229）3 组，正念训练增强组和正念训练组运用五段正念录音周一至周五每日中午练习，循环 12 周。另外，正念训练增强组每周增加 3 次课前训练与下午课后训练，并完成宿舍空余时间的自主练习任务。在此期间非正念训练组不做任何训练。 采用抑郁－焦虑－压力自评量表简版（DASS-21），12 周干预后 复测对比，观察心理健康的改善情况。(具体训练方法：首先由护士向患者介绍进行身体部位觉察在缓解内心压力方面中发挥的重要作用，指导患者采取仰卧位，并闭上双眼，然后播放舒缓的背景音乐，指导患者在音乐中感受自己身体的各个部位，从头到脚依次感受，这个过程保持 10 min 左右的时间。其次由护士教会患者掌握正念呼吸、正念冥想、正念内省等放松方法。然后让患者坐下，慢慢地静下心来，感受空气通过鼻腔时的流动。告知患者当心中出现不良情绪和压力时，不要与之对抗，不要排斥，而是仍由这些情绪产生、逐渐消失，并感受这一过程，尽量忽视这些情绪，将自己的注意力集中在腹部气腹上，这个过程保持 10 min 左右的时间。指导患者掌握正念瑜伽练习方法，即要觉察自己身体放松的感觉、呼吸节奏，并对自己脑海中的想法、思维、情绪进行客观的辨识，这个过程保持 10 min 左右的时间。)

结果 重复测量方差分析结果显示，DASS-21 总分及各因子分（抑郁 分量表除外）的分组主效应均有统计学意义，T2 正念训练增强组 DASS-21 总分和焦虑得分低于正念训练 组（P ＜ 0. 05 或 P ＜ 0. 01）和非正念训练组（均 P ＜ 0. 01），压力得分低于非正念训练组（P ＜ 0. 01）。

结论 寄宿在学校的孩子，往往远离家庭远离父母，缺少家庭的关爱，心理状态常处于抑郁、焦虑甚至恐惧的状态，我们首次尝试将正念方法带入校园，试图通过进行正念减压训练帮助孩子们全身心都处在放松状态，通过观察对比，高强度正念训练有助于改善住宿中学生心理健康情况，正念训练产生了积极有效的促进作用。

关键字：住宿中学生; 正念训练; 心理健康

休学对在校青少年中度抑郁患者临床治疗效果影响

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目的 休学对青少年(13--17 岁）中度抑郁症患者进行治疗效果影响分析。

方法 方法:是从 2010 年元月至 2023 年 6 月，在我院门诊 79 例在校青少年中度抑郁患者，经郁症自评量表（SDS)确诊后。分值在 64--74 分之间的学生入组。A 组为自愿休学青少年患者，B 组为不愿意休学的青少年患者分，经门诊治疗观察。使用抑郁自评量表（SDS），对患者的抑郁症状进行比较。治疗开始每月(治疗满三十天）测评一次，持续三个月(90 天），比较(SDS)分值少于 63 分，由中度抑郁转变为轻度抑郁(53--63）之间和不存在抑郁(小于 53）的人数比较

结果 结果:通过发现，第一月未 SDS 比较 p>0.05，治疗效果无差异，第二个月未 P<0.05 有差异，第三个

月未 P<0.05 有差异。其间在第一次月未有 A 组有 3 人提出不愿意治疗意愿，B 组 18 人提出不愿治疗的意愿。第三月未，A 组无人提出不愿治疗意愿，B 组 12 人提出不愿治疗意愿。提示休学的患者症状改善较快，效果持久稳定，治疗配合依从性好。而未休学的患者症状缓解较缓慢，容易波动，，治疗依从性较差。两者比较有明显差异。

结论 对于在校青少年中度抑郁症患者，系统性的治疗的同时建议休学治疗方式最为有效，利于病情稳定。

关键字：休学 青少年中度抑郁症患者 门诊治疗效果

儿童青少年抑郁障碍住院患者非自杀性自伤检出率及影响因素分析

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目的 探索儿童青少年抑郁障碍住院患者非自杀性自伤（non-suicidal self-injury ，NSSI）检出率及相关影响因素。

方法 选取在阜阳市第三人民医院住院的抑郁障碍儿童青少年患者，收集一般人口学资料及临床数据。采用相关性分析及回归分析探讨抑郁障碍患者伴 NSSI 的独立影响因素。

结果 抑郁障碍患者伴 NSSI 检出率为 35.2%（266/756）。NSSI 行为与性别、总病程、体质指数（body mass index ，BMI）、BMI 分级和高密度脂蛋白（high-density lipoprotein ，HDL）水平呈正相关；与年龄、发病年龄、首次住院年龄呈负相关（P<0.05）。回归分析指出，女性（OR=2.02）、肥胖(OR=1.87)是抑郁障碍患儿伴 NSSI 的危险因素，而发病年龄较大(OR=0.81)是 NSSI 发生的保护性因素(P<0.05)。

结论 儿童青少年抑郁障碍住院患者 NSSI 检出率较高，且与性别、体质指数水平及发病年龄相关。

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关键字：儿童青少年；抑郁障碍；非自杀性自伤；检出率；影响因素

神经调控技术治疗非自杀性自伤的研究进展

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目的 非自杀性自伤（ Non-suicidal self-injury，NSSI） 行为是一类广泛而普遍的公共卫生问题， 在世界范围内患病率均较高。 然而， 目前对 NSSI 的治疗手段较为缺乏。 本文从神经调控技术角度出发，探讨 NSSI 行为可能的新型治疗方法。

方法 以“ electroconvulsive therapy（ Mesh） 、repetitive transcranial magnetic stimulation、transcranial direct current stimulation、vagus nervi stimulation、deep brain stimulation、non-suicidal self-injury” 为英文关键词检索 Medline（ PubMed） 、 Web of Science、Cochrane 数据库，以“电惊厥治疗、重复经颅磁刺激、经颅直流电刺激、迷走神经刺激、深部脑组织刺激” 为中文检索词检索中国知网、 万方数据知识服务平台、维普数据库、中国生物医学文献数据库。检索时间截至 2022 年 11 月底。 纳入标准： 已经发表的全文文献（ 包括临床研究、基础研究、动物实验、 系统综述），年代不限。 排除标准：排除学位论文、 会议论文及经验总结性概述。

结果 研究表明 ECT、rTMS、tDCS、VNS 或 DBS 等治疗对 NSSI 行为可能有效，且治疗相关副作用较少，但确切的临床疗效或作用机制尚未研究清楚。

结论 神经调控技术角度可能作为 NSSI 行为的一种新型治疗方法。 需大规模随机对照试验来评估其有效性及安全性， 同时探索合适的治疗靶点和刺激参数， 以完善临床治疗方案提升疗效。

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关键字：神经调控技术； 电惊厥治疗； 重复经颅磁刺激； 经颅直流电刺激； 迷走神经刺激； 深部 脑组织刺激； 非自杀性自伤

青少年情绪障碍患者非自杀性自伤行为及影响因素研究

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目的 探讨青少年情绪障碍患者非自杀性自伤行为的发生情况及其影响因素，为临床干预提供更多理论依据。

方法 选择 2019 年 1 月-2021 年 12 月在上海奉贤区精神卫生中心门诊就诊的青少年情绪障碍患者 180 例为对象，采用青少年自我伤害行为问卷、艾森克人格问卷、情绪稳定性量表、青少年生活事件量表及父母教养方式量表对入组者进行调查，根据调查结果分为有非自杀性自伤行为组和无非自杀性自伤行为组。查阅两组临床资料，对可能的影响因素进行单因素和多因素 Logistic 回归分析。

结果 180 例青少年情绪障碍患者中有 56 例出现非自杀性自伤行为，发生率为 31.11%。单因素及多因素结果表明，合并睡眠障碍、童年家庭功能不全、童年虐待、艾森克人格问卷评分、情绪稳定性量表评分、青少年生活事件量表评分、父母教养方式量表评分均为青少年情绪障碍患者非自杀性自伤行为的危险因素

（P<0.05）。

结论 青少年情绪障碍患者非自杀性自伤行为发生率较高，受到睡眠状态、童年家庭功能状态、童年虐待、人格情况、情绪稳定性、生活事件、父母教养方式的因素影响，应针对上述可能的影响因素制定干预对策，以降低非自杀性自伤行为发生率。

关键字：青少年情绪障碍；非自杀性自伤行为；多因素 Logistic 回归分析；干预对策；

The Exploration of Factors Correlated with Non-suicidal Self-injury in Adolescents

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Objective Our study aims to understand self-injurious behaviors in secondary school students, their incidence, types, causes, and influencing factors. This will help prevent and correct such behaviors.

Methods This study recruited a total of 1770 adolescents in China. Data was collected through self-report questionnaires and several scales, including the Self-Rating Anxiety Scale (SAS), Self-Rating Depression Scale (SDS), Insomnia Severity Index (ISI), Childhood Trauma Questionnaire (CTQ-SF), and Social Support Rating Scale (SSRS). Clinician-rated severity of non-suicidal self-injury was also used to assess NSSI behaviors. Multinomial logistic regression models were utilized to estimate the association between risk factors and NSSI.

Results The study found that a significant proportion of adolescents (18.4%) engage in NSSI for various reasons, including to relieve negative emotions and to relax. The results indicated that early life trauma and poor emotional regulation are risk factors for NSSI, while positive social support ($P < 0.001$, $t = 6.811$) and resilience ($P < 0.001$, $t = 9.459$) have a protective effect. Additionally, sleeplessness ($P < 0.001$, $t = 10.751$) was found to be associated with NSSI.

Conclusion Our study suggests childhood trauma may cause emotion regulation issues, leading to emotional problems and maladaptive coping. Low resilience exacerbates these issues, but positive social support protects adolescents. These findings have implications for mental health interventions and prevention efforts.

关键字：Adolescents, NSSI, Childhood trauma

安庆地区青少年游戏障碍现状及影响因素研究

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目的 调查安庆地区青少年游戏障碍（GamingDisorder，GD）现状并分析相关影响因素。

方法 于 2021 年 4 月-2023 年 2 月随机抽取某地区 800 名青少年作为研究对象进行问卷调查。采用网络游戏障碍量表（20-itemInternetGamingDisorderTest，IGD-20）评定入组青少年的游戏障碍情况，以问卷调查方式获取研究对象的性别、学习阶段、学习成绩、居住地、是否为独生子女，采用儿童少年生活质量量表（QualityofLifeScaleForChildrenandAdolescents，LSCA）和青少年生活事件量表（AdolescentSelf-RatingLifeEventsCheck-list，ASLEC）评价入组对象各项量表因子得分，采用 Logistic 多元回归模型对某地区青少年游戏障碍影响因素进行分析。

结果 800 名青少年中，23 名存在 GD，检出率为 2.88%。不同学习阶段 GD 检出率比较，差异无统计学意义（P＞0.05），男性检出率高于女性，城市高于农村，独生子女高于非独生子女，检出率随学习成绩的升高而降低，上述差异均具有统计学意义（P＜0.05），两组师生关系评分比较，差异无统计学意义（P＞0.05），GD 组同伴关系及亲子关系评分均低于非 GD 组，差异具有统计学意义（P＜0.05），两组学习压力、健康适应、丧失、受惩罚以及其他评分比较，差异无统计学意义（P＞0.05），GD 组人际关系评分高于非 GD 组，差异具有统计学意义（P＜0.05），性别、独生子女、学习成绩、同伴关系、亲子关系以及人际关

结论 安庆地区青少年游戏障碍检出率仍处于较高水平，学校及家长需给予足够重视，针对相关影响因素给予及时的干预，对于促进青少年健康成长具有重要意义。

关键字：青少年；游戏障碍；生活质量；生活事件；影响因素

越鞠丸联合奥氮平治疗对精神分裂症患者阴性症状及血清神经递质的影响

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目的 探讨越鞠丸联合奥氮平治疗对精神分裂症患者阴性症状及血清脑源性神经营养因子（BDNF）、多巴胺（DA）、5-羟胺酸（5-HT）的影响。

方法 选取 2021 年 11 月~2023 年 1 月在上海市精神卫生中心治疗的精神分裂症患者 100 例，随机分为试验组与对照组，每组 50 例。两组均予以奥氮平治疗，此外，试验组予以越鞠丸口服，对照组予以越鞠丸安慰剂口服，两组均连续治疗 8 周。对两组疗效和不良反应进行统计，于治疗前和治疗后，行阳性与阴性症状量表（PANSS）、阴性症状量表（SANS）、可重复成套神经心理状态测量（RBANS）、个人和社会功能量表（PSP）的评定，并行血清 BDNF、DA、5-HT 的测定。

结果 试验组总有效率为 93.75%，高于对照组的 73.47%，差异显著（P<0.05）。治疗后，试验组 PANSS 阴性因子、PANSS 总分和 SANS 评分显著低于对照组（P<0.05），RBANS 评分、PSP 评分显著高于对照组（P<0.05）。治疗后，试验组血清 BDNF、DA、5-HT 水平高于对照组（P<0.05）。

结论 越鞠丸联合奥氮平能够改善精神分裂症患者阴性症状和认知功能，其实现可能与上调血清BDNF、DA、5-HT 表达有关。

关键字：精神分裂症；越鞠丸；阴性症状；认知功能；脑源性神经营养因子；多巴胺；5-羟色胺

孤独症谱系障碍儿童巨细胞病毒抗体及免疫球蛋白 IgG 的研究

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目的 孤独症谱系障碍（Autism specture disorder, ASD）是一种影响患者终身社会功能的神经发育疾病。ASD 的病因尚不明确，但提示可能与遗传、环境、病毒感染及免疫因素相关。

方法 本研究检测了 28 例 ASD 儿童和 45 例正常发育儿童（TD）血清中抗巨细胞病毒（CMV）和免疫球蛋白（IgG，IgE、IgM），以及 C3,C4。ASD 儿童和 TD 儿童的 5 ml 血液中分离血清样本。采用酶联免疫法定量测定上述病毒及免疫球蛋白抗体。采用 Gesell 量表评估发育水平，儿童期孤独症评定量表（CARS）、孤独症诊断观察量表（ADOS）评估 ASD 症状，以及情绪调节量表及儿童睡眠习惯问卷（CSHQ）评估 ASD 儿童情绪及睡眠情况。

结果 采用 SPSS 软件，结果显示孤独症患者血液中抗巨细胞病毒 IgG 抗体数量增加，13 例显示抗体阳性，与 TD 儿童相比，无统计学意义。ASD 儿童血液中抗免疫 IgG 抗体升高（P＜0.05）；与健康对照组相比，ASD 儿童血清中免疫球蛋白 IgG 水平有显著差异；相关分析显示 IgG 结果与情绪调节能力呈现负相关，与睡眠时长呈正相关。

结论 ASD 病毒感染的机制尚不清楚，可能与及免疫球蛋白 IgG 有关，ASD 儿童的免疫因素与情绪调节能力及睡眠障碍可能有关。

关键字：孤独症谱系障碍;巨细胞病毒抗体;免疫球蛋白;儿童

奥氮平联合认知治疗对儿童青少年精神分裂症的疗效

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目的 探讨奥氮平联合认知治疗对儿童青少年精神分裂症患者认知疗效及事件相关电位 P300 的影响

方法 将 62 例儿童青少年精神分裂症患者随机分为研究组和对照组各 31 例，对照组采用奥氮平治疗，研究组在对照组治疗的基础上联合认知治疗。两组患者于治疗前及治疗第 4 周、第 8 周采用阳性与阴性症状量表(PANSS)进行临床症状评价，采用加拿大 Stellate-64 导电位仪进行 P300 检测以及数字消划测验、连线测验、stroop 单词及色词干扰测验来评估患者的认知功能

结果 治疗 4 周末研究组的 PANSS 量表各分量表评分较治疗前下降(P＜0.05)，总分较治疗前明显下降，有统计学意义(P＜0.01)；治疗 8 周末研究组 PANSS 量表总分和各分量表评分显著低于对照组(P＜0.01)；研究组治疗 8 周末 P300 潜伏期较治疗前缩短，有显著差异(P＜0.01)，研究组靶刺激波幅较治疗前升高(P＜0.05)，治疗 8 周末研究组 P300 潜伏期和波幅与对照组比较均有统计学意义(P＜0.05)；两组治疗 8 周末数字消划测验、连线测验、stroop 单词均有显著性差异(P＜0.01)，色词干扰测验有差异性(P＜0.05)；事件相关电位 P300 与认知功能各维度相关性分析得出，潜伏期与连线测验 B 有显著相关性（P＜0.01），波幅与数字消划测验、连线测验 B、stroop 色词干扰测验有相关性(P＜0.05)

结论 奥氮平联合认知治疗能有效提高儿童青少年精神分裂症的临床疗效及改善其认知功能，事件相关电位 P300 的潜伏期和波幅与认知功能的注意功能和执行功能存在相关性，对临床研究有重大意义

关键字：儿童青少年精神分裂症 奥氮平 认知治疗 疗效 事件相关电位 P300

基于 GPT 的聊天机器人联合药物治疗对伴有自伤行为青少年的认知影响的研究

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目的 GPT 是一种基于大型语言模型的人工智能技术，能够生成自然、流畅、有逻辑的文本，也能与人类进行对话和互动?。GPT 在聊天机器人领域有着广泛的应用，例如提供心理咨询、情感支持、教育辅导等服务?。但是，GPT 在聊天机器人领域的应用也面临着伦理、安全、准确性等多方面的挑战?。目前，关于 GPT 的聊天机器人对青少年心理健康的影响的研究还很少，尤其是对伴有自伤行为的青少年群体。本研究旨在探讨基于 GPT 的聊天机器人联合药物治疗对伴有自伤行为青少年的认知影响，包括对注意力、记忆力、执行功能、情绪调节等认知功能影响。

方法 本研究采用随机对照试验的方法，对实验组和对照组进行为期 12 周的干预和观察。基于 GPT 的聊天机器人主要包括以下功能：为青少年提供个性化、互动式、情感化的心理咨询和支持服务；为青少年提供自我评估、自我管理、自我保护等技能训练和指导服务；为青少年提供相关知识、资源、案例等信息服务；为青少年提供紧急情况下的联系和转介服务。主要指标为青少年的自伤行为频率、严重程度、动机等；次要指标为青少年的认知功能和脑功能影像学指标；其他指标为青少年的心理症状、生活质量、满意度等。

结果 使用描述性统计分析受试者的基本情况，使用卡方检验和 t 检验比较两组受试者在基线时的评

估指标，使用重复测量方差分析和多元方差分析比较两组受试者在各个时间点的评估指标，使用相关分析和回归分析探讨 GPT 聊天机器人与自伤行为、认知功能之间的关系

结论 使用 GPT 的聊天机器人联合药物治疗对伴有自伤行为青少年的认知方面各个维度均有较大改善

关键字：GPT 联合药物治疗 自伤行为 青少年 认知

The Relationship between Childhood Trauma and Internet Addiction in Left-behind Children: The Mediating Role of Psychological Capital

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Objective In China, left-behind children are a special group, and they are more likely to suffer from various behavioral problems such as Internet addiction, which has attracted increasing attention. Childhood trauma and psychological capital are factors that may affect Internet addiction. This study aimed to examine the potential mediating role of psychological capital between childhood trauma and Internet addiction in left-behind children, so as to provide an insight for future interventions against Internet addiction in left-behind children.

Methods The Childhood Trauma Questionnaire (CTQ-SF), Positive Psychological Capital Questionnaire and Young Internet addiction Scale were used to assess 416 left-behind children and 438 non-left-behind children. A mediating analysis was conducted to analyze the effects of the childhood trauma and psychological capital on Internet addiction in left-behind children.

Results The results showed that the left-behind children exhibited a higher prevalence of Internet addiction than non-left-behind children (30.77% vs 16.21%, $P < 0.001$). In addition, compared with non-left-behind children, left-behind children suffered from higher childhood trauma and lower psychological capital (all $P<0.01$). The results of mediating effect showed that the psychological capital played a partial mediation between childhood trauma and Internet addiction in left-behind children ($b = 0.1309$, $SE = 0.0287$, 95% CI = [0.0825–0.1956]).

Conclusion Left-behind children exhibited higher prevalence of Internet addiction. Psychological capital played an important mediating role in childhood trauma and Internet addiction among left- behind children. It is recommended to take active measures to enhance the psychological capital of this this disadvantageous group.

关键字：Left-behind children, childhood trauma, psychological capital, Internet addiction, mediating effect.

不同群体性别刻板印象现状调查

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目的 调查不同群体对性别的刻板印象状况以及性别刻板印象相关影响因素，为开展进一步的研究提供依据。

方法 采用横断面问卷调查法，通过问卷星网络问卷调查平台发布问卷，借助上海市虹口区精神卫生中心“心有彩虹”微信公众号以及微信群定点发放问卷。使用一般资料调查表以及华东师范大学刘晅等人编制的性别刻板印象量表测量性别刻板印象，并分析相关影响因素。

结果 被调查人群在性别刻板印象量表各维度（人格特质维度、行为维度、职业维度以及外表维度）以及总体水平上与无刻板印象（3 分）相比，都具有显著性差异（$P<0.001$）。性少数群体与一般人群在男性分量表上，除了人格特质维度，在其他维度及总体刻板印象中，该两个人群间的差异均达到了显著水平（$P<0.05$），而在女性量表上所有维度及总体水平上两人群间的差异均达到显著水平（$P<0.05$）；性少数群体对男性的行为、职业、外表以及总体水平的刻板印象程度要低于一般人群对男性的刻板印象，同时一般人群对女性的刻板印象程度在人格、行为、职业、外表四个维度以及总体水平上都要高于性少数群体。心理卫生工作者与非心理卫生工作者在性别刻板印象男、女分量表上的各维度以及总体间的差异均没有显著性差异（$P>0.05$）。不同婚姻状况、原生家庭结构、个人月收入、是否为独生子女、目前生理性别以及心理性别间的性别刻板印象差异均具有统计学意义（$P<0.05$）。不同生长地、长期居住地、文化程度间的性别刻板印象均不具有显著性差异（$P>0.05$）。

结论 被调查人群存在明显的性别刻板印象，但性少数群体的性别刻板印象水平较之一般人群相对低些。婚姻状况、原生家庭结构、个人月收入、是否为独生子女、目前生理性别以及心理性别对性别刻板印象可能有一定的影响。

关键字：群体；性别刻板印象；现况调查

The Alteration in Neurocognitive Performance and Related Prefrontal Blood Oxygenation between Responders and Non-responders with Adolescent Depression: A Longitudinal Study.

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Objective Subjective neurocognitive complaints represent a leading cause for the burden of adolescent depression. However, the correlation between neurocognitive impairment and depressive symptom in adolescent depression is still controversial. Scholars continue to argue about whether neurocognitive impairment is accompanied by de-

pressive symptom or independent of it. By combining neuropsychological test and neuroimaging technique, this study aimed to investigate the relationship between change of neurocognitive performance and brain activity and antidepressant efficacy in adolescents with depression.

Methods Subjective neurocognitive complaints represent a leading cause for the burden of adolescent depression. However, the correlation between neurocognitive impairment and depressive symptom in adolescent depression is still controversial. Scholars continue to argue about whether neurocognitive impairment is accompanied by depressive symptom or independent of it. By combining neuropsychological test and neuroimaging technique, this study aimed to investigate the relationship between change of neurocognitive performance and brain activity and antidepressant efficacy in adolescents with depression.

Results After treatment, 24 (52.17%) patients met the criteria of response, while 22 (47.83%) not. Compared to responders, non-responders showed more serious impairment of visual spatial and attention performance at baseline. After treatment, although the total score of RBANS was also increased among responders, only the immediate memory improved significantly, and no significant improvement in remaining dimensions was observed. Besides, the blood oxygenation of only two channels (located in dorsal lateral prefrontal cortex) was increased among responders.

Conclusion In various dimensions of cognitive function, immediate memory may be associated with depressive symptoms in adolescents with depression, while other dimensions of impairment may be independent of depressive symptoms. A more individualized treatment is warranted to address the unmet need for improving neurocognitive function in adolescent with depression.

关键字：adolescent depression; neurocognition; the functional near infrared spectroscopy (fNIRS); efficacy

Evaluation of Pharmacological and Non-pharmacological Interventions of Sleep Problems in Patients with Autism Spectrum Disorder: A Meta-analysis

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Objective Sleep problems are common in individuals with autism spectrum disorder (ASD). The aim of this study was to evaluate the effectiveness of pharmacological and non-pharmacological interventions of sleep problems in patients with ASD and to provide evidence for clinical and research decision-making.

Methods PubMed, Embase, Scopus were searched from inception to May 31, 2022. Eligible studies should include investigations of pharmacological and/or non-pharmacological interventions on sleep issues for patients with ASD. Pooled standardized mean difference (SMD) was calculated with either a fixed-effects model or a random-effects model depending on the test for heterogeneity.

Results PubMed, Embase, Scopus were searched from inception to May 31, 2022. Eligible studies should include investigations of pharmacological and/or non-pharmacological interventions on sleep issues for patients with ASD. Pooled standardized mean difference (SMD) was calculated with either a fixed-effects model or a random-effects model depending on the test for heterogeneity.

Conclusion Based on the outcomes of this meta-analysis, we may conclude that pharmacological and non-pharmacological interventions demonstrate promising effectiveness in the resolving sleep problems in people ASD, especially in autistic children.

关键字：intervention, sleep, autism spectrum disorder, clinical trials, meta-analysis

儿童青少年 MDD 住院患者 fALFF 的改变与抑郁症状的改善之间的关系

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目的 儿童青少年住院患者 fALFF（fractional amplitude of low-frequency fluctuation）的降低与抑郁症状的关系已经得到了一些研究的支持。fALFF 是一种神经成像指标，反映了大脑局部区域的神经元活动，可以作为评估抑郁症患者治疗效果和疾病进程的指标之一。本研究为探讨青少年 MDD（Major Depressive Disorder）患者抗抑郁治疗前后抑郁症状的改变与大脑局部区域的神经元活动之间的关系。

方法 在 2020 年 1 月至 2022 年 12 月期间，深圳市康宁医院儿童青少年精神科收治了 23 例经过严格筛选的 MDD 患者，年龄介于 10-18 岁之间，且均符合 DSM-5 重性抑郁障碍的诊断标准，并在入院前后各接受两次 MRI 扫描，扫描间隔时间为 4-6 周。使用汉密尔顿抑郁量表（17-item Hamilton Rating Scale for Depression， HAMD-17）收集相关数据。MRI 数据使用 DPABI 工具包进行预处理，包括时间层矫正、空间标准化、滤波和平滑。通过计算每个体素的 fALFF 值，比较前后 fALFF 值的差异，并进行多重比较矫正。最终，通过相关分析将 fALFF 降低的百分比与抑郁症状变化的百分比进行关联。

结果 研究通过前后磁共振成像的比较发现，右侧颞上回、右侧颞中回、左侧颞中回、左侧海马这些脑部区域的 fALFF 值升高，这意味着在静息状态下，这些区域的神经活动强度增加。同时，右侧颞下回和左侧小脑半球部分区域的 fALFF 值降低，这意味着在这些区域的神经活动强度减弱。研究进一步将以上区域降低或升高的值的百分比与汉密尔顿抑郁量表改变值的百分比做相关分析，但结果没有显著性差异。

结论 本项研究的结果表明，在抑郁症状患者进行治疗前后，fALFF 值的变化是显著的。具体地，右侧颞上回、右侧颞中回、左侧颞中回、左侧海马等局部脑区神经活动强度升高，而右侧颞下回和左侧小脑半球部分神经活动强度降低。然而，与汉密尔顿抑郁量表改变值相比，这些活动强度变化并没有直接体现出抑郁

症状严重程度的变化。由于本项研究的限制，比如样本量较小，抑郁治疗方式不统一等因素，研究结果还需要进一步验证和完善。

关键字：儿童青少年；抑郁症；fALFF

青少年抑郁发作患者精神病性症状的心理特征研究

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目的 关于青少年抑郁发作患者精神病性症状的心理机制研究仍存在争议。本研究旨在探讨青少年抑郁发作患者精神病性症状的危险因素，并分析儿童期创伤和负性生活事件在青少年抑郁发作患者抑郁症状与精神病性症状间的中介作用，从心理机制的角度为青少年抑郁发作的防治提供针对性的指导。

方法 以 2020 年 8 月-2021 年 12 月深圳市康宁医院儿少精神科收治的 190 例抑郁发作患者为被试，采用抑郁自评量表、精神病性体验量表、青少年生活事件量表和儿童期创伤问卷评价患者的心理状况，采用非条件 Logistic 回归方法预测精神病性症状的影响因素，采用 SPSS 软件 Process 插件通过 Bootstrap 法对儿童期创伤和负性生活事件在青少年抑郁发作患者抑郁症状与精神病性症状间的中介效应进行验证。

结果 （1）青少年生活事件量表总分正向预测 2-5 种精神病性症状(OR=1.038，p＜0.05)。（2）负性生活事件中介了青少年抑郁发作患者抑郁症状与精神病性症状数量之间关系(效应值为 0.03，95％CI：0.01-0.08)。

结论 本研究发现负性生活事件可能为青少年抑郁发作患者伴多种精神病性症状的危险因素。负性生活事件在青少年抑郁发作患者抑郁症状与精神病性症状之间起到部分中介作用。

关键字：青少年 抑郁发作 精神病性症状 负性生活事件 中介效应

维生素 D 与注意力缺陷多动障碍的研究进展

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注意缺陷多动障碍（Attention deficit hyperactivity disorder, ADHD）是一种神经发育障碍，以注意力不集中，多动和冲动为特征，是最常见的神经发育障碍之一，是在世界范围内患病率相高。有研究显示，5.3%-9.5%的儿童和 2.5%-5%的成人患有多动症，男性的发病率和易感性均较高。ADHD 明显影响儿童的发育和生理功能以及学习。此外，ADHD 经常与对立违抗性障碍、抑郁、焦虑等多种精神心理疾病共病，使患者表现出的症状更复杂，增加治疗难度，对个人、家庭和社会均造成沉重负担。在治疗上，药物干预是 ADHD 最常见的治疗方法，主要的药物是哌甲酯和托莫西汀。尽管治疗取得了进展，但只有 30%-70%的患者对目前可用的 ADHD 疗法有反应。因此，大量研究进行了许多尝试，试图发现治疗 ADHD 更安全，更有效方法。对于 ADHD 发病机制的研究主要围绕遗传，神经递质，神经解剖，社会心理，氧化应激等方面，但真正机制尚需探索。越来越多的实验和证据表明，维生素 D 与 ADHD 发病有密切关系，在这方面，补充维生素 D 是已知的治疗 ADHD 的最新疗法之一。因此，本文就维生素 D 与 ADHD 的之间的关系进行综述。

关键字：注意缺陷多动障碍, 维生素 D，治疗，儿童，青少年

强光辅助疗法对青少年抑郁障碍患者抑郁症状及睡眠的影响

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目的 青少年是抑郁障碍发病的高峰期，多数患者存在睡眠问题，迫切需要一种能够快速改善青少年抑郁障碍患者情绪和睡眠的治疗方法。目前已经证实强光疗法能够有效改善成年抑郁障碍的情绪和睡眠情况，被认为是成年抑郁障碍的辅助治疗，但是很少有研究探讨强光辅助治疗对于青少年抑郁障碍的疗效。所以本研究的目的是探讨在药物治疗的基础上，强光辅助治疗对青少年抑郁障碍患者抑郁症状和睡眠的影响。

方法 入组苏州市广济医院精神卫生科病房符合 ICD-10 抑郁障碍诊断的青少年（年龄在 14~20 岁之间）30 例。按照 1:1 将患者随机分为强光组（干预组）和暗光组（对照组），在药物治疗的基础上辅助强光治疗，强光组（N=16）光照强度为 10000Lux，暗光组(N=14)光照强度＜300Lux，两组每天早上进行 30min 为期 2 周的光照治疗。在基线和 2 周末使用汉密尔顿抑郁量表（Hamilton Depression Scale , HAMD）评估患者抑郁症状；基线、1 周末和 2 周末使用匹兹堡睡眠质量指数(Pittsburgh sleep quality index,PSQI)评估患者睡眠质量；治疗期间佩戴体动记录仪，测得患者治疗期间平均睡眠潜伏期、卧床时间、总睡眠时间、睡眠效率、睡眠后觉醒时间客观睡眠情况。采用 SPSS25.0 软件进行统计分析，连续性变量符合正态分布使用 t 检验，分类变量使用 Fisher 精确概率法。

结果 共有 25 人完成研究，强光组 14 人，暗光组 11 人。结果显示辅助光照治疗结束后强光组和暗光组抑郁症状均有改善，强光组 HAMD 量表得分低于暗光组（10.07±4.86 VS 14.09±5.86），差异无统计学意义（P＞0.05）；两组 PSQI 量表得分治疗后均下降，强光组（9.09±3.24）与暗光组（9.93±4.05）相比差异无统计学意义（P＞0.05）；光照治疗期间强光组和暗光组睡眠潜伏期、卧床时间、总睡眠时间、睡眠效率、睡眠后觉醒时间客观睡眠参数无明显变化（P＞0.05）；抑郁症状改善与睡眠质量改善不具有统计学相关

结论 1.在常规药物治疗的基础上辅助强光治疗可能对改善青少年抑郁障碍患者的抑郁症状无明显效果； 2.辅助强光治疗对青少年抑郁障碍患者睡眠质量改善未见明显效果； 3.辅助强光治疗对青少年抑郁障碍患者客观睡眠参数无明显影响； 4.辅助强光治疗后抑郁症状的改善与睡眠质量改善无明显关1

关键字：强光治疗，抑郁障碍，睡眠，青少年

The Relationship Among Non-suicidal Self-injury (NSSI), Attachment and Internet Addiction in Chinese Children and Adolescents with Major Depressive Disorder (MDD): A Multicenter Study

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Objective Non-suicidal Self-injury (NSSI) is a common behavior problem in adolescents with major depressive disorder (MDD). Several studies have confirmed that NSSI would be caused by interpersonal difficulties and insecure attachment; and NSSI would lead to a series of addiction-related behavioral problems. We aimed to discuss the relationship among attachment, NSSI and Internet addiction in children and adolescents with MDD in Chinese sample.

Methods We collected general information and clinical data of hospitalized patients younger than 18 years old with MDD from seven medical institutions in China. These patients were divided into two groups according to the presence or absence of NSSI behaviors. Meanwhile, data from age- and sex-matched healthy controls (HC) would be also collected. In this way, data from 3 groups of subjects were obtained. These data include Patient Health Questionnaire -9 (PHQ-9), Modified Adolescents Self-Harm Survey (MASHS), Inventory of Parent and Peer Attachment (IPPA) and Revised Chen Internet Addiction Scale (CIAS-R). We would compare these data among the three groups. For group of MDD patients with NSSI, we would perform pairwise correlation analysis of these data and constructed and verified the hypothesized mediation model.

Results A total of 162 depressive disorder children and adolescents and 102 HC have been included from these 7 hospitals. Except for age and gender, the remaining clinical data showed significant differences ($p < 0.05$) among groups. Pairwise correlation analysis of clinical questionnaires and factor scores showed that the severity of NSSI was negatively correlated with father's communication ($r = -0.46$) and peer trust ($r = -0.39$). Internet addiction was negatively correlated with maternal communication ($r = -0.42$). Maternal and peer alienation were two mediating factors between Internet addiction and NSSI partly.

Conclusion Attachment related factors and Internet addiction can predict the occurrence of NSSI in juvenile MDD patients to a certain extent, and are related to the severity of NSSI. Attachment, Internet addiction and NSSI are closely correlative, and further research is needed to clarify the exact relationship among them.

关键字：Non-suicidal Self-injury; attachment; Internet Addiction; major depressive disorder; multicenter study

伴自杀倾向的青少年抑郁症患者的临床特点及认知矫正及行为塑造护理效果

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目的 分析伴自杀倾向的青少年抑郁症患者的临床特点与认知矫正及行为塑造护理的效果。

方法 于 2020 年 1 月至 2023 年 1 月，筛选在赣州市第三人民医院就诊的伴自杀倾向的青少年抑郁症患者 126 人。入选标准：①所有研究对象均使用相同的抗抑郁类药物；②语言功能无异常，可与其他人正常沟通。排除标准：①存在凝血功能障碍者；②存在严重传染性疾病者。通过随机抽签法将研究对象分为对照组及观察组，每组各 63 例。对照组采用常规护理，观察组在常规护理的基础上增加认知矫正及行为塑造护理。评估工具：①症状自评量表（SCL-90）：评估患者症状严重程度；②焦虑自评量表（SAS）、抑郁自评量表（SDS）：评估心理状态；③蒙特利尔认知评估量表（MoCA）、连线测验（TMT）评估认知功能。

结果 入组的 126 例伴自杀倾向的青少年抑郁症患者，其中对照组男性 32 例，女性 31 例；年龄 14-18 岁，平均（16.44±1.07）岁；病程 4-8 个月，平均（6.41±1.03）个月。观察组男性 33 例，女性 30 例；年龄 13-18 岁，平均（16.29±1.04）岁；病程 4-9 个月，平均（6.32±1.05）个月。两组一般资料比较，差异不具有统计学意义（P＞0.05）。①干预前，两组 SCL-90 评分差异无统计学意义（P＞0.05）；干预后，观察组 SCL-90 评分低于对照组，差异具有统计学意义（P＜0.05）；②干预前，两组 SAS、SDS 评分差异均无统计学意义（P＞0.05）；干预后，观察组心理状态评分较低，差异具有统计学意义（P＜0.05）；③干预前，两组认知功能差异无统计学意义（P＞0.05）；干预后，观察组蒙特利尔认知评估量表（MoCA）评分较高，差异具有统计学意义（P＜0.05），连线测验（TMT）-A、TMT-B 低于对照组，差异具有统计学意义（P＜0.05）。

结论 伴自杀倾向的青少年抑郁症患者具有冲动、易怒等特点，认知矫正及行为塑造护理能显著改善其认知功能与心理状态，提高心理健康水平。

关键字：自杀倾向；青少年；抑郁症；认知矫正；

行为塑造；临床特点

The Mediating Effect of Resilience on The Relationship between Rumination and Depression in Adolescents with Mood Disorders

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Background Adolescents with mood disorders (MD) has become an important public health problem worldwide. However, the psychopathological mechanisms underlying the occurrence of MD in adolescents remain poorly elucidated. Therefore, in this study, we explored the mediating effect of resilience on the relationship between rumination and depression in adolescents with mood disorders.

Methods A total of 569 adolescent MD patients were included. The Patient Health Questionnaire-9 (PHQ-9) was used to assess depressive symptoms. The 21-item Chinese version of the Ruminative Responses Scale (RRS) was used to assess rumination, and the 10-item Chinese version of the Connor-Davidson Resilience Scale (CD-RISC-10) was used to measure psychological resilience.

Results The rate of MD adolescents with severe depressive symptoms (SDS) was 46.00%. The prevalence of SDS was much higher in females (50.75%) than in males (35.09%). The prevalence of SDS was much higher in MD adolescents living with grandparents (56.25%) and in single-parent families (61.36%) than in adolescents living with parents (43.00%) and in adolescents with one parent who was away for a long time (40.00%). MD adolescents with SDS had higher levels of rumination and lower levels of psychological resilience than adolescents without SDS. Resilience partially mediated the relationship between rumination and depression.

Conclusion Lifestyle influences the severity of depressive symptoms in MD adolescents. Rumination and psychological resilience were the risk and protective factors for SDS in MD adolescents, respectively. Furthermore, resilience mediated the association between rumination and depression.

关键字：Mood disorders; Depression; Rumination; Resilience; Adolescent

伴非自杀性自伤抑郁青少年反刍思维与抑郁及正念的关系

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目的 研究伴非自杀性自伤抑郁青少年反刍思维和抑郁症状及正念的关系。

方法 于 2020 年 4 月-2022 年 4 月，筛选赣州市第三人民医院门诊就诊及住院的青少年情绪障碍患者 257 人。研究工具：（1）自编人口学调查问卷：收集被试基本信息。（2）患者健康问卷抑郁量表（PHQ-9）：评估抑郁严重程度。（3）正念注意觉知量表（MAAS）：评估近一周的注意觉知水平。（4）反刍思维量表（RRS）：评估反刍思维严重程度。

结果 257 位情绪障碍青少年患者中伴 NSSI 有 140 人,占 54.50%。自伤者中男性占 22.14%（31/140), 女性占 77.86%(109/140)，差异具有统计学意义（p =0.004）。伴自伤组年龄（14.61±1.82）岁显著低于非自伤组（15.23±1.86）岁，差异具有统计学意义（p =0.007）。伴自伤组 PHQ-9、RRS 总分、症状反刍和强迫思考评分均显著高于非自伤组（均 P＜0.01），MAAS 显著低于非自伤组（P=0.001）。Pearson 相关分析结果表明，伴 NSSI 抑郁症青少年抑郁症状与正念注意觉知水平呈显著负相关(r =-0.705,P＜0.001)，与反刍思维总分(r =0.449,P＜0.001)，症状反刍（r=0.594,P＜0.001)和强迫思考(r = 0.361,P＜0.001）均呈显著正相关。正念注意觉知与反刍思维总分(r=-0.450,P＜0.001)，症状反刍（r =-0.547,P＜0.001)、强迫思考(r = -0.371,P＜0.001）和反省深思（r=-0.173,P＜0.05)均呈显著负相关。采用分层回归分析考察伴 NSSI 组抑郁症患者抑郁情绪影响因素。将抑郁作为因变量，把单因素分析中具有统计学意义的人口学变量性别和年龄作为控制变量放入第一层；因症状反刍与 PHQT 和 MAAS 相关最强，且与 RRS 总分、强迫思考及反省深思均存在显著正相关，只将症状反刍放入第二层；将 MAAS 放入第三层，进行分层回归分析。控制变量对抑郁症状解释力只占 0.5%；症状反刍对抑郁症状方差变异额外解释力为 36.9%；MAAS 对抑郁症状方差变异额外解释力为 19.5%；模型 1 不具有统计学意义，模型 2、模型 3 均具有统计学意义（P <0.001）。

结论 正念注意觉知能显著负向预测伴 NSSI 情绪障青少年抑郁症状。

关键字：非自杀性自伤，青少年，反刍思维，抑郁，正念注意觉知

The Psychological Growth Trajectory Model of Non-suicidal Self-injury Behavior in Adolescents with Family Violence From The Perspective of Positive Psychology: A Grounded Theory Study

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Objective Non-suicidal self-injury(NSSI) has been reported globally and has became a global public health problem. Despite the research on the correlation between domestic violence and NSSI behavior, it is of great clinical value to explore the growth and change of NSSI behavior patients who experience domestic violence from the perspective of positive psychology. The purpose of the study was to explore the growth experience trajectory of adolescents with NSSI behavior after suffering domestic violence,

and to construct a growth process model to provide empirical support for the growth and changes of adolescents at different stages.

Methods A grounded theory study using semi-structured interviews was conducted with 12 teens suffering domestic violence in China From September 2022 to January 2023. Eleven parents who committed domestic violence were also interviewed. The analysis data were analyzed by Strauss and Corbin grounted theory, which were divided into three stages: open login, axial login and selective login, and the data were continuously compared.

Results The growth trajectories of adolescents with NSSI behavior experiencing domestic violence can be summarized into three stages: confrontation and stress, reconstitution and adapt, breakthrough and future growth. The three stages are not linear and progressive, but are in a dynamically evolving scenario.The process model of adolescent psychological growth was preliminarily constructed.

Conclusion The psychological growth of patients with NSSI behavior who experience domestic violence is a dynamic process, and clinical nursing staff can give targeted guidance according to their different psychological states and needs in different periods, which is of great significance to improve their ability to cope with trauma. Identifying adolescent growth from the perspective of positive psychological outcomes will be more conducive to their recovery of self-restoration, family and social functioning.

关键字：Non-suicidal self-injury; psychological growth; trajectory model; family violence; positive psychology; grounded theory

COX 健康行为互动模式干预青少年抑郁障碍患者 负性情绪及自我管理的效果研究

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目的 探讨 COX 健康行为互动模式干预对青少年抑郁障碍患者负性情绪及健康信念的影响

方法 将 2021 年 11 月~2023 年 3 月于深圳市某三级甲等精神专科医院住院治疗且符合纳入标准的 70 例青少年抑郁障碍患者作为研究对象，依据入院先后顺序分为对照组（n=35）和研究组（n=35）。对照组予以常规健康教育干预，研究组予以 COX 健康行为互动模式干预，在临床工作中注重患者主观学习的能动性，肯定患者学习能力及决策的正确性，引导患者养成正确的行为习惯。两组分别在干预前、干预 8 周后，采用抑郁自评量表(SDS)、自我管理量表评估干预效果。比较两组干预前后的负性情绪及自我管理能力。

结果 干预后，两组抑郁自评量表(SDS)评分均低于干预前，且研究组显著低于对照组（t=3.745，P<0.05），干预后，两组自我管理能力各维度评分均升高，且研究组药物管理、饮食管理、心理和社会适应、症状管理各评分显著高于对照组（t=5.675、4.478、5.705、5.245，P<0.05）。

结论 应用 COX 健康行为互动模式干预能有效改善青少年抑郁障碍患者负性情绪，有效提升其对自身药物、饮食、适应能力及自我管理能力水平。

关键字：青少年抑郁障碍患者；COX 健康行为互动模式；负性情绪；自我管理

青少年非自杀性自伤患者 应付方式与父母教养方式的相关性研究

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目的 近些年非自杀性自伤(NSSI)行为在青少年群体中患病率呈现不断升高的趋势，是相关领域关注的热点问题，本研究对伴发 NSSI 的青少年患者展开研究，旨在探讨患者应付方式与父母养育方式的相关性。

方法 研究选取 2019 年 9 月至 2020 年 12 月于安徽医科大学附属巢湖医院就诊的伴发 NSSI 行为的青少年患者 106 名，与此同时选取一定数量年龄与之匹配的健康青少年进行对照研究。在经过 MINI 量表访谈评估确认入组之后，再对入组人群采用一般临床资料、应付方式量表、父母养育方式等量表进行评估。

结果 研究结果发现青少年 NSSI 患者和健康青少年之间一般资料的性别、是否为独生子女、亲子矛盾、父母离异、家庭经济状况、应付方式及养育方式等方面存在统计学差异（p<0.05）。此外相关分析显示应付方式与养育方式之间存在明显的相关性。二元 Logistic 回归分析显示，青少年患者 NSSI 行为与应付方式及父母养育方式的分因子相关，其中采取解决问题、求助的应付方式自伤发生更低，而父亲过度干涉及母亲过度干涉与保护的养育方式下的青少年患者 NSSI 行为发生相对更高。

结论 伴发 NSSI 的青少年患者的自伤行为与采取的应付方式及父母养育方式有关，不当的养育方式可能是导致 NSSI 行为发生的原因，这值得我们更进一步探究早期对家庭养育方式干预的意义，以期减少青少年 NSSI 的发生。

关键字：青少年；非自杀性自伤；NSSI；应付方式；父母教养方式；

Analysis of Suicide Risk Factors in Adolescent Depression Patients

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Objective To explore the risk factors of depressive disorder in adolescents with high risk of suicide.

Methods The subjects were adolescent depressive patients diagnosed by face-to-face interview with clinicians combined with Diagnostic and Statistical Manual of Mental Disorders (5th Edition) (DSM-5) from November 2020 to November 2021. The demographic data and clinical related scale data were collected for the patients who met the criteria for admission, including the filling of general social data, the evaluation of depressive symptoms, suicidal ideation scale (PANSI) and insomnia severity scale (ISI). Firstly, the general data were analyzed, and then the correlation between different suicide risks and clinical symptoms was analyzed, and the differences of insomnia among patients with different suicide risks were compared. finally, suicide preparation and attempted suicide were used as dependent variables to explore the risk factors of suicide risk.

Results The suicide risk of adolescent depressive disorder was correlated with clinical characteristics. Adolescent depressive patients with different suicide risk showed statistical differences in age, sex, insomnia type and depression degree. Adolescent depressive patients with attempted suicide have more difficulty in falling asleep, and teenagers who prepare for suicide have more symptoms of awakening and early awakening.Suicidal ideation in adolescent patients with depression in the past two weeks was negatively correlated with age（r =-0.305）,gender (male)（r =-0.246）and physical exercise（r =-0.215）. It was negatively correlated with learning stress （r =0.170）,family environment（r =0.348，）and bullying（r =0.232）、moderate to severe sleep（r =0.215）/ maintenance（r =0.301）/ early awakening（r =0.267）,insomnia ISI scale total score（r =0.377）,CSE-D total score（r =0.592）,suicidal ideation（r =0.185，）, suicide preparation（r =0.262）,attempted suicide（r =0.347）.There was a positive correlation poor family relationship and the total score of CES-D depression scale are the risk factors of adolescent patients with depression preparing for suicide, and physical exercise (3-5 times per week) is the protective factor of adolescent preparation for suicide. Female is the risk factor of attempted suicide in adolescent depressive disorder, which is 2.5 times higher than that of male. However, the incidence of attempted suicide in adolescent patients with depression was 2.98 times higher than that in patients with moderate and severe difficulty in falling asleep. The total score of CSE-D scale was the risk factor of attempted suicide.

Conclusion There is a correlation between suicide risk and clinical symptoms in adolescent depression patients. The poorer the family relationship, the higher the total score of CSE-D, the less physical exercise frequency, women, moderate to severe difficulty falling asleep, and the higher the total score of CSE-D are risk factors for suicide.

关键字：Adolescents; depressive disorder; insomnia; suicide risk; risk factors.

学龄儿童感觉统合失调与行为问题的关系研究

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目的 探究学龄儿童感统综合失调与行为问题的关系。

方法 随机抽选吉林省 5 个市区中 500 例学龄儿童（6~12 岁），以《感觉统合评定量表》进行感觉统合失调调查，应用 Rutter 儿童行为量表进行其行为问题调查研究及行为问题调查研究,收集其一般资料，分析学龄儿童感觉统合失调与其行为问题之间关系。

结果 500 例学龄儿童中，感觉统合失调检出率为 11.20%（56/500）；其中轻度感觉统合失调占比为 6.40%（32/500），重度感觉统合失调占比为 4.80%（24/500）；不同年龄段儿童感觉统合失调检出率比较，差异无统计学意义（P>0.05）；行为问题调查中，500 例学龄儿童经父母 Rutter 儿童行为量表检出阳性率为 14.20%（71/500）；存在感觉统合失调儿童中行为问题阳性检出率为 87.50%（49/56）；无 M 行为阳性检出情况，其中 A 行为阳性检出率为 4.20%，较 N 行为阳性检出率 10.00%低（2=12.750，P<0.05）；在轻度、重度感觉统合失调儿童中，N 行为阳性检出率随年龄升高而逐渐降低；500 例学龄儿童经教师 Rutter 儿童行为量表检出阳性率为 9.60%（48/500），存在感觉统合失调儿童中行为问题阳性检出率为 76.79%（43/56）；无 M 行为阳性检出情况，其中 A 行为阳性检出率为 2.60%，较 N 行为阳性检出率 7.00%低（2=10.592，P<0.05）；6~9 岁儿童中，轻度、重度感觉统合失调儿童 N 行为阳性检出率随年龄升高而逐渐降低；父母、教师检出儿童行为问题阳性与儿童感觉统合失调正相关，其中父母检出儿童 N 行为问题阳性，与轻度感觉统合失调及总感觉统合失调均存在强正相关性（P<0.05）。

结论 不同年龄学龄儿童，其感觉统合失调检出率无明显差异，但行为问题中 N 行为阳性检出率存在随年龄上升而逐渐下降情况；学龄儿童感觉统合失调与其行为问题存在相关性。

关键字：学龄儿童；感觉统合失调；行为问题

儿童青少年精神分裂症首次住院就诊患者临床特征分析

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目的 探讨儿童青少年精神分裂症首次住院患者的临床特征。

方法 选择近 5 年河北省精神卫生中心儿少精神科 149 名首次住院就诊患者作为研究对象，进行回顾性研究，对其一般资料及临床特征进行调查分析。

结果 首次住院患者中包括男性 65 名（43.6%）、女性 84 名（56.4）；年龄范围为 10-18 岁，年龄中位数为 16±1.78 岁；文化程度方面，小学文化有 9 人、初中文化 62 人、高中文化 78 人，因病已辍学患者 19 人，休学患者 27 人；患者起病病程为 2-2160 天，中位数

为 46±424.29 天；患者住院时间 1-120 天，中位数为 34±22.45 天。治疗方面：21 人接受了 MECT 治疗，128 人未接受 MECT 治疗；单用一种抗精神病药物治疗者有 111 人（且均使用非典型抗精神病药物），联用两种抗精神药物者 35 人（两种非典型抗精神病药物联用者 27 人，一种非典型抗精神病药物与一种典型抗精神病药物联用者 8 人），因疗效欠佳由一种抗精神病药物换为另一种抗精神病药物治疗者 3 人；经治疗后症状得到改善者 133 人，剩余 16 人效果不佳或因未达足疗程治疗而选择自动出院；服用抗精神病药物治疗后，有 57 人（38.26%）发生了不同程度的代谢综合征。

结论 精神分裂症是好发于儿童青少年的精神疾病之一，预后往往不良，会严重影响患者的社会功能及日常生活，早期发现及正规系统的治疗有利于患者的恢复。服用抗精神病药物带来的代谢综合征值得我们关注。

关键字：儿童青少年，精神分裂症，首次住院，临床特征

Comorbid Psychiatric Disorders in A Crouzon Syndrome Patient: A Case Report

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Objective Crouzon syndrome (CS) is a craniofacial disorder inherited in autosomal dominant manner. CS patients could present with prominent psychiatric symptoms, but few could be diagnosed with the symptoms in the psychiatry department during the first medical consultation. The patients'emotional needs and mental health were often neglected.

Methods We reported a case of a 15-year-old girl diagnosed with psychiatric disorders during the first medical consultation in the psychiatry department since birth, presenting with characteristic features of CS, including exophthalmos, facial anomalies, and mandibular prognathism.

Results After obtaining additional psychiatric history narrated from the patient herself, the final diagnosis of acute transient psychiatric disorder and CS was confirmed. The psychiatric symptoms were improved obviously through administering appropriate treatment.

Conclusion This case report emphasizes the importance of CS patients' mental health and family's emotional support.

关键字：Crouzon syndrome; Psychological disorder; Craniofacial dysostosis; Craniosynostosis; Stupor

Prevalence and Clinical Correlates of Psychotic Symptoms and Its Association with Internet Addition Symptoms in Adolescents with Major Depressive Disorder

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Objective Psychotic symptoms in patients with major depressive disorder (MDD) have been associated with a worse clinical course, although previous studies reported substantial heterogeneity. Despite the relevance of the subject, the relationship between psychotic symptoms and socio-demographic and clinical characteristics of adolescent patients with MDD is not clear.

Methods We screened 195 adolescents with MDD, and after excluding cases with changes in diagnosis or incomplete clinical data during the subsequent six months of follow-up, we included 161 cases to investigate the relationship between psychotic symptoms and clinical characteristics. According to the presentation of psychotic symptoms, patients were categorized into PD and NPD groups. Independent sample t-tests and chi-square tests were employed to compare these two groups. Binary logistic regression analysis was conducted to assess socio-demographic and clinical risk factors associated with psychotic symptoms.

Results The prevalence of psychotic symptoms in these MDD adolescents was 27.3%. The scores of BMI, HAMD and IAT of MDD adolescents with psychotic symptoms were significantly higher than those of MDD adolescents without psychotic symptoms (both $p<0.05$). A strong association was found between psychotic symptoms and suicide, with odds ratio of 4.012 for suicide.

Conclusion These findings suggest that the psychotic symptoms of adolescents with MDD are closely related to Internet addiction and suicide attempts. It is crucial to address the occurrence of internet addiction symptoms when treating these patients, while also regularly assessing their suicidal attempts to effectively prevent self-harm.

关键字：major depressive disorder, adolescent, psychotic symptoms, Internet addition, suicide attempts.

抑郁及反刍思维对抑郁青少年自杀意念的影响

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目的 分析抑郁及反刍思维对青少年自杀意念的影响。

方法 选择医院 2020 年 1 月至 2023 年 1 月诊治的青少年抑郁症患者，经纳入与排除标准后，有 90 例患者参与研究。专业人员经培训合格后上岗，应用反刍思维量表（RRS）、抑郁自评量表（SDS）、Beck 自杀意念量表中中文版（BSI-CV）分别对青少年抑郁症患者的反刍思维、抑郁情况、自杀意念进行评价；进行 Pearson 相关性及 Process 中介效应分析，以 $P<0.05$ 表示数据比较差异有统计学意义。

结果 90 例青少年抑郁症患者反刍思维（65.29±3.14）分，抑郁（72.69±2.47）分，自杀意念（40.58±4.11）分。Pearson 相关性分析结果表明，反刍思维分别与抑郁、自杀意念呈显著正相关（均 $P<0.05$），

抑郁与自杀意念呈正相关（P<0.05）。以反刍思维为中介变量、抑郁为自变量，自杀意念为因变量，进行Process中介效应分析，结果表明，抑郁显著正向预测自杀意念（P<0.01）；抑郁显著正向预测反刍思维（P<0.01），且反刍思维显著正向预测自杀意念（P<0.01）。反刍思维在抑郁和自杀意念间起着部分中介作用，中介效应大小为0.301×0.197/0.291=20.38%。

结论 反刍思维不仅直接影响青少年抑郁患者的自杀意念，还会增加抑郁对自杀意念的不良影响。

关键字：抑郁；反刍思维；青少年；自杀意念；相关性；中介作用

辩证行为（DBT）团体治疗在青少年抑郁障碍中的应用研究

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近年来，随着社会压力、学习压力不断增大，青少年抑郁障碍的发病率逐年增高，已经成为当今社会共同关注的疾病。由于青少年大脑神经功能、身体其他机能均尚未发育完全，临床用药选择很局限，但青少年人格、思维等处在发展的阶段，行为可塑性高，故心理治疗可以更好的帮助青少年抑郁障碍的患者。由于辩证行为治疗（DBT）的核心原理是辩证哲学、禅学思想和关注实际问题解决，这些理念和中国的历史文化有共通点，主要强调接纳和改变，青少年更容易接受，故在青少年心理干预的方法中选择辩证行为治疗。DBT中的技能训练模块采用团体的形式，旨在培养青少年自我管理、情绪调节、沟通交往、正念、痛苦耐受等心理技能，增进个体心理素质，提高他们应对压力、困境以及遇到挑战时的适应能力。接受DBT的青少年抑郁症状的改善可能归因于DBT的技能。DBT练习从正念练习开始，正念是一种不加评判地有意识地将注意力集中到当下发生的事情上的心理过程，正念活动可以有效地改变人们的行为，增加健康的行为。正念练习已被证明可以通过增加主观幸福感、减少情绪反应，改善行为，促进改善心理健康。本文主要从青少年抑郁障碍的治疗、DBT的治疗模式、团体心理治疗、DBT在青少年抑郁障碍障碍的应用等几个方面进行阐述。

关键字：辩证行为团体治疗、青少年抑郁障碍

团体认知行为治疗对青少年双相抑郁患者抑郁症状,应对方式及家庭功能的影响

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目的 探讨对于青少年双相抑郁患者，应用团体认知行为治疗对抑郁症状、应对方式以及家庭功能的影响。

方法 选取2020年1月至2022年1月接收的70例青少年双相抑郁者，按照随机数字表法原则，分成实验组35例与对照组35例，对照组采取传统药物治疗，主要是口服盐酸舍曲林片（浙江京新药业股份有限公司，国药准字H20051076，规格50mg*14s），一般每天早上一次口服50mg，1次/d，必要时最大可增加到每天200mg；口服碳酸锂片（江苏联环药业股份有限公司，国药准字H32023141，规格0.25g*100s），一日600～2000mg，分2～3次服用。持续治疗3个月。实验组在对照组的给药基础上，加用团体认知行为治疗，方法如下：（1）方案制定。研究采用澳大利亚Macquarie University情绪健康中心Cool Kids干预项目。Cool Kids干预项目是为青少年所设计的手册化干预项目，13-17岁青少年应用的工作手册结构及内容根据青少年的年龄特点设定，项目涵盖心理教育、暴露、认知重建、社交技能以及家长训练等成分，通过实践证实以上成分属于认知行为治疗有效成分。Cool Kids干预项目涵盖每周1次共10次的团体认知行为治疗，每次时间120min，涵盖2次对家长的心理健康教育。（2）干预策略。①第1次，心理教育。②第2次，现实思考。③第3次，现实思考奖励。④第4次，暴露。⑤第5次，情绪管理。⑥第6次，行为实验。⑦第7次，发展应对。⑧第8次，自信、应对及反馈。⑨第9次，应对策略。⑩第10次，未来计划及成果保持。（3）质量控制。评价患者干预前后抑郁症状（HAMD）、应对方式（SCSQ）、家庭功能（FAD）变化情况。

结果 两组患者干预后HAMD评分较之干预前降低，而实验组干预后评分低于对照组（P＜0.05）；两组患者干预后SCSQ积极应对评分较之干预前提高，实验组干预后SCSQ积极应对评分高于对照组（P＜0.08），干预后两组SCSQ消极评分较干预前降低，实验组评分低于对照组（P＜0.05）；两组干预后FAD评分较干预前提高，而实验组评分高于对照组（P＜0.05）。

结论 应用团体认知行为治疗对缓解青少年双相抑郁者的抑郁症状价值突出，改善患者应对方式及家庭功能，值得推广。

关键字：团体认知行为治疗；青少年；双相抑郁；抑郁症状；应对方式；家庭功能

阿立哌唑与利培酮治疗儿童精神分裂症的疗效与安全性

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目的 比较儿童精神分裂症治疗中利培酮与阿立哌唑的疗效与安全性

方法 回顾性选取2020年2月-2023年2月本院儿童精神分裂症患儿60例，依据用药方法分为阿立哌唑组、利培酮组两组，各30例。统计分析两组症状评分、认知功能、临床疗效、不良反应发生情况。

结果 用药前，两组患儿的PANSS各项评分及总分、焦虑抑郁、敌对猜疑、思维障碍、缺乏活力、活动

性评分及 BPRS 总分之间的差异均不显著（P>0.05）；用药后，两组患儿的 PANSS 各项评分及总分、焦虑抑郁、敌对猜疑、思维障碍、缺乏活力、活动性评分及 BPRS 总分均低于用药前（P<0.05），阿立哌唑组患儿的 PANSS 各项评分及总分、焦虑抑郁、敌对猜疑、思维障碍、缺乏活力、活动性评分及 BPRS 总分均低于利培酮组（P<0.05）。阿立哌唑组患儿的总有效率 86.67%（26/30）高于利培酮组 63.33%（19/30）（$\chi2$=4.356，P<0.05）。阿立哌唑组患儿的不良反应发生率 10.00%（3/30）低于利培酮组 36.67%（11/30）（$\chi2$=5.963，P<0.05）。

结论 儿童精神分裂症治疗中阿立哌唑的疗效与安全性较利培酮高。

关键字：儿童；精神分裂症；利培酮；阿立哌唑；认知功能；不良反应

采用人类生命周期脑图表刻画儿童 ADHD 脑影像个体差异

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目的 采用个体水平研究方式，利用人类周期脑图表探索儿童 ADHD 的异质性。

方法 基于人类生命周期脑图表，计算 270 例儿童 ADHD 和 127 名正常发育儿童（TDC）在 40 个脑表型（6 个全局脑指标、34 个局部脑指标）的个体百分位数，比较 ADHD 和 HC 的差异，计算其与 ADHD 的重要临床特征（核心症状、共患病、执行功能）之间的关系，并与非百分位数的原始数据的研究结果进行比对。 分析 ADHD 和 TDC 每个脑表型的个体百分位数“极端偏高（个体百分位数大于 97.5%）”和“极端偏低（个体百分位数小于 2.5%）”的比例，以描绘儿童 ADHD 脑结构的个体差异。进一步采用围绕中心分割算法（PAM），基于个体百分位数对 ADHD 进行聚类分析，并比较不同亚组的临床特征。

结果 采用非百分位数的原始数据进行病例-对照分析，结果显示，ADHD 和 TDC 之间的差异无统计学意义；采用个体百分位数指标进行病例-对照分析结果显示，即便经过严格的 Bonferroni 多重比较校正后，ADHD 和 TDC 依旧在 22 个脑表型上存在显著差异；经过多重比较之后，非百分位数的原始数据与 ADHD 临床特征之间无显著相关，但多个脑指标的个体百分位数与执行功能存在显著相关。 与 TDC 相比，ADHD 在所有 40 个脑指标上的极端落后比例均较高。基于个体百分位数的聚类分析将 ADHD 分成了 2 个亚组，两个亚组间 ADHD 核心症状无显著差异，但 Cluster1 表现为脑发育落后和执行功能损害，Cluster2 表现为无明显脑发育异常，但存在更严重的焦虑抑郁症状。采用非百分位数的原始数据，儿童 ADHD 也可被分为 2 个脑表型组，尽管不同 ADHD 亚组在脑结构上也存在差异（Cluster1 < Cluster2 = TDC），但他们在基本人口学信息、共病得分及执行功能方面没有显著差异。

结论 相比于非百分位数的原始数据分析，基于人类生命周期脑图表的个体百分位数能够更加有效地反映与 ADHD 临床表现相关的病理特征。儿童 ADHD 的脑发育存在明显的个体差异，相比于 TDC，儿童 ADHD 存在更大比例的脑发育极端落后，由此可构建全新的、具有不同脑发育特征及临床表现的 ADHD 亚组，有望在未来促进 ADHD 的个体化诊疗。

关键字：ADHD；人类脑图表；MRI；异质性

儿少进食障碍患者家庭养育方式和父母人格特征与临床躯体化症状的相关性研

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目的 探讨儿童青少年进食障碍患者的躯体化特征、家庭养育方式和父母人格特征的关系。

方法 对 38 例进食障碍青少年和 36 例正常青少年进行临床心理评估及心理量表测评，包括?进食障碍问卷?和?父母养育方式量表?自评，以及对受试者的父母或者直接抚养人进行?艾森克人格问卷（EPQ）（成人）?测查，了解儿童青少年进食障碍患者的临床特征、家庭养育方式和父母人格特征的情况。

结果 研究组在进食障碍调查量表的 8 项分量表中的得分均高于对照组，差异有显著性。在父母养育方式量表上，研究组在父母情感温暖的得分上低于对照组，在其余 6 个条目的得分均较对照组高，差异具有显著性(P<0.01)。两组受试者父母艾森克人格测验结果显示：①研究组父亲更加外向开朗，而母亲相对内向，差异具有显著性(P<0.01)；②在情绪稳定性方面，研究组和对照组的父亲无显著性差异(P>0.05)，研究组的母亲在情绪稳定性方面较差，倾向情绪不稳定，即情绪通常较不稳定。表现为焦虑紧张、易怒、抑郁、睡眠不好、情绪反应较强烈，差异具有显著性(P<0.01)；③在精神质方面，研究组父母和对照组父母无显著性差异，研究组母亲的得分还要低于对照组(P>0.05)；④在掩饰性方面，研究组和对照组均无明显掩饰性，但研究组父母得分较对照组高，差异均有显著性(P<0.01)。

结论 研究组的父母在养育方式和人格特征方面与对照组存在显著性差异，这些差异对患者进食障碍的发生、发展及预后均有很大的影响。

关键字：青少年；进食障碍；家庭养育方式；父母人格特征

Exposure To Multiple Metals and The Risk of Dyslexia - A Case Control Study in Shantou, China

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Objective Environmental heavy metal exposure has been considered to be the risk factor for neurodevelopmental disorders in children. However, the available data on the associations between multiple metals exposure and the risk of dyslexia in China are limited. The purpose of our study was to examine the associations between urinary metal concentrations and Chinese dyslexia risk.

Methods A total of 56 Chinese dyslexics and 60 typically developing children were recruited. The urinary concentration of 13 metals were measured by inductively coupled plasma-mass spectrometer (ICP-MS). Binary logistic regression and the Probit extension of Bayesian kernel machine regression (BKMR-P) were used to explore the associations between multiple metal exposure and the risk of Chinese dyslexia.

Results Our results indicated that Co, Zn and Pb were significantly associated with Chinese dyslexia in the multiple-metal exposure model. After adjusting the covariates, a positive association was observed between Pb and the risk of Chinese dyslexia, with the odds ratio (OR) in the highest quartiles of 6.81 (95%CI: 1.07–43.19; p–trend = 0.024). Co and Zn were negatively associated with the risk of Chinese dyslexia. Compared to the lowest quartile, the ORs of Co and Zn in the highest quartile are 0.13 (95%CI: 0.02–0.72; p–trend = 0.026) and 0.18 (95%CI: 0.04–0.88; p–trend = 0.038), respectively. In addition, BKMR-P analysis indicated that with the cumulative level across Co, Zn and Pb increased, the risk of Chinese dyslexia gradually declined and then rebounded, albeit non-significantly, and Pb was the major contributor in this association.

Conclusion In general, the urinary concentrations of Co, Zn and Pb were significantly associated with Chinese dyslexia. More prospective studies are needed to confirm the health effects of multiple metals exposure in children with Chinese dyslexia.

关键字：Developmental dyslexia, Environmental pollutants, Urinary metals, Single effect, Joint effect, Interaction

青少年精神障碍患者家属不同阶段照护体验的质性研究

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目的 了解青少年精神障碍患者父母在疾病不同阶段的照护体验，为其制定个体化的干预措施提供理论依据。

方法 以时机理论为框架，采用目的抽样法，于2022 年 11 月—2023 年 4 月广州市某三级甲等医院精神科门诊部及住院部选取47名处于不同疾病照护阶段的青少年精神障碍患者家属进行半结构式深度访谈，每次访谈时间为 30~75 min，采用 Colaizzi 7 步分析法对资料进行分析、归纳并提炼主题。

结果 基于时机理论，提炼出青少年精神障碍患者家属 5 个不同阶段照护体验的主题。①诊断期：应激反应强烈（包含震惊与否认、愤怒与焦虑）。②治疗期：自责与愧疚，不确定感增加（包括对疾病预后的不确定感），应对能力不足（包括缺乏相关知识等）。③出院准备期：重拾信心，渴望专业支持。④调整期：生活模式、沟通方式改变。⑤适应期：积极适应。

结论 青少年精神障碍患者家属在疾病不同阶段的照护体验是动态变化的，医护人员应构建多学科平台，通过多元化教育形式，有针对性地给予其个性化的支持与指导，提升家长照护能力，以帮助青少年精神障碍患者家属提高其照护质量，促进青少年精神障碍患者的康复。

关键字：精神障碍；青少年；家属；体验；质性研究

数字化认知训练对青少年精神障碍患者认知能力的改善作用及不同训练强度间的效能对比

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目的 青少年精神障碍发病率逐年攀升，且对其人际、社会、教育和职业功能方面产生广泛、持久的损害。认知功能损害是青少年精神障碍的重要核心症状之一，是导致其功能受损的独立因素。研究发现，数字化认知训练能够改善精神障碍的认知功能，是认知康复的重要手段。但是，针对青少年精神障碍患者的认知功能缺陷，尚缺乏标准的干预方案。因此，本研究拟探讨数字化认知能力训练改善青少年精神障碍患者认知能力的临床应用效能并探索合适的训练时长及频率。

方法 招募 2022 年 9 月至 2023 年 3 月北京安定医院儿科住院的 6-16 岁患者 152 人，随机分至高强度训练组（N=75，2 次/天，30 分钟/次）和低强度训练组（N=77，1 次/天，30 分钟/次），分别进行为期 21 天的数字化认知训练。本研究所使用的数字化认知训练系统包含感知能力、记忆能力、注意能力、执行功能、情绪识别五大方面的训练任务，训练任务的设计均基于经典的心理学范式。训练前及训练 21 天后分别进行基本认知能力测评，采用电子化测评系统，用时间选择、折纸任务、随机点任务评估感知能力（时间知觉、空间知觉、运动知觉）；警觉性任务、符号搜索评估注意能力（持续性注意、选择性注意）；K 分测试、数字广度正/倒背、对称广度、人像记忆等任务评估记忆能力（视觉工作记忆、短时记忆/工作记忆、联结记忆）；GO/NOGO，flanker、停止信号等任务评估执行功能（反应抑制、冲突抑制）；情绪识别任务评估情绪识别能力。比较训练前后青少年精神障碍患者认知能力的变化及不同训练强度对其认知能力影响的差异。

结果 数字化认知训练能够显著提高青少年精神障碍患者的感知觉、记忆力和执行功能（p<0.05）;其中人像记忆（联结记忆）、折纸任务（空间知觉）、对称广度（空间工作记忆）、Flanker 测验（冲突抑制）在高强度训练组及低强度训练组中均有显著提升（p<0.05），数字正背任务（短时记忆）仅在高强度训练组中有明显的提升（p<0.05）；符号搜索（选择性注意）仅在低强度训练组中有明显的提升（p<0.05）。

结论 数字化认知训练可以显著改善青少年精神障碍患者的认知功能，其中联结记忆、空间知觉、冲突抑制和选择性注意能力经过低强度训练即能够得到显著提升；但短时记忆需要高强度训练才能得到显著改善。本研究为青少年精神障碍的认知功能训练的方案设计提供了参考。

关键字：数字化认知训练；青少年精神障碍

计算机认知矫正治疗在青少年抑郁症非自杀性自伤中的应用研究

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目的 探讨计算机认知矫正治疗对干预青少年抑郁症非自杀性自伤行为的效果，为临床上治疗青少年抑郁症提供新的技术和方法。

方法 运用便利采样法选取我院在 2021 年 3 月至 2022 年 10 月收治的 84 例青少年抑郁症 NSSI 患者为研究对象，采用随机对照分为试验组和对照组，对照组采用常规药物治疗（主要为氟西汀）和康复训练（包括音乐治疗、心理治疗、运动疗法），试验组在对照组的基础上采用计算机认知矫正治疗，包括对患者注意力、信息处理能力、执行力、记忆力和空间视觉能力的训练，每天 2 次，30 分钟/次，共 30 次。具体训练措施：①治疗前对患者进行全面评估，了解患者的情绪、自伤意念及认知水平，然后确定治疗的方案和计划。②根据患者的整体水平选择对患者有吸引力、强度适宜的训练程序，最初的治疗方案选择患者容易接受和掌握的程序，使患者得到更多的奖励，治疗师关注患者的自我适应能力，避免在治疗过程中出现退出；③治疗操作前，康复治疗师会对整体治疗方案进行详细讲解，告知患者最有助于提高训练成果的方法和手段，根据患者不同情况采取个性化方式指导。30 分钟结束后，根据患者训练的成功与否，帮助个人调整计划和目标。试验组和对照组由同一个治疗团队负责统一管理，对患者进行评价并制定康复计划，由同一名康复治疗师（主管护师经过精神康复专业培训）对患者进行训练。治疗前对两组患者进行汉密尔顿抑郁量表（HAMD-17）和自杀功能性评估量表（FASM）评定,治疗 2 周后观察其效果。

结果 采用 SPSS24.0 数据分析，显著性水平 p<0.05 为差异有统计意义。治疗前,两组量表评分无统计学差异;治疗 2 周后观察组汉密尔顿抑郁量表（HAMD-17）评分、自伤功能评定量表（FASM）评分的结果均优于对照组，差异有统计学意义。

结论 对青少年抑郁症非自杀性自伤患者采用药物治疗加上计算机认知矫正治疗，可以改善患者的抑郁情绪，减少非自杀性自伤行为的发生，能帮助抑郁青少年患者的社会功能恢复，促进疾病康复，有积极的临床意义。

关键字：计算机认知矫正治疗；青少年抑郁症；非自杀性自伤

儿童青少年抑郁症自杀相关行为的影响因素

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目的 本研究的目的是了解抑郁症儿童青少年人群自杀相关行为的发生率及其分布，探索儿童青少年抑郁症自杀相关行为的危险因素，提出自杀相关行为预防及干预的建议。

方法 本研究共纳入就诊于某大学医院精神科门诊及住院部的儿童青少年并明确诊断为抑郁症的患者 624 人，均完成心理健康状况调查。采用自编的一般情况病例报告表、Barratt 冲动量表(Barratt Impulsivity Scale, BIS) 、儿童期虐待问卷(the Child Trauma Questionnaire, CTQ) 、自杀行为问卷(Suicidal Behaviors Questionnaire-Revised, SBQ-R)等对人群进行评估，利用 EpiData3.1 建立数据库并双重录入、核查数据，利用 SPSS 26.0 对人口学信息及研究变量进行描述性统计，对其自杀相关行为分别做差异性分析和 Logistic 回归分析计算各个因素的比值比(Odds Ratio， OR)及其 95%可信区间(95% Confidence interval, 95%CI) ，此外，使用结构方程模型(Structural equation modeling，SEM)探索抑郁症儿童青少年的冲动性在儿童期虐待和自杀相关行为之间的关联作用和中介效应。

结果 1. 在抑郁症儿童青少年中，自杀意念、自杀计划、自杀未遂的发生率分别为 92.79%、86.86%、62.02%。2.儿童期虐待总体(OR=4.66; 2.74; 1.93) 、情感虐待(OR=3.56; 2.38; 2.12)均是自杀意念、计划和未遂的危险因素；非计划冲动性(OR=4.61, 95%CI:2.13-10.01) 是自杀计划发生的危险因素。此外，女性、有身体慢性疼痛、负担感、遭受欺凌和网络欺凌也与自杀行为的发生呈正相关。

结论 1.家庭、学校及社会应给予抑郁症儿童青少年重视并采取有效的措施，积极关注其躯体情况及所处人际关系、干预其所经历的虐待事件，同时，有必要针对不同性别制定干预策略，关注女性自杀相关行为。2.冲动性在儿童期虐待总体、情感虐待与自杀计划之间起到显著的中介作用，这为进一步探讨不同因素影响自杀相关行为发生的作用机制提供了一定线索，也提示家庭及学校在制定自杀预防和干预措施应考虑针对有无冲动性的学生制定不同的干预方案。

关键字：儿童青少年；抑郁症；自杀相关行为；儿

童期虐待；冲动性

伴非自杀性自伤行为青少年精神障碍患者家庭管理现状及需求的质性研究

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目的 探讨伴非自杀性自伤行为的青少年精神障碍患者家庭管理现状及需求，旨在制定支持性对策，形成以家庭为中心的管理模式，提升家庭管理水平。

方法 采用目的抽样法选取 2023 年 1-3 月在武汉市某三级甲等精神专科医院儿少病区就诊的伴非自杀性自伤行为的青少年精神障碍患者家庭照顾者 11 人，由经培训并考核合格的护理研究生进行半结构式深度访谈收集资料，采用 Colaizzi 7 步分析法分析、归纳、提炼资料。

结果 提炼出 3 大主题：（1）伴非自杀性自伤行为青少年家庭对自伤行为应对策略被动局限且效果欠佳（策略主要有管理危险物品、严密看护、陪伴疏导、寻求专业帮助）；（2）家庭管理存在专业知识获取困难、难以有效沟通、缺乏冲突应对方法等困境；（3）自伤青少年家庭对可及性的心理咨询治疗、连续性专业指导、针对性学习培训项目、及协同管理服务需求大。

结论 本研究发现伴有非自杀性自伤行为的青少年家庭管理现状不容乐观，家庭照顾者存在对 NSSI 认知不足，沟通技巧缺乏，冲突应对困难等问题，对心理咨询及亲子教育指导服务需求较大。有必要促进家庭、学校、医院、社区和社会间的协同作用，调动优势资源，织密心理服务网络、以线上线下多种形式从各个视角对对青少年心理成长提供持续引导和训练、对家庭教育提供专业指导及跟踪服务，以提高有关家庭对自伤的认知和管理能力，共同应对青少年心理健康挑战，预防和减少青少年自伤行为。

关键字：青少年精神障碍患者 非自杀性自伤 家庭管理现状 需求

Clinical Efficacy of Cognitive Behavioral Therapy Combined with Sertraline in Adolescents with First Episode Depression Associated with Non-suicidal Self-injury

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Objective To explore the clinical efficacy of cognitive behavioral therapy combined with Sertraline in the treatment of first-episode adolescent depression with non-suicidal self-injury.

Methods The first-episode adolescent depression patients with non-suicidal self-injury who were hospitalized in the Department of Psychiatry of the First Affiliated Hospital of Zheng zhou University from March 2021 to December 2022 were selected as the research objects, a total of 78 patients were enrolled and randomly divided into two groups by random number table method. The study group was given cognitive behavioral therapy combined with sertraline, and the control group was given sertraline alone，for a course of 8 weeks. Hamilton Depression Scale (HAMD-24) and Hamilton Anxiety Scale(HAMA-14) were used to evaluate the clinical efficacy before treatment and at the end of 2, 4, 6 and 8 weeks of treatment.

Results After 2 weeks of treatment, the scores of HAMD-24 and HAMA-14 in the two groups were lower than those before treatment (P<0.05). After 4 weeks of treatment, the scores of HAMD-24 and HAMA-14 in the study group were significantly lower than those in the control group (P<0.01). There was no statistically significant difference in the incidence of adverse reactions between the two groups during treatment (p>0.05).

Conclusion Cognitive behavioral therapy combined with sertraline is superior to sertraline alone in the treatment of first-episode adolescent depression with non-suicidal self-injury, with similar safety.

关键字：cognitive behavior therapy；sertraline；non-suicidal self-injury；first-episode adolescent Depression；clinical efficacy

儿童青少年双相情感障碍症状学分析

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目的 探讨儿童青少年期双相情感障碍的特点以及情绪障碍问题。

方法 收集本人在我院门诊诊治的儿童青少年双相情感障碍患者。时间段：2021 年 3 月 12 日到 2023 年 7 月 4 日 。内容包括年龄、性别比例构成，症状学分析，等。

结果 一般情况 130 例患者中男性 30 例（23.1%），女性 100 例（76.9%） 。年龄 11--18 岁，平均 15± 1.79 岁。其中 11-13 岁 33 例（25.4 %），14-16 岁 65 例（50%），17-18 岁 32 例（24.6 %）。病程 1 月--6 年，平均 1.33±1.41 年。 130 例儿童青少年双相情感障碍的诊断符合 ICD-11 的诊断标准。症状频度有：情绪低落发愁想死 79 例（60.8 %）， 自伤自残 110 例（84.6%），自杀行为 14 例（10.8 %），食欲下降 35 例（26.9 %），睡眠差 72 例（55.4 %），易怒 35 例（26.9 %），心烦着急焦虑 26 例（20 %），不想上学 20 例（15.4 %）。兴奋话多情感高涨 116 例（89.2 %）。暴饮暴食 6 例（0.5 %）。幻听 5 例（0.4%）。强迫症状 1 例（0.07%）。

结论 儿童及青少年双相障碍临床表现虽然与成人双相障碍相似，但存在一些与年龄相关的症状特点：他们更多地表现出行为障碍，如活动过多、不想上学、破坏和攻击行为、发脾气、自伤、自残甚至自杀，他们倾向通过这些行为来表达其情绪。许多双相障碍的儿童青少年情绪波动非常频繁，他们常常出现短暂的混

合发作或烦躁不安，而非典型的躁狂症状。 虽然 ICD-11 系统取消了"通常起病于童年与少年期的行为与情绪障碍"的分类，将情绪障碍相关内容分散于"焦虑及相关障碍""应激相关障碍"和"破坏性行为与社交紊乱障碍"之中，但临床中发现的儿童青少年的情感障碍 ，更多的表现出情绪的问题，情绪的不稳定以及伴发相当多的其它问题。

关键字：儿童青少年 双相情感障碍 儿童青少年情绪障碍

Borderline Personality Traits, Prosocial Behavior, Childhood Maltreatment and School Adjustment Among Adolescents Diagnosed As Mood Disorders: Multiple Mediation Model

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Objective We intended to investigate whether Borderline personality traits, Prosocial behavior play a mediating role between childhood maltreatment and school adjustment in a sample of adolescents who were diagnosed as mood disorders.

Methods A total of 230 students (Nfemale = 66) participated in the study(meanage = 14.85, range = 12-18, SD = 1.643). The Childhood Trauma Questionnaire(CTQ), The Borderline Personality Profile Scale for Children(BPFS-C), School Maladjustment Questionnaire(SMQ), and Strengths and Difficulties Questionnaire (SDQ) were used to measure childhood maltreatment, borderline personality traits, prosocial behaviors and school adjustment. Correlational analyses, Hayes' (2018) PROCESS were conducted to test the mediation model for adolescents.

Results Childhood maltreatment, borderline personality traits, and prosocial behavior are significantly correlated with each other. Childhood maltreatment could negatively predict school adjustment, and borderline personality traits, prosocial behavior would mediate the relationship between childhood maltreatment and school adjustment among adolescents with mood disorders(Ratios of total indirect effects to total effects:44.44~52.78%). Besides, among all dimensions of borderline personality traits, difficulty with impulse control presented the strongest mediation between childhood maltreatment and school adjustment. Pro-social behavior can moderate the negative impact of childhood trauma and borderline personality traits on school adjustment((Ratios of indirect effects to total effects: 2.78~7.41%)).

Conclusion Our results highlight the impact of childhood maltreatment on borderline personality traits and school adjustment among teenagers with mood disorders. And results also indicated the protective effect of prosocial behavior. Prosocial behavior-oriented intervention could be effective in reducing risk of school maladjustment for adolescents who were diagnosed as mood disorder.

关键字：school adjustment; childhood maltreatment; prosocial behavior; borderline personality traits; mediation model

自我接纳在伴有非自杀性自伤青少年抑郁障碍患者社会支持与应对方式的中介作用

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目的 分析伴有非自杀性自伤青少年抑郁障碍患者自我接纳与社会支持及应对方式之间的关系，探讨自我接纳在社会支持与应对方式间的中介效应。

方法 选取 2022 年 1 月至 2023 年 5 月于苏州市广济医院住院治疗的 130 例伴有非自伤性自杀的青少年抑郁障碍患者为研究对象，采用一般资料调查问卷、自尊量表(self-esteem scale，SES)?、儿童青少年社会支持量表(Child and Adolescent Social Support Scale, CASSS)、中学生应对方式量表(Coping Style Scale for Middle School Students，CSSMSS)对患者进行调查。分析自我接纳与社会支持及应对方式之间的关系，探讨自我接纳在社会支持及应对方式间的中介效应。

结果 伴有非自杀性自伤青少年抑郁障碍患者自我接纳与社会支持呈正相关（P<0.05），自我接纳与问题解决、求助、忍耐呈正相关（P<0.05），与退避、发泄、幻想呈负相关（P<0.05）。社会支持与问题解决、求助呈正相关（P<0.05），与退避、幻想呈负相关（P<0.05）。自我接纳在伴有非自杀性自伤青少年抑郁障碍患者社会支持与应对方式间起部分中介作用，中介效应占总效应的 2.61%。

结论 自我接纳为伴有非自杀性自伤青少年抑郁障碍患者社会支持与应对方式的中介变量。因此，提高伴有非自杀性自伤青少年抑郁障碍患者的自我接纳，加强患者家属对疾病的认知改善其对着患者的接纳认识，提高患者的社会支持性，从而改善患者的应对方式。

关键字：非自杀性自伤；自我接纳；社会支持；应对方式

伴有非自杀性自伤青少年抑郁障碍患者社会支持利用度与应对方式的相关性

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目的 分析伴有非自杀性自伤青少年抑郁障碍患者社会支持利用度与应对方式之间的关系，探讨社会支持利用度与应对方式间的相关性。

方法 选取 2022 年 1 月至 2023 年 5 月于苏州市广济医院住院治疗的 130 例伴有非自伤性自杀的青少年抑郁障碍患者及 104 名不伴有非自杀性自伤的青少

年抑郁障碍患者为研究对象，采用一般资料调查问卷、儿童青少年社会支持量表(Child and Adolescent Social Support Scale, CASSS)、中学生应对方式量表(Coping Style Scale for Middle School Students，CSSMSS)对患者进行调查。分析社会支持利用度与应对方式之间的关系，探讨社会支持利用度与应对方式间的相关性。

结果 两组患者在 CASSS 量表的社会利用度分量表、CSSMSS 量表的求助、退避、幻想、忍耐分量表均有显著性差异（P<0.05），在 CSSMSS 量表的问题解决、发泄分量表无显著性差异（P>0.05）。伴非自杀性自伤青少年抑郁障碍患者组 CASSS 量表的社会利用度分量表与 CSSMSS 量表问题解决、求助、幻想分量表呈正相关（P<0.05），与发泄呈负相关（P<0.05）。

结论 伴非自杀性自伤青少年抑郁障碍患者的社会支持利用度与其应对方式存在相关性。因此适当加强伴非自杀性自伤青少年抑郁障碍患者的社交技能训练，提高其社会支持利用度，可以改善患者的应对方式，以更好地适应社会生活。

关键字：非自杀性自伤；青少年抑郁障碍患者；社会支持利用度；应对方式

儿童少年强迫症患者大脑灰质结构和功能连接与强迫症状关系的研究

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目的 探讨儿童少年强迫症患者脑灰质体积和其与全脑静息态功能连接的特点及与临床症状的关系。

方法 共收集儿童少年强迫症患者 36 例（病例组）和一般背景资料与之相匹配的健康对照者 35 例（对照组）行静息态头颅磁共振扫描。比较病例组与对照组之间的脑灰质体积差异；病例组选择具有差异性的灰质体积脑区为种子点，行全脑静息态功能连接分析。采用耶鲁-布朗强迫量表评分评估病例组的症状严重程度；采用 Pearson 相关分析法分析病例组全脑功能连接与强迫症状的相关关系。

结果 与对照组比较，病例组右侧海马、右侧额下回、左侧颞中回灰质体积降低（Alphasim 校正，t=-4.173，-4.636，-3.933；均 P<0.01）。病例组右侧额下回与右侧小脑、右侧梭状回、左侧颞上回、左眶部额下回、左侧中央后回功能连接减弱（Alphasim 校正，t=-4.044，-4.395，-4.152，-4.009，-4.216；均 P<0.01）。病例组右侧额下回与左侧颞上回的功能连接与耶鲁-布朗强迫量表思维因子分（r=-0.444，P＜0.05）存在负相关。

结论 儿童少年强迫症患者脑灰质结构和功能的异常不仅存在于皮质-纹状体-丘脑-皮质环路中的额叶，也存在于海马、颞叶、小脑，这些有助于我们了解儿童少年强迫症的病理生理机制。

关键字：灰质体积 功能连接 磁共振成像 儿童少年 强迫症

The Relationship between Depression and Frequency of NSSI in Adolescents: Investigation of The Mediating Role of Anxiety and Resilience

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Objective This study aims to investigate whether there is a correlation between depression and NSSI frequency and the mediating role of anxiety and psychological resilience between adolescents.

Methods Selected from January 2021 to December 2021, Shenzhen Kangning Hospital, Guangdong Province, Anhui Provincial Mental Health Center,Shandong Provincial Mental Health Center ,Linyi Mental Health Center, Shandong Province of 2343 adolescent depression, using self-harm functional assessment scale (FASM), 9 patient health questionnaire (PHQ-9), 7 generalized anxiety disorder scale (GAD-7), psychological resilience scale (CD-RISC).

Results Depression (r=0.159, p <0.001) and anxiety (r=0.143, p <0.001) were all positively associated with the frequency of NSSI;resilience (r= -0.105, p <0.001) was negatively associated with SI frequency; anxiety (r=0.806, p <0.001) was positively associated with depression; anxiety (r= -0.489, p <0.001), depression (r= -0.549, p <0.001) was negatively associated with resilience; anxiety mediation between depression and NSSI accounted for 16.74% of the total effect. There was no mediating effect between depression and NSSI frequency.

Conclusion The degree of depression was positively correlated with NSSI frequency in adolescents,and anxiety has a partial mediating effect between depression and the frequency of NSSI.Psychological resilience was negatively associated with both depression and NSSI frequency,but there was no mediation effect between depression and NSSI frequency.

关键字：adolescents,depression ， NSSI ， anxiety,psychological elasticity scale

青少年焦虑抑郁障碍非自杀性自伤特点及动机特征研究

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目的 近年来青少年非自杀性自伤行为越来越受到关注，也是当下临床干预的困难点。非自杀性自伤行为最常见于青少年情绪障碍患者中，尤其是抑郁障碍和焦虑障碍，但目前我仍不清楚这一群体的自伤特点和动机特征，这也给临床干预带来了困难。本研究探索青少年焦虑障碍和抑郁障碍患者非自杀性自伤行为的

特点和动机特征。

方法 在上海市精神卫生中心儿童青少年心理咨询门诊和病房招募诊断为焦虑障碍或抑郁障碍且伴有非自杀性自伤行为的受试者 188 人，年龄在 9-18 岁之间。使用渥太华自我伤害问卷测量自伤方式和动机，青少年抑郁筛查量表，儿童焦虑性情绪筛查量表，父母养育方式，童年创伤问卷，青少年应对方式问卷测量焦虑抑郁水平、环境及应对特点。采用独立样本 t 检验和卡方检验比较两组间差异。

结果 共计 188 名 9-18 岁受试者纳入分析，其中焦虑障碍 70 人，抑郁障碍组 118 人。焦虑组在社交焦虑因子分和广泛性焦虑因子分维度得分显著高于抑郁组，抑郁组的抑郁总分显著高于焦虑组。相比于焦虑障碍组，青少年抑郁障碍组更多的自伤部位为手臂（61.4%vs. 79.8%, X2=7.42, P=0.006)。青少年焦虑组和抑郁组最常用的自伤方式为切割，且抑郁组切割方式检出率显著高于焦虑组（81.2%vs.58.6%,X2=11.30, P=0.001）。相比于焦虑障碍组，抑郁障碍患者自伤动机中更多为了获得感觉掌控感。抑郁障碍青少年在童年期经历更多的情感忽视/虐待、躯体忽视/虐待，更少感受到来自父母的情感温暖，更少使用问题解决、寻求社会支持的积极应对方式。

结论 焦虑障碍和抑郁障碍青少年自伤部位和自伤动机存在差异性，在未来自伤行为的干预过程中需要考虑不同的诊断亚型及动机特点，设计针对性干预方案。

关键字：非自杀性自伤；青少年；焦虑；抑郁；动机

童年创伤直接或间接影响抑郁症患者的快感缺失并由家庭相关因素和人格进行调节

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目的 快感缺失是抑郁症的核心症状之一，是指体验快乐的能力降低 。具体来说，这种能力降低体现在多个维度，包括社交活动、感官体验、爱好或食物或饮料中失去兴趣或快乐等 。快感缺失与疾病严重程度、发作持续时间和发作次数的增加有关 。快感缺失是难治性抑郁症和抑郁症残留症状的一个亟待解决的问题。快感缺失对抑郁症患者的生活质量有严重影响。然而，家庭相关因素和人格特征在影响快感缺失方面的相互作用还没有得到很好的描述。

方法 2019 年至 2022 年，在武汉大学人民医院共招募了 373 名抑郁症患者。我们通过自编的一般信息问卷、儿童创伤问卷、父母教养方式、家庭功能评估、艾森克人格问卷和快乐体验量表来评估患者的一般状况、家庭相关因素、人格特征和快感缺失症状。采用 Logistic 回归和结构方程模型来探讨快感缺失的影响因素及它们之间的中介关系。

结果 高快感缺失组的患者教育水平较低，抑郁症状严重程度较高。精神质、外向性和母亲的拒绝和否认可能是快感缺失严重程度的独立风险因素。人格、养育方式和家庭功能可能介导儿童虐待对抑郁症患者快感缺失症状的影响。

结论 童年创伤可直接或间接地通过养育方式、家庭功能和人格特征影响抑郁症患者的快感缺失症状。为降低严重快感缺失出现的几率、提高抑郁症的治愈率，应更加注重儿童的教养方式及人格发育，减少早期应激的发生。

关键字：抑郁；快感缺失；儿童期虐待；人格；家庭功能

家庭治疗在非自杀性自伤青少年患者中的应用

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目的 非自杀性自伤(non-suicidal self-injury,NSSI)是指不以死亡为目的，故意对身体组织进行自我破坏的行为，已成为儿童青少年精神科门诊中常见症状，近年来在青少年中的重视程度提高，成为了当今社会的一个重要社会问题。青少年非自杀性自伤由很多因素导致，家庭环境因素作为其中重要的一项内容，受到了很大程度的重视。家庭参与到青少年抑郁症和双相情感障碍患者的治疗中，是很常见的。家庭治疗作为心理治疗的一种，在个体心理治疗的基础上，能够着眼于整个家庭，解决家庭问题，现已被应用在非自杀性自伤青少年患者的治疗中。但国内外文献对于青少年 NSSI 患者的家庭治疗的疗效存在较大异质性，不同研究中对 NSSI 青少年家庭治疗的疗效各有纷纭。本文选取了多篇国内外有关 NSSI 青少年家庭治疗的文章，拟分析文献中不同的结论的原因，以期为家庭治疗的临床应用提供更明确的循证医学证据。

方法 对非自杀性自伤青少年的家庭治疗的相关文献在数据库中进行检索，中文文献检索资源来自万方、知网，关键词为：家庭治疗、非自杀性自伤、自我伤害、自伤、儿童、青少年。英文文献检索资源来自 Pubmed、the Cochrane Library 关键词包括：non-suicidal self-injury、self injury、NSSI、family treatment、family therapy、adolescent、child，时间均截止到 2022 年 5 月 31 日。对文献相关内容进行总结分析。

结果 纳入的六篇文献中，采取了不同类型的家庭治疗模式，在治疗设置上也有较大的差异，但对于青少年的总体健康境况经医生他评分数相比对照组更健康，且对于家庭成员和家庭功能的改善优于对照组。但家庭治疗的成本更高。

结论 家庭治疗能够对于非自杀性自伤患者的情况有提升，但是目前家庭治疗在 NSSI 青少年患者中的应用中，仍存在尚未解决的问题。

关键字：非自杀性自伤；家庭治疗；青少年

父母教养方式、逆商和自尊对青少年非自杀性

自伤行为的影响

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目的 非自杀性自伤(Non-suicidal self-injury, NSSI)指不以死亡为目的的，故意对身体组织进行自我破坏的行为,是青少年一种常见的心理健康问题。青少年非自杀性自伤行为的危险因素很多，包括人口学因素、父母教养方式、自尊水平、逆商、负性生活事件、抑郁症状等。本研究从父母教养方式着手，本研究聚焦于临床环境中的青少年 NSSI 患者，了解现阶段临床抑郁障碍青少年的 NSSI 患病特点、了解父母教养方式、自尊和逆商对于 NSSI 的作用形式，以期通过对于影响因素的干预，减少 NSSI 发生的可能性，对于已发生 NSSI 的青少年做出针对性干预以改善预后，为临床提供指导意见。

方法 在研究内容一中，使用父母教养方式评价量表、渥太华自伤量表、逆商量表和自尊量表进行问卷调查。使用 SPSS26.0 进行数据分析，对共同方法偏差、数据的正态性进行检验，对不同性别下的各量表得分进行比较，对疾病种类进行差异性分析。运用皮尔逊相关分析（Pearson）进行两两相关分析。对父母教养方式、逆商、自尊和 NSSI 进行回归分析，使用多元线性回归将三者共同作为自变量进行分析。利用 Amos 建立父母教养方式、自尊水平、逆商水平和 NSSI 情况的关系模型。在研究内容二中，对病房中的 6 位青少年患者进行半结构式访谈，总结归纳父母的教养方式对于青少年 NSSI 行为行为影响的动力。

结果 研究内容一结果发现：①NSSI 与父母教养方式，逆商, 自尊之间的相关关系系数值呈现出显著性；②逆商会对 NSSI 行为产生显著的负向影响关系；③自尊对 NSSI 行为产生显著的负向影响关系；④自尊和逆商在父母教养方式和 NSSI 行为之间起到链式中介作用。研究内容二结果发现：父母教养方式对青少年非自杀性自伤影响主要由于：①家庭成员由于外界原因对于青少年的忽视状态。②家庭中存在多子现象的偏爱问题；③父母的举动使得青少年出现负性情绪；④家庭中的暴力行为。

结论 目前存在 NSSI 的青少年家庭中，父母教养方式的多存在问题，不同青少年 NSSI 行为的内在动力不同。家庭教养方式、逆商和自尊和青少年非自杀性自伤行为之间具有显著相关性。家庭教养方式既可以直接影响青少年的非自杀性自伤行为，也可以通过逆商和自尊构成的链式中介模型对非自杀性自伤行为造成间接影响。

关键字：非自杀性自伤；自尊；逆商；父母教养方式

COVID-19 疫情不同阶段青少年学生心理健康调查

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目的 在 COVID-19 疫情不同阶段，了解青少年学生抑郁情绪、焦虑情绪、主观睡眠质量的变化情况。

方法 采用网络在线（问卷星）调查方式，滚雪球的抽样方法，应用自评量表 9 条目患者健康问卷（PHQ-9）、广泛性焦虑量表 7（GAD-7）量表、匹兹堡睡眠质量指数（PSQI）等工具评估青少年学生（14-24 岁）的心理健康状况。PHQ-9≥5 分为阳性，5-9 分为轻度抑郁，10-14 分为中度抑郁，15-19 分为中重度抑郁，20-27 分为重度抑郁；GAD-7≥5 分为阳性，5-9 分为轻度焦虑，10-14 分为中度焦虑，15-21 分为重度焦虑。按调查时间分组，分为高峰期组（2020.02.19-2020.02.28）和常态化组（2020.06.13-2020.08.10）。

结果 共收到有效问卷共 984 份，其中高峰期组有 122 例，常态化组有 862 例。高峰期组：PHQ-9 阳性者有 73 例，比率为 59.84%；GAD-7 阳性者有 53 例，比率为 43.44%；主观睡眠质量差者有 30 例，占比 24.59%。常态化组：PHQ-9 阳性者有 218 例，比率为 25.29%；GAD-7 阳性者有 140 例，比率为 16.24%；主观睡眠质量差者有 80 例，占比 9.28%。PHQ-9：两组阳性率比较有统计学差异；GAD-7：两组阳性率比较有统计学差异；主观睡眠质量：两组阳性率比较有统计学差异。logistic 回归分析：主观睡眠质量对抑郁、焦虑情绪有影响。

结论 COVID-19 疫情期间，青少年学生普遍存在不同程度的睡眠问题、抑郁和焦虑情绪，疫情常态化阶段抑郁、焦虑情绪较高峰期阶段减轻；睡眠质量与抑郁、焦虑情绪关系密切。

关键字：抑郁；焦虑；睡眠；调查

认知行为干预对儿童抑郁症伴失眠患儿抑郁及睡眠质量的影响

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目的 观察儿童抑郁症伴失眠患儿应用认知行为干预对自身抑郁症状以及睡眠质量产生的影响。

方法 将 2021 年 01 月到 2022 年 12 月入院的 78 例抑郁症伴失眠患儿按照随机数字表法分为均等的两组，其中对照组在护理过程中应用常规护理方法，观察组则在常规护理方法的同时应用认知行为干预的护理模式，对比两组患儿 HAMD、HAMA、PSQI 评分、停用药物、减用药物情况、总满意度等数据。

结果 结果 干预前两组 HAMD、HAMA 评分基本无差异，P＞0.05；干预后观察组 HAMD、HAMA 评分更接近临床标准值，P＜0.05；干预前两组 PSQI 评分基本无差异，P＞0.05；干预后观察组 PSQI 评分更接近标准值，P＜0.05；干预后观察组停用药物、减用药物情况明显好于对照组，观察组总满意度高于对照组，P＜0.05。

结论 对于儿童抑郁症伴失眠患儿的临床护理，

推荐在常规护理方法的同时应用认知行为干预的护理方法，与单一使用常规护理方法相比，该护理方法可有效缓解患者的焦虑与抑郁情绪，明显改善睡眠质量，有助于提升患儿的生活质量，提高患儿的总体满意度，该护理方法的实践应用价值高，值得在其他儿童精神科护理工作中推广。

关键字：认知行为干预；儿童抑郁症；睡眠质量；抑郁情绪

青少年非自杀性自伤的功能和成瘾特征研究

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目的 了解青少年非自杀性自伤(NSSI)的功能和成瘾特征。

方法 采用基于DSM-5提出的建议标准编制的一般情况调查表于2021年1月对选取自陕西省西安市和宝鸡市1 2所中学的初中一至三年级、高中一至三年级的在校学生，经知情同意后进行匿名调查，筛查出存在 NSSI 的中学生，并利用渥太华自我伤害问卷(OSI)和贝克抑郁量表第2版（BDI-2）对 NSSI 的功能和成瘾特征进行研究。

结果 共检出存在非自杀性自伤行为的青少年325人(4.5%)。整体上，非自杀自伤者平均报告了9.67±7.76 个自伤理由。渥太华自伤问卷功能评定分量表（OSI-F）的内部情绪调节、外在情绪调节、社交影响和感觉寻求四个因子的报告率分别为 74.5%、20.0%、80.0%、60.9%，主要功能（OSI-F 因子分最高者）依次为社交影响（48.6%）、内部情绪调节（25.2%）、外部情绪调节（15.7%）、感觉寻求（10.5%）。其中非自杀性自伤行为具有成瘾特征者（渥太华自我伤害问卷成瘾特征分量表阳性条目大于等于3个)69人(21.2%)，过去一月具有主动自杀意念和自杀尝试者更多，过去一年因自伤而住院者更多，BDI-2 总分更高(P<0.001)。

结论 人际因素对中国青少年非自杀性自伤行为的影响更大，成瘾特征会增加非自杀性自伤行为的伤害程度和自杀风险。

关键字：非自伤性自伤；行为功能；成瘾特征；自杀风险

儿童青少年抑郁症抗抑郁药物使用的研究进展

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目的 抑郁症是最常见的精神疾病之一，据世卫组织估计，到 2030 年，全球抑郁症患病率将排第一。《2022 年国民抑郁症蓝皮书》调查数据显示，青少年抑郁症患病率为 15%-20%，严重危害了青少年的身心健康，对个人、家庭和社会带来的沉重的负担。药物治疗为抑郁症治疗的方法之一，由于儿童青少年群体特殊，关于儿童青少年药物治疗的研究有限，本研究旨在总结关于儿童青少年抑郁症抗抑郁药物治疗的最新进展。

方法 在 PubMed、Cochrane、中国知网三个数据库中，使用关键词“child*”“adolescen*”“depress*”“antidepressant*”“儿童”“青少年”“抑郁症”“抗抑郁药物”等关键词筛选 2014 年至 2023 年 3 月的综述及 META 分析相关文献。

结果 共找到英文 meta 分析和综述共 41 篇，其中近两年的文章共 10 篇；中文综述 6 篇，其中近两年共 4 篇。其中，共有 7 篇文章是关于抗抑郁药物治疗的疗效，2 篇与抗抑郁药物的副作用有关。结果显示，SSRI 类药物，特别是舍曲林和氟西汀，可改善儿童青少年抑郁症的症状，药物治疗联合心理治疗可取得较好的疗效。自杀为 SSRI 类药物值得关注的副作用，研究报道服用 SSRI 类药物后，会增高患者的自杀风险。

结论 抗抑郁药物治疗儿童青少年抑郁症具有一定的疗效，推荐使用氟西汀、舍曲林等 SSRI 类抗抑郁药物，药物治疗联合心理治疗可取得更好的治疗效果，需密切关注患者服药后自杀意念等副作用。

关键字：儿童，青少年，抑郁症，抗抑郁药物

二维液相色谱法同时测定血浆氟西汀及 N-去甲氟西汀药物浓度及在青少年抑郁患者的临床应用

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目的 基于二维液相色谱（2D-LC-UV）技术，建立一种同时测定人血浆中氟西汀及活性代谢物 N-去甲氟西汀的方法，并应用于青少年抑郁患者的临床检测。

方法 血浆样品经蛋白沉淀前处理，使用 2D-LC-UV 仪进行检测。第一维色谱柱：Aston SX1 (3.5×50mm，5 μm，ANAX，中国)；第二维色谱柱：Aston SN（4.6×100 mm，5 μm，ANAX，中国）；捕获柱：Aston SCX1（3.5×10 mm，5 μm，ANAX，中国）；柱温：40℃。一维流动相：甲醇：乙腈：25 mmoL/L 磷酸铵盐水溶液=1：3：3 (v/v/v)，氨水调 pH 至 7.00；第一维泵流速：0.8 mLmin-1；二维流动相：氟西汀 LC2 单流动相；第二维泵流速：1.2 mLmin-1；检测波长：234 nm；进样量：500 μL。

结果 氟西汀及其代谢产物与杂质分离良好，氟西汀及 N-去甲氟西汀浓度分别在 36.6~1829.89 ng·ml-1 及 37.03～1851.41 ng·ml-1 内与峰面积呈良好的线性关系（R2= 0.999 9，R2= 0.999 8），氟西汀 3 个浓度水平（91.49，731.96，1463.92 ng·ml-1）及 N-去甲氟西汀 3 个浓度水平（92.57，740.56，1481.13 ng·ml-1）回收率均大于 98.8%，日内、日间精密度的 RSD 均小于

5.0%，稳定性试验相对标准偏差均小于 5.0%。临床应用于青少年抑郁患者的检测，氟西汀和 N-去甲氟西汀总浓度为 347.34±207.72（37.40~884.50） ng·ml-1，浓度在有效治疗参考范围内的占 68.97%，N-去甲氟西汀与氟西汀的比值为 1.49±0.94。

结论 该方法操作简便，准确度高，重现性好，适用于临床氟西汀血药浓度检测及其药代动力学研究。

关键字：二维液相色谱；氟西汀；N-去甲氟西汀；治疗药物监测

孤独症谱系障碍儿童血清维生素 D 水平与肠道菌群的研究

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目的 探讨孤独症谱系障碍（autism spectrum disorder，ASD）儿童血清维生素 D 水平与肠道菌群之间的关系。

方法 在重庆市妇幼保健院门诊调查 109 例 2-7 岁 ASD 儿童和 165 例年龄、性别相匹配健康儿童，采用液相色谱串联质谱法检测两组儿童血清维生素 D 水平，对两组儿童粪便样本中细菌 16SrRNA 基因的 V3-V4 高变区进行测序，并对 ASD 组患儿进行孤独症行为量表（ABC）、儿童孤独症评定量表（CARS）的评估。

结果 ASD 组血清维生素 D 水平（21.9±3.3 ng/ml）显著低于健康对照组(32.3±4.6 ng/ml)(P<0.001)。ASD 组维生素 D 水平与 ABC 量表中语言、交往能区均呈负相关（r=-0.213、-0.201，P=0.013、0.022）。ASD 组和对照组的肠道菌群 Alpha 多样性、Beta 多样性无差异(P>0.05)。在属水平，ASD 组相比于对照组萨特氏菌属、梭菌属、脱硫弧菌属的丰度显著提高，双歧杆菌属的丰度显著降低（P<0.001）。经 Spearman 相关性分析，血清维生素 D 水平与双歧杆菌属（r=0.403，P=0.011）的丰度呈正相关，与普氏菌属丰度呈负相关（r=-0.223，P=0.012）。

结论 ASD 儿童血清维生素 D 水平较正常儿童下降，且与部分肠道菌群丰度具有相关性，维生素 D 缺乏状态可能加重肠道菌群紊乱。

关键字：孤独症,维生素 D,肠道菌群

孤独症谱系障碍儿童饮食行为与营养摄入现况分析：一项横断面调查研究

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目的 探讨孤独症谱系障碍（autism spectrum disorder，ASD）儿童饮食行为和营养摄入的现况，以及营养素摄入水平与孤独症核心症状的关系。

方法 选取 2022 年 9 月至 2023 年 2 月在重庆市妇幼保健院儿童保健门诊招募的 2-7 岁 74 名 ASD 儿童和 72 名年龄、性别相匹配的正常健康儿童，采用儿童饮食行为问题诊断及管理评估问卷（Identification and Management of Feeding Difficulties，IMFeD）进行饮食行为评分、24 小时膳食调查分析营养素摄入水平，并进行两组儿童数据差异性分析。

结果 ASD 组和对照组儿童在性别、年龄、身高、体重、头围，以及出生孕周、生长、体重方面均无统计学差异（P＞0.05）。IMFeD 工具评分提示 ASD 儿童“对某种食物特别偏好”评分显著高于对照组（0.932±0.998 vs 0.528±0.822，t=2.671，P=0.008）。24 小时膳食调查结果显示，ASD 儿童组在总脂肪、单不饱和脂肪酸、多不饱和脂肪酸、胆固醇、硒、锰、钠、维生素 A、维生素 E 及叶酸的摄入方面均显著低于对照组（P＜0.05）。ASD 组儿童在蔬菜类、水果类、蛋类、油、盐方面的摄入均少于对照组儿童，差异具有统计学意义（P＜0.05）。采用多因素线性回归分析发现，ASD 儿童不同的维生素 A 摄入对其 ABC 量表评分的影响有统计学差异（b=-1.793， t=2.085， 95%CI -3.514~-0.073，P=0.041）。

结论 ASD 儿童的饮食行为问题可能导致更窄的食谱和营养素摄入的不均衡，而饮食中维生素 A 的摄入水平与 ASD 儿童核心症状具有一定联系。

关键字：孤独症，饮食行为，膳食摄入

孤独症身体活动临床疗效、参与影响因素及神经机制系统综述

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目的 孤独症谱系障碍是一种严重影响认知和社会行为的神经系统发育障碍疾病。儿童期是干预关键期,早期诊断和有效的干预方法对孤独症儿童青少年的康复至关重要。因此为进一步明确孤独症儿童青少年身体活动的范畴和结构，我们将从孤独症儿童青少年身体活动临床疗效、参与影响因素及身体活动对神经功能影响等方面进行系统综述。

方法 检索中国知网、万方、维普、Web of Science、PubMed、EBSCO 数据库，筛选 2000 年至 2022 年公开发表的孤独症儿童青少年身体活动干预、影响因素及神经机制相关文献，进行系统综述。

结果 有益于孤独症儿童青少年的身体活动类型涉及体育或娱乐活动、武术、瑜伽或其他专注于特定运动技能和技术的正念练习等。主要关注的热点话题聚焦：高功能孤独症，刻板性运动障碍/治疗，孤独症，运动技能，运动发展，流行病学，小脑。临床疗效方面，身体活动可以改善社交障碍、重复刻板行为、执行功能、运动障碍、健康水平（包括代谢性指标）、促进情

绪缓解及学业参与。影响身体活动参与的因素众多，包括年龄（年龄与身体活动呈负相关）、久坐不动（长时间参与电子屏幕活动是身体活动水平下降的最常见原因）、动机（包括外在动机和内在动机）、社交障碍（社会参与、同伴鼓励）、父母角度（父母参与）、学校层面（学校环境资源短缺）、社区及社会等。神经机制方面，身体活动促进脑血管生成，改善脑循环，以及促进大脑白质完整性及执行控制网络功能连接改变等。

结论 既往研究显示运动疗法对孤独症儿童青少年沟通、社交、认知、入学准备、学业成就、适应技能、挑战行为、运动技能等方面均有积极影响。目前孤独症儿童青少年存在运动不足，考虑影响运动参与因素较多，包括孤独症及其父母个体、父母、学校等多方面，仍需个体（个体-父母-同伴-教师）-学校-社区-社会共同努力提高孤独症儿童青少年身体活动参与；身体活动有可能通过改善脑功能进而改善其症状，具体机制需进一步明确。

关键字：孤独症；儿童；青少年；身体活动；运动；神经机制

ADHD 儿童工作记忆特征及工作记忆训练效果的研究

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目的 评估注意缺陷多动障碍(attention deficit hyperactivity disorder，ADHD) 儿童工作记忆功能损害程度；分析比较工作记忆训练及药物盐酸托莫西汀两种治疗方法的效果。

方法 收集学龄期 ADHD 患儿 100 例，同时收集年龄、性别与之匹配的正常儿童 50 例为健康对照组。使用《注意缺陷多动障碍评定量表》评估临床症状严重程度，《Conners 父母评定问卷》评估其行为问题，数字广度、视空间记忆、Stroop 色词干扰任务、N-back 范式等评估其工作记忆特征。将患儿分为两组，分按采用工作记忆训练及药物盐酸托莫西汀两种方法对其进行为期 8 周的治疗，评估比较两组临床症状及工作记忆功能改善情况。

结果 1.人口学资料的对比：各组性别、年龄、智力的差异无统计学意义；2.Conners 父母症状问卷结果中 ADHD 组在多动指数、多动冲动、学习问题、品行问题四个因子得分明显高于健康对照组；3.ADHD 组较健康对照组在数字广度测试中倒背个数少（$P<0.05$）、在视空间记忆测试中总分低、在 1-back 任务的正确率明显低，两组的反应时未见显著差异、在 Stroop 色词干扰任务中阅读总数显著低，错误＋纠正数高（$P<0.05$）；3.注意力缺陷、多动冲动因子分数与 N-back 正确率、Stroop 阅读总数等记忆功能因子负向关；4.工作记忆训练、托莫西汀治疗 ADHD 患儿均有显著疗效（$P<0.01$）；工作记忆训练改善患儿工作记忆功能效果显著高于药物组（$P<0.05$）。

结论 1.ADHD 患儿工作记忆功能缺陷具有广泛性。2.ADHD 患儿临床核心症状严重程度与工作记忆功能呈负相关。3.工作记忆训练、药物托莫西汀治疗 ADHD 均可取得显著效果。药物改善核心症状的效果更好；工作记忆训练明显改善患儿工作记忆功能。

关键字：注意缺陷多动障碍、工作记忆功能、工作记忆训练

脑功能连接组学在儿童青少年精神疾病研究中的应用

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目的 2021 年一项全国性儿童青少年精神障碍流行病学调查显示 17.5%的青少年患有精神障碍，其中注意缺陷多动障碍(ADHD)与焦虑障碍未列前二，分别占 6.4%和 4.7%。学界一直致力于发现便捷、有效、适用于大规模筛查的精神疾病生物标记物，以推进儿童青少年精神疾病的早期预警与干预。本课题组采用脑功能连接组学的方法，对 ADHD 及社交焦虑障碍(Social Anxiety Disorder, SAD)儿童的脑功能异常进行研究，发现了系列研究结果。

方法 我们采用一系列脑功能连接组学的分析方法对课题组现有的儿童青少年脑功能成像数据进行分析。针对 ADHD 的静息态功能磁共振(fMRI)数据，我们用滑动窗口法计算了大脑活动指数的区域动态变化，并比较了 ADHD 患者和健康对照在这些指数的变异性与一致性上的组间差异，并与临床测试分数进行了关联分析。针对 ADHD 的静息态功能近红外光谱成像(fNIRS)。我们计算了脑功能连接并对其进行图论分析，从而探索患者在全局及局部脑网络变化及其与核心症状之间的关系。此外，我们还分析了不同年龄段 SAD 儿童在静息和看电影状态下 fMRI 数据。我们以终纹床核(BNST) 为种子进行了全脑功能连接分析，并检验了年龄与组别效应。

结果 fMRI 的结果显示， ADHD 患者左额中回的动态振幅的变异性降低，右枕中回的变异性增加。此外，ADHD 患者左侧额中回的体素间一致性降低。在威斯康辛卡片分类测试中，ADHD 左额中回动态指标的体素间一致性较低与更多的非持续性性错误有关。fNIRS 的结果显示，ADHD 患者在功能连接和全局网络效率方面都表现出明显的下降。同时，多动症儿童的结点效率也发生了紊乱。ADHD 儿童的结点效率也发生了改变，如视觉和背侧注意网络增加，而躯体运动和默认模式网络减少。功能连接和结点效率的紊乱与 ADHD 的评分明显相关。针对 SAD 的研究发现，在观看电影时，右侧 BNST 与左侧杏仁核，双侧后扣带皮质，双侧颞上皮质，以及右侧脑垂皮质之间的功能连接表现出诊断群体与年龄的交互作用。SAD 患者在较年轻的年龄段中上述功能连接明显增强。同时，他们右侧 BNST 和左侧杏仁核之间的功能连接随年龄的降低。此

外，对于 SAD 患者，在观看电影期间，右侧 BNST 与左侧杏仁核之间的 FC 与分离焦虑得分正相关。

结论 这些发现揭示了神经影像生物标记在精神疾病早期识别和干预中的潜在应用价值。

关键字：连接组学；近红外；多动症；社交焦虑障碍；图论

经历童年创伤的青少年抑郁症患者的临床特点

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目的 童年创伤是抑郁症最大的风险因素之一，显著增加青少年抑郁症的发病率。因此本研究的目的是探讨经历童年创伤的青少年抑郁症患者的临床特点。

方法 采用方便取样的方法，研究对象来自于河北医科大学第一医院精神卫生科，于 2021 年 8 月至 2021 年 12 月住院的 80 例符合 ICD-10 抑郁症诊断的青少年患者。根据童年创伤问卷（CTQ）结果将 80 例患者分为创伤组（58 例）和非创伤组（22 例），对两组患者采用汉密尔顿抑郁量表（HAMD-17）、简明国际神经精神障碍访谈检查（MINI）——自杀问卷进行心理测评。采用 SPSS25.0 进行统计分析。计量资料以均数±标准差或中位数（四分位数）描述，采用两独立样本 t 检验或者非参数秩和检验；计数资料以百分数进行描述，采用卡方检验或非参数秩和检验。CTQ 及各维度分值与 HAMD-17 总分及各因子分之间进行 Spearman 相关分析。

结果 创伤组与非创伤组相比，两组的抑郁症起病年龄存在显著差异（创伤组 vs 非创伤组：t=2.718，P=0.008，13.41±1.864 vs 14.7±2.097），且创伤组的起病年龄比非创伤组小。两组的性别存在显著差异（x2=0.895，P=0.018），且创伤组的女性多于男性（男性：24.14%，女性：75.86%）。两组的 HAMD-17 阻滞因子相比差异具有统计学意义（Z=-2.170，P=0.030），并且创伤组中经历情感虐待的患者与非创伤组相比，MINI 自杀问卷中自杀评分总分（Z=-2.115，P=0.034）及自杀风险（Z=-2.768，P=0.006）存在显著差异。童年创伤与 HAMD-17 总分及各因子分的相关性分析，结果显示情感虐待与 HAMD-17 的总分（r=0.265，P=0.017）、阻滞因子（r=0.277，P=0.006）、睡眠障碍因子（r=0.250，P=0.025）均呈正相关。情感忽视与 HAMD-17 的总分（r=0.226, P=0.044）呈正相关关系。躯体忽视与 HAMD-17 的体重减轻因子（r=0.227，P=0.043）呈正相关。

结论 经历童年创伤的青少年抑郁症患者的起病年龄相对较早，多数为女性患者遭受创伤。并且其临床症状较非经历童年创伤的人明显严重，如阻滞因子中的抑郁情绪、工作和兴趣、阻滞、性症状和睡眠、体重问题明显以及自杀风险较高。

关键字：童年创伤，青少年抑郁症，临床特点

伴有非自杀性自伤行为的青少年发生自杀未遂相关影响因素研究进展

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目的 目前在全世界范围内，青少年非自杀性自伤行为（Non-suicidal self-injury，NSSI）患病率呈逐步上升趋势，NSSI 指的是患者在没有自杀意图的背景下，使用不被社会认可的方式直接的、故意的伤害自己的身体的行为。自杀未遂（suicide attempt，SA）是指一种出于死亡意图的自伤行为，即使其未导致伤害。已经有研究发现青少年发生 NSSI 和 SA 之间存在共同和共存的影响因素，有研究显示在青少年 NSSI 与 SA 之间存在相互的联系。本文将从两种行为的流行病学、产生的相关影响因素等方面进行综述。以期早期发现青少年 NSSI 行为及自杀行为，从而为更好的提供治疗干预措施提供参考依据，旨在为青少年自我伤害预防工作提供思路和科学依据。

方法 我们采用关键词检索的方式，以“自伤（self-injury）、自残（self-harm）、自虐（self-abuse）、自杀（suicide）、青少年（adolescent）”等作为关键词组合检索在 2012 年 12 月至 2022 年 12 月发表在中国知网、万方数据知识服务平台、维普数据库、中国生物医学文献数据库、PubMed、Web of Science、Cochrane 数据库等数据库中的中英文文献。

结果 尽管 SA 和 NSSI 在定义、意图、形式和功能上都不同，有的青少年只发生 NSSI 或者 SA，但这两种行为在青少年中同时发生的比例均很高。目前的研究显示两者同时发生的影响因素包括神经生物学因素、社会环境因素、儿童期不良经历、儿童期心理因素等。

结论 青少年 NSSI 因其发病率高、病残率高、危害性大已经成为全球最关注的公共卫生问题。伴有 NSSI 青少年更容易出现 SA，两种行为的产生有相同的影响因素，并且表现出更加严重的精神病理症状和更大的心理社会功能损害。

关键字：青少年;非自杀性自伤;自杀未遂;影响因素

孤独症儿童芳香族氨基酸代谢异常与肠道微生物相关性及机制的研究进展

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目的 本文回顾了近年来有关肠道微生物与孤独症儿童芳香族氨基酸代谢异常的关系及其可能机制的研究，现将其研究进展总结、分析如下，为探究孤独症儿童肠道微生物群与芳香族氨基酸的相关性及机制提供新思路。

方法 收集并阅读大量文献，同时对这些文献进行总结、归纳、分析。

结果 肠道微生物群通过影响色氨酸（Trp）代谢，调节芳香烃受体(ThR)配体的产生，吲哚途径，犬尿氨酸（Kyn）途径和 5-羟色胺（5-HT）的合成代谢，从而增强肠道上皮屏障，刺激胃肠蠕动以及肠道激素的分泌，在体循环中发挥抗炎，抗氧化或毒性作用。肠道微生物能通过调节多巴胺的产生增加ASD相关的社交行为缺陷，这种调节可能有赖于由微生物群介导的维生素 B6 的稳态失调对前额叶皮层（PFC）中多巴胺水平的影响。在与 ASD 相关的微生物代谢物中，酪氨酸衍生代谢物 p-甲酚（对甲酚，4-甲酚，4-甲基苯酚）在 ASD 患者的尿液和粪便中水平持续升高，对甲酚抑制神经分化和神经元在细胞系中生长，经 p-甲酚处理的神经元的树突状树化减少，p-甲酚可能改变了培养物中神经元的树突发育，突触发生和突触功能

结论 孤独谱系障碍的病因复杂，目前主流的观点是遗传学和环境的共同作用，肠道微生物既在宏基因组的角度参与了遗传，又是环境侵入的途径之一，所以通过肠道微生物寻找孤独症未来发展道路的方向是有意义的。ASD 风险基因的复杂机制尚不明确，但通过实验室数据检测出的数值指标，我们确实发现了代谢物异常的蛛丝马迹。目前缺乏临床试验和大量的客观的实验数据，之后我们可以聚焦于临床研究和多中心、大样本的实验研究。应用芳香族氨基酸代谢异常的科学有效指标，早期诊断、早期干预 ASD 的发生和进展，在生命早期的最佳治疗阶段更好的帮助患者，又或者将氨基酸补充剂作为综合治疗的一部分，这些都有待继续探索。

关键字：孤独症; 肠道微生物; 芳香族氨基酸

价值取向短程心理治疗对青少年抑郁症患者的案例报告

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目的 价值取向短程心理治疗（Value Orientation Brief Therapy，VBT）是基于认知理论，结合人本主义流派的理念，以“价值取向”为心理治疗的工作焦点，结合个体治疗与家庭会谈治疗抑郁症的新方法。该报告用价值取向短程心理治疗对抑郁症患者进行短程心理治疗，探讨 VBT 对抑郁症患者的短期临床疗效，为抑郁症的治疗提供新的思路，为患者带来新的希望，同时为 VBT 的发展、推广奠定基础。

方法 对符合国际疾病分类第十版(ICD-10)诊断标准的 1 例青少年抑郁症患者按照价值取向短程心理治疗方法的程序进行 6 次心理治疗，每周 1 次，每次 40-50min，其中个体治疗约 30min，家庭会谈约 15-20min。治疗前后采用汉密尔顿抑郁量表（hamilton depression scale，HAMD）及 Beck 抑郁自评量表（beck depression inventory，BDI）评估患者抑郁症状的严重程度，汉密尔顿焦虑量表（hamilton anxiety scale，HAMA）及 Beck 焦虑自评量表（beck anxiety inventory，BAI）评估患者焦虑症状的严重程度，根据量表评分结果变化对 VBT 的疗效进行验证。

结果 治疗前 HAMD 为 30 分，BDI 为 32 分，HAMA 为 6 分，BAI 为 25 分；6 次心理治疗后，HAMD 为 7 分，减分率为 76%；BDI 为 6 分，减分率为 81%；HAMA 为 5 分；BAI 为 22 分，疗效达到临床缓解以及预期的治疗效果。

结论 本案例研究结果提示，VBT 能够明显改善青少年抑郁症患者的抑郁症状，提高患者的社会功能，是有效的心理治疗方法，值得在临床上进一步推广。

关键字：价值取向短程心理治疗，抑郁症，青少年，案例报告。

The Pooled Prevalence and Influential Factors of Non-suicidal Self-injury During The COVID-19 Outbreak: A Meta-analysis.

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Objective COVID-19 has had a huge impact on the mental health of people around the world, especially in adolescent. Non-suicidal self-injury (NSSI) is the most prominent and dangerous behavior associated with suicide, However, few meta-analyses of NSSI prevalence have ever been done since the COVID-19 outbreak. Here, we conducted a meta-analysis to estimate the pooled prevalence and delineate influential factors for NSSI.

Methods We searched PubMed, Web of Science, Embase, APA PsycINFO, CNKI and Wanfang Database for relevant literature published before April 2022. Pooled prevalence and 95% confident intervals (CIs) were used to assess NSSI prevalence, and subgroup analysis and meta-regression analysis were conducted to clarify the potential influential factors. The publication bias was assessed by Egger’s test. This study is registered with PROSPERO, CRD42022374158.

Results A total of 15 studies meeting the criteria with 24,055 participants were eventually included in the meta-analysis. The results showed that the pooled prevalence of NSSI during the outbreak of COVID-19 was 22.5% (95% CI: 17.2% to 28.9%). The heterogeneity between

studies was significant (I2 = 99.05%). Subgroup and meta-regression analyses revealed that the gender, age, regional distribution, socioeconomic status and suicidal ideation were the significant influential factors for NSSI. In addition, the prevalence of NSSI in the adolescent population during the COVID-19 outbreak was 32.40% (95% CI: 26.60% to 38.80%). Gender was identified as a significant influencing factor for adolescent NSSI.

Conclusion The pooled prevalence of NSSI during the COVID-19 outbreak is high, especially among the adolescent population. The gender, age regional distribution, socioeconomic status and the suicidal ideation might be the potential influential factors of NSSI. These findings suggest that we need to pay attention to NSSI behavior in the adolescent population, especially among adolescent girls.

关键字：COVID-19; Non-suicidal self-injury (NSSI); Prevalence; Adolescents; Girls; Meta-analysis

基于磁共振结构像的青少年抑郁症脑形态学改

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目的 探讨青少年抑郁症患者脑形态学改变，及其与 HAMD 评分的相关性。

方法 纳入 51 例单发青少年抑郁症患者和 27 例健康对照，用 VBM 和 SBM 分析其脑结构像的灰质体积、皮层厚度和脑沟深度，两组间比较用双样本 T 检验；再将有差异的脑区与 HAMD 总分进行相关性分析。

结果 1.青少年抑郁症组的右侧大脑半球额下回三角部（FDR 校正）、嗅皮质、内侧眶额皮质、颞中回、前扣带回膝下部及左侧大脑半球楔叶和嗅皮质、大脑中缝正中核灰质体积增大；左侧丘脑、右侧丘脑，左侧海马、小脑蚓部灰质体积减小。左丘脑枕外侧核和腹前核灰质体积与 HAMD 总分显著负相关（P=0.034，R=-0.24；P=0.017，R=-0.27）。2. MDD 组左额叶眶额皮质、左额叶上部和内侧、左顶叶、左枕叶视觉皮层和右顶叶皮层厚度增大；双侧额叶前扣带回和内侧前额叶、左颞下回、左中央后回、右颞叶和右顶内沟 1 区皮层厚度减小。左大脑半球颞下回、右大脑半球前扣带回和内侧前额叶皮质的皮层厚度与 HAMD 总分呈显著负相关(P=0.011，R=-0.29；P=0.040，R=-0.23)；左大脑半球枕叶视觉皮层、额叶眶额极皮质及前扣带回和内侧前额叶皮质、顶叶顶上内侧皮质和顶下皮质以及右侧大脑半球顶下皮质内侧等脑区的皮层厚度与 HAMD 总分呈显著正相关(P=0.004，R=0.32；P=0.013，R=0.28 ；P=0.007，R=0.30；P=0.015，R=0.27；P=0.046，R=0.23；P=0.018，R=0.27；P=0.020，R=0.26；P=0.020，R=0.26；P=0.003，R=0.33；P=0.018，R=0.27)。3. MDD 组左眶额皮质、右侧额叶前下内侧和背外侧、顶叶下部和后部脑沟深度增大；左额叶前下部、左中央后回和左颞叶下部、右额叶前部和右颞叶后部脑沟深度减小。左颞中回和右眶额皮质脑区脑沟深度与 HAMD 总分呈显著负相关(P=0.049，R=-0.22；P<0.001，R=-0.41)。

结论 青少年抑郁症患者在灰质体积、皮层厚度、脑沟深度等方面的形态学改变，与抑郁症严重程度有关。

关键字：青少年抑郁症，灰质体积，皮层厚度

故意过量服药青少年人格特质和内心体验的量化与质性研究

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目的 通过量化研究，发现青少年过量服药行为的冲动水平、人格特质等特点；通过质性研究，了解青少年过量服药行为的心理体验。将量化研究与质性研究的方法相结合，探讨青少年故意过量服药行为背后的心理特点，为减少青少年故意过量服药行为提供可能的策略和依据。

方法 量化研究：从绵阳市第三人民医院儿童心理卫生科住院部纳入有故意过量服药行为的 50 名青少年作为过量服药组，并同时纳入与过量服药组青少年相匹配的但无过量服药行为的 50 名青少年作为非过量服药组。对两组青少年均使用 Barratt 冲动量表、艾森克人格问卷、艾森克情绪稳定性量表、自制一般情况量表。质性研究：从过量服药组中纳入愿意接受深入访谈，能理解并配合访谈的青少年 10 名，由监护人和青少年共同签署知情同意书后进行半结构式访谈，访谈全程录音，将录音资料转录为文字稿件，采用解释性现象学进行分析。

结果 量化研究结果：两组青少年在性别、年龄、是否为独生子女、主要抚养者、病程上无统计学差异。过量服药组青少年既往有精神科门诊或住院就诊史的比例更高，结果具有统计学差异（P<0.05）；过量服药行为与精神科门诊或住院就诊史具有正相关性，rs=0.502（P<0.05）。过量服药组青少年与非过量服药组青少年的诊断具有统计学差异（P<0.05），过量服药组青少年患有抑郁障碍的可能性更大。在艾森克人格问卷的精神质得分和艾森克情绪稳定性量表的疑病得分上，过量服药组青少年较非过量服药组青少年更高，结果具有统计学差异（P<0.05）。在 Barratt 冲动量表的得分上，过量服药组青少年与非过量服药组青少年没有统计学差异。质性研究结果：共提取出 3 个主题：①适应现实的选择②无所谓的态度③不确定的未来。

结论 1.采取故意过量服药行为的青少年更可能有精神科门诊或住院就诊史，更可能为女性，其对躯体的关注度更高，在人格特质上更偏向精神质，且该行为具有重复性。采取故意过量服药行为与采取其他自伤或自杀方式的青少年在冲动水平上没有差异。2.有心理健康问题的青少年更可能将自我伤害行为，如故意过量服药，作为适应不良处境的应对策略，并对此抱以不以为意的态度。

关键字：青少年；故意过量服药；质性研究

青少年与父母对家庭环境感知差异对青少年非自杀性自伤行为治疗效果的随访研究

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目的 分析 NSSI 青少年与其父母之间对于家庭环境的主观感知是否存在差异且其对青少年 NSSI 行为治疗效果的可能影响。

方法 采用便利取样法选取来自成都市第四人民医院住院治疗的青少年患者作为被试。其入组前半年内存在至少三次以上的自伤行为。所有被试需在入组时完成基本人口学量表、家庭环境量表以及自伤功能与行为问卷用于了解其疾病特征、家庭环境及自伤种类、次数(最近 2 周内)及自伤冲动程度，并在 3 月后、半年后、1 年后分别进行随访。

结果 共 199 名青少年完成全部随访。平均年龄 15.44 ± 1.95 岁，首发年龄平均 12.69 ± 2.50 岁，平均病程 2.74±2.28 年。随着时间推移，被试的平均 NSSI 次数及冲动程度均有所降低。在对年龄、性别、精神病家族史、是否留守儿童和家庭环境量表内容进行调整后，结果显示 NSSI 治疗效果与青少年感知的家庭亲密度、家庭冲突，父母感知的家庭表达、家庭积极娱乐取向以及父母和青少年对家庭亲密度和家庭冲突的感知差异存在相关性。青少年感知的家庭亲密度越高(β:1.130，95% CI: 0.886，1.373；p=0.032)，父母感知的家庭表现力越好(β:0.818，95% CI: 0.375，1.260；p=0.037)以及父母感知的家庭娱乐越多(β:0.609，95% CI: 0.236，0.981；p=0.048)，其 NSSI 的治疗效果越好。然而，青少年感知越高的家庭冲突(β:-0.838，95% CI: -1.377，-0.298；p=0.024)与较差的治疗结果相关。父母与青少年在家庭亲密度(β:-1.307，95% CI: -2.074，-0.539；p=0.014)及家庭冲突(β:-0.665，95% CI: -0.919，-0.410；p=0.037)维度上的认知差异越大，NSSI 的疗效可能越差。

结论 父母与青少年对其家庭环境的认知存在一定差异，且这种差异对青少年 NSSI 行为的治疗效果有显著影响。增加父母和青少年之间的交流和对家庭环境的共同认识有助于提高 NSSI 的治疗效果。

关键字：青少年；非自杀性自伤；父母；家庭环境；感知差异

基于 SCIE 数据库注意力缺陷多动障碍研究二十年发展动态的文献计量分析

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目的 从文献计量学的角度，对近二十年来多动症的研究发展状况进行分析，研究多动症科研现状，推断研究热点及预测发展趋势，研究全球各个国家和地区对多动症的关注度。

方法 使用文献计量学的方法，以 Web of Sciences 为统计源，检索 2001-2020 年 SCI-EXPANDED 数据库中收录的注意力缺陷多动障碍文献，统计论文的作者、机构、获得基金资助情况、各个年份、发文量、研究方向等内容，通过关键词、检索、搜集整理相关数据。

结果 SCIE 共收录多动症文献 5046 篇，其中剔除 3 篇，所纳入研究的文献共 5043 篇，总数量增长迅速；来源于中国台湾地区的文献共 120 篇，近几年呈现稳步增长的趋势；在 2001-2020 年被收录的 5043 篇文献中 4858 篇是英文语种，0 篇中文语种。相较之下在中国知网查阅收录 5012 篇关于多动症的文献，在统计学 SCIE 和 Pubmed 相关度（呈正相关 0.857，P<0.001）、（t=-2.161，P<0.05）存在显著性差异，皆存在统计学意义。

结论 1.20 年来国内外“注意力缺陷多动障碍”的研究进展做出初步解析，从各个方向分析均显示欧美国家或地区，2.“ADHD”的研究远远高于我国，我国在儿童多动症的研究上，应加大人力物力的投入。3.国内的“ADHD”认知应普及社会、校园与家庭对于“多动症”的认知并非从小重视，目前有许多医院机构有针对儿童“ADHD”的相关治疗，4.“ADHD”的相关研究及报道较少，应慢慢提升重视度，并注重儿童“ADHD”检测，确保孩子从出生到青少年期，都能良好的心理健康的成长我国研究多动症的科研水平仍较低，国家应大力投入资金在多动症方面的研究，以提供更多新的教育和治疗。

关键字：注意力缺陷多动障碍；ADHD；治疗法；SCIE；文献计量学；研究进展

Social Poverty Indicators with School Bullying Victimization: Evidence From The Global School-based Student Health Survey (GSHS)

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Objective School bullying is prevalent in children and adolescents. Bullying victims are seen even higher risk of negative psychological outcomes. Previously published studies suggested that social indicators may pose significant influence on bullying victimization, however, the association between social poverty and bullying victimization has not been exclusively discussed.

Methods In this cross-sectional study, we analyzed the association between 5 commonly used social poverty indicators (Poverty Headcount Ratio, PHR; Poverty Gap, PG; Squared Poverty Gap, SPG; monthly household per capita income, PCI; Watts' Poverty Index, WPI) and the prevalence of school bullying at country level by using the

Global school-based Student Health Survey (GSHS) database.

Results Altogether 16 countries were included into the final analysis, with school bullying victimization prevalence ranged between 12.9% to 47.5%. Bubble plots revealed statistically significant associations between the three indicators measuring absolute poverty level (PHR, PCI, WPI) and bullying victimization. Subsequently performed principal component regression indicated that, for all types of bullying victimization, the increase of absolute poverty level was related to elevated prevalence rates, and the association was particularly strong for verbal bullying victimization.

Conclusion Our study results may suggest that social poverty status is an important parameter for constructing and implementing school bullying victimization intervention strategies and measures.

关键字：Social poverty indicators; Bullying victimization; Correlational study; Children and adolescents.

伴有明显焦虑的成人注意缺陷多动障碍患者使用哌甲酯治疗效果探索

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目的 成人 ADHD 的共患另一种精神疾病的概率高达 51.7%。在欧美国家，ADHD 共患广泛性焦虑障碍（GAD）的概率分别为 3.8%和 8%。目前分别针对 ADHD 和 GAD 虽然都有明确的药物治疗方案，但在成人 ADHD 共患 GAD 时最佳方法尚未确定，应首先治疗哪种疾病的可靠证据并不多。本研究就是为了探索在临床上伴有明显焦虑的成人注意缺陷多动障碍患者使用哌甲酯治疗效果探索。

方法 随机抽取2022年重庆市精神卫生中心儿少科成人 ADHD 专病门诊符合 DSM-5 诊断的 ADHD 共患 GAD 19 例且治疗药物仅使用了哌甲酯缓释片 18mg-36mg 的患者，使用成人 ADHD 自评量表（ASRS）评估注意缺陷和多动冲动的核心症状，使用汉密尔顿焦虑量表（HAMA）评估焦虑症状，选择治疗前和服药 6 周后的临床表现和量表评分。

结果 入组的患者平均年龄为23.7岁，女性8名，男性 11 名。在治疗前 ASRS 的均值总分为：38.74±4.90（注意缺陷量表分：29.21±4.45，多动冲动量表分：9.53±2.84），治疗后 ASRS 总分为：35.84±4.86（注意缺陷子量表分：27.74±2.89，多动冲动量表分：8.11±3.91）；治疗前 HAMA 得分为 22.16±4.66，治疗后得分为 20.79±4.24。

结论 在优先或单独治疗 ADHD 症状并期待焦虑症状的随之减轻，注意缺陷和焦虑的有效缓解率并不显著。所以，ADHD 共病 GAD 的患者大脑激活程度到底怎样？使用哌甲酯时是否会进一步加重焦虑？在这个问题上还需要更多的样本和更严谨的研究。

关键字：成人注意缺陷多动障碍，ADHD，共患广泛性焦虑障碍，GAD，哌甲酯缓释片

赤峰市新型冠状病毒感染疫情期间酒店隔离中小学生焦虑抑郁状态

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目的 新型冠状病毒感染疫情的爆发，作为一次重大突发公共卫生事件，不仅影响公众的日常工作、学习和生活，也影响公众的心理健康水平。中小学生作为特殊群体，正处于身心发展剧烈变化时期，较易出现心理健康问题。因此，以内蒙古赤峰市新型冠状病毒感染疫情期间酒店隔离的中小学生为对象探究焦虑抑郁状态的发生情况。

方法 以方便取样的方式，采用儿童焦虑性情绪障碍筛查表（SCARED）、儿童抑郁障碍自评量表（DSRSC）对内蒙古自治区赤峰市 2022 年 9 月-10 月参与酒店集中隔离的 726 名中小学生的焦虑抑郁症状发生情况进行调查，回收有效样本 624 例，应答率为 86%。SCARED 的阳性检出标准为≥23 分，DSRSC 的阳性检出标准为≥15 分。

结果 焦虑检出率为 17.9%，抑郁检出率为 15.4%；初中生焦虑、抑郁检出率高于小学生（22.1%VS17.3%、20.3%VS11.3%，P＜0.05）。广泛性焦虑、社交恐怖因子得分女生高于男生［2（0，18）VS2（0，15）、4（0，14）VS3（0，14），P＜0.05］；初中生分离性焦虑因子评分高于小学生［2（0，12）VS2（0，14），P＝0.05］。初中生抑郁评分高于小学生［8（0，29）VS6（0，24），P＜0.01］。

结论 疫情期间酒店集中隔离的初中生较小学生更易出现焦虑、抑郁症状，不同学段是酒店隔离焦虑、抑郁发生的影响因素；女生较男生更易出现焦虑症状，性别是影响酒店隔离期间焦虑发生的因素。

关键字：初中生；小学生；焦虑；抑郁；隔离

Relationship between Social Anxiety and Sleep Problems in Depressed Adolescents: The Mediation Effect of Internet Addiction

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Objective The study aimed to investigate the associations of social anxiety with sleep problems and to further explore the potential mediating role of internet addiction.

Methods This study included 440 adolescents with

depression, and the data were collected at Shandong Mental Health Center from September 2021 to September 2022. Participants completed several questionnaires, including the Children's Depression Inventory, Social Avoidance and Social Distress Scale, The Internet Addiction Test, and Pittsburgh Sleep Quality Index. A structural equation model was used to analyze the relationships between social anxiety and sleep problems, with internet addiction as a mediator.

Results Among participants, the mean age was 15.0(SD = 2.0) years and 61.8% reported sleep problems. The sleep scores were significantly different on the level of gender (t = -2.42, p = 0.016), education level (t = 2.74, p = 0.043), and family history of depression (t = 3.10, p = 0.002). Sleep scores were correlated with social anxiety scores (r = 0.472, p < 0.001) and internet addiction scores (r = 0.331, p < 0.001). Internet addiction partially mediated the relationship between social anxiety and sleep problems, and the mediation effect ratio was 15.8% (p <0.001).

Conclusion This study examined the positive effect of social anxiety and internet addiction on sleep problems among depressed adolescents, while internet addiction plays a partly mediating role in.

关键字：sleep problems, social anxiety, internet addiction, depressed adolescents

以“萨提亚冰山理论”为核心的心理护理对青少年抑郁症患者的应用研究

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目的 探讨以“萨提亚冰山理论”为核心的心理护理对青少年抑郁症患者认知情绪和社会功能的干预效果。

方法 选取 2019 年 7 月～2021 年 2 月于我院住院治疗的 80 例青少年抑郁障碍患者为研究对象，采用随机数字表法分为对照组和实验组，每组各 40 人。两组患者均接受精神科抗抑郁药物治疗和一般心理护理，实验组在此基础上实施以“萨提亚冰山理论”为核心的心理护理。采用认知情绪量（CERQ-C）、社会功能量表（SSPI）进行评定，比较两组患者认知情绪和社会功能的变化。

结果 实验组自我责难、沉思、灾难化和责难他人的负性情绪得分于干预后 3 周、6 周时低于对照组(P＜0.05)；实验组积极重新关注、重新关注计划、积极重新评价、接受和理性分析的积极情绪得分于干预后 3 周、6 周时高于对照组(P＜0.05)；实验组 SSPI 总分和日常生活能力、社会性活动技能维度得分于干预 3 周和 6 周时高于对照组，活动与交往情况得分于干预后 6 周时也高于对照组(均 P＜0.05)。

结论 以“萨提亚冰山理论”为核心的心理护理，能改善青少年抑郁症患者认知情绪，提高其社会功能。

关键字：萨提亚冰山理论；青少年抑郁症；认知情绪；社会功能

Functional Networks Topological Properties and Treatment Response Differences Between Psychotic and Nonpsychotic Adolescent Mood Disorders

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Objective Adolescent psychotic mood disorder (MDP) is a specific phenotype that presents worse symptoms and prognosis compared to nonpsychotic mood disorder (MDNP), but the underlying mechanisms remain unknown. And graph theoretical analysis, which conceptualize the brain as a complex network, can help to understand the causes of psychotic symptoms from the perspective of functional networks.

Methods Adolescent psychotic mood disorder (MDP) is a specific phenotype that presents worse symptoms and prognosis compared to nonpsychotic mood disorder (MDNP), but the underlying mechanisms remain unknown. And graph theoretical analysis, which conceptualize the brain as a complex network, can help to understand the causes of psychotic symptoms from the perspective of functional networks.

Results Compared to the MDNP group, the MDP group exhibited higher small-world properties and normalized clustering coefficients but demonstrated decreased nodal properties in the superior temporal gyrus, Heschl's gyrus, and medial cingulate gyrus. In addition, these properties were found to be correlated with the severity of psychotic symptoms. Moreover, both groups showed improvements in topological properties and symptoms after treatment, with the MDP group exhibiting more significant improvement.

Conclusion This study indicated that functional networks are more severely impaired in patients with psychotic symptoms, and this impairment correlates with symptom severity and improves after treatment. Therefore, the topological properties of functional networks might be considered a neurobiological marker of psychotic symptoms and treatment response.

关键字：mood disorder, adolescent, psychotic symptoms, graph theory, functional network

注意缺陷与多动障碍共病焦虑障碍的相关问题综述

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目的 注意缺陷与多动障碍（ADHD）是一种慢性神经和精神发育障碍性疾病，在儿童青少年时期很常见。随着儿童年龄的增长，ADHD 患者共患多种精神障碍的比例明显增加，而焦虑障碍是 ADHD 常见的共病类型，共病率为 25~50%。为提高临床诊治，本文对 ADHD 与焦虑障碍共病的机理、临床表现、诊治等方面进行综述。

方法 使用中国知网、pubmed 对相关文献进行检索，时间为建库至 2023 年 1 月 15 日，根据检索结果，提取发病机制、临床表现、诊断和治疗的相关内容进行总结与分析。

结果 共检索到文献 805 篇，最终纳入 28 篇，文献主要来自儿科学、精神病学。

结论 ADHD 与焦虑障碍的发生都与遗传因素密切相关，但在共病中，两者是有相同的致病或危险因素还是彼此独立，仍需要更多的研究数据来证实。此外，还受到环境因素与铅等危险因素影响；ADHD 与焦虑障碍在症状上有所重叠，增加了临床上识别的难度，目前发现 ADHD 共病焦虑障碍的患者有更好的抑制控制能力。在有限的研究里，发现成人 ADHD 共病与儿童存在差异，成人多动冲动行为减少，但可能焦虑症状增加。焦虑症状对学习和生活以及人际关系等都产生不良影响；ADHD 共病焦虑的诊断需要全面收集病史，并注意区分症状的性质；治疗上要考虑焦虑障碍的严重程度，轻度焦虑可能是一种抑制困难的保护因素。对于明显焦虑的 ADHD 患者，提倡药物治疗联合认知行为等心理治疗。用于治疗 ADHD 的药物主要是哌甲酯（兴奋剂）与托莫西汀（非兴奋剂）。哌甲酯是治疗 ADHD 的一线用药，在 ADHD 伴焦虑治疗中是否能改善焦虑症状是不确定的，在有限的研究中，在共患病的成人的治疗上，经常与 SSRI 和 SSNRI 联合使用，但联合治疗效果也缺乏大数据支撑。若哌甲酯对患者无效，可以考虑换用其他兴奋剂或其他一线用药。托莫西汀能改善焦虑障碍，对于共患焦虑的 ADHD 患者，可以首选托莫西汀。在药物治疗的基础上联合认知行为治疗优于单用托莫西汀。

关键字：注意缺陷多动障碍；焦虑障碍；共病；发病机制；临床表现；诊断；治疗

青少年抑郁障碍患者的疼痛敏感性及疼痛强度研究

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目的 探究青少年抑郁障碍患者的疼痛敏感性与疼痛强度，进一步分析与患者疼痛敏感性及疼痛强度相关的因素

方法 共有 166 名受试者完成了自制问卷和疼痛压力测试，在医院体检中心招募的 47 名健康青少年作为对照组，将 119 名符合本研究中抑郁障碍入组标准的青少年作为研究组。临床资料包括总病程、首次症状年龄和药物治疗等。采用汉密尔顿抑郁评定量表（the Hamilton Rating Scale for Depression，HAM-D）、多伦多述情障碍量表（the Toronto Alexithymia Scale-20, TAS-20）评估受试者的临床特征。使用手持式压力疼痛仪器来评估受试者的实验疼痛敏感性，其中，实验疼痛敏感性的测量包括压力疼痛阈值（Pressure Pain Threshold, PPT）和压力疼痛耐受性（Pressure Pain Tolerance, PTO）。数值评定量表（Numerical Rating Scale-11, NRS-11）用于评估受试者的疼痛强度。比较两组间的一般资料、临床特征、疼痛敏感性、疼痛症状的存在及疼痛强度，分析研究组的疼痛敏感性、疼痛强度与一般资料和临床特征的相关性，探究研究组中不同社会人口学及临床特征的疼痛敏感性与疼痛强度，并且以研究组疼痛敏感性作为因变量，使用广义线性模型分析与疼痛敏感性相关的因素，以研究组的疼痛强度作为因变量，使用有序多分类 logistic 回归模型分析与疼痛强度相关的因素。

结果 研究组中报告疼痛的人数显著高于对照组，差异具有统计学意义（P＜0.001）。青少年抑郁障碍患者的疼痛发生率为 80.7%。研究组与对照组在胫骨压力疼痛耐受性、前臂压力疼痛耐受性上具有统计学差异（P 均＜0.05），即研究组在疼痛耐受性上测得的数值显著高于对照组。以研究组疼痛敏感性作为因变量的广义线性模型分析显示 TAS 总分与疼痛敏感性密切相关，TAS 总分越高，疼痛敏感性数值越大，敏感性越低。以研究组的疼痛强度作为因变量的有序多分类 logistic 回归分析显示 HAM-D 总分与疼痛强度存在密切联系，抑郁症状越严重，疼痛强度至少提高一个等级的可能性越大。

结论 青少年抑郁障碍患者较健康青少年有更高的疼痛发生率。抑郁症状越严重的抑郁障碍青少年感受到的疼痛强度越大，而述情障碍症状越严重，患者的疼痛敏感性越低，越不容易感受到实验性疼痛的

关键字：青少年 抑郁障碍 疼痛 述情障碍

肠道微生物群及肠道菌群移植技术在孤独症谱系障碍中的作用研究进展

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目的 孤独症谱系障碍（autism spectrum disorder，ASD）是一种严重的神经发育障碍性疾病，给社会和家庭造成了极大的负担。目前缺乏更加客观有效的生物学标志物以构建更准确的诊断模型识别患者，同时也缺乏更加有效的治疗手段。现有研究表明 ASD 可能与遗传、环境等因素有关，针对肠道微生物群与 ASD 之间关系的研究尚未构成体系，肠道微生物群可能是 ASD 发病的一个潜在的影响因素。肠道菌群移植（Fecal Microbiota Transplantation，FMT）是将特定的

健康人粪便中的功能肠道菌群（包括各种肠道微生物、代谢产物和天然抗菌物质等）移植到患者肠道内，重塑失衡的肠道微生物群，实现肠道及肠道外疾病的治疗。本文总结了肠道微生物群在孤独症谱系障碍中的潜在作用及其最新研究进展。以期为完善 ASD 发生发展机制及寻找有效的治疗手段提供理论支持。

方法 通过查阅相关研究文献并进行归纳、分析，对肠道微生物群在孤独症谱系障碍中的相关作用及孤独症肠道菌群移植治疗进行综述。

结果 相关研究评估了 ASD 组和正常发育（TD）组儿童的粪便菌群，与对照组相比，ASD 组粪便中存在明显的肠道微生物群失调，如肠道中有益菌群的减少以及有害菌群的过度生长。虽然 ASD 患者的统一微生物谱尚未达成共识，但可以肯定的是，肠道微生物群的失调与 ASD 有着千丝万缕的联系，可能导致相关的 ASD 症状。ASD 患者不寻常的细菌特征和胃肠道问题，因此 FMT 可能具有通过平衡肠道微生物群来治疗此类疾病的潜力。研究发现 FMT 可以改善 ASD 儿童胃肠道症状和 ASD 症状，而不会诱发任何严重的并发症。研究人员进一步观察到 FMT 可以促进供体微生物的定植和肠道环境的有益变化，并将 ASD 儿童的细菌群落转向 TD 对照组，FMT 可以作为在门和属水平上重建肠道微生物群的保护性治疗。FMT 可能是治疗有胃肠道问题的 ASD 儿童的新方法。

结论 FMT 仍是 ASD 的非标准化治疗方法，其效果的维持时间受到移植效果、肠道状况、个体特异性等因素的影响，仍旧无法明确，故采用肠道菌群移植技术治疗 ASD 还需要通过相关研究去进行方案的优化和标准化，并对效果持续时间进行探讨。

关键字：孤独症谱系障碍、肠道菌群移植、肠道微生物

优势认知行为治疗对提升青少年抑郁症患者自尊的随机对照研究

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目的 探讨优势认知行为治疗（SBCBT）对青少年抑郁症患者自尊水平及焦虑抑郁情绪的干预效果。

方法 选取在某医院门诊就诊及住院的符合 ICD-10 诊断标准的 89 例青少年抑郁症患者，采用单中心、随机、平行对照临床研究方法，随机分为联合治疗组（n=44）与单纯药物对照组(n=45)。联合治疗组在药物治疗基础上接受 8 次优势认知行为疗法（SBCBT）联合干预，使用自尊量表（SES）、汉密尔顿抑郁量表（HAMD-17）、汉密尔顿焦虑量表（HAMA）对两组患者在基线及干预 6 周后评估。

结果 干预 6 周后，联合治疗组的自尊量表评分明显高于治疗前（F=189.91,P<0.001），HAMD-17、HAMA 评分均低于治疗前（F=833.48,P<0.001；F=86.94，P<0.001）；联合治疗组自尊量表评分高于对照组（F=13.94, P<0.001），而 HAMD-17、HAMA 评分均低于对照组（F=57.98,P<0.001；F=4.66，P<0.05）。相关性分析表明，SES 水平差值与 HAMD-17 差值呈正相关（r=0.26，P<0.05）。

结论 优势认知行为治疗能够改善青少年抑郁症患者的焦虑抑郁情绪，提升自尊水平。

关键字：优势认知行为治疗；青少年；抑郁；自尊

基于深度神经网络和迁移学习策略的儿童孤独症谱系障碍面部图像识别

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目的 本研究旨在通过先进的深度学习技术和全面的面部图像数据集，实现儿童孤独症谱系障碍（ASD）的精准识别。我们利用的数据集包含了被诊断为 ASD 的儿童的面部图像,为专门进行 ASD 识别的模型训练提供资源。

方法 我们提出的模型采用了迁移学习策略，使用在大规模图像数据集上进行预训练的模型。这种策略使得模型能够从大数据集中学习到的分层特征表示中受益，从而提高模型从 ASD 面部图像中提取有意义特征的能力。具体来说，我们选择使用最先进的模型架构作为迁移学习方法的基础模型。模型的实施涉及几个步骤，包括预处理面部图像数据，对预训练模型在 ASD 数据集上进行微调，以及更新模型参数以最小化损失函数。

结果 在训练期间，我们使用单独的验证集评估模型的性能，以监视过拟合并根据需要调整超参数。微调后的模型在单独的测试集上进行性能测试，测试结果使用诸如准确性、精确度、召回率和 F1 分数等指标进行量化。

结论 在测试阶段之后，准备部署模型，这涉及将模型转换为适合部署的格式。部署后的模型可以用于对新的、未见过的图像进行预测，提供了一个实用的工具，有助于 ASD 的早期检测。我们提出的迁移学习模型有望显著地促进 ASD 的早期检测和诊断，从而通过早期干预改善结果。然而，重要的是要强调，这个模型应该作为诊断过程中的补充工具。

关键字：孤独症谱系障碍，深度学习，迁移学习，面部图像识别，模型部署

Relationship between Prognosis and Childhood Trauma Experiences in Adolescents with Depression: A Follow-up Study

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Objective Major depressive disorder (MDD) is a

common, severe, and recurrent condition，and adolescent depression is one of the leading causes of suicidal ideation and behavior in adolescents. As an essential factor in the occurrence and development of adolescent depression, childhood trauma may also have a specific predictive effect on the responsiveness of antidepressant treatment and play a particular guiding role in the treatment of depression in adolescents. Therefore, this study aims to explore the relationship between childhood trauma and the prognosis of adolescent depression patients, and provide some theoretical guidance for the clinical treatment of adolescent depression.

Methods This study is a cohort study. We conducted a 26-week follow-up survey on 100 patients, and 74 patients finally completed the follow-up. A self-administered questionnaire was used to capture general sociodemographic information about the patients. The Hamilton Rating Scale for Depression (HAMD), the Childhood Trauma Questionnaire (CTQ), the Insomnia Severity Index Scale (ISI), and the Positive and Negative Suicide Ideation Scale (PANSI) were used to assess the patients' clinical symptoms. Patients were then reassessed for depressive symptoms using the HAMD scale at eight weeks and twenty-six weeks of treatment, and those with a HAMD reduction rate of ≥ 50% were categorized as the symptomatic remission group, and those with a reduction rate of < 50% were categorized as the non-remission group. Patients in the remission and non-remission groups were then statistically analyzed for demographic and clinical data.

Results At eight weeks of follow-up, there were statistical differences between the remission and non-remission groups in age at onset, total CTQ score, emotional abuse factor score, emotional neglect factor score, physical neglect factor score, and PANSI score. Twenty-six weeks later, there were statistical differences between the two groups in the total CTQ score, emotional abuse factor score, physical abuse factor score, sexual abuse factor score, emotional neglect factor score, physical neglect factor score, and PANSI score. Logistic regression analysis showed that having a traumatic childhood experience, especially emotional abuse or neglect ($p<0.05$), was a risk factor for poorer prognosis in adolescent depression.

Conclusion The results showed that experiencing childhood trauma, especially emotional abuse or neglect, was a risk factor for poorer prognosis in adolescent depression. It suggests that society, schools, and families should pay more attention to preventing traumatic childhood events, providing necessary emotional support and assistance to adolescents, and creating a good learning and living environment, which may help to improve the clinical cure rate of adolescent depression patients.

关键字：adolescent / major depressive disorder / childhood trauma / prognosis

重复经颅磁刺激治疗对青少年抑郁症患者非自杀性自伤研究进展

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抑郁症是一种常见的精神疾病，全球有超过 3 亿人患有这种疾病，近些年来，青少年抑郁的检出率越来越高。目前有研究表明，儿童青少年抑郁症的发病率在青春期能占到 5%-8%。青少年抑郁症患者伴有诸多临床症状和不良行为，如失眠、躯体不适和自伤行为，其中非自杀性自伤成为研究热点与难点。非自杀性自伤(non-suicidal self-injury，NSSI)是指没有致命意图或社会认可目的的直接和故意的身体组织损伤。NSSI 通常始于青春期早期，在 15-17 岁左右达到发病率高峰,在抑郁症人群中更多见。NSSI 是预测自杀的预测因素，是青少年死亡的第二大原因。因此，探究如何减少青少年抑郁症患者的 NSSI 行为意图也是治疗青少年抑郁症的一项重要目标。既往相关的治疗主要以药物为主，但是存在不良反应较多且耐药，因此限制了临床应用。近年来，重复经颅磁刺激(repetitive Transcranial Magnetic Stimulation，rTMS)技术在神经和精神领域应用广泛，具有无创、安全性高等优势。在抑郁症中，该治疗对缩短抗抑郁药的起效时间有明显效果，能够改善患者的临床症状，并提高早期疗效。另外，在伴自伤抑郁症中也有一定研究。综上，重复经颅磁刺激是治疗抑郁症的替代方法。然而，临床上大多数研究只是单纯的探索了一种频率的疗效，且以往研究主要用通过评估量表的方式来评判患者好转程度，较为主观。由于缺乏客观指标，很难确定前额叶区域的最佳刺激参数并评估对 rTMS 治疗的即时和长期反应。随着神经影像技术的快速发展，功能近红外光谱(functional near-infrared spectroscopy，fNIRS)，作为当前新型的光学神经成像技术，或许可以弥补这一不足。fNIRS 可将大脑皮层中脱氧血红蛋白(Deoxy-Hb)与氧合血红蛋白(Oxy-Hb)出现的浓度变化检测出来。有学者研究发现，与健康对照组相比，青少年抑郁症患者前额叶皮层的大脑激活减少，且发现伴自伤青少年抑郁患者在进行言语流畅任务时前额叶脑区平均氧合血红蛋白浓度低于不伴自伤行为青少年抑郁患者，提示自伤行为与前额叶功能受损有关。本篇检索相关文献，就 rTMS 对青少年抑郁症患者非自杀性自伤治疗进展进行综述，并分析应用中存在的问题，旨在为未来临床实践和科学研究提供参考。

关键字：青少年；非自杀性自伤；抑郁症；重复经颅磁刺激；功能近红外光谱；综述

城乡中学生生活事件及抑郁情绪比较研究

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目的 调查研究中学生群体的生活事件及抑郁情况，探索城乡中学生群体中生活事件和抑郁情绪的差异，为保障农村中学生的心理健康提供帮助。

方法 对 1232 名中学生进行抽样问卷调查，采用流调中心用 Kutcher 青少年抑郁量表(11 项) (KADS-11)测量抑郁情绪(将 KADS-11 评分≥9 分者归于抑郁组，

<9 分者归于非抑郁组)、青少年生活事件量表(ALEC)评估中学生生活事件。

结果 抑郁检出率 42.40％，其中农村中学生（n=670）抑郁发生率 44.47%，城市中学生（n=561）抑郁发生率39.92%，两组抑郁发生率无统计学差异(X2=2.62，P=0.12)； 农村中学生与城市中学生相比，除考试失败及与老师矛盾外，其余生活事件发生频率均更高且具有统计学差异；除学习因子外，其余四类生活事件因子分均高于城市组中学生且具有统计学差异；农村中学生动力缺乏因子分高于城市组中学生；农村中学生焦虑因子、生活事件总分及各因子分与年龄正相关，城市中学生仅惩罚因子分与年龄负相关。

结论 1.农村中学生群体较城市中学生群体抑郁发生率无明显差异，但因经历较多生活事件，受生活事件影响较大，缺乏动力倾向更明显。2.随年龄增长农村中学生经历生活事件所受影响和焦虑情有增加趋势。

关键字：中学生；抑郁；生活事件；调查研究

团体辨证行为疗法在青少年非自杀性自伤行为的应用

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目的 目前全球青少年非自杀性自伤行为的发生率正在逐年上升，已成为精神卫生领域亟待解决的重要卫生问题之一。国内外对 NSSI 的干预主要是心理治疗，团体辩证行为疗法可有效降低青少年实施 NSSI 的频率，促进青少年心身健康。本文阐述了团体辩证行为疗法在 NSSI 行为中的应用。

方法 检索 PubMed、中国知网、万方数据知识服务平台，纳入有关中国青少年 NSSI 研究和团体辩证行为疗法的中英文文献。本研究通过回顾青少年 NSSI 的 GDBT 治疗的国内外相关理论背景，介绍了 GDBT 的背景、课程设置、核心技能和对青少年 NSSI 的应用。

结果 DBT 立足于东方哲学与佛教禅学的思想，以生物社会理论、行为理论和辩证法为其理论基础，将辩证的哲学观贯穿于整个治疗过程，通过系统的正念、人际效能、痛苦耐受、情绪调节技能训练，帮助患者建立“接受”与“改变”的平衡，从而实现对不良行为的干预和矫正，达到稳定患者情绪、恢复社会功能的效果。很多国内外研究都证明 GDBT 对 NSSI 治疗是显著的，可以减少 NSSI。

结论 通过对国内外青少年 NSSI 的 GDBT 治疗的回顾，GDBT 疗法对青少年 NSSI 的疗效是显著的。本研究为我国青少年 NSSI 的 GDBT 治疗的研究提供理论依据，通过本研究了解到 GDBT 对青少年 NSSI 治疗方法。很多研究均表明 GDBT 的治疗是有效的，但国内对 GDBT 的理论实践研究仍不足，因此还需要深入地研究 GDBT 对青少年 NSSI 的干预策略及疗效。

关键字：青少年；非自杀性自伤；团体辩证行为疗法

青少年非自杀性自伤行为现状及其影响因素

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目的 非自杀性自伤(non-suicidal self-injury,NSSI)是一种在没有自杀意图的前提下，直接、故意伤害自己身体组织的行为。青少年 NSSI 是一个非常严重的公共卫生问题，我们应当重视该问题。本研究分析 NSSI 行为在中国现状及它的影响因素，人际关系、生活事件和情绪对 NSSI 的影响。

方法 本研究通过回顾青少年 NSSI 的国内外调查研究的现状，阐述了人际关系、生活事件和情绪与 NSSI 的相关影响因素。

结果 全球青少年 NSSI 的终身流行率为 19.5%。国内荟萃分析显示中国大陆中学生的 NSSI 总发病率为 27.4%。人际关系、生活事件和情绪都对 NSSI 有很大的影响因素。与父母和同龄人的关系对青少年的心理健康很重要，我们可以预期识别 NSSI 发作风险过程。压力性生活事件对于 NSSI 行为的发生发展具有关键性的作用。国内外多项横断面以及纵向研究证明情绪功能障碍是 NSSI 行为最为重要的风险因素。

结论 通过对青少年 NSSI 的回顾，国内外 NSSI 患病率非常高，需要更多的人去关注此问题，本研究为我国青少年NSSI的研究提供理论依据，为青少年NSSI干预工作的开展和治疗方案的制定提供必要的信息。很多研究均表明人际关系、生活事件和情绪问题在 NSSI 发展中的重要作用，但这二者之间关联的内在机制目前尚没有统一的结论，因此还需要深入地研究负面情绪导致 NSSI 的内在机制以便采取针对性的干预策略。

关键字：青少年；非自杀性自伤；生活事件；人际关系；情绪；综述

青少年自伤自杀及其预防

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目的 青少年的自伤自杀行为都是不被社会所允许的行为。生理成熟快速而心理成熟相对缓慢、独立意识和自我意识强烈和情绪不稳定等因素都可能会导致青少年自伤自杀。青少年的心理健康出现问题从而导致自伤自杀行为会给家庭和社会带来各种负担和压力。本研究回顾了青少年自伤自杀的原因和影响因素、识别以及评估、预防和干预。

方法 本研究通过回顾青少年自伤自杀国内外相

关研究，介绍了青少年自伤自杀行为的背景原因、影响因素、识别和评估、预防和干预。

结果 自杀的理论主要由生物学、心理学、社会学习理论和社会冲突理论四个方面构成。家庭因素、社会因素、精神心理因素和学校因素是导致青少年自伤自杀的重要原因。对于青少年自杀的识别有童年早期破坏性的家庭模式以及创伤事件、认知模式和人格特点、精神障碍现象的能力、以往自杀企图的经历以及当前负性生活事件。通过自杀询问、形成风险因素、形成保护性因素、确定青少年自杀风险等级和记录的五步法对青少年自伤自杀进行评估和干预，可通过媒体报道建议、大众媒体传媒活动和治疗改进的干预策略运用这些新趋势去预防青少年自伤自杀。这些方法都可以有效的预防和干预青少年自伤自杀行为。

结论 青少年自伤自杀行为已经成为主要的公共卫生问题，其严重影响了青少年的健康成长。本研究回顾国内外相关研究，针对青少年自伤自杀行为的识别、干预和预防，本文提供了理论依据，并为青少年自伤自杀行为的干预和预防提供参考。

关键字：青少年；自伤；自杀

社交媒体上青少年非自杀性自伤行为表露的特点

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目的 非自杀性自伤 (non-suicidal self-injury, NSSI) 行为是一个日益严重的临床和公共卫生问题，常见于青少年之中。随着互联网的普及率的提高，社交媒体已成为青少年生活的重要组成部分，我国未成年人互联网普及率已达到 95%，越来越多的青少年选择在社交媒体上讨论和分享自伤相关内容。自我表露是干预的第一步，本研究总结了过往研究中社交媒体上青少年非自杀性自伤行为表露的特点，探索如何更有效地为自伤青少年提供心理资源。

方法 以“社交媒体、自伤/NSSI”为关键词搜索搜索中国知网，一共出现 4 篇文章。在 Web of Science、PubMed 上以“non-suicidal self-injury/NSSI AND social media”为关键词搜索，分别出现 44 篇、28 篇英文文献，排除后共纳入 24 篇中英文文献。使用文本分析方法，对各社交媒体上青少年自伤行为表露的特点进行分类，然后提取关键词，对不同类别进行分析总结。

结果 ①人口学特点：我国发帖的 NSSI 青少年大多分布在沿海经济发达地区，中学生的数量最多，也有部分小学生。②性别差异：女性发布内容的比例更高，但更多男性浏览社交媒体上的 NSSI 内容，并且男性发布的内容也更受欢迎。③时间分布：中国青少年倾向在 21:00 到 24:00 发布帖子，国外青少年则在下午放学后三小时内发帖更频繁。④内容形式：青少年自伤表露的主要形式是文字、图片和视频，国内的研究大多聚焦于文字形式。⑤内容导向：分为自我导向和社交导向。自我导向型的内容包含了日记、展示裸露伤口、包扎伤口或伤疤的照片或视频、还有创造性表达的内容 (如诗歌、写作、绘画、表情包等)。社交导向型的内容主要是建议、询问和回复的帖子，旨在帮助他人进行各种自伤相关的实践 (如自伤技术和安全程序、自伤替代策略、自伤科普、康复游戏等)。⑥从情感取向：正性情绪占 20%～30%，负性情绪占 50%～70%。

结论 本研究总结了过往文献，发现青少年一般在放学后或夜间更频繁地在社交媒体上发布或获取 NSSI 相关信息，说明了我们需要对经济发达地区的青少年给予更多关注，尤其要在夜间提供更多的网络心理资源。其次，自伤青少年发布的负性情绪内容更多，表明了自我表露有调节负面情绪的心理功能，启发我们针对青少年情绪调节能力进行干预会更有效，线上干预的方式也有待未来实践。

关键字：非自杀性自伤，社交媒体，青少年，自我表露特点

精神科儿少病房首次入院患者中双相情感障碍的比例及特点

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目的 研究 2023 年上半年在武汉市精神卫生中心儿少病房首次入院中诊断为双相情感障碍的患者比例及其特点。

方法 统计我院儿少病区从 2023 年 1 月 1 日至 2023 年 6 月 30 日首次入院且诊断为双相情感障碍的患者比例及其发病年龄、用药方案等特点。

结果 我院儿少病区 2023 年上半年首次入院的患者总数为 268 名，其中诊断为双相情感障碍的共 160 名，占首次入院患者总数的 59.70%。在 160 名双相患者中，男女比例为 58:102，患者的年龄范围为 8 岁至 21 岁，主要集中在 11 至 15 岁，13 岁发病的比例最高，占总数的 35.62%。入院时为双相混合发作的占 5.63%，抑郁发作的占 88.12%，躁狂发作的占 6.25%，双相共病注意缺陷与多动障碍、癫痫、抽动障碍疾病的占 12.50%。160 名双相患者中，64.38%的患者使用了碳酸锂，18.13%使用了丙戊酸镁，11.25%使用了丙戊酸钠缓释片，8.13%使用了拉莫三嗪；50.00%使用了喹硫平，22.50%使用了阿立哌唑，20.63%使用了利培酮；16.00%使用了舍曲林，6.88%使用了氟伏沙明。

结论 儿童青少年首次住院患者中双相情感障碍比例较大。女性的发病率高于男性。首发年龄更小化，13 岁首发比例最高。儿少双相的首发表现以抑郁为主。儿童神经系统发育障碍中，注意缺陷多动障碍与抽动障碍更容易共病发生双相，癫痫也共病双相发生。药物使用中，碳酸锂、喹硫平在儿少双相治疗中得到肯定。抗抑郁药中舍曲林、氟伏沙明的安全性及低转躁率也在儿童精神科医生中普遍得到认可。

关键字：儿少；双相；年龄；共病

青少年双相抑郁障碍患者短链脂肪酸代谢特征的研究

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目的 目前有研究发现双相抑郁障碍患者存在肠道微生物结构及功能的异常，且产生短链脂肪酸的肠道微生物丰度减少，但短链脂肪酸的代谢特征尚未明了。因此，本研究拟探讨青少年双相抑郁障碍患者短链脂肪酸的代谢特征，为以后青少年双相抑郁障碍治疗及疾病转归预测提供新靶点。

方法 纳入符合DSM-5之相应诊断标准的青少年双相抑郁障碍患者 26 名、青少年双相障碍缓解期患者 24 名、正常青少年 24 名。所有受试者均进行临床访谈，评估情绪、睡眠等临床症状，并完成一般情况问卷。采用 GC-MS 测定血清及肠道代谢产物中的短链脂肪酸水平。使用 SPSS 27.0 及 R 语言进行数据的统计分析。

结果 青少年双相抑郁障碍组血清乙酸、丙酸、丁酸、异丁酸以及总短链脂肪酸水平明显低于正常青少年组（P＜0.05）；青少年双相障碍缓解组血清丙酸水平、丁酸水平、异丁酸、异戊酸水平和己酸水平明显低于正常青少年组（P＜0.05）；而血清短链脂肪酸在青少年双相抑郁障碍组与青少年双相障碍缓解组间差异不显著。粪便乙酸（H=5.549，P=0.062）以及总短链脂肪酸（H=5.312，P=0.070）水平在三组间呈具有统计学意义的差异趋势。血清短链脂肪酸与粪便中对应的短链脂肪酸相关性不显著（P＞0.05）。

结论 青少年双相障碍患者无论是抑郁发作期还是缓解期均存在血清短链脂肪酸水平下降。相对于粪便中的短链脂肪酸，血清中的短链脂肪酸与青少年双相抑郁障碍的关系更显著。血清短链脂肪酸或成为青少年双相抑郁障碍可靠的生物学标识物及治疗靶点。

关键字：双相抑郁障碍；短链脂肪酸；代谢产物

儿童青少年创伤及干预策略

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目的 一、创伤相关概念：创伤性事件可以是暴露于真实死亡或被威胁的死亡；也可以是严重的伤害；性暴力的任何事件都有可能是创伤性的。孩童时期遇到创伤事件是相当常见的，在 16 岁孩子中，2/3 经历过至少一次创伤事件。需要注意的是，并不是所用被暴露的年轻人都会出现严重的心理问题。 DSM-5 中 PTSD 的诊断标准：1.暴露于创伤事件，2.创伤事件后持续出现症状至少一个月，3.6 岁及以下儿童：一种侵入性症状；一种回避或负性认知症状；两种过度唤醒症状；6 岁以上儿童或青少年：一种侵入性症状；一种回避症状；两种负性变化：情绪或认知上两种过度唤醒症状。

方法 三、PTSD 的流行病学：在普通人群中，高达 6%的儿童和青少年患者 PTSD。2021 年澳大利亚一项研究发现：75%人一生中经历一种或更多创伤性事件，4.4%患 PTSD，并且 PTSD 是澳大利亚第二位精神健康问题。 四、PTSD 风险因素：学龄前儿童：妈妈的精神健康状况，家庭社会支持，依恋关系 。 学龄儿童及青少年：社会支持少，创伤前恐惧，感知对生活/生命的威胁，社交退缩，精神科共病，家庭功能不良，使用处理策略不良

结果 五、PTSD 病程与预后：学龄前儿童：PTSD 症状往往会持续一段时间。非常年幼的儿童的创伤后应激障碍也可能与一系列不良的发展结果有关。 学龄儿童和青少年：三分之一人会在一年内自然康复；三分之一的人对治疗反应良好。 慢性病程将影响恢复，许多人在创伤暴露几年后仍可能受到影响。六、PTSD 共病：学龄前儿童常见共病有 ODD、分离焦虑、ADHD、抑郁、特定恐惧 小学常见共病有焦虑障碍、抑郁障碍、ADHD 青少年常见共病有焦虑障碍、抑郁障碍、自杀观念或自伤 、物质依赖 七、CPTSD 的诊断需要包含两方面内容：1.自我组织功能障碍的症状:情感失调\人际关系困难\负性自我认知 2.PTSD 的核心症状：创伤事件、侵入性症状、回避、认知和心境的负性改变、警觉性增高。

结论 干预： 1.创伤 3 个月内：提供信息、 情感支持、 实际的帮助/协助 2.PTSD 症状出现 3 个月内：儿童和家庭创伤压力干预 (CFTSI)， 治疗中聚焦于 PTSD 的两种风险因素：缺乏社会或家庭支持、缺乏处理技能。干预目标是改善风险。 3.PTSD 临床相关症状：提供心理干预，如 TF-CBT；EMDR；药物治疗:如抗抑郁治疗等。

关键字：儿童青少年 创伤 干预

Influencing Factors for Non-suicidal Self-injury in Adolescents

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Objective Adolescent non-suicidal self-injury (NSSI) behavior has become an important issue threatening adolescent mental health. A variety of psychiatric disorders are known to directly or indirectly contribute to the development of NSSI behaviors. The occurrence of non-suicidal self-injury behaviors is associated with a variety of factors, and it is therefore important to study these factors.

Methods This paper examines the factors influencing non-suicidal self-injury in adolescents and searches the relevant literature to explore new perspectives, and then this review was written finally.

Results The occurrence of non-suicidal self-injury behavior is related to family, school, society, interpersonal

relationships and substance dependence, and early identification and intervention is important for adolescents.

Conclusion The incidence of non-suicidal self-injury behavior peaks in adolescence and has become a common mental health threat among adolescents, making it important to study the pathogenesis, influencing factors, diagnosis, and treatment of NSSI behaviors. In the current study, the occurrence of NSSI behaviors may be related to the hypothalamic-pituitary-adrenal axis (HPA), the endogenous opioid system, and abnormalities in brain regions of the nervous system that process emotions, social and physical adverse stimuli, emotions, pain, control, and reward, but the related areas are not well studied. The emergence of NSSI behaviors in adolescents may be related to family upbringing, childhood abuse, school climate, social and personal factors, and early identification of these influencing factors mediating NSSI behaviors may help us to better intervene. In addition, the current mechanisms and treatment of NSSI are mainly focused with psychology has not been fully extended to the field of neurobiology, and further research is needed on its pathophysiological aspects, which may be due to the insidiousness, complexity, polymorphism, and difficulty of research of its symptoms, but current studies have found that NSSI behaviors are robust risk predictors of suicide [9], which can cause serious irreversible consequences. Therefore, further understanding of its neurobiological mechanisms, clarifying its susceptibility factors, exploring its drug targets and new therapeutic approaches, and improving the treatment system can help to save more adolescents from NSSI behaviors.

关键字：Non-suicidal self-injurious (NSSI)；influencing factors；adolescents

Correlation of Cognitive Function and Cognitive Function in Adolescent Depressive Disorder Patients with Non-suicidal Self-injury Behavior

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Objective To investigate the correlation between cognitive function and impulsivity in adolescents with depressive disorders with non-suicidal self-injury (NSSI) behaviors.

Methods Adolescents with depressive disorders attending Qingdao Mental Health Center from September 2021 to October 2022 were included, and were divided into NSSI and non-NSSI groups according to the presence or absence of NSSI behaviors, with 60 subjects in each group, and both groups completed the self-administered general information questionnaire, the Ottawa Self-Injury Inventory (OSI), and the Chinese version of the Barratt Impulsivity Scale (BIS-11), and applied the The Chinese Brief Neurocognitive Test (C-BCT) was used to score the cognitive functions of the two groups, and t-test, $\chi 2$ test, Pearson correlation analysis and multiple linear regression analysis were performed using SPSS26.0 statistical analysis software.

Results The NSSI group had higher BIS-11 scores than the non-NSSI group than the non-NSSI group ; where information processing speed was negatively correlated with BIS-11 scores, attention scores were negatively correlated with BIS-11 scores; working memory scores were negatively correlated with BIS-11 scores; and general ability + executive ability were negatively correlated with BIS-11 scores. Multiple linear regression analysis showed that BIS-11 score was an influential factor for each dimension of C-BCT.

Conclusion There is a correlation between cognitive function and impulsivity in adolescents with depressive disorders with NSSI behaviors, and impulsivity is a risk factor for cognitive impairment.

关键字：Non-suicidal self-injury; Cognitive function; Impulsivity

儿童期虐待与成年后情感障碍的相关性研究

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背景 国内外研究显示童年期虐待经历与成年后情感障碍、人格障碍、精神病症状以及自杀等存在一定相关性，因此，童年期虐待经历能够预测青少年期自伤和自杀行为，以及青少年早期的精神障碍。 目的 探讨儿童期虐待与成年后情感障碍的相关性。

方法 使用北京安定医院精神疾病临床数据与生物样本库的受试者数据库（2142 例），从中选取符合分析要求的正常对照（n=111 例）和情感障碍（抑郁症和双相障碍）（n=119 例）受试者，通过分析比较两组的儿童期虐待问卷各项因子分数，来探讨儿童期虐待与成年后情感障碍的发生和严重程度之间的关系。并将病例组按照发病次数（≤2 次和＞2 次）分组后进行儿童期虐待问卷分数的比较。

结果 情感障碍组和正常对照组之间儿童期虐待问卷总分及各分量表分数（情感虐待、躯体虐待、性虐待、情感忽视和躯体忽视）差异均有统计学意义（t'= a10.48, a12.50, a9.91, a9.00, a7.01, a8.67，均 P<0.01）。发作次数≤2 次组与发作次数＞2 次组的儿童期虐待问卷总分及各分量表分数（情感虐待、躯体虐待、性虐待、情感忽视和躯体忽视）差异均有统计学意义（t'值=-15.24, -14.78a, -10.07, -10.72, -14.61, -12.41,均 P<0.01）。

结论 情感障碍的患者儿童期虐待问卷的分数值高于正常人群，并且情感障碍发作次数多的儿童期虐待问卷的分数越高，提示成年后的情感障碍与儿童期虐待有关。

关键字：儿童期虐待问卷 情感障碍 病例对照研究

基于 citespace 的青少年非自杀性自伤行为的知识图谱分析

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目的 分析我国青少年非自杀性自伤行为的研究现状、研究热点和研究前沿, 为后期相关研究提供借鉴及参考。

方法 以“青少年、中学生、初中生、高中生、大学生；非自杀性自伤、自伤、自残、自虐、自我伤害、NSSI”等词自由组配检索于中国知网、万方、中国生物医学文献数据库、维普等中文数据库中青少年非自杀性自伤近二十年间的相关文献, 应用 CiteSpace5.8.R2 软件对文献的关键词、作者等进行可视化分析，绘制知识图谱。运用 Graphad 软件绘制年发文量。并运用 Excel 2016 软件对年发文机构数据进行统计。

结果 最终纳入 406 篇青少年非自杀性自伤相关研究，发文量逐年增加。出现较多的关键词有青少年、自伤行为、自杀、回归因素、危险因素、精神卫生、抑郁等。形成的研究热点聚类分别是自伤行为、青少年、自伤、学生、初中生、自杀意念、亲子沟通、自我伤害、人际因素、抑郁症状。发文较多的作者是万宇辉、陶芳标、黄鹏、吴清培、严万森等。安徽医科大学、南昌大学、皖南医学院、华中师范大学、重庆医科大学附属大学城医院和华南师范大学等组织机构发文数位于前列。

结论 通过分析该领域研究越来越受重视，而且研究文献逐年增长，但研究者之间、研究部门之间合作较少，研究机构主要为高校和医院, 将来可延伸至其他机构, 以促进该领域的发展。

关键字：非自杀性自伤，青少年，citespace，可视化分析

青少年反社会人格高危群体注意网络功能研究

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目的 探讨青少年反社会人格障碍高危群体注意网络功能特点。

方法 选取 1135 名少年 犯，根据人格诊断问卷和美国《精神障碍诊断与统计手册》(DSM-IV) 结构式访谈，筛选出 50 例，将其分 为反社会人格障碍高危(CD+AP) 组(n=26) 和品行障碍(CD) 组(n=24), 采用注意网络测验(ANT) 评 估其注意警示、定向和执行功能特点，并与健康志愿者(健康对照组，n=30) 比较。

结 果 CD+AP 组 的 注 意 定 向 效 能[(37.02±15.72)ms] 显 著 低 于 CD 组[(44.34±15.41)ms](P<0.01), 却显著强于 健康对照组[(31.29±12.16)ms](P<0.05);CD+AP 组注意执行功能[(65.83±19.55)ms] 显 著 强 于 健 康 对 照 组[(77.59±14.49)ms](P<0.05)。

结论 青少年反社会人格高危群体的注意定向功能 和执行功能异常增强，这可能与反社会行为的发生密切相关。CD+AP 组 的 注 意 定 向 效 能[(37.02±15.72)ms]显著低于 CD 组结论：青少年反社会人格高危群体的注意定向功能 和执行功能异常增强，这可能与反社会行为的发生密切相关。

关键字：关键词： 反社会人格障碍高危群体； 品行障碍； 注意网络； 注意网络测验

Use of Music Therapy in The Treatment of Somatic Symptoms of Chronic Pain for Pediatrics Patients: A Case Study

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Objective The objective of this case study is to explore how the use of music therapy help a ten-year-old boy and his family deal with somatic symptom disorder in chronic abdominal pain through a family-centered approach.

Methods This case provides a biopsychosocial perspective in the treatment of somatic symptom disorder in chronic pain from referral, assessment, treatment planning, implementation, family education, and termination. The process of referral was assessed by multidisciplinary team consultation including department of gastroenterology, otolaryngology, respirology, hematology, neurology, cardiology, infectious disease, rehabilitation, and psychology. An assessment of chronic pain through a biopsychosocial model including the evaluation of symptoms, duration, and frequency of pain, client’s social functioning, support system, family relationship, and the perception of pain was introduced. The treatment planning, including understanding client’s needs, identifying the appropriate goals, approach, setting, and frequency, were discussed by the team of psychology. The music therapy treatment was divided into two phases due to the changing needs, goals, and setting. The patient was seen by the music therapist two times per week inpatient during phase one, and goals including to establish rapport, to increase the sense of control, and to improve the awareness of mind-body connection. In the phase two, the patient and the music therapist met two times per week outpatient, and goals including to develop awareness and expression of interpersonal relationship, and to provide creative ways for emotional expressions. Music therapy interventions including progressive muscle relaxation, songwriting, and improvisation were delivered by a board-certified music therapist (MT-BC). Family education including disease education, pain diary, reflection journals were introduced by the pediatric psychiatrist. A series of follow-up sessions were provided via telehealth once per week in order to help the family prepare the transition back to normal daily life. Child Behavior Checklist (CBCL), Pediatric Quality of Life Inventory (PedsQL – both Child and Parents versions), Children’s Depression Inventory (CDI), and Screen for Child Anxiety Related Disorders (SCARED) were used as pre- and post- treatment evaluation tools for assess the patient’s symptoms,

moods, and quality of life.

Results The score of somatic complaints under Child Behavior Checklist (CBCL) was decreased after receiving music therapy. Both the patient and parents reported a better quality of life at the end of treatment. The patient was able to return to home and get ready for school.

Conclusion Music therapy can be served as a helpful way for re-establishing mind-body connection, exploring non-verbal expression, and developing interpersonal relationship. Music therapy can be considered as a useful approach in the treatment of somatic symptom disorder in chronic pain.

关键字：Music Therapy; Somatic Symptoms Disorder; Chronic Pain; Pediatrics; Family-Centered

血清 TNF-α 水平对于青少年抑郁症患者非自杀性自伤行为的诊断价值

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目的 探讨血清 TNF-α 水平对于青少年抑郁症患者非自杀性自杀（non-suicidal self-injury，NSSI）行为的诊断价值。

方法 本研究共纳入 34 名伴 NSSI 行为的青少年抑郁症患者、24 名不伴 NSSI 行为的青少年抑郁症患者以及 40 名健康对照青少年。采用液相悬浮技术测量受试者血清肿瘤坏死因子（tumor ncrosis factor-α，TNF-α）的水平并比较三组之间的差异，进一步根据受试者工作特征（receiver operating characteristic，ROC）曲线分别探讨血清炎症因子对于鉴别伴 NSSI 行为的青少年抑郁症患者和不伴 NSSI 行为的患者之间以及和健康对照之间的最佳敏感度和特异度。

结果 伴 NSSI 行为的青少年抑郁症患者血清 TNF-α 水平显著高于不伴 NSSI 行为的患者和健康对照（9.57 ? 4.50 vs 6.67 ? 3.01 vs 6.92 ? 4.54 pg/mL， p＜0.05）。根据血清 TNF-α 水平鉴别者伴或不伴 NSSI 行为的青少年抑郁症患者的 ROC 曲线下面积为 0.710（95%置信区间：0.573 ~ 0.846，p＜0.05），敏感度为 0.618，特异度为 0.750；根据血清 TNF-α 水平鉴别伴 NSSI 的青少年抑郁症患者和健康对照的 ROC 曲线下面积为 0.709（95%置信区间：0.502~0.827，p＜0.05），敏感度为 0.735，特异度为 0.650。

结论 血清 TNF-α 可能是区分伴 NSSI 行为的青少年抑郁症患者和不伴 NSSI 行为青少年抑郁症患者和健康对照的一个有前景的生物学指标，可以促进对 NSSI 行为的及时和准确的诊断，但需要后续大样本量的研究来验证。

关键字：炎症因子；非自杀性自伤；抑郁症；青少年

青少年非自杀性自伤心理治疗的研究进展

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目的 非自杀性自伤（Non-suicidal self-injury，NSSI）是指在没有自杀意图的情况下，个体故意、反复地对自己的身体器官或组织进行直接伤害，而这种伤害并不会导致直接死亡。随着时代的进步，非自杀性自伤问题在青少年中日益严重，已经成为对他们生命、健康和安全构成严重威胁的重要因素。这种行为不仅在健康的青少年中存在，也在边缘性人格障碍、抑郁症等多种精神障碍患者中普遍存在。研究发现，非自杀性自伤的终生患病率在 17%-60%之间。目前，如何针对性有效地预防和改善青少年的非自杀性自伤行为是一个迫切需要解决的问题。心理治疗作为一种辅助手段在疾患治疗中扮演着重要角色，它可以积极干预青少年群体的非自杀性自伤倾向，改善他们的非自杀性自伤行为，通过辅助药物治疗减轻门诊压力。本研究旨在分析心理治疗在 10-19 岁青少年边缘性人格障碍、抑郁症等精神障碍伴随的非自杀性自伤行为改善方面的作用；以及心理治疗在 10-19 岁青少年非临床学术群体中对非自杀性自伤行为的干预效果。

方法 采用了系统综述方法，通过检索 PubMed、Cochrane Library、PsycInfo 和 Embase 四个英文数据库，使用关键词"NSSI""adolescences ""intervention"进行文献检索。借助 Endnote 软件进行查重和筛选出心理治疗、10-19 岁青少年目标文献，最终纳入 41 篇随机对照试验、回顾性研究和观察性研究文献，进行了综述分析。

结果 辩证行为治疗、青少年调节个体治疗、认知行为治疗、团体治疗和网络治疗等心理干预措施，对青少年的非自杀性自伤行为进行干预具有积极效果。

结论 辩证行为疗法常常被应用于改善边缘性人格障碍患者的非自杀性自伤行为；在抑郁症患者的治疗中，心理治疗联合药物治疗比单独使用药物治疗更加有效；对于非临床学生群体的非自杀性自伤行为，青少年调节个体治疗、基于认知行为治疗的团体治疗和网络治疗等方法已被广泛尝试，以期改善相关问题。综上所述，心理治疗在预防和改善青少年非自杀性自伤行为方面具有重要作用，并可以根据不同的情况选择适合的心理干预措施。

关键字：心理治疗、青少年、非自杀性自伤

反刍风格与青少年抑郁发生——在反刍倾向与抑郁特质之间的调节作用

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目的 反刍在抑郁发生中的作用存在争议，我们旨在建立反刍倾向-风格理论，描述以反刍为核心的青

少年抑郁发生通路，并验证建设性的反刍风格对青少年抑郁发生的弱化作用。

方法 本研究对 1110 名 12~17 岁中国青少年进行了在线问卷调查，评估了反刍倾向、反刍风格、压力性生活事件、抑郁状态、抑郁特质、大五人格和社会支持。使用条件过程分析检验有反刍风格调节的链式中介作用，筛选预测变量后，使用 logistic 回归建立风险预测模型，并进行内部验证。

结果 反刍倾向、抑郁特质在压力性生活事件与当前抑郁状态之间的链式中介作用显著，总间接效应占总效应的 63.5%，反刍风格负向调节反刍倾向与抑郁特质的关系（β=-0.053，P＜0.001）；基于反刍倾向-风格理论建立的中国青少年抑郁状态风险预测模型的验证集和训练集 AUC 分别为 0.926 和 0.927，模型具有良好的区分度、校准度和临床效用，使用简单方便。

结论 反刍倾向-风格理论证明了反刍倾向和反刍风格在抑郁发生中的不同作用，有效地描述了青少年抑郁的发生过程，展示了反刍在其中的关键作用，以该理论为核心开发的预测模型能高效预测青少年抑郁状态的出现。反刍风格的提出及其作用的验证对青少年抑郁干预具有重要意义。

关键字：反刍倾向；反刍风格； 抑郁特质； 抑郁状态； 压力性生活事件

青少年反刍倾向-风格量表的编制及信效度检验

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目的 编制一套适用于测量中国青少年反刍倾向和反刍风格的工具。

方法 ①参考压力应对模型、目标进展理论和问题解决相关理论，对反刍倾向和反刍风格概念进行定义和区分，以此编制与验证青少年反刍倾向-风格量表；②于 2022 年 5 月对 499 名青少年进行初测，通过项目分析对条目进行删减，形成正式量表；③于 2022 年 11 月对 1299 名青少年进行正式施测，检验量表的信效度指标，并以特质抑郁量表（STDEP）、中国大五人格问卷简版（CBF-PI-B）的严谨性因子作为效标变量探讨其效标效度。

结果 ①反刍倾向分量表包含 3 个因子，19 个条目；反刍风格分量表包含 3 个因子，16 个条目；②反刍倾向分量表总分及各因子得分的内部一致性信度在 0.776~0.951 之间，重测信度在 0.704~0.807 之间；反刍风格分量表总分及各因子得分的内部一致性信度在 0.785~0.904 之间，重测信度在 0.719~0.846 之间；③验证性因子分析结果显示，各分量表的 NFI、IFI、TLI、CFI 拟合指标均大于 0.9，RMSEA、SRMR 拟合指标均小于 0.08，表明两个分量表结构效度均良好；④反刍倾向分量表总分及各因子得分与特质抑郁量表的相关系数在 0.364~0.612 之间，反刍风格分量表总分及各因子得分与严谨性得分相关系数在 0.336~0.587 之间，表明效标关联效度良好。

结论 该量表是测量我国青少年反刍倾向和反刍风格的有效工具。

关键字：青少年；反刍倾向；反刍风格；量表编制；信度效度

青少年自杀未遂和非自杀性自伤:基于机器学习的预测模型

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目的 自杀未遂(SA)是自杀死亡的重要因素，非自杀性自伤(NSSI)可增加 SA 的风险。很多因素共同影响着青少年 NSSI 和 SA。我们的研究目的是想通过大样本、多角度的方式探索青少年 SA 的危险因素，并为临床诊断和干预提供多维视角。

方法 从 2022 年 9 月到 12 月，对中国江西省某市三所职业高中的 9140 名青少年被试进行了一项在线问卷调查。他们在移动设备上回答包含人口统计学和心理数据的在线问卷。采用神经网络多层感知机算法建立青少年(有或无)SA 的预测模型，并筛选出有 NSSI 行为的青少年作为亚组建立预测模型。

结果 SA 组和 NSSI-SA 亚组的预测模型性能均较强，准确率分别为 0.89 和 0.85、精确度分别为 0.77 和 0.85、召回率分别为 0.78 和 0.82，AUC 值分别为 0.93 和 0.88，判别性较好。决策曲线分析(Decision Curve Analysis, DCA)显示预测结果的临床干预价值较高，且 NSSI-SA 亚组的临床干预获益大于 SA 组。

结论 建立的两个预测模型均具有较高的准确性和判别能力，从而识别出与青少年 SA 相关的重要因素。NSSI 行为和抑郁在导致青少年自杀未遂方面具有较强的预测力。抑郁、焦虑、情绪调节困难、失眠等因素可能会加剧有 NSSI 行为青少年的自杀未遂需要及时干预，即只要青少年表现出自伤行为，就应该实施相关的干预措施，以防止未来的风险。本研究可为临床诊断和治疗提供更多维的视角。另外，本研究主要的局限性在于横断面的设计，在一定程度上限制了预测模型结果的推论，多层感知机算法的复杂性也限制了相关变量的解释。

关键字：关键词：青少年，自杀未遂，非自杀性自伤，神经网络，风险因素

2 例锂盐治疗青少年非自杀性自伤行为的案例

分析

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目的 非自杀性自伤（non-suicidal self-injury，NSSI）行为，是指个体在没有自杀意图的情况下，采取故意、直接伤害自己身体的一系列不被社会所接纳的行为。NSSI 在青少年中多发，是自杀的独立危险因素，严重影响着青少年的身心健康。NSSI 行为可能是因为情绪调节困难、自我认同问题、人际关系问题等原因所致。治疗方面，药物治疗和心理治疗都可以用于 NSSI 行为的干预。锂盐是一种常用的药物，可以用于治疗情感障碍和自伤行为。本篇文章 2 例锂盐用于非自杀性自伤行为案例分析为临床更好地治疗非自杀性自伤行为提供参考。

方法 本文采用单个案例研究设计，对两例患者进行观察和干预，并记录其治疗过程和疗效。参与者为两名青少年非自杀性自伤行为患者。采用描述性统计分析方法，对患者的观察指标进行统计描述，并分析干预效果的变化趋势和差异。

结果 两例青少年患者在原有抗抑郁剂基础上合用小剂量碳酸锂（0.3-0.6g/d）作为增效剂治疗后达到意想不到的效果，之后的药物副反应监测也未见明显药物不良反应

结论 锂盐作为情绪稳定剂用于治疗双相情感障碍已有 60 多年的历史，大量研究证明锂盐用于治疗急性躁狂以及对预防双相情感障碍的反复发作有效。锂盐还具有独特的预防自杀风险的效应，可降低情感障碍患者的自杀风险。本篇文章证实碳酸锂对青少年非自杀性自伤行为也具有预防作用

关键字：碳酸锂；青少年非自杀性自伤行为

罗夏墨迹测验在心理学领域的应用和研究现状

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目的 罗夏墨迹测验（简称 RIM）是一种经典且广泛使用的心理学测量方法，其创始人赫尔曼·罗夏（Hermann Rorschach）教授为了更好地理解人类大脑和个体心理，创建了这种具有独特作用的测验方法。罗夏墨迹测验的原理是将人们对于随机纹理的反应记录下来，从中可以获得被测试者的个性特征、情感体验、思维方式和判断偏向等信息。与其他测量方法相比，罗夏墨迹测验可以很好地揭示被测试者内心的真实想法和情感，它的应用范围非常广泛，被广泛用于心理学研究、咨询辅导、精神医学等领域。当前，对罗夏墨迹测验的研究已经发展到系统性的探索，相关的研究成果也比较丰富，因此深入了解罗夏墨迹测验是非常有意义的。本文将对经典且广泛采用的罗夏墨迹测验进行综合性的概述。主要内容包括罗夏墨迹测验的发展历史、测验原理、应用范围、研究现状等多个方面。

方法 本文采用综述的形式，查阅国内外文献资料。对罗夏墨迹测验的发展历史、测验原理、应用范围、研究现状等多个方面进行综述。

结果 罗夏墨迹测验作为一种重要的心理测验方法，自其发明以来，一直受到心理学研究者和从业人员的广泛关注和应用。

结论 罗夏墨迹测验虽然存在局限性，但随着科技和心理学的发展，罗夏墨迹测验将会得到更多的尝试和创新，未来需要进一步完善测验效度和信度，将其与其他心理测量方法相结合，全面和个性化地进行测量评估和分析，实现更加准确和全面的心理分析和评估，进一步丰富和拓展其在心理学中的应用和研究地位。

关键字：罗夏墨迹测验；应用范围；研究现状

游戏治疗对住院儿童青少年自伤自杀行为干预的效果分析

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目的 探讨运用游戏治疗降低住院儿童青少年自伤自杀的行为。

方法 儿童青少年自伤自杀行为是自杀的独立危险因素,不仅严重威胁到儿童青少年的身心健康,而且也给其家庭及社会带来了极大的负担。游戏治疗作为以游戏为主要媒介的心理治疗方法，对儿童认知发展、情绪调控、行为干预等方面都有十分重要的作用。选取本科室 2023 年 1 月-2023 年 6 月接收的 60 例具有自伤自杀行为的儿童青少年患者,将患者分成干预组和对照组,每组 40 例患者。干预组患者采用常规心理治疗外另加游戏治疗,对照组患者采用常规心理治疗。治疗前后均采用汉密尔顿抑郁量表、儿童焦虑性情绪障碍筛查(SCARED)表、艾森克人格问卷儿童版(EPQ)量表等心理测验工具进行评估,比较 2 组儿童青少年的自伤自杀行为的发生率,对游戏治疗干预儿童青少年自伤自杀行为的效果进行评价。

结果 干预组通过游戏治疗后，再次运用汉密尔顿抑郁量表、儿童焦虑性情绪障碍筛查(SCARED)表、艾森克人格问卷儿童版(EPQ)量表等心理测验工具对两组患者进行评估对照，干预组患者的自伤自杀行为发生率相比对照组患者有显著下降。

结论 游戏治疗能够有效降低住院儿童青少年患者的自伤自杀风险及对患者身体的损害，可以在临床推广使用。

关键字：游戏治疗 儿童青少年 自伤自杀

压力知觉对抑郁症程度的影响：经验性回避与反刍思维的链式中介作用

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目的 本文旨在探查了青少年抑郁症群体中，经验性回避和反刍思维在压力知觉与抑郁症程度之间存在的链式中介作用。

方法 本研究使用问卷调查法，使用自编的一般人口学资料问卷、压力知觉量表、接纳与行动问卷第二版、反刍思维量表和贝克抑郁量表第二版对青少年抑郁症患者进行测量。最终收集 251 份有效数据，采用 SPSS 26.0 对所得数据进行整理、统计与分析，统计分析方法包括描述性统计分析、独立样本 T 检验、单因素方差分析、Pearson 相关分析、回归分析和中介效应检验。

结果 1、青少年抑郁症患者的压力知觉、经验性回避和反刍思维均处于较高水平。2、在青少年抑郁症患者中，个体的压力知觉、经验性回避、反刍思维和抑郁程度均存在性别上的差异，表现为女性高于男性；在是否有留守经历上，仅抑郁程度显示出显著差异，有留守经历的个体的抑郁程度高于没有的；在与父亲关系和与母亲关系上，压力知觉和抑郁程度显示出显著差异，表现为与父亲关系、与母亲关系差的个体压力知觉和抑郁程度均高于关系一般和良好的个体。3、在青少年抑郁症患者中，压力知觉、经验性回避、反刍思维、抑郁程度四者两两呈显著正相关关系。4、青少年抑郁症患者的压力知觉可以直接影响抑郁症程度，也可以通过三条路径间接影响抑郁症程度，分别是经验性回避的单独中介作用、反刍思维的单独中介作用以及经验性回避、反刍思维的链式中介作用。

结论 青少年抑郁症患者的压力知觉、经验性回避和反刍思维水平均处在较高水平；压力知觉、经验性回避、反刍思维和抑郁程度不仅存在两两相关关系，压力知觉还能直接影响到抑郁症程度，也可以依次通过经验性回避和反刍思维影响到青少年抑郁症程度。因此，未来的青少年症的预防和治疗中，应重视青少年的客观压力源减少和自身心理素质的提高，可选择采取接纳承诺疗法和基于正念的干预来降低青少年的经验性回避和反刍思维水平，从社会和心理两层面着手，实现对青少年抑郁症的预防和干预。

关键字：青少年;抑郁症；压力知觉；经验性回避；反刍思维；

一例青少年跨性别者的心理治疗思考

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目的 本研究的目的是探讨秋炽与前任的依赖关系对他的心理健康和个人成长的影响，并提出相应的解决方案。

方法 采用定性研究方法，通过对秋炽进行深入访谈和观察，收集相关数据。访谈内容包括秋炽与前任的关系特点、秋炽对前任的情感依恋程度、秋炽对前任的控制欲等方面的信息。同时，还收集秋炽的心理健康状况和个人成长的数据。

结果 研究结果显示，秋炽与前任的依赖关系对他的心理健康和个人成长产生了负面影响。秋炽过度依赖前任的存在和支持，忽视了自己的独立性和自我发展。他对前任的情绪和行为过分敏感，过度解读前任的言行举止。此外，秋炽陷入了无法自拔的循环中，无法真正摆脱对前任的依赖。

结论 基于研究结果，我们得出结论，秋炽与前任的依赖关系对他的心理健康和个人成长产生了负面影响。为了改善这种情况，秋炽需要采取以下解决方案：首先，秋炽应该寻求专业的心理支持和帮助。他可以咨询心理咨询师或心理医生，倾诉自己的困惑和痛苦，获取专业的指导和建议。心理专业人士可以帮助他理清自己的情感和需求，提供有效的应对策略，帮助他摆脱对前任的过度依赖。 其次，秋炽需要培养自己的独立性和自我发展。他可以通过参加兴趣班、培训课程或社交活动，扩大自己的社交圈子，结识新的朋友，丰富自己的生活经验。同时，他也应该关注自己的个人成长，制定明确的目标和计划，努力提升自己的能力和素质。最后，秋炽需要建立更健康的人际关系。他可以寻求其他的支持渠道，如朋友、家人或社交团体，与他们分享自己的情感和困惑，获得理解和支持。与此同时，他也应该学会独立面对生活中的挑战和困难，不过分依赖他人的帮助和关注。 综上所述，通过寻求心理支持和帮助，培养独立性和自我发展，建立健康的人际关系，秋炽可以摆脱对前任的过度依赖，提升自己的心理健康和个人成长。

关键字：依恋关系，心理健康，个人成长，情感依恋，控制欲，循环，独立性，自我发展，心理支持，人际关系。

创造性戏剧游戏对孤独症儿童治疗效果及社交能力的干预效果

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目的 探讨创造性戏剧游戏的干预方法对孤独症儿童的治疗效果及社会交往能力的干预效果

方法 选取在苏州市广济医院就诊的 48 例 4-7 岁孤独症儿童，使用随机数字表法随机分为研究组和对照组各 24 例，研究组给予创造性戏剧游戏干预，每次 2h，每周 5 次，对照组给与常规干预，包括感觉统合训练、认知训练、语言训练等，每次 2h，每周 5 次，干预前及干预后第 6 个月末均采用孤独症行为评定量表（ABC）、孤独症治疗评估量表（ATEC）和社交反应量表（SRS）测量被试者在干预前后的社交行为表现及治疗效果。

结果 干预前，两组 ABC、ATEC 和 SRS 评分比较无显著差异（P＞0.05），干预后（1）ABC 评分：干预前后两组 ABC 评分差值有显著性差异（研究组

12.13±1.33，对照组 8.00±1.84，t=8.90，P＜0.01）；(2) ATEC 评分：干预前后两组 ATEC 评分差值有显著性差异（研究组 10.96±2.40，对照组 7.58±1.21，t=6.14, P＜0.01）；(3)SRS 评分：干预前后两组 SRS 评分差值有显著性差异（研究组 10.46±1.77，对照组 7.96±1.83，t=4.81 P＜0.01）。

结论 与常规干预相比，创造性戏剧游戏干预的治疗效果更明显，尤其可以提高孤独症儿童的社会交往能力。因此，创造性戏剧游戏干预疗效优于常规干预，该方法可以在孤独症儿童的康复实践中推广。

关键字：创造性戏剧 游戏 孤独症谱系障碍 社会交往能力

青少年 NSSI 患者父母人格特征及认知调节情绪策略分析

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目的 分析青少年非自杀性自伤(non-suicidal self-injury，NSSI)患者父母人格特征、认知调节情绪策略对青少年非自杀性自伤行为的影响。

方法 选取到医院就诊的青少年 NSSI 患者为病例组，在学校，社区及医院选取健康青少年为对照组，采用中国大五人格问卷简式版，认知情绪调节问卷中文版（CERQ-C）对其父母进行问卷调查，利用 logistics 回归评价影响因素。

结果 对照组父母在开放性 (40.90±6.19)、严谨性人格得分（48.18±6.12）高于病例组父母（36.88±5.02）、（44.12±6.58）（p＜0.05）。对照组父母面对负性事件时在接受（15.28±2.50）、积极再次评价（16.9±2.64）、再次关注计划（16.33±2.46）、积极再次关注（13.58±2.81）、合理分析(10.38±2.81)的策略得分高于病例组父母（p＜0.05）。病例组父母的神经质与合理分析（r=0.305, p＜0.05）、灾难性（r=0.370, p＜0.01）正相关；开放性与积极再关注(r=0.303, p＜0.05)、积极再评价(r=0.272, p＜0.05)正相关；接受与外向性（r=-0.291, p＜0.05），开放性（r=-0.399,p＜0.01），严谨性呈负相关 （r=-0.255, p＜0.05）；责备他人与外向性（r=-0.345, p＜0.01），宜人性负相关(r=-0.363, P＜0.01) ；外向性与积极再关注负相关(r=-0.323, p＜0.05)。根据二元 logistics 回归分析，病例组父母的经济水平（OR=0.485），受教育年限（OR=0.600）、接受（OR=0.590）、积极再次评价（OR=0.454）、合理分析（OR=0.526）、神经质（OR=0.810）、开放性（OR=0.756）、严谨性（OR=0.738）为保护因素，自我责难（OR=1.545）、再次关注计划（OR=2.089）为青少年 NSSI 行为的危险因素（ALL p＜0.05）。

结论 青少年 NSSI 患者父母的人格特征、面对负性事件时的情绪调节策略影响青少年 NSSI 行为的发生。

关键字：青少年非自杀性自伤行为，父母，人格特征，情绪认知策略；

团体心理治疗对住院儿童青少年抑郁发作患者负性情绪和人际关系的影响

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目的 抑郁发作((major depressive disorder, MDD)是青少年群体常见的情感障碍性精神疾病。有研究证明青少年人群的抑郁发作往往伴随着抑郁、焦虑等不良情绪，这种疾病损害严重阻碍青少年的成就发展以及身心健康，并且加重家庭负担。因此，有效治疗抑郁发作青少年患者成为一个亟待解决的重要问题。 探讨团体心理治疗对住院的儿童青少年负性情绪及人际关系的影响，使患者能正确应对不良情绪、缓解痛苦，减少患者发生自伤及自杀的风险，更有效治疗患者疾病，更好的回归家庭和学校提供依据。

方法 抽取 2022 年 1 月—9 月在宁夏回族自治区精神卫生中心儿童青少年精神科住院符合儿童青少年抑郁发作诊断标准的患者 22 例，由于 6 名患者在实验过程中脱落，因此最终获得 16 例有效样本数据。进行为期 8 周的团体心理治疗，每周一次，每次 50 分钟。干预前后分别采用儿童焦虑情绪筛查量表、儿童抑郁障碍自评量表、简易应对方式量表、儿童社交焦虑量表等进行评估。

结果 与干预前相比较，干预结束时儿童抑郁障碍自评量表总分显著降低，儿童焦虑情绪筛查量表各因子分及总分在随访 6 个月期间继续降低，积极应对方式显著上升（P< 0 . 05），并在随访期间保持。社交焦虑总分显著降低。

结论 本研究结果进一步将团体治疗应用于抑郁发作青少年患者，更好地证明了团体治疗的有效性，并且为团体治疗在抑郁发作患者中的应用提供数据支持，丰富相关理论知识。

关键字：儿童青少年 ；抑郁发作；团体治疗

青少年自杀意念及行为的家庭治疗研究进展

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目的 在全球范围内，自杀是一个严重的公共卫生问题。因此，对自杀意念和行为的有效预防和干预是至关重要的。认知行为治疗、人际心理治疗及支持性心理治疗对于改善青少年自杀意念和行为有积极的作用，但是青少年工作者从来不会只与青少年一人进行工作，往往还需要纳入其家人、照料者以及其他相关人员。本文综述基于家庭的青少年自杀意念和行为的有效干预的理论依据和干预方法。

方法 本文综述基于家庭的青少年自杀意念和行为的有效干预的理论依据和干预方法。

结果 针对青少年的自杀意念及行为的干预措施，以下方法被认为是有效的：父母-青少年认知行为疗法（Parent-Adolescent Cognitive Behavioral Therapy，PA-CBT），整合认知行为疗法（Integrated Cognitive Behavioral Therapy，I-CBT），以及聚焦家庭的门诊认知行为疗法（Family-Focused Outpatient Cognitive Behavioral Therapy ，F-CBT）、基于家庭的危机干预（Family-Based Crisis Intervention, FBCI）、基于依恋的家庭治疗(Attachment-Based Family Therapy，ABFT)、青少年安全替代方案（Safe Alternatives for Teens and Youths，SAFETY）、辩证行为治疗（Dialectical Behavior Therapy，DBT）联合家庭训练、资源型青少年父母计划（Resourceful Adolescent Program for Parents，RAP-P）和青少年提名的支持小组（Youth-Nominated Support Teams，YST）。

结论 家庭因素既可以是青少年自杀的风险因素，也可以是保护因素。调动家庭资源的干预措施是一个有希望和前途的方向。家庭干预从改变自伤倾向青少年的关系背景出发来改变他们的内在心理，而 CBT 和 DBT 则主要针对青少年改善面对逆境时的应对和复原能力。考虑到自杀的临床复杂性，可能需要一种兼而有之的方法来推动这一严重的个人、人际和社会健康问题的发展。

关键字：家庭治疗 ；认知行为治疗； 辩证行为治疗

青少年抑郁症的鉴别、诊断与治疗策略的全面回顾

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目的 本综述的目的是深入了解目前学界对青少年抑郁症的认识，重点是它与其他精神疾病的区别、它的诊断程序和各种治疗方式。本综述旨在强调准确的诊断和有效的治疗对提高青少年抑郁症患者的预后的关键作用。此外，本综述还试图找出当前理论和实践中的差距，从而突出需要进一步研究和改进的领域。

方法 本综述通过对各数据库中与青少年抑郁症有关的论文和文章进行系统检索，检索策略的目的是筛选青少年抑郁症的鉴别、诊断和治疗的论文。用于识别相关研究的检索策略包括使用五个数据库进行结构化文献搜索:CINAHL、PubMed、知网、万方、Academic search Complete 和 PsycInfo，检索词包括“青少年抑郁症”、“鉴别诊断”、“治疗”、“区分”和“质量改进措施”。检索不受出版日期的限制，以保证对该主题的全面了解。对选定的论文进行了深入分析，并提取了相关信息，对这些信息进行整合，将其组织到综述的不同部分。此外，本文并非是最初搜索中的所有研究都纳入了综述，而是通过制定纳入和排除标准，以确定最相关的研究。本综述包括使用人工智能从科学论文、专利申请和拨款申请的数据库中搜索相关片段，以确保是全面和最新的知识。

结果 回顾发现，青少年抑郁症是一个重要的，但往往被忽视的公共卫生问题。尽管有 PHQ-9M 等有效的筛查工具，但许多青少年抑郁症患者仍未得到诊断和治疗。治疗通常包括心理治疗和药物治疗的结合，SSRIs 是一线治疗。然而，坚持治疗仍然是一个挑战。质量改进举措如实施 GLAD-PC，可在改善青少年抑郁症的诊断和治疗方面发挥关键作用。

结论 青少年抑郁症是一个重要的公共健康问题，需要紧急关注和采取行动。尽管学界在该方面已经取得了重大进展，但仍有相当多的问题需要解决。这包括提高诊断率，加强对治疗的坚持，以及减少青少年中与精神卫生问题相关的耻辱感。 未来的研究应该集中在这些领域，重点是开发创新的策略来改善青少年抑郁症的识别和治疗。此外，需要更多的研究来了解治疗依从性的障碍，并制定干预措施以提高依从性。 总之，解决青少年抑郁症需要一个全面的、多方面的方法，包括准确的诊断、有效的治疗和对青少年及其家庭的持续支持。这是一项涉及医者、教育者、政策制定者和整个社会的集体责任。

关键字：抑郁症 青少年 治疗 鉴别 诊断

Gender Differences in The Association between Lifestyle Behaviors and Depressive Symptoms in Adolescents

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Objective Accumulating evidence has suggested the important role of lifestyle factors in depressive disorder.The study aims to survey the association between lifestyle behaviors and depressive symptoms in adolescent,and to explore gender differences.

Methods This study was conducted among 382 adolescents with depressive disorders, and the data were collected at Shandong Mental Health Center from September 2022 to March 2023. Participants completed self-report questionnaires about unhealthy lifestyle factors, including Sedentary,Long lying down,Shorter Sunlight Exposure,Eat Irregular,Unhealthy Diet, Evening Media Use,and Children's Depression Inventory. Relationships between unhealthy lifestyle factors and depressive symptoms were evaluated by multivariate Linear regression analysis.

Results Multivariate Linear regression analysis revealed that Sedentary,Long lying down,Shorter Sunlight Exposure,Eat Irregular,Unhealthy Diet, Evening Media Use were significantly associated with depressive symptoms,after adjusting for demographic factors.Eat Irregular was strongly associated with depressive symptoms among adolescents,and was stronger in boys.

Conclusion These results suggest that promoting a healthy lifestyle focused on Sunlight Exposure,Eating habit ,Media Use and exercise may be important for adolescents with depressive symptoms

关键字：Depressive symptoms,Lifestyle behaviors, Adolescents,Gender difference

儿童期创伤与青少年游戏成瘾的关系：自我控制的中介作用

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目的 研究儿童期创伤与青少年游戏成瘾之间的关系，以及青少年自我控制在其中的中介作用。

方法 采用整群抽样法开展横断面研究，对河南省一所高中 2664 名高中生进行问卷调查。研究工具包括人口学调查表、儿童期创伤问卷、自我控制量表及青少年游戏成瘾量表。以自我控制 5 个维度为中介变量，使用 Bootstrap 法检验并列中介效应。

结果 儿童期创伤得分与游戏成瘾得分呈显著正相关（P<0.01），与自我控制各维度得分呈显著负相关（均 P<0.01）。自我控制各维度得分与游戏成瘾得分显著负相关（均 P<0.01），在儿童期创伤与游戏成瘾间起并列中介作用，其中节制娱乐（95%CI=[0.036, 0.085], 占总效应 15.6%）与抵制诱惑（95%CI=[0.015, 0.066], 占总效应 10.6%）的中介效应更强。

结论 儿童期创伤可通过降低青少年自我控制能力来增加游戏成瘾的风险。减少儿童创伤可以培养青少年自控能力和预防成瘾行为。青少年家长要重视自身情绪、行为对孩子的影响，关注孩子的习惯形成与能力发展，增加自控方面的保护与引导。临床工作者应及时留意青少年的儿童期创伤，结合家庭环境逐渐重塑自我控制，缓解游戏成瘾症状。

关键字：游戏成瘾；儿童期创伤；自我控制；青少年

The Effect of Parental Marital Status on Depressive Symptoms in Chinese Adolescents: The Mediating Roles of Emotional Abuse and Neglect

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Objective This study aims to explore the mediating role of emotional abuse and neglect in the effect of parental marital status on depressive symptoms of adolescents, especially in divorced, widowed, and reorganized families.

Methods A cross-sectional study was conducted on 4576 students from 7 middle schools (Grades 6 to 9) through online questionnaires from April to May 2021 in Shanghai, China. Questionnaires included the self-designed general situation questionnaire, Childhood Trauma Questionnaire-Short Form, and Childhood Depression Inventory, which were used to measure demographic variables, childhood trauma, and depressive symptoms of adolescents respectively.

Results Results showed that the depressive symptoms of adolescents whose parents were in stable marriages were significantly lower than those whose parents were divorced or widowed ($t = 3.98$, $p < 0.01$) and reorganized families ($t = 4.67$, $p < 0.01$). Emotional abuse ($\beta = 0.39$, $p < 0.01$), emotional neglect ($\beta = 0.28$, $p < 0.01$), physical neglect ($\beta = 0.06$, $p < 0.01$), and parental marital status of reorganization ($\beta = 0.03$, $p = 0.03$) had significant positive predictive effects on depressive symptoms in adolescents. The mediating effects of emotional abuse and emotional neglect between parental marital status (divorced or widowed and reconstituted) on adolescent depressive symptoms were significant.

Conclusion Therefore, a stable marriage of parents is conducive to the development of adolescents' physical and mental health. Emotional abuse and neglect tend to occur in divorced or widowed families and reorganized families. These findings are important for sociological intervention in adolescent depression.

关键字：Parental marital status, Adolescent, Depressive symptom, Childhood trauma, Emotional abuse, Emotional neglect

The Role of Only-child Status in The Effect of Childhood Trauma and Parental Rearing Style on Depressive Symptoms in Shanghai Adolescents

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Objective After decades of the one-child policy, China changed its rules to allow two children in 2016, which altered family dynamics. Few studies have examined the emotional problems and the family environment of multi-child adolescents. This study aims to explore the role of only-child status in the impact of childhood trauma and parental rearing style on depressive symptoms of adolescents in Shanghai, China.

Methods A cross-sectional study was conducted on 4,576 adolescents ($M = 13.42$ years, $SD = 1.21$) from seven middle schools in Shanghai, China. Childhood Trauma Questionnaire-Short Form, the Short Egna Minnen Betr?ffande Uppfostran, and Children's Depression Inventory were used to evaluate childhood trauma, perceived parental rearing style, and depressive symptoms of adolescents, respectively.

Results Results showed that girls and non-only children reported more depressive symptoms, while boys and non-only children perceived more childhood trauma and negative rearing styles. Emotional abuse, emotional

neglect, and father's emotional warmth significantly predicted depressive symptoms in both only children and non-only children. Father's rejection and mother's overprotection were related to adolescents' depressive symptoms in only-child families, but not non-only child families.

Conclusion Therefore, depressive symptoms, childhood trauma, and perceived negative rearing styles were more prevalent among adolescents in non-only child families, while negative rearing styles were especially associated with depressive symptoms in only children. These findings suggest that parents pay attention to their impacts on only children and give more emotional care to non-only children.

关键字：only-child status, depressive symptoms, childhood trauma, parental rearing style, emotional abuse, rejection

Childhood Trauma and Adolescent Suicidal Ideation: The Chain Mediating Effects of Borderline Personality Traits and Self-control

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Objective Childhood trauma was an important predictor of depressive symptoms and suicidal ideation in adolescents, while little has been done to comprehensively explore their relationships from the perspective of borderline personality traits. This study aims to explore the chain mediating effects of borderline personality traits and self-control between childhood trauma and adolescent suicidal ideation.

Methods A cross-sectional study was conducted on 2,664 students from a senior high school (Grade 10 to Grade 12) through online questionnaires from October to December, 2022 in Henan, China. Childhood Trauma Questionnaire-Short Form, Borderline personality dimension of Personality Diagnostic Questionnaire-4, Self-Control Scale and Children's Depression Inventory were used to measure childhood trauma, borderline personality traits, self-control, as well as depressive symptoms and suicidal ideation respectively.

Results The prevalence of depression in adolescents was 21.17%, while the prevalence of borderline personality disorder was 12.00%. 38.36% of adolescents have suicidal ideation. childhood trauma ($r = 0.50$, $p < 0.001$) and borderline personality traits ($r = 0.60$, $p < 0.001$) were positively correlated with adolescent depressive symptoms, while self-control was negatively correlated with depressive symptoms ($r = ?0.50$, $p < 0.001$). The chain mediating effect of borderline personality traits and self-control between childhood trauma and depressive symptoms was significant (95%CI = [0.028, 0.042]). The chain mediating effect of borderline personality traits and self-control between childhood trauma and suicide ideation was also significant (95%CI = [0.098, 0.137]). The mediating effect of borderline personality traits was stronger in both models ([95%CI]1 = [0.098, 0.137], [95%CI]2 = [0.006, 0.009]).

Conclusion Childhood trauma predicts borderline personality traits characterized by the reduction of self-control, which leads to more depressive symptoms and suicidal ideation in adolescents. These findings are important for understanding of personality traits and sociological intervention in adolescent depression and suicide.

关键字：Childhood trauma, Suicide ideation, Depressive symptoms, Borderline personality traits, Self-control, Adolescent

儿童青少年抑郁障碍处方用药分析

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目的 抑郁障碍是儿童青少年常见的精神疾病，终生患病率高达 11%-20%。其病程长，容易复发，可严重影响儿童青少年的学习和社会功能，甚至导致自杀。药物治疗作为有效手段之一，被广泛用于儿童青少年抑郁障碍治疗实践。出于伦理考虑，抗抑郁药物的临床研究很少在儿童青少年中开展，目前除盐酸氟西汀外，其他抗抑郁药物在儿童青少年抑郁障碍使用的疗效和安全性缺乏一致的循证证据，且美国 FDA 对抗抑郁药物发布"黑框"警告，明确表明其可能增加儿童青少年自杀、自伤风险。基于此，对我院门诊儿童青少年抑郁障碍处方开展回顾性调查，对治疗药物选择、给药剂量及药物联合方案进行分析，以期为儿童青少年抑郁障碍药物治疗提供参考。

方法 抽取2020年我院门诊儿童青少年抑郁障碍患者处方，对患者的年龄、性别等人口学特征，处方药物品种、用法用量及联合用药等处方信息进行统计分析，探讨我院门诊儿童青少年抑郁障碍药物治疗特点。

结果 共有 4862 张处方纳入分析，平均年龄（14.82±1.58）岁，其中男性 975 例（20.05%），女性 3887 例（79.95%）。抗抑郁药单药治疗 2068 例（42.53%），联合治疗 2794 例（57.46%）。抗抑郁药物单药治疗中，居前 3 位的依次为盐酸舍曲林、艾司西酞普兰和盐酸氟西汀。联合用药以抗抑郁药联合非典型抗精神病药二联最常见（2134 例，76.38%）。

结论 儿童青少年抑郁障碍治疗以选择性 5-羟色胺再摄取抑制剂（selective serotonin reuptake inhibitor, SSRI）类药物单药治疗及抗抑郁药物联合非典型抗精神病药二联治疗为主，药物剂量与说明书成人推荐剂量基本相当。

关键字：抑郁障碍；儿童青少年；处方分析

青少年抑郁障碍患者非自杀性自伤行为与压力觉知及应对方式的相关性研究

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目的 分析青少年抑郁障碍患者非自杀性自伤（NSSI）行为的发生与其压力觉知及应对方式的相关性。

方法 研究纳入2021年10月至2023年5月住院的275例抑郁障碍患儿，根据是否有NSSI行为分为研究组（伴NSSI行为，219例）及对照组（不伴NSSI行为，56例）。采用压力觉知量表（PSS）和中学生应对方式量表（CSSMSS）评估患者的觉知压力和应对方式；采用独立样本t检验比较两组评分的差异，Spearman相关性分析研究NSSI行为与青少年压力觉知及应对方式的相关性。

结果 研究组PSS评分（31.47±4.92）与对照组PSS评分（29.32±4.79）差异具有统计学意义（t=2.93，P＜0.01）；研究组CSSMSS评分问题解决维度（15.82±4.63）、寻求社会支持维度（15.92±4.46）、积极合理化解释维度（10.36±3.17）评分显著低于对照组（18.5±5.42）、（17.37±4.42）、（12.61±3.55），差异具有统计学意义（t=-3.31~-2.17，P＜0.01）；逃避（10.38±2.48）、幻想否认（13.60±3.69）评分显著高于对照组（9.36±2.94）、（12.30±3.72），差异均有显著意义（t=2.34~2.65，P＜0.05）。研究组忍耐维度（11.11±2.45）、发泄情绪维度（10.45±2.95）评分与对照组（11.00±2.75）、（9.96±3.24）差异无统计学意义（P＞0.05）。相关性分析结果示，NSSI行为的发生与PSS评分（r=0.17，P＜0.01）呈正相关，与逃避（r=0.14，P=0.03）、幻想否认（r=0.13，P=0.03）呈正相关，与解决问题（r=-0.20，P＜0.01）、寻求社会支持（r=-0.12，P=0.04）、合理化解释评分（r=0.25，P＜0.01）呈负相关。PSS总分与CSSMSS量表积极合理化解释（r=-0.15，P=0.02）呈负相关，与忍耐（r=0.39，P＜0.01）、逃避（r=0.38，P＜0.01）、发泄情绪（r=0.43，P＜0.01）、幻想否认（r=0.45，P＜0.01）呈正相关。

结论 青少年抑郁障碍NSSI行为的发生与患者高压力觉知及消极应对方式相关，且高压力觉知也与消极应对方式呈正相关，与积极应对方式呈负相关。

关键字：非自杀性自伤，青少年抑郁障碍；压力觉知；应对方式

伴非自杀性自伤行为的青少年抑郁障碍患者冲动性及特质焦虑的特征研究

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目的 探讨伴有非自杀性自伤（NSSI）行为的青少年抑郁障碍患儿冲动性、特质焦虑的特征，探讨冲动及特质焦虑对NSSI行为发生的影响。

方法 采用连续入组的方式，纳入2021年10月至2023年5月在苏州市广济医院儿少精神科住院的青少年抑郁障碍患儿共275例，根据是否存在NSSI行为，分为研究组（伴有NSSI行为，219例）和对照组（无NSSI行为，56例）。采用Barratt冲动性量表（BIS）评估患者冲动性，状态-特质焦虑问卷（STAI）评价患者的焦虑特征。采用独立样本t检验方式比较两组患者的量表得分情况。Spearman相关性分析研究NSSI行为与冲动性及状态-特质焦虑的相关性。

结果 1.研究组BIS注意冲动评分[（16.71±3.10）vs（14.67±3.73），t=4.19，P＜0.01]、运动冲动评分[（21.52±3.68）vs（19.82±3.48），t=3.12，P＜0.01]、无计划冲动评分[（24.96±3.92）vs（23.50±4.78），t=2.38，P=0.02]高于对照组，差异具有统计学意义。研究组STAI状态焦虑得分[（58.21±9.37）vs（50.71±12.52），t=4.19，P＜0.01]及特质焦虑得分[（56.83±6.52）vs（51.80±8.80），t=4.00，P＜0.01]高于对照组，差异具有显著统计学意义。 2.相关性分析结果提示，NSSI行为的发生与注意冲动（r=0.23，P＜0.01）、运动冲动（r=0.17，P＜0.01）、无计划冲动（r=0.13，P=0.04）、状态焦虑（r=0.24，P＜0.01）及特质焦虑（r=0.23，P＜0.01）相关性均存在显著意义。

结论 伴有NSSI行为的青少年抑郁患者存在更明显的冲动性及焦虑特质，NSSI行为的发生与高冲动性及特质-状态焦虑相关。

关键字：非自杀性自伤，青少年抑郁障碍，冲动性，特质焦虑

注意缺陷多动障碍合并肥胖儿童的睡眠节律特征及相关性研究

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目的 探讨注意缺陷多动障碍（ADHD）儿童合并肥胖的睡眠特征及其与症状、体重指数的相关性。

方法 2020年6月至2021年12月门诊收入ADHD患儿73名，根据体重指数分为肥胖组（32名）、单纯ADHD组（41名），线上招募健康对照组30名。所有受试者家长填写一般资料、症状学评估量表，受试儿童填写儿童清晨-夜晚型量表（CMES）。比较三组儿童的睡眠情况，分析ADHD合并肥胖儿童的睡眠特征。并比较两组ADHD儿童的症状严重程度，讨论睡眠、症状与肥胖的相关性。

结果 1.三组儿童睡眠分型（2=14.64，P=0.01）及CMES问卷总分（F=15.47，P=0.00）的差异具有显著统计学意义。2.示CMES总分与BMI-z值（r=-0.39，P=0.00）及SNAP-IV量表多动冲动得分呈负相关（r=-0.88，P=0.00）。3.以CMES量表总分作为因变量，BMI-Z（t=-3.05，P=0.00）及SNAP-IV多动冲动因子得分（t=-14.71，P=0.00）均纳入回归方程（F=126.04，调整后R2=0.78），有负相预测作用。

结论 ADHD合并肥胖儿童睡眠偏好更倾向于夜晚型，且睡眠问题与肥胖程度及多动冲动症状相关。

关键字：注意缺陷多动障碍；肥胖；睡眠节律

217 例苏州市广济医院儿童青少年抑郁障碍患

者住院资料调查分析

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目的 调查苏州市广济医院儿少精神科住院部儿童青少年抑郁障碍患者临床特征、症状分布以及治疗方案中的药物及无抽搐电休克治疗的选择。

方法 对2021年1月-2022年12月在苏州市广济医院住院部住院治疗，诊断为抑郁障碍的儿童青少年患者一般情况及出院时的诊断分类、药物和无抽搐电休克治疗使用情况进行回顾性分析。

结果 ①.共纳入217例患者,其中男性患者51例（23.5%），女性患者166例（76.5%），起病年龄的高峰期在14岁（25.81%），其中首发167例，复发50例。②.出现频率居前 3 位的临床症状依次是情绪低落(90.78%)、兴趣、乐趣减退（76.96%），悲观消极（62.21），60.37%的儿童青少年抑郁障碍患者曾经出现自伤行为，自伤方式多为划伤皮肤（90.84%），23.5%的儿童青少年抑郁障碍患者曾经出现自杀行为。③217例患者中抗抑郁药物使用排名前3位依次为舍曲林88例（40.55%），氟西汀 64 例（29.49%），草酸艾司西酞普兰 26 例（11.98%）；抗精神病药物使用排名前3位依次为奥氮平77例（35.48%），奎硫平72例（33.18%），阿立哌唑65例（29.95%）；情感稳定剂使用情况，未使用131例（60.37%），碳酸锂缓释片31例（14.29%），丙戊酸镁缓释片31例（14.29%）；无抽搐电休克治疗情况，共有39例（17.97%）联合MECT治疗。

结论 儿童青少年抑郁障碍伴随着高自杀率、高自伤率等特征，应受到重视,做到早发现早治疗。

关键字：儿童青少年；抑郁障碍；住院治疗

基于人工智能技术的青少年自杀自伤风险预警模型的研究进展

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目的 随着近年来青少年的心理健康问题日益严重，自杀和自伤行为已成为全球关注的社会问题。目前，没有任何有效的临床生物标志物用于自杀诊断，传统的方法显示出局限性。本文基于人工智能技术在监测青少年自杀自伤风险方面的研究进展进行了综述，旨在显著预防和干预自杀、自伤风险，并为未来的研究和应用提供方向。

方法 主要方法包括自然语言处理（NLP）即大语言模型、机器学习、深度学习等技术在监测青少年自杀自伤风险的应用。

结果 1. 自然语言处理技术在监测青少年自杀自伤风险方面具有较大潜力。通过分析社交媒体、在线聊天记录等文本数据，可以挖掘出青少年的情感、心理状态和风险行为，从而显著的减低青少年自杀、自伤的风险，并能够广泛应用，并可以克服传统诊断方法的局限性。2. 机器学习和深度学习技术在预测青少年自杀自伤风险方面取得了显著的成果。通过构建有效的特征工程和复杂的模型结构，为后续治疗以及预防自杀、自伤等行为作出可靠预警。3. 人工智能技术在监测青少年自杀自伤风险方面的应用仍然面临一些挑战，如数据获取的难度、隐私保护和伦理问题等。

结论 人工智能技术在监测青少年自杀自伤风险方面具有显著的潜力，可以为预防和干预策略提供有力的技术支持。用于青少年自杀、自伤风险的自动监测，以备将来的工作，这可能为发现有自杀、自伤等倾向的青少年铺平了道路。未来的研究应关注人工智能技术与起病于青少年的行为与情绪障碍等的诊断的融合。

关键字：青少年；自杀；自伤；人工智能

童年期虐待对青少年抑郁患者快感缺失症状的影响：积极共情的中介作用

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目的 探究童年期虐待(包括童年情感虐待、童年躯体虐待和性虐待)对青少年抑郁患者快感缺失症状的影响及其内在机制。

方法 采用方便抽样的方法在贵州省各大精神科和心理科门诊和住院的100名确诊为抑郁障碍的青少年（男女各半）进行汉密尔顿抑郁量表（Hamilton Depression Scale，HAMD-24）、斯奈思?汉密尔顿快感量表（Snaith-Hamilton pleasure scale， SHAPS）、积极共情量表（Dispositional Positive Empathy Scale, DPES）和童年期创伤量表（Childhood Trauma Questionnaire——Short Form，CTQ-SF）等量表的评估。采用SPSS等统计软件对数据进行相关分析、t检验、回归分析，利用Process宏程序model 4，以快感缺失为因变量、童年期虐待为自变量、积极共情为中介变量，同时以年龄、性别为控制变量建立一个中介效应模型。

结果 ①童年期虐待、积极共情、快感缺失两两之间显著相关。其中童年期虐待与快感缺失呈显著负相关（$r=-0.76$，$p<0.01$），童年期虐待与积极共情呈显著正相关（$r=0.62$，$p<0.05$），积极共情与快感缺失呈显著负相关（$r=-0.68$，$p<0.05$）；②积极共情在童年期虐待和快感缺失之间存在中介效应，童年期虐待对快感缺失的直接效应为0.257（$p<0.05$），95%的置信区间不包含0（LLCI=-0.468，ULCI=-0.046）；积极共情在童年期虐待与快感缺失之间中介效应具有统计意义（$p<0.05$），95%的置信区间不包含0（LLCI=-0.538，ULCI=-0.091），中介效应的效应量为48.33%。

结论 童年期虐待会与青少年抑郁患者的快感缺失症状息息相关，积极共情在其中发挥了中介作用。这提示我们，对青少年抑郁患者的积极共情能力进行针对性提升训练可能是改善青少年抑郁症患者快感缺失症状，减轻抑郁水平的方法之一。

关键字：青少年，抑郁症，快感缺失，积极共情，童年期虐待

感觉统合训练联合言语训练在孤独症患儿中的应用效果

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目的 探讨感觉统合训练联合言语训练在孤独症（ASD）患儿中的应用。

方法 选取2021年2月-2022年 2月收治的ASD儿童 50 例，随机分为研究组（25 例）和对照组（25 例），对照组基于常规康复治疗，研究组基于感觉统合训练联合言语训练治疗。比较两组治疗前后语言行为里程碑评估及安置程序（VB-MAPP）、孤独症行为评定量表（ABC）评分。

结果 两组患儿治疗前VB-MAPP和ABC评分组间差异均无统计学意义。治疗后，与干预前比较，干预组和对照组 12 周后 VB-MAPP 各项目评分均较前增高（P＜0.01），ABC评分较前降低（P＜0.05）。其中研究组的VB-MAPP评分中提要求、命名、听者反应、仿说、自发音、语言结构分数显著优于对照组（P＜0.01），且ABC评分显著低于对照组（研究组11.83±1.45，对照组10.12±2.67，P＜0.05）。

结论 常规干预及感觉统合训练联合言语训练治疗均可改善ASD患儿的沟通和感觉统合能力，但感觉统合训练联合言语训练治疗在改善 ASD 儿童语言行为方面的效果更显著，尤其是在提高孤独症患儿的沟通交流、社会交往、语言发音和结构方面。因此，这种联合训练的方式较常规康复训练更为有效，可以帮助孤独症患儿更好地融入社会，提高其生活质量。

关键字：感觉统合训练；言语训练；孤独症

奥尔夫音乐治疗在孤独症患儿中的应用效果

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目的 探讨奥尔夫音乐疗法干预孤独症（ASD）患儿的临床疗效。

方法 选取2022年1月-2022年2月收治的ASD儿童 60 例，随机分为研究组（30 例）和对照组（30 例），对照组基于常规康复治疗，研究组基于奥尔夫音乐疗法。干预12周后比较两组治疗前后孤独症评定量表（CARS）评分。

结果 干预前，两组患儿治疗前CARS各评分差异均无统计学意义。干预后，研究组和对照组CARS评分均较前降低（P＜0.05），其中研究组的 CARS 评分中人际关系（研究组 2.17±0.87，对照组 2.37±0.85，t=6.530，P＜0.01）、模仿（研究组 2.20±0.48，对照组 2.43±0.76，t=3.525，P＜0.01）、情感反应（研究组 2.07±0.69，对照组 2.30±0.76，t=8.601，P＜0.01）、听觉反应（研究组 2.20±0.48，对照组 2.50±0.71，t=5.460，P＜0.01）、非语言交流（研究组 2.13±0.68，对照组 2.47±0.78，t=6.679，P＜0.01）分数显著优于对照组（P＜0.01）。

结论 常规干预及奥尔夫音乐疗法均可改善ASD患儿的情感反应、语言交流和听觉反应方面的能力，而奥尔夫音乐疗法在改善ASD患儿注意力、提高非语言的表达、促进情绪稳定、增加与他人的互动等领域的效果更为显著。

关键字：奥尔夫音乐疗法；孤独症

非自杀性自伤行为在青少年重度抑郁症中与25羟维生素D和血脂水平的关系

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目的 非自杀性自伤(NSSI)在青少年重度抑郁症(MDD)中很常见，25羟维生素D和血脂水平也与MDD有关，但是它们在青少年MDD中NSSI的作用机制尚不清楚。故本研究旨在探讨青少年MDD患者中NSSI与25羟维生素D和血脂水平之间的关系。

方法 选取自2020年10月—2022年3月于安徽医科大学附属巢湖医院就诊的青少年抑郁障碍患者129例，参考DSM-5中NSSI的诊断标准将其分为伴NSSI抑郁组（n=77)和不伴NSSI抑郁组(n=52)。采用青少年自杀意念量表(PANSI)、失眠严重指数(ISI)、流调抑郁量表(CES-D)评估患者的临床症状。于清晨采集空腹静脉血，检测样本中维生素D和血脂水平。

结果 129名入组患者中，77例伴有NSSI，患病率为59.7%。单因素分析中，与不伴NSSI抑郁组相比，伴NSSI抑郁组有更低的年龄和发病年龄，多为女性，教育水平为初中，有着更强的消极观念和更差的睡眠质量以及更高的抑郁症状，葡萄糖、胆固醇（TC）、高密度脂蛋白（HDL-C）、低密度脂蛋白（LDL-C）和促甲状腺激素（TSH）偏高，25羟维生素D水平偏低（P均＜0.05）。Logistic 回归分析显示，LDL-C（OR＝5.695，95%CI：2.422~13.388，P＜0.001）和PANSI总分（OR=1.146，95%CI：1.075~1.222，P＜0.001）均是青少年MDD伴发NSSI的独立风险因素；而年龄（OR=0.67，95%CI：0.572~0.768，P=0.017）和25羟维生素D（OR=0.619，95% CI：0.516~ 0.721,P=0.031）则是青少年MDD伴发NSSI的独立保护因素。ROC曲线发现LDL-C、25羟维生素D、年龄和PANSI总分四项联合（AUC=0.88, 95%CI=0.818~0.942, P＜0.001）对NSSI的预测能力更高，灵敏度为0.922，特异度为0.75。

结论 NSSI在青少年MDD中很常见，患病率为

59.7%，考虑到其与 LDL-C 和 25 羟维生素 D 的关系，临床上应定期检测以观察动态变化。

关键字：抑郁症 青少年 非自杀性自伤 25 羟维生素 D 低密度脂蛋白

压力管理和问题管理策略对青少年抑郁症患者非自杀性自伤（NSSI）行为的干预效果研究

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目的 探讨压力管理和问题管理策略对青少年抑郁症患者非自杀性自伤（NSSI）行为的干预效果。

方法 选取我院 2022 年 6 月-2022 年 12 月在儿少精神科住院的伴有 NSSI 行为的青少年抑郁症患者 80 名为研究对象。随机分成研究组（40 人），对照组（40 人）。对照组患者接受为期 4 周的常规青少年抑郁症常规治疗（药物治疗+健康宣教），研究组在对照组的基础上开展压力管理与问题管理策略的干预。两组干预前后均填写一般人口学信息、患者健康问卷（PHQ-9）、广泛性焦虑量表（GAD-7）、思维反刍量表（RRS），并比较两组患者住院期间 NSSI 行为发生率。

结果 1、在干预后，研究组的 PHQ-9 总分（10.29±7.158）较干预前（20.00±4.172）降低，对照组 PHQ-9 总分（14.97±6.643）较干预前（19.03±5.435）降低，干预前，PHQ-9 总分研究组与对照组评分统计差异无统计学意义（P＞0.05），干预后研究组 PHQ-9 总分低于对照组，差异有统计学意义（P<0.05）。2、干预后研究组的 GAD-7 评分（6.92±5.553）较干预前（15.11±3.733）降低，对照组 GAD-7 评分（10.32±6.009）较干预前（13.11±5.637）降低，干预前，研究组与对照组 GAD-7 评分统计差异无统计学意义（P＞0.05），干预后研究组 GAD-7 评分低于对照组，差异有统计学意义（P<0.05）。3、研究组 RRS 评分、非自杀性自伤频率较干预前降低，差异有统计学意义（P<0.05）

结论 压力管理和问题管理策略有助于减轻抑郁程度，降低青少年抑郁症患者焦虑水平，帮助患者减少思维反刍，降低青少年抑郁症患者 NSSI 行为发生率。

关键字：压力管理；问题管理；青少年抑郁症；非自杀性自伤行为

Application of IKAP Model in Non-suicidal Self-injury Behaviors of Adolescent Patients with Major Depressive Disorder: Randomised Controlled Trials

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Objective We explored the effect of the information-knowledge-attitude-practice (IKAP) on non-suicidal self-injury (NSSI) behavior among adolescent patients with major depressive disorder (MDD).?

Methods 120 adolescent MDD inpatients with NSSI were recruited in the Department of Psychosomatics and Psychiatry, Zhongda Hospital, from January to December 2021. Participants were randomly divided into control and interventional groups with a balanced size. The control group was treated as usual, and the intervention group was managed with the IKAP model. The Cognitive Emotion Scale, self-injury behavior, and risky item management were assessed. Follow-ups were managed through a hub on the WeChat platform.?

Results After the treatment, the prevalence of NSSI in the intervention group was significantly lower than in the control group (P<0.05). They were more likely to hand in risky items during treatment (P<0.05) with emotion regulation ability (P<0.05).?

Conclusion The IKAP model significantly improved NSSI and prevented related risks.

关键字：non-suicidal self-injury; incidence; depressive disorder; IKAP model; nursing intervention

Adverse Childhood Experience and Depression: A Role for Gut Microbiota

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Depression is the most common psychiatric disorder that burdens modern society heavily. Numerous studies have shown that adverse childhood experiences can increase susceptibility to depression, and depression with adverse childhood experiences has specific clinical-biological features. However, the specific neurobiological mechanisms are not yet precise. Recent studies suggest that the gut microbiota can influence brain function and behavior associated with depression through the "microbe-gut-brain axis" and that the structure and function of the gut microbiota are influenced by early stress. These studies offer a possibility that gut microbiota mediates the relationship between adverse childhood experiences and depression. However, few studies directly link adverse childhood experiences, gut microbiota, and depression. This article reviews recent studies on the relationship between adverse childhood experiences, gut microbiota, and depression, intending to provide ideas for new research.

关键字：Adverse childhood experiences, Brain-gut axis, Depressive disorder, gut microbiota, Stress

注意缺陷多动障碍共病超重/肥胖儿童的心理状况分析

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目的 探讨注意缺陷多动障碍（ADHD）共病超重/肥胖儿童的心理状况。

方法 采用横断面研究，选取 2022 年 1 月至 2022 年 12 月在苏州市广济医院门诊就诊的符合 DSM-5 关于 ADHD 诊断的儿童 205 名，完成一般资料填写、SNAP-IV 评定量表、Vanderbilt ADHD 诊断评定量表父母版本、汉密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD）等量表，测量身高体重，计算体质指数（BMI），根据 BMI 分为超重/肥胖组及对照组，比较两组性别、年龄、ADHD 核心症状评分、ADHD 分型构成比、VADPRS 量表评分、HAMD 量表评分和 HAMA 量表评分的差异性，并分析相关性。

结果 ADHD 儿童超重/肥胖的发生率 30.23%，两组研究对象在性别、年龄、ADHD 分型、ADHD 核心症状评分、VADPRS 品行障碍评分无统计学差异（P>0.05），在 VADPRS 对立违抗性障碍评分、VADPRS 焦虑/抑郁障碍评分、HAMD 评分、HAMA 评分有统计学意义（P<0.05），超重/肥胖组具体更高的 VADPRS 对立违抗性障碍评分、更高的 VADPRS 焦虑/抑郁障碍评分、更高的 HAMD 评分及更高的 HAMA 评分。VADPRS 焦虑/抑郁障碍评分、HAMD 评分及 HAMA 评分与年龄、注意缺陷症状评分有关，与多动/冲动症状评分无关。

结论 注意缺陷多动障碍（ADHD）共病超重/肥胖儿童具有更多的焦虑抑郁情绪，且年龄越大越明显。

关键字：注意缺陷多动障碍；超重/肥胖；儿童；心理特征

氯氮平所致多形性红斑药疹一例

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目的 本文报告一例氯氮平所致多形性红斑药疹的临床病例。多形性红斑典型表现为多在肢端呈对称分布的靶形或虹膜状红斑，是一种急性炎症性皮肤病。该病多见于病毒或细菌感染，亦见于抗生素等药物不良反应。

方法 氯氮平所致多形性红斑药疹的不良反应临床罕见，本病例回顾氯氮平所致多形性红斑的临床表现、治疗方案，帮助临床医师更容易识别氯氮平所致不良反应，及时应对处理。

结果 氯氮平出现多形性红斑性药疹的治疗目前没有统一的规范，一般认为出现多形性红斑等严重不良反应后应立即停用氯氮平，并使用抗过敏药物。但临床实际工作中，突然停用氯氮平可能会引发恶性综合征等严重撤药反应，给患者带来更大的损害。本例患者在出现多形性红斑后，临床处理为将氯氮平逐渐减量并维持小剂量继续治疗，同时予以抗过敏药物治疗。最终患者的红斑得到了有效的治疗，也未发现给患者带来临床损害。

结论 熟悉氯氮平可能出现的不良反应对临床医师尤为重要，监测常见和罕见的不良反应可以显著降低与氯氮平治疗相关的致残率和死亡率。此外，如果患者充分了解其不良反应的性质和风险，并且临床医生认识到并试图治疗这些不良反应，则可以显著提高对氯氮平治疗的依从性。对其他氯氮平不良反应的适当管理有助于最大限度地提高氯氮平治疗的益处，所以氯氮平等抗精神病药物罕见的不良反应需要更多的被报道出来。

关键字：精神分裂症、氯氮平、多形性红斑、不良反应

青少年抑郁障碍患者功能失调性态度与抑郁症状的关系：基于潜在剖面分析

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目的 探讨青少年抑郁障碍患者功能失调性态度的异质性亚型。

方法 纳入 98 例符合《国际疾病分类（第 10 版）》（ICD-10）抑郁障碍诊断标准的青少年抑郁障碍患者（年龄 13～18 周岁），且抑郁自评量表（SDS）标准分≥53 分作为研究对象。采用功能失调性态度问卷（DAS）、简易应对方式问卷（SCSQ）、抑郁自评量表（SDS）及自编基本资料调查表进行评定。以功能失调性态度问卷各维度最终得分为模型外显变量，使用潜在剖面分析构建分类模型，采用 2 检验、t 检验以及二元 Logistics 回归对可能影响分型的各因素进行评估，并分析分型在青少年抑郁障碍患者抑郁自评量表得分上的差异。

结果 （1）98 名青少年抑郁障碍患者功能失调性态度表现为 2 种不同潜在类别，分别命名为“低吸引与排斥-高认知哲学”“高完美化-高自主性态度”，占比依次为 28.6%、71.4%；（2）初中生、高中生中“高完美化-高自主性态度”占比高于“低吸引与排斥-高认知哲学”，P＜0.05；“高完美化-高自主性态度”消极应对方式显著高于“低吸引与排斥-高认知哲学”消极应对方式，P＜0.001；“低吸引与排斥-高认知哲学”积极应对方式高于“高完美化-高自主性态度”积极应对方式，P＜0.001；（3）以青少年抑郁障碍患者功能失调性态度潜在类别作为因变量（“低吸引与排斥-高认知哲学”作为参照），单因素分析中具有统计学意义的因素作为自变量，构建二元 Logistic 回归模型。相较于“低吸引与排斥-高认知哲学”，积极应对方式越低的青少年抑郁症患者预测“高完美化-高自主性态度”的概率越大（OR=0.851，P＜0.001，95%CI：0.791～0.915）；消极应对方式越高的青少年抑郁症患者预测“高完美化-高自主性态度”的概率越大（OR=1.375，P＜0.001，95%CI：1.199～1.577）；（4）“高完美化-高自主性态度”SDS 得分显著高于“低吸引与排斥-高认知哲学”SDS 得分，P＜0.01。

结论 青少年抑郁障碍患者功能失调性态度具有明显的分类特征，可分为两种异质性亚型：“低吸引与

排斥-高认知哲学”与“高完美化-高自主性态度”。治疗上可根据不同类别抑郁障碍患者采取针对性干预措施以减轻抑郁症状。

关键字：青少年；抑郁；功能失调性态度；应对方式

青少年首发未服药抑郁障碍患者血浆炎症因子水平与病情严重程度的相关性研究

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目的 探究青少年首发未服药抑郁障碍患者与复发患者外周血浆炎症因子水平的差异，探讨青少年首发未服药患者外周血浆炎症因子水平与抑郁严重程度的相关性。

方法 选择 2020 年 10 月—2022 年 3 月在安徽医科大学附属巢湖医院精神科和合肥市第四人民医院门诊及住院的青少年抑郁障碍患者。采用 24 项汉密尔顿抑郁量表（HAMD-24）评估患者的抑郁程度。使用 MSD（超敏多因子电化学发光检测技术）检测患者血浆白介素（IL）-10、IL-17A、IL-1β、IL-6、IL-8 和 TNF-α 水平。采用 Spearman 秩相关分析和多元线性回归模型探讨青少年首发抑郁障碍患者炎症因子水平与抑郁严重程度的关系。

结果 本研究共纳入 134 名青少年抑郁障碍患者，其中首发未服药抑郁障碍患者有 76 名，复发抑郁障碍患者 58 名。两组患者的血浆炎症因子水平无统计学差异（P>0.05）。Spearman 秩相关分析显示，首发未服药抑郁障碍患者 HAMD 总分与 IL-17A（r=0.275，P=0.016）、IL-1β（r=0.260，P=0.024）、IL-6（r=0.300，P=0.009）及 TNF-α（r=0.331，P=0.004）水平呈正相关，整体抑郁障碍患者 HAMD 总分与 IL-6（r=0.208，P=0.016）及 TNF-α（r=0.179，P=0.038）水平呈正相关。各因子多元线性回归模型分析显示，IL-17A 水平（β=0.231，P<0.05）及 IL-6 水平（β=0.226，P<0.05）与 HAMD 总分独立相关。

结论 较高水平的血浆 IL-17A 水平和 IL-6 水平与青少年首发未服药抑郁障碍患者较高的抑郁症状得分存在相关关系。 基金项目：国家临床重点专科建设项目

关键字：青少年抑郁障碍 首发未服药 炎症因子 汉密尔顿抑郁量表

A Novel Clinical Risk Assessment Model for Providing A Warning Sign of The Non-suicidal Self-injury in Depression Adolescent Patients

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Objective The objective of this study was to develop and validate a clinical model for assessing the risk of nonsuicidal self-injury (NSSI) in adolescents with depression. Although various factors have been linked to NSSI in depressed adolescents, it is unclear whether these factors can accurately diagnose NSSI episodes. This limits our understanding of the causes of NSSI and hinders prevention efforts. This study aims to fill this gap by creating a comprehensive model that considers multiple aspects of NSSI to accurately assess its risk in adolescents with depression.

Methods Using a cross-sectional design, we recruited 302 adolescents with depressive disorders who visited or were hospitalized at Shandong Mental Health Center from December 2021 to June 2022. The participants completed several self-report questionnaires, including the Chinese version of the Internet Addiction Test, the Pittsburgh Sleep Quality Index questionnaire, the Defeat Scale, the Social Avoidance and Distress Scale and the Children's Depression Inventory. Logistic regression analysis was performed to identify the diagnostic factors, which were further used to establish clinical risk assessment models. A receiver operating characteristic curve (ROC) to identify the best model. An external validating team was introduced to verify the assessing efficiency.

Results In total 302 there were 178 (58.9%) had NSSI behaviour. NSSI was independently evaluated by lower self-esteem, more internet use and degree of sleep disturbance. The composite risk index diagnosing NSSI demonstrated good accuracy for identifying depressed adolescents who will start self-injuring (area under the curve = 0.86, sensitivity = 0.88, specificity = 0.69). As well as showing good diagnostic in the validation set(area under the curve = 0.84, sensitivity = 0.72, specificity = 0.81).

Conclusion These results highlight the role of self-esteem, internet use and sleep disturbance in the development of NSSI . The risk index diagnosing NSSI onset may help to guide the design and application of novel interventions to minimize this risky behaviour in future depressed adolescents.

关键字：NSSI,Depression

母亲的依恋模式、教养方式与青少年非自杀性自伤的相关性

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目的 探究母亲的依恋模式、教养方式对青少年

非自杀性自伤的影响

方法 选取57例安徽省精神卫生中心门诊及住院存在非自杀性自伤（NSSI）行为的青少年及其母亲作为研究组，以53例年龄性别受教育程度相匹配的青少年及其母亲作为对照组，采用一般情况调查表、青少年自我伤害问卷、亲密关系经历量表（ECR）、父母教养方式量表（EMBU）进行测评。采用t检验或χ2检验比较两组的一般人口学特征，控制一般人口学特征中差异有统计学意义的变量，进行协方差分析比较两组的ECR和EMBU得分，并进行Person相关分析；采用 Logistic 回归进行影响因素分析。

结果 研究组在母亲的依恋回避、依恋焦虑、过干涉过保护、拒绝否认、严厉惩罚均高于对照组，温暖理解、偏爱被试低于对照组，差异有统计学意义(P<0.05)；青少年非自杀性自伤与母亲的依恋回避、依恋焦虑、过干涉过保护、拒绝否认、严厉惩罚呈正相关，与母亲的温暖理解、偏爱被试呈负相关。二元logistic回归分析，结果显示母亲的依恋回避、依恋焦虑能正向预测青少年NSSI行为，母亲的温暖理解能负向预测NSSI行为。

结论 青少年非自杀性自伤与母亲的依恋模式及教养方式有关，可通过干预母亲的依恋及其教养方式来减少青少年的自伤行为。

关键字：非自杀性自伤；青少年；母亲；依恋；教养方式；

注意缺陷多动障碍患儿照顾者照顾负担 应对方式对负性情绪的影响

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目的 观察注意缺陷多动障碍（ADHD）患儿照顾者照顾负担、应对方式对负性情绪的影响因素。

方法 2021年6月至2022年12月选取在常州市德安医院心理科确诊的68名ADHD儿童的照顾者为ADHD组，选择同期在我院门诊进行常规体检的83名正常儿童的照顾者作为正常对照组，比较两组抑郁-焦虑-压力自评量表(DASS－21)、照顾者负担量表（ZBI）、简易应对方式问卷（SCSQ）评估结果。

结果 ADHD组压力、焦虑、抑郁等方面得分均高于正常对照组（P<0.05），ADHD组照顾者的照顾负担高于正常对照组（P<0.05）；ADHD照顾者的压力与照顾负担和消极应对方式呈正相关（均 P<0.01）；ADHD照顾者的焦虑与照顾负担呈正相关（均P<0.01），与积极应对方式呈负相关（P<0.05）；ADHD照顾者的抑郁与照顾负担和消极应对方式呈现正相关（均P<0.01），与积极应对方式呈现负相关（P<0.05）；照顾负担、消极应对方式是ADHD照顾者压力的影响因素（P<0.05），照顾负担、积极应对方式是ADHD照顾者焦虑的影响因素（P<0.05），照顾负担、积极应对方式、消极应对方式是ADHD照顾者焦虑的影响因素（P<0.05）。

结论 ADHD照顾者的负性情绪较多、照顾负担较重，照顾者的照顾负担和应对方式是影响其负性情绪的主要因素。

关键字：注意缺陷多动障碍、照顾者、照顾负担；负性情绪

男性涉罪未成年人家庭教养方式对心理健康的影响：自尊的中介作用

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目的 探究自尊在男性涉罪未成年人家庭教养方式与心理健康之间的中介效应。

方法 2021年6月至2023年6月使用庭教养方式(short-egna minnenav barndoms uppfostran，S-EMBU)、90项症状自评量表(symptom check list 90，SCL-90)，自尊量表(self-esteem scale，SES)，选取常州市检察院、法院提供的99名男性涉罪未成年人进行调查。

结果 99名男性涉罪未成年人的SCL-90总均分为1.88±0.99；与父母生活在一起的男性涉罪未成年人SCL-90总均分高于不与父母生活在一起的男性涉罪未成年人（P<0.05），不同家庭月收入的男性涉罪未成年人SCL-90总均分有一定差异性（P<0.05）；SCL-90总均分与父亲过度保护、母亲过度保护均呈正相关，（r=0.218～0.314，均P<0.05）；SCL-90总均分与自尊呈负相关（r=-0.604，P<0.05）；自尊与父亲过度保护、母亲过度保护均呈负相关，（r=-0.218～-0.211，均P<0.05）；自尊在父亲过度保护对心理健康的影响中具有中介作用，中介效应占总效应的13.17%，自尊在母亲过度保护对心理健康的影响中具有中介作用，中介效应占总效应的46.52%。

结论 家庭教养方式中的父亲过度保护、母亲过度保护不仅可以直接影响男性涉罪未成年人的心理健康，也可以通过自尊的中介作用影响男性涉罪未成年人的心理健康。

关键字：男性涉罪未成年人、家庭教养方式、心理健康；自尊

初中生心理健康与网络成瘾的关系：心理弹性的中介作用

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目的 探究心理弹性在初中生心理健康与网络成瘾之间的中介效应

方法 2023年3月至2023年6月使用心理弹性量表（Connor-Davidson Resilience Scale，CD-RISC）、中学生心理健康量表(Middle School Students Mental Health Scale-60，MSSMHS-60)，网络成瘾诊断问卷(Diagnostic Questionnaire for Internet Addiction, YDQ)，

对常州市某初中的 371 名初中生进行问卷调查。

结果 371 名初中生心理健康总分得分为 4.47±1.71 分，网络成瘾得分为，2.20±2.31 分，心理弹性得分为 23.64±10.78 分；初中生网络成瘾与心理健康总分及各维度均呈现正相关（r=0.289～0.518，均 P<0.05），初中生网络成瘾与心理弹性呈现负相关（r=-0.336，P<0.05）；心理健康里的学习压力和情绪不稳定可以正向预测网络成瘾（β=0.180～0.350，均 P<0.05），心理弹性可以负向预测网络成瘾（β=-0.196，P<0.05）；心理弹性在心理健康对网络成瘾的影响中具有中介作用，中介效应占总效应的 17.7%。

结论 心理健康不仅可以直接影响初中生的网络成瘾，也可以通过心理弹性的中介作用影响初中生的网络成瘾。

关键字：初中生、心理健康；网络成瘾；心理弹性

Updated Meta-Analysis: Exploring The Link Between Inflammatory Bowel Disease and Anxiety and Depression in Pediatric Patients

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Objective This meta-analysis aimed to estimate the prevalence of anxiety and depression symptoms in adolescents with Inflammatory Bowel Disease (IBD) and explore potential risk factors.

Methods A thorough search was conducted in Embase, Web of Science, and PubMed, encompassing articles published until June 2023. Two authors independently performed data extraction and quality assessment. Pooled prevalence rates were calculated using inverse variance heterogeneity models. Sensitivity and subgroup analyses were conducted to investigate sources of heterogeneity.

Results The analysis included data from 40 studies with a total of 36,484 participants. The pooled prevalence of anxiety symptoms among adolescents with IBD was estimated at 13% (95% confidence interval [CI] 8%-20%), with comorbid anxiety disorders at 5% (95% CI 1%-12%). Additionally, the pooled prevalence of depressive symptoms in this population was estimated at 19% (95% CI 12%-28%), with depressive disorders at 6% (95% CI 2%-12%). Subgroup analyses indicated that disease activity influenced the prevalence of depressive symptoms, with higher rates observed in patients with more severe disease activity. The scoring methods and cutoff values for assessing depressive symptoms also impacted the prevalence estimates. The odds ratio for depressive symptoms in adolescents with IBD versus healthy individuals, based on three studies, was 2.19 (95% CI 1.06-4.52).

Conclusion These findings emphasize the importance of screening for mental health conditions in adolescents with IBD to facilitate early intervention and comprehensive disease management.

关键字：Crohn's disease, ulcerative colitis; gut-brain axis, adolescent; anxiety symptoms; depressive disorder

Attention-Based Acoustic Feature Fusion Network for Depression Detection

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Objective : Depression, a complex and multifaceted mental disorder, presents significant societal burdens and necessitates timely detection and management. Current detection methods often overlook the rich information within diverse speech attributes, due to a reliance on single-feature models. This paper aims to introduce a more sophisticated detection technique to improve depression screening. Method: We present the Attention-Based Acoustic Feature Fusion Network (ABAFnet), a multimodal deep learning model for depression detection. ABAFnet integrates four distinct speech features, offering a comprehensive and efficient way to extract multi-tiered information from speech data. Our model incorporates a novel Weight Adjustment Module (WAM) to effectively synthesize these features in the late fusion stage. **Results** Our proposed method was extensively validated on two original clinical speech corpora, CNRAC and CS-NRAC, demonstrating its superiority over current state-of-the-art methods in depression detection and subtype classification. Ablation experiments confirmed the significant contribution of each feature, particularly underscoring the importance of Mel-Frequency Cepstral Coefficients (MFCC) related features in speech-based depression detection. **Conclusion** The development and validation of the ABAFnet represent an advancement in the quest for more accurate and reliable depression screening tools. By integrating multiple speech features and leveraging deep learning, we are moving closer to improved, timely detection and management of depression. The benefits of this method are significant, given the pervasive and complex nature of this mental disorder.

关键字：Speech, Feature Fusion, Depression, Neural Networks

青少年心境障碍患者家属的心理状态及影响因素的调查研究

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目的 探索青少年心境障碍患者主要照顾者的心理状况及其影响因素。

方法 纳入江苏省南京市三级甲等医院精神科诊断青少年心境障碍的患者及其陪护家属，根据住院期间家属焦虑自评量表（SAS）、抑郁自评量表（SDS）

及简易应对方式问卷（SCSQ）评分变化，将家属分至情绪恶化组和情绪稳定组，对比两组间一般资料，多因素逐步 logistic 回归探索家属情绪恶化的影响因素，pearson 相关分析比较家属及患者的 SAS、SDS、SCSQ 评分相关性。

结果 家属情绪恶化比例为 43.22%（51/118），影响家属精神状态的可能因素包括女性、城市居民、人均月收入在 10000-20000、离异家庭、病程长、住院次数增加以及患者 SDS、SAS、SCSQ 评分，逐步法进行多因素逐步 logistic 回归显示患者 SDS 分值升高，患者及家属的 SCSQ 分值减小，是家属情绪恶化的独立危险因素，pearson 相关分析显示家属和患者的 SDS 分值呈正相关关系，和患者的 SCSQ 分值间呈负相关关系，家属 SCSQ 分值和患者的 SDS、SAS 分值呈负相关关系，和患者的 SCSQ 分值呈正相关关系。

结论 离异的城市女性居民、中等人均月收入人群、病程较长、住院次数增加以及患者 SDS、SAS、SCSQ 评分等因素可能影响照顾者情绪。患者的抑郁程度、患者及家属的应对方式可能是影响家属情绪的独立危险因素。

关键字：心境障碍；家属；焦虑自评量表（SAS）；抑郁自评量表（SDS）；简易应对方式问卷（SCSQ）。

青少年抑郁症患者的压力与应对研究：基于抗逆力的视角

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目的 抗逆力也称为心理韧性是指个体在环境和社会资源中积极适应压力和逆境的过程。从某种意义上说，虽然面临压力带来的威胁，但是抗逆力能够使人们克服逆境、修复创伤，从而维持身心的稳定。近些年抑郁症在青少年时期的患病率持续上升，严重妨碍个体的生活质量、社会功能。本研究以抗逆力理论为指导，摒弃“问题取向”的介入角度，深入了解青少年抑郁症患者的压力源及应对方式，旨在通过分析抗逆力水平（外部支持因素、内部优势因素、个人效能因素）与疾病的关系，探索青少年抑郁症患者治疗和康复的新视角和新方式。通过抗逆力提升的康复训练，帮助青少年抑郁症患者有效预防和解决情绪问题。

方法 本文是一项个案研究，资料收集方法是量表法、半结构式访谈法和参与式观察。以河北省第六人民医院 10-19 岁的抑郁症患者作为研究对象，进行深入的访谈和参与式观察，对 30 名青少年抑郁症患者的压力及应对情况进行分析，将抗逆力理论作为研究基石，探讨青少年抑郁症患者抗逆力水平及其疾病的关系。通过可视化数据，结合 30 份深度访谈资料对青少年抑郁症患者的抗逆力水平及其结构进行分析，最后依据抗逆力理论研究框架，对青少年抑郁症的治疗和康复提供新的介入建议。

结果 1.通过汉密尔顿抑郁量表（HAMD-24）、青少年生活事件量表（ASLEC）及青少年抗逆力量表（Resilience Scale for Adolescents，READ）测查发现：抗逆力水平越低，抑郁程度越高。2.青少年抑郁症患者常面临的压力为：自我认同的困境、人际交往的困境、学业的困境、家庭关系的困境、社会歧视问题。3.调查的 30 名青少年抑郁症患者的压力处理策略皆为非常规性的抗逆力处理策略。

结论 本研究证明：抗逆力水平与青少年抑郁症状之间存在显著负向关联，青少年抑郁症患者面临来自于心理及社会的多重压力，且多采用非常规的抗逆力应对方式，导致出现诸多心理及行为问题，因此需要关注青少年抑郁症患者特有的压力状况及其应对方式，并通过规范抗逆力训练增强其抗逆力水平，来缓解青少年的抑郁症状。

关键字：抑郁症 青少年 抗逆力 压力 影响因素

成长的力量—青少年抑郁症患者抗逆力训练课程的行动研究

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目的 抗逆力是一种重要的能力和品质，是优势视角的重要内容，它是指个体在受到危机冲击时，在心理上能够积极应对，行为上能够选择恰当应对方式，以达到正向的结果的一种综合能力，它是青少年在压力和逆境中的一道重要的保护屏障。近些年抑郁症在青少年时期的患病率持续上升，据世界卫生组织调查在 10 -19 岁的青少年中，抑郁症是致病和致残的主要原因。因此如何激发青少年抑郁症患者的抗逆力，帮助青少年抑郁症患者缓解情绪和行为问题是本文的研究重点。本文将从理论上对青少年的困境及抗逆力培养原理进行分析，从实践上探索医务社工通过抗逆力训练课程帮助青少年抑郁症患者康复的新视角和新方式。

方法 在积极心理学和抗逆力的生态理论的基础上，河北省第六人民医院康复科针对青少年抑郁症患者开发并实施了成长的力量—抗逆力训练课程。根据国际抗逆力研究计划（IRRP）的理念，成长的力量抗逆力训练课程围绕 CBO 模型的归属感、乐观感、效能感三要素进行内容设计，其中归属感包括沟通交往能力、情绪管理能力、目标制定能力、问题解决的能力；乐观感包括理想个人形象、正向价值观、积极心态、良好性格；归属感包括亲社会参与、稳定关怀、重要他人、可利用资源。本次抗逆力训练课程以团体的形式进行，兼顾认知调整、技能学习和情绪体验三个方面，分为发展型和预防型两类课程。发展型课程内容根据抗逆力提升的 ABC 框架构建，包涵接受事实、行为选择和积极心理预期的学习体验。预防型课程包涵成长型思维的训练、自我效能感的训练、自我调控能力的训练。课程中期和后期辅助汉密尔顿抑郁量表（HAMD-24）和青少年抗逆力量表（Resilience Scale for Adolescents，READ）对课程成员进行前测和后测，通过前后测对比数据以及与观察组的比较考察课程训练效果。

结果 1.成长的力量抗逆力训练课程能显著提升

青少年抑郁症患者的总体抗逆力水平，前后测数据均值差异显著。2.成长的力量抗逆力训练课程后汉密尔顿抑郁量表测查显示观察组 HAMD 评分明显低于对照组。

结论 抗逆力训练可以有效提高抑郁症青少年的抗逆力水平，缓解抑郁情绪，干预效果较为显著。

关键字：抗逆力 抑郁症 青少年

加味逍遥散联合舍曲林治疗青少年抑郁症的临床研究

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目的 通过对加味逍遥散联合舍曲林治疗肝郁脾虚型青少年轻中度抑郁发作的临床研究,评价其改善抑郁症状的临床疗效,缓解患者的中医证候症状不适,试验用药是否会出现不良反应,为临床采用中西医结合治疗青少年轻中度抑郁提供实验证明,为治疗青少年抑郁障碍打开新思路。

方法 随即纳入 2020 年 12 月至 2021 年 12 月期间,在赤峰市精神卫生中心门诊及住院治疗的患者,西医诊断符合 ICD-10 轻中度抑郁发作的诊断标准,中医诊断符合轻中度抑郁发作肝郁脾虚型诊断标准,共纳入 60 例,实验组、对照组各 30 例,治疗期间,实验组剔除 2 例、脱落 5 例,对照组剔除 1 例、脱落 3 例,共 49 例。对照组给予舍曲林片口服,一次 25mg,一日 2 次,逐渐增加至一次 50-100mg,一日 2 次。最高剂量不超过一日 200mg,连服 8 周,实验组选用舍曲林片加用加味逍遥散治疗,具体药物组成: 柴胡 18g，远志 12g，当归 2g，芍药、白术、茯苓各 10g，夜交藤 8g，合欢皮 12g，柏子仁 12g，酸枣仁 15g，炙甘草 5g。心烦较甚者加栀子 8g、黄连 6g; 盗汗甚者加五味子 10g、浮小麦 8g; 阴虚甚者加麦冬 10g、生地 8g; 心悸多梦者加阿胶 12g、龙骨 8g; 头痛眩晕者加菊花 10g、蔓荆子 12g 。水煎服每日 1 剂，早晚分服,舍曲林用法同对照组。分别在治疗前，治疗后 第 2 周、第 4 周、第 8 周进行汉密尔顿抑郁量表（Hamilton Depression Scale，HAMD）的评定，同时记录两组患者不良反应的发生情况。本试验应用 SPSS26.0 统计软件进行数据统计分析。

结果 1.两组 HAMD 评分及中医症候评估评分表治疗前、治疗后第 2 周均未表现出显著差异性（P＞0.05），治疗后第 4 周、第 8 周存在显著差异（P＜0.05）。2.试验组在治疗过程中,未产生明显的不良反应,安全性评价指标均未见异常。

结论 加味逍遥散联合舍曲林片治疗青少年轻中度抑郁发作较单用舍曲林片疗效显著,未产生明显的副作用,为中西医结合治疗青少年抑郁症提供可靠的实验依据,值得临床推广使用。

关键字：抑郁症；肝郁脾虚；加味逍遥散

Causal Relationship of Attention-deficit/hyperactivity Disorder and Autism Spectrum Disorder with Posttraumatic Stress Disorder

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Objective Attention-deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) are two neurodevelopmental diseases that onset and are identified at a young age. The symptoms and functional deficits of most individuals with ADHD or ASD will continue throughout the life span. The two disorders also have high comorbidity and some common symptoms, such as executive function deficits and lower social stills, and ASD individuals can have ADHD-related symptoms. The two disorders increase individuals' experience of traumatic events. However, little is known about the relationship between ADHD and ASD and posttraumatic stress disorder (PTSD). We explored the causal relationship between them at the genetic level.

Methods Genetic correlation analysis was used to test the genetic components between ADHD (38,691 cases and 275,986 controls) and ASD (18,381 cases and 27,969 controls) with PTSD (23,212 cases and 151,447 controls). Two-sample Mendelian randomization (MR) analyses were used to explore the bidirectional causal associations between ADHD, ASD and PTSD.

Results The results of genetic correlation analysis showed that ADHD (rg=0.70) and ASD (rg=0.34) were highly positively correlated with PTSD. MR analysis found that genetic liabilities related to ADHD (OR= 1.14, 95% confidence interval (CI): 1.06-1.24, P=7.88×?10?4) and ASD (OR= 1.04, CI: 1.01-1.08, P=0.014) increased the risks of developing PTSD later on. We did not find that genetic liabilities related to PTSD increased the risk of ADHD or ASD.

Conclusion PTSD occurred after ADHD and ASD onset, and the results of our study indicate that ADHD and ASD have causal impacts on the development of PTSD.

关键字：PTSD; Mendelian randomization; ADHD; ASD; GWAS

经颅直流电刺激对青少年强迫障碍以及认知功能的影响：一项个案报告

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目的 有研究表明阳极刺激右侧 DLPFC，阴极刺激左侧 DLPF 可以增强反应抑制能力或者决策能力，但对于强迫的治疗效果仍存在争议，甚至干预方案的细节尚无统一定论。另一方面，青少年强迫障碍的干预研究比较缺少。因此，本研究旨在通过个案法探索

tDCS 干预一名 14 岁青少年强迫障碍以及认知功能的效果。

方法 采用 Newronika 公司生产的 HDCstim 经颅直流电刺激仪。将阳极电极片固定在右侧 DLPFC，将阴极电极片固定在左侧 DLPFC，根据国际 10-20 脑电系统具体位置分别为 F4，F3。干预剂量每天 2 次，连续干预 5 天，总计 10 次。每次干预刺激时间为 20 分钟，两次干预的间隔时间至少 3 小时，刺激开始前有 30 秒的缓冲期，刺激结束后仍会有 30 秒的缓冲期。评估次数：干预前（基线），干预后，干预结束后 2 周，4 周，6 周，8 周，10 周，12 周。因患者学业问题，只成功随访干预结束后 2 周和 8 周，因此最终总评估的次数为 4 次（干预前，干预后，干预结束后 2 周，8 周）。评估工具：汉密尔顿抑郁量表(Hamilton Depression Rating Scale-24,HAMD-24)；汉密尔顿焦虑量表(Hamilton Anxiety Rating Scale,HAMA)；耶鲁布朗强迫量表(Yale-Brown Obsessive Compulsive Scale,Y-BOCS)；stroop 测试；重复性成套神经心理状态测验(Repeatable Battery for the Assessment of Neuropsychological Status, RBANS)：

结果 干预前，干预后，干预结束后 2 周，8 周的结果分别为 HAMD-24 总分：12 分，8 分，12 分，8 分；HAMA：6 分，4 分，7 分，5 分； Y-BOCS：25 分，19 分，26 分，26 分； stroop 干扰效应（时间越短，表明反应抑制能力越强）：6.34 秒，5.91 秒，4.02 秒，3.10 秒 RBANS 总分（总分越大，表明认知功能越强）：84 分，97 分，94 分，91 分

结论 tDCS 干预青少年强迫障碍的治疗效果以及增强认知功能的作用只能维持在很短的时间范围内，反应抑制能力的增强效果却可以一直维持。

关键字：经颅直流电刺激，强迫障碍，青少年，认知功能

面孔情绪识别训练在促进青少年精神分裂症患者共情维度 康复的磁共振研究

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目的 探索面孔识别训练对促进青少年精神分裂症患者，在共情维度方面改善的治疗效果及康复评估。

方法 采用中国情绪面孔识别系统（Chinese Facial Affective Picture System），设计面孔情绪识别实验范式任务，选取符合诊断标准的 11-18 岁青少年精神分裂症患者 12 人，健康对照组 13 人，进行面孔识别训练共 6 次 ，训练前后对其精神阴阳性症状（Positive and Negative Syndrome Scale, PANSS）、人际指针水平（IRI）等进行评估，同时完成范式任务下静息态功能脑磁共振检查，采用 ANOVA 检验和秩和比较两组样本及 Scz 组前后结果。

结果 两组在 IRI 总平均分（p=0.009）、个人痛苦（p=0.001）、观点采择（p=0.000）存在统计学意义的显著差异。面部情绪任务中，左侧脑岛（Left insula）、背外侧额上回（Frontal Sup L）为新增既往不同的 ROI 激活部位。

结论 青少年精神分裂症患者较健康对照组，整体水平、观点采择低于正常水平，个人痛苦高于正常水平。早期青少年 Scz 组对面孔情绪诱发处于高唤醒水平，对负面情绪的高反应，以及在情绪识别中对厌恶的激活存在偏差，存在高度激活。阴、阳性症状与功能磁共振中脑激活程度呈相关关系，面孔情绪识别训练在任务态功能磁共振中，降低了 Scz 伴有阳性症状患者的脑激活程度。

关键字：青少年精神分裂症 面孔情绪识别 共情水平 功能磁共振

The Prevalence and Influencing Factors of Anxiety in Chinese Adolescents with NSSI

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Objective The objective of this study is to evaluate the prevalence of anxiety and its association with psychosocial factors in adolescents with NSSI. We hope that our findings can draw people's attention to the symptoms of anxiety and their influence on NSSI adolescents, leading to improved or new treatments for this particular population.

Methods Cross-sectional survey was conducted among NSSI adolescents in China. The Generalized Anxiety Disorder Questionnaire-7 (GAD-7), the Patient Health Questionnaire-9 (PHQ-9), the Pittsburgh Sleep Quality Index (PSQI), the Perceived Stress Scale-10 (PSS-10) and the Toronto Alexithymia Scale –20 (TAS-20) were respectively used to detect anxiety level, depressive symptom, sleep disorder, perceived stress and alexithymia. The correlation and regression model were established to explore the relationship between anxiety and other psychological symptoms.

Results This study found that the prevalence of anxiety in NSSI adolescents was 88.9% (1584 / 1782). Regression analysis found that depression symptom, insomnia, stress perception, and alexithymia were independently associated with increased anxiety level. In addition, it was found that younger adolescents were more likely to report anxiety.

Conclusion This study provides preliminary data on how psychological factors such as depression level, insomnia, perceived stress, and alexithymia are related to anxiety severity in Chinese adolescents with NSSI. The analysis of these influencing factors is helpful to guide the

design and application of new interventions to prevent anxiety symptoms of NSSI adolescents, so as to reduce the occurrence of NSSI and self-injury behavior in the future.

关键字：Non-suicidal self-injury (NSSI), Anxiety, Adolescents

基于 CNKI-CiteSpace 国内青少年抑郁研究热点与趋势的可视化分析

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目的 根据世界卫生组织统计，全球有超过 3.5 亿抑郁症患者。抑郁症是世界范围内致残和亚健康的主要原因之一，疾病负担在所有精神疾病中占据首位。近年来，抑郁症在青少年群体中的患病率逐渐升高，世界范围内青少年抑郁症的患病率约为 8%-20%。我国青少年抑郁症状的检出率在 23.24%-39.51%之间，患病率约为 15%-20%。青少年抑郁是青少年物质滥用、学习成绩下降和人际关系不良等的危险因素，同时，因其高复发率和高自杀率，给家庭和社会带来了极大的痛苦和沉重的负担，已成为不可忽视的世界性公共卫生问题。目前，国内众多学者已从生物学、心理学和社会学等多个层面对青少年抑郁问题开展了广泛深入的风险因素研究和干预研究。然而，这些研究常常局限于某一特定的视角，缺乏对青少年抑郁问题全面、系统的文献计量学分析与可视化呈现。因此，本研究旨在运用 CiteSpace 软件对青少年抑郁研究的热点和趋势进行梳理分析，为研究者进一步探索新的研究方向提供重要参考，同时也有利于促进不同学科之间的交叉融合。

方法 检索 CNKI 数据库从建库至 2023 年 2 月 25 日的青少年抑郁相关文献，通过 CiteSpace 软件对年度发文量、发文作者、研究机构、关键词共现、关键词聚类、关键词突现等情况进行可视化分析，梳理青少年抑郁领域的研究热点与研究趋势。

结果 本研究共纳入文献 2739 篇文献，发文量总体呈上升趋势，文献最早发表于 1980 年，2022 年发文量最多为 427 篇；发文量最多的作者是张文新；最多的机构是重庆医科大学；通过关键词共现、聚类、突现分析发现，国内青少年抑郁 研究的热点主要集中在自尊、冗思、社会支持、家庭环境、同伴关系等影响因素方面；研究趋势为认知功能、睡眠质量、负性情绪、父母冲突、同伴关系、自伤、反刍思维等。

结论 青少年抑郁的发生和发展受生物、心理、社会等多个层面多种因素的影响。目前，青少年抑郁问题已引起社会和学术界的广泛关注。未来我国学者从多元化角度促进不同学科之间的交叉融合，全面进行青少年心理健康的干预和防治是趋势所在。

关键字：青少年；抑郁；可视化

自我增强对阈下非自杀性自伤的保护性影响-一项临床对照研究

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目的 自我增强是个体增加积极自我观、减少消极自我观的一种基本动机，本研究旨在探索阈下非自杀性自伤（Non-suicidal self-injurious，NSSI）个体的外显和内隐自我增强的特点，及其对 NSSI 态度、行为和自杀观念的影响。

方法 采用横断面的研究设计，比较阈下 NSSI 大学生和没有 NSSI 史的健康大学生的外显和内隐自我增强的差异。外显自我增强使用自我增强与策略量表测量，NSSI 的外显态度采用 Manikin 评估工具测量；内隐自我增强和内隐 NSSI 态度采用内隐联想测试（Implicit association test, IAT）和隐性情感错误归因程序（The Affect Misattribution Procedure，AMP）测量。

结果 外显和内隐自我增强在阈下 NSSI 组（n = 60,平均年龄 20.9 ± 1.4）和对照组 (n = 59, 平均年龄 21.3 ± 1.4)中无显著差异。阈下 NSSI 组的自杀意念显著高于对照组。阈下 NSSI 组中，自我增强量表总分与自杀意念负相关，其中自我增强的防御维度与自杀意念正相关，自我增强的良好认知和自我肯定思维这两个维度均和自杀意念呈负相关，而正常对照组中未发现自我增强和自杀意念的关系。阈下 NSSI 个体自我增强的防御维度和自伤的次数、种类和严重程度显著正相关。阈下 NSSI 个体中，自我增强的水平受情绪调节和情绪反应性的影响较小，和大五人格特征的外向性显著正相关，和自我激活系统显著正相关。以上所有相关结果的统计值均通过多重比较矫正。

结论 本研究首次探讨了阈下 NSSI 个体自我增强的特点、自我增强对阈下 NSSI 个体自伤行为和自杀意念的影响及自我增强的可能影响因素。研究发现阈下 NSSI 个体的自我增强（显性和隐性）水平和正常个体可能没有区别，但是在阈下 NSSI 个体中，其自我增强水平高则其自杀意念水平低、防御水平高则自伤行为严重，提示自我增强，尤其是良好的认知和自我肯定，可能对阈下 NSSI 的自杀意念具有保护性作用，而降低防御有可能改善自伤行为。自我增强水平高的阈下 NSSI 个体，实施有目的的活动并且对奖励刺激的较高觉醒状态要好于自我增强水平低的阈下 NSSI 个体。该研究对针对提高自我增强来预防和改善 NSSI 行为和预后提供了一种可能，未来需要针对 NSSI 患者群体的研究来证实以上结论。

关键字：阈下 NSSI，自我增强，防御，自杀意念，自伤行为，情绪

青少年社会适应相关因素研究

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目的 社会适应就是个体在与社会环境的交互作

用过程中，旨在追求与社会环境达成和维持和谐平衡关系的过程。社会适应包含人际关系的和谐，注重社会环境中成为有效率的成员，并且能基于适当的群己关系表现社会化的品格和行为。青少年的社会适应状况不仅关乎其成长阶段的学习与发展、幸福与身心健康，还会影响其成人后的工作和生活。 目的　了解青少年的社会适应情况及影响因素。

方法　本研究采用问卷调查法，对 489 名中学生进行社会适应量表、社会支持问卷的施测，了解青少年社会适应的现状。

结果　1.青少年社会适应的总体水平较低，社会适应水平依次是人际适应、环境适应、自我适应、行为适应。青少年的社会适应水平存在性别、年级、地区和父母文化水平等差异。2.青少年自我表露与社会适应之间呈现显著正相关。自我表露高分组的社会适应水平高于自我表露低分组的社会适应水平，自我表露对社会适应有正向的预测作用。自我表露各维度对社会适应中的亲社会倾向有显著的预测作用。3.青少年人格特质和社会适应 、社会支持和社会适应、 自我效能感和社会适应分别有显著的相关性。4.青少年自尊对社会适应的直接效应和间接效应均显著。

结论　学校应当采取切实措施，把社会适应能力列入青少年培养方案，构建科学的社会适应能力培养的课程体系

关键字：青少年；社会适应

盐城市全市小学生心理健康状况及其影响因素

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目的　了解盐城市全市小学生心理健康现状，并对可能的相关因素进行分析。

方法　采用儿童抑郁障碍自评量表(DSRSC)、儿童焦虑性情绪障碍筛查表(SCARED)、Piers-Harris 儿童自我意识量表(PHCSS)、儿童社交焦虑量表(SASC)、儿童多动症核查问卷对盐城市各区县 88385 例小学生进行心理调查。采用卡方检验、秩相关、多因素回归分析等方法进行分析。

结果　88385 例研究对象中，焦虑情绪检出率为 19.1%，抑郁情绪检出率为 16.6%，社交焦虑问题检出率为 26.6%，自我意识水平偏低检出率为 18.2%，自我意识水平过高检出率为 55.7%，多动异常检出率 13.5%；其中，性别分布在抑郁情绪产生中差异无统计学意义（P>0.05），在焦虑情绪、社交焦虑、自我意识水平异常及多动异常产生中差异有统计学意义（P<0.01）；焦虑情绪与抑郁情绪、社交焦虑、多动异常呈正向关联（P<0.01），与自我意识水平呈负向关联（P<0.01）；抑郁情绪与焦虑情绪、社交焦虑呈正向关联（P<0.01），与自我意识水平、多动异常呈负向关联（P<0.05）。

结论　盐城市全市小学生心理问题发生率相对较高，其中焦虑情绪、抑郁情绪、社交焦虑、自我意识水平及多动异常是心理健康的重要影响因素，值得引起我们的高度重视。

关键字：盐城市，小学生，焦虑，抑郁，社交焦虑，自我意识，多动

重复经颅磁联合 SSRIs 对 NSSI 青少年抑郁障碍患者执行功能的改善作用

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目的　探讨重复经颅磁联合 5-羟色胺选择性重摄取抑制剂（SSRIs）对非自杀性自伤行为（NSSI）青少年抑郁障碍患者执行功能的改善作用。

方法　采取回顾性研究法，将 2021 年 8 月—2022 年 7 月在我院精神科收治的 120 例 NSSI 青少年抑郁障碍患者按照不同治疗方法分成对照组和观察组，对照组 60 例给予 SSRIs 治疗，观察组 60 例给予重复经颅磁联合 SSRIs 治疗，均治疗 2 个月。观察两组的抑郁症状（HAMD-24 评分）、SSRIs 评定量表（ANSSIQ 评分）、执行功能、血清学指标（BDNF、5-HT）以及临床疗效。

结果　观察组治疗后的 HAMD-24 评分（15.85±1.08 分）低于对照组（18.72±1.21 分）（t=13.707，P=0.000）；观察组治疗后 SSRIs 评定量表中两周内自伤次数、自伤冲动次数、自伤想法强烈程度的评分（3.51±1.68 分、2.15±1.00 分、3.00±1.45 分）均低于对照组（4.67±2.02 分、2.83±1.42 分、3.56±1.73 分）（t=3.420、3.033、1922，P=0.000、0.001、0.029）；观察组治疗后 ANSSIQ 评分中 TMT-A 测试、Stroop Word 测试、Stroop Color 测试、Stroop interference 测试的分数（40.13±6.26 分、83.57±7.00 分、59.31±5.11 分、39.24±4.63 分）均高于对照组（37.24±5.61 分、79.35±6.88 分、55.67±4.93 分、35.57±4.01 分）（t=2.663、3.330、3.971、4.641，P=0.004、0.001、0.000、0.000）；观察组治疗后的 BDNF、5-HT（11.45±1.79μg/L、136.68±11.90mg/ml）高于对照组（9.06±2.21μg/L、124.82±10.34mg/ml）（t=6.509、5.827，P=0.000、0.000）；观察组总有效率为 91.67%，高于对照组的 78.33%（x?=4.183,P=0.041）。

结论　重复经颅磁联合 SSRIs 治疗 NSSI 青少年抑郁障碍的效果较好，可减轻患者症状，提高执行功能、认知功能，改善血清学指标，值得推行。

关键字：重复经颅磁；SSRIs；NSSI；青少年抑郁障碍；抑郁症状；执行功能；血清学指标；临床疗效

The Moderation Effect of Regional Brain Activity on Childhood Trauma, Major Depressive Disorder and Its Symptom Dimensions: A Cross-sectional Study

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Objective Childhood trauma (CT) is a leading environmental risk factor for an unfavourable severity of disease in major depressive disorder (MDD). Evidence suggests that altered regional brain activity may play an important role in the association between CT and MDD. In this study, we aimed to clarify the relationship between CT, regional brain activity, and the severity of depression and its symptom dimensions in a cross-sectional design.

Methods Ninety-six patients with MDD and 82 healthy controls (HCs) participated in this study. All participates are youths aged 12-24 years old. Regional brain activity was measured by the fractional amplitude of low-frequency fluctuation (fALFF) and regional homogeneity (ReHo). They were compared between MDD and HC groups, and extract the values of different brain regions as moderator.

Results We found increased fALFF and ReHo in the left middle temporal gyrus (MTG) in the MDD group compared to the HC group. Moreover, in the MDD group, the fALFF and ReHo in the left middle temporal gyrus moderated the positive correlation between CTQ score and HAMD score, retardation factor score respectively. More interestingly, CTQ score was associated with HAMD score only in medium to high regional brain activity.

Conclusion This study revealed moderating effects of regional brain activity on the association between CT and MDD. Additionally, increased regional brain activity strengthened the association between CT and depression, retardation symptom respectively. Increased regional brain activity may reflect a crucial neurobiological mechanisms for CT and MDD.

关键字：Childhood trauma; Major depressive disorder; retardation; fALFF; ReHo; Moderation

浅谈健康宣教对青少年非自杀性自伤的影响

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目的 探讨健康宣教对青少年非自杀性自伤的影响，引导青少年找到正确的缓解情绪方法，减少青少年非自杀性自伤行为。

方法 回顾性分析玉林市退役军人医院心理中心门诊 2022 年 1 月至 2023 年 1 月首次就诊的有自伤行为的 290 例青少年患者的临床资料，随机选取 150 例为研究对象，依据其进行自伤的原因分析，青少年自伤约 85%是为了缓解烦躁等不良情绪，约 5%是为了引起他人的注意，约 4%是真想自杀，剩余 6%是其他原因。除去约 4%（约 6 人）是真想自杀的患者，按照剩余的 144 例患者就诊时间的先后顺序分为相同的两组，即实验组和对照组各 72 例。对照组每次就诊时给予我院心理门诊就诊的常规药物治疗，心理治疗等,实验组患者每次就诊时除了常规治疗外，还特别进行了对疾病的发生、发展、预后，对自我正确认识，对青春期心理特点等相关健康知识的宣教（同时鼓励其父母共同参与健康宣教）。比较两组患者再次出现自伤次数、频率及情绪变化。

结果 实验组对于治疗依从性明显高于对照组，且自伤行为明显低于对照组。

结论 青少年非自杀性自伤行为发生率高，其自伤主要是缓解不良情绪，通过加强健康宣教，促进青少年自伤患者对疾病、对自我的了解，引导青少年找到正确的缓解情绪方法，进而减少自伤行为，以提高患者生存质量，临床推广价值显著。

关键字：健康宣教 青少年 非自杀性自伤

多元文化护理在青少年抑郁症中的应用

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目的 多种生活方式和多种思维方式的冲击，以及多元文化的环境护理对象、护理内涵等均对护士的素质提出了更高的要求。在中国大陆，围绕“以患者为中心”创新服务模式不断被深化落实，现已经成为医疗行业不可逆转的趋势。在这种文化背景冲击下，如何以满足患儿身心、社会、文化及发展的健康需要，实施整体护理，对于护理专业是一大挑战。然而抑郁症群体由于症状的特殊性和行为的多样性，易出现意外。现代医学的发展和现代医学模式对护理工作提出了更高的要求，人们对医疗服务需求越来越高，最大限度满足患儿的需求是医务工作者的目标。研究多元文化护理对抑郁症患儿健康状况及患儿与家庭的就医依从性的影响。

方法 选取 2021 年 9 月-2022 年 9 月重庆市精神卫生中心儿童青少年科 200 例住院患儿为研究对象，采用抑郁自评量表（SDS）、症状自评量表（SCL90）、汉密尔顿抑郁评定量表（HMD）对其进行集体测量。筛选出那些重度抑郁青少年及使用决策辅助工具 PDA 结合及莱宁格的日出模式与护理程序的应用，分别制定不同的多元文化护理方案，观察干预前后患儿临床症状、心理状态、生活质量及患儿及家庭的就医依从性。

结果 （1）实施普通整体护理组与实验前相对照,SDS、SCL90 得分在辅导前与辅导后有显著降低,具有显著差异。（2）采用多元文化护理在抑郁症患儿,显著改善了实验组患儿抑郁及人际交往能力、就医依从性，凝聚力等均有所提高，提升了其心理健康水平。

结论 多元文化护理可改善青少年抑郁症的临床症状、心理状态及生活质量，提高患儿及家庭的就医依

从性。

关键字：多元化护理；抑郁症；综合治疗；心理治疗

儿童青少年抑郁患者血清 BDNF 水平与精神病性症状的关系

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目的 探究儿童青少年抑郁患者血清 BDNF 水平与精神病性症状的关系

方法 入组符合《精神疾病诊断与统计手册》第五版（DSM-5）抑郁障碍诊断标准的患者 91 例，根据阳性和阴性症状量表（PANSS）中的阳性因子项目评分，将患者分为伴有精神病性症状组（31 例）和不伴有精神病性症状组（60 例）。此外，从某医院体检中心招募 59 名儿童和青少年作为健康对照组。采用汉密尔顿抑郁量表（HAMD）评估临床特征，以及超敏电化学发光技术（Meso Scale Discovery，MSD）测定血清 BDNF 水平，并进行组间比较。采用二元 Logistic 回归分析儿童青少年抑郁患者伴有精神病性症状的危险因素,并且应用受试者工作曲线(ROC)探讨相关因素的潜在预测价值。

结果 与健康对照组相比，抑郁组血清 BDNF 水平更低（t=-2.550，P=0.012）。与抑郁不伴有精神病性症状组相比，抑郁伴有精神病性症状组血清 BDNF 水平更低（t=2.674，P=0.009）；两组在 HAMD 总分（t=-4.490，P=<0.001）上存在明显差异，其中认知障碍因子（t=-5.367，P=<0.001）、阻滞因子（t=-2.191，P=0.028）、睡眠障碍因子（t=-2.249，P=0.025）、绝望感因子（t=-4.114，P=<0.001）上有差异；二元 Logistic 回归分析显示，儿童青少年抑郁患者血清 BDNF 水平（OR=0.189，P=0.008）、HAMD（OR=1.157，P<0.001）以及 BMI（OR=1.164，P=0.027）与精神病性症状相关；ROC 分析结果显示 BDNF 的线下面积（AUC）为 0.652，最佳截断点为 219.892pg/mL；HAMD 的线下面积（AUC）为 0.759，最佳截断点为 25.5 分。

结论 血清 BDNF 水平的降低、较重的抑郁程度以及较高的体重指数可能与儿童青少年抑郁患者伴发精神病性症状有关，其中血清 BDNF 的水平和抑郁程度可以作为儿童青少年抑郁伴有精神病性症状的预测因素。

关键字：儿童青少年抑郁；精神病性症状；血清 BDNF

青少年抑郁队列血脂代谢异常情况及抗抑郁药物的影响

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目的 通过对青少年抑郁障碍患者血脂代谢异常的状态及停用抗抑郁药物对其血脂代谢的影响，探究血脂与青少年抑郁障碍及抗抑郁药物的关系。

方法 选取 2021 年 1 月至 2022 年 11 月广州医科大学附属脑科医院门诊就诊的 123 例青少年抑郁障碍患者作为研究对象，按照治疗情况分为 3 组：首发未接受抗抑郁药物治疗者 106 例（首发组）、停用抗抑郁药物 2 周者 39 例（停用药物组）、持续接受抗抑郁药物治疗至少一年者 42 例（持续用药组），入组时，对研究对象采集身高、体重、腰围、臀围等基础资料，同时检测血清总胆固醇（TC）、甘油三酯(TG)、高密度脂蛋白(HDL-C)、低密度脂蛋白(LDL-C)水平，并进行汉密尔顿抑郁量表（HAMD）及杨氏狂躁量表（YM）评定抑郁症状程度；另取 34 例健康青少年作为健康对照（健康组）。比较首发组与健康组间血脂指标水平差异以探究青少年抑郁障碍患者血脂代谢异常情况；比较首发组、停用药物组、持续用药组间血脂指标水平差异以探究停用抗抑郁药物对青少年抑郁障碍患者血脂代谢的影响；对首发组进行 8 周的跟踪随访，观察抗抑郁药物对研究对象的基础资料及实验室血脂相关指标的影响。

结果 持续用药组患高 TC 血症的患者高于首发组和停用药物组，停用药物组患高 TC 血症的患者占比最低（P＜0.05）。接受抗抑郁药物治疗 4 周后，青少年抑郁障碍患者 HAMD 评分降低了 4.05 分（95%CI -6.37~-1.73）（P＜0.001）。接受抗抑郁药物治疗 8 周后，青少年抑郁患者 HAMD 评分降低了-7.09 分（95%CI -10.33~-3.85）（P＜0.001）。与基线相比，接受抗抑郁药物治疗后，青少年抑郁障碍患者肥胖及超重发病率由 4/41（10%）增加到 9/41（22%），高 TG 血症发病率由 0/41（0%）增加到 2/41（5%）。

结论 儿童和青少年抑郁患者在接受抗抑郁药物治疗后会伴随体重增加、高 TC 血症和高 TG 血症等不良事件，可诱发心血管疾病和代谢综合征。为了评估体重增加的风险及其对患者健康的影响，建议在治疗的第一周以及长期治疗期间评估体重变化和代谢监测。

关键字：青少年抑郁障碍 血脂代谢 抗抑郁药物

Association between Non-suicidal Self-injury and Theory of Mind in Adolescents with Depressive Disorder

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Objective To explore the characteristics of theory of mind(TOM) ability of adolescent depressive disorder patients with non-suicidal self-injury (NSSI) behavior,and analyze the relationship between NSSI behavior and TOM.

Methods A total of 38 adolescent patients with depressive disorder who were in Shenzhen Kangning Hospital from June to December 2021 were enrolled. They were divided into NSSI group(n= 29)and non-NSSI group(n= 9) according to DSM-V. And 23 healthy controls (n= 23) with matched sex,age and years of education were included.Hamilton anxiety rating scale-14 item (HAMA-14) and Hamilton depression rating scale-17 item(HAMD-17)were used to evaluate the severity of anxiety and depression. Hinting task was used to test TOM .Adolescents Self-Harm Scale was used to evaluate patients' severity of self-injury. SPSS 22.0 software was used to statistically analyze the data,compare the differences of ToM ,and Pearson correlation analysis was used to analyze the correlation between ToM of the NSSI group and the other scales.

Results Compared with patients in the healthy control group,patients in NSSI group had significantly lower scores of Hinting task ((16.10±2.74) vs (18.16±0. 83))(P< 0. 05).The patients in NSSI group had significantly lower lower scores of Hinting task ((16.10±2.74) vs (18.56±1.33)) than the non-NSSI group(P<0.05).There were no significant difference in scores of Hinting task between the patients in the healthy control group and non-NSSI group.Pearson correlation analysis showed that the scores of Hinting task of the NSSI group were negatively correlated with the scores of severity of self-injury(r=-0.406,P<0.05).and the scores of severity of self-injury were positively correlated with the scores of depression(r= 0.429,P<0.05).There were no significant correlation between the scores of Hinting task and the scores of depression.

Conclusion The impairment of verbal reasoning ability in adolescents with depression associated with NSSI may provide direction for early identification and intervention of NSSI in the future.

关键字：Depressive disorder; Adolescent; Non-suicidal self-injury; Theory of mind.

多动症患儿主要照顾者照顾负担现状及其相关影响因素分析

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目的 探讨多动症患儿主要照顾者照顾负担的影响因素。

方法 选取 2021 年 1 月~2022 年 6 月医院收治的多动症患儿主要照顾者 81 名，评估所有主要照顾者的照顾负担[照顾者负担量表（CBI）评分]，设计基线资料调查表，详细统计所有多动症患儿及照顾者的基线资料，比较不同资料特征多动症患儿主要照顾者的 CBI 评分，重点分析多动症患儿主要照顾者照顾负担的影响因素。 结果 :经评估，81 名多动症患儿主要照顾者的 CBI 评分为（55.37±6.74）分；不同多动症患儿病程、家庭月人均收入、家庭关怀度及受教育程度多动症患儿主要照顾者的 CBI 评分比较，有统计学差异（P＜0.05），其他不同资料特征多动症患儿主要照顾者的 CBI 评分比较，无统计学差异（P＞0.05）；经多元线性回归分析，

结果 显示，多动症患儿病程长、家庭月人均收入低、家庭关怀度低下及受教育程度低均是多动作患儿主要照顾者照顾负担的影响因素（P＜0.05）。

结论 多动症患儿主要照顾者的照顾负担水平较高，多动症患儿病程长、家庭月人均收入低、家庭关怀度低下及受教育程度低均、大多多动症患儿都是隔代教育是多动作患儿主要照顾者照顾负担的影响因素。

关键字：多动症；照顾者；照顾负担；影响因素

青少年非自杀性自伤药物治疗的研究进展

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目的 非自杀性自伤(non-suicide self-injury, NSSI)是指一种无明显自杀意图的故意伤害自己身体，且不会造成致命危险的一系列不被社会认可的行为表现。NSSI 多发于青少年阶段，虽不具有直接致死性，但其产生的消极情绪不仅对患者身心健康产生重大影响，也会对患者的家庭和社会造成负担。目前关于青少年 NSSI 的治疗方案缺乏充分的研究和数据支持，临床上尚未确定针对这种行为的有效而安全的药物治疗方案。由于 NSSI 常与心境障碍、边缘性人格障碍等精神疾病有关，因此药物治疗 NSSI 通常侧重于治疗共病的精神疾病，以减轻患者的消极情绪和心理负担。本研究旨在从不同类型的精神疾病药物的角度分析目前在治疗 NSSI 方面的研究进展。

方法 本研究通过检索 PubMed、Embase、Cochrane Library、PsycInfo 以及中国知网和万方等数据库，使用关键词“非自杀性自伤”、“青少年”、“药物治疗”，共筛选出 27 篇符合标准的文献，包括随机对照试验、综述和荟萃分析，通过系统综述更全面地评估药物治疗 NSSI 的有效性和安全性。

结果 1、单独使用抗抑郁药治疗伴有 NSSI 的抑郁症患者可以降低抑郁程度和 NSSI 行为，但患者的依从性较低；2、在临床实践中，更倾向于将抗抑郁药与抗精神病药物联合使用，相较于单独使用单一药物具有更好的疗效并且可以避免起效延迟的问题。在抑郁症急性期的治疗中，常常使用抗抑郁药物联合心境稳定剂，以显著改善患者的抑郁症状和认知缺陷，并降低自伤行为的发生；3、一些随机对照研究发现，抗抑郁药联合重复经颅磁低频刺激（rTMS）在治疗抑郁症青少年中的 NSSI 行为方面表现出良好的疗效，能够有效缓解患者的负性情绪，减少 NSSI 行为，并且其安全性更高；4、抗抑郁药联合心理疗法，如认知行为疗法或辩证行为疗法，可以纠正患者的消极应对方式，改善负性情绪，也被证明是一种有效的治疗方法；5、边缘性人格障碍患者，使用阿片类拮抗剂可以显著减少患者的自伤思想和行为。

结论 药物治疗在治疗 NSSI 方面通常是综合治疗方案中的非一线方案，应根据个体患有的共病情况

进行个性化的选择和监测。药物治疗的效果往往与其他治疗方法（如心理疗法）相结合使用时更为显著，因此综合治疗方案可能是更为有效的策略。

关键字：非自杀性自伤、药物治疗、抗抑郁药、联合治疗

心理创伤的外显—中国青少年非自杀性自伤行为的心理机制及风险因素

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目的 非自杀性自伤是指个体在没有自杀意图的情况下对自己身体表面造成的故意伤害，并导致出血、瘀伤或疼痛的行为。青少年是发生自伤行为的高危人群，我国青少年非自杀性自伤行为的发病率高于全球青少年平均发病率，且求助率远低于西方国家。为有效缓解我国青少年非自杀性自伤行为的发生，本文对青少年非自杀性自伤行为发生的心理机制及风险因素进行了梳理。

方法 通过文献综述的方法，本文最终共纳入 67 篇文章，检索数据取自科学引文索引拓展版 Web of Science 核心馆藏，最终总结出青少年非自杀性自伤行为的心理机制和风险因素。

结果 青少年非自杀性自伤的心理机制包括经验回避模型、情绪级联模型、认知情绪模型、获益阻碍模型以及四功能理论模型；影响青少年非自杀性自伤的风险因素涵盖了生物因素（基因、性别、年龄、智商、内分泌系统）、心理因素（人格特征、情绪特点、性取向）、环境因素（自然环境、社会环境、家庭环境及学校环境）以及临床因素（既往史、共病其他精神障碍、不良经历、睡眠问题、是否患有其他生理疾病）四大层面。其中独生子女、单亲家庭、居住环境从乡村到城市的迁移、留守儿童以及学业压力是中国社会变迁导致的特有的风险因素；不良的生活事件和童年经历是导致中国青少年自伤行为的最重要因素；不健康的网络使用是导致中国青少年自伤行为的新兴因素。

结论 本文以综合的视角对影响中国青少年非自杀性自伤行为的因素进行整理，有助于相关人员理解与把握我国青少年自伤行为发生原因及特征，未来的研究可在此基础上结合我国青少年非自杀性自伤特有的风险因素，进一步整合已有的理论模型，深入揭示我国青少年非自杀性自伤行为的发生机制，为解决这一公共卫生问题提出更加优良的方案。

关键字：非自杀性自伤；自伤行为；青少年心理

抑郁、焦虑对青少年非自杀性自伤行为的影响：一项基于网络分析的研究

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目的 青少年 NSSI 行为发生率激增，我国青少年 NSSI 行为的检出率 5.4%～33.8%，更为关键的是，NSSI 与情绪障碍有关，并且是自杀行为的风险因素，直接威胁青少年的生命安全，已经成为一个日益严重的健康问题。以往研究多通过横断面数据探讨变量间的关系，无法探讨变量间潜在的复杂关系；网络分析采用图论的方法建立观测变量之间的关系网络，构建变量间网络结构和拓扑属性。本研究采用网络分析方法，构建青少年 NSSI 和抑郁、焦虑情绪之间的症状网络，揭示网络结构中的关键节点，为精准、有效干预青少年 NSSI 行为提供理论依据。

方法 选取门诊就诊的 412 名伴 NSSI 行为的青少年，对青少年 NSSI 与抑郁、焦虑进行网络分析。在网络中，节点代表症状，边代表症状与症状之间的作用关系；其中万宇辉等编制的《青少年非自杀性自伤行为评定问卷》中功能问卷每一个条目为一个节点，行为问卷中无明显损伤的行为和有明显损伤的行为各为 1 个节点，PHQ-9 总分为抑郁节点，GAD-7 总分为焦虑节点，使用 R 软件包分析网络中的中心性指数和桥接中心性指数。

结果 正则化偏相关网络中心性分析发现，NSSI 功能节点“应对悲伤、失望的情绪”和“缓解压力或焦虑的心情”相关最强，这些节点多与负性情绪的表达与调节有关。青春期是青少年情绪反应增加的时期，绝望、无助感在青少年情感障碍的发生中起到重要作用，NSSI 作为情绪调节策略，具有调节负性情绪的功能。从中心性分析结果中可见，“有伤害自己的欲望，且无法停止”既是网络中心节点，又是网络桥接节点。表明这一节点与网络中的其他节点存在有着最广泛紧密的联系。此外，作为桥接节点，该节点一旦被激活，通过连接其他节点的边又激活其他节点，从而传播到整个网络。从整个网络来看， 这一节点的激活会有积极的作用，可以促进 NSSI 行为功能的发挥；但也会加重抑郁情绪，甚至会诱发对自己有明显伤害的自残行为方式，也会增加自伤的频率。

结论 青少年 NSSI 与抑郁在网络中连接更紧密；无法停止伤害自己的欲望不仅与其他节点连接广泛，且可以激活其他节点，维持 NSSI 行为。以此为干预靶点，可能有助于预防和减少青少年 NSSI 行为。

关键字：非自杀性自伤；青少年；网络分析；抑郁，焦虑

影响女性青少年抑郁症患者抑郁情绪的社会认知因素：人际信任、自尊和人际归因之间的相关关系研究

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目的 研究影响住院的女性青少年抑郁症患者抑

郁情绪的社会认知因素：人际信任、自尊和人际归因之间的相关关系。

方法 从 2021 年 6 月-2022 年 10 月于我院住院的女性青少年抑郁症患者中招募 166 例，签署知情同意后入组进行基线评估。评估内容包括一般人口学情况、抑郁情绪、人际信任、自尊和归因风格。采用儿童抑郁量表（CDI）、人际信任量表（ITS）、自尊量表（SES）和多维度—多归因因果量表（MMCS）分别评估患者的抑郁情绪、人际信任水平、自尊和归因风格。

结果 年龄、年级和抑郁情绪呈负显著负相关（r=-0.242，-0.226，p<0.01），住院次数和抑郁情绪呈显著正相关（r=0.168，p＜0.05）。人际信任、自尊、人际归因风格和抑郁情绪的相关关系分析结果表明抑郁情绪和人际信任、自尊呈负相关（r=-0.298，-0.705，p<0.01），抑郁情绪和人际内控归因、外控归因呈显著正相关（r=0.322，0.381，p<0.01）。人际信任和自尊呈显著正相关（r=0.313，p<0.01），人际信任、自尊和人际归因的两个维度呈显著负相关（p＜0.05）。对人际信任、自尊、人际归因和抑郁情绪相关关系的理论模型进行验证性分析，结果表明模型拟合良好，整体拟合指数均符合统计学要求。路径系数分析结果表明除了人际信任到抑郁情绪的路径系数没有达到显著水平（r=-0.06，p=0.298），其他路径系数均达到统计学上的显著水平（p<0.05）。

结论 自尊可以中介人际信任和人际归因对抑郁情绪的影响，是影响女性青少年抑郁症最重要的社会认知因素之一。提高自尊水平应该成为女性青少年抑郁症患者心理干预工作的重点。

关键字：女性青少年抑郁症，抑郁情绪，人际信任，自尊，人际归因

A Comparative Study of Psychological Intervention Approaches for Addressing Youth Dropout in Canada and China

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Objective The objective of this research is to compare the outcomes of different psychological interventions based on distinct counseling philosophies, methods, and orientations in the two countries. By examining which approach is more conducive to school reintegration, we aim to draw insights from each other's strengths and weaknesses, promoting mutual learning and improvement.

Methods Survey method, case-study method, meta-analysis

Results In China, counselors tend to align themselves with specific psychological schools, such as developmental psychology and cognitive-behavioral therapy (CBT). They tend to delve deep into clients' personal growth experiences, often requiring multiple counseling sessions (3 to 5) to address the underlying issues. However, clients may feel frustrated with the lack of noticeable change despite the financial investment. Moreover, Chinese counselors often attribute the reasons for youth dropout solely to parents, particularly mothers. This approach can leave emotionally drained mothers feeling even more desperate, distressed, and helpless, while acknowledging the crucial role of maternal emotional stability in resolving youth dropout issues. In contrast, Canadian counselors tend to address problems from the first session itself. They refrain from extensive exploration of clients' past experiences, as they believe that dwelling on the past has limited value in problem-solving. Instead, they prioritize present-focused interventions. Additionally, Canadian counselors emphasize the importance of affirming mothers for their efforts and recognize that no mother is perfect, aiming to stabilize their emotional state. From a societal perspective, Canada offers more free counseling resources, including specialized institutions such as adolescent mental health counseling. Furthermore, Canada emphasizes nature-based therapies and provides guidance to parents on effective communication and coping strategies, even providing specific scripts for challenging situations.

Conclusion In recent years, the number of youth dropouts in Canada and China has been increasing at an alarming rate, particularly in China. While the underlying causes of dropout vary due to cultural differences (such as academic pressure and communication issues in China, and substance abuse, aimlessness, sexual orientation, and gender identity in Canada), it is essential to explore and compare the psychological treatment strategies and approaches employed in both countries, as well as their efficacy and practicality.

关键字：youth dropout, psychological intervention, comparative study, China, Canada

童年创伤与青少年自杀意念的相关性分析

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目的 本研究通过对童年创伤的五个维度与青少年自杀意念进行了相关性分析，以明确各个维度是否对青少年自杀意念造成影响，从而早期发现并及时干预。

方法 本研究采用分层整群抽样，收集了 1666 名 8-18 岁的青少年心理健康问卷，在取得监护人知情同意后，通过童年创伤问卷（CTQ）进行问卷调查，分别计算童年创伤五个维度的创伤得分。根据是否存在自杀意念，将青少年分为自杀意念组和无自杀意念组。运用 SPSS25.0 对数据进行 Mann-whitney 秩和检验、spearman 相关、偏相关及 logistic 回归分析。

结果 1）自杀意念在性别、情感忽视、身体忽视、性虐待、情感虐待、躯体虐待、父母是否喝酒、父母是否吸烟、父母是否分开中存在显著差异性（p 值均<0.001）。 2）自杀意念与性别（r=0.141，p<0.001）、父母是否吸烟（r=0.098，p<0.001）、父母是否喝酒（r=0.100，p<0.001）、父母是否分开（r=0.123，p<0.001）、

情感虐待（r=0.333，p<0.001）躯体虐待（r=0.155，p<0.001）、性虐待（r=0.130，p<0.001）、情感忽视（r=0.206，p<0.001）、躯体忽视（r=0.128，p<0.001）中均具有相关性。 3）在控制了性别、父母是否喝酒、父母是否吸烟、父母是否分开后，自杀意念与情感虐待（r=0.351，p<0.001）、躯体虐待（r=0.137，p<0.001）、性虐待（r=0.071，p=0.004<0.05）、情感忽视（r=0.207，p<0.001）、躯体忽视（r=0.148，p<0.001）仍成正相关。4）性别（b=0.717，p<0.001）、父母是否分开（b=0.437，p=0.025<0.05）、情感虐待（b=0.295，p<0.001）、情感忽视（b=0.049，p=0.004<0.05）可以预测青少年的自杀意念。

结论 童年创伤是青少年自杀意念的重要危险因素，无论是否控制混杂因素，自杀意念与情感忽视及情感虐待均成正相关。

关键字：青少年 童年创伤 自杀意念

二甲双胍治疗儿童和青少年服用非典型抗精神病药引起的体重增加的 Meta 分析

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目的 本研究旨在评估二甲双胍是否能有效和安全地改善儿童和青少年服用非典型抗精神病药引起的体重和其他相关实验室指标的异常。

方法 计算机检索了 PubMed、Clinicatrials 等八个中英文数据库和两个中英文临床试验中心。收集各数据库自建库起至 2023 年 01 月 30 日之间所有关于二甲双胍辅助治疗儿童和青少年服用非典型抗精神病药物引起体重增加的随机对照研究，由两名评价员严格按照纳入和排除标准筛选和确认纳入的文献，并独立提取研究所需的数据以及评估文章的方法学质量。随机对照研究采用 Cochrane 偏倚风险工具评估每项研究的方法学质量。采用 Revman5.4 软件进行 Meta 分析。连续型变量采用均数差来合并效应量；分类变量采用比值比来进行汇总。本研究纳入文献数量及样本量少，故用 I?检验来计算异质性大小。本研究以经过自由度校正的 P 作为检验异质性的效应指标，若 P＞0.10、I?≤50%，表明纳入的各项研究之间异质性较小，则采用固定效应模型(fixed effects model) 进行 Meta 分析。若 P≤0.10、I?＞50%时，则表明各研究之间异质性较大，采用随机效应模型(random effects model) 进行 Meta 分析。

结果 共有 5 项临床随机对照研究，共 270 名参与者符合纳入标准，其中二甲双胍组 140 例，安慰剂组 130 例。参与者年龄在 6 至 18 岁之间。这些研究的时间跨度从 2006 年到 2021 年。二甲双胍的每日剂量为 500mg 至 1766mg，干预持续时间为 12 周至 9.7 个月。在结果指标上，与安慰剂组相比，二甲双胍组可降低体重(MD＝-4.25，95%可信区间[CI]: -5.55，-2.94；P < 0.001)和 BMI Zscore(MD = -0.13，95%可信区间[CI]: -0.14, -0.12；P＜0.001)，可改善胰岛素抵抗(MD＝-1.73，95%可信区间[CI]: -3.01, -0.46；P = 0.008)。此外，二甲双胍组恶心呕吐(OR＝4.61，95%可信区间[CI]: 1.55, 13.67；

结论 本篇 Meta 分析证据表明，二甲双胍可能会有效且安全地改善接受非典型抗精神病药物治疗的儿童和青少年的体重增加和胰岛素抵抗，但在得出结论之前，还需要更多高质量的证据

关键字：二甲双胍，非典型抗精神病药，儿童和青少年，体重增加，Meta 分析

青少年适应障碍的风险因素：病例对照研究

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目的 学校适应障碍是青少年适应障碍常见的表现形式之一，不仅会对青少年当前心理健康及人格发展产生不良影响，也会影响到成年后的社会适应。因此，本研究探索学校适应障碍的风险因素，为青少年学校适应障碍的预防提供参考。

方法 本研究参与病例对照的设计，在山东省某三甲精神科儿童青少年心理门诊或儿童青少年病房住院收集 12~18 岁的青少年适应障碍患者共 252 名，于济宁市某六所初高中收集健康青少年数据共 2617 例。按照年龄和性别进行一比一随机匹配，共纳入适应障碍患者 229 例（病例组：男性 65 例，女性 164 例），健康青少年 229 例（对照组）。使用简明国际神经精神访谈评估筛查青少年适应障碍患者，使用自编一般人口学问卷、学校适应量表受试者的一般人口学信息和学校适应情况。采用描述统计、独立样本 T 检验、Logistic 回归分析适应障碍的风险因素，以 95%的置信区间作为统计有显著意义的标准。

结果 适应障碍的青少年在学业适应、学校态度与情感、同伴关系、师生关系四个维度上低于健康青少年（t=1.90~7.40，P 均＜0.05）。Logistic 回归分析结果显示，与健康青少年相比，受教育年限越低（OR=0.625, 95%CI：0.473~0.826）、与父母分床年龄越晚（OR=1.138, 95%CI：1.026~1.261）的青少年属于适应障碍组的可能性越高；此外，相比于健康青少年，父亲离家在外（OR=2.010，95%CI：1.032~3.914）、有休学经历（OR=136.458, 95%CI：27.967~665.807）及转学经历（OR=2.902, 95%CI：1.079~7.802）的青少年属于适应障碍组的可能性较高。

结论 受教育年限低、与父母分床时间晚、父亲离家在外、有休学经历及转学经历是青少年出现适应障碍的风险因素。

关键字：适应障碍，青少年，风险因素，病例对照

基于微信平台的自我管理教育在青少年抑郁症患者中的应用分析

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目的 目前抑郁症作为一种常见的精神类疾病，发病率呈现出逐年升高的趋势，近年来青少年抑郁症占抑郁症患者的比例不断加重且发病率随着年龄增长而不断增加。基于微信平台的自我管理教育主要是针对患者出院后制定的护理方案，其遵循“以人为本”的理念，以患者为中心，通过微信平台对患者进行延伸式服务。本文探讨我科运用微信平台对出院后的青少年抑郁症患者进行自我管理教育的效果。

方法 选取 2022 年 1 月—2012 年 12 月这一阶段从我院出院的 132 例抑郁症患者作为研究对象，随机分为对照组和研究组，对照组 62 例，研究组 70 例。对照组进行常规的出院护理，研究组采用微信平台对青少年患者实施自我管理教育。 比较两组的护理效果。（具体干预方法： 微信平台护理小组全体成员均具备良好的沟通、表达和协调能力，全面了解自我管理教育相关的专业知识，熟练掌握微信的所有功能，且于培训和考核通过后方上岗。首先，出院前 1d，向患者及其家属发放介绍微信功能和印有公众平台二维码的卡片，由主管护师协助患者下载、安装和使用。全体成员一起编写微信发送的内容，审阅人员审阅后由管理员以文字、图片、语音或视频等形式进行发送，通过对患者进行一系列的健康宣教，并主动与患者沟通，认真倾听其不满，积极解答其疑问，指导其转移注意力的方式，调节自我情绪，同时告知患者家属多关心、陪伴患者，使其倍感温暖，感受到家庭和社会的关怀，有利于缓解其抑郁心理，提高服药依从性和护理满意度。 最后，病友之间相互沟通交流，小组成员积极引导，有利于进一步缓解患者的负性心理。）

结果 干预后，研究组 HAMD-17 （7.13±2.16）分，低于对照组（P＜0.05）；服药依从性（17.89±2.13）分，护理总满意度 97.79%，均显著高于对照组（P＜0.05）。

结论 相较于常规护理模式而言，微信平台的自我管理教育模式更具针对性、计划性、组织性，同时不被时空限制。 随着智能手机的大量普及，微信阅读不但具有经济性、连续性，而且操作简单、可以有效节省时间，使患者可以对自身病情进行实时监测，并与病友相互分享痛苦，从而加快康复。我科运用微信平台对出院后的抑郁症患者进行自我管理教育可以有效提高患者的服药依从性，减轻抑郁心理，提高护理满意度，具有临床可行性。

关键字：微信平台；自我管理教育；青少年抑郁症；依从性；护理效果

青少年抑郁障碍患者与父母对家庭功能的知觉差异

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目的 探索青少年抑郁障碍患者亲子间家庭功能知觉差异，多视角探索青少年抑郁障碍的影响因素，为探寻有效的心理干预提供理论依据。

方法 ①采用一般问卷、家庭功能评定量表(FAD)、抑郁自评量表（SDS）、Beck 自杀意念量表中文版（BSI-CV）对遵义市 2 所三甲医院临床心理门诊方便抽取的 290 例青少年抑郁障碍患者进行调查研究，采用一般问卷、FAD 对陪同患者就诊的一位父母进行调查。②采用一般问卷、FAD、中国中学生心理健康量表（MSSMHS-60）对贵州省遵义市三所初高中学生进行调查，用一般问卷、FAD 对贵州省遵义市三所初高中学生的父母进行调查，通过 MSSMHS-60 筛查出健康初高中生并随机选取 290 名健康初高中学生与其一位父母。

结果 ①根据 SDS 的评分标准，290 例青少年中度抑郁障碍患者有 96 人，占比 33.1%；重度抑郁障碍患者有 149 人，占比 51.4%；根据 BSI-CV 的评分标准，290 例抑郁障碍青少年中有 267 例有自杀意念，占比 92.1%。②在亲子间家庭功能知觉差异方面，青少年抑郁障碍患者在情感介入、行为控制、沟通等各个因子以及 FAD 总分的评分高于其父母，差异具有统计学意义（$p<0.05$，$p<0.01$）；健康青少年在 FAD 的总的功能、情感反应、角色等因子以及 FAD 总分的得分低于其父母，在问题解决维度因子得分高于其父母，差异具有统计学意义（$p<0.05$， $p<0.01$）。

结论 ①门诊青少年抑郁障碍患者的抑郁程度大多数达中重度，自杀意念检出率高。②青少年抑郁障碍患者知觉的家庭功能比其父母更消极，健康青少年知觉的家庭功能比其父母更积极。

关键字：抑郁障碍 青少年 家庭功能 知觉差异

Repetitive Transcranial Magnetic Stimulation Reversing Abnormal Brain Function in Mood Disorders Depressive Episode with Early Life Stress: From Preclinical Models To Clinical Applications

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Objective Early life stress (ELS) is a significant risk factor for developing mood disorders (MD), including major depressive disorder (MDD) and bipolar disorder (BD). A bottom-up approach to mood therapy, where manipulation of the primary cortex systems may impact the genesis of MD, which may provide a promising target for neuromodulation therapy. This cross-species translational study examined the effects of primary cortex repetitive

transcranial magnetic stimulation (rTMS) on adolescent chronic unpredictable mild stress (CUMS) rats and MD depressive episode patents with a history of ELS.

Methods We evaluated brain function patterns and behavior in the adolescent CUMS model. Then, we test the efficacy of rTMS targeting intervention on the brain functional patterns and behavior in this model. Subsequently, we recruited early adulthood MD depressive episode patients with a history of ELS. Evaluating brain functional patterns and symptoms of the clinical population. Finally, we test the efficacy of rTMS targeting intervention on the brain functional patterns in these patients.

Results Firstly, we identified cross-species neuroimaging patterns of the co-altered amplitude of low-frequency fluctuations (ALFF) in the brain on rodent models and clinical patients. The ALFF analysis revealed an increase in the primary cortex and a decrease in the subcortical in adolescent CUMS rats. Similarly, an increase in the primary cortex and a decrease in the frontal cortex in MD depressive episodes patents with ELS. Secondly, in regard to the effects of rTMS intervention, similar neuroimaging changes, particularly reduced primary ALFF, were found both in CUMS rats and adolescent patients, suggesting that targeting primary cortex rTMS may reverse the abnormal early stress neuroimaging pattern.

Conclusion Early life stress may lead to abnormal brain activity in the primary cortex. Primary cortex rTMS was proven to be an effective treatment for MD depressive episode patients with a history of ELS.

关键字：Early life stress; Mood disorder; fMRI; rTMS; CUMS; Depressive episodes

Ethics, Human Rights and Adolescents with Mental Disorders: Neglected Areas

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Objective Various nursing ethics and guidelines emphasize the importance of respecting adolescents' autonomy and involving them in clinical decision-making. But, due to the instability of adolescents' values, the participation of parents, and the specificity of mental illness. The implementation of autonomy for adolescents with mental disorders has significant barriers. Based on the case of John, this article will explore how psychiatric nurses make ethical clinical decisions when facing the violation of the autonomy of adolescents with mental disorders.

Methods The author bases on the the three ethical principles of autonomy, beneficence, nonmaleficence and combined with combined a case of a 14-year-old borderline personality disorder patient. The author discusses the autonomy of adolescent mental disorder patients from four aspects: the principle of protecting the best interest of adolescent, the decision-making ability of adolescent mental disorder patients, the joint decision-making and the psychiatric advance instruction.

Results The application of the best interest principle and paternalism in the treatment process among adolescents with mental disorders patients has resulted in limited autonomy that adolescents can exercise during the treatment. The application of shared decision-making and advanced psychiatric directives in safeguarding the autonomy of adolescents with mental disorders has difficulties. The authors found that assessing the patient's decision-making capacity and increasing family members' attention to the patient's autonomy are crucial aspects of ensuring the autonomy of adolescents with mental disorders.

Conclusion There is a lack of appropriate laws, regulations, or practice codes of conduct to safeguard the autonomy of adolescents with mental disorders. The implementation of autonomy for adolescents with mental disorders relies on the professional ethics of psychiatric nurses to achieve. This situation requires psychiatric nurses systematically review their beliefs and values in nursing practice and to apply compassion, caring, fairness, and honesty to clinical practice. Psychiatric nurses should maintain positive responses to what is beneficial to the patients.

关键字：Ethics, Autonomy, Adolescents with mental disorders (AWMDs), Psychiatric nurses.

伴非自杀性自伤行为心境障碍青少年患者父母内心体验的质性研究

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目的 深入了解青少年心境障碍患者父母经历子女非自杀性自伤行为的内心体验和感受，探讨针对父母进行干预的临床意义和对策，为预防青少年非自杀性自伤提供参考。

方法 采用目的抽样法选取北京某三级甲等精神专科医院收治的伴非自杀性自伤行为心境障碍青少年患者的父母 14 例，对其进行半结构式访谈收集资料。采用 Colaizzi 7 步分析法提炼主题。

结果 提炼出 5 个主题：①多重负性情绪体验②照顾负担重③疾病知识缺乏④个人及家庭成长⑤渴望专业帮助。

结论 医护人员需关注非自杀性自伤青少年患者父母的负性情绪及心理负担，通过专业干预提高其疾病认知、改善其家庭功能，从而预防和减少青少年非自杀性自伤的发生。 非自杀性自伤（non-suicidal self-injury,NSSI）是指在没有自杀意图的情况下，使用非社会认可的方法对自身身体组织进行故意的、直接的伤害，如切割、皮肤灼伤、撞击等[1]。新冠疫情以来，中国青少年 NSSI 的发生率呈上升趋势，引起了社会广泛关注[2]。它不仅严重危害个体心身健康，还造成了严重的社会影响和家庭负担[3]。青少年心境障碍包含抑郁障碍、双相障碍等几类亚型，此群体的 NSSI 风险显著高于一般人群[4]。现阶段国内的研究多围绕青少年 NSSI 的特征、发生机制、生物基础、干预方法等开展[5-8]，也有部分研究涉及青少年 NSSI 患者的感受和内心体验等[9-10]。但是，少有研究关注到 NSSI 患者父

母的情绪反应和内心感受等。本研究通过对伴 NSSI 心境障碍青少年患者父母进行深度访谈，了解其在照顾患者过程中的心理体验，探讨针对父母进行干预的临床意义和对策，为更好地预防青少年 NSSI 提供参考依据。

关键字：非自杀性自伤；心境障碍；照顾负担；家庭功能；质性研究

积极心理学视角下对青少年情绪障碍心理干预的研究进展

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目的 青少年是情绪障碍（Emotional Disorders）发生的主要群体，其临床表现以焦虑、抑郁、强迫或躯体功能障碍为主，发病原因十分复杂，其中生物学因素是最基本的原因，但在很大程度上，社会和心理因素也可以导致青少年情绪障碍。除此以外，儿童青少年自身的性格特点、自我意识、认知模式、甚至社会环境尤其是历史文化背景均是重要影响因素。在干预和治疗方面，有学者指出，对儿童和青少年情绪障碍使用药物治疗效果不佳，患者不良反应的发生率较高。研究显示，通过心理教育对有抑郁症状的青少年进行干预治疗，效果非常显著。除此之外，还有一些研究表明，使用药物结合认知行为疗法来对青少年情绪障碍进行治疗，也能获得显著的效果。近年来，积极心理学作为正在兴起的心理学研究领域，在青少年情绪障碍的预防、干预和治疗方面做了很多有意义的研究。本文拟总结在积极心理学视角下的心理干预在青少年情绪障碍人群中的临床应用， 以期为积极心理干预（PPI)的本土化提供循证医学证据。

方法 对国内外积极心理干预在治疗青少年情绪障碍领域的相关实证研究进行了分析和总结。

结果 本文主要介绍了青少年目前的情绪障碍现状，从理论和方法上对积极心理学进行了较为详细的阐述和总结；对国内外积极心理干预在治疗青少年情绪障碍领域的相关实证研究进行了分析和总结，并以此为基础，对积极心理干预在青少年情绪障碍领域未来进一步的发展方向进行了探讨，为更完善地构建情绪障碍青少年的干预模式提供参考。

结论 探索积极心理干预对预防和治疗青少年情绪障碍的作用有极其重要的现实意义。然而，作为新兴的取向，积极心理学同样存在发展缺陷，比如取样不够全面，以青少年为对象的研究还较少，多集中在临床疾病和精神障碍方面；干预方案不够系统和行之有效，对青少年情绪情感障碍问题预防的关注度仍有欠缺；由于东西方的社会文化价值取向存在差异，对积极品质的理解不同以及干预方案缺少针对性。在之后的研究和实践中，应该关注文化及个体差异，探索适合中国青少年群体的积极心理干预方案，有效促进积极心理学在中国的发展。

关键字：积极心理学、青少年、情绪障碍、心理干预、心理治疗

母亲应对方式对儿童青少年反刍思维的影响：心理韧性和孤独感的链式中介作用

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目的 家庭环境因素是影响孩子心理问题的重要因素之一，在传统的中国家庭中，母亲作为陪伴孩子最久的人，其在日常生活中应对各种问题的方式会从各个方面影响孩子的认知与行为，甚至对孩子的心理健康造成深远的影响。本研究旨在探讨母亲的应对方式对儿童和青少年反刍思维的影响，并考察孩子的孤独感与心理韧性在其中的作用。

方法 本研究共有 81 对亲子完成了问卷调查。采用简易应对方式量表（CSQ）、孤独感量表（UCLA）、心理韧性量表（CD-RISC）以及反刍思维量表（RRS）对各研究变量进行测量，采用斯皮尔曼相关，简单线性回归和中介效应模型对数据进行分析。

结果 （1）相关分析结果显示，儿童青少年的心理韧性与孤独感、反刍呈显著负相关（r=0.760、r=0.781;P 值均<0.001）；心理韧性与母亲的消极应对方式呈显著正相关（r=0.311;P=0.006）；反刍与孤独感呈显著正相关（r=0.778;P<0.001），与母亲的消极应对方式呈显著负相关（r=0.237;P=0.039）。（2）回归分析表明母亲消极应对方式与儿童青少年反刍之间有显著预测作用（P=0.028）。（3）链式中介作用分析表明，心理韧性、孤独感以及心理韧性-孤独感在母亲消极应对方式和儿童及青少年反刍之间的中介作用均显著(P<0.001)，总效应的效应值为-9.764 (t=-2.197、P=0.031)。链式中介效应占总效应的 46.3%。

结论 母亲消极应对方式可以负向预测儿童青少年的反刍思维；孤独感和心理韧性分别在母亲消极应对方式和反刍思维之间起中介作用；母亲消极应对方式可以通过孤独感和心理韧性间接影响反刍思维。

关键字：母子；应对方式；反刍思维；孤独感；心理韧性

非自杀性自伤青少年父母照护及应对体验的质性研究

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目的 描述和分析非自杀性自伤青少年父母照护及应对体验，为构建家庭支持方案提供依据。

方法 该研究为描述性现象学研究，采用目的抽样法，选取 2022 年 8 月—10 月在广州市某三级甲等医院就诊的19名非自杀性自伤青少年父母作为研究对象，进行面对面半结构式访谈，采用 Colaizzi 7 步分析法归纳并提炼主题。

结果 共提炼出 4 个核心主题：①父母照护非自杀性自伤青少年存在多种负性情感体验，包括彷徨无助和不知所措、恐慌和自责、愤怒而又悲痛；②父母通过多种方式营造良好的家庭环境，包括获取相关知识、改善沟通方式、增加陪伴时间；③部分父母缺乏有效的应对方式，处理问题的策略单一，包括暴力沟通、强硬制止、盲目满足；④外部支持不足，父母希望获得更多帮助，包括希望获得学校老师情感支持、接纳和尊重并提供正向引导；希望医护人员给予专业指导；希望社区制订措施并提供支持。

结论 父母在面对青少年 NSSI 行为时存在复杂的负性情感体验，部分父母期望通过改变家庭环境以减少青少年 NSSI 行为的发生，部分父母仍缺乏有效的应对策略，期待获得外部的支持。医护人员应关注父母的情感需求，给予其正向的引导，联合家庭、学校、社区探索有效的家庭干预策略，共同增进青少年的身心健康。

关键字：非自杀性自伤；青少年；父母；照顾体验；应对方式；质性研究；儿科护理学

自伤与非自伤青少年双相抑郁患者睡眠质量比较及其关系

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目的 比较自伤与非自伤青少年双相抑郁患者的睡眠质量，探讨存在自伤行为的患双相抑郁青少年的睡眠质量特征以及影响因素。

方法 选取全国16所医院的青少年双相抑郁患者290名，采用抑郁症筛查量表（Patient Health Questionnaire-9,PHQ-9）、焦虑症筛查量表（Generalised Anxiety Disorder Assessment,GAD-7）、匹兹堡睡眠质量指数量表（Pittsburgh Sleep Quality Index,PSQI）进行评定及对比。

结果 （1）有无自伤行为的青少年双相抑郁患者在年龄、PHQ-9、GAD-7 量表评分与精神病性症状评估得分方面均有显著差异（t＝-3.137、6.085、6.291、3.138，均 P＜0.01），表现为自伤组的平均年龄低于非自伤组，自伤组的 PHQ-9、GAD-7 量表得分与精神病性症状评估得分显著高于非自伤组。有自伤行为的青少年双相抑郁患者的匹兹堡睡眠质量指数得分显著高于无自伤行为的青少年双相抑郁患者（t＝6.304，P＜0.001）。（2）Logistic 回归分析结果表明，自杀行为、母亲受教育程度、焦虑程度和睡眠质量指数对青少年双相抑郁患者的自伤行为产生显著的正向影响（均 P＜0.05）。

结论 存在自伤行为的青少年双相抑郁患者的抑郁、焦虑程度与精神病性症状相比非自伤的青少年双相抑郁患者更加明显，且睡眠质量比非自伤的青少年双相抑郁患者更低。

关键字：青少年、双相抑郁、自伤行为、睡眠质量

The Psychometric Properties of Chinese Version of The Gilles De La Tourette Syndrome-Quality of Life Scale （GTS-QOL）for Children and Adolescents

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Objective Gilles de la Tourette syndrome (GTS) is a chronic neurological disorder that significantly affects the quality of life of individuals living with it. However, there is a lack of comprehensive measures to assess health-related quality of life (HR-QOL) specifically for GTS. This study is groundbreaking as it presents the first-ever disease-specific HR-QOL scale for children with Gilles de la Tourette syndrome in a Chinese sample.

Methods A total of 1121 children aged 6-16 years with diagnosed GTS for the development of the scale, and finally determined a disease-specific quality of life assessment tool. The GTS-QOL-Chinese consists of 24 items, scored between 0 and 4. Internal consistency was evaluated using Cronbach's alpha. Exploratory and confirmatory factor analysis were conducted for construct validity and item analysis. Validity was assessed using interscale correlations, convergent and discriminate construct validity was evaluated using correlations with other scales.

Results After reliability and validity analysis, a Chinese version of the 24-item GTS-specific quality of life scale was finally confirmed, including five subscales (psychological, compulsive, cognitive, physical, social). GTS-QOL-Chinese has proved satisfactory scaling hypothesis and acceptability. with a Cronbach's alpha of 0.93 and validity was supported by interscale correlations (range 0.46 -- 0.68). Exploratory factor analysis (EFA) revealed five factors and explained 61.259% of the total variation. Confirmatory factor analysis (CFA) proved that all the goodness-of-fit indicators were acceptable(AGFI=0.86, PCFI=0.78, GFI=0.89, CFI=0.89, RMSEA=0.07, SRMR=0.06).

Conclusion The Chinese version of the Gilles de la Tourette syndrome-quality of life scale(GTS-QOL-Chinese) for children and adolescents has good reliability and validity, and can be used to measure the quality of life of Chinese children and adolescents with GTS.

关键字：Gilles de la Tourette Syndrome, quality of life, tic disorder, Sinicization, reliability and validity

有自杀未遂史的青少年抑郁症患者脑白质弥散

张量成像研究

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目的 基于弥散张量成像技术，寻找有自杀未遂史的抑郁症患者脑白质特异性改变，并探索其与病情严重程度是否具有相关性。

方法 符合 DSM-V 抑郁症诊断标准，采用 17 项汉密尔顿抑郁量表（HAMD- 17）对 26 例自杀未遂青少年抑郁症患者、27 例无自杀未遂青少年抑郁症患者及招募的 16 例健康志愿者进行评估。采集弥散张量成像数据，应用纤维束示踪空间统计分析方法，对比自杀未遂组、无自杀未遂组及健康对照组之间的白质各向异性（fractional anisotropy,FA）分数差异，并分别对三组组间差异性脑区的 FA 值与 HAMD- 17 量表评分进行相关分析。

结果 与健康对照组相比，自杀未遂组 FA 值在左侧脑区广泛显著降低（P <0.05）， 其中包括：丘脑后部辐射、胼胝体压部、大脑脚。与健康对照组相比，无自杀未遂组 FA 值在左右脑区广泛显著降低，包括内囊、胼胝体压部、胼胝体膝部及胼胝体体部（P<0.05）。自杀未遂组与无自杀未遂组相比，FA 值在左侧内侧丘系、小脑上脚显著降低（P<0.05）。Spearman 分析结果显示，无自杀未遂组与健康对照组差异性脑区的 FA 值与 HAMD- 17 量表评分呈负相关（P＜0.01，rs=-0.564）。自杀未遂组与健康对照组两组差异性脑区的 FA 值与 HAMD- 17 量表评分呈负相关（P＜0.01 ，rs=-0.637）。 自杀未遂组与无自杀未遂组两组间差异脑区的 FA 值与 HAMD-17 分数之间没有相关性（P＞0.05）。

结论 1.与健康对照组相比，自杀未遂组与无自杀未遂组 FA 值降低的脑区在胼胝体有重叠。2.自杀未遂抑郁症患者存在特异性白质损伤，包括内侧丘系、小脑上脚以及丘脑后部辐射、胼胝体压部、大脑脚。3.与健康对照组相比，自杀未遂组及无自杀未遂组差异性脑区的 FA 值与病情严重程度呈负相关。自杀未遂组与无自杀未遂组差异性脑区的 FA 值与病情严重程度之间与无显著相关性。

关键字：抑郁症 青少年 自杀未遂 弥散张量成像 白质

1 例以疑人害和行为异常为表现就诊的青少年随访

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目的 儿童青少年精神障碍诊疗现状形式严峻，青少年的精神健康关系到他们正常的发育成长、学习和社交功能。青少年精神障碍患者的诊断应当谨慎，对以精神症状为首发表现的青少年的诊断提供新的思路。

方法 随访 1 例以疑人害、行为异常等精神症状为主要表现的青少年 1 年。患者曾某，男，12 岁，以“行为异常 1+月”就诊。现病史：1+月无明显诱因家属发现其晚上不睡觉，早醒，当时感觉有异样但并未在意。5 天前跟母亲说班上自己朋友在说自己各种不好、诋毁自己，也说这个朋友让其他同学也不喜欢自己。近几天在家时也能明确听到这个朋友在耳边评论自己，在家看到玩具的眼睛都要把它们转过去，认为玩具的眼睛代表邪恶势力，是那个朋友放进去的。认为自己的想法还没讲出来都被人知道了。认为监控器也是在监视自己，把家里客厅的监控器也面对着墙。既往史：既往体健。个人史：排行老二，母孕龄 35 岁，性格内向，与人交往不主查体：体格发育正常，神经系统、心肺腹阴性。精神检查：接触被动欠合作，表情有时忧郁有时自笑。暂未引出情绪低落，兴趣尚可，愉悦感正常，精力无明显下降。引出听幻觉、妄想等精神病性症状。否认情感高涨、活动增多和思维增快。自知力不存在。 诊疗过程：1.建议患者就诊于儿童神经内科排除脑器质性疾病后再就诊于我科。2.患者就诊于儿童医院神内科，住院行头颅 MRI：未见异常，视频脑电图：正常，脑脊液常规、生化和自身免疫性性抗体均为阴性。血液生化和传染病系列未见异常，当时住院第 3 天患者行为与睡眠明显好转。3.出院后于我科复诊：患者接触较前明显好转，否认被之前那个朋友害和否认听到有人议论，无明显行为问题和睡眠问题。自诉平时情绪可，兴趣爱好能正常保持，白天精力可。行近红外脑功能成像检查：脑血流激活小，抑郁状态。儿童抑郁障碍自评量表：6 分，儿童焦虑障碍筛查量表：17 分，儿童自我意识：正常。艾森克人格：内向、情绪平稳、人际关系可。父母养育方式：父亲和母亲不能以理解、温情的方式带养。

结果 随访发现患者尚不构成精神障碍的任何诊断，考虑与人际交往不良引起的急性应激反应。

结论 青少年因个性心理还未完全成熟，对社会的适应性和对挫折的承受能力差，易诱发情绪问题，但对于以精神症状为首发表现急性起病的青少年患者，临床诊断应更加谨慎，首先要排除脑炎、脑结构问题等脑器质性疾病，避免直接考虑精神分裂症诊断和使用抗精神病药。

关键字：青少年 精神症状 诊断 个案报告

家庭功能对抑郁障碍青少年自杀意念的影响：睡眠质量和反刍思维的链式中介作用

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目的 旨在探讨家庭功能对抑郁障碍青少年自杀意念的影响，及睡眠质量和反刍思维在二者中的作用

机制。

方法 采用方便取样的方法，在某三甲医院心理门诊收集首诊未服药抑郁障碍青少年患者（12-18 岁）406 名，使用一般情况问卷、家庭功能评定量表、Beck 自杀意念量表、匹兹堡睡眠质量量表、反刍思维量表进行调查。

结果 家庭功能评分为（2.61±0.29）、自杀意念评分为（18.94±10.02）、睡眠质量评分为（12.53±3.61）、反刍思维的评分为（60.83±12.70）。在 406 名抑郁障碍青少年中的自杀检出率为 89%、睡眠问题的检出率为 69%。并且家庭功能和睡眠质量之间呈正相关（r=0.18，p<0.01），家庭功能与反刍思维之间呈正相关（r=0.24，p<0.01），家庭功能与自杀意念之间呈正相关（r=0.30，p<0.01），睡眠质量和反刍思维之间呈正相关（r=0.48，p<0.01），反刍思维和自杀意念之间呈正相关（r=0.44，p<0.01），睡眠质量和自杀意念之间呈正相关（r=0.40，p<0.01）。家庭功能和自杀意念的直接效应值为 6.48（95%CI=3.53～9.42），家庭功能通过两条路径间接影响自杀意念，睡眠质量的单独中介效应值为 1.44（95%CI=0.55～2.36），反刍思维的单独中介效应值为 1.55（95%CI=0.67～2.54），睡眠质量和反刍思维在家庭功能和自杀意念之间的链式中介效应值为 0.78（95%CI=0.28～1.50）。

结论 抑郁障碍青少年个体的家庭功能越不良抑郁障碍青少年自杀意念越高，家庭功能可以通过睡眠质量和反刍思维的链式中介作用间接影响抑郁障碍青少年自杀意念。这也就意味着抑郁障碍青少年的家庭功能的提高有利于改善其睡眠质量、降低反刍思维以及个体的自杀意念。

关键字：抑郁障碍 青少年 家庭功能 睡眠质量 反刍思维

潮汕地区非自杀性自伤青少年症标志物与冲动性的研究

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目的 青少年是 NSSI 的高发人群。NSSI 行为严重损害了青少年的身心健康和社会功能，是青少年自杀的重要危险因素，因此及早预测青少年 NSSI 的发生具有重要意义。许多研究表明冲动性是 NSSI 行为的风险因素，并有研究表明炎性标记物与冲动性相关。本研究的目的是分析炎症标志物是否在冲动性与 NSSI 行为倾向之间起中介作用，从而利用炎症标志物来预测青少年的 NSSI 行为。

方法 研究纳入来自汕头大学精神卫生中心伴有 NSSI 行为的 10-18 周岁门诊或住院患者共 50 名。所有患者均完成一般人口统计资料表，巴瑞特冲动量表、NSSI 问卷等。用化学发光免疫分析测定血清肿瘤坏死因子-α（TNF-α）、白介素 1-β（IL-1-β）、白介素 6（IL-6）等血液生化指标，根据完整的血细胞计数计算中性粒细胞-淋巴细胞比率(NLR)、单核细胞-淋巴细胞比率(MLR)和血小板-淋巴细胞比率(PLR)。

结果 两组的人口学数据差异无统计学意义。与非 NSSI 组比较，NSSI 组青少年淋巴细胞计数、单核细胞计数、血小板计数和 IL-6 水平显著低于于非 NSSI 的青少年(分别为 p=0.000，p=0.000，p=0.000, p=0.042)。NSSI 组的中性粒细胞计数和 NLR 明显较高(p = 0.000,p = 0.031)，青少年巴瑞特冲动量表得分与 IL-6 水平呈负相关（b=-1.777，β=-0.358，P=0.021）。

结论 炎症标志物的改变，如较低的 IL-6 和较高的 NLR，被发现与青少年的 NSSI 密切相关，同时有较低的 IL-6 的青少年冲动性更高，并且他们更有可能是潜在的双相情感障碍患者。这项发现可能能够帮助医护人员提早识别伴有 NSSI 行为的青少年并及时提供帮助。

关键字：非自杀性自伤 炎症标志物

亲子冲突对青少年反刍思维程度的影响：述情障碍的中介作用

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目的 家庭作为青少年的主要生活场，亲子冲突对青少年情绪障碍有深远的影响。本研究旨在探讨亲少年反刍思维现状及其影响因素，并分析青少年亲子冲突和述情障碍对反刍思维的影响路径，为改善青少年反刍思维提供参考依据。

方法 选取北京市 76 名青少年为调查对象。采用亲子关系量表评估青少年亲子冲突水平；反刍思维问卷评估反刍思维程度和多伦多述情障碍量表评估述情障碍程度。运用 Hayes 编写的 SPSS-process 的模型 4 进行中介效应分析，采用 Bootstrap 法进行中介效应检验。

结果 （1）青少年亲子冲突得分为（20.29±6.43）分；多伦多述情障碍量表得分为（55.92±15.30）分；反刍思维量表得分为（47.43±17.81）分。（2）青少年年龄（F = 3.908, P = 0.024）是反刍的影响因素。（3）青少年反刍思维得分与亲子冲突得分（r = 0.326，P < 0.001）呈正相关；青少年反刍思维得分与述情障碍得分（r = 0.667，P < 0.001）呈正相关；青少年亲子冲突得分（r = 0.332，P < 0.001）和述情障碍得分呈正相关。（4）述情障碍得分在亲子冲突得分和青少年反刍思维得分之间的中介作用检验结果表明，述情障碍得分在亲子冲突得分与亲少年反刍思维得分间中介作用显著，中介效应占总效应的比例为 64.75%。

结论 青少年年龄是反刍思维的影响因素。述情障碍在亲子冲突与反刍间起完全中介作用，亲子冲突能通过述情障碍间接影响青少年反刍倾向。

关键字：青少年；亲子冲突；述情障碍；反刍

抑郁障碍青少年自杀未遂的临床特征及影响因素研究

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目的 探讨抑郁障碍青少年自杀未遂的临床特征及影响因素，为有针对性开展青少年自杀行为的危机预防和干预提供依据。

方法 选取 2021 年 5 月至 2023 年 4 月在遵义医科大学附属医院、重庆大坪医院、贵州省第二人民医院、遵义医科大学第二附属医院临床心理门诊确诊的首诊抑郁障碍青少年进行问卷调查，最终回收有效问卷 396 份。问卷内容主要包括一般情况自编问卷、青少年自评生活事件量表、抑郁自评量表、Beck 自杀意念量表中文版、Barratt 冲动量表。根据近一年内是否有自杀未遂史将患者分为自杀未遂组（n=247）和无自杀未遂组（n=149），比较两组患者资料，并采用多因素 Logistic 回归分析探究抑郁障碍青少年自杀未遂的影响因素。

结果 抑郁障碍青少年自杀未遂报告率为 62.37%。自杀未遂组与无自杀未遂组比较，自杀意念强度总分[(25.30±5.80)VS(14.44±11.49) 分]、抑郁总分[(75.51±7.38)VS(68.94±8.43)]、生活事件总分[(57.34±19.22)VS(43.59±17.79)]以及冲动特质总分上[(69.49±7.91)VS (65.01±8.68)]，自杀未遂组均高于无自杀未遂组（P 均＜0.01）。意念强度大[OR=1.12，95%CI（1.09~1.16）]、青少年生活事件多[OR=1.02，95%CI（1.01~1.04）]是抑郁障碍青少年自杀未遂的影响因素。

结论 自杀意念强度大、青少年生活事件多是抑郁障碍青少年自杀未遂的危险因素，应引起家庭、学校、社会的重视。

关键字：抑郁障碍、青少年、自杀未遂、回归分析

团体认知行为治疗对药物稳定期 ADHD 患儿行为问题的疗效——执行功能的中介作用

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目的 探讨团体认知行为治疗（GCBT）对处于药物稳定期的学龄期注意缺陷多动障碍（ADHD）儿童行为问题的疗效；探讨在 GCBT 过程中，ADHD 儿童内在机制的纵向变化。

方法 研究样本来源于 2018-2021 年间广州医科大学附属脑科医院儿少科处于稳定药物治疗的 46 例学龄期 ADHD 儿童，进行连续 15 次 GCBT。采用一般情况调查表、中文版斯诺佩评估量表第 4 版（SNAP-IV、父母版）、执行功能行为评定量表（BRIEF、父母版）、Conners 评定量表（PSQ、父母版）、长处和困难问卷（SDQ、父母版）进行调查。由患儿家长于 T1 治疗前（第 1 周）、T2 治疗中（第 8 周）、T3 治疗后（第 15 周）根据儿童的实际情况填写量表。

结果 在基线时期，患儿年龄、性别、父亲文化程度和居住地是处于药物稳定期的学龄期 ADHD 儿童行为问题部分因子的影响因素（均 p<0.05）。经过 GCBT 后，学龄期 ADHD 儿童行为问题大部分因子得分在治疗前、中、后具有统计学差异（均 p<0.05）。T1 ADHD 症状、T2 执行功能、T3 行为问题及其因子均两两显著相关（均 p<0.01）。在 GCBT 过程中，T2 执行功能在 T1 ADHD 症状和 T3 行为问题之间起到正向中介作用，中介效应值为 0.493，占总效应的 75.27%；T2 执行功能在 T1 ADHD 症状对 T3 困难总分的影响中起到正向中介作用，中介效应值为 0.411，占总效应的 83.37%。

结论 团体认知行为治疗对于正在稳定服药的学龄期 ADHD 儿童的行为问题的改善具有积极的疗效——疗效来源于 T2 时期执行功能的中介作用。

关键字：团体认知行为治疗；学龄期 ADHD 儿童；ADHD 症状；执行功能；行为问题

不同气质 ADHD 儿童颜色偏好对空间工作记忆的影响

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目的 用空间工作记忆任务探讨 ADHD 儿童的空间工作记忆特点，并比较与正常儿童之间的差异。比较不同气质类型 ADHD 儿童的颜色偏好以及与正常儿童之间的差异。

方法 采用 3~7 岁儿童气质问卷（NYLS）、空间工作记忆测量任务、对偶比较法对 40 名 ADHD 儿童和 40 名正常儿童进行空间工作记忆特点评定和颜色偏好调查。结果 两组空间工作记忆正确率差异统计学意义（P<0.05），ADHD 组空间工作记忆正确率显著落后于正常对照组。两组在红、蓝的偏好上差异有统计学意义（P<0.05），在其余颜色偏好上差异无统计学意义（P>0.05），不同气质 ADHD 儿童颜色偏好仅在蓝色上有差异（P<0.05）。当刺激客体表征为蓝色时，在正确率上两组空间工作记忆正确率均提高（P<0.05）。

结果 两组空间工作记忆正确率差异统计学意义（P<0.05），ADHD 组空间工作记忆正确率显著落后于正常对照组。两组在红、蓝的偏好上差异有统计学意义（P<0.05），在其余颜色偏好上差异无统计学意义（P>0.05），不同气质 ADHD 儿童颜色偏好仅在蓝色上有差异（P<0.05）。当刺激客体表征为蓝色时，在正确率上两组空间工作记忆正确率均提高（P<0.05）。

结论 ADHD 儿童颜色偏好与正常儿童不同。不

同气质 ADHD 儿童颜色偏好相似，仅在蓝色上不同。颜色对空间工作记忆正确率有影响

关键字：ADHD；注意缺陷多动障碍；神经发育障碍；气质；工作记忆；空间工作记忆；颜色偏好

不同抑郁障碍背景下网络游戏成瘾与认知功能的关系：基于中国儿童青少年的横断面研究

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目的 本研究旨在探讨网络游戏成瘾对青少年心理健康状态的影响，以及不同抑郁严重程度下青少年网络游戏成瘾对其认知功能的影响。

方法 本研究采用方便抽样方法于 2022 年 9 月-10 月招募了江西省三所职业学校的 15092 名 12-18 岁在校学生为研究对象，根据网络游戏障碍量表将参与者分为有网络游戏成瘾状态组（得分≥23）和无成瘾组（得分<23），根据 9 项患者健康问卷将参与者分为轻或无抑郁症状（得分≤9）、中度（得分 10~14）、中重度（得分 15~19）和重度（得分≥20）抑郁症状组。采用 7 项广泛性焦虑障碍量表、7 项失眠严重程度量表等评估学生的心理健康状况，分别通过语音情绪识别测试、符号测验评估参与者的社会认知功能和信息处理功能。采用独立样本 t 检验和方差分析比较组间差异，采用 logistic 回归分析和偏相关分析探究网络游戏成瘾对青少年心理健康状态和认知功能的影响。

结果 共有 11546 名受试者被纳入最终分析，问卷有效率 76.5%，心理健康总体阳性检出率为：抑郁症状 43.1%、焦虑症状 25.9%、失眠症状 18.5%。在有无网络游戏成瘾组中，9 项患者健康问卷、7 项广泛性焦虑障碍量表、7 项失眠严重程度指数量表的差异均有统计学意义（P 均<0.05）。多因素 Logistic 回归分析显示，网络游戏成瘾会导致更高的抑郁症状（RR=4.90，95%CI：4.39-5.47）、焦虑症状（RR=4.47，95%CI：4.04-4.95）、失眠症状（RR=4.25，95%CI：3.81-4.73）风险。在无或轻度、中度、中重度、重度抑郁症状组中，网络游戏成瘾的发生率分别为 7.7%、24.0%、37.4%、45.5%，方差分析提示显著的组间差异（P<0.05）。针对不同抑郁症状严重程度的受试者进行的偏相关分析提示，网络游戏成瘾会导致青少年声音情绪识别能力的下降（R=-0.031，P<0.01），在不同抑郁症状严重程度的青少年中这种损害均存在，但网络游戏成瘾对符号测验正确率的负性影响仅在无或轻度抑郁症状（R=-0.037，P<0.01）和中度抑郁症状（R=-0.050，P<0.01）的青少年中被观察到。

结论 网络游戏成瘾是罹患抑郁、焦虑和失眠症状的危险因素，不论抑郁严重程度如何，网络游戏成瘾都会造成青少年的社会认知功能损害，但其对信息处理功能的损害似乎仅在轻中度抑郁障碍青少年中体现。

关键字：网络游戏成瘾 心理健康 焦虑 抑郁 失眠 认知功能

青少年非自杀性自伤与负性生活事件的关系

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目的 探讨负性生活事件对青少年非自杀性自伤(NSSI)的影响，以及述情障碍的中介作用和情绪调节的调节作用。

方法 选取 217 名青少年，采用渥太华自伤量表(0SI)评估其是否存在 NSSI 行为，NssI 行为特征及严重程度，青少年生活事件量表(ASLEC)评估负性生活事件的发生及其对青少 年影响的严重程度，多伦多述情障碍量表量表(TAS．20)评估个体述情障碍是否存在以及严重程度，情绪调节困难量表(DERS)评估个体调节情绪困难的程度。

结果 青少年 NSSI 严重程度、ASLEC 得分、TAS 得分以及 DERS 得分两两之间均呈正相关(r=0．64、0．61、0．59、0．78、0．61、0．64，均 P<0．001)。青 少年 NSSI 严重程度与 ASLEC 得分正向关联(β=0.49，P<0．001)；TAS 得分在青少年 NSSI 和 ASLEC 得 分之间起部分中介作用，中介作用大小为 0．21(95％CI：0．13～0．31，P<0．001)，中介效应占总效应的 43．1％；DERS 得分在青少年 NSSI 和 TAS 得分的关系中起调节作用(β=0．21，P<0．01)。

结论 青少年负性生活事件既可以直接作用于也可通过述情障碍间接作用于非自杀性自伤。情绪调节困难调节了青少年 NSSI 与述情障碍的关系。

关键字：儿童青少年；非自杀性自伤；负性生活事件；情绪调节

青少年非自杀性自伤现状及其与冲动性关系的研究

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目的 青少年是 NSSI 的高发人群。NSSI 行为严重损害了青少年的身心健康，严重影响青少年的社会功能，且与青少年的精神疾病有着密不可分的关系，及早预测青少年 NSSI 的发生具有重要意义。对于青少年 NSSI 行为已有不少研究。本研究的目的是调查中国汕头地区青少年非自杀性自伤现状及危险因素，并探究冲动性与 NSSI 行为倾向之间的关系。

方法 研究纳入来自汕头大学精神卫生中心伴有 NSSI 行为的 10-18 周岁门诊或住院患者共 69 名。所有患者均完成一般人口统计资料表，情绪及躯体症状量表，冲动、绝望及创伤量表、NSSI 问卷等。

结果 在调查的 69 名患者中，42 名确诊为抑郁症，15 名确诊为双相情感障碍，28 名共病焦虑、惊恐

等精神障碍。在 NSSI 组中，女性更喜欢通过掐、咬、在皮肤上刻字或者符号等行为自伤，更容易受同辈自伤人群影响而自伤，且难以停止。而男性更多是为了缓解压力或者焦虑心情而自伤。

结论 NSSI 行为严重影响了青少年的认知和情感发展。大部分青少年往往在 NSSI 行为被发现后就医。在青春期晚期出现 NSSI 行为的青少年，这一行为可能会伴随一生，同时她们伴发其他精神障碍的几率也增加，进一步加重成年后社会适应不良。同时，对未寻求治疗的伴有 NSSI 行为的青少年也应提早识别并加以关注。

关键字：NSSI，非自杀性自伤，青少年

5 例广泛性焦虑障碍儿童的父母支持性养育治疗疗效观察

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目的 父母支持性养育（Supportive Parenting for Anxious Childhood Emotions，SPACE）是耶鲁大学医学院儿童研究中心 Eli R Lebowitz 博士研发的一种治疗儿童焦虑情绪的心理方法，该方法的优势在于当儿童患者缺乏治疗动机或者因为其它原因不能来接受心理治疗的时候，可以通过干预父母对患儿顺应行为从而治疗患儿的焦虑症状。本研究主要观察 SPACE 对中国广泛性焦虑障碍儿童的疗效。

方法 对 5 位诊断轻中度广泛性焦虑障碍儿童（3 位女童，2 位男童，年龄 8~12 岁）的父母实施结构化的父母支持性养育治疗干预。5 位患者未使用精神科药物。治疗流程：①为父母介绍核心概念，如焦虑、顺应行为、苛求行为、父母支持性养育，目的是创造一种共同对话的基础，建立治疗联盟；②评估顺应行为；③选择一个顺应行为，写声明告知孩子父母接下来行为上的变化，将停止顺应行为计划告知孩子；④在家里执行和实施停止顺应行为计划，在实施前需充分讨论家长和孩子各种反应，讨论应对方法；⑤选择下一个顺应行为，制定下一个停止顺应行为的计划；⑥总结与反馈。

结果 经过 8 次 SPACE 干预治疗，5 位患儿父母报告患儿焦虑症状缓解，患儿应对焦虑的信心和能力提升；GAD-7 量表评分从 18~21 分降至 5~6 分；患儿的父母从患儿的焦虑纠缠中解脱出来。

结论 父母支持性养育治疗对中国儿童焦虑障碍的治疗疗效好。

关键字：父母支持性养育；儿童；广泛性焦虑障碍

眼动脱敏与再加工对伴非自杀性自伤行为青少年抑郁症的效果研究

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目的 本研究旨在评价眼动脱敏与再加工联合舍曲林对伴非自杀性自伤行为青少年抑郁症的效果。

方法 纳入符合《国际疾病分类第 10 版》（ICD-10）抑郁症诊断标准的住院或门诊伴非自杀性自伤行为的青少年抑郁症患者 120 例，通过随机数字表法将入组患者随机分为眼动脱敏与再加工联合舍曲林（联合治疗组，n=58）及单用舍曲林组（单药治疗组，n=62），分别在基线期、治疗后 2 周、4 周、6 周采用汉密尔顿抑郁量表（HAMD)、青少年非自杀性自伤行为评定问卷，评估患者抑郁症状及非自杀性自伤行为改善的效果。

结果 联合治疗组 58 例，脱落 5 例，单药治疗组 62 例，脱离 6 例。采用 ITT 数据集进行统计分析，重复测量方差分析结果显示：联合治疗组 HAMD 量表评分下降较为明显，两组间差异有统计学意义（F=78.12，P=0.001）；联合治疗组青少年非自杀性自伤行为问卷评分下降较为明显，差异具有统计学意义（F=56.78，P=0.023）

结论 眼动脱敏与再加工联合舍曲林能够显著改善伴非自杀性自伤行为青少年的抑郁症状，且能较大的改善非自杀性自伤行为，故眼动脱敏与再加工联合舍曲林可以作为治疗伴非自杀性自伤行为青少年抑郁症的有效干预措施。

关键字：眼动脱敏与再加工；舍曲林；非自杀性自伤行为；效果

青少年抑郁症患者家庭照顾者照护能力要素的质性研究

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目的 探索我国青少年抑郁症患者家庭照顾者照护能力内涵，为开展针对性的照护能力干预提供借鉴和参考。

方法 采用目的抽样方法，于 2021 年 12 月—2022 年 1 月在杭州市两所三甲医院儿童心理门诊选取 17 名抑郁症青少年家庭照顾者，结合 Farran 等照顾者照顾技能模型与 McClelland 冰山模型，结合本次研究目的，拟定访谈提纲。访谈时间为 30min 左右，采用面对面提问的形式进行半结构式访谈。该访谈提纲由 10 年以上临床经验的精神科医师和护士各 1 名进行修订。之后以 Nvivo 11.0 软件为辅助,结合主题分析法进行资料分析，确定主题。

结果 结果 共提炼出五大主题，即疾病知识、照护技能、照护态度、个人应对和寻求支持。看护人对疾病知识了解不足、缺乏专业化、权威化的知识宣教，对于用药及不良反应、防范风险、预后等方面知识欠缺，是造成看护人焦虑的主要因素，其次是情感支持，其中涉及陪伴、沟通、引导等方面的不足。另外，病耻感及接受理解程度低对于青少年抑郁症的康复也存在一定的阻碍。

结论 照护能力内涵丰富，抑郁症照顾者照护能力有待提升。医务人员应提供专业化的健康教育，以期提升照顾者照护能力，维护并促进其身心健康。

关键字：抑郁症；青少年；家庭照顾者；照护能力；质性研究

焦点式心理护理在青少年非自杀性自伤患者中的干预效果

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目的 观察在青少年非自杀性自伤患者(NSSI)护理中实施焦点式心理护理 ,对其治疗效果的影响。

方法 选取 120 例 NSSI 患者,在 2020 年 6 月至 2022 年 6 月期间于苏州市广济医院(以下简称“本科室”）接受治疗,随机分为观察组和对照组,各 60 例,对照组实施常规心理护理，即护理人员理解、同情患者,时刻关注患者的情绪和行为的变化，耐心倾听患者的诉说；为患者详细讲解治疗的方法及意义,使患者能够准确了解 NSSI 的相关知识,护理人员结合患者的病程进展, 强化与患者间的交谈,引导其讲述自身消极情绪,阐述原因,并与其共同分析消极情绪的危害及对家庭和家属的影响。观察组实施焦点式心理护理,即对患者实施抑郁心理焦点，慌张、焦虑心理焦点和质疑心理焦点，分别于入院当日、出院前 1d 采用青少年非自杀性自伤行为评定问卷(ASHBQ)、自伤功能评定量表(FASM)及明尼苏达多项人格测验(MMPI),分别测评两组患者自伤行为、自伤功能及心理状态。

结果 入院当日，两组各项临床指标对比差异无统计学意(P>0.05);出院前 1d ,相较于对照组,观察组 ASHBQ 量表评分、FASM 量表评分及 MMPI 量表评分均明显降低,差异具有统计学意义(P<0.05)。

结论 实施焦点式心理护理能够改善 NSSI 患者的心理状态，降低其自伤行为及功能 ,值得临床推广。

关键字：NSSI; 焦点式心理护理;自伤行为;自伤功能;心理状态

456 例重症病房儿童、青少年患者疾病诊断及治疗情况回顾性分析

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目的 调查成都市第四人民医院近 3 年收治在重症病房的儿童、青少年患者诊断、治疗等情况。

方法 对 2020 年 1 月—2022 年 12 月在成都市第四人民医院重症病房住院治疗的儿童、青少年患者出院当日的诊断分类及使用的精神科药物、是否进行 MECT 治疗等情况进行回顾性分析。

结果 （1）患者小于 15 岁的达到 45%，平均年龄 14.3 岁，平均病程 16.5 月，有家族史的 18.6%，平均住院时长 58.4 天，有 17.1%患者住院期间做过 MECT 治疗，18.2%患者出院转归为自动出院。（2）诊断频率依次为抑郁障碍、双相情感障碍、精神分裂症及相关精神障碍、通常在童年和青少年期发病的行为和情绪障碍、精神发育迟滞。（3）81.4%患者使用了非典型抗精神病药物，抑郁障碍患者使用频率前 3 位的抗抑郁药物为舍曲林、艾司西酞普兰、氟西汀；双相情感障碍患者使用频率前 2 位的情绪稳定剂为碳酸锂、丙戊酸镁缓释片；精神分裂症及相关障碍使用频率前 3 的抗精神病药物依次为喹硫平、阿立哌唑、利培酮。

结论 儿童、青少年精神疾病患者起病年龄早，阳性家族史比例高，使用抗精神病药物比例高，主要以非典型抗精神病药物为主，用来治疗精神症状、稳定情绪、改善睡眠，单一用药少，多合并使用情绪稳定剂。

关键字：儿童青少年；精神疾病；住院患者；精神科用药

抑郁障碍青少年自杀与自伤行为特征

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目的 旨在探讨抑郁障碍青少年自杀和自伤行为的特征。

方法 采用自编一般问卷、青少年非自杀性自伤行为评定问卷对某三甲医院心理门诊确诊的 266 名抑郁障碍青少年患者进行问卷调查。

结果 在自杀意念方面，抑郁障碍青少年患者中检出率为 96.62%，发生频率每周 1-3 次、4-6 次、7 次及以上的占比分别为 61.48%、26.46%、13.23%，引发原因中，报告学业压力、亲子关系、同伴关系的占比分别为 73.54%、50.19%、49.42%。在自杀计划方面，检出率为 80.83%，发生频率每周 1-3 次、4-6 次、7 次及以上的占比分别为 43.26%、12.09%、6.51%，引发原因中，报告报告学业压力、亲子关系、同伴关系的占比分别为 66.98%、54.88%、46.51%。在自杀未遂方面，检出率为 68.42%，在引发原因中，报告学业压力、亲子关系、同伴关系的占比分别为 68.68%、53.85%、47.25%。在非自杀性自伤行为方面，检出率为 95.4%，自伤方式以无明显组织损伤为主，发生频率依次为掐伤、用拳头击打硬物、抓伤、用硬物打伤自己等行为（83.83%、80.83%、76.32%、71.43%）；在引发原因中，报告应对悲伤、失望的情绪，缓解压力或焦虑的心情，逃避自己不喜欢的事情，表现自己的绝望和无助等的比例分别为 74.06%、69.92%、61.65%、58.27%。在自伤方式上存在性别差异，女生更偏向于割、刺、掐、抓伤自己，尤其在割伤和刺伤行为上发生率明显高于男性 (P

关键字：抑郁障碍；青少年；自杀；非自杀性自伤

Tongdu Tiaoshen Acupuncture for Adolescent Depression: A Randomized Controlled Trial

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Objective Observation on the Clinical Efficacy of Acupuncture with the Method of Tongyang xingshen in the Treatment of Adolescent Depression (AD).

Methods 64 patients with AD were randomly divided into an observation group (32 cases, 3 cases of dropped of) and a control group (32 cases, 4 cases of dropped of). The patients in the control group were treated with medications according to the treatment plan of psychiatrists (at least one medication was 5-hydroxytryptamine reuptake inhibitor). On the basis of the control group, the patients in the observation group were treated with Tongyang xingshen acupuncture, and Baihui (GV 20), Yintang (GV 24+), Fengfu (GV 16), Dazhui (GV 14), etc. Once a day, rest for 2 days after 5 consecutive days of treatment, with 2 weeks as a course of treatment. Both groups were treated for 2 courses of treatment. After 4-week treatment, the response rate of Hamilton depression scale-17 (HAMD-17) score after was evaluated in the two groups. The scores of HAMD-17 and Hamilton anxiety scale (HAMA) were compared between the two groups before treatment, after 2, 4-week treatment and 5 weeks after treatment (follow-up).

Results Compared with before treatment, the HAMD-17 and HAMA scores of the two groups of patients decreased after treatment for 2, 4-week and at follow-up ($P<0.05$), and the observation group was lower than the control group ($P<0.05$).

Conclusion Tongyang xingshen acupuncture can effectively improve depression and anxiety in patients with AD.

关键字：adolescent depression; acupuncture; Tongyang xingshen; randomized controlled trial (RCT)

Mll5 单倍体不足小鼠肠道菌群紊乱导致自闭症样行为

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目的 自闭症谱系障碍(Autism spectrum disorder, ASD)是一种常见的、高度遗传性的异质神经发育障碍，目前还没有可靠的诊断性生物标志物或针对ASD核心特征的精神药物治疗方法。研究发现，肠道共生菌群可以影响小鼠大脑发育和功能调节，并参与许多神经精神疾病(如焦虑和抑郁)的病理过程，影响多种复杂行为，包括社交行为和焦虑样行为。临床上，与健康儿童相比，ASD 儿童的粪便细菌谱显示致病细菌丰度较高，而有益细菌丰度较低，同时通过改变肠道菌群结构可以改善儿童 ASD 样行为。这些研究表明，肠道菌群可能对 ASD 的发展有重大影响。Mll5 作为一种 ASD 风险基因，参与肠道菌群稳态调节以及介导 ASD 样行为的具体机制尚不清楚。本研究旨在探讨 Mll5 单倍体不足小鼠肠道菌群结构变化对其ASD样行为的影响及具体作用机制。

方法 通过埋珠实验等行为学实验检测 Mll5 单倍体不足小鼠 ASD 样行为；通过血清中的异硫氰酸荧光素强度检测 Mll5 单倍体不足小鼠肠道通透性；通过 16sRNA 测序检测 Mll5 单倍体不足小鼠肠道菌群结构；通过免疫荧光实验、分子实验，电生理实验检测 Mll5 单倍体不足小鼠海马神经元和神经胶质细胞的状态以及相互作用。

结果 初期研究成果表明：Mll5 单倍体不足小鼠出现 ASD 样行为；16sRNA 测序结果显示 Mll5 单倍体不足小鼠肠道中毛螺菌科、拟杆菌属、丁酸弧菌属、副拟杆菌属等菌群出现差异变化。

结论 本研究发现Mll5单倍体不足小鼠肠道菌群结构紊乱并介导 ASD 样行为。

关键字：Mll5；自闭症谱系障碍；肠道菌群；菌群失调；

创造性戏剧游戏对孤独症儿童共同注意的干预效果

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目的 探讨以绘本为媒介的创造性戏剧游戏对孤独症（ASD）儿童共同注意的干预效果。

方法 选取在苏州市广济医院就诊的 48 例 4～7 岁孤独症儿童，使用随机数字表法随机分为研究组（n=24,绘本戏剧游戏干预）和对照组（n=24，常规干预），干预前及干预后第 6 个月末采用孤独症治疗评估量表（ATEC)、孤独症行为评定量表（ABC）和早期社会交流量表（ESCS）测量被试者在干预前后共同注意的能力是否有所提高，采用 SPSS 对数据进行统计分析，统计学方法使用两独立样本 t 检验和非参数秩和检验。

结果 干预前，两组儿童 ATEC、ABC 和 ESCS 评分比较无明显差异（$P>0.05$),干预后（1）ATEC 评分：干预前后两组 ATEC 评分差值有显著性差异（$t=6.14$，$P<0.01$）；（2）ABC 评分：干预前后两组 ABC 评分差值有显著性差异（$t=8.90$，$P<0.01$）；ESCS 评分：干预前后两组 ESCS 评分差值有显著性差异（$t=-28.42$，$P<0.01$）。

结论 与常规干预相比，创造性戏剧游戏干预的治疗效果要优于常规干预，并且可以改善孤独症儿童的共同注意，对孤独症儿童的视线转换、指示、展示等均有明显改善，因此创造性戏剧游戏是孤独症儿童康复治疗的有效方法之一。

关键字：创造性戏剧 游戏 孤独症谱系障碍 共同

注意

Guanfacine for The Treatment of Attention-Deficit Hyperactivity Disorder: A Systematic Review and Meta-Analysis

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Objective Non-stimulant guanfacine is a common second-line medication for attention-deficit hyperactivity disorder (ADHD). Numerous randomized controlled trials (RCTs) have explored the efficacy of guanfacine in ADHD treatment. This meta-analysis combined data from selected RCTs to analyze the efficacy and safety of guanfacine in treating ADHD.

Methods RCTs were identified from published sources through searches in PubMed, Cochrane Library, Web of Science, and Embase (up to February 2022), defining the Clinical Global Impression of Improvement (CGI-I) treatment response score of ≤ 2 as the primary outcome. Subgroup analysis was performed with a bound treatment duration of 10 weeks. Safety was defined by treatment-emergent adverse events (TEAEs).

Results Twelve out of 332 studies with 2653 participants were included. All studies compared guanfacine with placebos. Guanfacine was significantly more effective in treating ADHD (Risk Ratio [RR] 1.78, 95% CI: 1.59–2.01). In the 10 weeks subgroup, the efficacy in the guanfacine group compared with the placebo group was 63.6% versus 39.7%, respectively (RR 1.57, 95% CI: 1.37–1.79). Both subgroups lacked heterogeneity (I? = 0), and a funnel plot showed a low publication bias risk. Around 80% of participants in the guanfacine group experienced at least one TEAE, compared with 66.5% in the placebo group (RR 1.23, 95% CI: 1.14–1.32), with low heterogeneity (I? = 46, p = 0.05). The most common TEAEs in the guanfacine group were somnolence (38.6%), headaches (20.5%), and fatigue (15.2%).

Conclusion Guanfacine is safe and effective for treating ADHD, with no serious adverse events. Guanfacine should be considered as an effective treatment option where effectiveness or tolerability of the central nervous system stimulant is of concern. There is stronger evidence of efficacy for children; more clinical studies are needed for adults.

关键字：guanfacine, ADHD, adult ADHD, meta-analysis, non-stimulant treatment

自闭症谱系障碍的肠道菌群、微生物代谢产物及免疫标志物的研究

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自闭症谱系障碍(ASD)也称孤独症，是神经发育性障碍中最有代表性的疾病，通常起病于 3 岁以前，发病时会伴随着不同程度的精神发育迟滞，主要表现在社会交往障碍、言语和非言语交流障碍、重复刻板的行为模式和兴趣范围狭窄等方面。几十年来，ASD 的患病率显著增加，目前估计影响到 1%的总人口。 大量的研究表明肠道与大脑之间存在着一个脑一肠轴，这是大脑和肠道之间的生理双向复杂通信网络：包含了脑肠轴神经解剖通路，神经内分泌 HPA 轴通路，神经免疫系统，肠道微生物的代谢系统，肠粘膜屏障和血脑屏障。参与肠道中枢神经系统信号传导的神经、内分泌和代谢机制的破坏似乎与神经精神疾病有关，包括自闭症。在正常生理状态下，肠道菌群在保持着动态平衡并不对机体产生损害，当这种平衡因某些因素被打破而致使肠道菌群发生紊乱时，机体的代谢及稳态会随之发生变化，从而引起相应的临床症状及疾病。有人在动物实验中发现肠道微生物群失调会导致神经发育障碍，从而诱发行为和生理异常，如自闭症。一项 meta 分析总结了 ASD 与肠道微生物群组成之间的关联。患有 ASD 的参与者的嗜黏蛋白阿克曼氏菌、拟杆菌属、双歧杆菌、大肠杆菌和肠球菌的丰度较低，粪杆菌和乳酸杆菌的丰度较高，而瘤胃球菌和梭菌的丰度略有增加。证明了ASD儿童和正常发育儿童的微生物区系之间有重要的差异。 肠道和大脑也可以通过免疫途径相互影响，微生物多样性是维持免疫动态平衡的关键，因为它与肠道相关淋巴组织的发育有关 。ASD 有不同的炎症标志物，且自闭症患者的促炎症细胞因子的水平，如 IL-1β、IL-6、IL-8 和 IL12p40 在血浆中和正常对照组相比是显著升高的 。在自闭症患者中，肥大细胞的激活也可能导致免疫和神经炎性异常。 在神经内分泌方面，肠道细菌可以分泌一些神经活性物质，这些物质是神经细胞用来交流的化学物质，会影响大脑功能和心理健康，具有代表性的神经递质是 5-羟色胺（5-HT）和 γ-氨基丁酸（GABA）。有研究发现肠道菌群可通过 5-HT 通路引起自闭症儿童胃肠道不适，自闭症儿童的尿液和血液中的 GABA 水平极高，血氨水平也很高。本文主要通过肠道菌群、微生物代谢产物及免疫标志物等多种机制进行讨论，探究其与自闭症的关系，并且对益生菌 、粪便移植等治疗方法进行综述，旨在为临床提供帮助 。

关键字：自闭症，肠道菌群，微生物代谢产物，免疫标志物

自闭症患儿基于海豚仿生数字化训练平台模式下感统训练效果研究

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目的 自闭症患儿表现为社交障碍、兴趣狭窄和

重复刻板行为，部分患儿还伴随情绪行为异常、认知发育问题及其他共患病，对家庭乃至社会带来多重危害。目前临床上对自闭症患儿主要通过感统训练等方式进行康复，一旦确诊应尽早进行。但传统的感统训练，部分感觉异常的患儿配合度低，训练效果不佳。海豚仿生数字化训练平台（海豚屋）是目前国际国内先进的应用于自闭症患儿的康复设备，该设备可发射海豚仿生超声波束，提供沉浸式 AR 视听环境，激活患儿神经细胞，使其神经系统功能得到改善。本研究旨在将传统感统训练置于海豚仿生数字化训练平台内，并评估其训练效果。

方法 将 2022 年 9 月-2023 年 5 月于我科门诊治疗的 82 例 3-6 岁自闭症患儿随机分成对照组（n=41）和观察组（n=41）。对照组给予普通感统训练室内连续 20 天的感统训练，每天一次，每次 30 分钟，包含触觉训练、前庭平衡觉训练、弹跳训练、固有平衡训练和本体觉训练。观察组给予海豚仿生数字化训练平台模式下相同内容的感统训练。采用 SPSS18. 0 软件对儿童感觉统合评定量表和自编训练调查问卷（患者家属版）收集的数据进行统计与分析。

结果 接受连续 20 天的结构化感统训练干预后，观察组患儿的认知能力、语言交流沟通能力、语言表达能力、生活自理能力等方面评分均高于对照组，差异有统计学意义（P＜0. 05）。

结论 相比传统感统训练，基于海豚仿生数字化训练平台模式下的感统训练，对于自闭症症状改善效果更佳。这种治疗训练模式可最大限度向患儿提供沉浸式康复互动体验，使其浸润于丰富的 AR 视听环境中，提高患儿感统训练积极性，对自闭症患儿认知能力、语言交流沟通能力、语言表达能力、生活自理能力均有改善效果。但本研究仍然具有局限性，仅纳入 82 名研究受试者，且本研究部分时间段处于新冠疫情导致的封控期间，该时间段内患儿相关的认知等能力可能存在较大的差异性，需要进一步明确其影响程度。

关键字：自闭症 ；海豚仿生数字化训练平台 ；感统训练 ；效果研究

青少年焦虑抑郁的大脑网络特征：一项静息态与观影任务状态下的近红外脑成像研究

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目的 本研究通过功能性近红外脑成像技术(fNIRS)，探讨了静息态和观影任务状态下的青少年焦虑和抑郁背后的大脑网络特征，意在提供新的视角以理解和对待这些常见的青少年心理障碍。

方法 本研究共收集了 66 名青少年被试的数据，基于临床医生的诊断和简明儿童少年国际神经精神访谈儿童版(Mini International Neuropsychiatric Interview for children and adolescents,MINI-Kids)的评估结果被分为健康组，焦虑组，抑郁组和共病组。所有被试在静息状态和观影任务状态下进行了近红外测量。我们主要分析了小世界属性（Sigma）、标准化聚类系数（Gamma）、标准化路径长度（Lambda）、全局效率（Eg）和局部效率（Eloc）这五个指标，使用了皮尔逊相关与被试及其监护人过去一周的主观情绪报告值进行了相关性分析。

结果 我们发现所有病例组在静息状态和观影任务两种状态下的在脑网络特征有显著相关；组间差异分析结果显示各组在这些脑网络特征上没有显著差异。所有被试的监护人主观情绪报告焦虑分值与静息态下数据结果有显著相关，在观影任务下仅部分显著，监护人主观报告抑郁分值和静息态下数据结果有部分显著相关。

结论 本研究初步探索了青少年焦虑和抑郁状态下的脑网络属性。这些结果揭示了监护人的主观情绪评价报告对理解青少年焦虑和抑郁症状的重要性以及焦虑症状的严重程度与脑网络特征的相关性，提供了深入研究情绪障碍的神经生物学基础的有价值线索。

关键字：近红外；脑网络；情绪障碍；青少年

神经发育障碍领域中家庭干预疗法的发展、重要性和有效性研究：聚焦于自闭症谱系障碍和注意缺陷多动障碍

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目的 本文旨在全面概述神经发育障碍，尤其是关于孤独症谱系障碍（ASD）和注意力缺陷/多动障碍（ADHD）的文献及最新研究进行了总结。同时强调了家庭干预疗法对患有孤独症谱系障碍、注意缺陷多动障碍儿童的重要程度及有效性，并论述了家庭干预如何令父母和家庭在多个方面受益。

方法 本文基于近期关于 ASD 和 ADHD 的最新文献和相关研究，对家庭干预疗法的有效性、益处和挑战进行了回顾、分析与总结。

结果 ASD 和 ADHD 是两种较为普遍的神经发育障碍，对患者及其家庭的正常生活有极大的影响，因此诊后管理对患儿及家庭尤为重要，而家庭干预已成为儿童 ASD 和 ADHD 诊后管理的一个重要组成部分。家庭干预包括训练父母在家庭等社会环境中对其子女实施相应的治疗策略，从而提高患儿的技能并减少核心症状的严重程度。在孤独症谱系障碍中，家庭干预已经被相关研究证明可以改善社会交往和沟通能力，减少孤独症核心症状的严重程度。例如，针对孤独症患儿社会交往和沟通能力的家长干预（PACT）试验表明，家庭干预的实施使儿童发起的共同注意得到明显改善，并且，孤独症核心症状的严重程度也有所下降。在注意缺陷多动障碍中，家长行为管理训练（PTBM）是美国心理学会和美国儿科学会推荐的一线治疗方法，尤其是 6 岁以下的儿童。家长行为管理训练包括由专业人员教给家长一些策略和技巧，在家长正确实施策略和技巧的前提下，以增加儿童理想的行为，并减少多动、冲动和注意力不集中的行为。并且，家庭干预的实施对

父母的幸福感、养育自信、亲子关系等方面均有积极影响。虽然家庭干预的有效性得到了相关研究的证实，但依旧面临着一些挑战，例如：家庭干预的实施需要父母较高的积极性和依从性，同时，需要训练有素的专业人员对父母进行培训及督导。考虑到患儿与家庭的独特性，对干预计划进行调整并提供个性化干预也是需要被考虑在内的。

结论 在 ASD 和 ADHD 的诊后管理工作中，家庭干预起到了至关重要的作用。家庭干预不仅能改善疾病的核心症状，对于父母来说也十分有益，包括但不局限于家庭干预帮助减少父母的养育压力，提高父母的抚养能力，并改善亲子关系和家庭氛围。此外，家庭干预为家长提供相关技能和交叉领域知识，使其更好地理解和管理孩子的行为，从而改善亲子之间的互动质量，减少家长对于养育本身的心理压力。因此，家庭干预应该被认为是儿童 ASD 和 ADHD 诊后管理中不可或缺的重要组成部分。

关键字：神经发育障碍、孤独症谱系障碍、注意力缺陷/多动冲动障碍、家庭干预、家长行为管理培训、诊后管理

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伴非自杀性自伤行为的青少年心境障碍患者自杀未遂影响因素分析的研究

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目的 探讨了伴 NSSI 的青少年心境障碍患者 SA 的发生率及其影响因素。通过识别和针对这些因素，临床医生和研究人员可以制定更具针对性和更有效的干预措施，以满足患有心境障碍和 NSSI 的青少年的个体化需求。

方法 选取 8~10 周龄的雄性和雌性大鼠各 16 只，随机分为 4 组：雄性消退组（male extinction group）、雄性未消退组（male non-extinction group）、雌性消退组（female extinction group）、雌性未消退组（female non-extinction group）。按照分组对所有动物进行行为学训练后处死取脑进行 c-fos 免疫荧光染色，随后比较 15 个热门脑区的 c-fos 表达情况并与行为及脑区间进行皮尔逊相关性分析（Pearson Correlation Coefficient）。

结果 1.NSSI+SA 组与 NSSI 组在一般资料比较：NSSI+SA 组在女性、不完整家庭、性少数群体、经历校园欺凌、性虐待、同伴 NSSI 行为、同伴自杀行为高于 NSSI 组，差异均有统计学意义（P<0.05）。2.NSSI+SA 组与 NSSI 组在临床症状方面的比较：NSSI+SA 组在 HAMD-17 总分、认知障碍因子、睡眠障碍因子评分、HAMA 总分、精神性焦虑、YMRS 总分均高于 NSSI 组，且差异均有统计学意义（P<0.05）。3.NSSI+SA 组与 NSSI 组在自伤行为特征比较：NSSI+SA 组首次 NSSI 年龄、外在情绪调节能力低于 NSSI 组，NSSI 方式个数、NSSI 部位个数、成瘾性、采用抓伤、撞击头部、啃咬、割伤方式的比例均高于 NSSI 组，差异均有统计学意义（P<0.05）。 4.NSSI+SA 组与 NSSI 组在自杀意念特征比较：NSSI+SA 组自杀意念频率、持续时间均高于 NSSI 组，差异均有统计学意义（P<0.05）。

结论 首次 NSSI 年龄越大，外在情绪调节能力越强，SA 发生风险越低；但是，如果个体过去 NSSI 方式个数越多，自杀意念频率越高，SA 出现风险越高。

关键字：青少年心境障碍 非自杀性自伤行为 自杀未遂 影响因素

浅谈基层精神科门诊开展心理治疗

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目的 对基层精神专科的门诊开设临床心理科，开展心理治疗工作的建设和发展中的问题，进行思考与初步探讨。

方法 从心理治疗需求的特点、精神卫生工作任务与运行模式、精神科诊疗与心理治疗、心理治疗人才

队伍建设、基层精神专科特点等进行现状分析。

结果 基层精神专科门诊开展心理治疗工作的需求方面，表现社会理解还在问题解决层面，多是缓解症状或解决困扰的需求，因此多在心理咨询的层次解决心理问题；精神卫生工作任务与运行医院模式同心理治疗需求不相协调，医学教育中人文相关内容少，生物-心理-社会医学模式在临床实践中比较肤浅；精神科诊疗的模式与心理治疗要求不相匹配，在门诊中难以有相对独立区域、合适的流程等；在心理治疗人才队伍建设方面，主要存在学习、培训、管理、督导等方面的问题。

结论 基层精神科门诊开展心理治疗工作，需要开设临床心理科，并按标准和要求进行建设。引导社会的理性需求，加强社会层面的宣传。基层精神科开展心理治疗时要将工作任务与现实需求相统一、处理好社会效益与经济效益的关系、重视医学伦理的管理。医院要按临床心理科进行场所设置、人员配备、完善工作制度等。在开展心理治疗的临床工作时，要关注社会需求，特别是心身问题、情感问题、心理障碍等方面需求，根据基层精神科特点不断优化心理治疗服务的模式，解决好在建设与发展中遇到的实际问题。在心理治疗人才队伍培养时，在医学的学习内容之外，对心理学专业知识的学习，有临床心理学技能的培训，注重临床实践，培养哲学、心理学等理论性思维等。

关键字：基层精神专科 临床心理科 心理治疗

3H 护理模式对精神病患者住院满意度及依从性临床研究

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目的 探讨 3H 护理模式对精神科患者住院满意度及治疗依从性的影响。

方法 制定 3H 护理模式的活动方案，并将我院心理卫生中心开放式病房收治的精神疾病患者开展活动前后半年的住院满意度及治疗依从性作比较。 调查方法 护理工作满意度调查表是由四川大学华西医院统一制定，内容涉及入院介绍、安全防范宣传、护士仪表、护士操作、治疗相关健康教育、是否解决你的需求、工作人员的沟通、病房安静整洁、隐私保护、是否收取红包等 31 项条目，每 1 项条目评价标准分为满意、较满意、较不满意、不满意，其中满意和较满意的总和记为满意例数，较不满意和不满意记为不满意例数。2 组患者均采用问卷调查方式，进行住院患者对护理工作满意度调查。问卷调查均由经培训的护士派发问卷，发问卷前，告知患者及家属该调查的目的和意义，然后由患者或者家属以不记名方式完成，并当场收回问卷。护理干预：1 树立 H otel 护理服务模式理念 2 提供个性化、亲情化、人性化的休息环境；3 提供多元化平台，发挥患者特长，提高自信；4 特色系统的健康教育；5H ome 式护理服务-提供人文关怀

结果 展活动后患者的治疗依从性和患者满意度明显高于活动前($P < 0.01$)

结论 3H 护理模式更贴近患者的需要，有利于增加护患之间的信任度，减少医患矛盾，提高住院满意度及治疗依从性。

关键字：3H 护理模式 精神病患者 治疗依从性 住院满意度

MINI 自杀风险评估量表在精神科开放式病房的应用

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目的 在精神科开放式病房管理模式中，由于危险物品的易获得性及环境管理模式的改变，增加了自杀风险的发生率，为准确评估精神障碍患者自杀风险等级，并能快速筛查出精神科开放式病房不同精神障碍患者自杀风险，通过他评量表快速筛查，更有利于临床护理人员及时、准确筛查出自杀高风险患者，同时做好相应防范及安全措施，防止意外事件的发生。

方法 通过对精神科入住开放式病房的 801 例不同精神障碍进行评估，由责任护士在入院后即刻完成 MINI 自杀风险量表评定，及时判断患者自杀风险等级；并在入院后第三天、第五天进行量表复评。并对进行结果登记、分析、统计。

结果 801 例患者中共筛查出自杀高风险患者 178 例；自杀中风险患者 123 例。且在第三天复评 MINI 量表高风险 157 例，第五天高风险患者 62 例，呈快速下降的趋势，其中诊断“抑郁障碍”患者中自杀高风险占 62.9%；诊断“精神分裂症”患者中自杀高风险占 11.8%。不同精神障碍患者,不同年龄阶段患者自杀风险差异具有统计学意义（$P<0.05$）。

结论 在精神科开放式病房内仍存在较多自杀高风险患者，且在病种多样的开放式管理模式中通过量化评估可为住院患者安全提供护理依据，降低不良事件发生。

关键字：开放式病房；精神障碍；MINI 自杀风险评估量表

精神分裂症患者主客观睡眠质量及临床症状相关性

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目的 睡眠问题是精神分裂症患者的常见主诉，但其主观感受能否反映客观睡眠质量，与常人相比有何不同，这是开展睡眠相关研究时值得关注但尚无定论的问题。

方法 招募 18 至 45 周岁不伴睡眠障碍的精神分裂症住院患者（SCZ 组，n=72）为研究对象，同时招募无精神疾病及家族史的健康人群（HC，n=58）为对照，均接受整晚脑电记录，次日早晨评分：Q1 昨晚入睡耗时？Q2 夜醒次数？Q3 整体感觉睡得好吗？Q4 睡得深吗？Q5 跟平常睡眠质量相比如何？采用 Luna 软件分析各睡眠分期（N1、N2、N3、REM）的时间与占比、入睡潜伏期（Sleep_Lat）、睡眠效率（Sleep_Eff）、入睡后觉醒时间（WASO）等指标。分析两组各维度指标的特征及 SCZ 组与 PANSS 评分的相关性。

结果 与 HC 相比 SCZ 组 Sleep_Lat 及 WASO 更长（p<0.001、=0.032）、Sleep_Eff 更低（p<0.001）,N1 期时长及占比均更高（p=0.015、0.011）；在主观评估方面，SCZ 组入睡耗时（Q1）更长（p<0.001），但对整体睡眠感受方面（Q3、Q5），评分更高（p=0.042、0.007）；此外，SCZ 组 Q1 与 Sleep_Lat 的相关性（r=0.392, p=0.001）高于 HC 组（r=0.041, p=0.763）,Q3、Q4 与 Sleep_Eff 的相关性（r=0.348、0.298, p=0.003、0.011）也高于 HC 组（r=0.174、0.222, p=0.191、0.094），而 Q2 与 WASO 的相关性（r=0.071, p=0.553）低于 HC 组（r=0.316, p=0.016），Q5 与 N1 期时长及占比的相关性（r=0.085、<0.001, p=0.477、0.998）亦低于 HC 组（r=-0.264、-0.309, p=0.045、0.018）。SCZ 组 Q2 与 PANSS 阳性症状因子（r=0.256）、兴奋症状因子（r=0.315），Q4 与兴奋症状因子（r=-0.261），N1 占比与抑郁因子（r=-0.243）存在统计学弱相关（p=0.008~0.042）。

结论 SCZ 患者的客观睡眠质量低于 HC，但其整体主观感受优于 HC，部分受到了精神病理症状的影响。在主观感受与客观检测结果的一致性方面，SCZ 患者对入睡耗时、睡眠效率的感受更准确，而 HC 对浅睡眠、夜间觉醒的感受更准确。

关键字：精神分裂症，睡眠质量，主观评价，客观检测

新冠疫情后三甲综合医院工作人员的心理健康状况调查及原因分析

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目的 调查新冠疫情爆发半年后当地三甲综合医院工作人员心理健康状况，并对影响工作人员心理健康状况的因素进行分析。

方法 在 2023 年 3 月 1 日至 2023 年 3 月 21 日期间，面向儋州市三甲综合医院工作人员发放问卷星二维码进行线上测评，线上测评采用 SCL-90 症状自评量表。收集数据后对工作人员基本信息和 SCL-90 症状自评量表各因子进行分析。

结果 发放 200 份问卷，回收有效问卷 191 份，其中男性 44 人，占比 23.04%，女性 147 人，占比 76.96%；出生地为城镇的有 86 人，占比 45.03%；出生地为农村的有 105 人，占比 54.97%；已婚 159 人。占比 83.25%，未婚 32 人，占比 16.75%；SCL-90 症状自评量表总分大于等于 160 分的人数为 45 人，阳性率 23.56%。Logistic 回归结果显示：家中是否有未成年孩子(P=0.002)、老人(P=0.006)、工作年限为 5～10 年(相较于工作年限＜5 年)(P=0.042)、性别(P=0.035)是调查对象出现心理健康问题的影响因素。

结论 三甲综合医院和专科机构可以为那些面临精神心理问题的高风险工作人员提供适当的心理支持，以此来提升工作人员的心理健康状况。

关键字：COVID-19；综合三甲医院；工作人员；心理健康

规范化培训住院医生抑郁症状及影响因素分析

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目的 了解规范化培训住院医生存在的抑郁症状，分析其影响因素，探讨改善抑郁症状的措施。

方法 选择在浙江大学医学院附属邵逸夫医院参加规范化培训的 300 名住院医生为研究对象，采用问卷调查的形式了解规培医生存在的抑郁症状。调查问卷包括规培医生的基本信息和贝克抑郁自评量表。

结果 共发放调查问卷 300 份，收回有效问卷 240 份，有效率 80%。规培医生抑郁症状检出率为 26.7%，提示这部分规培医生可能存在显著的抑郁症状。单因素分析显示：住院医生的年级、工作压力、周工作时间、对培训基地的满意度、对心理健康知识的了解程度，是影响抑郁症状的相关因素。logistic 回归分析显示：规培年级、周工作时间、工作压力、对心理健康知识的了解程度是造成规培医生抑郁症状的主要因素。高年级规培医生相比低年级规培医生更容易出现抑郁症状，工作压力大、对心理健康知识缺乏了解的规培医生更容易出现抑郁症状。

结论 规培医生存在的抑郁症状较突出，缓解规培医生工作压力、进行心理干预等措施，有助于改善规培医生的抑郁症状。应在规培医生中定期开展心理健康教育活动，提高他们对心理健康知识的了解；对有明显抑郁情绪的规培医生，积极进行心理干预，促进其心理健康。

关键字：规范化培训住院医生，抑郁症状，影响因素

多发性硬化患者疲劳与抑郁症状的相关性

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目的 探讨多发性硬化患者疲劳与抑郁症状之间的关系。

方法 招募 2018 年 8 月～2021 年 7 月南京梅山

医院神经内科门诊多发性硬化患者 108 例，采用自编问卷收集患者人口学资料与疾病相关信息；采用疲劳影响量表修订版（MFIS）评估疲劳症状，以 MFIS 分≥38 定义疲劳；采用贝克抑郁量表第 2 版中文版评估抑郁症状；采用临床扩展致残量表（EDSS）评估神经系统损伤程度；采用健康状况调查问卷（SF-36）评估健康状况。

结果 多发性硬化患者疲劳的发生率为 50.9%（55/108），多因素 Logistic 回归分析显示，疲劳与 BDI-II分正向关联（OR=1.18，95%CI：1.09～1.28）。广义相加模型曲线拟合结果显示，疲劳与 BDI-II分之间为非线性关系，存在一个拐点。以拐点分段进行多因素 Logistic 回归分析显示，当 BDI-II<12.0，疲劳与 BDI-II分正向关联（OR=1.33，95%CI：1.15～1.54）；当 BDI-II≥12.0 时，疲劳与 BDI-II分间相关性无统计学意义（OR=1.04，95%CI：0.91～1.19）。

结论 多发性硬化患者疲劳与抑郁症状之间呈非线性相关关系，适当的抑郁管理可能有助于缓解疲劳症状。

关键字：多发性硬化 疲劳 抑郁症状 非线性关系

复发缓解型多发性硬化患者的抑郁症状与疲劳及生活质量的相关性

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目的 多发性硬化（Multiple sclerosis，MS）是一种慢性自身免疫性炎症性疾病，病因尚不明确，可导致大脑和脊髓中神经细胞进行性脱髓鞘损伤，这种损伤破坏了神经系统传输信号的能力，随着病情进展，可出现肌肉协调性丧失，进而严重影响患者的日常活动、社交和工作能力。复发缓解型多发性硬化（relapsing-remitting multiple sclerosis，RRMS）是其最常见的临床类型。本研究拟探讨复发缓解型多发性硬化患者抑郁症状与疲劳及生活质量的相关性。

方法 2018 年 8 月～2021 年 7 月在南京梅山医院神经内科门诊招募复发缓解型多发性硬化患者共 80 例，采用自编问卷收集患者人口学资料与疾病相关信息；采用贝克抑郁量表第 2 版中文版（BDI-II）评估抑郁症状；采用疲劳影响量表修订版（MFIS）评估疲劳症状；采用健康状况调查问卷（SF-36）评估生活质量。

结果 复发缓解型多发性硬化患者贝克抑郁量表分为 10.43±6.74 分，其中，轻度抑郁 11.3%（9/80），中度抑郁 11.3%（9/80），重度抑郁 1.3%（1/80）。多因素线性回归分析结果显示，贝克抑郁量表评分与年龄（β=0.17，95%CI：0.01～0.33）和 MFIS 分（β=0.14，95%CI：0.06～0.22）正相关，与情感角色（β=-0.05，95%CI：-0.08～-0.01）和精神健康（β=-0.59，95%CI：-0.20～-0.04）负相关（均 P＜0.05）。

结论 复发缓解型多发性硬化患者抑郁症状的发生率较高，需要重点关注高龄、疲劳程度重及生活质量较差的患者。

关键字：复发缓解型 多发性硬化 抑郁 疲劳 生活质量

抑郁症患者过量服用安非他酮诱发癫痫 1 例

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摘要 本文报道 1 例抑郁症患者过量服用安非他酮缓释片 2250mg 后出现癫痫发作的病例，在给予支持治疗和丙戊酸钠后未再出现癫痫发作。 临床资料患者女，52 岁，因“情绪低落、动力减退 12 年，再发 2 月”之主诉于 2023-02-16 第 3 次入住我院。患者于 2011 年跟家人发生矛盾之后，逐渐出现情绪欠佳。后因“功能性子宫出血和月经不调”情绪低落明显，做事情没有兴趣，饮食不佳，厌世，体重明显下降，2012 年在我院住院治疗，诊断“心境障碍 抑郁发作”，给予“文拉法辛 225mg/次，1 次/日”治疗 2 周 ，病情改善出院。院外坚持服药 2 年后减停。2017 年因与父母出现矛盾之后再次出现情绪低落，总是想一些非常悲观的事情，觉得活着非常的痛苦难受，想过自杀，再次来我科室住院，诊断“复发性抑郁障碍，目前为中度发作”，予以“文拉法辛 150mg/日”治疗 20 天，好转出院。出院后服药约 1 年半，情绪平稳，日常生活恢复至正常状态，将文拉法辛逐渐减量至停用。期间生活规律，情绪平稳，能正常工作，经常进行锻炼。2022 年 12 月感染新冠，病情改善后仍觉身上发冷、没食欲、背部及肋间神经痛，逐渐出现情绪异常，思想消极悲观，话少，不愿出门。1 月前开始逐渐加用文拉法辛 150mg/早、75mg/中，服药半月后自觉进食量恢复正常，身上疼痛减轻，但仍存在情绪低落，动力差，精力差，多数时间躺在床上，什么都不想做，食欲差，自觉没有饥饿感，悲观，消极想法明显，跟家人说自己活不成了，给家人交代后事。既往史：2017 年诊断“原发性甲状腺机能减退症”，长期服用优甲乐 25ug/日。无高血压、冠心病等各种心脏病病史。个人及家族史均无异常。 入院后查血、尿、便常规、肝肾功、电解质、性激素、甲状腺功能、心电图、头颅和胸部 CT 均未见明显异常。精神检查：意识清，时间、地点、人物定向力完整、正确。接触稍被动，问答切题，语速慢、语量正常、语调低，精神检查基本合作。感知觉和思维方面未查及异常。情感反应协调，可查及深刻抑郁体验：情绪低落、动力和兴趣差，精力差，自我评价低，悲观消极。注意力集中稍差，记忆力和智能粗测无异常。意志减退，社交活动减少，社会功能受损。自知力存在。根据以上病史、精神检查及 ICD?10 诊断标准诊断：复发性抑郁障碍，目前为重度发作。

关键字：安非他酮，抑郁症，药物过量，癫痫

以家庭为中心的护理模式在青少年抑郁症患者

中的效果观察及有效率分析

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目的 研究青少年抑郁症患者开展以家庭为中心的护理模式取得成效结果。

方法 选择 2021 年 1 月-2022 年 1 月收治的青少年抑郁症患者 88 例计入研究，开展随机数字表法设为 44 例，命为对比组（常规护理），研究组（基于以上开展以家庭为中心的护理模式），分析干预总有效率监测值结果，干预前后 BDI/MADS 测评值，干预前后 SF-36 测评值。

结果 本次实验数据可知，干预总有效率监测值内容上对比，研究组所获值更高，数据均优于比对组，存在差异化（P<0.05）；BDI/MADS 测评值内容上比对，干预后，研究组获值更理想，优于比对组，具备差异（P<0.05）；SF-36 测评值比较，干预后，研究组 SF-36 测评值各项内容改善理想，优于对照组，存在差异（P<0.05）。其也说明了当开展以家庭为中心的护理模式能够在短时间内改善患者的情绪，不良情绪得以纠正，生活质量较高。

结论 以家庭为中心的护理模式强调尊重，协作以及信息分享等，多鼓励和表扬家庭成员加入到患者的救治过程中，这不仅可以提升患者的安全感以及归属感，对于治疗能够支持和配合，这也能够让家庭成员在参与护理的过程中有着安全感以及成就感，家族的凝聚力更强。巧妙的应用以家庭为中心的护理模式通过不同途径和方法，让照顾者参与到对于抑郁症的预防过程中，这能够丰富家属的疾病认知，医院可以组织家属参与共同讨论，分享彼此照顾患者的经验，以及注意事项等，让患者和家属一同参与到疾病管理中，提升了家属的照护能力。临床上针对收治的青少年抑郁症患者应用以家庭为中心的护理模式，能够更好的纠正不良情绪，促使生活质量提高，值得宣传和应用。

关键字：以家庭为中心，护理模式，青少年抑郁症

积极心理干预在抑郁障碍伴非自杀性自伤行为青少年中的效果评价

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目的 研究抑郁障碍伴非自杀性自伤行为青少年在开展护理过程中实施积极心理干预成效。

方法 选择抑郁障碍伴非自杀性自伤行为青少年 80 例计入研究，时间范围设为：2020 年 9 月-2021 年 9 月，分组利用函数随机排列设为设为 40 例/组，命为试验组、参照组，其中参照组（基础性护理），试验组（ 基于以上同时开展积极心理干预），分析干预前后抑郁情况改善结果，干预前后 QSI 结果，干预前后心理健康程度评定。

结果 ① 抑郁情况改善结果内容上比较，干预前，两组无差异（p>0.05）；干预 2、3 个月，试验组改善结果理想，优于参照组，P 值＜0.05；② QSI 结果比较，干预前，两组无差异（p>0.05）；干预 3 个月，试验组得分均低于参照组，P 值＜0.05；③心理健康程度评定结果比较，干预前，两组无差异（p>0.05）；干预后，试验组各项评分指数结果更低，优于参照组，差异具有同质性（P<0.05）。

结论 抑郁障碍伴非自杀性自伤行为青少年开展积极心理干预，更有利于情绪的改善，出现自伤行为减少，能够尽快回归正常生活中，值得普及和应用。

结论 抑郁障碍伴非自杀性自伤行为青少年开展积极心理干预，更有利于情绪的改善，出现自伤行为减少，能够尽快回归正常生活中，值得普及和应用。

关键字：积极心理干预；抑郁障碍；非自杀性自伤行为

支持性心理干预在慢性精神分裂症康复治疗中的应用分析

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目的 分析研究对于慢性精神分裂症患者在康复治疗的过程中采用支持性心理干预的效果。

方法 随机选择我院收治的患有慢性精神分裂症的患者共 108 人进行对比分析，时间在 2021 年 5 月 - 2022 年 5 月间，并将这些患者分为采用常规康复治疗的对照组和采用支持性心理治疗的观察组，每组均为 54 人。

结果 经过治疗后，从 HAMD 、HAMA 评分和 SDSS 、PSQI 评分方面进行对比分析，与对照组相比，观察组明显更低，两组具有明显差异。将两组患者的 HAMD 、 HAMA 评分进行对比分析，结果显示，护理前，两组患者没有明显是差异；护理后，与对照最相比，观察组明显更高。具有明显差异（P<0.05）。通常来说，有以下几种因素都有可能导致精神分裂症的发生：遗传因素，精神分裂症患者的近亲属患精神分裂症的风险更高，单卵双胞胎高于异卵双胞胎；环境生物学和社会心理学因素、孕产妇病毒感染、围产期并发症、早期环境压力、性格等；神经生化因素、多巴胺功能亢进假说、谷氨酸生化假说、血清素假说等；脑病理改变与神经发育异常假说。精神分裂症患者的病情和对周围人的误解，使患者逐渐变得自卑、不被人待见，进而失去日常自我保健的能力。可见，在对慢性精神分裂症患者进行康复的过程中，运动治疗联合心理护理具有明显效果，同时，患者的生活质量也可以得到有效的改善。

结论 在对慢性精神分裂症患者进行康复治疗的过程中，采用支持性心理治疗具有明显的效果，可以有效的缓解患者的不良情绪，使得患者的生活质量可以得到有效的提高。

关键字：支持性心理干预，慢性精神分裂症，康复治疗

综合医院精神科高级实践护士的发展现状与思考

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摘要 高级实践护士（APN）现已成为护理学界较为推崇的新模式，APN 在降低患者再入院率、减少住院时间、改善患者的健康状态的前提下，同时能够提高医疗服务的可及性。在 APN 聚焦的 6 类人群中，精神心理健康人群占据了一大类，而精神科高级实践护士是提高精神卫生保健质量的重要和独立资源，但也是严重未充分利用的资源。目前精神疾病的高发病率、高致残率、高致死率及高疾病负担越来越严重影响人们的生活质量，亟需更为专业的精神科高级实践护士及专科护士为我国人民群众的心理健康提供医疗照护服务。本研究通过检索国内外文献、指南等，阐述国内外综合医院精神科高级实践护士的的资格认证（学历、职称、工作经历与年限、专科护士培训与认证、APN 理论考核与实践）、准入条件（申请审核-资格认证-临床实施）、角色定位、岗位职责、培养模式、试点处方（非药物处方、药物处方、独立处方、协议处方、延长处方、调整处方）等，结合我国综合医院精神科专科护士的发展现状及存在的问题提出建议，同时为进一步加快精神科 APN 门诊和试点处方的推行，研究提出适合我国国情的综合医院精神科 APN 的资格认证和药物处方培训课程，以期为我国综合医院精神科专科护理人才的培养提供参考。

关键字：高级实践护士；专科护士；精神科；护理；综述

支持性心理治疗对冠心病患者情绪的影响

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目的 通过随机对照的方法探讨支持性心理治疗对冠心病患者焦虑抑郁情绪的影响。

方法 将本院 2022 年 1 月至 2023 年 3 月的 80 例冠心病患者随机分为实验组和对照组（通过随机数字表法分为实验组 40 例及对照组 40 例），实验组采用支持性心理治疗和常规药物治疗，对照组采用常规心理疏导和常规药物治疗，治疗 2 周后统计治疗前后汉密尔顿抑郁量表（HAMD）及汉密尔顿焦虑量表（HAMA）分数变化，同时统计社会功能量表及不良反应量表以评定其社会功能变化及不良反应情况。

结果 治疗前，实验组焦虑、抑郁评分、分别为(42.65±14.70)、(45.28±7.62)分，对照组的焦虑、抑郁评分为(42.50±12.96)、(45.47±8.70)分,差异无统计学意义(P>0.05)；治疗后，实验组焦虑、抑郁评分分别为(32.53±13.49)、(35.19±6.58)分，低于对照组(40.15±12.76)、(38.56±7.20)分，差异有统计学意义(P<0.05)，社会功能及不良反应无明显差异(P<0.05)。

结论 支持性心理治疗可明显改善冠心病患者焦虑和抑郁情绪，具有重要的治疗价值，值得临床推广。

关键字：支持性心理治疗；冠心病；情绪

一例抑郁症个案的箱庭疗法干预报告

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目的 探讨箱庭疗法在联合诊治中对抑郁症来访者治疗的过程及有效性。

方法 个案研究法，对一名 28 岁高中教师进行为期 3 个月的箱庭治疗，共 7 次。

结果 来访者的箱庭治疗经历了问题呈现、自我察觉、接纳整合与前行三个阶段。问题呈现阶段，在接纳、包容、安全的空间内，沙具的象征意义和自由创造理念使来访者能够充分的表达和体验内心的感觉，将自己所处问题及感受等具象化，此阶段的作品主题分别为“埋葬”、“远离”、“水葬”，虽然在作品中有骷髅头、枯树枝、断肢等沙具，但始终会出现具有生命力象征的鲜花、绿树以及水晶，说明来访者身上一直存有积极向上的内在动力；自我察觉阶段，作品主题分别为“我和母亲”、“沟通”，来访者明显与心理咨询师交流增多，较前能积极主动的思考自己问题的成因，在慢慢觉察自己内心的“逃避、否认”的同时，也发觉自己能够逐渐地和过去生活中的自己和解，向“怎么做、怎么解决”一步步靠近，并开始愿意正面自己的病情，学着接受，愿意谅解并试着原谅母亲；接纳整合与前行阶段，作品主题分别为“陪伴”、“破茧成蝶”，当来访者尝试与母亲、心仪对象沟通时，得到了意想不到的好结果与感受。从刚开始的不愿意面对、逃避，到后面的直面，接纳自己的不完美，带着症状生活，选择解决问题。箱庭能够促进来访者的人格发展，调整应对方式，进而改善抑郁症状。

结论 抑郁症来访者的箱庭作品和治疗过程具有独特性，箱庭疗法对治疗抑郁症来访者有较好的效果，并具有长期作用。

关键字：抑郁症； 来访者； 箱庭疗法

儿童慢性疼痛程度对生活质量的影响：抑郁焦虑的中介作用

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目的 研究旨在探索慢性疼痛儿童的疼痛程度，抑郁，焦虑症状及生活质量之间的相互关系。寻找慢性

疼痛儿童生活质量的影响因素，并探索抑郁焦虑症状在疼痛程度和生活质量间的中介作用。

方法 研究纳入了 228 名 8 到 18 岁就诊于复旦大学附属儿科医院心理科、神经内科、风湿科、消化科的慢性疼痛儿童。采用儿童抑郁量表(CDI)评估儿童的抑郁症状，儿童焦虑量表(SCARED)评估儿童的焦虑症状，数字评定量表(NRS)评估儿童的疼痛程度，儿科生活质量量表(PedsQL4.0)评估儿童的生活质量。

结果 慢性疼痛儿童的生活质量与抑郁症状(r=-0.77, p<0.001)、焦虑症状(r=-0.70, p<0.001)及疼痛程度(r=-0.24, p<0.001)负相关。分层回归结果显示，疼痛程度显著影响慢性疼痛儿童的生活质量（β=-0.26, p <0.001），但将抑郁焦虑症状纳入模型后，疼痛程度对生活质量的影响不再显著。抑郁症状（β=-0.57, p <0.001）及焦虑症状（β=-0.25, p =0.001）显著影响慢性疼痛儿童的生活质量。采用 bootstrap 法进行中介效应分析，结果表明儿童抑郁症状(95%CI= -2.07,-0.76)及焦虑症状(95%CI=-0.10,-0.19)在疼痛程度及生活质量之间发挥着完全中介作用。

结论 相较于疼痛程度，抑郁焦虑症状对儿童的生活质量有更大的影响。临床工作中需要注重对慢性疼痛儿童情绪的评估与干预，以提升他们的生活质量。

备注：上海市医学会精神医学分会儿少学组

关键字：儿童慢性疼痛，抑郁焦虑，生活质量

低钠血症相关脑病所致精神障碍 1 例

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目的 严重低钠血症及快速补钠可导致渗透性脑病，继而出现一系列精神行为症状，需引起临床医生的广泛关注。

方法 采用回顾性病例分析的方法，对我院精神科参与会诊的相关病例进行个案报道。

结果 该病例为感染后呕吐、腹泻导致重度低钠血症（血钠＜120 mmol/L）伴意识障碍，在纠正过程中出现的意识好转，而后出现定向障碍，缄默状态，失语，吞咽困难，行为紊乱。头颅 MRI 平扫+增强示:1.双侧基底节区对称性异常信号，炎性?代谢性?2.双侧颞叶、双侧海马区脑沟内多发带状强化，炎性?综上请结合临床及实验室检查协诊 3.右侧颞叶点状脱髓鞘 4.双侧筛窦炎症 5.右侧乳突炎症。脑脊液细胞检查正常。脑脊液病毒全套、细菌培养阴性。脑脊液高通量二代测序示 EBV 序列数 20，病毒性脑炎不除外。给予激素（甲强龙 0.5g/天）、丙种球蛋白及抗病毒治疗。出院时能言语，言语不流畅，凭空听见医院的人说她死了，认知功能障碍，夜眠差，有时彻夜不眠，行为冲动，治疗不合作。

结论 低钠血症是住院患者中最常见的电解质失衡， 严重低钠血症纠正过快可引起脑的脱髓鞘病变，症状常表现为行为异常、意识障碍、共济失调、假性球麻痹、发音困难及失语等, 此病变常为不可逆，预防大于治疗。

关键字：精神症状;低钠血症;脱髓鞘

一例原发性醛固酮增多症所致精神障碍

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目的 探讨躯体疾病所致精神障碍的临床特征

方法 我院于 2023 年 2 月 22 日收治的一例原发性醛固酮增多症所致精神障碍。患者，女性，42 岁，主因“脾气大、兴奋话多 2 月余，情绪低、自杀 1 天”患者于 2 月前无明显诱因渐出现精神异常，表现为脾气大，兴奋话多，总是说同事看不起自己，易于她人攀比。花钱大手大脚，喜欢刷抖音，感情丰富，看小视频又哭又笑，夜眠差，有时整晚不睡觉，于 1 月 6 日上述症状加重，表现为言语夸大，说“自己是神仙，全世界、地球都是自己的。说自己是国家领导人，钱多的花不完。于 1 月 9 日送至我院住院治疗，诊断为“躁狂发作”，给予“齐拉西酮片 60mg/日，碳酸锂缓释片 1.2g/日”治疗 10 天，患者精神症状有所好转，但病情不稳定，家属要求出院，出院后患者就自行停药，且拒绝服药，再次出现骂人，打人，言语紊乱，说“自己是神仙”等，不停的在地上来回走，不停的拍打自己，看见丈夫就殴打，饮食差、夜眠差，于 1 月 22 日在我院再次住院治疗，住院期间患者总是诉说自己心理还有一个人在和自己说话，说病房的其他病友都故意针对她，诊断为“伴有精神病性症状的躁狂发作”，给予“盐酸齐拉西酮片 20mg,口服 2 次/日，碳酸锂缓释片 0.3g 口服 2 次/日”治疗，患者口服“盐酸齐拉西酮片”后出现心率减慢的现象，当时将盐酸齐拉西酮片换为富马酸喹硫平片，口服富马酸喹硫平片后出现困乏明显，换为“阿立哌唑片 5mg 口服 1 次/日”治疗，治疗后患者病情时好时坏，患者既往有晕倒病史，在院期间也曾晕倒过 2 次，血压较高，口服“硝苯地平控释片、缬沙坦氢氯噻嗪片”两种降压药后血压仍控制不稳定。于 2023 年 2 月 22 日患者病情波动，表现情绪低、不愿在家待，频繁外出，不停的站在阳台上有欲跳楼的行为，被家属及时制止，伴有头不停的抖动，有时也有双手的抖动，夜间不睡觉，对家属脾气大。入院后患者意识朦胧，症状反复多次，有时存在幻听，有时存在被害妄想，言行紊乱，入院后患者频繁出现钾低，补钾后钾能正常，但钾停用后钾就开始偏低，且患者血压一直也较高，考虑原发性醛固酮增多症，去综合医院行相关检查后确诊为“原发性醛固酮增多症”，在综合医院行手术治疗后患者精神症状逐渐消失，病情稳定，能正常生活。

结果 以精神症状为首发症状的躯体疾病在临床上并非少见

结论 经过手术治疗原发性疾病患者的精神症状随之消失

关键字：原发性醛固酮增多症 精神症状 言语性幻听 被害妄想

儿童期精神分裂症的遗传特点研究进展

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目的 儿童期精神分裂症（childhood-onset schizophrenia, COS）的遗传度大于 80%，主要表现为（1）相关风险基因与成年期精神分裂症有很多重叠;（2）很多风险基因也关联孤独症谱系障碍等更早发的神经发育性障碍;（3）COS 的风险基因结构中含有更多的常见和罕见变异体，包括拷贝数变异体（copy number variants, CNVs）。为了强调 COS 遗传学研究的历史演变，更好地理解 COS 遗传特点，本文对相关文献进行了综述。

方法 使用中国知网、pubmed 对相关文献进行检索，时间为建库至 2023 年 6 月 15 日，根据检索结果，提取家系研究、人类基因组及各种基因变异体、分子遗传学研究相关内容进行总结与分析。

结果 共检索到文献 785 篇，最终纳入 28 篇，文献主要来自儿科学、精神病学。

结论 COS 是一种严重的神经发育性障碍，发病年龄小于 13 岁，临床特征和遗传特点均具有异质性，常共病 ASD、ID、ADHD 等其他更早发的神经发育性障碍。本文综述了 COS 的遗传学特点，认为 COS 是一种多基因遗传，遗传结构复杂，遗传突变和新发突变几乎分布于所有染色体，很多突变也与其他神经发育性障碍关联，突变特点是富含突变不耐受基因，影响神经元和突触功能，突变原因是遗传因素和环境因素相互作用，以及通过泛甲基化改变等表观遗传学机制所致。未来应进一步开展更大规模的 GWASs 研究和基因测序研究，发现更多的突变基因，并结合其神经生物学路径，对 COS 实施个体化的精准诊断与治疗。

关键字：儿童期精神分裂症；遗传学；常见变异体；罕见变异体

经颅直流电刺激干预青少年抑郁障碍中非自杀性自伤行为的疗效研究

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目的 非自杀性自伤(简称 NSSI)是一种没有自杀目的的直接的、故意的自伤行为，包括割伤、烧伤、咬伤等多种形式。抑郁障碍是患者自伤行为发展的重要危险因素，其自伤行为发生频率较高。青少年是出现 NSSI 的高发人群。全世界儿童和青少年的 NSSI 的发生率约为 19.5%，在中国大陆对相关数据进行收集后进行的 Meta 分析显示，在 13-18 岁的中国人群中该行为的发生率约为 27.4。NSSI 行为在青少年中的发生率有上升趋势并引起了社会的广泛关注。NSSI 不仅严重危害个体心身健康，还会造成严重的社会影响和经济负担。 既往很少有针对性的物理手段去干预青少年非自杀性自伤行为，有研究表明经颅直流电刺激对青少年抑郁障碍中非自杀性自伤行为有效，其中更多地来自于对许多脑区和脑功能的认知神经科学研究，但缺乏有效的循证证据及其安全性及作用机制研究。这项研究主要采用经颅直流电刺激治疗抑郁障碍患者非自杀性自伤行为。

方法 纳入 2022 年 2 月-2023 年 2 月在我院住院符合入组标准的抑郁障碍非自杀性自伤患者，年龄 13-18 周岁，且符合纳入标准，随机数字法分为治疗组和对照组，每组 30 人。对比两组患者的临床资料，P 值＞0.05，无统计学差异。治疗组采用经颅直流电刺激治疗（阳极左侧背外侧前额叶皮层，阴极右侧背外侧前额叶皮层，刺激电流 1-2mA，刺激时间 20 分钟），对照组伪刺激治疗。治疗前后采用 24 题汉密尔顿抑郁量表(HAMD)对抑郁症状进行测量，采用青少年自伤量表(ASHS)对自伤行为进行评估。 入组标准:(1)急性抑郁症患者有 24 项 HAMD17 项评分总分≥17 分 ；(2)有 ASHS 的重度抑郁症患者的自伤行为诊断；（3)本人和（或）家属签署知情同意书；(4)经本院伦理委员会批准。 排除标准: (1)有其他类型精神障碍者，如躁郁症等；(2)近 1 个月内应用抗抑郁药物或实施其他抗抑郁方案治疗者，有系统接收心理治疗或电休克治疗的历史；(3)伴有其他系统严重疾病者，如内分泌系统、消化系统、血液系统、神经系统疾病；(4)有酗酒/滥用药物史;(5)颅内有金属植入器件者；刺激区域有痛觉过敏、损伤或炎症的患者。

结果 治疗组和对照组 HAMD17 项评分及 ASHS 评分均较治疗前降低，但治疗组降低的幅度更大，且全程无不良反应发生。

结论 经颅直流电刺激治疗青少年抑郁障碍中非自杀性自伤行为有临床疗效，且安全性良好。

关键字：经颅直流电刺激 抑郁障碍 非自杀性自伤

改良电休克治疗对老年抑郁障碍患者疗效及安全性观察

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目的 本研究旨在对比 MECT 在老年抑郁障碍患者的抗抑郁疗效及安全性，为老年抑郁障碍电休克治疗提供参考。

方法 纳入 2022 年 1 月-2022 年 12 月在西安市精神卫生中心住院且符合入组标准的抑郁障碍患者 60 人，成人组 30 人，年龄 18-60 岁，老年组 30 人，年龄 60-70 岁。所有患者均接受了 6 次及以上 MECT 治疗。记录患者一般人口学资料和临床特征，选用 24 项汉密尔顿抑郁量表、14 项汉密尔顿焦虑量表及治疗期间不良反应观察量表，分别在 MECT 治疗前和疗程结束后 24 小时进行评估。所有受试者均自愿参加且签署知情同意书。比较两组患者基线量表评分差异、治疗前后评分差异和评分减分率差异，分析影响患者 MECT 疗效

及不良反应观察。数据分析选用 SPSS26.0 统计软件。

结果 （1）一般人口学资料和临床特征 老年组患者女性更多、抑郁发作病程长，高血压患者有 12 例，糖尿病患者有 8 例，均无严重躯体疾病。（2）MECT 抗抑郁疗效分析 老年组患者和成人组患者电休克治疗有效率、缓解率组间比较差异无统计学意义。老年组患者基线 HAMA 量表评分和基线 HAMD 总分高于成人组，差异且有统计学意义。两组患者接受 MECT 后 HAMA、HAMD 评分均显著下降，两组患者 HAMA、HAMD 量表评分减分率比较未见显著差异。（3）MECT 不良反应比较 老年组患者和成人组患者治疗均未发生严重不良反应，高血压患者治疗前均服用抗压药，治疗前监测血压正常。老年组患者治疗后出现血压升高占比 20%，心率增快占比 13%，成年组未发现血压升高及心率增快。其余不良反应，包括头晕、头疼、恶心、呕吐，老年组与成人组组间比较差异无统计学意义。

结论 (1)老年抑郁障碍患者经电休克治疗可显著改善抑郁、焦虑症状，与成人抑郁患者疗效无明显差异。(2)ECT 对不同年龄抑郁障碍患者均有较高的安全性。

关键字：改良电休克治疗 老年抑郁障碍 安全性

表现为精神症状的自身免疫性脑炎临床分析

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目的 分析自身免疫性脑炎精神症状的特点及抗精神病药物治疗效果，提高精神科医生对表现为精神症状的自身免疫性脑炎的识别，避免误诊及延误治疗。

方法 总结 2019 年 6 月至 2023 年 6 月共 12 例就诊于长春市第六医院，表现为精神症状且明确诊断为自身免疫性脑炎患者的临床特点、治疗及预后。

结果 12 例患者年龄 12 岁～64 岁，精神症状表现为幻觉、妄想、情绪低落、焦虑、紧张、恐惧、睡眠障碍，7 例患者发病前有精神诱因。3 例误诊为焦虑障碍，2 例误诊为分离转换障碍，2 例误诊为伴有精神症状的重度抑郁发作，2 例误诊为急性短暂性精神病性障碍，2 例待诊“兴奋状态”，1 例误诊为癫痫性精神病，处方包括坦度螺酮、西酞普兰、利培酮、喹硫平、奥氮平及苯二氮卓类药物，均为联合用药。12 例患者均有不同程度的认知功能障碍。1 例患者因出现意识障碍转院后确诊， 1 例患者因头核磁显示边缘叶异常信号转院后确诊，1 例患者为药物难治性癫痫查因确诊，9 例患者为长程视频脑电图监测发现背景慢波活动或癫痫样放电后行脑脊液自身免疫性抗体检测确诊。4 例诊断为抗 LGI-1 抗体脑炎，3 例为抗 NMDAR 脑炎，2 例为抗 GABAb 抗体脑炎，1 例为抗 GAD-65 抗体脑炎，2 例为免疫治疗有效的抗体阴性自身免疫性脑炎。确诊时间距离发病时间 1 个月～2 年不等，11 例患者经免疫治疗后病情明显改善，1 例患者因超难治性癫痫持续状态死亡。抗精神病药物症状改善后 1～3 个月逐渐减停，3 例患者遗留认知障碍，2 例患者遗留情绪低落、兴趣减低，2 例患者遗留癫痫发作。

结论 急性或亚急性起病的精神症状患者就诊于精神科，精神科医师需要考虑自身免疫性脑炎可能，需要进行认知评估及脑电图检查，减少误诊；短期应用抗精神病药物有利于控制精神症状，提高患者免疫治疗的依从性，减少家属及护理负担，改善预后。

关键字：精神症状，自身免疫性脑炎，抗精神病药物，脑电图

伴自杀意念的抑郁症患者存在大规模动态脑网络改变

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目的 越来越多的证据表明，伴有自杀意念的抑郁症患者的大脑网络连接异常。然而，神经成像和生物学研究不满足探索大脑网络动力学时间分辨率的要求。同时，目前对自杀意念的识别多依赖于患者的主动披露，而大部分的患者在成功的自杀尝试前都会隐瞒自杀意念。因此，我们通过脑电微状态研究了伴或不伴自杀意念的未经治疗的抑郁症患者的脑网络动力学特征，探索可识别自杀意念的客观工具。

方法 我们招募了 47 名伴自杀意念的抑郁症患者，26 名无自杀意念的抑郁症患者和 26 名健康对照者。我们使用 DSM-5 明确诊断，采用 PHQ-9 量表评估抑郁程度，采用哥伦比亚自杀意念严重度量表评估近一月的自杀意念。我们对采集了所有受试者的 64 导脑电图特征。

结果 我们的研究发现了广泛报道的四种微观状态。我们也发现了不同研究组之间确实存在大脑网络动力学的差异。伴自杀意念组微状态 B 的频率与覆盖率均低于非自杀意念组，自杀意念组微状态 A 的频率高于健康对照组。在转换概率方面，抑郁症患者组相较于健康对照组有更少的概率转向微状态 C。

结论 有近 1 月伴自杀意念的抑郁症患者有独特的大脑网络动力学机制。脑电图微状态可作为探索未经治疗的青少年抑郁症患者自杀意念的重要工具。

关键字：脑电微状态、青少年、抑郁症、未将药物治疗的

住院精神病人跌倒原因分析及干预措施

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目的 通过分析我科住院精神病人发生跌倒的原因，从而得到有效的干预措施，使精神病人减少二次伤害。

方法 对我科 2021 年-2022 年两年内发生跌倒事

件进行回顾性分析。

结果 我科 2021 年至 2022 年发生跌倒事件共 37 例。住院精神病人跌倒的原因有：1、医院的因素：主要是制度不完善；医护人员因素：主要是安全意识缺乏，工作细心程度差；2、患者自身危险因素：主要是基本疾病多，年龄过大或过小；3、疾病因素：主要是精神病人情绪不稳定，行为不可预测；4、药物因素：主要是药物的不良反应和药物的不规范；5、环境因素：主要是防跌倒设施不完善；6、家属因素：安全意识差，过于依赖他人。对精神病人防跌倒的干预措施有：1、加强医护人员培训，提高整体素质，增强安全意识；2、完善规章制度，形成安全文化；3、加强对病人的评估，将评估等级做细，加强分类管理，加强观察及巡视；4、加强饮食营养及积极改善居住、生活环境；5、加强与患者家属沟通，告知风险，增强家属的安全意识，减少依赖心理。

结论 严格的制度，精准的评估，细心的程度，规范的治疗，安全的环境、积极的沟通告知，严谨的工作态度，将防视为治疗的保障，将病人安全放在治疗的首位，能有效的预防病人跌倒，从而减少二次伤害。

关键字：跌倒、原因、干预措施 精神病人

多维干预模式对广泛性焦虑障碍疗效的对照研究

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目的 通过对照临床研究，验证多维干预模式（药物+精神动力学团体治疗+放松训练）对广泛性焦虑障碍的疗效；

方法 纳入 70 例广泛性焦虑障碍患者。随机分为药物组（35 例），多维干预组（35 例）。药物组接受舍曲林片治疗，多维干预组在接受舍曲林片治疗的基础之上，增加精神动力学团体治疗及放松训练，干预时间为 8 周（精神动力学团体治疗 1 次/1 周，1 次/90 分钟；放松训练 1 次/1 周，1 次/15 分钟），共干预 8 次。在基线、治疗结束 1 周末、2 周末、4 周末及 8 周末，采用汉密尔顿焦虑量表、7 项广泛性焦虑障碍量表、17 项汉密尔顿抑郁量表、9 项患者健康问卷来评估焦虑、抑郁情况。以临床治愈率（8 周末 HAMA≤7）作为主要评估指标，以两组在不同研究时点 HAMA、GAD-7、HAMD、PHQ-9 得分，两组不同研究时点 HAMA 及 GAD-7 减分率作为次要评估指标。

结果 1.两组基线 HAMA、GAD-7、HAMD、PHQ-9 得分差异均无统计学意义（P＞0.05）。 2.主要结局指标：临床治愈率（8 周末 HAMA≤7） 8 周末时，药物组痊愈有 10 例，多维干预组痊愈有 22 例，两组的治愈率分别为 37.0%、64.7%；两组间临床治愈率差异有统计学意义（2 =4.620，P=0.032），多维干预组的治愈率明显高于药物组。 3.次要结局指标 （1）两组在不同研究时点 HAMA、GAD-7、HAMD、PHQ-9 得分比较 两组在治疗后 4 周末、8 周末 HAMA 得分差异存在统计学差异，多维干预组得分低于药物组。两组在 4 周末、8 周末 HAMD 得分差异存在统计学差异（F=10.524，P=0.002；F=15.297，P=0.000），多维干预组得分低于药物组。两组在 2 周末、4 周末、8 周末 GAD-7 得分差异均有统计学差异（F=5.875，P=0.018；F=4.985，P=0.029；F=7.108，P=0.010）多维干预组得分低于药物组。两组在 4 周末、8 周末 PHQ-9 得分差异均有统计学差异（F=18.277，P=0.000；F=4.531，P=0.037），多维干预组得分均低于药物组。 （2） 两组在不同研究时点 HAMA 及 GAD-7 减分率比较 4 周末，两组 HAMA 得分减分率差异有统计学意义（F=25.081，P=

结论 应用多维干预模式治疗广泛性焦虑障碍患者是有效的。

关键字：多维干预模式、精神动力学团体治疗，广泛性焦虑障碍，疗效

浅析心理科存在的安全隐患及预防措施

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目的 探讨心理科住院患者存在的若干安全隐患及相应的预防措施。

方法 从病人自身的病患原因引起的各种意外情况，病人自知力缺乏，不适用住院环境或恋家思亲因素，因抗精神病类药物的副作用引起，病人家属对心理相关知识缺乏了解，对危险品的危害性认识不够，病房拥挤、光线昏暗、地面不平、厕所洗澡间地面湿滑、厕所隐蔽、洗澡水忽冷忽热造成的烫伤和短路等因素，对心理科住院患者的护理安全隐患进行逐一分析。针对存在的若干安全隐患，采取相应的预防措施。

结果 通过做好病人及家属的思想工作，加强病人住院期间的管理,特别是加大对危险物品的管控，对病房重点病人的巡视、服药、日常活动等特殊监护、合理组织娱疗活动和家属的卫生宣教及探视、院规宣教和告知工作，对住院环境的改善，特别是护理人员业务素质和风险意识的提高，加强医患、护患相互沟通，提高护理人员自身的业务素质，树立护理人员的风险意识，从而降低各种安全隐患。为病人的进一步康复把好关。

结论 通过对心理科安全隐患的逐个列举并深入分析研究，有针对性的采取相应的预防措施，可以减少和杜绝各类不良事件的发生。从而保障病人的安全，进而提高科室医疗及护理质量。做好安全工作也是保证医院长远发展的重要环节。

关键字：心理科 安全隐患 预防措施

县/市级综合性医院精神科联络会诊资料分析

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目的 了解苏南某地区县/市级综合性医院精神科联络会诊的特点。

方法 收集苏南地区某县/市级综合性医院 2015 年 8 月-2022 年 9 月近八年来申请的 113 例精神科联络会诊病例，采用描述性分析方法对患者的人口学资料、请求会诊科室、会诊原因、会诊诊断及会诊后的处理等情况进行整理分析。

结果 苏南某县/市级综合性医院精神科联络会诊率为 0.025%；会诊群体中 70 岁以上患者占 49.56%；会诊科室主要来源于内科（66.37%），其中神经内科最多（17.70%）；申请会诊前三位的原因是急性脑病综合征（34.51%）、精神病性症状（13.27%）、抑郁状态（13.27%）；会诊诊断中躯体疾病所致性精神障碍最多（26.55%），其次为抑郁症（12.39%）和精神分裂症（11.50%）；会诊处理中常见的是使用非典型抗精神病药物治疗（59.29%），接着是使用抗抑郁药物治疗（21.24%），然后是临床观察（12.39%）。

结论 县/市级综合性医院精神科联络会诊率低；会诊人群以老年患者为主，科室多集中于内科，急性脑病综合征及精神病性症状是主要的会诊原因；县/市级综合医院的精神科联络会诊工作有待加强。

关键字：综合性医院；联络会诊精神病学；资料分析

老年冠心病患者认知功能障碍影响因素分析

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目的 探讨老年冠心病（CHD）患者合并认知功能障碍（CI）的情况以及分析相关影响因素。

方法 回顾分析 2018 年 06 月至 2019 年 12 月在江苏省荣军医院住院康复的 80 例老年 CHD 患者。通过蒙特利尔认知评估量表（MoCA）评估认知功能，并对相关临床资料进行收集。根据 MoCA 评分＜26 分为标准，将 80 例老年 CHD 患者分成认知功能障碍（CI）组（n=54）和非认知功能障碍（NCI）组（n=26），比较两组患者的临床特点。对单因素分析有统计学意义的指标进行多因素 logistic 回归分析，筛选出独立危险因素。

结果 老年 CHD 患者合并 CI 的发生率高达 67.50%，与 NCI 组相比，CI 患者 MoCA 评分中视空间执行能力、注意、语言、延迟回忆、定向及总分均显著降低（P 均＜0.05）。单因素分析显示，与 NCI 组相比，CI 组的 CHD 患者年龄、NT-proBNP 水平、HAMA 分值、HAMD 分值、合并高血压比例、合并心房颤动比例、合并贫血比例、合并睡眠质量差的比例均显著增高（P 均＜0.05），而男性、6MWD 水平、LVEF 水平、VO2max 水平、服用 ACEI 或 ARB 的比例均显著降低（P 均＜0.05）。多因素 logistic 回归分析，结果发现高龄、NT-proBNP 增高、HAMA 增高、HAMD 增高均为 CHD 患者 CI 的独立危险因素，男性、6MWD 水平增高、LVEF 水平增高、VO2max 水平增高、服用 ACEI 或 ARB 均为 CHD 患者 CI 的保护因素。

结论 老年 CHD 患者 CI 的发生率较高，并且受到心功能水平、负性情绪、性别的影响。

关键字：老年；冠心病；认知功能；影响因素

某三级甲等医院精神科工作人员 被住院患者暴力攻击情况梳理及多元化干预措施的分析

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目的 提高精神科工作人员在临床工作中，对精神疾病患者攻击行为的早期识别及预防能力，为被精神疾病患者攻击的工作人员提供多元化干预措施，降低住院精神疾病患者冲动攻击行为给被攻击者带来的身体危害以及心理影响。

方法 通过回顾和梳理近 2 年来本科室工作人员被患者人身攻击状况，包括人员类别、受伤类型及占比例率等，有针对性的提出本科室工作人员被患者人身攻击后多元化干预措施 。结果：被攻击的工作人员总人数 62 例，护士 38 例，占比例为 59.6％；医生 7 例，占比例 11.2 ％；卫勤、保安、实习护生各 2 例，占比例各 3.2％。在被攻击受伤类别中，抓伤 27 例，占比例 43.5%；打伤 11 例，占比例 17.7%；咬伤 8 例，占比例 12.8 ％；被针刺伤、踢伤 、人身威胁各 3 例，占比例各 4.8％；被勒脖子、划伤、撞伤各 1 例，占比例各为 1.6%。

结论 从以下四个方面给予被攻击人员多元化干预：积极控制攻击行为诱发因素；工作人员定期专科培训、科学评估，对暴力攻击做到早期识别早期预防；及时进行职业暴露处置；后期定时给予心理健康维护，尽量减少被攻击人员发生心理不良适应。尽最大努力杜绝精神疾病患者暴力攻击对工作人员造成不良适应。

关键字：精神疾病 患者 工作人员 攻击 多元化

自我伤害行为相关动物模型的研究进展

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目的 自我伤害行为（self-injurious behavior, SIB）指在无他人帮助下故意伤害自己身体，足以造成组织损伤的行为。近些年来，在 SIB 出现的前提下衍生了非自杀性自伤（Non-suicidal self-injury, NSSI）行为这一综合征，严重的自伤行为可危及生命，是自杀的潜在危险因素，目前其机制不明、治疗应答率低。本文主要

对 SIB 动物模型构建的相关文献进行综述，有助于探究其病因和发病机制，为 SIB 相关的基础研究提供参考。

方法 检索 Pubmed、Web of science、Embase 等数据库，手工检索参考文献，英文检索词："self-injurious behaviour；self-injury；self-biting； self-mutilation；animal model"，纳入自建库至 2023 年 1 月 SIB 动物模型相关文献，筛选并提取文献关键内容，采用文献归纳法对自我伤害行为动物模型进行分析与评价。

结果 最终共纳入 32 篇自我伤害行为动物模型的实验研究相关文献，主要通过药物诱导、环境剥离、基因敲除三种方式拟构建，其中较多采用药物诱导，以中枢系统兴奋剂、通道调节剂为主。环境剥离主要以恒河猴为观察对象，采取出生后与母亲分离饲养的方式。基因敲除包括 SPAPAP3、Slitrk5、Hoxb8 和 FosB 基因等。在 CNS 兴奋剂、毒蝇蕈醇诱导、新生儿期 6-羟基多巴胺病灶、环境剥离模型中，均表现出了异常活动，从刻板行为到可能引起健康问题的 SIB，更严重的可能引起死亡，这与人类神经精神疾病、无共病的普通人群中发生自我伤害行为类似，表面效度良好；目前临床上针对于 SIB 的治疗还处于探索阶段，认知行为治疗、部分抗精神药物等能改善 SIB 的频率以及严重程度，在氟硝尼啶药物诱导、SAPAP3 基因敲除模型中预测效度好，但在 CNS 兴奋剂、毒蝇蕈醇表现出完全相反的作用，可能与在动物模型注射药物后观察到的为急性行为改变，而人类是在服药后长期递质调节导致的结果有关；SIB 多属于神经精神障碍的症状之一，神经生物因素包括神经递质血清素、多巴胺、GABA 等，在药物诱导、环境剥离模型中存在一定结构效度。

结论 自我伤害行为相关动物模型的构建是研究其发病机制的基础，是研究治疗药物的关键环节。在未来研究过程中，应根据具体的研究目的及实际的研究条件等情况选择合适的建模方式。

关键字：动物模型；自我伤害行为；非自杀性自伤行为；匹莫林；恒河猴；苯丙胺

认知行为疗法运用于焦虑抑郁青少年患者的心理护理一例

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目的 探讨结构式认知行为疗法在焦虑抑郁青少年患者心理护理上的应用效果

方法 本案例先采用 SAS、SDS、HAMD、HAMA 量表评估患者的情绪，使用 BPRS、NORS 量表评估患者的症状，再通过情境事件五栏表，针对患者认知进行一系列的识别、评价、检验、矫正自动化思维、重建新的认知，然后使用腹式呼吸放松法和渐进式肌肉放松法，进行行为疗法的干预和巩固，最后再评估 SAS、SDS、HAMD、HAMA、BPRS、NORS、CGI 量表判定结构式认知行为疗法的疗效

结果 使用认知行为疗法心理护理干预后（1）患者在住院期间未出现自伤自杀行为（2）汉密尔顿抑郁量表（HAMD）中抑郁情绪减分率为 75%，精神性焦虑减分率为 75%，自卑感减分率为 50%；汉密尔顿焦虑量表（HAMA）中焦虑心境及紧张的减分率为 75%，躯体性焦虑的减分率为 100%，神经性焦虑的减分率为 72%；简明精神病评定量表（BPRS）中焦虑及心境抑郁的减分率为 57%（3）精神护理观察量表（NORS）中对周围活动感兴趣、与人攀谈、谈论个人爱好因子分较前治疗前增加；临床总体印象量表（CGI）中病情偏重降至轻度，疗效总评显著进步。

结论 基于认知行为疗法的心理护理，可以明显改善青少年患者的焦虑抑郁情绪，促进疾病的康复，值得临床工作中推广。

关键字：认知行为疗法 焦虑 抑郁 青少年 心理护理

失眠-心理健康网络的性别差异：来自网络分析的证据

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目的 传统的心理病理学视角下，症状是某个心理障碍的外在表现，而心理障碍本身则是症状的潜在原因。也有学者指出，心理健康其实是多个维度的连续谱的有机组合。以往的研究对失眠的原因提出了多种解释和心理机制模型，但很少有人通过网络分析的方法来探索失眠与心理健康之间的网络关系。本研究基于 3P 睡眠模型和心理病理网络理论，探讨了由抑郁、焦虑、压力和失眠组成的症状网络及其性别差异。

方法 研究采用了阿森斯失眠量表（AIS）和抑郁焦虑压力量表（DASS-21）作为测量工具，对 629 名参与者（男 266 名，女 363 名；25.16±6.13 岁）进行网络分析（29 个条目）。

结果 独立样本 t 检验显示男性和女性在失眠和心理健康水平不存在性别差异（$t<1.219$，$P>0.223$）；但是在网络分析中，失眠与心理健康问题共存于同一个心理病理网络中（Sparsity=0.55）；男性与女性的失眠-心理健康网络存在差异，男性抑郁与失眠关联更强(0.24>0.09)，女性焦虑与失眠关联更强(0.22>0.11)。

结论 失眠与心理健康网络存在性别差异，未来的研究应当突破传统潜变量视角的限制，不仅关注失眠-心理健康在绝对水平上的高低，更加关注其内部机制和相互影响的关联。后续干预可以基于两性睡眠网络结构的差异，提供不同的方案和策略，更加精准地解决人们的失眠困扰。

关键字：心理健康，失眠，网络分析，性别差异

腹膜透析患者心理痛苦、疲乏现状调查及与生活质量的相关性分析

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目的 调查研究腹膜透析患者心理痛苦、疲乏症状及生活质量现状，分析腹膜透析患者心理痛苦、疲乏现状及与生活质量的相关性，为临床改善腹膜透析患者生活质量提供依据。

方法 通过便利抽样法，选取 2021 年 1 月至 2022 年 10 月于南京市某三级甲等医院接受腹膜透析护理门诊随访的 162 例慢性肾衰竭患者，使用问卷收集患者一般资料，包括年龄、性别、学历水平、婚姻状况、人均月收入、职业、主要照顾者、医保形式、原发疾病。采用心理痛苦温度计量表、Piper 疲乏修订量表以及 WHO 生活质量简表对腹膜透析患者进行现场问卷调查，Pearson 相关分析法分析心理痛苦、疲乏现状与生活质量的相关性，通过 Bootstrap 法对心理痛苦在疲乏、生活质量之间的中介作用进行检验。

结果 162 例腹膜透析患者心理痛苦得分为（5.47±1.89）分，疲乏得分为（4.46±1.61）分，生活质量得分为（62.45±7.56）分。Pearson 相关分析结果显示，腹膜透析患者心理痛苦、疲乏与生活质量均呈显著负相关性（r＜0，P＜0.05），心理痛苦与疲乏呈显著正相关性（r＞0，P＜0.05）。多元性线性回归分析结果显示，生活质量与疲乏、心理痛苦与疲乏、生活质量与疲乏及心理痛苦存在线性回归关系（P＜0.05）。中介效应分析结果显示，疲乏对生活质量的直接效应为-0.268，疲乏通过心理痛苦对生活质量的间接效应为-0.97，占总效应的 28.12%（-0.097/-0.345）。

结论 腹膜透析患者由于疾病病程长及到并发症的长期影响，透析患者心理痛苦及疲乏症状普遍存在，且患者的生存质量较低，护理人员在临床护理过程中应积极关注腹膜透析患者心理痛苦情况及疲乏症状，采取有效护理措施降低患者的心理痛苦、缓解疲乏症状，从而提高腹膜透析患者的生活质量水平。

关键字：慢性肾衰竭；腹膜透析；心理痛苦；疲乏现状；生活质量；现状调查；相关性；中介效应

焦点解决护理模式在中青年腹膜透析患者生存质量中的应用研究

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目的 探讨焦点解决模式对中青年腹膜透析患者心理状态及生存质量的影响。

方法 选取 2022 年 03 月~2022 年 09 月期间南京市某三甲医院肾内科住院并在 PD 护理门诊规律随访的符合入选标准的 128 例 PD 患者作为研究对象，运用随机数字法将研究对象分为对照组、试验组，每组 64 例。对照组接受腹膜透析患者的常规护理，试验组在对照组的基础上加以实施基于焦点解决模式五个步骤的以患者为主导的心理干预，由经过培训并考核合格的 3 名腹膜透析专职护士实施干预，干预次数为 5 次，每周干预一次，每次 30 至 45 分钟，持续 5 周。具体时间与患者进行商量，以不影响治疗为前提。干预地点为安静明亮的病区示教室，研究者与患者进行一对一交流。出院后在腹膜透析护理门诊进行面对面干预。分别在干预前、干预后对中青年腹膜透析患者采用医院焦虑抑郁量表（HADS）、肾脏病和透析相关生存质量量表（KDTA）及生化指标进行评估比较。

结果 实施干预后，试验组焦虑亚量表 HADS（A）及抑郁亚量表 HADS（D）评分均明显低于对照组，差异具有统计学意义（P<0.05）。试验组 Hb、Alb、Kt/V 高于对照组，Crea 低于对照组，差异具有统计学意义（P<0.05）。两组患者在 KDTA 11 个维度比较差异均有统计学意义（P<0.05），且认知功能、社交质量、家庭支持、医护鼓励 4 个维度差异更显著（P<0.001）。

结论 焦点解决模式是一种在积极心理学时代背景下发展起来的新型心理治疗模式，强调将问题解决的关注点集中在个人积极层面，并要求最大限度地挖掘个人的力量、优势和能力，该模式积极引导干预对象主动发现问题并自行寻找解决方法，此方法易于被接受，同时易于实施，通过较短时间的干预即可取得显著有效的变化，本研究将焦点解决模式应用与中青年腹膜透析患者，能挖掘患者自身潜能，发挥主观能动性，有效缓解焦虑、抑郁情绪，改善 PD 患者的生化指标，从而提高其生存质量，值得推广应用。

关键字：焦点解决模式；腹膜透析；焦虑抑郁；生存质量

冬季运动员抑郁焦虑水平及其相关因素研究

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目的 有研究表明运动员的焦虑抑郁水平与运动员的训练及赛时表现有关。在本研究中，我们对冬季运动员的焦虑及抑郁水平进行评估并探索其与运动员生理指标的相关性。

方法 参与者包含 20 名冬季运动员和 25 名普通对照。采用抑郁症筛查量表（PHQ-9）和广泛性焦虑障碍量表（GAD-7）对冬季运动员的抑郁和焦虑水平进行评估。收集冬季运动员的运动时长、睡眠时长和身体质量指数(BMI)。采用两独立样本 t 检验验证 PHQ-9 与 GAD-7 得分在冬季运动员组和普通对照组之间是否存在差异，并运用 Pearson 相关检验评估运动时长、睡眠时长和身体质量指数（BMI）与冬季运动员抑郁水平（PHQ-9）和焦虑水平（GAD-7）的相关性。

结果 冬季运动员和普通对照在年龄、性别上没有差异。冬季运动员组的 PHQ-9 得分与普通对照组无显著差异；冬季运动员组的 GAD-7 得分显著低于普通对照组（p=0.03）。冬季运动员组的抑郁水平和焦虑水

平均与睡眠时长相关（p=0.01；p=0.02），与运动时长和 BMI 均无显著关系。

结论 本研究表明，冬季运动员焦虑水平低于普通对照组，冬季运动员的睡眠时长对冬季运动员的焦虑及抑郁水平有改善作用。

关键字：冬季运动员，焦虑，抑郁，睡眠时长

中国新疆汉族与维族抑郁严重程度相关因素的差异性比较

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目的 探索新疆维吾尔自治区汉族与维族抑郁障碍患者中影响抑郁严重程度的临床及生化指标，并比较两者之间的差别，为今后开展个体化治疗提供依据。

方法 研究对象来自 2021 年 1 月至 2022 年 8 月在新疆医科大学第一附属医院心理医学中心住院的 216 例抑郁障碍（（Major depression disorder，MDD）患者，根据患者民族将其分为汉族组（N=104）和维族组（N=112）。采用汉密尔顿抑郁量表（Hamilton Depression Scale-24， HAMD-24) 及汉密尔顿焦虑量表（Hamilton Anxiety Scale，HAMA)对患者进行评定，搜集其一般资料及血糖、血脂、甲状腺功能及血常规指标，比较两组间各个指标的不同，并分析不同民族中与抑郁严重程度之间的相关性指标，比较两者的差异性。

结果 （1）与汉族组相比，维族组血红蛋白水平显著升高[132.48±12.58：129.05±10.95]，差异有统计学意义(P<0.05)；（2）在汉族 MDD 人群中，HAMA 量表得分与 HAMD-24 量表得分呈正相关（r=0.484, P<0.001），其余指标均无显著相关性；（3）在维族 MDD 人群中，Pearson 相关性分析显示 HAMA 得分（r=0.223, P=0.018）、TC（r=0.192, P=0.042）以及 TT3（r=0.214, P=0.023）水平与 HAMD 得分呈正相关；（4）多元线性回归分析结果表明维族 MDD 患者 HAMA 得分、TC 及 TT3 能够正向影响 HAMD-24 评分（B=0.145，P=0.006；B=0.512，P=0.040；B=1.621，P=0.004）。

结论 在不同民族间，与抑郁严重程度相关的因素存在差异，在后续诊疗活动中需要对患者进行个体化治疗。

关键字：抑郁障碍；总胆固醇；甲状腺功能；民族

护理领域接近失误研究热点的可视化分析

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目的 运用可视化知识图谱分析护理领域接近失误相关文献的研究现状、热点及动态前沿，以期为护理领域接近失误的未来发展提供借鉴。

方法 在 Web of Science 核心合集中检索从建库到 2022 年 8 月与护理领域接近失误相关的文献，从发文量、发文期刊、关键词等方面进行可视化分析。

结果 共纳入 289 篇文献，年发文量呈现逐年增长趋势，美国发文量居首位，初步形成核心作者团队，护理领域接近研究热点主要集中在患者安全、安全管理、识别上报等方面。

结论 护理领域接近失误的相关研究起步较晚，当前对于接近失误的研究还不够全面，由于接近失误的发生会对患者、护理人员及医疗机构均造成不良影响，建议护理管理者应提高对该问题的重视程度，关注前沿发展，深入开展相关研究。 患者安全一直医疗机构关注的重中之重，2022 年 8 月中国医院协会（Chinese Hospital Association，CHA）发布“患者安全的十大目标”，充分发挥政府主导作用，进一步推动患者安全管理的不断完善[1]。接近失误（near miss）是指虽出现失误但由于偶然或及时拦截，最终未发生伤害患者的事件，被视为是伤害发生前的预警事件[2]。接近失误在国内研究起步较晚，在 2017 年中国医院协会将 near miss 释义为接近失误，并于 2018 年的团体标准中对接近失误事件进行规范管理[3]。接近失误和不良事件具有相同的发生路径，但其发生的概率远超过不良事件，甚至是不良事件的 300 倍，但由于尚未带来实质性危害而常常被忽略，缺乏足够的重视，同时因为担心受到批评、惩罚等原因，大多数医护人员不愿报告所发生的接近失误事件[4、5]。护理人员是保护患者的重要防线，主动了解接近失误的发生原因，查找发现临床工作中的安全隐患，优化风险防范措施，减少或预防不良事件的发生具有十分深远的临床意义。本研究采用 VOSviewer 软件，对护理领域接近失误的相关研究进行可视化分析，探求该领域的研究热点及趋势，为今后研究提供参考方向

关键字：护理领域；接近失误；可视化分析

精神科护理管理中人性化管理理念的研究与探讨

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目的 研究分析人性化护理方法在精神病患者临床护理中的应用价值

方法 研究对象为 2021 年 6 月至 2022 年 5 月期间在我院接受治疗的 80 例精神病患者，通过电脑随机的分为观察组与对照组各 40 例，对照组患者实施常规护理，主要包括：护理人员为患者提供良好的治疗环境，定时为患者测量体温、血压等，营造人性化的病房环境，在护理工作中贯彻以人为本的护理理念，关注患者心理状况，发挥家属作用，观察患者病情变化，观察组患者在常规护理的基础上实施个性化护理，并观察

与比较两组患者的护理效果和满意度。

结果 两组患者经过不同的护理措施，观察组患者的护理效果和满意度均高于对照组患者，数据比较有差异（P＜0.05），具有统计学意义。

结论 人性化护理干预在精神病患者临床护理中应用能够提升患者护理满意度，在护理的过程中更加重视对患者的关心，有利于维护护患关系与医患关系的构建，满足了患者及其家属的合理需求，从面建立了良好的护患关系，更加有利于改善精神病患者的社会功能缺陷，而且也相应地提高了护理人员的综合素质，也更加体现了对患者的关心和爱护，消除患者顾虑，对医院高素质护理人才的培养也有所帮助，同时能够促进患者疾病的康复，具有应用价值。

关键字：精神科，护理管理，人性化护理

基于患者自我报告结局测量的信息化延续护理在抑郁症患者中的应用

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目的 探究患者自我报告结局测量（PROMS)的信息化延续护理在抑郁症患者中的应用效果。

方法 2022 年 3 月-2022 年 12 月，采用简单随机抽样法选择西安市精神卫生中心 67 例抑郁症患者为研究对象，患者均需要进行汉密尔顿抑郁量表(HAMD-17)及抑郁自评量表（SDS）评定，且经 2 位主治医师以上职称医生评定，要求 HAMD-17 评分大于 17 分，SDS 评分大于 53 分。采用随机数字表法将研究对象分为实验组（34 例）和对照组（33 例）。对照组实施常规护理，实验组在常规护理基础上施加 PROMS 信息化延续护理，为期 6 个月。对比两组患者生活质量,疾病复燃率及心理痛苦程度。

结果 干预后，对照组生活质量评定量表（SF-36)活力维度与实验组无显著差异（P＞0.05），其余 7 个维度评分均低于实验组，差异有统计学意义（P<0.05）。对照组心理痛苦评分高于实验组，且心理痛苦评分＞5 分患者例数高于实验组。差异有统计学意义（P<0.05）。对照组半年内疾病复燃率低于实验组，差异有统计学意义，（P＜0.05）。

结论 基于 PROMS 的信息化延续护理提升抑郁症患者生活质量，减缓其心理痛苦程度，值得精神科临床推广应用。

关键字：自我报告结局测量 信息化 延续护理 抑郁症

精神科中的优质护理服务

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目的 优质护理服务是指以患者为中心，强化基础护理，提高专科护理水平，落实责任制整体护理，深化专业内涵。为患者提供全面,全程，专业，人性化的护理服务。在对精神病人的护理中由于服务对象在思维，情感，意志，自知力等方面存在障碍，患者对治疗及护理的依从性低，自理能力下降加之无家人的照顾，使得所有的问题都需要护士进行协调解决。所以精神科的护理难度加大，护理任务更加繁重，从而也更加能够在根本上彰显出优质护理服务的意义及重要性。因此如何为精神科患者提供全面，全程，专业，人性化的护理服务是我们一直需要研究的问题。

方法 1 加强精神科护患沟通工作。护患纠纷往往与护患沟通有着直接或间接的联系。通过沟通护理人员能够充分了解患者的意愿，对其要求、愿望以及情感等各个方面均能够全面护理，同时还能够掌握患者出现的各种临床症状，更加便于治疗。因此。精神科护理人员必须重视与患者及其家属之间的沟通交流，为患者提供更加优质的护理服务。 2.2 加大精神科健康教育宣传力度。加强对患者的健康教育宣传力度，将书面和口头教育模式结合起来，为患者提供个性化和集体两种教育模式。在工作中，将健康教育版画贴上墙，并在患者出院后为其发放疾病的宣传手册，确保患者及其家属能够对精神疾病更加了解，进而有效加强其治疗依从性，降低复发率。同时，建立电话回访，方便患者复诊，让患者感受到医院的优质服务，实现精神科健康教育的目的。 2.3 创新精神科护理工作模式。改变护理人员传统的工作方法，大胆创新挑战新护理模式，落实护理责任制和岗位责任制联合起来的工作模式，即每一位护理人员负责若干床位，主要对患者实施全面的护理。保证护理人员白天八小时在岗，而晚间则安排护理人员全权负责所有床位。确保白天和夜间每一张床位均有护理人员负责，相辅相成，保证无缝隙的优质护理服务。发挥管床护士和责任护士联合操作的模式，每一位护理人员均需要对若干患者进行负责，使患者能够每时每刻得到护士的精心护理。

结果 得到帮助

结论 共同进步

关键字：精神科中的优质护理服务

某军队三甲医院护士创新行为现状及影响因素分析

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目的 探讨护士创新行为的现状并分析其影响因素，为进一步提高护士创新行为提供依据。

方法 2022 年 6-7 月采用便利抽样挑选某军队三甲医院 260 名护士作为调查对象。采用自行设计的一般资料问卷、创新行为量表、循证护理能力评定量表、组织支持量表进行调查。正态分布的计量资料采用均数和标准差描述；偏态分布采用中位数和四分位数，计

数资料采用频数及百分数描述；采用单因素方差分析、Pearson 相关分析、多元线性回归分析进行数据分析。

结果 临床护士创新行为平均得分为（29.96±6.68）分，条目均分为 3±0.67 分。多元线性回归分析显示情感性支持、情景评估与证据应用能力、是否参加过护理创新学习可以影响护士创新行为，共解释 36.2％%的总变异。

结论 护士创新行为水平处于较低水平，其中取得支持维度及证据整合能力维度得分最低，影响护士创新行为水平的主要三大因素分别是：情感性支持、情景评估与证据应用能力、是否参加过护理创新学习。因此，护理管理者应该根据影响因素针对性的制定干预措施，加强护士的情感性支持，提高护士循证护理能力，培养护士创新思维，引导护士产生创新想法，提升护士创新行为水平，加速医院健康卫生事业的发展。

关键字：护士 创新行为 组织支持感 循证护理能力 影响因素

1 例精神分裂症患者合并银屑病的护理体会

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目的 精神分裂症与银屑病均是一类极易复发的慢性疾病。银屑病反复发作，治疗周期长，不能根除，受疾病折磨导致患者出现焦虑、抑郁等负性情绪，严重影响患者生活质量。精神神经因素是银屑病复发的重要诱因。银屑病伴焦虑抑郁时，机体内神经 一内分泌一免疫网络稳态被打破，在各种心理应激状态下，负面情绪作用在大脑皮层，影响了皮肤微血管透性，进而导致皮肤患处炎症和免疫反应增强，诱发或加重银屑病［1］。该患者合并罹患两种疾病，病种之间有相互影响的潜在因素。由于患者长期饱受疾病困扰，在精神症状支配下，日常生活能力受损，生活懒散，对疾病恢复失去信心，容易加重病情，延误治疗。现报道 1 例精神分裂症患者合并银屑病护理过程，总结在本次临床工作中的护理经验和体会，为后期临床工作中再次遇到类似病例提供临床经验。

方法 记录临床实际工作中的一例特殊病例。将精神专科护理与皮肤科护理模式相结合，通过观察患者随着病情逐步发展、变化出现的临床表现，进行护理评估，提出护理问题及目标，制定切实可行的护理计划，认真落实护理措施，最后进行护理评价等过程。具体体现在除了给予患者提供常规的精神科专科护理外，包括基础护理、发热护理、皮疹与蜕皮护理、肺炎护理、饮食护理、健康指导等等。除此之外再结合精神科物理治疗，康复治疗、心理指导等等多学科、多维度全程护理并总结经验。

结果 经过主任、主管医生、值班医生及护理团队多次查房，精准治疗、护理，患者出院时的精神症状得到控制，住院期间未发生自伤、自杀等不良事件，问答尚切题，被动接触，自知力部分恢复。虽然患者合并多项躯体疾病，在护理人员的精心护理下患者未发生压疮事件，但是银屑病症状未见明显改善，尤其是有关低蛋白血症，引发的阴囊水肿等一系列问题，需进一步接受专科治疗。出院当天给予患者及家属精神专科相关知识及健康指导，督促药物由家属妥善保管，严格按照医嘱服药，不可随意增减药量，定期随访，防止疾病复发。

结论 运用精神专科护理与皮肤科护理相结合的综合护理模式，在患者住院期间患者精神症状有所改善，但是仍需总结本次临床护理经验，不断学习、积累银屑病护理的相关知识，为后期再次遇到类似病例提供优质化护理服务。

关键字：分裂症 银屑病

精神分裂症研究协作组

精神分裂症患者功能连接异常与临床症状维度的映射模式初探

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背景 精神分裂症患者表现出广泛的异质性症状，可分为以下四个维度：阳性症状、阴性症状、认知症状和情感失调。研究表明，功能连接失调在精神分裂症患者中普遍存在，但是临床症状域和大脑功能异常之间的映射还不甚明确，因此探讨精神分裂症患者功能连接异常改变与临床症状群之间的关系，将有助于解释精神分裂症患者症状表现的本质，促进精神分裂症的治疗。

方法 本研究纳入了 63 名精神分裂症患者，以及年龄、性别、受教育年限与之匹配的 63 名健康对照者，并在西门子 3 Tesla Prisma 磁共振仪器上采集了所有被试的静息态功能数据。我们首先进行了多变量距离矩阵回归分析（Multivariate Distance Matrix Regression，MDMR）和聚类分析，以确定精神分裂症患者与健康被试之间的功能连接差异团块；然后基于脑连接组的预测模型（Connectome-based Predictive Modeling，CPM）进一步发现功能连接差异与临床症状维度之间的关联模式。

结果 MDMR 结果表明，精神分裂症患者大脑中存在广泛的功能连接失衡，主要涉及额叶、颞叶、顶叶、边缘叶、皮下核团等 39 个脑区（Bonferroni 校正，$P<0.05$），与视觉网络、背侧注意网络、边缘网络、默认网络（Bonferroni 校正，$P<0.05$）异常密切相关。按照连接模式差异的相似性将这 39 个差异脑区分为两个团块，团块 1 包含 32 个脑区，团块 2 包含 7 个脑区。基于每个团块的脑区与全脑的连接模式和 CPM 模型的分析结果发现，团块 1 可以显著预测精神分裂症的情感失调症状（$r=0.33$，$P=0.019$），但是并未发现阳性症状、阴性症状、认知症状与全脑功能连接的映射。

结论 精神分裂症患者存在广泛的、显著的功能连接异常，但是异常的连接模式对临床症状维度的映射模式还有有待进一步研究。

关键字：精神分裂症 功能连接 症状维度

Gut Microbiota Feature in Young Adult Schizophrenia with Prominent Negative Symptoms

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Objective Gut dysbacteriosis has been established as a characteristic of schizophrenia (SCH). However, the signatures regarding SCH patients with prominent negative symptoms (SCH-N) in young adults have been poorly addressed.

Methods In the present study, stool samples obtained from 30 young adults with SCH-N and 36 healthy controls (HC) were analyzed by 16S rRNA gene sequencing; Psychiatric symptoms were also assessed.

Results We found that gut microbiota composition was remarkably changed in the patients with SCH-N. Moreover, the distinct gut microbiome signatures and their correlation with clinical variables were also observed. Furthermore, we identified diagnostic potential biomarkers comprising 6 genera (Coprococcus, Monoglobus, Prevotellaceae_NK3B31_group, Escherichia-Shigella, Dorea and Butyricicoccus) that can distinguish SCH-N from HC (AUC = 0.939).

Conclusion This study provides a further understanding of abnormal gut microbiome in young adults with SCH-N and lay the potential foundation for the development of microbe-based clinical diagnosis for SCH-N.

关键字：Schizophrenia; Negative symptoms; Gut microbiota; Young adults

Effects of Low-Frequency RTMS Combined with Risperidone on The Gut Microbiome in Hospitalized Patients with Chronic Schizophrenia

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Objective Repetitive transcranial magnetic stimulation (rTMS) has been widely used in the clinical treatment of schizophrenia (SCH). However, the effects of the low frequency of rTMS combined with antipsychotics on the gut microbiome in chronic SCH have been poorly addressed.

Methods In the present study, psychiatric symptoms were assessed and the stool samples obtained from 33 adult patients with chronic SCH (at baseline phase, SCH), 27 after 2 weeks of treatment (SCH-2W), and 37 healthy controls (HC) were analyzed by 16S rRNA gene sequencing.

Results We found that there were no significant differences in α-diversity indices, including Ace, Chao1, Shannon and Observed OTUs. However, principal coordinate analysis (PCoA) showed the three groups could be distinguished at the OTU level. Moreover, the reduction of phylum Proteobacteria, family Enterobacteriaceae and genera Escherichia-Shigella as well as the increase of genera norank_f_Lachnospiraceae might be related to the antipsychotic effect of rTMS combined with risperidone.

Conclusion These findings provide further evidence that the brain-gut-microbiota axis might be involved in the therapeutic effect of rTMS combined with antipsychotic drugs.

关键字：rTMS; risperidone; Gut microbiota; Chronic schizophrenia

以阳性、阴性症状为主的精神分裂症患者面孔情绪识别对语音情绪表达的影响

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目的 探讨以阳性、阴性症状为主的精神分裂症患者（SZ）面孔情绪识别差别及与语音情绪表达的关系。

方法 进行方便取样，选取精神分裂症患者 82 人[年龄 17～60 岁、平均（年）41.2±11.5；男 40 人，女 42 人；受教育年限（13.4±2.3）年]。使用面孔情绪识别量表对所有受试者的面孔情绪识别能力，使用阳性与阴性症状量表(PANSS)分别对精神分裂症患者的社会功能和临床症状进行评估；分别让患者朗读中性，正性和负性三段文字，进行被动情绪表达诱导，抽取语音 MFCC 的 12 个系数作为频谱特征分析；将精神分裂症患者组以PANSS阴性症状分和阳性症状分之差进行亚分组（≥0 为以阴性症状为主（NSZ）,<0 为阳性症状为主（PSZ））。以 MFCC 频谱特征作为因变量，以分组和面孔情绪识别和两者交互作用作为自变量进行方差分析。

结果 面孔情绪主效应及两者交互作用显著（p＜.05）；分组主效应不显著（p＞.05）。对交互作用进一步进行分析，结果发现，在 NSZ 组，两者相关不显著（p＞.05）；但在 PSZ 组，两者相关显著（p＜.05），呈正相关。

结论 以阳性为主的 SZ 面孔情绪识别的能力会影响语音情绪表达。

关键字：精神分裂症，阳性，阴性，面孔情绪识别，语音情绪表达

Different Degrees of Nodes behind Obsessive-compulsive Symptoms of Schizophrenia

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Abstract Obsessive-compulsive symptoms are frequently observed in various psychiatric disorders, including obsessive-compulsive disorder, schizophrenia, depression, and anxiety. However, the underlying anatomical basis of these symptoms remains unclear. In this study, we aimed to investigate the mechanism of schizophrenia with obsessive-compulsive symptoms by using diffusion tensor imaging (DTI)-based structural brain connectivity analysis to compare the network differences between patients with major depressive disorder (MDD), obsessive-compulsive disorder (OCD), schizophrenia with obsessive-compulsive symptoms (SCH), schizophrenia taking clozapine causing obsessive-compulsive symptoms (LDP), and healthy controls (CN). We included 21 patients with OCD, 20 patients with SCH, 12 patients with LDP, and 25 CN. We assessed baseline Y-BOCS, PANSS, and HAMD scores. Our results showed significant differences in MR degree (the degree of nodes) in 25Frontal_Med_Orb_L, 47Lingual_L, 58Postcentral_R, and 90Temporal_Inf_R regions between SCH, OCD, and CN ($p < 0.005$). In LDP, we found significant differences in brain regions 02Precentral_R, 47Lingual_L, 58Postcentral_R, and 90Temporal_Inf_R ($p < 0.005$). These findings suggest that the degree of nodes might be the mechanism behind obsessive-compulsive symptoms in schizophrenia.

关键字：Obsessive-compulsive symptoms of schizophrenia, brain network, network analysis, diffusion tensor imaging, the degree of a node

精神分裂症合并抑郁患者血清甲状腺激素、脑源性神经营养因子 水平变化及临床意义

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目的 分析精神分裂症合并抑郁患者血清甲状腺激素、脑源性神经营养因子（Brain-derived nurotrophic factor，BDNF）水平变化及临床意义。

方法 回顾性选取 2019 年 2 月到 2020 年 8 月我院收治的 122 例精神分裂症患者的临床资料，并按照患者有无合并抑郁，设为合并组[n=63，根据汉密尔顿抑郁量表（Hamilton Depression Scale，HAMD）将精神分裂症合并抑郁患者分为轻度（20~27 分，n=20）、中度（28~35 分，n=26）、重度（＞35 分，n=17）]、未合并组（n=59），另选取 75 例同时间段于我院进行体检的健康体检者作为对照组。对比不同人群血清 BDNF、游离三碘甲状腺原氨酸（Free triiodothyronine，FT3）、游离甲状腺素（Free thyroxine，FT4）、促甲状腺激素（Thyroid stimulating hormone，thyrotropin，TSH）水平，分析精神分裂症合并抑郁患者 BDNF、FT3、FT4、TSH 水平与 HAMD 的相关性。

结果 （1）三组 BDNF、FT3、TSH 水平比较：合并组＜未合并组＜对照组（P<0.05）；3 组 FT4 水平比较差异无统计学意义（P>0.05）。（2）不同抑郁程度精神分裂症合并抑郁患者 BDNF、FT3、TSH 水平比较：轻度组＞中度组＞重度组（P<0.05）；3 组 FT4 水平比较差异无统计学意义（P>0.05）。（3）Spearman 分析结果显示精神分裂症合并抑郁患者 BDNF、FT3、TSH 水平与 HAMD 呈负相关性（P＜0.05）。

结论 精神分裂症合并抑郁患者血清中 BDNF、FT3、TSH 表达下调，BDNF、FT3、TSH 与患者抑郁程度密切相关，通过监测 BDNF、FT3、TSH 水平变化可对患者实施科学并有针对性的心理疏导，以提高治疗效果及生存质量。

关键字：精神分裂症；抑郁；临床意义；甲状腺激素；BDNF

精神分裂症伴高同型半胱氨酸血症患者代谢组学生物标志物研究

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目的 认知功能障碍为精神分裂症患者主要症状之一，其影响患者疾病预后及社会功能恢复，而多项研究显示精神分裂症患者中高同型半胱氨酸水平与认知功能障碍密切相关。对于精神分裂症伴高同型半胱氨酸血症患者代谢组学研究，将有助于精神分裂症认知功能障碍人群的识别，指导进一步治疗。本研究基于1H-NMR 的代谢组学分析，探讨精神分裂症高同型半胱氨酸血症患者的差异代谢组学生物标志物，并进一步探索其代谢途径，旨在发现有意义的生物标志物。

方法 采用核磁共振光谱法评价精神分裂症伴高同型半胱氨酸血症患者(n = 50)和健康对照(n = 50)的血清代谢谱。数据分析采用正交偏最小二乘判别分析和 t 检验。鉴定差异代谢物(VIP > 1 且 $p < 0.05$)，并使用 Metabo Analyst 3.0 进一步分析相关代谢途径。

结果 在血清中发现 5 种差异代谢物：γ-氨基丁酸、谷氨酸、谷氨酰胺、鸟氨酸、乳酸；发现精氨酸代谢、脯氨酸代谢、丙氨酸代谢、天门冬氨酸代谢、谷氨酰胺和谷氨酸代谢途径异常。

结论 在精神分裂症伴高同型半胱氨酸血症患者中发现异常的代谢标志物及代谢途径，提示它们可能是精神分裂症认知功能相关的潜在生物标志物。为我们进一步探讨精神分裂症认知功能障碍发病机制提供依据，对精神分裂症的临床诊断和治疗具有重要的指导意义。

关键字：精神分裂症;高同型半胱氨酸血症；认知功能障碍；1H-NMR 技术;代谢组学

基于社区人群酒精使用情况、肝肾功能、糖脂水平及认知功能相关的网络分析

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目的 酒精使用障碍(AUD)包括酒精滥用和酒精依赖。长期酗酒会导致消化和循环系统损伤、脑内电生理异常和精神疾病患病风险增加。近年来，酒精使用情况和认知功能的关系越来越受到研究者的关注。轻度或中度饮酒对认知功能具有保护作用，而不良饮酒行为可能会增加认知障碍或认知衰退的风险。同时，有研究发现肝肾功能、糖脂水平对饮酒人群的认知功能具有重要影响。本研究探索社区人群的不同酒精使用情况、肝肾功能、糖脂水平及认知功能之间的网络关系，明确这几方面因素之间的相互作用。

方法 本研究由河北医科大学第一医院开展，调查了2016年4月-12月河北省石家庄市藁城区4个镇、10 个单位以及在藁城人民医院参与入职体检的人群1539 人。根据酒精使用障碍筛查量表(AUDIT)评估受试者酒精使用障碍的严重程度。采用视觉图形记忆测验(BVMT-R)、霍普金斯语言学习测试修订版(HVLT-R)、数字符号编码测验（DSCT）、数字广度测试（DST）评估人群认知功能情况；提取受试者外周血检测肝肾功能指标(包括谷丙转氨酶、谷草转氨酶、AST/ALT 比值、谷氨酰转肽酶、尿素氮、肌酐、尿酸)及糖脂水平指标（包括空腹血糖、总胆固醇、甘油三酯、高密度脂蛋白、低密度脂蛋白）；采用网络分析，构建酒精使用情况、肝肾功能、糖脂水平及认知功能之间的网络关系。

结果 构建了一个由 19 个节点组成的网络。BVMT-R Total（BVMT 总分）和 GGT（谷酰转肽酶）节点边数最多。总体而言，酒精使用严重程度与肝肾功能及糖脂水平具有相关性，表明饮酒对这两方面有影响。肌酐指标与数字符号编码测验和数字广度测验呈相关性。在构建的网络模型中，我们未发现饮酒与认知功能的相关性。网络推断测量结果表明，总胆固醇节点（d=0.526）在网络中具有最高的标准化强度中心性，谷酰转肽酶节点（d=0.474）次之，二者在网络中也具有最高的紧密度估计，表明它们与其他节点之间的连接路径最短。

结论 我们的研究结果表明，饮酒可导致肝肾功能及糖脂水平发生改变。其中，肝功能水平可能与认知功能直接相关。需要进一步扩大临床样本以阐明肝功能对认知功能影响的具体作用。

关键字：酒精使用，认知功能，代谢指标，网络分析

磁休克治疗对精神分裂症患者皮层厚度的影响

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目的 精神分裂症是一种严重的精神疾病，具有广泛的症状谱，包括行为、情绪和认知障碍，几乎每个患者都检测到某种程度的残疾。许多抗精神病药物可用于治疗，但 40% 的患者仅获得部分反应，而 10% 的患者几乎没有反应。对于对药物反应有限的患者，电休克疗法 (ECT) 是一种潜在的选择，因为 ECT 可以提供快速的整体症状改善。然而，认知不良反应很常见，如健忘症和发作后迷失方向。作为替代方案，磁力发作疗法 (MST) 在减轻症状方面的效果与 ECT 相当，但认知障碍较轻。然而，目前尚不清楚磁休克治疗(MST)对精神分裂症患者皮层厚度的影响。

方法 51 名精神分裂症患者，其中接受电休克（ECT）治疗 33 例，接受 MST 治疗 18 例。通过阳性与阴性症状量表（PANSS）和重复性成套神经心理状态测验 (RBANS) 测定临床症状和认知功能。FreeSurfer 6.0 软件对患者皮层厚度进行分析。

结果 使用 FreeSurfer 的标准自动重建算法计算皮层厚度，以重建皮层表面。所有重建的图像都由训练有素的研究人员仔细检查。将每个样本投影到

fsaverage 上，并使用 30mm 高斯核进行平滑。但是无论在 ECT 组或是 MST 组我们均没有发现治疗前后皮层厚度的显著改变。

结论 磁休克对精神分裂症患者皮层厚度影响较弱，可能与其认知保留机制有关。

关键字：电休克；磁休克；精神分裂症；皮层厚度

神经营养因子预测精神分裂症电休克治疗效果

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目的 脑源性神经营养因子（BDNF）在用电休克疗法（ECT）或抗精神病（AP）药物治疗精神分裂症中发挥着重要作用。然而，目前还不清楚 BDNF 是否在此过程中起到介导作用；因此，我们假设基线 BDNF 水平可以介导 ECT-AP 治疗的有效性。

方法 共检查了 160 名精神分裂症患者；80 人接受了 AP 单药治疗，其他 80 人接受了 ECT 和 AP 的组合治疗。根据制造商的说明，使用 Emax 免疫测定系统试剂盒（Promega，Madison，WI，美国）通过酶联免疫吸附剂测定 BDNF 浓度。各组间连续变量的差异采用独立样本 t 检验进行评估；c2 检验适用于性别等分类数据。配对样本 t 检验用于评估 PANSS 评分和 BDNF 水平的变化。对数线性分析用于检查人口统计学特征、BDNF 水平与临床特征和反应状态之间的关系。P 值 <0.05 被认为具有统计学意义。

结果 使用线性分析来检查人口特征、BDNF 水平、临床特征和反应状态之间的关系。基线 BDNF 水平和 BDNF 水平增量是临床结果的最佳预测因素（OR1 = 3.358，P = 0.000；OR2 = 3.243，P = 0.000）。

结论 更高的基线 BDNF 水平和更大的 BDNF 水平增量被发现与良好结果有关。

关键字：脑源性神经营养因子；疗效预测；电休克；抗精神病药物

一例音乐性幻听症状为主的精神分裂症患者的治疗

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目的 探索音乐性幻觉的治疗

方法 音乐性幻听，也叫 Oliver Sacks 综合征或 Charles Bonnet 综合征，是一种极为复杂的听幻觉。音乐性幻听由 Emmanuel Régis 于 1881 年第一个提出来，但是，直到 1932 年，才明确器质性疾病及精神疾病相关音乐性幻听的区别。音乐性幻听最常见于听觉丧失的病人，也和脑部疾病(神经胶质瘤、癫痫、中枢神经脑血管疾病、脑炎)和精神疾病，如重度抑郁症、双相情感障碍、精神分裂症、强迫症相关。音乐性幻听更常见于正常人。音乐性幻听在精神分裂症较为少见，且较多出现于年纪大、女性患者，而在年轻男性病例中则更少见。

结果 患者为 23 岁的男性，因“精神分裂症”而入院。病史 8 年，病史中主要幻听，音乐性幻听尤为明显，难以自控地反复听到他自己喜欢的歌曲，这种声音不受控制，会干扰自己，因无法摆脱这个声音而气愤、烦躁不安，甚至于 2014 年 11 月，2015 年 4 月两次大量顿服氯丙嗪 300mg/日。2015 年 10 月 4 日-2015 年 12 月 10 日第一次住院，诊断“精神分裂症”，服用“氯氮平 200-500mg/日”治疗，效果不好，出院后坚持服药，且期间药量维持 400mg/日，症状一直存在。2022 年 12 月 18 日再次住院，回顾其成长史，发现患者父亲为精神分裂症患者，脾气较暴躁，在患者童年其曾虐待患者。考虑存在强迫症的色彩（想控制音乐性幻听，但又控制不住，因此痛苦），因此合并舍曲林 150mg/日治疗。治疗 9 周，2022 年 2 月 15 日起患者幻听明显减少，但仍存在。2023 年 3 月 22 日出院。

结论 音乐性幻听症状在精神分裂症患者中较少见。至今，相关机制不明，且治疗效果仍不好，既往报道的音乐性幻听以年龄大、女性病例较多，而本病例为青年男性，有不良童年经历，这些因素都增加了患者病情的复杂性及治疗的难度。部分音乐性幻听有强迫性的特点，予以抗强迫治疗可能取得一定疗效。

关键字：音乐性幻听

精神分裂症患者自知力与应对方式、归因方式、功能失调性信念的关系

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目的 探讨精神分裂症患者自知力恢复的相关心理因素，为寻找有效改善精神分裂症患者自知力的方法提供依据。

方法 选取符合精神障碍诊断与统计手册第 4 版(DSM-IV)精神分裂症的诊断标准的医院门诊和住院患者 131 例。采用自知力评定量表(SAI)、阳性与阴性症状量表（PANSS）、应对方式问卷（CQS）、精神分裂症症状归因方式问卷（SAQS）、非理性信念量表（IBS），分别于基线、12 周、24 周测评患者自知力、精神症状、应对方式、症状归因方式和功能失调性信念。采用重复测量方差分析，配对 t-检验，相关分析，回归分析进行统计分析。

结果 24 周末相关分析显示，依从性的变化值与阳性症状、一般病理、局部-整体变化值负相关（r=-0.36，-0.28，-0.18，P<0.05），疾病意识变化值与阳性症状、阴性症状、一般病理变化值负相关（r=-0.41，-0.27，-0.42，P<0.05），与内在-外在、问题解决变化值正相关（r=0.20，0.18，P<0.05），精神症状标识变化值与阳性症状、一般病理变化值负相关（r=-0.46，-0.39，P<0.05），与内在-外在变化值正相关（r=0.17，P<0.05）。多元逐步回归分析发现，阳性症状减轻对依从性、疾病意识、

精神症状有正向预测作用(β=-0.093，P=0.000；β=-0.102，P =0.006；β=-0.120，P =0.000)；一般病理症状减轻对疾病意识和精神症状标识有正向预测作用（β=-0.070，P =0.003；β=-0.041，P =0.039)，局部归因方式对依从性有正向预测作用（β=-0.025，P=0.023)，采用问题解决应对方式对疾病意识有正向预测作用（β=0.139，P =0.019)。

结论 应对方式和症状归因方式的改善对精神分裂症患者自知力改善有正向预测作用。

关键字：精神分裂症；自知力；相关因素

C-BCT 评估稳定期精神分裂症患者神经认知功能状况及影响因素分析

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目的 了解稳定期精神分裂症患者的认知功能情况，分析其影响因素。

方法 选择 2022 年 4 月 1 日-2022 年 7 月 30 日在宜昌市精神卫生中心住院部住院的患者，符合 ICD-10 精神分裂症诊断，使用抗精神病药物治疗 2 月以上的稳定期患者，年龄 18-60 岁，性别不限，临床总体印象量表（CGI）严重程度评分不超过 3 分，排除：①脑器质性疾病、严重躯体疾病不能配合调查者；②精神活性物质依赖或持续 10 年以上的酒精或药物滥用；③精神发育迟滞；④极度兴奋激越、木僵、消极自杀等不合作或存在风险的患者；⑤测验前 3 天使用任何精神活性物质；⑥测验前 3 天每天饮酒四个标准杯以上；⑦头部外伤史；⑧6 月内使用 MECT 或 ECT 治疗；⑨怀孕或哺乳妇女。经患者与家属知情同意后，采用自制表格收集患者的一般人口学情况及治疗信息、阳性和阴性症状量表（PANSS）评估患者病情的严重程度，简版质量生活质量量表 SF-12 评估患者的社会功能，中国简版神经认知成套测验（C-BCT）评估患者的神经认知功能。

结果 本次调查男性 74 名，女性 26 名，年龄 42.33±11.92 岁，未婚者居多（60 人，60.00%)，文化程度以初中和高中为主（69 人，69.00%)。PANSS 评分中 100%的患者有不同程度的阴性症状，86.00%的患者有不同程度的认知功能症状。SF-12 评分中身体健康总分 43.67±5.72，心理健康总分 39.68 渐渐 9.09。C-BCT 总分 15.88±6.74，82.00%的患者神经认知功能损害程度为中度及以上。受教育年限与患者神经认知功能损害程度正相关（r=0.230，P<0.05)，与数字广度 T 分正相关（r=0.211，P<0.05)，与持续操作 T 分负相关（r=-0.035，P<0.05)。年龄、病程和使用药物时长与神经认知功能总分相关分析未见统计学差异。不同教育水平患者神经认知功能总分存在显著差异(χ2=26.884，P<0.01)，符号编码 T 分（χ2=47.298，P<0.01）和数字广度 T 分（χ2=25.295，P<0.05）也存在显著性差异，不同婚姻状况患者符号编码 T 分(χ2=30.841，P<0.01）存在显著性差异。

结论 稳定期精神分裂症患者在信息处理速度、工作记忆、注意力、执行功能四个维度的神经认知功能都有受损。受教育年限、婚姻状况、身体健康总分是神经认知功能的影响因素。

关键字：C-BCT；认知功能；精神分裂症；稳定期

布南色林、鲁拉西酮治疗精神分裂症的疗效及对症状、内分泌激素、代谢综合征相关指标的影响

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目的 探究布南色林、鲁拉西酮治疗精神分裂症的疗效及对症状、内分泌激素、代谢综合征相关指标的影响。

方法 回顾性分析该院本院 2021 年 12 月至 2023 年 3 月收治的 200 例精神分裂症患者，使用鲁拉西酮治疗的 100 例患者为对照组，使用布南色林治疗的 100 例为观察组。对比两组临床疗效、各类代谢综合征相关指标、精神症状、内分泌激素。结果：观察组临床总有效率 96.00%高于对照组 88.00%（P＜0.05)。治疗后，观察组各类代谢综合征相关指标变化幅度均小于对照组（P＜0.05)。治疗后，观察组阳性症状、阴性症状、精神病理评分均低于对照组（P＜0.05)。治疗后，观察组内分泌激素变化幅度均小于对照组（P＜0.05)。结论 ：布南色林治疗精神分裂症，有助于改善患者精神症状，且对内分泌激素、代谢综合征相关指标影响较小，临床疗效显著，值得临床推广。

方法 回顾性分析该院本院 2021 年 12 月至 2023 年 3 月收治的 200 例精神分裂症患者，使用鲁拉西酮治疗的 100 例患者为对照组，使用布南色林治疗的 100 例为观察组。对照组予以鲁拉西酮治疗。口服使用盐酸鲁拉西酮片 1 次 40mg，1d1 次起，根据患者病情调整治疗剂量为 40mg~80mg/日。观察组予以布南色林治疗。口服使用布南色林片 1 次 4mg，1d2 次起，早晚餐后服用，根据患者病情调整治疗剂量为 16mg~24mg/日。两组患者均持续治疗 6 周。

结果 鲁拉西酮为临床上常用于治疗精神分裂症药物，通过对中枢多巴胺和 5-羟色胺受体的联合拮抗而发挥镇静作用。但鲁拉西酮在使用过程中可出现恶心、嗜睡、静坐不能、焦躁不安、帕金森病等不良反应。布南色林是第二代（非典型）抗精神病药。且布南色林的受体更纯净，发生体重增加、代谢异常、过度镇静、抗胆碱能等不良反应的风险较低，兼顾了疗效和安全性。认知功能损伤问题贯穿精神分裂症全病程治疗，将严重影响患者的治疗和预后.结果显示，治疗后，观察组阳性症状、阴性症状、精神病理评分均低于对照组（P＜0.05)。观察组临床总有效率 96.00%高于对照组 88.00%（P＜0.05）

结论 综上所述，布南色林治疗精神分裂症，有助于改善患者精神症状，且对内分泌激素、代谢综合征相

关指标影响较小，临床疗效显著，值得临床推广。

关键字：布南色林；鲁拉西酮；精神分裂症；精神症状

经颅随机噪声刺激干预精神分裂症研究进展

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背景 经颅随机噪声刺激（transcranial random noise stimulation，tRNS）是一种新型、安全、有效、无创的神经调控技术，作为一种非侵入性脑刺激技术，在tRNS 期间，应用低强度交流电进行刺激，电流的强度和频率以随机方式呈现，tRNS 的电流围绕一个特定的振幅随机分布传输，也有部分 tRNS 以直流偏置（交流电力系统中存在的直流电流）形式进行传输，引起随机共振，提高神经元的敏感性，进而达到治疗精神分裂症的目的。 机制：tRNS 可能的起效机制有（1）调节神经元兴奋性： tRNS 可以增加经颅电刺激引起的皮质脊髓运动诱发电位的振幅，引发随机共振；也有研究认为，tRNS 中电流随时间随机振荡，使钠离子通道保持开放状态，提高神经元敏感性，导致超极化缩短，从而使神经元处于兴奋状态。（2） 提高神经可塑性：tRNS 重复的阈下刺激可以调节大脑的内稳态，这种效应会增强参与认知任务的神经群活动，通过加强神经元之间的突触传递来促进大脑皮层的可塑性；tRNS 还可以上调关键脑区脑源性神经营养因子基因表达水平，增强中枢神经元的可塑性；（3）对神经递质的影响：tRNS 可以降低 γ-氨基丁酸活性水平，调节去甲肾上腺素水平。 疗效与安全性：tRNS 具有感觉阈限较高，刺痛感较轻的特点，Chang 等通过 RCT 研究设计对 36 例稳定期精神分裂症患者进行 HF-tRNS 干预，电极结构为 4X1cm,共 5 个电极，电极正极放置于左额叶皮层 AF3 区，负极放置于右额叶皮层 F4 区周围的 AF4、F2、F6 及 FC4 区域，参数设置为直流电 2mA、偏置电流 1mA，渐入/渐出时长 15s，每次持续 20min，每日两次，两次的时间间隔≥2h，连续干预 5 天，研究结果显示，HF-tRNS 对精神分裂症患者阴性症状、瓦解症状、服药依从性及由精神病药物引起的椎体外系反应改善效果显著，没有观察到副作用。Yeh 等 RCT 研究结果也支持此结论,HF-tRNS 可以调节精神分裂症患者的伽玛波段(33-45hz)、阿尔法波段(8-12hz)功能网络连接，这可能在减轻精神分裂症患者的阴性症状中发挥关键作用。展望：tRNS 的治疗效果取决于多种刺激参数，如刺激时长、刺激次数、刺激强度、电极位置以及患者的大脑功能状态等， tRNS 的治疗参数尚缺乏明确的标准，这需要进一步研究，临床中也可以应用神经成像等技术，为患者制定个性化的刺激参数干预方案。

关键字：经颅随机噪声刺激；精神分裂症；神经调控

Increased Plasma GNA13 Protein in Relapse of Schizophrenia and Decreased after Modified Electroconvulsive Therapy

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Objective To investigate the difference of plasma GNA13 protein level between schizophrenia (SCZ) and healthy controls (HC), and the effect of modified electroconvulsive therapy (MECT) treatment on SCZ patient's clinical symptoms and GNA13 level. To explore the relationship between GNA13 level with clinical symptoms of SCZ.

Methods This study recruited 82 SCZ patients and 86 HC. Each SCZ received six sessions of MECT. Positive and Negative Syndrome Scale (PANSS) was used to assess symptom severity of SCZ. The GNA13 level was measured by enzyme-linked immunosorbent assay (ELISA).

Results SCZ pre-treatment had higher GNA13 level than HC ($t=8.199$, $p<0.001$). MECT reduced GNA13 level significantly ($t=11.13$, $p<0.001$), and made the difference between SCZ and HC disappeared ($t=0.219$, $p=0.827$). MECT reduced all the sub-factor scores (Positive symptoms (P): $t=13.06$, $p<0.001$; Negative symptoms (N): $t=9.81$, $p<0.001$; General symptoms (G): $t=11.39$, $p<0.001$; Total score (T): $t=15.37$, $p<0.001$), and made the gender differences of clinical symptoms disappeared. Before treatment, GNA13 level was positively correlated with N score in female ($r=0.454$, $p=0.007$). After treatment, the down-regulation of GNA13 level (ΔGNA13) was negatively correlated with positive symptoms score reduction rate (ΔP) ($r=-0.379$, $p=0.027$) and positively correlated with negative score reduction rate (ΔN) ($r=0.480$, $p=0.004$) in female. In both male and female, receiver operating characteristic (ROC) curve revealed that GNA13 level pretreatment could help differentiate SCZ from HC (Male: area under curve (AUC)=0.792, $p<0.001$; Female: AUC=0.814, $p<0.001$).

Conclusion Plasma GNA13 protein level increased in relapse of SCZ, may associated with the pathophysiological mechanism of female patient's positive and negative symptoms, while decreased to normal level after MECT. The plasma GNA13 protein may be a plasma biomarker for the diagnosis of SCZ.

关键字：Schizophrenia; GNA13; Biomarker; Electroconvulsive therapy; PANSS

伴有代谢综合征的精神分裂症患者肠道菌群的代谢组学研究

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目的 基于微生物-肠-脑轴双向交流网络，通过肠道菌群非靶向代谢组学研究，对伴有代谢综合征的精神分裂症患者的差异代谢物进行筛选，探讨代谢物的改变对精神分裂症患者临床症状及代谢指标的影响，以期为以后的深入研究提供新思路。

方法 本研究纳入符合 DSM-V 精神分裂症诊断标准及代谢综合征诊断标准的患者 30 例为实验组（A 组），同时纳入与实验组性别、年龄、病程相匹配的符合 DSM-V 诊断标准的精神分裂症患者 36 例为对照组（B 组）。使用阳性和阴性症状量表（PANSS）和简易智力状态检查量表(MMSE)评估患者临床症状，两组在完成一般信息采集及量表评估后收集患者血液及新鲜粪便。首先使用独立样本 t 检验和曼-惠特尼 U 检验对临床症状及代谢指标进行统计分析。然后对所有粪便样本采用液相色谱质谱（LC-MS）方法进行代谢物检测，使用正交偏最小二乘法（OPLS-DA）分析、独立样本 t 检验及受试者工作特征曲线（ROC）验证等方法进行差异代谢物筛选，并将差异代谢物与临床症状及代谢指标进行相关性分析。

结果 （1）精神分裂症伴代谢综合征组和不伴代谢综合征组，两组患者在年龄、性别、受教育程度、病程、抗精神病药物使用均无统计学意义；临床症状中，A 组与 B 组的 PANSS 阳性症状、阴性症状、一般症状和总分间差异无统计学意义（$p>0.05$）。与 B 组相比，A 组的 MMSE 评分较低（$p<0.05$）；（2）根据单维统计分析 $p<0.01$ 和多元统计分析得到的变量权重值 VIP＞2 的筛选条件进行组间差异代谢物的筛选，共得到 47 种可被注释显著性差异性代谢物，进一步经过 ROC 验证，挑选出曲线下面积（AUC）＞0.7 的 31 种潜在生物标志物。根据 HMDB 分类发现主要为脂类和类脂分子、有机杂环化合物、有机酸及其衍生物及有机氧化合物等；差异代谢物与临床症状及代谢指标的相关性分析发现，MMSE 评分与 7 种差异代谢物呈负相关（$p<0.05$），BMI 与 4 种差异代谢物呈正相关、与 2 种差异代谢物呈负相关（$p<0.05$），TG 与 14 种差异代谢物呈正相关、与 13 种差异代谢物呈负相关（$p<0.05$），HDL-C 与 12 种差异代谢物呈正相关、与 13 种差异代谢物呈负相关（$p<0.05$）。

结论 精神分裂症伴代谢综合征组和不伴代谢综合征组相比，伴有代谢综合征的精神分裂症患者组存在较低的认知功能评分。两组间肠道菌群代谢物存在显著差异，这可能与患者肠道菌群代谢途径改变有关

关键字：精神分裂症；代谢综合征；肠道菌群；代谢组学

同伴支持康复干预对精神分裂症患者生活质量的护理改善探讨

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目的 研究旨在探讨在住院精神分裂症患者的临床护理中引入同伴支持康复干预策略的效果，评估同伴支持小组对精神分裂症患者生活质量的改善、焦虑心理的减轻、生活行为的改善以及生活质量的提高的影响。

方法 该研究于 2022 年 1 月至 2023 年 4 月进行，共纳入 80 例住院精神分裂症患者，采用随机数字表方法将患者分为对照组（40 例）和试验组（40 例）。对照组包括 22 例男性和 18 例女性，年龄范围为 22 至 68 岁，平均年龄为 40.39 岁（±6.74）；试验组包括 21 例男性和 19 例女性，年龄范围为 22 至 68 岁，平均年龄为 41.03 岁（±6.68）。对照组接受常规护理干预，试验组在常规护理基础上，实施同伴支持康复干预，建立由精神专科护士、康复师和心理治疗师等组成的支持团队。干预内容包括统一康复训练、健康教育、效果评价和病情检测，以及同伴支持小组干预，涵盖情感支持、生活训练、陪伴支持、心理疏导和康复训练。通过评估患者的焦虑情绪、生活行为能力、生活质量和临床有效性来比较两组的差异。

结果 试验组在护理 1 周、2 周和 4 周时的焦虑情绪评分均较对照组低，$P<0.05$，存在统计学差异；试验组的生活行为能力评分和生活质量评分均较对照组高，$P<0.05$，存在统计学差异；试验组的临床总有效率较对照组高，$P<0.05$，存在统计学差异。

结论 在住院精神分裂症患者的常规护理中引入同伴支持康复干预可以迅速缓解患者的焦虑心理，对改善患者的生活行为和提高生活质量具有积极影响，并促进临床效果的提高。

关键字：焦虑；精神分裂症；生活行为能力；生活质量；同伴支持康复干预

观察药物联合康复方案用于精神分裂症并发糖尿病患者治疗中的疗效

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目的 分析精神分裂症并发糖尿病患者采用药物联合康复方案治疗的临床疗效。

方法 2019 年 5 月～2021 年 12 月，于我院收治的精神分裂症并发糖尿病患者中选取 120 例，随机分为两组，对照组采用阿立哌唑治疗，观察组在对照组基础上联合康复方案治疗，对比两组临床疗效、血糖指标变化情况。

结果 观察组治疗效果为显效的患者共有 36 例，有效患者共有 20 例，无效患者 4 例，临床治疗总有效率为 93.33%，明显高于对照组的 71.67%，组间差异存在统计学意义，$X2=9.6638$，$P<0.05$；观察组患者治疗后的 2hPG、FPG 以及餐后最高血糖水平分别为（10.02±2.15）mmol/L、（4.22±0.05）mmol/L、（4.25±0.52）mmol/L，均低于对照组的（13.65±3.18）mmol/L、（7.65±1.52）mmol/L、（7.52±1.63）mmol/L，组间差异存在统计学意义，$t=9.6325$、10.3258、9.9968，$P<0.05$。

结论 精神分裂症并发糖尿病患者采用药物联合康复方案治疗的临床疗效显著，能有效改善患者的血

糖水平，值得推广。 精神分裂症与糖尿病在临床上均十分常见，对人类身体健康产生了严重影响[1]。研究显示，糖尿病和精神疾病，特别是严重精神分裂症之间存在密切相关性，相互作用，相互影响[2-3]。精神分裂症会促使患者机体糖代谢紊乱程度加重，而糖代谢紊乱也会促使患者精神症状加重，对其生活质量以及社会功能产生严重影响[4-5]。总而言之，精神分裂症并糖尿病对患者身心健康以及生活质量均产生了严重影响，需要及时寻找一种有效方式对其进行治疗[6]。本研究在该疾病治疗中采用药物联合康复方案的方式，获得了理想的临床疗效，

关键字：药物；康复方案；联合治疗

基于体素水平度中心度分析慢性精神分裂症的脑功能网络

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目的 利用基于体素水平的度中心度（degree centrality，DC）探讨精神分裂症（schizophrenia ，SCZ）患者静息状态下大脑功能网络连接属性的改变。

方法 对年龄、性别及文化程度相匹配的 20 例患者（SCZ）和 19 例健康对照进行静息态脑部功能性磁共振成像（fMRI）。采用阳性与阴性症状量表（PANSS）对患者的临床症状进行评估，采用神经心理状态评定量表(RBANS)对健康对照组和患者组的认知水平进行评估。采用基于体素的 DC 方法分析 fMRI 数据，以 t 检验比较组间参数。对精神分裂症组差异脑区的 DC 值分别与临床症状参数及认知功能参数进行相关分析。

结果 与健康对照组比较，精神分裂症组在视觉广度、言语功能、注意及认知功能总分均低于健康对照组（P 均<0.05）。与健康对照组比较，精神分裂症组右侧丘脑的 DC 值明显升高（P<0.05），右侧顶上回和左侧距状裂周围皮层的 DC 值明显下降（P<0.05）。精神分裂症组的差异脑区 DC 值与认知功能、PANSS 各分量表得分相关无统计学意义（P>0.05）。

结论 精神分裂症患者静息态脑功能网络 DC 值存在多处异常，但尚无发现 DC 值与认知功能、临床症状的相关性，精神分裂症的病理机制有待进一步探究。

关键字：精神分裂症 认知功能 脑 功能网络 度中心度 核磁共振成像

Women’s Reproductive Traits and Risk of Schizophrenia: A Two-sample Mendelian Randomization Study

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Objective A significant association between women's reproductive traits and risk of schizophrenia (RS) have been discovered, but their causalities are unclear.

Methods Mendelian randomization (MR) was developed on the premise of three assumptions. Firstly, SNPs designated as instrumental variables (IVs) should be extremely connected to exposure (Assumption 1); Secondly, SNPs picked as IVs are required to be independent of confounders (Assumption 2); Thirdly, rather than being directly correlated, IVs and RS (outcome) only have a relationship through reproductive variables (exposure)(Assumption 3).We devised a two-sample univariable and multivariable Mendelian randomization (MR) study using female-specific SNPs gathered from large-scale genome-wide association studies for women's reproductive traits as genetic instruments for exploring the causal effects of women's reproductive features on RS. The inverse variance weighting estimations for both univariable MR (UVMR) and multivariable MR (MVMR) were presented as the primary results. MR-Egger, weighted median, simple mode, and weighted mode regression methods for UVMR, and MVMR-Egger, MVMR-Lasso, and MVMR-median methods for MVMR were used as sensitivity analyses.

Results In UVMR, there was compelling proof for a connection between genetically predicted later age at first sexual intercourse (AFS) (OR, 0.632; 95% CI, 0.512-0.777; P<0.01) and decreased schizophrenia (SCZ) risk. Heterogeneity was assessed by Q test, and heterogeneity (Q,56.981-721.257; p<0.05) was observed for all IVs. Due to the heterogeneity in the association analysis of AFS-RS (Q=721.257), we applied random effects IVW. Potential polymorphic outlier SNPs were detected in the IVs-RS association using MR-PRESSO.Pleiotropy analysis of the AFS-RS association confirmed the robustness of MR results(P>0.05). We demonstrated consistently substantial causal effects of AFS (OR,0.592;95%CI, 0.407-0.862; P<0.01) on RS after adjusting for body mass index, years of schooling, and Smoking initiation using MVMR.

Conclusion Our findings provide convincing proof that early AFS is a risk factor for RS. SCZ risk may be decreased by raising consciousness about reproductive health care for women.

关键字：Women’s reproductive traits, schizophrenia, Mendelian randomization, Causal relationship

精神分裂症住院患者高尿酸血症患病率及相关因素分析

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目的 精神分裂症则是最常见的一种重性精神疾

病，该疾病在长期服药治疗过程中易产生肝功能损害、肾功能损害及代谢综合征多种并发症，但目前人们对于精神分裂症合并高尿酸血症的研究并不多，为了更好地解决精神分裂症患者长期治疗的安全性问题，本研究以精神分裂症住院患者为研究对象，探讨其高尿酸血症的患病率及相关影响因素，旨在对精神分裂症患者尿酸升高采取相应预防措施提供理论依据。

方法 采用自制的调查表对 527 例住院精神分裂症患者进行调查，分别收集患者的性别、年龄、受教育年限、婚否、住院时间等相关资料，同时检测身高、体重、空腹血糖、甘油三酯、总胆固醇、尿酸等指标。

结果 527 例住院精神分裂症患者中，患有高尿酸血症的 109 例，患病率为 20.68%。高尿酸血症的精神分裂症患者的女性占比、超重或肥胖占比明显高于尿酸正常的（P<0.05%）。logistic 回归分析显示：精神分裂症住院治疗患者高尿酸血症的影响因素依次为性别(OR=0.160,95%CI: 0.096-0.268)，体重指数(OR=0.941,95%CI: 0.888-0.997)。

结论 住院精神分裂症患者高尿酸血症患病率较高，其平均水平明显高于普通人。肥胖的女性精神分裂症住院患者更易患高尿酸血症。

关键字：精神分裂症 高尿酸血症 住院患者 相关分析

首发精神分裂症和精神病临床高危的生活质量及影响因素

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目的 生活质量（QOL）受损是精神分裂症或精神病临床高危（CHR）个体的重要预后指标。首发精神分裂症（FES）和 CHR 个体生活质量直接比较的研究较少，相关的影响因素未完全明确。鉴于 QOL 对患者生活康复和回归社会具有重要的指标作用，本研究调查并比较 FES 和 CHR 个体的 QOL，探讨其 QOL 的影响因素。

方法 本研究为观察性研究，2015-2018 年选取首都医科大学附属北京安定医院门诊或住院患者，纳入符合美国精神障碍诊断与统计手册第 4 版（DSM-IV）或精神病风险综合征结构式访谈(SIPS)标准的 FES77 例，CHR59 例，健康对照 64 例，采集人口学资料。使用世界卫生组织生活质量测定量表简表（WHOQOL-BREF）评估所有参与者的生活质量水平。采用阳性和阴性综合征（PANSS）量表评估 FES 患者的五维症状，使用 SIPS 中精神病风险症状量表（SOPS）评估 CHR 和 HC 的临床症状。

结果 单因素方差分析显示，三组患者生活质量总分差异有统计学意义（F = 21.55, P < 0.001）。FES 和 CHR 组在 QOL 总分和 4 个子领域得分均低于 HC 组。CHR 组在 QOL 总分和心理健康领域得分低于 FES 组。应用 Bonferroni 校正后，FES 组中 QOL 总分与抑郁/焦虑症状相关（r = -0.34, P = 0.003）。逐步多元回归分析显示，抑郁/焦虑症状和失业对 FES 和 CHR 的生活质量均有负向影响（P < 0.05）。

结论 与 FES 患者相比，CHR 个体对生活质量更不满意。虽然 FES 和 CHR 的诊断评估在很大程度上依赖于阳性症状，但生活质量更多地受到抑郁/焦虑症状和社会功能的影响。

关键字：精神病临床高危，首发精神分裂症，生活质量

Differential Expression of MiRNA in Peripheral Blood of Unipolar Depressive Spectrum Disorder

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Objective : By studying the differential expression of miRNA between groups of unipolar depressive spectrum disorder, the biological differences were explored in order to deepen the understanding of the pathogenesis of unipolar depressive spectrum disorder.

Methods Peripheral blood plasma miRNA sequencing was performed on 78 subjects including Health Control (HC) group, SSD group, MinD group and MDD group. Subsequently, 20 miRNAs were selected according to the significance ranking for RT-qPCR experiment verification, and correlation analysis was conducted by combining HAMD-17, HAMA, PDQ-5, BSSI, ACE-IQ and LES scales.

Results 1. In terms of clinical characteristics, there was no significant difference in gender among HC, SSD, MinD and MDD groups by Fisher-Freeman-halton test (P>0.05). Single factor analysis of variance test showed that there were significant differences in age distribution among the four groups (P<0.05), and the average age of the depression group was lower than that of the other three groups. Secondly, HAMD-17 scores showed a trend from low to high among the four groups, and the differences were significant (P<0.01), and pairwise comparisons showed significant differences (P<0.05); 2. There were significant differences in the scores of HAMA, PDQ-5, BSSI, ACE-IQ, LES-negative event scale and LES total score among the four groups (P<0.05); 3. The results of miRNA differential expression analysis of peripheral blood plasma showed that a total of 95 miRNAs were significantly differentially expressed among the four groups (P<0.05); RT-qPCR was used to verify the top 20 miRNAs among the significantly differentially expressed miRNAs, and the results showed that 16 miRNAs were significantly differentially expressed among the four groups (P<0.05); 4. In correlation analysis, let-7a-5p, let-7b-5p, let-7d-5p showed strong negative correlation with HAMD-17 (|r|>0.6，P<0.05)，let-7a-5p、let-7d-5p showed weak negative correlation between child traumatic rating scale (0.2<|r|<0.3，P<0.05), miR-30a-5p showed weak positive

correlation between negative event stimulus quantity score(0.2<|rs|<0.3，P<0.05)。

Conclusions 1. According to the HAMD-17r, the severity of the four groups of HC, SSD, MinD and MDD showed a trend from mild to severe; 2. According to HAMA, PDQ-5 and BSSI, the severity of related symptoms in HC, SSD, MinD and MDD groups showed a trend from mild to severe. Secondly, according to ACE-IQ, LES-negative event stimulus score and LES total score, no trend from mild to severe was found among the four groups of HC, SSD, MinD and MDD in terms of stress-related factors; 3.According to correlation analysis, let-7 family may be highly related to the pathogenesis and severity of unipolar depressive spectrum disorder, among which let-7a-5p plays the most critical role. Secondly, stress-related factors may be involved in the pathogenesis of unipolar depressive spectrum disorder through let-7 family and miR-30a-5p.

关键字：unipolar depressive spectrum disorder， MicroRNA，HAMD-17, major depressive disorder, subsyndromal symptomatic depression

Machine Learning Analysis of MicroRNA Expression Data Reveals Novel Diagnostic Biomarkers for Unipolar Depressive Spectrum Disorders

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Objective : We aim to construct diagnostic models based on random forest and XGBoost algorithm, and mining potential miRNA biomarkers.

Methods Peripheral blood plasma miRNA sequencing was performed on 78 subjects including Health Control (HC) group, SSD group, MinD group and MDD group. In feature selection, miRNAs with statistically significant differences among case and controls, and miRNAs specific to each group were selected as two types of features for model construction in this study. Secondly, in this study, the "random forest" and "XGBoost" packages in R software were used to construct the diagnostic model, and the importance parameters of miRNA were output to mine potential biomarkers.

Results 1. Based on two feature selection methods (specific miRNAs of each group or different miRNAs of all groups), two algorithms (random forest or XGBoost) were used to construct models for four classification methods (SSD/others, MinD/others, MDD/others, case/control). A total of 16 models are obtained. In all the results, from the perspective of classification, the random forest algorithm and XGBoost algorithm model showed similar characteristics: good performance on MDD/others and case/control (AUC between 0.85-0.97), and average or poor performance on the rest (AUC between 0.50-0.72). Among them, XGBoost algorithm was used to select miRNAs with specificity of MDD group as characteristics, and the MDD prediction model constructed had excellent performance (AUC=0.97); 2.In terms of importance parameters, let-7a-5p is the most important among all models for case/control differentiation.

Conclusions 1. Random forest algorithm and XGBoost algorithm were used to construct a miRNA-based unipolar depressive spectrum disorder diagnosis model, which has a certain diagnostic value. Among them, the prediction model constructed by using XGBoost algorithm to select miRNA features specific to MDD is expected to provide a reference for the clinical diagnosis and treatment of MDD; 2. According to the importance parameters output by the random forest algorithm and XGBoost algorithm, let-7a-5p may be a specific biomarker for MDD group. Secondly, the ranking of important parameters in the SSD group and the MinD group was different from that in the MDD group, which might suggest that the structure of the miRNA expression profile in the SSD group and the MinD group was different from that in the MDD group to some extent.

关键字：unipolar depressive spectrum disorder，machine learning，MicroRNA，XGBoost

阻塞性睡眠呼吸暂停低通气综合征对精神分裂症患者临床症状和主观睡眠质量的影响

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目的 探索阻塞性睡眠呼吸暂停低通气综合征（obstructive sleep apnea hypopnea syndrome，OSAHS）对精神分裂症患者临床症状和主观睡眠质量的影响。

方法 本研究纳入了49名缓解期的精神分裂症患者作为研究对象。使用便携式睡眠呼吸监测仪对患者进行整夜睡眠监测。通过匹兹堡睡眠质量指数量表（Pittsburgh Sleep Quality Index, PSQI）评估患者的主观睡眠质量。使用阳性与阴性症状量表（Positive and Negative Syndrome Scale，PANSS）评估患者的临床症状。根据整夜睡眠监测报告结果，将研究对象分为OSAHS组（n=16）和非OSAHS组（n=33）。采用独立样本t检验和非参数检验（Mann-Whitney U检验）分别用于比较两组之间的各指标差异。此外，分别探索了OSAHS组、非OSAHS组的睡眠监测指标与临床症状、主观睡眠质量的相关性。

结果 在本研究中，OSAHS组患者在PANSS量表总分（P=0.016）、阴性症状总分（P=0.006）、主观入睡时间评分（P=0.013），日间功能评分（P=0.028）方面，显著高于非OSAHS组，差异具有统计学意义(P＜0.05)。相关性分析显示，OSAHS组患者的阴性症状总分与患者的睡眠呼吸暂停低通气指数（Apnea-Hypopnea Index, AHI）呈正相关（rs=0.525，P=0.037）。

结论 伴有 OSAHS 的稳定期精神分裂症患者可能存在更重的精神症状（尤其是阴性症状）、更差的睡眠质量。同时，伴 OSAHS 的精神分裂症患者睡眠呼吸暂停的严重程度可能与患者的阴性症状相关。未来仍需要大样本的研究进行验证。

关键字：精神分裂症，阻塞性睡眠呼吸暂停低通气综合征，阴性症状，睡眠质量

慢性精神分裂症患者一氧化氮代谢及烟酸反应敏感度变化与认知功能特点分析

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目的 探索慢性精神分裂症患者的一氧化氮代谢情况及烟酸反应敏感度变化与认知功能特点。

方法 于 2019 年 10 月至 2021 年 10 月入组在连云港地区精神专科医院长期住院的男性精神分裂症患者 96 例为患者组，同时招募相匹配的正常男性 88 例为对照组采用横断面研究。采用阳性与阴性症状量表（PANSS）评估患者组的精神症状严重程度，采用成套神经心理状态评估工具（RBANS）评定患者组和对照组的认知功能，利用烟酸皮肤潮红反应进行烟酸反应敏感度检测，进行血浆一氧化氮（NO）、一氧化氮合酶（cNOS）浓度检测。

结果 患者组及对照组 RBANS 总分及分量表评分比较发现，患者组显着低于对照组，差异有统计学意义（全部 p ＜0.001）。患者组 NO 水平高于对照组（53.1±16.7 vs 48.8±16.8，p=0.039）；与对照组比较，对照组 cNOS 活力明显降低（1.3±0.5 vs 1.6±0.5，p=0.000），差异有统计学意义。烟酸浓度为 0.000 1 mol/L 时，无统计学意义。烟酸浓度为 0.001 mol/L 时，患者组在 5min（t=-2.561，P=0.012）、10 min（t=-5.110，P=0.000）、15min（t=-5.368，P=0.000）、20 min（t=-5.229，P=0.000）时平均反应分数低于对照组；烟酸浓度为 0.01 mol/L 时，患者组在 5 min（t=-5.243，P=0.000）、10min（t=-6.635，P=0.000）15min（t=-7.764，P=0.000）20min（t=-6.344，P=0.000）时平均反应分数均低于对照组；烟酸浓度为 0.1 mol/L 时，患者组在 5 min（t=-7.111，P=0.000）、10 min（t=-5.728，P=0.000）、15 min（t=-3.583，P=0.000）、20min（t=-2.717，P=0.009）时平均反应分数低于对照组；差异均有统计学意义。患者组发现，NO 与 RBANS 指数言语功能（r = -0.281，p = 0.005）呈负相关。

结论 慢性精神分裂症男性患者认知功能及盐酸敏感度明显受损，血浆 NO 及其合成酶活性存在异常，且血浆 NO 与患者的认知功能存在关联性，提示氧化应激机制在精神分裂症病理生理机制中可能起到一定作用。

关键字：精神分裂症； 氧化应激；烟酸敏感度；认知

涤痰汤治疗痰湿内阻症精神分裂症临床研究

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目的 分析中西医结合用于精神分裂症临床治疗的有效性及安全性

方法 将 2020 年 5 月至 2021 年 12 月入住连云港市第四人民医院的 120 例中医症属痰湿内阻型精神分裂症患者纳入研究，按是否联合中药治疗分组，一组 60 例接受中西医结合治疗，记作观察组，另外一组 60 例则仅接受西医治疗，记作对照组。设定的对比指标涉及到治疗前后临床症状（PANSS 评分）、认知功能（RBANS 评分）变化、治疗有效率及不良反应的发生情况。

结果 治疗后，在 RBANS 总分及视觉广度、言语功能、注意分量表评分方面，观察组高于对照组，差异有统计学意义（P<0.05）；考察一下患者 PANSS 评分及其分量表评分发现，观察组和对照组患者的各项评分和治疗前相比有所降低，且前者的数值比后者更低，差别是有统计学价值的（P<0.05）；观察组治疗有效率为 95.00%（57/60），高于对照组 83.33%（50/60）（P<0.05）；就不良反应发生率统计发现，观察组为 5.00%（3/60），低于对照组的 18.33%（11/60），（P<0.05）。

结论 中西医结合治疗对精神分裂症患者的效果显效，利于其精神症状及认知功能的改善，且安全性高。

关键字：中西医治疗；精神分裂症；临床疗效；认知功能

慢性男性精神分裂症患者血浆氧化应激水平与临床症状及认知功能的关联研究

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目的 探讨慢性男性精神分裂症患者血浆氧化应激水平的变化与临床症状和认知功能损害严重程度的关系。

方法 于 2019 年 10 月至 2021 年 10 月入组在连云港地区精神专科医院长期住院的男性精神分裂症患者 96 例为患者组，同时招募相匹配的正常男性 88 例为对照组。采用阳性与阴性症状量表（PANSS）评估患者组的精神症状严重程度，采用成套神经心理状态评估工具（RBANS）评定患者组和对照组的认知功能。进行血浆氧化应激指标丙二醛（MDA）、一氧化氮（NO）、超氧化物岐化酶（SOD）、谷胱甘肽过氧化物酶（GSH-Px）、过氧化氢酶（CAT）浓度检测。

结果 患者组及对照组 RBANS 评分比较发现，

患者组总分（57.8±11.0 VS 88.6±12.9）、即刻记忆（50.0±16.4 VS 83.5±17.3）、视觉广度（81.3±14.3 VS 89.8±14.5）、言语功能（72.2±13.4 VS 97.4±11.0）、注意（68.7±15.2 VS 107.9±14.6）、延时记忆（53.0±15.8 VS 85.4±16.8）显著低于对照组，差异有统计学意义（均 P<0.001）；患者组与对照组比较，血浆 MDA 浓度（6.2±3.1 VS 11.2±2.7）nmol/ml、SOD 浓度（15.5±4.4 VS 20.7±5.1）U/ml、GSH-Px 浓度（67.6±13.4 VS 85.2±19.6）U/ml 显著低于对照组，差异有统计学意义（P<0.05）。NO 浓度（53.1±16.7 VS 48.0±16.8）umol/ml 和 CAT 浓度（3.2±0.6 VS 2.9±0.8）U/ml 显著高于对照组，差异有统计学意义（P<0.05）；患者组相关分析发现，NO 浓度与言语功能（r=-0.329，校正后 P=0.006）成负相关，CAT 浓度与视觉广度（r=0.298，校正后 P=0.018）成正相关。NO 浓度与阳性症状 (r=0.269，校正后 P=0.032) 正相关，CAT 与 PANSS 一般病理症状（r=-0.307，校正后 P=0.008）及 PANSS 总分(r=-0.299，校正后 P=0.012) 负相关。

结论 慢性精神分裂症男性患者认知功能明显受损，血浆氧化应激指标存在异常，且与患者的临床特征存在关联性，提示氧化应激机制在精神分裂症病理生理机制中可能起到一定作用。

关键字：慢性精神分裂症；氧化应激；认知功能

精神分裂症急性期肠道菌群变化特点

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目的 探究精神分裂症急性发作期患者与健康对照组相比肠道微生物群的差异。

方法 我们从合肥市第四人民医院共招募了 138 名急性发作期精神分裂症患者（患者组），并在安徽省及周边城市招募 98 名正常健康对照组（对照组）。本横断面研究采用 16s rRNA 测序对粪便样本进行分析。

结果 患者组与对照组在年龄、性别、教育水平无差异（p>0.05）。患者组与对照组肠道菌群 α 多样性的 Chao 指数、ace 指数、shannon 指数、simpson 指数差异均无显著意义（p>0.05）。β 多样性使用加权和非加权的 unifrac 距离进行分析，有明显差异（p<0.05），表明两组间菌群组成不同。线性判别分析效应大小(LEfSe)分析显示患者组和对照组之间 46 个特征菌属的丰度有差异（LDA 值>2）。其中病例组和对照组各富集 23 个菌属。KEGG 差异通路分析提示两组间有 38 个通路存在差异，包括核苷酸代谢、类黄酮生物合成、氨基酸代谢等。

结论 我们的发现为急性精神分裂症患者肠道微生物组成的改变提供了证据，有助于更好地理解肠道微生物组在 SCZ 病理生理中的作用。并表明有必要对 SCZ 的微生物群进行更大规模和纵向的研究，并提出潜在的针对性干预措施。

关键字：精神分裂症 肠道菌群 16s rRNA 功能分析

Alterations in Sorting and Secretion of Hepatic ApoA5 Induce Hypertriglyceridemia Due To Short-term Use of Olanzapine

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Long-term use of olanzapine, an antipsychotic drug, induces hypertriglyceridemia, resulting in a higher risk of cardiovascular disease. However, the effects and underlying mechanisms of short-term use of olanzapine on circulating triglyceride levels remain poorly understood. Here, the role of apolipoprotein A5 (apoA5), a regulator of triglyceride metabolism, was investigated in olanzapine-induced hypertriglyceridemia. Our multi-center clinical study recruited 36 schizophrenia patients who received short-term (8 weeks) of olanzapine. Besides, female C57BL/6J mice were treated with olanzapine (3 mg/kg/day versus 6 mg/kg/day) for 6 weeks. We demonstrated that short-term use of olanzapine increased plasma triglyceride and decreased plasma apoA5 levels in the patients and mice, with a negative correlation between the two factors. However, no obesity was observed in the patients and mice. Interestingly, olanzapine increased hepatic apoA5 protein in the mice, without significant changes in hepatic Apoa5 mRNA. Consistently, in vitro studies indicated that olanzapine increased medium triglyceride levels and decreased medium apoA5 levels in a dose-dependent manner in human HepG2 cells and primary mouse hepatocytes. Whereas the olanzapine treatment increased hepatic apoA5 protein in vitro, without effects on hepatic APOA5 mRNA. Of note, olanzapine increased the co-localization between apoA5 protein and accumulated lipid droplets in hepatocytes, as opposed to at the hepatocellular plasma membrane, in mouse liver as demonstrated by fluorescence staining. Therefore, our study indicated that short-term use of olanzapine induced hypertriglyceridemia due to defects of sorting and secretion of hepatic apoA5.

关键字：hepatic apoA5，hypertriglyceridemia，olanzapine

Dysregulated Lipid Metabolism in Mental Illness: State-of-the-art Review of Function To Clinical Significance

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Mental illness has gradually become a universal, chronic and recurrent disease that threatens human health without clear pathogenesis. Interestingly, the dysregulated lipid metabolism was found in psychiatry, including schizophrenia, bipolar disorder and major depressive disorder. Lipids are the primary components of cellular membranes

and it is vital for cellular functions due to membrane formation, cellular signaling transmission, energy metabolism, and homeostasis maintenance. The brain is the body's second most lipidated organ after adipose tissues and serum lipids can also cross the blood-brain barrier into central nervous system. Therefore, in the present review, we briefly introduce the characteristics and biological functions of major lipid molecules, the potential mechanism linking to mental illness including imbalance of energy metabolism, oxidative stress, neuroinflammation, and neuroplasticity degeneration. Furthermore, we summarize the current findings in human and animal studies to provided preliminary evidences on the lipid metabolic alterations in mental disorder. Last, we present the potential targets of lipid mechanism for treating mental illness with clinical heterogeneities.

关键字：Lipid metabolism, Mental illness, Energy metabolism, Oxidative stress, Inflammation

Symptom Network and Bayesian Network Analyses of Psychotic-like Experiences in Adolescents and Young Adults

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Objective To analyze the network structure of psychotic-like experiences(PLEs) in a large non-clinical sample of adolescents and young adults, and to compare the symptom networks between the two populations.

Methods 45420 college students from four cities in China enrolled in the study, but we excluded 4282 participants who did not fill in their age or were outside the age range of 12 to 35 years old. We also excluded 3695 participants who filled in the questionnaire carelessly, based on the reaction time (RT) incorporated into the careless package. Finally, we included 37443 internet users in the main analysis. We conducted network analysis and Bayesian network analysis on nine dimensions of three questionnaires measuring positive symptoms, negative symptoms, general symptoms, disorganization symptoms and schizotypal personality disorder(SPD) symptoms in this sample. We also compared symptom networks for two age groups: adolescents (12-18 years) and adults (19-35 years).

Results Our results show that there is a significant symptom network across all symptoms, with positive and negative symptoms being spatially separated and each being closely linked internally. We also found some differences in symptom networks between adolescents and adults. Bayesian network analysis revealed that SPD emerged as the most prominent node in the network, triggered directly or indirectly by both positive and negative symptoms, while in turn directly or indirectly predicting other symptoms.

Conclusion These findings indicate that great attention should be paid to schizotypal traits in detecting and intervening psychosis risk in non-clinical adolescents and young adults, which provide new insights for early detection and intervention in ultra-high risk for psychosis.

关键字：psychotic-like experiences; symptom network; Bayesian network

The Role of Neuroimaging in Treatment Resistant Schizophrenia

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Objective Treatment resistant schizophrenia (TRS) refers to the group without response to at least 2 trials of adequate antipsychotic drugs. TRS patients have severe positive, negative symptoms accounting for approximately 30% of patients with schizophrenia (SCZ), which exerts a detrimental impact on social function, self care and aggressive behavior. It's challenging to identify the distinct type of schizophrenia and medicate timely.

Methods Firstly, we reviewed the etiology, concept of TRS and deepened the clinical classification. We further investigated the neuroimaging mechanisms of TRS and summarized the neuroimaging changes of magnetic resonance imaging (MRI) including functional MRI (fMRI), structural MRI (sMRI) and magnetic resonance spectroscopy (MRS) in TRS with clozapine to further acknowledge the pathophysiological principles of TRS and find the reasons for clozapine's efficacy. Finally, we highlighted alternative and expanded treatment options for TRS after clozapine therapy failure and expected to advance the development of TRS pathogenesis and therapeutic landscape.

Results It is worth noting that limited clinical?evidence?does not?allow?us?to?precisely speculate?on?the critical threshold at which TRS occurs during the?continuum of SCZ,?even though?preexisting?etiology and clinical features?indicate that TRS falls into the more?severe?category of SCZ. We highlighted the classification of TRS with primary TRS occurring before the existence of psychopharmacology and secondary TRS becoming resistant after long term antipsychotic drugs. Dysfunction in various neurotransmitters endow clinicians with therapeutic strategies beyond DA receptor antagonism for TRS. Also, the biomarkers linked to the etiology like the early onset of SCZ predicting the likelihood of developing TRS are imperative for early identification or intervention. We disocovered widespread whole-brain reduction of cortical thickness, gray matter (GM), increase of white matter (WM) volume, widespread weaker whole-brain functional connectivity (Fc) and higher Glu in anterior cingulate cortex in TRS compared with healthy controls. The lack of response to clozapine is often one of the most difficult dilemmas clinicians may be stuck in when dealing with SCZ. And TRS patients displayed reduced WM, increased GM volume in total and certain localized regions after clozapine. Clinical findings of neuroimaging may be promising for understanding the underlying mechanisms of clozapine

and response predictors of TRS. Judgement errors in the different subtypes and clinical course of SCZ may lead to inappropriate use of premature overdoses, which leads to development of drug resistance in patients.

Conclusion We conducted a large number of analyses of neuroimaging to understand the underpinnings of this resistance and clozapine mechanism. Focusing on neuroimaging could lead to new classifications, a better framework for clinical research and better therapeutic targets in TRS.

关键字：Treatment resistant schizophrenia; neuroimaging; clozapine; treatment

知信行结合同伴支持在慢性精神分裂症患者中的应用研究

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Objective To explore the application effect of knowledge, belief and action combined with peer support in chronic schizophrenia patients.

Methods 120 patients with chronic schizophrenia admitted from January 1, 2022 to December 31, 2022 were randomly divided into study group and control group, 60 cases in each group. The control group received routine nursing, that is, nurses cared patients according to the routine psychiatric nursing. Including safety nursing, sleep nursing, medication guidance, symptom nursing, diet nursing, health education and so on. On the basis of routine nursing, the research group carried out nursing intervention combining knowledge, belief and practice with peer support. The changes of medication compliance, Pittsburgh Sleep Quality Index (PSQI) and GQOLI-74 before and after intervention were compared between the two groups of chronic schizophrenia patients.

Results After the implementation of knowledge, faith and practice combined with peer support for chronic schizophrenia patients, the results showed that the medication compliance, PSQI and GQOLI-74 scores in the study group were higher than those in the control group, with statistical significance ($P < 0.05$).

Conclusion By improving patients' cognitive system and correcting personal belief in disease management, we can guide patients to practice scientific and effective behavior and finally achieve good results. Peer support education plays a positive role in patients' cognition of their own disease, relying on similar disease experiences among peers. Nurse-led peer support can help patients build correct beliefs, have correct cognition of their own disease, and then practice positive and positive behaviors, so that patients have confidence to cope with the disease. The application of knowledge, faith and action combined with peer support in chronic schizophrenia patients can improve patients' cognition of their own disease, improve patients' medication ability, improve their sleep quality, and improve patients' quality of life, which is worthy of further promotion in clinical practice.

关键字：知信行；同伴支持；精神分裂症

Association between Homotopic Connectivity and Clinical Symptoms in First-episode Schizophrenia

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Objective Abnormal functional connectivity (FC) in the brain has been observed in schizophrenia patients. However, researches on FC between homotopic brain region are still limited and the results of these studies are inconsistent. The aim of this study was to compare homotopic connectivity in first-episode schizophrenia (FES) patients and healthy subjects, and assess its correlation with clinical symptoms.

Methods Thirty-one FES patients and thirty-three healthy controls (HCs) were included in the study. VMHC (voxel-mirrored homotopic connectivity) method of resting-state functional Magnetic Resonance Imaging (rs-fMRI) was selected to analyse the homotopic connectivity changes between two groups. The 5-factor PANSS model was used to quantitatively evaluate the severity of symptoms for FES patients. Partial correlation analysis was used to analyse the correlation between homotopic connectivity changes and clinical symptoms.

Results Compared to the HC group, VMHC values were decreased in the paracentral lobule (PL), thalamus, and superior temporal gyrus (STG) of the FES group ($P < 0.05$, AlphaSim correction). Partial correlation analysis showed VMHC of STG in FES patients was positively correlated with negative symptoms ($r = 0.47$, $P = 0.019$).

Conclusion Our study shows that homotopic connectivity is altered in the resting-state brain of patients with FES and correlates with the severity of negative symptoms, which may contribute to the development of the abnormal connectivity hypothesis for schizophrenia.

关键字：Interhemispheric, functional connectivity, resting-state fMRI, voxel-mirrored homotopic connectivity

事件相关电位（ERP）在精神分裂症高风险人群及一级亲属中的研究应用

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目的 事件相关电位(event-related potential, ERP)是精神分裂症的易感性指标，其中 P300 异常是一个可靠的发现。本研究的目的是探究精神分裂症一级亲属的认知功能特征，以及 P300 特征，明确其认知功能与事件相关电位的关联性，同时探究行为数据（反应时与正确率）对认知功能及 P300 结果的影响，明确认知功能与事件相关电位的关联性。

方法 本研究通过采用听觉 oddball 范式，对 26

例未受影响的精神分裂症一级亲属、27 例健康对照组进行听觉 P300 测试以及神经认知功能评估。采用独立样本 t 检验比较两组间三个中线位置(Fz、Cz 和 Pz)处的 P300 振幅和潜伏期，并对 P300 与反应时、正确率以及神经认知功能之间进行 Pearson's 相关分析。

结果 研究结果发现，在精神分裂症一级亲属中未发现明显的 P300 异常，在相关性分析中，也未发现精神分裂症一级亲属的 P300 振幅及潜伏期与认知功能测评结果及行为数据（反应时和正确率）之间存在显著相关性。

结论 本研究未发现在精神分裂症一级亲属中存在明显的 P300 异常，表明 P300 的波幅和潜伏期可能不具有一定的家族聚集性，不能作为精神分裂症的遗传标记。

关键字：精神分裂症一级亲属 ，事件相关电位，认知功能

The Effect of Human GRIN1 Gene 5' Functional Region on Gene Expression Regulation in Vitro

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Objective Abnormal expression of ionotropic glutamate receptor NMDA type subunit 1, the key subunit of the NMDA receptor, may be related to many neuropsychiatric disorders. In this study, we explored the functional sequence of the 5' regulatory region of the human GRIN1 gene and discussed the transcription factors that may regulate gene expression.

Methods Twelve recombinant pGL3 vectors with gradually truncated fragment lengths were constructed, transfected into HEK-293, U87, and SK-N-SH cell lines, and analyzed through the luciferase reporter gene assay. JASPAR database is used to predict transcription factors.

Results In SK-N-SH and U87 cell lines, regions from -337 to -159 bp, -704 to -556 bp inhibited gene expression, while -556 to -337 bp upregulated gene expression. In HEK-293 and U87 cell lines, the expression of fragment -1703 to + 188 bp was significantly increased compared to adjacent fragments -1539 to + 188 bp and -1843 to + 188 bp. The protein expressions of fragments -2162 to + 188 bp and -2025 to + 188 bp, -1539 to + 188 bp and -1215 to + 188 bp, -1215 to + 188 bp and -1066 to + 188 bp were significantly different in HEK-293 and SK-N-SH cells. According to the predictions of the JASPAR database, the transcription factors REST, EGR1, and CREB1/HIC2 may bind the DNA sequences of GRIN1 gene from the -337 to -159, -556 to -337, and -704 to -556, respectively. In addition, zinc finger transcription factors may regulate the expression of other differentially expressed fragments.

Conclusion Abnormal transcription regulation in the proximal promoter region of GRIN1 (-704 to + 188 bp) may be involved in the course of neuropsychiatric diseases.

关键字：GRIN1; Neuropsychiatric diseases; Promoter; Transcriptional regulation.

精神分裂症患者父母的心理健康状况调查

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目的 了解精神分裂症患者父母的心理健康状况。

方法 按照 DSM-5 的诊断标准，收集 2023 年 1 月至 2023 年 6 月于郑州大学第一附属医院精神科就诊的精神分裂症患者的父亲或者母亲 35 例，采用单样本 t 检验检测精神分裂症患者父母的症状自评量表 SCL-90 各维度与中国常模的差异。

结果 共收集精神分裂症患者父亲 11 例，母亲 24 例，平均年龄：51.86±5.60 岁，平均受教育程度：12.09±2.50 年；SCL-90 各项维度分析比较：精神分裂症患者父母组在躯体化（1.59±0.32，常模 1.37±0.48，t=3.75，P=0.001）、抑郁（1.85±0.58，常模 1.50±0.59，t= 3.52，P=0.001）、焦虑（1.76±0.54，常模 1.39±0.43，t=4.04，P=0.001）和精神病性（1.47±0.38，常模 1.29±0.42，t=2.81，P=0.008）维度方面高于中国常模组。在强迫（1.55±0.44，常模 1.62±0.58，t=-0.96，P=0.342）、人际关系敏感（1.59±0.41，常模 1.65±0.61，t=-0.88，P=0.385）、敌对（1.40±0.33，常模 1.46±0.55，t=-1.51，P=0.14）、恐惧（1.29±0.25，常模 1.23±0.41，t=1.41，P=0.167）和偏执（1.39±0.32，常模 1.43±0.57，t=-0.72，P=0.477）维度方面的差异无统计学意义。

结论 精神分裂症患者父母也存在一定的心理健康问题，需要引起临床重视。

关键字：精神分裂症; 父母; SCL-90

精神分裂症的认知功能与精神症状之间的关系

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目的 分析不同疾病状态下的精神分裂症人群的认知功能的差异性，以及与精神症状之间的关系。

方法 本研究共纳入 213 例受试者，首发精神分裂症 111 例，缓解期精神分裂症 50 例，健康对照组 52 例。应用阳性和阴性症状量表(PANSS）评定首发和缓解期精神分裂症的精神病性症状，采用认知成套测验(MCCB）和 Stroop 测验评估认知功能，选连线测试 A（TMT-A）、流畅性测验（Fluency）评估信息处理速度能力，霍普金斯词语学习测验（HVLT-R）评估词语学习和记忆能力，简易视觉记忆测验（BVMT-R）评估视觉学习和记忆能力；迷宫测验（NAB）评估推理和问题解决能力，持续操作测验（CPT）评估注意/警觉能力；Stroop 色词测验评估工作记忆和执行功能。

结果 1.认知功能的比较：在多维度的认知功能比较中发现，首发精神分裂症、缓解期精神分裂症人群与

健康对照人群相比，差异均具有统计学意义（P<0.01）；首发精神分裂症组与缓解期精神分裂症组在词语学习和记忆能力方面（PHVLT-R<0.001）、工作记忆和执行功能方面（PStroop-Word=0.004）、Stroop-Color 评分上（PStroop-Color=0.034）相比，差异均具有统计学意义。2.首发精神分裂症患者的 PANSS 总分与 NAB 存在相关性（P<0.005），PANSS 阳性症状与 CPT 存在相关性（P<0.005），PANSS 阴性症状与 HVLT-R、NAB、CPT、Stroop Color 存在相关性（P<0.005），PANSS 一般精神病理学症状与 NAB 存在相关性（P<0.005）。缓解期精神分裂症的 PANSS 阳性症状与 Fluency 存在相关性（r=-0.354,P=0.012）。

结论 精神分裂症的认知功能均受到损害，首发精神分裂症的认知功能较缓解期精神分裂症的认知功能更差，首发精神分裂症的阳性症状与注意/警觉能力有关，阴性症状与语学习和记忆能力、推理和问题解决能力、工作记忆和执行功能有关，一般病理学症状与推理和问题解决能力有关，缓解期精神分裂症的阳性症状与信息处理速度能力有关。

关键字：精神分裂症；认知功能；精神症状

阴性症状为主的精神分裂症患者肠道微生物与健康人群的差异研究

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目的 阴性症状在精神分裂症中相当普遍，可高达 52.2%。反应了患者部分功能的缺失或减退，加重其社会功能和生活质量的损害，增加社会家庭压力，然而机制未明。肠道微生物与中枢神经精神疾病有关，肠道菌群失调可能是自闭症、焦虑、抑郁症、精神分裂症等精神心理疾病的重要原因，形成脑-肠轴与中枢神经系统。本研究旨在发现阴性症状治疗有效的患者肠道微生物的变化情况，为探索精神分裂症患者阴性症状的肠道微生物和大脑关系的机制提供方向，也为阴性症状的药物治疗提供新途径。

方法 本研究拟选取 30 例主导型阴性症状的精神分裂症患者为研究组，15 例生活环境相似的健康人群为对照组。研究组予氨磺必利治疗，随访 8 周。分别于基线期、8 周末留取新鲜粪便标本 5ml。大便标本使用 16s 扩增子测序技术检测粪便 DNA 了解肠道菌群组成情况，分别于治疗前及 8 周末评定阳性与阴性症状量表（PANSS）、阴性症状量表（SANS）依次评定临床精神症状，比较研究组治疗前后研究组肠道微生物菌群变化和对照组的差异。

结果 在 α 多样性的评估测量方面，研究组和对照组之间没有差异；对 α 多样性指数进行分析显示，研究组和对照组之间存在显著的社区水平分离；研究组和对照组形成了不同的集群，健康对照受试者也比精神分裂症受试者聚集得更紧密，精神分裂症受试者在 PCoA 空间分布得更广泛。另外，变形菌门在不同组之间的差异丰富，与健康对照受试者相比，精神分裂症受试者的该门的相对丰度降低。1.在属水平上，发现了 4 个差异丰富的属。与健康对照受试者相比，精神分裂症受试者厌氧菌（H=9.12；p=0.006）相对增加，而嗜血杆菌（H =?11.7；p = 0.003）、真菌（H =?12.3；p = 0.004）和梭状芽孢杆菌（H =?15.2；p = 0.0002）下降。2.在不同的分类水平上进行差异丰度测试时，发现 34 个个体分类群在精神分裂症受试者和健康对照受试者之间存在差异丰富。其中 33 个属于梭状芽孢杆菌目，1 个类伽变形菌门（副流感嗜血杆菌）。

结论 精神分裂症患者的厌氧球菌相对增加，而嗜血杆菌、梭菌和梭状芽孢杆菌相对减少。在精神分裂症患者中，瘤胃球菌科的丰度与阴性症状的严重程度相关。我们的研究结果为阴性症状为主的精神分裂症患者肠道微生物组成的改变提供了证据，并表明需要对精神分裂症患者的微生物组进行更大规模的纵向研究。

关键字：阴性症状；肠道微生物；精神分裂症；对照研究；

表达性心理治疗应用于精神分裂症住院患者对其自卑、孤独感的影响情况

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目的 本研究设计了表达性心理治疗在慢性精神分裂症住院患者中应用的标准教案，对慢性精神分裂症住院患者进行对照研究，本研究将采用表达性心理治疗模式对精神分裂症住院患者其自卑、孤独感影响情况临床疗效进行详实的分析，并且根据临床对比研究数据了解起作用的有效性。

方法 本次研究选取了 2022 年 3 月 - 2022 年 12 月 在我院确诊并住院治疗的性精神分裂症患者，入选的患者共 100 例，根据患者入院时间随机分为对照组和观察组，针对两组患者均根据临床实际予以药物治疗，观察组则采用配以表达性心理治疗，针对在基线、治疗 6 周、治疗 12 周末进行自卑感量表(FIS)、状态与特质孤独量表(STLS)数据结果进行分析。

结果 研究组和对照组治疗前后自卑感量表评分组间对比差异较为显著，具有统计学意义。 此外，两组患者的自卑感量表评分基线在治疗六周及十二周后，差异有统计学意义(均 P<0.01)。分量表的重复测量方差分析结果显示，研究组和对照组治疗 6 周、12 周后，不论是总分还是分量表两组的差异均有统计学意义。

结论 表达性心理治疗能有效改善慢性精神分裂症患者的孤独及自卑状态，因此值得在临床上进一步推广应用。

关键字：精神分裂；孤独；自卑；表达性心理治疗

A Case Report of Scalp Acupuncture Therapy

Improving Persistent Drug-induced Sialorrhea Caused by Long-term Clozapine Treatmnet

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Objective : It is well known that ,clozapine is widely used in the treatment of the schizophrenia, and drug-induced sialorrhea is one of the common side effects of clozapine.Recently,we performed a retrospective analysis of a case that scalp acupuncture therapy was used to treat a patient with drug-induced sialorrhea that lasted for more than 20 years ,which due to long-term clozapine treatment,and delightedly the result showed that scalp acupuncture therapy played a good curative effect on drug-induced sialorrhea caused by long-term clozapine administration.Thus,we consider that continuous, regular scalp acupuncture therapy may facilitate the improvement of salivation symptoms in schizophrenia patients with long-term clozapine administration, and had a discussion about potential mechanism and significance of scalp acupuncture therapy used in the treatment of drug-induced sialorrhea caused by long-term clozapine administration.

Methods perfoming scalp acupuncture therapy, the patient were treated by acupuncture at Baihui (GV 20), Fengchi (GB 20) and the other six acupoints.The entire period of the acupuncture therapy was three months , we implemented it three times a week and everytime the acupuncture needles were matained for 15 minutes . The scores of the concise Psychiatric Rating Scale, Salivation Score Scale (DRS) and drug Side Effects Scale were performed before the therapy, at the end of the therapy and 8 months after the therapy. We analyzed all the dataes obatained from those scales with the software SPSS 22.0.

Results The patient's situation of sialorrhea was improved significantly at the end of therapy, and the psychiatric symptoms were also reduced quite a bit, and compared with the beginning of therapy ,the patient's situation of sialorrhea also showed improvement at 8 months after the end of therapy. At the end of therapyt and 8 months after the end of therapy, the score of salivation scale and brief psychiatric symptom score of patients were lower than those before the therapy, the difference was statistically significant (P values ＜0.05), but there was no statistical difference between the score at the end of the therapy and 8 months after the therapy (P values ＞ 0.05).

Conclusion In this case,scalp acupuncture therapy played a good curative effect on the treatment of drug-induced sialorrhea caused by long-term clozapine administration, and the long-term effect is stable. In the future, standardized and rigorous randomized controlled studies on the treatment of drug-induced sialorrhea caused by clozapine with head acupuncture ,should be considered to verify its scientificity and accuracy.

关键字：scalp acupuncture therapy, clozapine, drug-induced sialorrhea，long-term

Clinical Characteristics and Their Relationships in Female Patients with Schizophrenia before and after Antipsychotic Treatment

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Objective Evidence suggests a partial overlap of clinical symptoms with cognitive impairment, yet few studies address the relationship of their changes after treatment. Besides, clinical characteristics shows difference in gender. In this study, we investigate clinical characteristics and their relationships in female patients with schizophrenia during 8 weeks of antipsychotic treatment.

Methods This research involved 94 female patients with schizophrenia who were treated with antipsychotic drugs for 8 weeks after recruited and 71 age-matched female healthy controls. The positive and negative syndrome scale (PANSS) and MATRICS consensus cognition battery were used to assess the clinical characteristics of the participants.

Results After 8 weeks of treatment, 91.49% of the patients had a reduction rate of PANSS scores by at least 20%. Except for verbal learning and social cognition, all the other focal domain, including the positive symptoms, negative symptoms, general psychopathological symptoms, and the overall composite of cognition were significantly improved in the female patients with schizophrenia. Speed of processing, attention/vigilance, working memory, visual learning, reasoning, problem solving, and overall composite were negatively correlated with positive symptoms, negative symptoms, and general psychopathological symptoms, whereas verbal learning and social cognition were only negatively correlated with negative symptoms. Multivariate linear regression analysis revealed that improvement of positive symptoms and negative symptoms could predict the improvement of visual learning and the overall composite. Moreover, improvement of positive symptoms could predict improvement of speed of processing and of reasoning and problem-solving. Improvement of negative symptoms could predict improvement of attention/vigilance.

Conclusion Cognitive impairment is not independent of symptom factors, but is closely related to clinical symptoms, especially in positive symptoms and negative symptoms.

关键字：Schizophrenia, positive symptoms, negative symptoms, cognitive impairment, antipsychotic treatment

高频重复经颅磁刺激对于慢性精神分裂症患者认知功能的影响分析

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目的 通过随机对照研究的方法，探究高频重复

经颅磁刺激对于恢复慢性精神分裂症患者的认知功能的效果。

方法 选择我院在 2021 年 3 月到 2022 年 3 月期间收治的慢性精神分裂症患者进行分组，按就诊先后分为对比组 25 例和试验组 25 例，共计患者 50 例，年龄和性别之间无明显差异。对照组患者给与伪刺激加常规治疗，试验组患者给于经颅磁刺激加常规治疗（均为双侧）。对比两组患者治疗后的认知功能采样成套神经心理状态评估量表（RBANS 量表）评分、阳性和阴性症状量表（PANSS）量表评估精神症状、卡尔加里精神分裂症抑郁量表、社会功能缺陷量表评估社会功能等心理状态评分，不良反应量表评估不良反应。

结果 两组患者经治疗后，试验组患者的 RBANS 各认知功能维度评分均高于对比组 P＜0.05，数据对比具有统计学意义；试验组患者在焦虑量表和抑郁量表的心理状态评分中也优于对比组，差异有统计学意义 P＜0.05，社会功能缺陷量表差异有统计学意义 P＜0.05，而不良反应之间没有明显差异。

结论 治疗慢性精神分裂症时采用高频重复经颅磁刺激可以显著改的善患者认知功能和心理状态，不良反应小。有很高的应用前景，值得更进一步研究，值得在临床中应用。

关键字：慢性精神分裂症,高频重复经颅磁刺激,伪刺激认,知功能

精神分裂症甲状腺素与认知功能及症状的相关性研究

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目的 探索精神分裂症患者认知功能与甲状腺功能的相关性。

方法 本研究纳入首发精神分裂症患者（FEP）44 例和慢性精神分裂症患者 40 例。入组后次日抽血及首发组治疗 8 周后抽血，检测 FT3、FT4、 T3、 T4、TSH、TGAb、TPOAb，同时评定 PANSS 量表、MoCA 量表。应用 SPSS25.0 软件进行统计分析。

结果 首发患者 T3、T4、FT3 与命名呈正相关，FT4 与命名、注意力、语言、抽象能力、定向力及 MoCA 总分呈均正相关，TPOAb 与命名、注意力、语言、MoCA 总分呈负相关（P＜0.05），命名与 FT3、性别（B=-0.594，β=-0.384， P=0.004）存在线性关系；注意力与 FT4（B=0.391，β=0.354， P=0.013）、性别（B=-1.097，β=-0.314， P=0.026）存在线性关系；定向力与 FT4（B=0.328，β=0.362， P=0.016）存在线性关系；MoCA 总分与 FT4（B=1.359，β=0.396， P=0.002）、年龄（B=-0.207，β=-0.364，’P=0.004）、BMI（B=0.356，β=0.301，P=0.019）存在线性关系；8 周治疗后，FT3 水平与患者阴性量表、PANSS 总分分数呈正相关，TGAb 则与阴性量表评分呈负相关（P＜0.05）；8 周治疗后，患者 T3 水平与患者语言能力呈负相关（P＜0.05）；缓解组 T3、FT3、TPOAb 与患者的攻击危险评分呈正相关，T3 与攻击危险评分存在正线性关系(B=1.267，β=0.375，P=0.022），FT4 与抽象能力呈正相关，TPOAb 与抽象能力呈负相关，FT4(B=0.171，β=0.297，t=2.711，P=0.010）、教育年限(B=0.175，β=0.680，t=6.196，P=0.000）与抽象能力存在正线性关系。

结论 首发精神分裂症患者 FT3 与命名存在正线性关系、FT4 与注意力、定向力、MoCA 总分存在正线性关系，FT3 越高，患者命名得分越高，FT4 越高，注意力、定向力和 MoCA 总分越高，慢性精神分裂症患者的 T3 与攻击危险评分存在线性回归关系，T3 越高，患者攻击危险评分越高。

关键字：精神分裂症；甲状腺素；精神症状；认知功能

益母草改善 ASD 所致精神分裂症患者高泌乳素血症的调节机制新见解 基金项目：广东省深圳市龙华区科技创新局资助项目（项目编号：2021086）

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目的 高泌乳素血症以不孕不育、月经紊乱、溢乳、性功能障碍，还可能引起垂体瘤、代谢综合征等临床特征影响人们健康的疾病。临床实验数据显示精神分裂症患者使用抗精神病药后会增加患高泌乳素血症风险。已知多巴胺激动剂能有效阻断泌乳素升高。据目前研究报道，益母草具有显著的生物活性，可以影响类固醇性激素的生物合成和作用，并诱导子宫形态和增殖的变化。其有改善炎症，自身免疫细胞凋亡与内皮功能障碍，促血管生成的潜在病理机制。但目前关于益母草对服用抗精神病药物的精神分裂症患者改善机制尚不清楚。在这里我们强调目前 ASD 所致高泌乳素血症的诊疗现状，探求进入疾病背后的病理生理学,为有 HPRL 风险精神障碍患者提供一种提供新的见解和可能的新治疗选择。

方法 通过查找 Pubmed 和 Embase 数据库相关文献，探求精神分裂症患者高泌乳素血症生理机制，及益母草生物活性分子机制两者之间的影响作用。

结论 1.泌乳素与其长型受体结合构象发生改变，可能由 4 条促进泌乳素合成和分泌的细胞信号转导通路有关。①JAK-STAT 途径：泌乳素长型受体与酪氨酸激酶 2（JAK2）结合，导致长型受体膜内区域的酪氨酸位点的磷酸化，促进和信号传递与转录激活因子家族（STAT5）的结合，促使 STAT5 发生二聚化进入胞核，将信息传入细胞核，引起目标基因的转录和表达。②MAPK 途径：泌乳素可导致丝裂原活化蛋白激酶 MAPK 途径激活，并与 JAK-STAT 有交叉互作。③磷酸肌醇 3-激酶（PI3K）/丝氨酸/苏氨酸激酶 （AKT），MAPK，丝氨酸/苏氨酸蛋白激酶 Nek3-Vav-Rac1 途径：PI3K-AKT 信号通路能够促进细胞生存，也可促进胰岛素刺激的葡萄糖摄取与储存。这些途径信号诱导泌乳素应答基因，编码参与细胞增殖及分化。④酪氨酸激酶

(Src)途径：Src 的激活为细胞增殖提供必须条件，从而刺激乳腺中泌乳素长型受体下游信号通路的表达。 2.归纳精神科门诊诊疗高泌乳素血症流程。 3.核转录因子（NF-?B）经典的激活途径与泌乳素的信号转导途径之一丝裂原活化蛋白激酶-1（MEKK1）作用，被磷酸化激活，继而启动核内与靶基因的启动子区域等一系列下游靶基因表达。 4.益母草通过抑制核转录因子（NF-?B）活化和抑制肿瘤坏死因子（TNF-α）的抗炎活性，促进子宫炎症修复。可能与抑制泌乳素分泌有关。

关键字：泌乳素；抗精神病药物；精神分裂症；高泌乳素血症；益母草

精神分裂症临床路径实施及影响因素分析

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目的 分析精神分裂症住院患者临床路径在某精神专科医院的实施情况与现存问题，提出相应的改进建议。

方法 通过宁夏某精神专科医院电子病历系统选取出 2020 年 1 月 1 日 － 2022 年 12 月 31 日所有出院病案首页主要诊断为精神分裂症的病例。分析该病种住院患者临床路径入径率及路径完成率、入径与未入径患者间、完成路径与未完成路径患者间临床特征及影响患者入径与完成的因素。对参与实施的 28 名管理及医务人员进行访谈，对访谈结果进行质性分析。

结果 共纳入 2819 例病例，精神分裂症住院患者临床路径入径率为 56.4%（1589 例），完成率为 73.0%（1160 例），不同年份间入径率、完成率存在差异(P 均 ＜ 0.05)。年龄偏大(P ＜ 0.05)、 合并躯体疾病或并发症≥3 个（P ＜ 0.05）是患者未入径的独立影响因素;住院天数≥56 天（P＝0.009）、合并躯体疾病或并发症≥3 个（P＝0.043）是患者未完成路径的独立影响因素。入组临床路径与未入组临床路径患者平均住院日、住院次均费用、药占比无显著差异(P 均 ＞ 0.05)。临床路径实施主要影响因素为政策布署、组织实施、个人认知，支付方式匹配不佳、 缺乏对卫生创新技术付费规则、临床一线认可度不高是影响临床路径推广实施的主要因素，需要从卫生健康行政部门、医保部门、医院、临床医师、患者等主体优化实施策略。

结论 一是某精神专科医院精神分裂症临床路径的入径率、路径完成率呈波动状态，入径率较低，高龄、合并躯体疾病或并发症≥3 种的精神分裂症患者临床路径实施情况不佳，建议以病种为核心，按照诊疗规范细化完善此类患者入径、完成标准，提高临床路径的实施效果。二是建议以临床路径为医疗质量管理工具，建立基于临床路径的精神分裂症病种成本核算，进一步完善定价和付费机制，在控制成本的同时，最大限度地促进医疗技术的发展。三是临床路径应以“患者”及“临床一线”为中心优化实施策略、操作流程和配套措施，提高使用依从性。

关键字：精神分裂症; 临床路径; 实施; 影响因素

注射用利培酮微球（II）在精神分裂症患者维持治疗中的疗效和安全性研究

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目的 评价注射用利培酮微球（RLAI）用于精神分裂症患者维持治疗的疗效和安全性。

方法 为开放、单组的多中心研究。71 例精神分裂症患者从原使用的抗精神病药物换用 RLAI 维持治疗 12 周，治疗期间每 2 周注射 RLAI 25mg、37.5mg 或 50mg；在基线及第 2，4，8，12 周末评定个人与社会表现量表（PSP）、阳性和阴性症状量表（PANSS）、临床总体印象量表等；以基线和研究终点 PSP 总分的评分变化为主要疗效指标。安全性指标包括：不良事件、锥体外系副作用量表、实验室检查和注射部位疼痛感。

结果 71 例中符合方案集 55 例；患者 PSP 总分在基线、治疗第 2，4，8，12 周末分别为（43.89±22.32）分、（48.20±24.65）分、（49.07±25.81）分、（50.46±26.96）分、（51.85±28.16）分。治疗 12 周末总分提高（7.96±13.94）分。治疗后各随访时点评分与基线差异均有统计学意义（P 值均＜0.05）。将利培酮换药方式分为直接换药组、逐步减量组、持续用药组，其中直接换药组、持续用药组的患者在治疗第 12 周末 PSP 评分较基线的差异均具有统计学意义（P 值均＜0.05）。治疗 2 周末起，患者 PANSS 总分、阳性症状、阴性症状和一般病理症状量表评分在治疗后各随访时点（2 周末、4 周末、8 周末、12 周末）与基线相比，分值均为下降，且差异均具有统计学意义（P＜0.01）。71 例中有 33 例（46.5%）报告不良事件，多为轻中度不良事件。常见的有锥体外系不良反应（EPS，9.9%）、头晕（2.8%）等。研究中超过 50%的受试者对肌肉注射感到疼痛。

结论 注射用利培酮微球（II）用于精神分裂症患者维持期治疗是有效和安全的。

关键字：利培酮微球 精神分裂症 维持治疗 治疗结果

Prevalence, Cognitive and Clinical Correlates of Anemia in Chinese Patients with Schizophrenia: A Large Cross-sectional Study

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Objective Although both anemia and schizophrenia (SCZ) can cause cognitive decline, it is unclear whether anemia worsens cognitive decline in patients with SCZ. The primary objective of this study was to investigate the prevalence of anemia and the relationship between anemia, symptom severity, and cognitive function in patients with SCZ.

Methods We conducted a two-center cross-sectional study. We then recruited 1690 inpatients with chronic SCZ from two psychiatric hospitals: Beijing Huilongguan Hospital and Rongjun Hospital in Baoding, Hebei Province, China. Of these 1690 patients, only 1462 had their hemoglobin values and red blood cell counts measured. Two patients had hemoglobin values greater than 1000 g/L, and seven participants had hemoglobin values less than 10. These nine participants had possible recording biases and were not included in the analysis. Finally, a total of 1453 patients were included in this study. All included participants had to meet the following criteria: (1) Chinese Han ethnicity, aged between 18 and 70 years; (2) diagnosis of SCZ by two experienced psychiatrists according to the Structured Clinical Interview for DSM-IV (SCID); (3) duration of illness greater than 5 years; (4) taking oral antipsychotic medication for more than 6 months prior to inclusion in this study; and (5) providing a written consent form. We excluded participants from the study if they met the following criteria: (1) concurrent severe somatic or neurologically related illness; (2) pregnant or lactating women; (3) significant fluctuations in psychiatric symptoms within the past 2 weeks; and (4) inability to understand and fully complete psychometric assessments.

Results The prevalence of anemia in patients with SCZ was 26.36% (383/1453). Compared to SCZ patients without anemia, SCZ patients with anemia were older, had a lower bodyweight, a smaller waist circumference, lower hemoglobin levels, reduced RBC counts, and lower apolipoprotein B levels, but longer QT intervals. Further logistic regression analysis revealed that anemia was associated with age, gender, and body mass index (BMI). In addition, there was no difference in cognitive function between SCZ patients with and without anemia.

Conclusion Our findings suggest a high prevalence of anemia in patients with chronic SCZ in the Han Chinese population. Several demographic and clinical variables are associated with anemia in SCZ patients.

关键字：Schizophrenia; Anemia; Prevalence; Cognition; Cross-Sectional Study

精神分裂症认知功能受损影响因素研究

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目的 探讨影响精神分裂症认知功能受损的相关因素。并对认知功能受损程度与病程、发病年龄、受教育年限、智商、PANSS 量表分数之间的关联度进行分析。

方法 选择精神分裂症首发患者 30 名、慢性精神分裂症患者 30 名、健康对照 30 名。认知功能评估采用 MATRICS 公认认知成套测验(MCCB)。所得数据采用 SPSS 23.0 进行统计学处理和分析。

结果 与对照组比较，首发精神分裂症患者及慢性精神分裂症患者在 7 个心理维度的认知测评得分均显著下降[（F=8.23，36.31，34.10，7.62，22.58，22.96，33.30，17.00，6.38；P＜0.05）]。首发组的各项认知测验得分与慢性组均无明显差异（P＞0.05）。相关分析结果表明，精神分裂症患者各项认知测验结果与病程长短和 PANSS 量表阳性症状评分得分、PANSS 量表总分无相关性（P＞0.05）；而认知功能测验中连线测验评分与 PANSS 量表阴性症状评分呈正相关（r=0.266，P＜0.05）；认知功能测验中符号编码得分、霍普金斯总分、空间广度得分、迷宫测验得分、简易视觉总分、语义流畅性得分、持续操作总分、情绪管理总分与智商水平呈正相关（P＜0.05）；认知功能测验中符号编码得分、霍普金斯总分、空间广度得分、迷宫测验得分、简易视觉总分、语义流畅性得分、持续操作总分与受教育年限呈正相关（P＜0.05）。

结论 精神分裂症普遍存在认知功能受损。其认知功能受损程度与病程、发病年龄无明显相关性，与阴性症状呈弱相关，与智商水平、受教育年限呈明显负相关。

关键字：精神分裂症 认知功能 病程 精神分裂症认知功能成套测验

三种精神疾病认知功能障碍的结构磁共振影像研究

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目的 本研究假设精神分裂症、双相障碍、抑郁症认知功能损伤的特点可能不同，且存在不同的大脑结构改变基础，探索三种疾病的认知功能、皮层厚度的差异以及二者的相关性，了解三种精神疾病认知功能的脑机制异同。

方法 研究对象为 2018 年 8 月至 2022 年 11 月在大理州第二人民医院收集的 18-50 岁符合 DSM-5 诊断标准的稳定期精神分裂症 30 例、双相障碍 30 例、抑郁症 27 例及健康对照 29 例，收集人口学及临床资料，用 RBANS 评估认知功能，使用 3.0T 磁共振采集 MRI 影像。使用 freesurfer 计算皮层厚度，使用广义线性模型比较 SZ、BD、MDD、HC 的认知功能、皮层厚度的差异，使用偏相关性分析探究皮层厚度与认知功能的相关性。

结果 （1）与 HC 相比，SZ 的总认知功能、语言、注意、延时记忆受损，BD 的总认知功能、语言、注意受损，MDD 的语言、注意功能受损。两两比较发现，

SZ 较 BD、MDD 认知损伤的领域更广、程度更严重（即刻记忆、延时记忆、总认知功能低于 BD，总认知功能低于 MDD）；而 BD 与 MDD 之间认知功能差异无统计学意义。（2）四组比较，多个脑区皮层厚度出现显著差异；事后检验结果显示：与 HC 相比，三个组均出现外侧眶额皮层厚度下降，BD 组双侧脑岛、左侧内侧眶额、右侧顶叶下回和颞上回皮层厚度下降，MDD 组右侧顶叶下回、海马旁回皮层厚度下降。SZ 组左侧梭状回、右侧脑岛皮层厚度大于 BD 组，右侧海马旁回、右侧颞下回、右侧楔前叶皮层厚度大于 MDD 组。（3）SZ 多个认知功能与双侧前额叶、颞叶多个脑区、脑岛、右侧顶叶部分脑区皮层厚度显著正相关，此外总体认知功能还与左侧海马旁回皮层厚度显著负相关。BD 多个认知功能与双侧前额叶、顶叶、颞叶多个脑区、左侧脑岛、右侧嗅皮质皮层厚度正相关，视觉空间与皮层厚度无显著相关。MDD 多个认知功能与左侧前额叶、顶叶部分脑区、右侧距状旁回、扣带回后部皮层厚度中等程度正相关，注意与皮层厚度相关性无显著相关。

结论 （1）与 HC 相比，三种疾病均出现明显认知功能损害，按认知损伤的领域、程度的严重程度排列依次为 SZ、BD、MDD。（2）外侧眶额皮层厚度下降可能是 SZ、BD、MDD 的共有病理基础，脑结构的异常可能是三种疾病症状的共性及异质性的神经基础。（3）SZ、BD、MDD 认知功能与不同的脑区皮层厚度相关的差异可能是造成不同疾病间认知功能差异的神经生物学机制之一

关键字：精神分裂症 双相障碍 抑郁症 认知

细胞色素 P450 酶相关基因多态性检测与难治性精神分裂症的关系研究

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目的 探讨细胞色素 P450 酶（CYP）相关基因多态性与难治性精神分裂症的关系。

方法 选取 2019 年 9 月~2021 年 10 月本院收治的 108 例难治性精神分裂症患者、90 例非难治性精神分裂症患者，分别记为难治组和非难治组。检测所有患者 CYP 相关基因多态性，并分为广泛代谢型（EM）、中间代谢型（IM）和慢代谢型（PM）。对比难治组和非难治组患者临床资料和 CYP 相关基因多态性代谢情况。Logistic 回归分析影响难治性精神分裂症的相关因素。

结果 难治组病程、简明精神科量表（BPRS）评分、阳性和阴性症状量表（PANSS）评分、临床大体印象量表严重程度量表（CGI-S）评分及泌乳素（Prolactin，PRL）水平高于非难治组（t=2.047、2.306、2.276、3.572、4.117，P=0.042、0.022、0.024、0.000、0.000）。难治组 CYP2C19 基因 EM 占比低于非难治组（t=28.010，P=0.000），IM、PM 占比则高于非难治组（t=4.743、9.846，P=0.029、0.002）。多因素分析结果显示：CGI-S 评分（OR=2.863，95%CI：1.318~6.219）、PRL（OR=2.959，95%CI：1.363~6.428）、CYP2C19 基因为 IM/PM（OR=3.367，95%CI：1.550~7.313）均为影响难治性精神分裂症的相关危险因素（P＜0.05）。

结论 CGI-S 评分、PRL、CYP2C19 基因为 IM/PM 均为影响难治性精神分裂症的相关危险因素。

关键字：精神分裂症；难治性；细胞色素 P450 酶；基因多态性；代谢

CYP2C19 基因多态性与难治性精神分裂症的相关性研究

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目的 探讨细胞色素 P450 2C19（CYP2C19）基因多态性与难治性精神分裂症（treatment-resistant schizophrenia，TRS）的相关性。

方法 选取 2020 年 11 月~2022 年 12 月常熟市第三人民医院收治的 108 例 TRS 患者归为 TRS 组，选择同期我院收治的 90 例非 TRS 患者归为对照组。通过多重 SNP 分型技术检测 CYP2C19 基因上的 SNP 位点（CYP2C19*2（G681A）、*3（G636A）及*17（C806T））基因型、等位基因分布频率及基因代谢类型，通过多元 Logistic 回归分析影响 TRS 的相关因素。

结果 98 例精神分裂症患者 CYP2C19 基因型结果经 Hardy-Weinberg 平衡检验差异无统计学意义（均 P>0.05），TRS 组与对照组间 CYP2C1*2 及*17 位点的基因型分布有统计学差异（均 P<0.05）；*1，*2，*3 及*17 检出频率分别为 56.07%、25.79%、13.38%及 4.77%；与对照组相比，TRS 组*1/*1 基因型检出频率显著升高，但*2/*3 检出频率显著下降（均 P<0.05），且 TRS 组基因代谢表型中 UM 及 EM 比例较高，但 PM 比例较低（均 P<0.05）。

结论 CYP2C19 基因多态性分型及基因代谢分型与难治性精神分裂症有潜在相关性。

关键字：难治性精神分裂症；CYP2C19；基因多态性；基因分型；基因代谢表型

精神分裂症患者服药依从性管理研究进展

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目的 精神分裂症是最常见的重性精神病之一，易复发，给患者、家庭乃至社会带来极大痛苦和负担。抗精神病药物治疗是现阶段精神分裂症最主流和最重要的治疗方法，受患者自身、药物、医疗以及社会环境等多因素影响，精神分裂症患者服药依从行为现状不甚乐观，患者服药依从性差是疾病复发的重要因素之一。寻找精神分裂症最优服药依从性管理策略是当下研究热点及难点。笔者通过检索文献，获取精神分裂症

服药依从性管理研究现状，对最佳管理策略进行总结。

方法 综述精神分裂症服药依从性管理研究现状，总结各管理策略的优缺点，探讨在精神分裂症不同病程阶段实施各管理策略的利弊。

结果 当下精神分裂症患者服药依从性管理普遍以护士主导的健康教育、药物处置技能训练、药物认知行为管理、自我管理教育、依托多学科团队的主动式管理、社区管理、电话短信随访及家庭访视等多种方式进行。随着“互联网＋”全球化进程加快，服药依从性干预介质逐渐由线下拓展至依托于互联网的各类线上应用程序，出现了基于“微信”及“腾讯会议”的线上健康指导、利用“QQ”及“微信”等交友软件的线上随访、依托“互联网+智慧医院”应用程序的健康咨询服务等。服药依从性管理在精神分裂症不同病程阶段侧重点不同，住院管理以改善患者精神症状、恢复自知力、缩短住院时长等为主，院外管理以提高患者服药依从行为、改善社会功能、提高生活质量和预防复发为主。基于互联网的护理模式有效地将院内护理延伸至院外，促进了精神分裂症全病程服药依从性管理的发展。

结论 总结精神分裂症患者服药依从性管理的最佳策略，以期改善精神分裂症患者的服药依从性，降低疾病复发率，进而可以有效减轻患者、家庭和社会的经济负担，具有一定的实践意义，同时进一步丰富和发展服药依从性护理管理策略具有一定的理论意义。

关键字：精神分裂症；服药依从性；精神科护理；抗精神病药物

FNIRS 技术在精神分裂症认知功能损害中的应用进展

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目的 大量研究证实，认知功能损害是精神分裂症(SZ)的核心特征。功能性近红外光谱(fNIRS)是一种可以测量大脑皮层血红蛋白变化的技术，通过 fNIRS 与认知任务结合，检测精神分裂症患者大脑皮层的血流动力学变化，可对认知功能损害程度及后续治疗效果进行评估。

方法 通过综述相关的研究结果，以精神分裂症、认知功能损害、功能性近红外光谱等含义相近词作为关键词，在 Web of Science，PubMed，CNKI 等论文数据库中进行检索。

结果 与 SZ 有关的 fNIRS 研究中，VFT 是最常用的认知任务范式, 使用 fNIRS-VFT 范式的研究发现与健康对照组相比，SZ 患者在 VFT 期间的大脑活动显着降低。另外，SZ 和其他精神障碍在 fNIRS-VFT 期间的大脑激活模式也不同，SZ 患者表现出独有的左侧颞上皮层(STC)偏侧化低激活，这可能是一个适用于区分 SZ 和其他精神障碍的生物标志物。同时，在工作记忆、执行功能和注意力等神经认知方面以及涉及面部情绪识别(ER)和心理理论(ToM)相关的社会认知方面，SZ 患者也在对应的认知任务中表现出异常的大脑激活模式。另外，SZ 患者认知功能损害治疗效果评估的研究发现治疗前后，患者在认知任务上的 fNIRS 的大脑激活模式明显不同，特定脑区的血红蛋白浓度改变明显。

结论 fNIRS 技术在国外已被批准作为 SZ、重性抑郁障碍(MDD)和 双相情感障碍(BD)等多种精神障碍鉴别和诊断的辅助工具。目前，虽然 fNIRS 在 SZ 患者中开展了大量的认知功能损害的相关研究，显示其在临床实践中的潜在作用，但仍然存在一些局限性。未来相关研究，可以扩大样本量的基础上，采用不同的认知范式，在 SZ 的不同临床阶段、纵向变化、精神药物效应、不同脑区连通性等方面进行深入研究，以便开发更准确有效的生物学标志物，为 SZ 的临床鉴定诊断，治疗和预后回归社会提供依据。

关键字：功能性近红外光谱；精神分裂症；认知功能损害

吸氧对无抽搐电休克术后患者记忆功能的影响

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目的 研究发现无抽搐电休克治疗会对精神分裂症患者记忆功能产生负面影响，治疗中麻醉剂的应用会导致患者外显记忆、内隐记忆消失[1]，另外近似于癫痫样的广泛性脑电发作可能导致参考记忆障碍，还有研究发现患者接受治疗后会有短暂性记忆减退表现，这些都影响了无抽搐电休克治疗在临床的应用，使得无抽搐电休克治疗无法得到广泛应用，有研究发现吸氧能够帮助脑组织局部缺氧状况得到改善，减缓内皮细胞受损情况，降低脑水肿的发生率，因此能够实现患者记忆功能的改善。同时吸氧能够减低患者脑中钙离子水平，所以能够实现记忆功能的改善，为进一步观察吸氧对无抽搐电休克术后患者记忆功能的影响，故对无抽搐电休克术后患者实施吸氧治疗对其记忆功能的影响进行研究。

方法 回顾性分析 2021 年 8 月-2023 年 1 月本院精神分裂症患者 200 例，依据无抽搐电休克术后处理方法分为观察组、对照组各 100 例，观察组在术后给予吸氧处理，对照组仅指导患者持续平卧 1 小时，比较两组记忆功能。

结果 观察组治疗后 1 周、4 周、8 周记忆功能评分均高于对照组，$P<0.05$；

结论 对无抽搐电休克术后患者实施吸氧治疗能够明显减轻记忆受损程度，加快患者术后记忆恢复，可在临床推广。

关键字：吸氧；无抽搐电休克；记忆功能；精神分裂症

Magnetic Seizure Therapy Decreases EEG Delta Activity in Patients with Schizophrenia

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Objective Magnetic seizure therapy (MST) may reduce symptoms of schizophrenia as effectively as electroconvulsive therapy (ECT). However, the interaction between MST and electrophysiological changes remains largely unknown. The aim of the present study was to investigate electrophysiological changes induced by MST using electroencephalography (EEG) in patients with schizophrenia.

Methods A total of 8 patients with schizophrenia received MST. The effect of MST was evaluated by scores on the Positive and Negative Syndrome Scale (PANSS) before and after therapy. Resting EEG (eyes open and closed for five minutes each) was recorded before and after MST to follow the effects of MST. Frequency changes were then analysed using eeglab v14.0 (Matlab 2020).

Results The total, positive symptom, negative symptom and general psychological symptom scores of PANSS were significantly lower after MST (ttotal=7.91, Ptotal<0.001; tpositive=5.79, Ppositive=0.001; tnegative=3.17, Pnegative=0.016; tgeneral=8.31, Pgeneral<0.001). We observed significant electrophysiological changes after the MST (Fig. a, Fig. b). Delta (1-4 Hz) activity showed a highly significant, long-lasting, decrease after the MST stimulation in frontal areas (Fpz, t=1.96, P=0.029) (Fig. c).

Conclusion We have shown that MST can induce stable EEG changes in patients with schizophrenia. The results highlight the potential of MST to induce long-lasting neurophysiological changes in patients with schizophrenia and demonstrate the possibility of inducing changes in brain excitability in this population.

关键字：Magnetic Seizure Therapy; Schizophrenia; electroencephalography.

Gender Difference in The Prevalence and Clinical Correlates of Alexithymia Among Chinese Schizophrenia Patients: A Large Cross-sectional Study

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Objective Although both alexithymia and schizophrenia are closely related to gender, few studies shed light on the gender difference in alexithymia among schizophrenia patients. The present study aimed to determine the gender difference in the prevalence and clinical correlates of alexithymia among a large sample of chronic schizophrenia patients.

Methods 810 Chinese chronic schizophrenia patients were recruited. We applied the Toronto Alexithymia Scale (TAS-20), Positive and Negative Syndrome Scale, Mini-mental State Examination, and Interpersonal Reactivity Index to detect alexithymia, clinical symptoms, neurocognition performances, and empathy, respectively. Multiple linear regression model for TAS-20 total scores was performed separately in male and female patients.

Results (1) The prevalence of alexithymia was higher in male patients (36%) than that in female patients (27%); (2) In both male and female patients, lower neurocognition performance and higher personal distress were strongly related to alexithymia; and (3) In male patients, alexithymia was additionally associated with negative symptoms and lower perspective taking, while in female patients, alexithymia was associated with depressive symptom and lower emotional concern.

Conclusion There was significant gender difference in the prevalence and clinical correlates of alexithymia. It is necessary to provide gender-specific screening and intervention for alexithymia in schizophrenia patients.

关键字：Alexithymia; Schizophrenia; Gender difference; Neurocognition; Empathy

Suicidal Ideation in Chinese Patients with Chronic Schizophrenia: Prevalence, Clinical Correlates, and Relationship with Alexithymia

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Objective Suicidal ideation (SI) is common among people with schizophrenia. However, it has received less attention than suicide attempts (SA), especially in the Chinese population. Alexithymia is a well-established risk factor for SI across different populations. Nevertheless, very few studies evaluated their relationship in schizophrenia patients.

Methods We aimed to determine the prevalence and clinical correlates of SI and its relationship with alexithymia in 812 Chinese chronic schizophrenia inpatients. We assessed SI, clinical symptoms, and alexithymia by the Beck Scale for Suicidal Ideation, the Positive and Negative Syndrome Scale (PANSS), and the Toronto Alexithymia Scale, respectively. A multiple logistic regression model was conducted to identify independent correlates of SI. Receiver operating characteristic (ROC) curves and area under the curve (AUC) were performed to determine the ability of our model to distinguish between patients with and without SI.

Results 10% (n = 84) reported current SI. Lifetime

SA (OR, 4.68; 95% CI 2.76-7.94, p < 0.001), PANSS depressive factor (OR, 1.24; 95% CI 1.12-1.38, p < 0.001), PANSS positive subscale (OR, 1.055; 95% CI 1.004-1.108, p = 0.035), and difficulty identifying emotions (OR, 1.07; 95% CI 1.03-1.12, p = 0.002) were associated with SI. The AUC value was 0.80, indicating excellent distinguishing capabilities.

Conclusion Timely assessments of these factors may help identify schizophrenia patients who are at risk for SI.

关键字：Alexithymia; Schizophrenia; Suicidal attempts; Suicidal ideation.

TDCS Combined with RTMS for The Treatment of Negative Symptoms in Patients with Schizophrenia: Study Protocol for A Randomized Controlled Trial

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Objective Despite the significant advancements in the field of psychopharmacology, the majority of patients with schizophrenia retain disabling symptoms, most commonly a variety of negative symptoms. Physiotherapy techniques, due to their high compliance and safety, are increasingly being used in the treatment of schizophrenia. Neuroimaging and neurophysiological studies have shown that negative symptoms are associated with abnormal brain activity in the combined right and left dorsolateral prefrontal and temporoparietal joint regions, and that physical therapy techniques can modulate cortical activity. Therefore, we aimed to investigate the efficacy of combing transcranial direct current stimulation (tDCS) with repetitive transcranial magnetic stimulation (rTMS) on negative symptoms in patients with schizophrenia and explore the possible mechanisms.

Methods This is a double-blind, randomized, placebo-controlled study investigating the efficacy of tDCS combined with rTMS over a 4-week treatment period, and with a 2-week follow-up period in patients with predominantly negative symptoms of schizophrenia. There are 4 intervention modalities, including active tDCS stimulation combined with active rTMS stimulation, active rTMS stimulation combined with sham tDCS stimulation, active tDCS stimulation combined with sham rTMS stimulation, and sham tDCS stimulation combined with sham rTMS stimulation. The primary outcome measure will be changes in the Negative Symptom Assessment Scale (SANS), with secondary outcomes including changes in Positive and Negative symptom scale (PANSS) total and negative total scores, changes in the MATRICS Consensus Cognitive Battery (MCCB), changes in local brain activity (functional magnetic resonance imaging, fMRI) and white matter integrity (diffusion tensor imaging, DTI), changes in laboratory examination indices and changes in psycho-behavioral and EEG indices.

Conclusion This is the first clinical trial combining tDCS with rTMS for the treatment of schizophrenia patients with predominantly negative symptoms. This study will provide robust evidence for the efficacy of combining tDCS with rTMS for the treatment of negative symptoms in schizophrenia. In addition, our study will help to further explore the mechanisms of tDCS combined with rTMS for the treatment of negative symptoms in schizophrenia in terms of imaging and behavior.

关键字：Physical therapy；schizophrenia; negative syndrome; randomized clincial trial

某县精神专科医院男住院精神分裂症患者精神科药物使用情况统计

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目的 统计宿迁市泗阳县 2022 年 1 月 1 日-2022 年 12 月 31 日在我院男病区住院的精神分裂症患者精神科药物使用情况，分析用药存在的情况，知道临床用药。

方法 通过泗阳县脑科医院医嘱系统查询2022年全年在我院男病区住院诊断明确为精神分裂症的患者，共计 636 人（同一患者多次住院算一例）。统计每位精神分裂症患者的药物使用情况，不区分年龄。分别统计单用抗精神病药物例数，2 种抗精神病药物例数，3 种及以上抗精神病药物例数，药物剂型为口服剂。

结果 在统计的 636 例患者中，86 例为单一使用抗精神病药物，其中单一使用非典型抗精神病药物 72 例、占 83.72%，单一使用典型抗精神病药物 14 例、占 16.28%；424 例为 2 种抗精神药物联合应用，其中一种典型、一种非典型联合为 43 例，占 10.14%，2 种非典型为 359 例，占 84.67%，2 种典型为 22 例，占 5.19%；126 例为 3 种抗精神病药物联用，1 种典型、2 种非典型为 95 例，占 75.40%，1 种非典型，2 种典型为 31 例，占 24.60%；3 种典型或非典型抗精神病药物联用 0 例，没有 3 种以上抗精神病药物联用。

结论 宿迁市泗阳县脑科医院为基层专科精神病院，绝大部分精神分裂症患者病情都是多次复发或症状顽固，属于难治性精神分裂症范围。本次统计显示男病区住院精神分裂症患者精神科药物使用较为规范、合理。本次统计亦能反应符合当地的治疗精神疾病的状态。

关键字：精神分裂症 精神药物

Analysis of Intestinal Flora Metabolomics in Children and Adolescents with First-episode and Drug-free Obsessive-compulsive Disorder

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Objective Obsessive-compulsive disorder (OCD) is a chronic and disabling psychiatric disorder characterized by recurrent intrusive thoughts or repetitive behaviors. We sought to better understand the relationship between gut microbiota and fecal metabolites in first-episode, drug-free children and adolescents with OCD, and to determine the metabolites changes in gut microbiota after treatment with selective serotonin reuptake inhibitors (SSRIs).

Methods 1. Stool samples were collected from 49 first-episode untreated children and adolescents with OCD and 42 age - and sex-matched healthy controls (HC). Samples were collected after 12 weeks of SSRIs monotherapy for OCD, and all subjects were evaluated for clinical parameters. 2. Fecal samples from 49 cases of OCD, 42 cases of HC and 26 cases of OCD12W were analyzed by metabonomic method based on UHPLS-MS. 3. Correlation analysis was conducted between metabolomics results and clinical parameters to explore the relationship between intestinal flora and OCD symptoms and the possible functional pathways involved in the pathogenesis.

Results 1. A total of 43 endogenous differential metabolites were screened from OCD-HC group, and 63 endogenous differential metabolites were screened from OCD0W-OCD12W group. 2. The relative content of Neopterin and Sepiapterin, intermediates of Folate Biosynthesis pathway, increased significantly; Glucocorticoids and corticosterone significantly decreased in regulating Lipolysis in Adipocytes and Prion Diseases. Fumarate, 2-oxoisovalerate, 3-dehydroquinic acid (DHQ) and other metabolites involved in amino acid biosynthesis pathway decreased significantly. 3. Correlation analysis of differential flora and metabolites in OCD patients showed that intestinal flora was associated with intestinal metabolites.

Conclusion 1. The expression of intestinal microflora metabolites in OCD patients is disturbed, resulting in functional abnormalities of related metabolic pathways, which can be partially recovered by drug treatment. Neopterin, as a key factor of folic acid synthesis pathway, may be involved in the pathogenesis of OCD. 2. Glucocorticoid-mediated dysfunction of HPA axis can promote intestinal immune inflammatory response in patients with OCD. 3. Abnormal metabolites of gut microbiota in OCD patients are mainly manifested in folic acid biosynthesis, prion disease pathway and amino acid metabolic network.

关键字：Gut microbiota; Obsessive compulsive disorder; Children and adolescents; Metabonomics

Effect of Virtual Reality Technology Combined with Mindfulness-based Stress Reduction Therapy on Elderly Patients with Depression

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Objective To explore the effect of virtual reality technology (VR) combined with mindfulness-based stress reduction therapy on patients with Late Life Depression in post-epidemic context.

Methods From January 2023 to April 2023, 150 cases of elderly patients with depression treated in the geriatric psychology department of Daqing Mental Health Center were taken as research objects. According to the random number table method, they were divided into three groups, control group 1（n=50）was treated with conventional drug therapy, control group 2（n=50）was treated with drug therapy combined with mindfulness-based stress reduction therapy, the experimental group（n=50）was treated with VR combined mindfulness-based stress reduction therapy on the basis of control group 1. The three groups were treated for 8 weeks. The improvement rate and shedding rate of the three groups were compared. Before and after treatment, Hamilton Anxiety Scale (HAMA), Hamilton Depression Scale (HAMD), Five Facet Mindfulness Questionnaire (FFMQ), General Self-Efficacy Scale (GSES), Montreal Cognitive Assessment (MoCA), Social Disability Screening Schedule (SDSS), and Treatment Emergent Symptoms Scale (TESS) were used for evaluation. The therapeutic effect, improvement degree of self-efficacy, improvement degree of social function and cognitive function and side reactions were compared between the three groups.

Results The shedding rate of control group 1, control group 2 and experimental group were 10%, 14% and 6%, respectively, and there was no difference among the three groups ($P > 0.05$). The effective rate of experimental group (100.00%) was higher than that of conventional drug treatment group (67.87%) and drug + mindfulness-based stress reduction therapy group (83.63%) ($P < 0.05$). Compared with before treatment, HAMD and HAMA scores of the three groups were significantly decreased after treatment, and the scores of experimental group about HAMD and HAMA were lower than those of control group 1 and control group 2 ($P < 0.05$). After treatment, the scores of FFMQ, GSES, MoCA and SDSS in the three groups were significantly increased, and the scores of FFMQ, GSES, MoCA and SDSS in the experimental group were significantly higher than those in control group 1 and control group 2 ($P < 0.05$).

Conclusion VR combined with mindfulness-based stress reduction therapy has positive significance in improving depression, anxiety, social function and cognitive function in elderly patients with depression, especially in improving self-efficacy .

关键字：virtual reality；mindfulness-based stress reduction；Late Life Depression；self-efficacy

计算机认知矫正治疗（CCRT）及精神障碍作业疗法训练对慢性精神分裂症患者认知功能评分的影响

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目的 探究计算机认知矫正治疗（CCRT）及精神

障碍作业疗法训练对慢性精神分裂症患者认知功能评分的影响。

方法 在 2023 年 2 月 1 日-6 月 21 日期间，对锦州市康宁医院住院部接受住院治疗的部分慢性精神分裂症患者进行研究，共选取 82 例存在认知功能损害的慢性精神分裂症患者被随机分入对照组（n=27）、CCRT 治疗组（n=28）和联合治疗组（n=27），分别进行单纯精神障碍作业疗法训练、单纯 CCRT 训练和 CCRT 联合精神障碍作业疗法训练，其中 CCRT 组两例因出院未能完成研究，三组间在性别、年龄、病程、住院时间、受教育年限和药物治疗量方面差异无统计学意义。在治疗基线和第 8 周末利用简易精神状态检查量表（MMSE）对患者进行评分。

结果 与基线相比，对照组的 MMSE 评分在第 8 周末未见明显改善（p=0.184），而 CCRT 治疗组的 MMSE 评分在第 8 周末有所改善（p=0.000），联合治疗组的 MMSE 评分在第 8 周末也有所改善（p=0.002）。与对照组相比，CCRT 治疗组的 MMSE 评分在第 8 周末出现具有统计学意义的差异（P=0.001），联合治疗组的 MMSE 评分在第 8 周末也出现具有统计学意义的差异（P=0.017），CCRT 治疗组和联合治疗组的 MMSE 评分在第 8 周末未出现具有统计学意义的差异（P=1.000）。此外，全部 CCRT 治疗组和联合治疗组的受试者 MMSE 评分变化与受教育年限成负相关（r=-0.281，p=0.041）。

结论 单纯的精神障碍作业疗法训练未能提高慢性精神分裂症患者的 MMSE 评分，CCRT 治疗和 CCRT 治疗联合精神障碍作业疗法训练可提高慢性精神分裂症患者的 MMSE 评分，受教育年限可能与患者的 MMSE 评分变化成负相关。

关键字：计算机认知矫正治疗，精神障碍作业疗法训练，慢性精神分裂症

Serum Cytokines As Potential Biomarkers for Metabolic Syndrome in Clozapine-resistant Refractory Patients with Schizophrenia

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Objective Treatment-resistant patients with schizophrenia (TRS) who do not respond to clozapine are known as patients with clozapine-resistant refractory schizophrenia (CTRS). While metabolic syndrome (MetS) and inflammatory cytokines have been linked to schizophrenia, the relationship between MetS and cytokines in CTRS patients has not been examined. This study aimed to investigate the potential role of cytokines levels in CTRS patients with MetS and without MetS.

Methods The study included 69 CTRS patients (31with MetS and 38 without MetS) and 84 healthy controls (HCs). The levels of IL-2, IL-6, TNF-α and routine biochemical parameters were measured. Psychopathological symptoms and cognitive function were assessed using the Positive and Negative Syndrome Scale (PANSS) and the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS), respectively.

Results The cognitive function scores of CTRS patients with MetS were lower than those of CTRS patients without MetS ($p < 0.05$), even after controlling for confounders. The levels of TNF-α were significantly higher in CTRS patients with MetS than in those without MetS ($p < 0.05$), and it had good diagnostic potential for CTRS patients with MetS via receiver operating characteristic curve (ROC) (AUC = 0.711, p = 0.003). In CTRS patients without MetS, IL-2 was an independent contributor to the total score and General psychopathology subscore of PANSS ($\beta = 0.454$, $t = 3.059$, $p = 0.004$ and $\beta = 0.437$, $t = 2.915$, $p = 0.006$, respectively). Additionally, IL-6 could be an independent contributor to the Positive subscore of PANSS ($\beta = -0.413$, $t = -2.723$, $p = 0.010$). In terms of cognition, IL-6 was an independent contributor to the delayed memory of RBANS in CTRS patients without MetS ($\beta = 0.404$, $t = 2.647$, $p = 0.012$).

Conclusion TNF-α could be a potential predictor for CTRS patients combined with MetS, while IL-2/IL-6 may act as independent contributors to psychopathological symptoms or cognitive function in CTRS patients without MetS.

关键字：Clozapine-resistant refractory schizophrenia; Metabolic syndrome; Cytokine; Psychopathological symptoms; Cognition

伴有快感缺失的抑郁症患者的生活质量调查研究

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目的 快感缺失是抑郁症的核心症状之一，这一症状的存在预示着较差的治疗效果和疾病转归以及不良预后。本研究纳入伴或不伴快感缺失的抑郁患者人群，探讨伴有快感缺失的患者的生存质量与社会功能，并探索症状与功能之间的关系。

方法 本研究为横断面研究，共纳入 245 例符合 DSM-5 抑郁症诊断的门诊患者，以调查问卷的方式收集患者一般信息，采用患者健康问卷抑郁量表（PHQ-9）、广泛性焦虑量表(GAD-7)、斯奈斯快感缺失量表（SHAPS）评估患者症状严重程度，采用社会适应性自测量表、生活满意度量表（SWLS）、工作效率和活动能力下降调查问卷评估患者的社会功能和生活质量另外采用情绪调节策略问卷（ERQ）测评个体使用认知重评和表达抑制的习惯程度。以 SHAPS=5（二分法制）为分界点，分为不伴有快感缺失的抑郁组（SHAPS＜5 分，n=104）及伴有快感缺失的抑郁组（SHAPS≥5 分，

n=141），以此分组为基础对两组的生活质量和社会功能进行比较和分析。

结果 在工作效率和活动能力下降调查问卷结果中，伴有快感缺失的抑郁患者和不伴有快感缺失的抑郁患者在实际工作时长无明显差异，而伴有快感缺失的抑郁患者的工作效率和日常活动能力下降程度评分高于不伴有快感缺失的患者组（P＜0.05）。伴有快感缺失的患者生活满意度量表评分（P=0.004）和社会适应自测评分（P＜0.001）明显低于不伴有快感缺失的抑郁患者。

结论 伴有快感缺失的抑郁患者有更低的工作效率和活动能力，对生活满意度更低，且对社会适应能力更差。

关键字：快感缺失，抑郁症，生活质量，生活满意度，社会适应能力

首发精神分裂症患者时间整合窗口内外的 ERP 研究

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目的 感知觉异常是精神分裂症患者常见的认知损伤表现，有报道提出早在疾病初期就会出现类似症状，但生活中经常被忽视。时间整合窗口（temporal-binding window ,TBW)，定义为出现在该窗口（时间间隔）内的刺激被整合为一个整体，而在这个窗口之外的刺激会被知觉为两个不同的事件。研究发现精神分裂症患者拥有较健康对照组扩大的 TBW，可能影响到患者的认知加工过程。本研究旨在探索精神分裂症患者时间整合窗口内外的脑电情况，分析其振幅及潜伏期，讨论在不同时间间隔下患者的认知加工过程，以期在精神分裂症发病初期能够找到预测疾病发展的生物标志物。

方法 本研究为横断面研究，纳入首发精神分裂症 35 例，基线期将会对每组人群进行视觉时序判断任务，听觉时序判断任务及视听协同任务，通过行为学实验计算每组人群的时间整合窗口，脑电实验中将刺激间间隔分为时间整合窗口内及时间整合窗口外，采集每组人群任务态下的 ERP，分析振幅及潜伏期。

结果 在视觉时序判断任务中，可见首发精神分裂症患者枕叶与前额叶电极点（如 O1,O2,FP1,FP2 等）会出现明显的 N2、P2 成分；听觉时序判断任务中可见在顶叶及偏颞叶部分（如 CZ、TP7、TP8）拥有明显的 P2 及 N2 成分，且时间整合窗口内的 P2 成分的振幅显著高于时间整合窗口外；视听协同任务中可见同步刺激将会在 100-200ms 左右出现明显的 P2 及 N2 成分，此后趋于稳定，但异步刺激，将会在 100-200ms 及 700-800ms 左右出现两次明显的正向或负向波。

结论 本研究对首发精神分裂症患者视听整合功能的认知加工过程进行了探索，我们认为首发精神分裂症患者拥有较正常人群扩大的 TBW，对于落在 TBW 外的两类刺激，首发精神分裂症患者将会对每一类刺激进行逐一加工，最终做出判断。

关键字：精神分裂症；时间整合窗口

睾酮与肠道菌群的关联对首发未用药精神分裂症患者认知功能的影响

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目的 许多研究报道了睾酮水平在肠道菌群调节和认知功能障碍中的重要作用。本研究旨在探讨睾酮、肠道菌群及两者的关联性对首发未用药精神分裂症（SCZ）患者认知功能的影响。

方法 本研究招募了 41 名首发未用药精神分裂症患者（患者组）和 50 名健康对照（对照组）。用放射免疫法测定睾酮(TESTO)的水平，采集粪便样本提取细菌 DNA，进行 16S rRNA 测序。采用阳性与阴性症状量表 (PANSS) 评估患者精神症状的严重程度，通过 MATRICS 共识认知成套测验（MCCB）评定认知功能。

结果 与对照组相比，患者组显示出更高的血清睾酮水平和更低的认知评分（P＜0.05）。患者组肠道菌群中厚壁菌门、瘤胃菌科、丁酸弧菌属相对丰度低于健康对照组（均 P<0.05）。在患者组内，睾酮水平与厚壁菌门、瘤胃菌科、丁酸弧菌属相对丰度呈负相关（P＜0.01）。多元回归分析显示，睾酮?厚壁菌门、睾酮?瘤胃菌科、睾酮?丁酸弧菌属的交互作用是患者组 MCCB 推理和解决问题得分的显著预测因子。

结论 首发未用药精神分裂症患者中血清睾酮水平增高，厚壁菌门、瘤胃菌科、丁酸弧菌属相对丰度降低，且与其认知功能相关，提示肠道菌群相对丰度和睾酮水平可作为认知功能的潜在客观评估指标。

关键字：精神分裂症；睾酮；肠道菌群；认知

The Associations of Psychopathology and Metabolic Parameters with Serum Bilirubin Levels in Patients with Acute-episode and Drug-free Schizophrenia: A 5-year Retrospective Study Using An Electronic Medical Record System

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Objective The oxidative system plays an important role in the pathogenesis of schizophrenia. Inconsistent associations were found between hyperbilirubinemia and psychopathology as well as glycolipid metabolism in patients with schizophrenia at different episodes. This current study aimed to examine these associations in patients with acute-episode and drug-free (AEDF) schizophrenia.

Methods This is a retrospective study using 5 years

of data from May 2017 to May 2022 extracted from the electronic medical record system of Chaohu Hospital of Anhui Medical University. Healthy controls (HCs) from the local medical screening center during the same period were also included. Participants' data of the bilirubin levels [total bilirubin (TB), conjugated bilirubin (CB), unconjugated bilirubin (UCB)], metabolic parameters (TC, TG, HDL-C, LDL-C, and FBG), and the score of the Brief Psychiatric Rating Scale (BPRS) were collected.

Results A total of 1468 case records were identified through the initial search. After screening, 89 AEDF patients and 181 HCs were included. The patients had a higher CB level, and lower levels of TC, TG, HDL-C, LDL-C, and FBG than HCs (all $P < 0.001$). Binary logistic regression analyses revealed that high bilirubin levels in the patients were independently associated with higher total and resistance subscale scores of BPRS, a higher HDL-C level, and lower levels of TC and TG (all $P < 0.05$).

Conclusion Bilirubin levels are elevated in patients with AEDF schizophrenia. Patients with high bilirubin levels have more severe psychopathology and relatively optimized glycolipid metabolism. In clinical practice, regular monitoring of bilirubin levels in this patient population should be carried out.

关键字：bilirubin; schizophrenia; psychopathology; glycolipid metabolism

Research on Cognitive Impairment and Its Influencing Factors in Patients with Stable Schizophrenia

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Objective To understand the cognitive function damage and influencing factors of patients with stable schizophrenia, and propose a high-quality clinical strategy to improve the cognitive function of patients with schizophrenia.

Methods C-BCT, a Chinese version of the neurocognitive test based on the Delphi method, was used to test the cognitive level of 220 patients who visited the Second People's Hospital of Guizhou Province in 2021-2023, and analyzed the relevant project units in the test to explore the situation of schizophrenia patients. The degree of cognitive damage in the stable period and its relationship with the relevant unit tests, and on this basis, explore the influencing factors related to cognitive damage, aiming to find the cognitive impairment and its influencing factors in patients with schizophrenia during the stable period, so as to improve the prevention and treatment rate of the disease and reduce the severity caused by cognitive impairment. Socio-economic harm.

Results (1) In stable schizophrenia, female patients accounted for 58.6%, male patients accounted for 41.4%, young patients accounted for 69%, and young people accounted for more; high-educated patients have a low degree of cognitive impairment; (2) Continuous operation test of stabilization schizophrenia patients in C-BCT cognitive The correlation between the test and cognitive damage degree is the strongest (R=0.733), and the relationship between the digital breadth test and the cognitive damage degree is the weakest (R=0.561); (3) the correlation between the connection test and the continuous operation test is the highest (R=0.417), and the correlation between the connection test and the digital breadth is the lowest (R= 0.262)

Conclusion (1) In stable schizophrenia, women are more common than men; the age of onset tends to be younger; patients with higher education have a lower degree of cognitive impairment than that of non-higher education patients. (2) The degree of cognitive damage in stable-phase schizophrenia patients is closely related to cognitive functions such as information processing speed, working memory, reasoning and problem-solving in neuro-recognition function. Among them, attention deficit is closely related, and the working memory ability related to digital breadth is less damage in the cognition of stable-term schizophre .

关键字：Stable Period Schizophrenia ;Social Cognitive Function ;C-BCT ;Cognitive Damage

Association between Depressive Symptoms and Serum BDNF Levels in Patients with First-episode and Drug-naive Schizophrenia

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Objective Previous studies have revealed that brain-derived neurotrophic factor (BDNF) levels are inversely associated with the severity of depressive symptoms. In addition, serum BDNF levels tend to increase with improvement in depressive symptoms. There is also evidence that BDNF has a possible role in the pathophysiology of schizophrenia. Therefore, the purpose of this study was to determine whether BDNF levels correlated with depressive symptoms in patients with first-episode and drug-na?ve (FEDN) schizophrenia.

Methods In this study, 90 patients with FEDN schizophrenia and 60 healthy controls were recruited. The Positive and Negative Syndrome Scale (PANSS) and the 17-item Hamilton Depression Scale (HAMD-17) were used to gauge psychopathological and depressive symptoms, respectively. All participants had their BDNF levels measured using a sandwich enzyme-linked immunosorbent test.

Results Serum BDNF levels were lower in patients with FEDN schizophrenia compared with healthy controls. Moreover, patients with depressive symptoms exhibited a higher PANSS total score and a higher general psychopathology score than those without depressive symptoms ($p < 0.05$). For patients with depressive symptoms, serum BDNF levels were higher than in those without depressive symptoms ($p < 0.05$). An association between BDNF levels and the positive subscore was also observed ($p < 0.01$). However, there was no significant association between

BDNF levels and HAMD scores ($p > 0.05$).

Conclusion In conclusion, BDNF levels were shown to be higher in the serum of patients with FEDN schizophrenia with depressive symptoms than in those without. Additionally, low levels of serum BDNF may contribute to the positive symptoms of FEDN schizophrenia but not to depressive symptoms.

关键字：Brain-derived neurotrophic factor; Depressive symptoms; First-episode psychosis; Schizophrenia

精神分裂症患者自杀意念影响因素及预测模型的构建

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目的 分析精神分裂症患者自杀意念的现状，探讨其影响因素并建立预测模型，以提高精神卫生人员对此类发生自杀意念高危个体的认识和检测。

方法 采取便利抽样法，选取 2023 年 2 月至 2023 年 6 月于江苏省扬州某三级精神专科医院住院治疗且诊断为精神分裂症的患者作为调查对象，通过患者一般资料调查表、贝克自杀意念量表、汉密尔顿焦虑量表、汉密尔顿抑郁量表、社会支持评定量表、简明精神病量表、匹兹堡睡眠指数量表收集患者的资料，通过多因素逐步回归分析法筛选出患者发生自杀意念的独立影响因素，用 R 软件构建多因素 Logistic 回归模型并绘制列线图，采用受试者工作特征曲线(receiver operating characteristic curve,ROC)评价模型预测效能。

结果 252 名住院精神分裂症患者中，发生自杀意念患者的人数为 92 名，发生率为 36.51%；单因素分析结果显示：性别、学历、服药年限、有无陪护、入院时间、伴发疾病种类、睡眠指数、精神症状、心理状态（焦虑、抑郁）均有统计学意义(均 $P<0.05$)；多因素逐步分析结果显示：性别、学历、有无陪护、心理状态（焦虑、抑郁）为精神分裂症患者发生自杀意念的独立影响因素，其中学历为患者发生自杀意念的保护因素；预测模型建模组、验证组 ROC 曲线下面积(area under curve,AUC)分别为 0.83、0.82。

结论 构建的精神分裂症患者自杀意念的风险预测模型预测效能较好，有利于临床精神卫生人员早期发现发生自杀意念的高风险人群。

关键字：精神分裂症；自杀意念；影响因素；预测模型

Depression Severity Mediates Stigma and Quality of Life in Clinically Stable Patients with Schizophrenia in Rural China

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Objective :Depressive symptoms associated with schizophrenia are closely related to stigma and living quality. There is, however, no thorough research on the connection between the three. This study sought to investigate the possible factors influencing depressive symptoms in patients with schizophrenia (PWS) in rural Chaohu, China, and to further explore the role of depression severity in stigma and lifestyle quality.

Methods :821 schizophrenia patients accomplished the entire scale, including the 9-item Patient Health Questionnaire(PHQ-9), the Social Impact Scale(SIS), and the World Health Organization on Quality of Life Brief Scale(WHOQOL - BREF). A straightforward mediation model was employed to determine if the intensity of the depression could act as a mediator between stigma and quality of life.

Results :279 schizophrenia patients(34%) had depressive symptoms (PHQ ≥10), and 542 patients (66%) did not (PHQ <10). Logistic regression showed that marital status, job status, physical exercise, standard of living, and stigma contributed to the depressed symptoms of schizophrenia. Depression severity partially mediated the effect between stigma and quality of life, with a mediating effect of 48.3%.

Conclusion :This study discovered a significant incidence of depressed symptoms associated with schizophrenia, with depression severity serving as a mediator variable connecting stigma and quality of life and partially moderating the association.

关键字：schizophrenia, stigma, depressive symptoms, quality of life, influencing factors

中国农村稳定期精神分裂症患者的攻击性与抑郁情绪的关系

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目的 攻击行为在精神分裂症中很常见。而抑郁情绪也会助长攻击行为的发生。本研究的目的是调查处于稳定期的农村精神分裂患者发生攻击行为的危险因素，主要是探讨抑郁情绪在精神分裂症患者发生攻击行为中的作用。

方法 在安徽省巢湖市周围乡镇进行横断面调查。采用修正的公开攻击量表（MOAS）来评估患者的攻击性。将≥4 分作为阈值，分为攻击组和非攻击组。调查并记录病人的一般人口学资料，采用 9 项患者健康问卷（PHQ-9）来评估患者的抑郁情绪。采用单因素分析来比较样本在一般人口学特征及抑郁情绪的变化，spearman 相关分析用于评估抑郁情绪与人口学特征的相关性，采用二元 Logistic 回归分析方法，对混杂因素进行调整，以确定可能影响稳定期精神分裂症患者发生攻击行为的影响因素。

结果 本研究共招募了 1205 名患者，其中符合纳入标准的总共 821 名精神分裂症患者。其中，有 154 名

患者表现出攻击行为，发生率为 18.8%。与非攻击组相比，攻击组的受教育水平、独居比例、吸烟比例、体育锻炼频率、就业人数均低于非攻击组，而抑郁水平明显高于非攻击组（p＜0.05）。spearman 相关分析示，抑郁情绪与是否工作（r=-0.232，p＜0.001），吸烟行为（r=-0.094，p=0.007）及体育锻炼频率（r=-0.171，p=＜0.001）呈负相关，二元 Logistic 回归分析显示，低教育水平（OR=0.470，95%CI 0.254-0.870；p=0.016），与家人一起居住（OR=0.383，95%CI 0.174-0.845；p=0.017），抑郁情绪（OR=1.147，95%CI 1.112-1.184；p＜0.001）与精神分裂症患者的攻击行为的风险显著相关。

结论 本研究表明，攻击行为稳定期精神分裂症患者中较为常见，其中，低教育水平、抑郁情绪是稳定期精神分裂症患者攻击性的相关危险因素，而独居则有可能有利于减少攻击性的发生。

关键字：精神分裂症 稳定期 抑郁情绪 攻击性

补充 Omega-3 多不饱和脂肪酸对精神分裂症临床疗效以及代谢不良反应的影响

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目的 探讨 Omega-3 多不饱和脂肪酸对第二代抗精神病药物临床疗效的增效作用以及对药物所致代谢综合征的预防改善作用。

方法 药物治疗是精神分裂症首选的治疗方法，第二代抗精神病药被广泛应用于临床治疗之中，对于阳性症状、阴性症状以及认知功能都有一定的改善作用，但其可导致糖脂代谢紊乱，引发代谢综合征等不良后果。Omega-3 多不饱和脂肪酸可增强抗精神病药物的临床疗效，改善精神病性症状，同时也具有调节代谢紊乱的有益作用。通过在 Pubmed、Embase、Cochrane Library、Web of Science、Sinomed 等中检索有关 Omega-3 多不饱和脂肪酸与精神分裂症相关的研究，总结概括两者间的最新研究进展，从 Omega-3 多不饱和脂肪酸对第二代抗精神病药物临床疗效以及代谢综合征等不良反应的有益补充方面展开论述。

结果 通过检索发现大量的研究结果都表明，补充 Omega-3 多不饱和脂肪酸对抗精神病药物临床疗效以及药物所致代谢不良反应具有一定的改善作用。

结论 补充 Omega-3 多不饱和脂肪酸对精神分裂症临床疗效具有增效作用，同时对药物所致代谢不良反应也是一种有益的补充。ω-3 PUFAs 耐受性良好，没有严重的副反应，是一种易于接受的干预方式，这将有益于实现个体化治疗，有助于精神病学中精确医学的发展。可为今后的临床诊疗提供参考，可帮助改善精神分裂症患者疾病预后、提升生活质量以及促进社会功能恢复。

关键字：Omega-3 多不饱和脂肪酸 精神分裂症 第二代抗精神病药物 代谢综合征

Effect of Repetitive Transcranial Magnetic Stimulation on Weight in Schizophrenia

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Objective The solutions for schizophrenia with overweight or obesity involve lifestyle intervention, medication, and even surgery. Recent researches have shown that repetitive transcranial magnetic stimulation (rTMS) can potentially promote weight loss in healthy individuals. Therefore, the aim of this research is to investigate the potential of rTMS to promote weight loss in schizophrenia.

Methods Patients with schizophrenia were randomly assigned into rTMS and sham-rTMS groups and completed 20 sessions of rTMS over a 4-week. Demographic data and PANSS scores and measurements of body weight, waistline, hipline, BMI, blood pressure, blood glucose, and blood lipids were collected before and after treatment.

Results 74 participants were included. There was no significant difference in body weight, waistline, hipline, and BMI changes between groups. However, rTMS group showed a statistically significant decrease in systolic blood pressure (p=0.037<0.05). There was also a significant difference in the change in HDL level(p=0.008<0.05). The N-subscore of both groups decreased compared to baseline with a statistically significant difference (p=0.033<0.05) between two groups. Moreover, for exploring subgroup analysis, the interaction effect between subgroups of central obesity showed statistically significant differences (p=0.030<0.05). Patients with central obesity showed weight loss after receiving rTMS, and there was a statistically significant difference compared to sham-rTMS group (p=0.037<0.05).

Conclusion 10Hz rTMS may not have a therapeutic effect on weight gain in schizophrenia, but it may have an effect in schizophrenia with central obesity. In addition, rTMS can improve negative symptoms, and reduce systolic blood pressure and high-density lipoprotein.

关键字：repetitive transcranial magnetic stimulation, schizophrenia, obesity, weight gain

精神分裂症社区康复及应用的系统综述文献调查与评价

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目的 调查公开发表的精神分裂症患者社区康复相关系统综述，为精神分裂症防治指南制订形成推荐意见及社区对精神分裂症患者进行合理有效的康复提供依据和参考。

方法 系统检索并筛选 2018 至 2023 年社区康复场所和社区康复技术对于精神分裂症患者的效果的文献，纳入进行 Meta 分析的系统综述。按照 GRADE (Grading of Recommendations Assessment, Development and Evaluation)方法，对纳入系统综述中精神分裂症患者进行社区康复后的社会功能和精神症状稳定程度进行证据质量评价。

结果 共检索到 2018 至 2023 年公开发表的 460 篇相关文献。对于不同社区康复技术的效果，共检索出 379 篇文献，其中 10 篇（英文 9 篇，法文 1 篇）进行 Meta 分析的系统综述被纳入，涉及的社区康复技术包括社交技能训练、自我管理、同伴支持等。采用 GRADE 方法对 9 篇英文系统综述进行证据质量评价，61 个证据结局指标中 26 个（42.62%）与社会功能有关，35 个（57.38%）与精神症状稳定程度有关。对 61 个证据进行质量评价的结果显示 1 个（1.64%）质量等级为高，8 个（13.11%）质量等级为中，15 个（24.59%）质量等级为低，37 个（60.66%）质量等级为极低。质量等级为高的证据结局指标与社会功能中的职业功能有关，质量等级为中的证据结局指标中 6 个与社会功能有关，2 个与精神症状稳定程度有关。未检索到不同社区康复场所中精神分裂症患者康复效果的 Meta 分析的系统综述。

结论 2018 至 2023 年公开发表的系统综述难以为精神分裂症患者的社区康复形成强推荐意见提供充足的证据，系统综述普遍存在纳入随机对照试验的偏倚风险较高、试验间的不一致性较大、Meta 分析的不精确性较大的问题。未来应在社区康复方面开展更多规范优质的随机对照试验，进一步验证社区康复对精神分裂症患者社会功能改善的有效性。

关键字：精神分裂症；社区康复；系统综述；证据质量

基于家庭的延伸护理对精神分裂症患者社会功能、生活质量及家属心理状态的影响

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目的 探讨基于家庭的延伸护理对精神分裂症（SCH）患者社会功能、生活质量及家属心理状态的影响。方法 收集我院 87 例 SCH 患者进行回顾性分析，根据建档顺序分为对照组（n=43）和观察组（n=44），依次给予常规护理、常规护理+基于家庭的延伸护理，连续干预 3 个月。观察 2 组服药依从性及干预前、干预 3 个月后社会功能、生活质量及家属心理状态。结果 观察组服药依从性高于对照组（P＜0.05）；干预 3 个月后观察组家属抑郁、焦虑评分低于对照组（P＜0.05）；干预 3 个月后观察组 SDSS 评分低于对照组（P＜0.05）。结论 基于家庭的延伸护理可提高 SCH 患者服药依从性，改善社会功能，缓解家属心理状态。

方法 2 组出院后均遵遗嘱服用精神药物，如奥氮平、阿立哌唑、利培酮等。

结果 1.服药依从性 观察组服药依从性高于对照组。 2.SCL-90 评分 干预前 2 组家属 SCL-90 评分比较，差异无统计学意义（P＞0.05），干预 3 个月后观察组家属抑郁、焦虑评分低于对照组 3.SDSS 及 WHOQOL-100 评分 干预 3 个月后观察组 SDSS 评分低于对照组（P＜0.05），干预 3 个月后 2 组 WHOQOL-100 评分比较，差异无统计学意义

结论 基于家庭的延伸护理可提高 SCH 患者服药依从性，改善社会功能，缓解家属心理状态。

关键字：精神分裂症；基于家庭的延伸护理；常规护理；社会功能

首发精神分裂症患者高泌乳素血症与代谢指标及认知功能的关系

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目的 探讨首发未用药精神分裂症患者泌乳素水平对代谢指标及认知功能的影响，探索泌乳素水平在首发未用药精神分裂症患者发病过程中可能发挥的作用，为治疗及评估预后提供依据。

方法 选取 90 例首发未用药精神分裂症患者作为研究组，同期进行体检的 90 名健康者为对照组，将首发未用药精神分裂症患者，将其按照泌乳素（prolactin，PRL）水平分为 PRL 升高组(＞25ng/ml，45 例)和 PRL 正常组(＜25ng/ml，45 例)。检测两组的性激素水平及相关代谢指标（如：空腹血糖、血清胆固醇、甘油三酯、高密度脂蛋白、低密度脂蛋白、碱性磷酸酶、血清总蛋白、血清白蛋白、血清球蛋白、总胆红素、直接胆红素、间接胆红素）。采用阳性和阴性综合征量表(PANSS) 对患者精神病理症状进行评估，采用 MATRICS 共识认知成套测验(MCCB) 对患者的认知功能进行评估。

结果 首发未用药精神分裂症患者组与健康组相比两组性别、年龄、BMI、受教育年限、吸烟史方面、代谢指标、性激素水平差异无统计学意义(P＞0.05)。PRL 升高组与 PRL 正常组观察组血糖 TCHO、TG、HDL、LDL、ALP、ALB、GLOB、TBIL、BILD2、IBIL 水平比较差异均无统计学意义(P＞0.05)。PRL 升高组血清 TP 水平低于 PRL 正常组，差异有统计学意义(P＜0.05)。PRL 升高组工作记忆、信息处理速度、注意及警觉性、推理和问题解决、社会认知均差于 PRL 正常组(P＜0.05)，两组词语学习、视觉学习得分差异无统计学意义(P＞0.05)。

结论 泌乳素水平升高的首发精神分裂症患者在未服药状态下，认知功能与泌乳素水平正常的首发未用药精神分裂症患者相比受损程度更明显且更容易出现代谢紊乱。泌乳素水平的高低在精神分裂症患者的治疗和预后预测中具有一定临床价值。

关键字：精神分裂症 高泌乳素血症 认知功能

肠道菌群在精神分裂症伴代谢综合征中的应用前景

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目的 代谢综合征也被称为“X 综合征”，患者表现为体重增加(腹型肥胖)、摘要：精神分裂症是一种以思维、情感和行为分裂为特征的严重精神心理疾病，影响了全球 1%的人群。精神分裂症患者的平均期望寿命同普通人群相比缩短约 15～20 年，而代谢综合征已成为困扰患者的主要问题，如何降低或治疗精神疾病患者代谢综合征的问题愈发被重视。然而精神分裂症患者发生代谢综合征的机制尚不明确。近年来的研究显示肠道微生物在体重、血糖、血脂、胰岛素抵抗的调节中发挥着重要作用。本文旨在为探索益生菌对于女性精神分裂症患者代谢综合征的治疗效果，并探讨益生菌是否能够成为临床医生面对患者可供选择的治疗方案，为指导临床提供理论基础。

方法 查找相关文献

结果 近年来对于精神分裂症的治疗不再局限于改善及治疗精神症状，而是更加关注患者康复及预后，临床医生应该更加密切关注患者的代谢状态，全面考量患者的饮食、运动、生活习惯用药种类及剂量等多种可能导致代谢异常的因素，同时借鉴应用目前对于精神分裂症患者代谢综合征研究中发现的生物标志物及治疗手段，对于其代谢综合征发生的机制有更深入的探索，从而在对精神分裂症患者代谢综合征的预防和诸如益生菌等新药物研发上产生更大裨益。

结论 具有抑制脂肪沉积的益生菌功能性制剂在代谢综合征的治疗中具有很大的前景。

关键字：女性精神分裂症，代谢综合征，微生物肠脑轴，益生菌

Association of Bone Turnover Markers and Cognitive Function in Chinese Chronic Schizophrenia Patients with Or without Vitamin D Insufficiency

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Objective Increasing evidence shows that bone turnover markers (BTMs) and vitamin D can affect human cognitive function. However, there are few studies that have investigated the association between BTMs and cognitive function in chronic schizophrenia patients. The aim of this study was to investigate the relationship between BTMs and cognitive function in chronic schizophrenia patients with or without vitamin D insufficiency (VDI).

Methods In all, 118 chronic schizophrenia patients were enrolled in this cross-sectional study. Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) was applied to evaluate the cognitive function of the subjects. Blood analysis included bone turnover markers, vitamin D levels, and glycolipid levels.

Results Relative to 72 vitamin D-sufficient (VDS) patients, 46 VDI patients had higher bone resorption markers levels and lower bone formation markers levels. Regression analysis showed that, in the VDS group, procollagen type I N-terminal propeptide (PINP) was independently negatively correlated with language function ($p = 0.031$, R2 change = 0.065), while the positive correlation between osteopontin (OPN) and delayed memory remained in the VDI group ($p = 0.036$, R2 change = 0.083).

Conclusion Our study showed an association between the levels of BTMs and cognitive function among chronic schizophrenia patients. This correlation may have different mechanisms of action at different vitamin D levels.

关键字：Keywords：schizophrenia， bone turnover markers, cognitive function, vitamin D

Association between Serum Insulin-like Growth Factor 1 Levels and The Improvements of Cognitive Impairments in A Subgroup of Schizophrenia: Preliminary Findings

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Objective Insulin-like growth factor 1 (IGF-1), an important member of the insulin-like growth factor family, plays an important role in promoting cell proliferation and differentiation, and growth and development of individuals. It has been found that abnormal function of IGF-1 is closely related to the occurrence and development of various psychiatric disorders. For example, serum IGF-1 levels were significantly higher in patients with depression than in normal controls, and IGF-1 levels decreased significantly after remission by pharmacological treatment compared with those before treatment; serum IGF-1 and IGF binding protein (IGFBP) levels were higher in schizophrenic patients from the Arab population than in normal subjects. However, there are no studies on whether there are changes in IGF-1 levels in schizophrenic patients from the Han population and the relationship between changes in serum IGF-1 and psychotic symptoms. Therefore, this project intends to investigate the pathophysiological role of IGF-1 in the pathogenesis of schizophrenia by collecting data and blood samples from schizophrenia patients in the Han population and observing the changes in serum IGF-1 levels in schizophrenia patients and their relationship with schizophrenia symptoms. This project aims to further investigate the factors associated with the pathogenesis of schizophrenia and to explore the possibility of serum IGF-1 as a biomarker for the diagnosis and treatment of schizophrenia.

Methods We first conducted a meta-analysis to

evaluate the IGF-1 levels of schizophrenia patients compared with healthy controls, and assessed the factors which affect the variability between estimates. Then in an independent sample (58 patients with chronic schizophrenia and 30 healthy controls), we examined whether IGF-1 levels were differed among schizophrenia subgroups with distinct cognitive profiles, which identified by k-means clustering method according to five cognitive domains of The Repeatable Battery for the Assessment of Neuropsychological Status. We also investigated the associations between serum IGF-1 levels and clinical and neurocognitive improvements.

Results Our meta-analysis showed that serum IGF-1 levels in schizophrenia patients were significantly lower than that of healthy controls yet the heterogeneity of meta-analysis was high. Medication status, BMI, and severity of negative symptoms might be contributors to the high heterogeneity. Our independent study further showed that following antipsychotic treatment, IGF-1 levels increased significantly in patients, and the lower the pre-treatment serum IGF-1 level the greater was the improvement in cognitive deficits in a subgroup of schizophrenia with more severe cognitive symptom.

Conclusion This study provided further evidence for the "IGF-1 deficiency hypothesis" in schizophrenia pathogenesis. More future studies are needed to explore the role of IGF-1 in the cognitive impairments of schizophrenia.

关键字：Schizophrenia; Cognitive impairments; Insulin-like growth factor-1; meta-analysis

替换或加用齐拉西酮对精神分裂症患者代谢综合征的影响

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目的 精神分裂症（SCZ）患者在服用抗精神病药后发生代谢综合征（MetS）的风险增加。常用的应对方法有换用或联用对代谢影响小的药物，现有研究大多集中在阿立哌唑、氨磺必利上，少数研究侧重于齐拉西酮上。故本文针对换用或加用齐拉西酮对 SCZ 患者代谢综合征的影响展开研究。

方法 依据《国际疾病与相关健康问题统计分类第 10 版》（ICD-10）精神分裂症诊断标准和《中国 2 型糖尿病防治指南》（2017）中的 MetS 诊断标准，并执行一定的排除标准后，共筛选入组 60 名符合要求的患者，分为换用齐拉西酮组（n＝30）和联用齐拉西酮组（n = 30）。本文收集了患者的基本情况，并对其换药前以及换药后 4 周和 8 周的各项代谢指标，包括腰围，高密度脂蛋白，甘油三酯，收缩压和舒张压，进行检测，并对换用或联用齐拉西酮前后以及两者之间的代谢指标进行比较。

结果 有 12 人中途脱落，剩余 48 人完成研究。（1）换用齐拉西酮组（n＝28）的各项代谢指标，包括腰围，高密度脂蛋白，甘油三酯，收缩压和舒张压，均得到明显改善（P < 0.05）。（2）联用齐拉西酮组（n = 20）的腰围明显减少（P＜0.05），收缩压明显降低（P＜0.05）,其余三项代谢指标无明显变化。（3）换用齐拉西酮组与联用齐拉西酮组对各项代谢指标的影响无显著差异。（4）不同剂量的齐拉西酮对代谢指标的影响无明显差异。

结论 对于达到 MetS 临界或已患有 MetS 的 SCZ 患者，换用或联用齐拉西酮可以明显改善患者的各项代谢指标。说明换用或联用齐拉西酮可以作为临床上处理 SCZ 患者出现 MetS 不良反应的一种可行的方案。

关键字：精神分裂症；代谢综合征；齐拉西酮

精神分裂症患者及其一级亲属注意维持功能受损的相关研究

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目的 通过比较精神分裂症患者组（研究组）、精神分裂症患者一级亲属（亲属组）和健康对照组（对照组）事件相关电位（ERP）关联性负变（CNV）脑电行为学数据、认知功能测验相关评分的不同，探讨精神分裂症患者及其一级亲属注意维持能力损害程度。

方法 纳入满足 ERP 实验入组标准的精神分裂症患者 31 名作为研究组，纳入 31 名患者中无精神疾病的一级亲属 15 名作为亲属组，同时收集与研究组年龄、受教育年限等一般资料相符的健康志愿者 30 名作为对照组。对研究组、亲属组和对照组进行基于点阵图预期(DPX)任务诱发 CNV 波，记录此时行为学数据（DPX 任务错误率）结果；采用 MATRICS 公认认知成套测验（MCCB）中反应认知功能的持续操作测验（CPT-IP）评估注意维持功能；将所得数据录入最终数据库，并采用 SPSS23.0 进行统计学处理和分析。

结果 1. 三组 DPX 任务错误率比较，三组之间 EAX、EAY、EBX 之间有差异，P<0.05。研究组 EAX、EAY、EBX 得分均高于对照组，差异有统计学意义，P<0.05。亲属组 EAX、EAY、EBX 得分均高于对照组，差异有统计学意义，P<0.05，亲属组和研究者之间各项得分无差异。2.三组之间持续操作测验 2D、3D、4D、持续均数之间有差异，P<0.05。研究组持续操作测验 2D、3D、4D、持续均数低于对照组，差异有统计学意义，P<0.05。亲属组持续操作测验 2D、3D、4D、持续均数低于对照组，差异有统计学意义，P<0.05。研究组和亲属组之间持续操作测验 2D、3D、4D、持续均数低于对照组，但差异无统计学意义，P>0.05。

结论 相对于健康对照，精神分裂症患者及其一级亲属均存在不同程度的注意维持功能受损，精神分裂症患者及其一级亲属之间注意维持功能受损程度无明显差异。

关键字：精神分裂症、注意维持功能、事件相关电位、点阵图预期任务

精神分裂症免疫相关枢纽基因鉴定及诊断模型构建

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目的 精神分裂症(SCZ)是一种病因不明的普遍、严重、持续的精神障碍。越来越多的证据表明免疫功能障碍在 SCZ 的发展中起着至关重要的作用。我们的研究旨在揭示精神分裂症潜在的免疫相关关键基因和免疫浸润特征，并建立基于免疫相关关键基因的诊断模型。

方法 检索 GSE38484 和 GSE54913 数据集中 SCZ 患者和健康对照的 RNA 数据。采用加权基因共表达网络分析(WGCNA)，鉴定主要模块基因，获得关键免疫相关基因。对参与 SCZ 免疫应答的关键基因进行功能富集，并检测其参与的蛋白质相互作用。此外，采用单样本基因集富集分析(ssGSEA)方法检测 202 例精神分裂症和健康对照样本的外周血，以进一步研究不同类型的免疫细胞差异性。通过最小绝对相关性和选择操作分析，在 SCZ 中发现了关键免疫相关基因。通过分析关键免疫相关基因的受体谱来区分两组。最后，评估了免疫相关中心基因与几种类型免疫细胞之间的联系。

结果 效应记忆 CD4 T 细胞、活化 CD8 T 细胞、肥大细胞、幼稚 CD8 T 细胞、PBMC、17 型辅助细胞(Th17)、中枢记忆 CD8 T 细胞、CD56 亮 NK 细胞、记忆 B 细胞和调节性 T 细胞是我们在这项工作中发现的 10 种免疫细胞类型和 9 个关键基因之一。使用 LASSO 回归构建的诊断模型的平均曲线下面积(AUC)为 0.866。

结论 免疫功能障碍是 SCZ 发病机制的重要影响因素。ASGR2、ADRM1、AHANK、S100A8、FUCA1、AKNA、GATA3、AHCYL2、PTRH2 是与其病理机制相关的免疫细胞的关键调控基因，可作为治疗 SCZ 的新靶点。

关键字：精神分裂症，WGCNA, LASSO，免疫细胞，关键基因，预测模型

The Associations between The Inflammatory Markers and Psychopathology in Patients with Drug-free Schizophrenia: A 5-year Retrospective Study

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Objective There is a growing amount of evidences suggesting that immunity and inflammation play an important role in the pathophysiology of schizophrenia, which may predict the severity and potential prognostic of disease. In this study, we aimed to examine the associations between hematological parameters and inflammatory markers with psychopathology in patients with drug-free schizophrenia.

Methods This cross-sectional retrospective study was conducted in Chaohu Hospital of Anhui Medical University. We identified inpatients with schizophrenia who were durg-free and have assessed the Brief Psychiatric Rating Scale (BPRS) between May 10, 2017 and May 10, 2022. Matched healthy controls (HCs) were also included from the local medical screening center during the same period. We collected their data through the electronic medical record system, including the count of white blood cell neutrophil, lymphocyte, monocyte and platelet, and calculation of NLR, MLR and PLR.

Results A total of 2899 patients with schizophrenia were identified through the initial search. After screening, 91 patients and 141 HCs were included. The patients had a higher value of NLR, MLR and PLR than HCs (all $P < 0.001$). Binary logistic regression analyses revealed that severely ill in the patients were independently associated with male and higher MLR value (all $P < 0.05$).

Conclusion Inflammatory markers NLR, MLR and PLR are elevated in patients with drug-free schizophrenia. Patients with higher MLR value have more severe psychotic symptoms. MLR is an accessible biomarker in clinical practice, and in drug-free patients it may be a predictor of the severity of illness and guide the therapeutic strategy later. Funding:Tihs study was suppored by the National Clinical Key Specialty Project Foundation(CN).

关键字：neutrophil-to-lymphocyte ratio; monocyte-to-lymphocyte ratio; schizophrenia; psychotic symptom; brief psychiatric rating scale

磁惊厥治疗精神分裂症的疗效及机制研究现状

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目的 磁惊厥疗法(MST)治疗精神分裂症的有效性和安全性尚不明确，治疗机制仍未探明。本研究旨在探讨 MST 治疗精神分裂症的疗效和安全性，以及可能的治疗作用机制。

方法 系统检索中文(万方、维普、中文知网)和英文(PubMed、EMBASE、CogcINFO、Cochrane 图书馆)数据库，根据摘要和全文，最终筛选出符合要求的文献 4 篇。

结果 本综述纳入两项随机对照研究（n=55），两项开放标签自身对照研究(n=16)并进行分析。在这四项研究中，精神分裂症患者的阳性和阴性症状量表(PANSS)总分和简明精神病评定量表(BPRS)总分从 MST 治疗前到治疗后均显著下降(均 $P<0.05$)，未发现严重的神经认知不良反应。在其中两项随机对照实验中，MST 治疗后症状评分改善与 ECT 组无显著差异，

并且认知项目评分情况优于 ECT 组。仅在一项研究中探究了 MST 和 ECT 的治疗反应与海马体积变化、基线 mBDNF 和 proBDNF 浓度以及治疗后 mBDNF 和 proBDNF 浓度的关系，但未观察到 MST 相关的变化。

结论 MST 对精神分裂症症状的缓解作用证据较明确，且均未报道严重不良神经认知影响，部分认知条目上评分优于 ECT。MST 对精神分裂症的治疗效应的机制尚未明了，仍有待进一步研究。

关键字：磁惊厥疗法，电休克疗法，精神分裂症，治疗反应，认知功能

精神分裂症患者的 MMN 而不是 P300 在抗精神病药物治疗后得到改善

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目的 了解精神分裂症患者药物治疗前后事件相关电位(ERP)P300 与 MMN 的变化与 PANSS 及认知功能之间的相关关系。

方法 对 166 例诊断符合 DSM-5 标准的精神分裂症患者，男性 89 例，女性 77 例，年龄 18-55 周岁，分别在入院前 7 天（V1）、经药物治疗症状缓解后 28 天（V2）、56 天（V3）三个节点分别进行 ERP 检查、PANSS 评估及认知功能评估（MCCB）以比较治疗前后 P300 与 MMN 变化及其与 PANSS 和 MCCB 相关性。

结果 精神分裂症患者缓解期 MMN（V1/V2）潜伏期内平均波幅升高大于治疗前(P=0．040)；MMN 峰值与潜伏期治疗前后差异无统计学意义(P>0．05)；P300 峰值在治疗后（V1/V3）降低(P=0.007)；P300 潜伏期内平均波幅在治疗后（V1/V3）降低(P=0.012)；P300 潜伏期治疗后与治疗前差异无统计学意义(P>0．05)，但 P300 潜伏期（V1）与认知功能包括词语学习（r=-0.335，P=0.000）、空间广度（r=-0.260，P=0.001）、迷宫（r=-0.209，P=0.008）、视觉记忆测验（r=-0.187，P=0.017）呈现负相关，P300 潜伏期（V2）也与以上认知功能均呈负相关(P<0．05)。

结论 精神分裂症患者 MMN 经抗精神病药物治疗症状缓解后，潜伏期内平均波幅得到提高；P300 峰值呈继续损害趋势；P300 潜伏期与认知功能呈现负相关，MMN 潜伏期内平均波幅提高对疗效具有一定预测效应。

关键字：精神分裂症；事件相关电位； MMN；P300；治疗前后；PANSS；MCCB

不同性别精神分裂症患者治疗前后认知功能相关研究

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目的 探讨不同性别精神分裂症患者治疗前后的认知功能障碍的差异。

方法 我院收治的符合 DSM-5 精神分裂症诊断标准的患者 259 例纳入研究，根据性别分为男性组 142 例，女性组 117 例，在治疗前（V1 时间节点：入院 7 天内）和治疗后（V3 时间节点：入院后 56 天）分别对患者进行认知功能评定。采用 MATRICS 共识认知成套测验（MCCB）评定患者的认知功能，对结果进行统计学分析。

结果 治疗前：男性组在迷宫项目测试分高于女性组，差异有统计学意义（P=0.00）；治疗后：男性组在迷宫项目测试分高于女性组，差异有统计学意义（P=0.01）,女性组在连线测验项目测试分高于男性组，差异有统计学意义（P=0.00）；全部患者治疗后在词语学习、空间广度、迷宫、视觉记忆、范畴流畅项目测试分相较于治疗前高，而治疗后的连线测验测试分相较于治疗前低，差异均具有统计学意义（P＜0.05），男性组治疗前后在连线测验、词语学习、空间广度、迷宫、视觉记忆项目测试分差异均具有显著性（P＜0.05），女性组治疗前后在连线测验、词语学习、空间广度、迷宫、视觉记忆、范畴流畅项目测试分差异具有显著性（P＜0.05）。

结论 精神分裂症患者治疗前后认知功能存在差异，其治疗后的认知功能在信息处理速度、词语学习、工作记忆、推理和问题解决、视觉学习、信息处理速度这六个方面均有所改善，其中，治疗前及治疗后精神分裂症女性患者的认知损害在推理和问题解决方面较男性更严重，治疗后精神分裂症女性患者的认知损害在信息处理速度方面较男性严重。

关键字：精神分裂症 认知功能 性别

术前访视对无抽搐电休克治疗精神分裂症患者的影响分析

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目的 观察分析术前访视对无抽搐电休克治疗精神分裂症患者的影响。

方法 无抽搐电休克治疗是现今临床用于治疗精神分裂症的重要手段之一，但受到患者认知偏差、负性情绪、不良反应等因素的影响，患者及其家属对于此疗法难以广泛接受，需要及时展开全面优质的干预，使患者主动接受并坚持治疗，以更好地改善患者的精神症状。选取 2021 年 06 月～2022 年 06 月本院收治的 100 例无抽搐电休克治疗精神分裂症患者，将其按“电脑随机分组配对”的方法分成对照组及观察组，每组 50 例。对照组给予常规护理，观察组在常规护理的基础上加强术前访视，对比两组护理前后的焦虑、抑郁及精神症状，治疗期间的精神状态及配合情况，护理依从率及治

疗脱落率。正态计量资料采用 t 检验，计数资料采用 x2 检验。

结果 本次研究重点择取了 68 例行 MECT 精神分裂症患者进行研究，以观察术前访视对其的影响观察组患者护理后的焦虑、抑郁及精神症状评分及治疗脱落率均显著比对照组更低，治疗期间精神状态及配合情况显著比对照组更优，治疗总依从率显著比对照组更高（P＜0.05）。

结论 对实施无抽搐电休克治疗精神分裂症患者加强术前访视有利于缓解其焦虑、抑郁情绪，减轻其在治疗期间的紧张、恐惧、不适等感受，并且提高其治疗配合度与依从率，其精神症状得到显著改善。

关键字：无抽搐电休克；精神分裂症；心理状态；术前访视

正念减压训练对缓解期精神分裂症患者心理弹性和自我管理能力的影响

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目的 将正念减压训练运用于缓解期精神分裂患者，分析正念减压训练对其心理弹性、自我管理能力、生活质量的影响。旨在丰富缓解期精神分裂症患者心理护理的理论研究，为精神分裂症患者的在缓解期的心理治疗积累相关实践经验。

方法 将 2022 年 1 月至 2022 年 12 月于南京脑科医院住院治疗的 84 例缓解期精神分裂症患者纳入研究，遵循 1:1 原则随机法分两组，各 42 例，对照组的患者采取常规护理，即入院宣教、患者用药、饮食及工娱治疗，试验组在此基础上联合正念减压训练，比较训练前后两组的心理弹性、自我管理能力、生活质量的干预效果。

结果 训练前，两组心理弹性量表、简易精神病评定量表（BPRS）、精神分裂症自我管理量表（SSMIS）、精神分裂症生活质量量表评分差异均不明显，无统计学意义(P>0.05)。训练 4 周后，试验组心理弹性总分和乐观性维度后测得分高于前测(t=7.180, P＜0.05；t=8.414, P＜0.05)，自我管理量表测得分高于前测(t=21.191, P＜0.05)，而疾病情况评分、生活质量总分低于对照组，差异有统计学意义（P＜0.05）；试验组总满意度（95.24%）较对照组（78.57%）更高，差异有统计学意义（P＜0.05）。

结论 经正念减压训练后，可有效改善缓解期精神分裂症患者自我管理行为，心理弹性明显改善，有效提高其生活质量，患者较满意，值得推广。

关键字：正念减压训练；缓解期精神分裂症；心理弹性；生活质量；满意度

精神分裂症患者对情绪图片唤醒研究

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目的 精神分裂症患者存在情绪知觉障碍，本研究旨在了解分裂症患者对情绪图片的唤醒情况，为更深入了解精神分裂症患者对事物的情绪标识与表达的规律做前期调查。

方法 采用问卷星软件自制情绪图片唤醒调查表，情绪图片由家具、食物、动物、自然景色等形象图片和文字、几何图形、色彩等抽象图片组成；被试选择正性或负性情绪答案均视为情绪唤醒，中性视为未唤醒；正性或负性情绪唤醒度评分范围 1-10 分，1 分表示轻度唤醒，10 分表示深度唤醒。由精神科主治以上医师在一致性培训后集中时间进行调查。研究组来自 6 家精神专科医院 2021 年 6 月 1 日至 7 月 31 日住院期间符合 ICD-10 精神分裂症诊断标准的患者计 96 例，对照来自自愿参加的正常人群 101 例，两组年龄范围 18-50 岁，均排除合并有神经系统疾病及严重躯体疾病；数据采用 SPSS 26 统计分析。

结果 1.研究组文化程度较对照组低、研究组男性比例较对照组高（p<0.01），正常组与分裂症组组内分析，性别和文化程度对形象图片和抽象图片的唤醒率影响多数没有统计学差异。 2.比较 25 个形象图片和 21 个抽象图片唤醒率发现，分裂症组及正常组对形象图片唤醒率均高于抽象图片（p<0.01），分裂症组对形象图片及抽象图片的唤醒率均高于正常组（p<0.01）。3.正常组与分裂症组唤醒度比较没有统计学差异。 4.正常组与分裂症组对于同一物体来说，对其形象图片唤醒率与对其抽象文字的唤醒率存在统计学差异（p<0.05）。 5.形象图片中，正常组对伤害性图片及有益性图片之间的唤醒率均没有统计学差异，分裂症组也如此。伤害性图片的唤醒率在正常组与分裂症组之间没有统计学差异；而对于有益性图片分裂症组较正常组有着更高的唤醒率（p<0.01）。

结论 本研究显示分裂症患者视觉认知中对形象图片以及抽象图片的情绪唤醒率总体上较正常人群高；无论分裂症患者还是常人，对形象图片的唤醒率均高于对抽象图片的唤醒率；常人与分裂症患者对于形象图片和抽象图片的唤醒度的比较未发现差异。常人组与分裂症组对形象图片与代表此图片的抽象文字的唤醒率均存在分离现象；对于有益性图片分裂患者较常人有着更高的唤醒率。由于本研究为预调查，研究组与对照组样本选择上存在一定的偏差，需要进一步观察性别、年龄、文化等因素对结果造成的影响，需要扩大样本量进一步研究验证本次研究结果。

关键字：精神分裂症 情绪图片 唤醒率 唤醒度

精神分裂症患者大脑和血液中的乳酸水平--系

统回顾和 meta 分析

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目的 精神分裂症的病理机制仍不清楚。越来越多的证据表明，能量代谢异常与精神分裂症有关，并支持其在该疾病的病理生理学中的作用。乳酸在能量代谢中起着重要作用，许多研究报告了精神分裂症患者大脑和血清中乳酸水平的变化，然而结果并不一致。本研究旨在探究精神分裂症患者大脑和血液中乳酸水平的变化。

方法 在本研究中，我们全面检索了 MEDLINE（通过 PubMed）、Cochrane 和 Embase 数据库的相关英文文献，检索时限均为建库至 2022 年 12 月 5 日。由 2 位研究者独立筛选文献、提取资料和评价纳入研究的偏倚风险，采用 Cochrane 系统评价手册对纳入文献进行质量评价，采用 stataMP16 和 RevMan 软件进行 Meta 分析。根据 I2 指数评估异质性，使用标准化平均差异（SMD）及其 95%置信区间（95% CI）来评估结果，并根据检测方法和样本类型进行了亚组分析。

结果 本文共纳入 10 项研究，其中有 6 项脑部乳酸研究，包括 139 名精神分裂症患者和 127 名健康对照。此外，还有 4 项血液乳酸研究，包括 120 名精神分裂症患者和 118 名健康对照。Meta 分析的结果显示，精神分裂症患者的脑部乳酸水平显著升高（SMD：0.70，95%CI：0.40～1.01），而且体内研究的结果比死后研究的结果更具有统计学意义。然而，精神分裂症患者与健康对照者血液乳酸水平的差异无统计学意义。

结论 与健康人相比，精神分裂症患者大脑中的乳酸水平升高，但血液中无差异。这些发现表明乳酸水平在大脑和外周组织中具有独立调节机制，大脑中的乳酸代谢异常可能是精神分裂症的一个重要病理机制。

关键字：精神分裂症；乳酸；能量代谢

Pharmaceutical Care of A Patient with SP Complicated with Hypothyroidism

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Objective To explore the role of clinical pharmacists in the adjustment of treatment plan and pharmaceutical care of a patient with schizophrenia (SP) complicated with hypothyroidism.

Methods Clinical pharmacists participated in the clinical treatment of a patient with SP complicated with hypothyroidism, analyzed the cause of the increase of plasma concentration of 9-hydroxyrisperidone, adjusted the treatment of medication, and conducted pharmaceutical care and medication education for the patient to improve drug safety.

Results The clinical pharmacists evaluated the medication regimen and clinical indicators of the patients, and suggested to increase the dosage of levothyroxine appropriately. The blood concentration of 9-hydroxyrisperidone was restored to the reference range, and serious adverse drug reactions were avoided in time.

Conclusion Clinical pharmacists participate in the clinical treatment of SP patients with hypothyroidism, assist doctors to adjust the treatment plan, and provide pharmaceutical care, so as to improve the safety of treatment.

关键字：Schizophrenia; Hypothyroidism; Pharmaceutical care; 9-hydroxyrisperidone

全蛋白质组关联研究鉴定新的精神分裂症易感基因

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目的 全基因组关联研究（GWAS）已经确定了精神分裂症的多个风险变异位点。然而，推定精神分裂症的致病基因和潜在机制仍然具有挑战性。加深对这些位点的潜在基因和机制的研究将是理解精神分裂症发病机理的关键。

方法 我们开发了新的框架进行全蛋白质组关联研究（PWAS），通过 FUSION 软件整合了基因表达数据（人脑和血浆蛋白质组）和全基因组关联研究结果进行分析。GWAS 数据来自精神病基因组学联盟（PGC）主导的一项大规模研究，涵盖了多达近 8 万名精神分裂症患者和超过 24 万名对照者，是迄今为止规模最大的精神分裂症基因研究。人脑蛋白质组数据分别来自 376 例捐献者死后大脑的背外侧前额叶皮层样本（ROSMAP 数据集）和 152 例大脑的背外侧前额叶皮层样本（Banner 数据集）。血浆蛋白组来自 7,213 名欧洲人的血浆蛋白质。

结果 在这项大规模全蛋白质组关联研究中，我们分别确定了 36 个（ROSMAP 数据集）和 42 个（Banner 数据集）基因，其在人脑中基因调节的蛋白质丰度水平与精神分裂症风险有关。研究确定了 28 个基因，其在血浆中基因调节的蛋白质丰度水平与精神分裂症风险有关。通过合并上述几个结果，其中 32 个基因已有相关研究发现是精神分裂症易感基因（ACTR1B，ARL3，CCDC92，CNNM2，DARS2，SNX19，DOC2A，XPNPEP3 等），研究还发现 55 个精神分裂症易感基因还没有报道过（ACE，ADAM22，FAM114A2，GOPC，HLA-DRB1，CREB3L4，KHK，PGM3，PPP2R4，RLBP1 等）

结论 全蛋白质组关联研究为精神分裂症的病因和潜在遗传结构提供了新的见解。这些风险蛋白可能代表了未来药物开发的有希望的治疗靶点。

关键字：全蛋白质组关联研究，精神分裂症，风险基因，全基因组关联研究

两样本孟德尔随机化分析智力，教育程度，认知能力与精神分裂症的因果关系

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目的 据报道，教育水平或智力是精神分裂症的一个风险因素。本研究的目的是利用两样本孟德尔随机化方法系统地研究智力、教育程度、认知能力和精神分裂症之间的因果关系。

方法 采用公共数据库中欧洲人群智力水平 GWAS 数据（n=269,867），教育水平 GWAS 数据（n=766,345），认知水平 GWAS 数据(n =257,841)和精神疾病全基因组研究联盟的精神分裂症 GWAS 数据（n=127,906），根据预设的阈值提取与暴露或者结局显著相关的独立遗传位点作为工具变量。主要采用逆方差加权法、加权中位数法、加权模型法进行分析，根据效应指标优势比（OR）和 95%CI 评估结果。使用留一法、异质性检验、水平基因多效性检验、MRPRESSO 检验来验证结果的稳定性和可靠性。

结果 孟德尔随机化研究显示较低的智力水平与精神分裂症发病风险增加有关（IVW：p=0.0027，95%CI：0.59-0.90），研究显示较低的认知能力也与精神分裂症发病风险增加有关（IVW：p=0.000022，95%CI：0.51-0.78），留一法分析显示结果稳定，不存在对结果有强影响的工具变量，该因果关系方向为负向，且可以剔除异质性和水平基 因多效性对因果效应估计产生的影响。研究显示教育水平（IVW：p=0.292，95%CI：0.92-1.34）和精神分裂症无明显因果关系。

结论 这项研究为低智商水平和低认知能力水平与精神分裂症风险增加之间的因果关系提供了遗传学支持。

关键字：精神分裂症，孟德尔随机化研究，智力，教育程度，认识水平

首发和慢性精神分裂症与肠道菌群关联研究

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目的 观察首发未用药精神分裂症（SCZ）患者组、慢性 SCZ 患者组和健康对照组之间肠道菌群组成的差异，了解肠道菌群失调与 SCZ 的关系。

方法 采用 16S 核糖体 RNA (16SrRNA)基因高通量测序技术分别检测首发未用药 SCZ 患者、慢性 SCZ 患者和健康对照粪便样本肠道菌群的组成。

结果 首发、慢性 SCZ 患者和健康对照的菌群组成差异显著。α 多样性结果显示：菌群丰富度（chao，Sob）指数，慢性 SCZ 患者显著低于首发 SCZ 患者和对照（p<0.05），首发 SCZ 患者低于健康对照，但差异无统计学意义（p>0.05）；群落多样性（Shannon 指数和 Simpson 指数），首发和慢性 SCZ 患者显著低于健康对照（p<0.05）。β 多样性结果显示：通过菌群能够显著区分三组人群，主成分分析显示，菌群主成分 1（PC1）对样本组成差异的解释度为 10.92%，菌群 PC2 对样本组成差异的解释度为 5.23%，通过置换多元（因素）方差分析显示组间差异显著大于组内差异，提示菌群分组有意义（p<0.001）。物种组成分析显示：布劳特氏菌属（Blautia）在正常对照组、首发 SCZ 患者和慢性 SCZ 患者呈现递减趋势，布劳特氏菌属（Blautia）对照组显著高于首发和慢性 SCZ 患者（p<0.05）。大肠埃希菌-志贺菌（Escherichia-Shigella）在正常对照组、首发 SCZ 患者和慢性 SCZ 患者呈现递增趋势，大肠埃希菌-志贺菌（Escherichia-Shigella）正常对照组明显低于首发和慢性 SCZ 患者（p<0.001）。

结论 SCZ 患者存在肠道微生物多样性和组成改变，提示肠道微生物失调与 SCZ 的发病有关。首发和慢性 SCZ 患者肠道菌群群落多样性降低，慢性 SCZ 患者降低的更加显著。

关键字：精神分裂症，慢性精神分裂症，肠道菌群，菌群丰富度

稳定期精神分裂症患者被动自杀意念风险的研究

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目的 探讨稳定期精神分裂症患者被动自杀意念及其风险

方法 采用简明国际神经精神访谈中文版自杀分量表（The suicide subscale of the Chinese version of Mini-International Neuropsychiatric Interview，MINI）和自制的一般情况调查量表，对沈阳医学院附属第二医院心理卫生医院 208 例稳定期精神分裂症患者进行调查，使用单因素分析、多元回归分析统计学方法进行分析；通过问卷星小程序自制调查问卷对辽宁省三级甲等精神卫生中心和综合医院精神心理科一线 400 名医护人员进行自杀相关的抽样调查，条目包括医护人员的一般资料、对精神分裂症患者自杀关注度（包括自杀行为、自杀未遂、主动自杀意念、被动自杀意念）。

结果 208 名稳定期精神分裂症患者被动自杀意念阳性检出率 84.13%（均值±标准差为 12.5±9.680），高风险检出率 56.25%；单因素分析年龄（F=1.537，P=0.022）、发病情况（t=-2.980，P=0.004）、病程（F=6.062，P＜0.001）、累计住院年数（F=9.885，P＜0.001）是稳定期精神分裂症患者被动自杀意念的影响因素；多元回归分析发病情况（β=-4.729，P=0.018）和累计住院年数（β=2.590，P＜0.001）是稳定期精神分裂症被动自杀意念的独立影响因素；400 名精神心理科医护人员仅有 31 名（7.73%）对被动自杀意念高关注，275 名（68.83%）精神心理科医护人员对被动自杀意念低关注。

结论 稳定期精神分裂症患者存在较高的被动自杀意念，发病情况和累计住院年数是导致被动自杀意念的影响因素；精神心理科一线医护人员对稳定期精神分裂症患者被动自杀意念关注度低，所以稳定期分裂症患者被动自杀意念的风险应受到重视。

关键字：稳定期精神分裂症；被动自杀意念；自杀

不同疗程无抽搐电休克对精神分裂症 患者认知功能的影响

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目的 探讨不同疗程无抽搐电休克(MECT)对精神分裂症患者认知功能的影响。

方法 将符合条件的精神分裂症患者随机分为两组,N1 组给予 6 次 MECT 治疗(n=46),N2 组给予 12 次 MECT 治疗(n =44)。在治疗前后分别进行威斯康星卡片分类试验(WCST-M)、Stroop 测验、连线测试(TMT),并行阳性与阴性症状量表(PANSS)评定。

结果 ①与基线时相比，MECT 治疗后两组 PANSS 总分及各分量表评分均明显下降(P <0.05);其中 N2 组的 PANSS 总分、阳性量表评分、阴性症状评分及一般精神病性量表评分比 N1 组的下降更明显(P<0.05)。②与基线时相比,两组 MECT 治疗后 WCST-M 的总测验数、正确反映数、持续错误数、非持续错误数及分类完成数差异有统计学意义(P <0.05)。而且 N2 组的 WCST-M 总测验数、正确反映数,持续错误数及分类完成数均明显优于 N1 组(P<0.05)。③与基线时相比,MECT 治疗后两组 Stroop CW 总反映时间、CW 错误数、C 总时间、C 总错误数测验及 TMT-A 和 B 差异有统计学意义(P<0.05)。MECT 治疗后相比，N2 组 CW 总反映时间、C 总错误数测验及 TMT-A 和 B 与 N1 组差异有统计学意义(P<0.05)。④患者连线试验 A 和 B 完成时间在 MECT 治疗后较前显著缩短,说明患者在 MECT 治疗后精神运动速度和转换能力方面有一定提高,说明 MECT 通过改善精神病性症状,改善情绪,增加了患者的注意力,从而相应的提高了处理问题的能力及速度。⑤两组治疗后 PANSS 总分及各分量表评分均明显降低,说明 MECT 不管治疗 6 次还是 12 次对精神分裂症都有明显的治疗效果。同时两组间比较显示不同 MECT 治疗次数，短期疗效不同，治疗 12 次的疗效较 6 次治疗为佳。

结论 MECT 治疗后,精神分裂症患者的认知功能有一定程度的改善。

关键字：精神分裂症;电抽搐疗法 ;认知

Heath-Carter 体型特征与抗精神病药致锥体外系反应的关系探讨

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目的 研究 Heath-Carter 体型特征与抗精神病药致锥体外系反应的关系。

方法 通过选取首都医科大学附属北京安定医院住院病人作为研究对象，住院治疗过程中发生锥体外系副反应的精神病患者 119 例为研究组，应用等效剂量药物治疗未发生锥体外系副反应的精神病患者 114 例，为对照组，采用 Heath-Carter 体型测量法计算内、中、外因子值, 并将体型划分为内胚层体型(肥胖型体型)、中胚层体型(强壮型体型)、外胚层体型(瘦削型体型)。观察两组体型构成比。锥体外系副反应量表（Extra pyramidal Side Scale，RESES）进行评定锥体外系反应的严重程度。

结果 研究组的体型值为 5.94-4.53-2.05，占 56.3%，对照组体型值 6.36-4.67-2.05，占 64.0%，两组均为偏中胚层体型的内胚层体型，其中内因子值研究组低于对照组（t=-2.39，P＜0.01），差异有显著性；研究组 Heath-Carter 体型的 10 项测量项目的值与对照组之间的比较，研究组的肱三头肌皮褶、髂前上棘皮褶、小腿腓位皮褶、肱骨内外髁径的测量值低于对照组，且差异有统计学意义（t=-3.44、-2.15、-4.03、-3.66，P

关键字：锥体外系反应；体型；Heath-Carter 法

血常规及甲状腺激素在首发精神分裂症的临床意义

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目的 探讨血常规炎症参数（白细胞数、中性粒细胞比值、淋巴细胞比值和单核细胞比值）及甲状腺激素（血清促甲状腺激素（thyroidstimulatinghormone，TSH）、游离三碘甲状腺原氨酸（free triiodothyronine，FT3）、游离甲状腺素 （free thyroxine，FT4））在首发精神分裂症中的临床意义及其相关性分析。

方法 选取 2022 年 01 月-2022 年 12 月在深圳市精神卫生中心/深圳市康宁医院就诊的首诊精神分裂症患者 62 例作为实验组，本院健康体检者 47 例作为对照组，回顾性收集两组间血常规炎症参数（白细胞数、中性粒细胞比值、淋巴细胞比值和单核细胞比值）以及甲状腺激素（血清促甲状腺激素（TSH）、游离三碘甲状腺原氨酸（FT3）、游离甲状腺素 （FT4））进行分析并分析两者间的相关性。

结果 实验组白细胞数（t=2.849, p=0.0055）、中性粒细胞比值（t=2.818, p=0.006）显著高于对照组（p<0.05），而淋巴细胞比值（t=2.75, p=0.0073）明显低于对照组（p<0.05），两组间单核细胞比值没有明显差异（t=0.6384, p=0.525）；实验组 FT4（t=2.711，p=0.0082）明显高于对照组（p<0.05），TSH（t=0.5719, p=0.5689）、FT3（t=0.6747, p=0.5017）两组间没有明显差异；分析发现实验组和对照组间，FT4 与白细胞数、

中性粒细胞比值和淋巴细胞比值不存在相关性。

结论 精神分裂症病因可能与患者隐性细菌感染有关；正常 FT4 水平的细微变化可能会影响患者的行为表现，对于预测精神分裂症的攻击性行为起到一定的作用。

关键字：血常规；甲状腺激素；精神分裂症；

Pathway From Childhood Trauma To Non-suicidal Self-injury in Adolescents with Major Depressive Disorder: The Chain-mediated Role of Psychological Resilience and Depressive Severity

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Objective This study aimed to explore the pathway from childhood trauma to non-suicidal self-injury (NSSI) in adolescents with major depressive disorder (MDD), and to examine the chain-mediating role of psychological resilience and depressive symptoms on this pathway.

Methods A total of 391 adolescents with MDD were recruited in the present study. The Chinese version of Childhood Trauma Questionnaire—Short Form (CTQ-SF), the Chinese version of the symptoms check list-90 (SCL-90), the Chinese version of Conner-Davidson Resilience Scale (CD-RISC), and the Ottawa Self-Injury Inventory Chinese Revised Edition (OSIC) were used to evaluate the childhood trauma, depressive symptoms, psychological resilience and NSSI, respectively.

Results Our results showed that 60.87% of adolescents with MDD had NSSI in the past month. The childhood trauma severity was negatively correlated with psychological resilience, but positively correlated with depressive symptoms and NSSI severity in adolescents with MDD. The stepwise logistic regression analysis identified that age, childhood trauma and depressive symptoms could independently predict the occurrence of NSSI, and the three steps hierarchical regression showed that childhood trauma, psychological resilience and depressive symptoms all obviously associated with NSSI frequency in adolescents with MDD. Furthermore, the chain-mediation analysis revealed that psychological and depression serially mediated the relationship between childhood trauma and NSSI in adolescents with MDD.

Conclusion Interventions targeted on improving resilience and depression may reduce childhood trauma severity associated with NSSI risk in adolescents with MDD.

关键字：major depressive disorder, childhood trauma, psychological resilience, non-suicidal self-injury, adolescent.

A Study on The Correlation between BDNF Levels, Cognitive Function, and Obesity in Schizophrenia

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Objective Obesity in patients with schizophrenia (SZ) is very common in clinical practice and can further exacerbate cognitive impairment. In addition, BDNF is closely related to SZ and cognitive function. However, no research has explored the intrinsic relationship between obesity, cognition, and BDNF in SZ patients. This article aims to explore the differences and correlations between BDNF levels and cognitive function in obese and non obese SZ patients.

Methods We included 355 chronic SZ patients and 224 healthy controls (HCs). Among them, based on BMI, SZ patients are divided into a low BMI group (BMI ≤ 24 kg/m2, N=153) and a high BMI group (BMI>24 kg/m2, N=202). The Positive and Negative Syndrome Scale (PANSS) was used to assess mental symptoms, and the RBANS scale was used to assess cognitive function. Serum BDNF levels were measured using enzyme-linked immunosorbent assay (ELISA). Use SPSS23.0 software for data analysis.

Results The BDNF levels in SZ patients were significantly lower than those in the healthy control group (12.05 ± 2.29 vs.7.27 ± 3.01 ng/ml, P<0.001), but there was no significant difference in BDNF levels between low BMI and high BMI patients (P>0.05). In addition, the cognitive function of SZ patients was significantly lower than that of the healthy control group (77.53 ± 14.38 vs.61.97 ± 13.32, P<0.001), but similarly, there was no significant difference in cognitive function between low BMI and high BMI patients (P>0.05). For the low BMI subgroup, serum BDNF levels (β= 0.215, t=2.329, P=0.022) and serum HDL levels (β= 0.196, t=2.080, P=0.040) is an independent factor in predicting attention ability. For the high BMI subgroup, serum BDNF levels are negative symptoms (β= 0.263, t=-3.194, P=0.002), instant memory (β= 0.246, t=2.837, P=0.005), visual space/structure (β= 0.227, t=2.572, P=0.011), Language (β= 0.239, t=2.742, P=0.007), attention (β= 0.341, t=4.142, P<0.001) as an independent predictor.

Conclusion There is no difference in serum BDNF and cognitive function between high and low BMI patients in SZ patients. In patients with high BMI, fasting blood glucose and BDNF are associated with cognitive function; In the low BMI group, cholesterol and triglycerides are associated with cognition.

关键字：schizophrenia, obesity, cognitive function, BDNF

不同认知水平慢性精神分裂症患者血清尿酸的比较研究及相关性分析

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目的 探讨慢性长病程精神分裂症患者认知功能减退与血清尿酸水平的相关性。

方法 入组 2023 年 3 月至 2023 年 7 月于沈阳市精神卫生中心住院的慢性长病程精神分裂症患者 49 名，采用蒙特利尔认知评估（MoCA）量表评估患者的认知功能；将患者分为 2 组，无认知功能障碍组（MoCA 分数≥26 分），伴认知功能障碍组（MoCA 分数＜26 分），采用阳性与阴性症状量表（PANSS）评估患者临床症状，所有入组患者病情稳定， PANSS≤60 分，测定患者血清尿酸（Uric acid，UA）水平。两组间比较采用独立样本 T 检验，相关性分析采用 spearman 相关分析。统计软件采用 spss23.0。

结果 1、两组患者性别，年龄，病程，BMI，文化程度无显著差异；2、无认知功能障碍组 UA 水平明显高于有认知功能障碍组（t=-2.218，P＜0.05）；3、慢性精神分裂症患者血清尿酸水平与认知功能呈正相关（r=0.416，P＜0.01）；与视空间与执行功能呈正相关（r=0.386，P＜0.01），与延迟回忆、语言、抽象能力呈正相关（r=0.320，r=0.343，r=0.309，P 均＜0.05）。

结论 血清 UA 水平升高可能是慢性精神分裂症患者认知功能减退的病理机制，针对血清 UA 的治疗可能是治疗慢性精神分裂症认知功能减退的一个靶点。

关键字：精神分裂症 认知功能 尿酸

The Dimensionality of Perceptual Anomalies and Their Relationships with Bullying Victimization Among Chinese Adolescents: From A Network Perspective

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Objective Anomalous perceptual experiences in adolescents are common and may predict future psychotic disorders and other psychopathologies. However, the underlying structure and their specific relationships with bullying victimization, a typical stressor for adolescents, remain unclear. Therefore, the current study aimed to clarify the structure of perceptual anomalies using exploratory graph analysis (EGA), a new factor retention method based on network psychometrics, and to explore whether specific dimensions of perceptual anomalies are particularly associated with certain forms of bullying.

Methods Data from a validated sample of 1199 Chinese adolescents (56.0% females, age range: 14-20) on perceptual anomalies and bullying victimizations were analyzed using network approaches, including EGA and mixed graphical modeling (mgm).

Results Four dimensions were formed: aberrant bodily perceptions, altered daily experiences, chemosensation (i.e., abnormal gustatory and olfactory experiences), and clinical psychosis (i.e., visual and auditory hallucinatory experiences). Physical bullying and cyberbullying were directly linked to two of the aberrant bodily experiences. The results showed good stability in bootstrap analyses.

Conclusion The current findings support the existence of multiple contributive factors to perceptual anomalies and underscore the importance of bullying prevention in reducing mental health risks for adolescents, particularly the risk of psychosis.

关键字：psychotic like experiences, hallucinations, anomalous perceptual experiences, network analysis, continuum

精神分裂症失眠对攻击的影响研究

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目的 探讨精神分裂症患者失眠与攻击的关系。

方法 于 2020 年 1 月至 2021 年 1 月在重庆市精神卫生中心门诊及住院连续收集存在攻击行为精神分裂症患者 120 例作为研究对象。入组标准：①符合 ICD-10 中精神分裂症诊断标准；②患者存在言语辱骂、伤人毁物、攻击他人等行为[10]；③年龄 18-60 岁；④患者监护人知情同意参加本研究。排除标准：①共病人格障碍、情绪障碍或物质使用障碍患者；②患者存在严重躯体疾病、脑外伤或神经系统疾病等。另选取同时期就诊的、性别年龄相匹配的既往及目前无攻击行为精神分裂症患者 120 例作为对照组。采用阿森斯失眠量表（Athens Insomnia Scale, AIS）评估被试的失眠严重程度，AIS 共由 8 项条目组成，0-4 级评分，5 分以上认为存在失眠。结果 对照组失眠情况发生率为 35%，总体失眠发生率为 55%，两组患者失眠情况分布差异有统计学意义（$\chi2$ =38.788，P＜0.05）； 独立样本 t 检验结果显示，两组间 AIS 得分差异具有统计学意义（(9.1±3.9) VS (4.3±3.1),t=10.554，P＜0.05），研究组失眠严重程度要高于对照组。以分组为因变量（研究组=1、对照组=0），是否发生失眠为自变量，进行二分类 Logistic 回归。

结果 失眠（OR=5.571）是精神分裂症患者攻击行为发生的高风险因素。

结论 失眠是精神分裂症患者攻击行为发生的风险因素。

关键字：精神分裂症；攻击；失眠

精神分裂症患者的神经心理特征测验分析

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目的 针对精神分裂症，即人体有精神活动以及环境之间难以协调现象引发疾病，患者表现为精神分裂、性格分裂或者行为分裂，和正常人群比较缺少自制力和心理调控能力【1】。护士要结合患者基本情况研究

其神经心理特征，开展规范化干预管理工作，促进患者积极配合，转变患者不良生活状态。为此提出干预方法，不断指导患者健康生活。

方法 本次选择 2022.3-8 月阶段内医院中 100 例精神分裂症患者，这些患者均达到病症诊断标准，家属签署知情书。排除存在其他重要器官疾病的患者，记录和归纳精神分裂症患者的神经心理特征。 调整精神分裂症患者不良心理状态的方法 要想有效干预精神分裂症患者，相关人员不仅要关注药物使用，还要配合科学的护理干预。综合分析患者病情，耐心和患者沟通，尊重患者人格表现，彼此之间不要有冲突或者矛盾。基于情感和心理等视角安抚患者，引导患者在入睡之前学会放松，倾听优美音乐等，满足患者不良状态的转变需求。并且强调安全管理的重要性，耐心劝导患者，加深患者对疾病认知，让患者能够自我控制和自我管理；加大心理疏导力度，让患者了解到自己病症是可以通过干预得到治疗，引导患者保持健康生活理念，制定自我生活计划，尤其是适当运动和放松，和其他患者共同加入群体活动，由此增加精神分裂症患者对生活的厌倦情绪，感受到他人对自己的关怀，感受到生活的美好，继而对自我恢复健康充满信心，提高动力，全力配合干预管理工作，最大化提高患者治疗干预的有效性。

结果 被试者认知能力有显著降低的趋势，且言语工作记忆有降低趋势，然而视觉记忆和执行抑制的能力维持相对好一些，可是依旧有损害趋势；因为被试者的检验结果受到配合程度影响，对应结果以被试者可以全方位配合为基础得到，若被试者在单一检验中有注意力分散的现象，便会降低准确性，其次要及时重新测试；另外此测试结果要视作临床干预患者的基本依据，被试者的认知能力要关联平时工作表现以及生活表现加以整体上判断，不可以单一按照报告便得到医学诊断或者认知能力的判断。

结论 总之，精神分裂症在近些年呈现年龄化的发展趋势，在多个因素影响下发病，患者不能理智理解客观事物，且自己的思维和意志行为均和常人不同。在干预管理工作中，工作者要及时转变患者不良心理状态，给患者介绍疾病基础知识，消除患者心中抵触治疗情绪，减少临床干预难度，从而让患者及时配合科学的药物开展有效干预工作，提高患者生活质量。

关键字：精神分裂症；神经心理特征；测验结果；干预方法

技能训练与药物治疗对精神分裂症的联合治疗

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目的 技能训练和药物治疗的联合治疗已经被证明是一种有效的治疗策略，可以显著改善患者的症状和生活质量，并减少再住院率和社会成本。在实际应用中，需要根据患者的具体情况和需求，制定个体化的治疗方案，并加强对患者的心理支持和康复关怀。此外，还需要加强对技能训练和药物治疗的研究和推广，提高医务人员的专业水平和治疗效果，为精神分裂症的防治工作做出更大的贡献。

方法 本研究选取 50 名被诊断为精神分裂症的患者，随机分为两组。其中一组接受传统的药物治疗，另一组则接受药物治疗和技能训练的联合治疗。治疗持续 12 周，每周进行一次评估，包括幻觉、妄想、情感迟钝和社交能力等方面的评估。

结果 经过 12 周的治疗，接受联合治疗的患者的幻觉和妄想症状显著减轻，情感迟钝得到改善，社交能力也有所提高。相比之下，仅接受药物治疗的患者的症状减轻效果较弱。此外，联合治疗组的不良反应发生率也较低。

结论 本研究表明，技能训练与药物治疗的联合治疗是一种有效的精神分裂症治疗方法。它可以减轻患者的症状，提高他们的生活质量和社交能力，并减少药物治疗带来的不良反应。因此，我们建议在精神分裂症治疗中采用联合治疗方法，以获得更好的治疗效果。

关键字：技能训练、药物治疗、精神分裂症、联合治疗、社交能力

医护协作的精神分裂症患者针灸过程标准化的研究体会

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目的 针对精神分裂症患者针灸的特殊性，总结一套医护联合的针灸标准化流程，以提高治疗效果，减轻医生和护士的工作量，规避治疗过程中可能发生的风险

方法 通过医护协作，采用标准化的方式，选择针灸过程中的穴位配伍，对常见风险情况进行归类总结，将精神分裂症患者的针灸过程进行标准化处理，通过对患者信息，针灸过程信息的管理，达到方便管理，提高效率的目的。输出的表格主要包括两个，表一是患者信息表格，表二是患者当日治疗信息汇总，通过表 1 和表 2，医生在治疗过程中可以较好地把握整个流程，最大程度地降低可能发生的风险。护士在针灸时间，针灸针数量等方面与医生互相验证，规避风险的发生。本研究实施过程中均未发生治疗时间不正确及针灸针数量有误等相关危险。

结果 通过追踪医护协作标准化流程实施后的效果，医生的治疗负担明显减轻，统一的表格即便于记录与管理，同时也节省了医生的时间和精力。护士在辅助治疗的过程中，由于采用统一的标准化流程，工作负担均明显减轻，可以节约大量的时间，使工作顺利开展。

结论 针对住院精神分裂症患者针灸治疗的特殊性，总结临床需要，制定一套标准的流程以 便于对患者的针灸治疗进行管理。针对精神分裂症病程长的特点，通过标准的流程，便于医生在治疗过程中的控制，增强治疗效果，减少意外情况的发生。针对精神分裂症患者的特殊性，明确医生和护士的分工，医生和护士协同工作，对针灸时间、针灸针数量等敏感问题互相印

证，规避治疗过程中潜在危险的发生。方便病人情况的追踪及存档，通过对治疗效果进行反馈，对穴位配伍进行调整，对相关的治疗经验进行总结，分析患者体质、穴位配伍、治疗效果之间的关联，为提高针灸疗效提供理论支撑，总体上提高精神分裂症的针灸治疗效果。

关键字：针灸；精神分裂；医护协作；标准化

精神分裂症治疗前后烟酸皮肤反应的变化 及其与症状功能的关系

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目的 探索精神分裂症患者与健康对照组烟酸皮肤反应的差异，探索精神分裂症患者三个月内的烟酸皮肤反应变化，分析烟酸皮肤反应的改变与精神症状，社会功能以及认知功能之间的关系。

方法 采用上海交通大学万春玲团队制作的烟酸皮肤反应一体化平台，收集 40 例精神分裂症患者在治疗前、第 6 周末、第 12 周末的烟酸皮肤反应面积值，并在这三个时间点进行阳性症状量表，阴性症状量表，功能大体量表，事件相关电位 P300 的检测。

结果 精神分裂症的烟酸皮肤反应在基线期与健康对照组有显著性差异，将年龄作为协变量排除后，两组之间的差异具有显著性（P=0.020）。使用单因素重复方差分析的方法分析精神分裂症在治疗前，第 6 周末，第 12 周末三个时间节点的烟酸皮肤反应变化差异无显著性（P=0.900）。采用 Spearman 相关分析，在治疗前阴性症状与烟酸皮肤反应具有弱负相关性（r=-0.366，P=0.020），但阳性症状评分，功能大体量表评分，事件相关电位 P300 潜伏期，事件相关电位 P300 波幅，均未与烟酸皮肤反应检出明显相关性（均 P>0.05）。

结论 精神分裂症患者的烟酸皮肤反应与健康对照组相比显著减弱。精神分裂症患者减弱的烟酸皮肤反应在系统抗精神病药物治疗三个月内没有明显变化，是精神分裂症患者的一种内表型。精神分裂症的烟酸皮肤反应与阴性症状存在较弱的负相关，但是与阳性症状、社会功能、以及认知功能无相关性。

关键字：精神分裂症；烟酸皮肤反应；精神症状；社会功能；认知功能

Sex Differences in Cognition, Serum BDNF Levels and Glycolipid Profiles in Schizophrenia: A Case-control Study

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Objective Sex differences have been observed in cognition, clinical symptoms and glycolipid profiles in schizophrenia (SZ) patients. Brain-derived neurotrophic factor (BDNF) is a?neurotrophin?that plays a crucial role in cognitive function. However, the relationships among serum BDNF levels, glycolipid metabolism profiles and cognition in different gender of SZ patients have not been thoroughly investigated. We aimed to confirm sex differences in serum BDNF levels and cognitive function in SZ patients, and explore the relationship among serum BDNF levels, glycolipid profiles and cognition in male and female SZ patients, respectively.

Methods We recruited 181 SZ patients (male/female: 120/61) and 169 healthy controls (male/female: 99/70) in a cross-sectional design. The clinical symptoms of SZ patients were evaluated using the Positive and Negative Syndrome Scale (PANSS), and the cognitive function was assessed using the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS). Serum BDNF levels were determined using a enzyme-linked immunosorbent assay (ELISA) kit. Glycolipid profiles including fasting plasma glucose, triglycerides, cholesterol, low-density lipoprotein cholesterol (LDL) and high-density lipoprotein cholesterol (HDL) were tested by blinded technicians.

Results Compared to female SZ patients, male SZ patients had lower BDNF serum levels (F=32.534, P<0.001), lower Fasting glucose levels (F=22.991, P<0.001), lower cholesterol levels (F=27.045, P<0.001), lower HDL levels (F=21.005, P<0.001) and lower LDL levels (F=27.043, P<0.001). In terms of cognitive function, male SZ patients had lower score in immediate memory (F=5.077, P=0.025), visuospatial/constructional (F=9.983, P=0.002), attention (F=24.723, P<0.001), delayed memory (F=7.851, P=0.006) and total scale (F=14.276, P<0.001) than female. In male SZ patients, BDNF was an independent contributor to language (β=0.299, t=2.840, P=0.006) and LDL was significantly associated with attention (β=0.250, t=2.186, P=0.032). In female SZ patients, BDNF was independently related to Immediate memory (β=0.458, t=4.024, P<0.001), and LDL was a contributor to cognitive total scale(P<0.05)

Conclusion Our study suggests that sex differences exist in the relationship between BDNF and cognition in SZ patients, with females having higher BDNF levels and better cognitive performance. Furthermore, the association between BDNF, glycolipid profiles and cognition in SZ showed sex differences.

关键字：BDNF; schizophrenia; cognition; glycolipid profiles; sex differences.

住院患者听幻觉特征与诊断及转归的关系——观察性研究

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目的 听幻觉的定义始终处于学界的争论之中。目前较广为接受的定义为，在清醒状态下，缺乏外部声音信号输入时，主体所产生的，且不为主体直接或自愿控制的，具有一定真实性，带来现实感的听觉体验。听幻觉特征在临床通常缺乏重视，缺乏精确的描述及分

析，只笼统地作为精神障碍的症状之一应用于诊断。听幻觉在临床工作中，通常只做简单的亚群分类。譬如 Simon McCarthy-Jones 的聚类分析研究：指令及评论性听幻觉，重放性听幻觉（记忆中曾有的听觉体验重放）、自身想法性听幻觉（思维鸣响）、非言语性听幻觉。 听幻觉目前在认知科学领域已有较多解释模型，涵盖各类认知功能损害障碍，包括感知觉归因异常、现实检验能力障碍、创伤记忆异常激活、社会表征异常激活、先验预测依赖等等。 听幻觉的认知科学研究鲜有转化进入临床。本研究为探索性研究，尝试介由人的认知过程，归纳总结一系列临床听幻觉描述方法，并探索听幻觉特征与医师对听幻觉亲历者的诊断倾向，及听幻觉亲历者的转归情况之间的关系。

方法 本研究对汕头大学精神卫生中心 100 名住院患者进行数据采集，排除精神症状严重，不能有效交流的患者、由于躯体功能缺陷不能交流的患者、诊断存在争议的患者等。 本研究根据认知过程，拟定了对听觉产生、知觉整合与重组、知觉识别、行为影响及控制、记忆激活、归因能力及现实检验能力等认知功能的提问，并组成他评问卷。由经培训能够完整覆盖问卷内容对听幻觉亲历者进行精神检查，并完善他评问卷，使用阳性症状量表幻听条目评估患者症状分数。经 1 月精神科治疗后，再次评估患者阳性症状量表幻听条目分数。根据患者幻听分数降低幅度评价疗效并分类。 将数据转换为听幻觉特征的描述性统计，并将听幻觉特征与诊断及疗效进行卡方检验/ Fisher's 确切概率检验，从而得出哪些听幻觉特征与医师对患者的诊断有关联，以及哪些听幻觉特征与患者经精神科治疗后幻听减轻相关。

结果 本研究将得到住院患者听幻觉特征描述，将发现部分听幻觉特征显著与医师诊断倾向有关，将发现部分听幻觉特征提示优异的精神科干预疗效。并对听幻觉特征研究提供一可行的问卷蓝本。

结论 认知科学可以作为精神医学更加有效的诊断治疗评估工具。对听幻觉细致分类，有助于将精神分裂症、双相障碍等精神障碍进行更细化的区分，形成更为同质化的疾病实体，助力精神障碍病因学研究。

关键字：听幻觉、精神病理学、认知神经科学、诊断、治疗

无抽搐电休克疗法对精神分裂症患者的治疗效果及脑内神经递质水平的影响研究

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目的 探讨精神分裂症患者无抽搐电休克治疗（Modified Electroconvulsive Therapy，MECT）前后脑内总神经递质和左前脑区、左后脑区、右前脑区、右后脑区神经递质的水平变化，评估 MECT 疗效的靶点，进一步推测 MECT 治疗精神分裂症患者的神经递质机制。

方法 选取我院住院 51 例精神分裂症患者在首次 MECT 前 24 小时及疗程结束后 24 小时内，采用阳性和阴性症状量表（Positive And Negative Syndrome Scale，PANSS）及五因子新模型评估病情和疗效，利用脑功能分析仪(Encephalofluctuograph Technology,ET)记录六种神经递质脑内总数值和不同脑区数值，精神分裂症患者 MECT 治疗前 PANSS 量表及五因子和脑内神经递质和治疗后比较，同时 PANSS 量表及五因子和脑内及四个脑区六中神经递质做相关统计分析。

结果 无抽搐电休克治疗(MECT)后，精神分裂症患者 PANSS 量表及五因子评分显著下降（P<0.01），脑内氨基丁酸的总数值和左后脑区氨基丁酸的数值均显著下降（P<0.01），左后脑区谷氨酸数值也显著下降（P<0.01），而脑内多巴胺的总数值和右前脑区多巴胺的数值均显著增高 (P<0.05)。

结论 MECT 对精神分裂症患者的精神症状有一定治疗效果，且能改变脑内和部分脑区氨基丁酸、谷氨酸及多巴胺神经递质水平，提示 MECT 治疗机制可能通过调节脑内多种神经递质的水平到达治疗作用。 基金项目：常州市卫健委科技项目（WZ201828）

关键字：精神分裂症；电惊厥疗法；电休克；无抽搐电休克疗法；神经递质

首发精神分裂症情绪加工通路功能连接异常与临床症状的相关性研究

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目的 探索情绪感知和情绪调节相关通路在首发精神分裂症患者与健康人群中的差异及与临床症状之间的相关性。

方法 纳入 77 名首发精神分裂症患者以及相匹配的 77 名健康对照，采集被试静息状态下的功能磁共振成像数据以及临床功能评估数据。在 Matlab 平台上对功能磁共振数据进行预处理后进行杏仁核相关的情绪感知（杏仁核、视皮层、颞中回、梭状回）以及情绪调节通路（杏仁核、腹侧前额叶、背外侧前额叶）之间的功能连接分析，比较患者和健康对照之间的差异，并分析功能连接强度与临床症状之间的关系。

结果 与健康对照相比，首发未用药精神分裂症患者左侧杏仁核与右侧背外侧前额叶的正性功能连接增强，与左侧背外侧前额叶正性功能连接增强；右侧杏仁核与腹侧前额叶之间正性功能连接增强（P＜0.01，FDR 矫正，体素值＞25）。相关分析显示，左侧杏仁核与左侧背外侧前额叶之间的功能连接强度（r=0.250，p=0.028）以及右侧杏仁核与左侧背外侧前额叶之间的功能连接强度（r=0.238，P=0.037）与阳性症状量表得分相关；患者左侧杏仁核与左侧背外侧前额叶之间的功能连接强度（r=-0.252，p=0.027），左侧杏仁核与右侧背外侧前额叶之间的功能连接强度（r=-0.232，p=0.042），左侧初级视皮层与左侧后颞上沟之间（r=-

0.335，p=0.003），右侧视皮层与左侧后颞上沟之间（r=-0.248，p=0.029）的功能连接强度与阴性症状量表得分相关。

结论 首发精神分裂症患者情绪感知和情绪调节通路功能连接存在异常，且与临床症状之间存在相关性。

关键字：精神分裂症；情绪通路；功能连接；静息态功能磁共振

CBT 研究协作组

心境障碍患者代谢指标分析

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目的 抑郁患者存在代谢指标变化，但报道不多。我们既往发现单相抑郁患者代谢指标和健康对照间没有显著性差异，但抑郁反复发作增加了发生代谢问题的风险。抑郁发作次数越多，空腹血糖水平越高。但心境障碍包括单相抑郁，双相抑郁及复发性抑郁不同类型，不同类型间代谢指标是否有差异，还没有发现相关报道。我们探讨心境障碍不同抑郁类型间是否存在代谢指标的差异，期望找到生物学标记，为临床诊断提供帮助。

方法 经入排标准，入组 2019.1-2020.8 西安交大第一附属医院精神科住院的符合 ICD-10 诊断标准的心境障碍患者 206 例，含单相抑郁 76 例，复发性抑郁 74 例，双相抑郁发作 66 例。体检中心招募与病例组匹配的健康对照 154 例。采集治疗前空腹血浆 2ml，我院检验科检测腹空腹血糖，糖化血红蛋白，糖化白蛋白，胆固醇，甘油三酯，高密度脂蛋白及低密度脂蛋白。SPSS18.0 软件统计分析。

结果 1、临床和人口统计特征：心境障碍患者和对照组在性别，年龄，教育水平，民族，婚姻状况方面均无统计学差异，P 均>0.05。2、心境障碍患者代谢指标与健康对照比较，空腹血糖、总胆固醇、高密度脂蛋白和糖化血红蛋白均显著高于健康对照，P<0.05。3、按抑郁类型分层，3 种抑郁在空腹血糖，总胆固醇及糖化血红蛋白间存在显著性差异， P<0.05。双相抑郁患者均显著低于复发性抑郁患者，P<0.05。4.按年龄，3 种抑郁类型间有显著性差异，P=0.000；复发性抑郁患者年龄最大，双相抑郁患者年龄最小。5.性别分层，男性 3 种抑郁类型在总胆固醇和糖化血红蛋白间有显著性差异，p<0.05；双相抑郁患者总胆固醇水平显著性低于单相抑郁患者；糖化血红蛋白水平显著低于复发性抑郁患者；女性间未发现显著性差异。6. 多元回归分析，以糖化血红蛋白为因变量，年龄，性别，教育水平，民族，婚姻，空腹血糖，总胆固醇，甘油三酯，高密度脂蛋白，低密度脂蛋白、糖化白蛋白为自变量，发现糖化血红蛋白和年龄正相关，回归方程，Y 糖化血红蛋白+=0.014x 年龄+2.958。

结论 1.心境障碍者较健康人群发生代谢异常的风险高。2.复发性抑郁者空腹血糖最高，近 3 月血糖最不稳定，总胆固醇水平最高；双相抑郁发生上述的风险最低。与复发性抑郁者年龄最大有关，提示临床中对复发性抑郁尽量选代谢影响小的药。3.双相抑郁患者发生代谢异常的几率在在心境障碍中偏低，尤为男性。

关键字：单相抑郁；复发性抑郁；双相抑郁、代谢

精神科情绪管理工作室来诊者特征及求助问题分析

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目的 了解精神科情绪管理工作室来诊者特征及求助问题，以便为来诊者提供有针对性的服务。

方法 选取2022年1月至2022年12月间来诊北京市某三级甲等精神专科医院护理门诊的563例来诊者作为研究对象，对来诊者特征及求助问题进行分析。并将情绪管理工作室与其他专科护理门诊来诊者进行分组比较。

结果 563例来诊者中女性占74.4%，年龄5~91岁，平均年龄（34.33±16.08）岁。其中，就诊情绪管理工作室者占75.0%。情绪管理工作室来诊者前五类求助问题为焦虑抑郁情绪、家庭关系问题、家庭外人际关系问题、自伤自杀问题及家人患精神问题。非情绪管理工作室来诊者前五类求助问题为焦虑抑郁情绪、家庭关系问题、家人患精神问题、家庭外人际关系问题及睡眠问题。相比非情绪管理工作室，情绪管理工作室来诊者年龄小于≤18岁及36岁到55岁、本人独自就诊及通过挂号平台来诊者明显高于非情绪管理工作室组的来诊者，且因家庭关系问题来诊比例高于非情绪管理工作室的来诊者（P均<0.05）。而非情绪管理工作室组年龄≥56岁、通过医生转诊的来诊者高于情绪管理工作室组，且因睡眠问题、家人患有精神问题来诊比例也明显高于情绪管理工作室组（P均<0.05）。

结论 护理专家对情绪管理工作室来诊者提供帮助时，不仅要重视他们的情绪管理问题，对他们的家庭关系及家庭外的人际问题要给予同样的关注，并且对自伤自杀问题的识别评估和干预非常必要。

关键字：精神科护理门诊；情绪管理工作室；来诊者；求助问题

个案概念化的咨访共建——CBT的合作经验主义

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目的 个案概念化是心理咨询与治疗中的核心工作内容。近年国内CBT的不断发展，CBT治疗的个案概念化越来越受到重视，从理论到技术都有着诸多的实践发展，但这其中也存在若干问题，其中之一就是很多CBT治疗中个案概念化过程容易忽视来访者而仅成为咨询师或治疗师的单方工作，来访者常常成为附属或次要方，常常成为心理健康教育的对象，导致相当多CBT治疗过程出现咨访关系的阻抗、概念化的效率和效度降低等问题。因此本文目的是从CBT的合作经验主义视角着手梳理个案概念化过程中的合作共建问题以期引起从业者对这个问题的思考。

方法 梳理个案概念化的概念及功能过程，讨论个案概念化实践中的常见误区，从个案概念化原理角度定义概念化的咨访共建，从广泛的多行业经验理解概念化的共建必要性，综述概念化咨访共建的功能内容：心理治疗程序的概念化共建，认知行为基础理论框架的概念化共建，个案认知行为心理模型的概念化共建，CBT技术的概念化共建。综述概念化共建的具体方法，包括来访者概念化的评估、心理教育与理论教授、引导提问与发现、资源激活与利用、旁观者视角的运用等。

结果 个案概念化不是一个单向的咨询师后台工作，个案概念化需要咨访双方的合作探索，需要在从整体到局部、从程序到细节的多个维度上运用多种方法采取灵活而个体化的资源视角进行，并非仅靠心理教育等手段，咨访共建的个案概念化工作可以有效的克服CBT容易刻板缺乏温度的局限。

结论 个案概念化的咨访共建是个案概念化工作中的核心内容。

关键字：认知行为治疗；个案概念化；概念化共建；合作经验主义

维吾尔族抑郁症合并高血压患者的 ACE 基因启动子区甲基化水平的研究

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目的 探讨维吾尔族抑郁症合并高血压患者ACE基因启动子区基因甲基化水平与高血压发病的关系。

方法 选取自2018年1月-12月在新疆维吾尔自治区人民医院住院的27例维吾尔族抑郁症合并高血压患者作为病例组（A组），选择我院体检中心体检的维吾尔族非抑郁非高血压患者30例作为对照组（B组）作为研究对象，进行随机整群抽样调查，采用汉密顿抑郁量表表进行抑郁症诊断评估；根据调查结果将研究对象分为抑郁-高血压组，非抑郁-非高血压组；两组均收集血样本，提取DNA，采用焦磷酸盐测序法对外周血中ACE基因启动子区甲基化水平的检测。对于连续变量，如年龄、BMI、SBP、DBP、抑郁评分及DNA甲基化水平为计量资料，以 x±s 表示，采用t检验进行两组间比较；分类变量，如年龄、职业、文化程度、婚姻状况等，采用 Pearson 卡方检验进行组间比较，对HAMD 量表评分和甲基化率进行相关性分析。 以P<0.05（双侧）作为统计学差异显著性。来比较两组间的差异和相关性。

结果 病例组（A组）ACE基因启动子区甲基化阳性率为29.386±8.824%，对照组（B组）为23.158±13.175，A组明显高于B组,差异均有统计学意义(P<0.05)。且A组的甲基化率与HAMD评分呈正相关。

结论 维吾尔族抑郁症合并高血压患者的发病可能与ACE基因启动子区甲基化水平增高有关，而且抑郁的程度可能与其ACE基因启动子区甲基化水平有关联。

关键字：抑郁症；高血压；ACE 基因；甲基化

正常化与文化背景视角的 CBT 本土化理论探索 ---增加正常化栏的实践思考

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目的 探索中国文化背景下CBT操作的优化模式

方法 本文探讨了认知行为疗法在中国文化背景下的可操作性，认为CBT符合中国人“重知”和不同于西方的“对立辩证法”的“和谐辩证法”等的文化特点，指出问题正常化是中国人需要特别关注的心理特征，对认知行为治疗核心技术的五栏表进行了基于中国文化特征的改进，并讨论了这一改进在实践中的应用。通过回顾所有的心理治疗理论，指出“正常化”理应成为心理治疗中不能被忽略的一环，尤其是在对中国传统文化的回顾和理解之后，遇到困难和问题时的“中庸”、“调和”与“接受”的“正常化”思维模式。对于中国的患者和来访者，在治疗的初期阶段或者是治疗过程中强调“问题正常化”对于来访者显得非常必要，一是“正常化”之后患者对困难和问题的理解与接受，降低了因为问题和疾病本身带来的焦虑，满足了“人对于问题和困难的原因在哪儿”或者“我怎么会这样的”的探究本能，有助于让来访者更加清晰自己的问题，二是“正常化”之后会将来访者的思维从聚焦从“自身问题”转向对“问题背后”的探索，有助于进一步调整和改变自身存在的认知问题。当然，对于中国文化背景下的治疗师也一样的更容易接受具有中国文化特点的价值观与语言，操作起来也会更从容。

结果 在理论探索上，CBT 理论符合中国文化特征，在实践应用时加入正常化栏更易于操作

结论 符合文化的 CBT 治疗模式优化，有助于CBT 在不同文化下的推广与应用

关键字：CBT，正常化，中国文化

跨诊断治疗统一方案在青少年情绪障碍患者中的应用：可行性研究

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目的 本研究针对情绪障碍的共同机制和维持因素，结合国外研究结果及国内青少年个体及其家庭特征，制定针对国内青少年情绪障碍的跨诊断治疗统一方案（UP-A），分别对青少年情绪障碍患者及其家长进行干预，并探索该治疗方案的可行性及初步疗效。

方法 研究纳入 24 名青少年情绪障碍患者（14.1±1.2 岁）及其家长（39 人，45.6±4.1 岁），对其进行为期 12 周的 UP-A 干预。治疗以团体形式开展，每周一次，每次 2 小时，治疗团队分别教授青少年及其家长情绪调节技能，并对家长的教养方式进行干预及指导。研究收集患者及其家长对治疗的可接受度及满意度评分，并分别在治疗前、治疗过程中（第 4 周及第 8 周）、治疗结束时及治疗结束后 3 个月分别由临床医生、患者本人及其家长对患者的疾病严重程度（CGI-S）、治疗疗效（CGI-I）、焦虑抑郁水平（DSRSC 及 SCARED）、情绪调节能力（CERQ-Ck 及 ERC）、心理韧性（RSCA、CD-RISC-10）、生活质量（PedsQLTM4.0）及社会功能（CGAS）进行评估。采用混合线性模型评估患者在不同治疗时期及随访时上述临床结局指标的变化。

结果 参与 UP-A 治疗者以抑郁障碍为主要诊断（18 人，75.0%）。22（91.7%）名患者存在 1 种及以上的共病，包括广泛性焦虑障碍、社交焦虑障碍、特殊恐怖症、强迫性障碍及注意缺陷多动障碍等。共 20 名（83.3%）青少年患者完成 12 周团体跨诊断治疗，且参与程度较高（青少年 10.2±1.6 次，家长 10.7±2.0 次）。青少年情绪障碍患者 CGI-S 得分在治疗后显著下降（g=-1.298），并在随访中维持（g=-1.341）。在完成 UP-A 治疗的青少年患者群体中，约 55.0%患者在治疗结束后疗效显著，72.2% 的患者在随访中疗效显著（CGI-I ≤ 2 分）。同时，患者的焦虑抑郁情绪显著降低，情绪调节能力、心理韧性、生活质量及社会功能显著提升，且效应量在中~高等水平。以上结果在治疗过程中（4 周和/或 8 周）即体现疗效，在治疗结束及随访时疗效显著，且在 3 个月随访时患者的社交领域生活质量和整体社会功能有进一步提升。

结论 UP-A 在我国青少年情绪障碍患者中具有良好的适用性，其可接受度良好，可显著降低患者的疾病严重程度及焦虑抑郁水平，提升情绪调节能力、心理韧性、生活质量及社会功能，可在国内青少年情绪障碍群体中广泛应用。

关键字：青少年；情绪障碍；跨诊断治疗统一方案；可行性研究

正念疗法在非自杀性自伤中的应用现状

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目的 非自杀性自伤（non-suicidal self-injury，NSSI）目前没有公认的最佳治疗方法。正念是 NSSI 的一种潜在保护机制，能有效减少和预防 NSSI 行为，兼具安全性和有效性。本文旨在对 NSSI 的干预现状、正念在 NSSI 中的应用以及在自伤群体中的可接受度及适用情况进行综述，为青少年 NSSI 行为的干预提供参考。

方法 文献复习法，浏览 PUBMED、EBSCO、

PSYCHOLNFO 等数据库、中国知网及有关青少年 NSSI 的网站；目前已经出版发行的或专业网站上发布的关于青少年 NSSI 心理治疗的数据、著作等，对其进行整理和归纳。

结果 对非自杀性自伤并没有公认的最佳治疗方法，临床实践中，通常采用认知行为治疗（CBT）、辨证行为治疗（DBT），以及药物治疗和物理治疗。CBT 能有效作用于 NSSI 患者的情绪失调，但高度自我批评的人无法从常规认知行为治疗中充分获益，效果不佳。DBT 可有效降低自伤的发生率及频率，但 DBT 是一种资源密集的干预措施，患者对 DBT 的可获得性较低。DBT 的核心部分是正念，正念所强调的非评判地接纳在降低自伤方面有独特作用。基于正念自我关怀的干预有效改善自我批评模式，且在一年后的随访中疗效仍持续。正念广泛应用于临床干预中，正念减压疗法（MBSR）、慈悲聚焦疗法（CFT）和正念自我关怀（MSC）适用于压力、抑郁和焦虑等问题，并非专门针对 NSSI 行为。有关 NSSI 的治疗方法大都包含了正念，但单纯使用正念对成人或青少年自伤进行干预的研究非常有限。正念自我关怀是针对自我批评问题而开发的整合取向的心理干预方法，CBT 是针对情绪调节失调，循证证据最为充分的干预策略，若将正念自我关怀与认知行为治疗融合而创建的干预模式，有望减少思维反刍、提高情绪觉察和耐受、自我接纳，减少自伤行为。有研究证明正念并不适用于所有的 NSSI 患者，有创伤史、疾病症状严重及不愿意接受正念的患者不适合正念。此外，要针对不同类型的患者选择不同的正念类型，情绪调节困难、自我批评，以及与身体潜在的复杂关系会削弱正念的益处，身体缺陷的个体可能无法参与涉及运动的冥想练习。

结论 正念是一种有效解决 NSSI 的心理干预方法，但目前包含正念技术的治疗方法并非有效针对 NSSI 行为，且可获得性较低，未来将正念自我关怀与 CBT 进行整合可能是一种有潜力的治疗方式，其有效性、接受度及适用性还有待验证。

关键字：青少年；非自杀性自伤；正念疗法

基于自我关怀的青少年非自杀性自伤预测模型：一项机器学习研究

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目的 尽管已有研究采用人口统计学、临床症状学和心理测量学等因素，运用机器学习技术预测青少年的抑郁症及自杀风险，但对于预测青少年非自杀性自伤（NSSI）的研究仍显不足。因此，本研究旨在揭示自我关怀与 NSSI 的关联，并以此为基础，借助机器学习技术构建一个基于自我关怀特征的青少年 NSSI 预测模型。

方法 本研究是一项横断面研究，研究对象包括心境障碍青少年患者及健康对照青少年。精神科医生按照 DSM-5 的诊断标准来筛查 NSSI，并使用自我关怀量表（SCS）来测量自我关怀的水平。本项研究是在 Google Colab 环境中，采用 Python 编程语言（版本 3.10）和 PyCaret 软件包（版本 3.0.2）进行的机器学习研究。在进行模型训练之前，我们对数据进行了清洗、one-hot 编码以及控制多重共线性的预处理。在训练模型时，数据被划分为训练集（70%）和测试集（30%），并比较了六种基于树的分类模型的性能，评估指标包括准确度、精确率、召回率、F1 分数、Cohen's Kappa 和 Matthews 相关系数（MCC）。在模型调整阶段，对两个综合性能最优秀的模型进行了超参数优化。最后，我们利用混淆矩阵、ROC 曲线、SHAP 值以及学习曲线等方法来评估预测模型的效果。

结果 本研究共纳入了 248 例心境障碍青少年患者和 212 例健康青少年，其中，伴有 NSSI 行为的心境障碍青少年有 196 例。结果显示，相比于健康对照组，心境障碍青少年的自我关怀水平显著降低。在心境障碍青少年中，伴有 NSSI 行为的青少年比不伴有 NSSI 行为的青少年自我关怀水平更低。在模型比较阶段，Extra Trees（ET）分类器在预测 NSSI 方面表现出了优异的性能。经过超参数调优后，ET 模型最终的准确率达到了 0.8111，AUC 为 0.8703，召回率为 0.8462，F1 分数为 0.7939。在最终模型中，影响 NSSI 预测的最重要因素是自我关怀的"孤立"和"自我友善"维度，同时，性别也是一个重要的影响因素，女性更可能表现出 NSSI 行为。

结论 本研究揭示了自我关怀与心境障碍青少年患者的 NSSI 之间存在密切的关联。利用 ET 算法构建的预测模型能有效预测青少年 NSSI 的发生，并且在这一过程中，自我关怀和性别起着关键的作用。因此，针对自我关怀的心理干预治疗有望成为干预青少年 NSSI 的有效策略，具有显著的应用潜力。

关键字：非自杀性自伤；自我关怀；青少年；机器学习

齐拉西酮注射液与氟哌啶醇注射液治疗 青少年躁狂发作的对照研究

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目的 以氟哌啶醇注射液为对照，评价齐拉西酮注射液治疗青少年躁狂发作急性期激越患者的疗效及安全性。

方法 符合 DSM-V 双相 I 型躁狂发作诊断标准的青少年患者 70 例，年龄 13-17 岁，平均 15.3±2.2 岁，男性 42 名，女性 28 名。随机分配到齐拉西酮注射液治疗组(试验组)和氟哌啶醇注射液治疗组(对照组)各 35 例，齐拉西酮组给予 10mg 肌注每日两次首日，后两日 20mg 肌注日两次的用法，氟哌啶醇组给予 5mg 肌注每天两次的用法，必要时可以使用东莨菪碱 0.3mg 肌注缓解锥体外系反应。均连续使用三天，期间不得使用其他药物。对患者进行基线评价，以及肌注治疗后的 2、12、24、48 和 72h 的评价。采用 PANSS 兴奋因子

量表、杨氏躁狂量表（YMRS）评定疗效，采用副反应症状量表(TESS 量表)评定药物的不良反应。

结果 两组 72h 时试验组总有效率为 88.57%，对照组总有效率为 71.43%（表一）。药物治疗 72h 后与基线比较，试验组 PANSS 兴奋因子得分减分平均为(14．32±3．25)分，对照组 PANSS 兴奋因子得分减分平均为(10．36±4．28)分。两组主要疗效指标差异有统计学意义(P＜0．05)。齐拉西酮组效果更好，尤其在兴奋，冲动控制障碍两组症状上减分率明显低于氟哌啶醇组。两组在治疗第 72 小时末时 YMRS 评分较治疗前均减少（P＜0.05）。试验组锥体外系不良反应较对照组明显减少，TESS 量表评分在治疗前后差异无统计学意义(P＞0．05)；对照组出现锥体外系不良反应较多，治疗前后差异有统计学意义(P＜0．05)。

结论 甲磺酸齐拉西酮注射液可快速有效控制青少年躁狂发作的激越症状，疗效比氟哌啶醇注射液更优，不良反应更低，安全性更高。

关键字：青少年 躁狂发作 激越症状 齐拉西酮注射液

认知行为疗法干预分离性身份识别障碍共病性身份识别障碍 1 例

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目的 通过本项系统性单个病例研究，我们旨在深入探索本例患者与分离身份发作相关的内部冲突是如何产生的，并详细分析认知行为干预是如何与患者的内部冲突相联系并推动患者完成分离身份的整合，以期为临床工作提供参考和经验。

方法 通过精神病学访谈、实验室检查、青少年全面心理测试以及青少年分离体验量表的自我报告测量，患者被诊断为分离性身份识别障碍和性身份识别障碍，在给予小剂量抗抑郁药物干预的同时，重点通过长程的认知行为疗法帮助患者减轻跨性别身份认同导致的对既定性别身份的长期不适感，以及在这种心理状态下与家庭之间的强烈冲突；这个过程通过内外两个维度同时进行，通过创伤性移情、治疗联盟的建立、增加现实感及重塑希望、学习新的应对技巧、整合等方式帮助患者分析和认识另一个人格出现的意义，激发患者的整合意愿。

结果 患者存在的 2 个核心冲突主题：患者对自身性别身份的不适感和与家庭之间的强烈冲突。经过长程的认知行为治疗，在内部维度上，患者能够逐渐接纳自己的性别认同，分离发作的次数明显减少，患者的 2 个人格愿意配合重新塑造一个新的身份继续生活；在外部维度上，患者在家庭冲突问题方面得到改善，愿意逐步回归家庭。

结论 认知行为疗法在干预本例分离性身份识别障碍共病性身份识别障碍患者中取得了可观的效果，治疗过程中有其优势和局限性，同时期待更多相关病例报道及临床研究的验证。

关键字：认知行为疗法；分离性身份识别障碍；性身份识别障碍；青少年

进食障碍脑影像的机器学习研究进展

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目的 进食障碍是一类病因不明、诊治困难、死亡率高的精神障碍。目前已有一定数量应用机器学习于进食障碍的脑影像学研究，本文旨在对进食障碍的脑影像机器学习研究进展做?综述，反映目前研究的现状，并对未来的研究方向提供参考。

方法 本文对中国知网、万方医学网、PubMed 数据库进行检索，检索时限为建库至 2023 年 2 月 28 日。筛选和纳入了采用机器学习方法研究进食障碍脑影像学的文献，之后对文献进行了系统的梳理和回顾，最后根据进食障碍的类型对这些研究进行综述。

结果 目前神经性厌食症和贪食症诊断方面的机器学习研究，样本量小，特征选取局限为脑影像数据和临床特征，大部分为横断面研究，机器学习分类效能尚可，主要发现了相关的脑影像生物学标志物如脑区皮层厚度、弥散张量参数等。暴食症的诊断方面尚无机器学习研究。神经性厌食症、贪食症、暴食症在预测方面的机器学习研究很少，研究发现预测结果时间跨度越大，机器学习效能越差。

结论 在进食障碍诊断方面，目前进食障碍脑影像的机器学习研究数量少，纳入样本量少，选择的数据特征较为局限，往往采用单模态数据的参数作为特征数据，未来可考虑纳入基因组、蛋白组、影像组学等数据特征，进行大样本多模态的研究。在进食障碍预后预测方面研究上缺乏，未来可开展进一步的研究。

关键字：进食障碍 神经性贪食 神经性厌食 暴食症 机器学习

精神科住院患者肺栓塞风险因素及对策研究

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目的 提高对精神疾病患者肺栓塞的认识和诊疗水平。

方法 对 2016 年 1 月至 2020 年 12 入住深圳市某三级甲等精神专科医院确诊为肺栓塞（pulmonary embolism，PE）的 40 例患者进行回顾性病例分析。

结果 PE 患者病种分布较广泛，主要分布为精神分裂症（32.5%）、抑郁症（17.5%）、躁狂症（15.0%）等。PE 的主要相关易患因素依次为年龄增长（62.5%）、卧床＞3 天（52.5%）、高血压（30.0）、感染（17.5%）、肥胖（10.0%）、糖尿病（7.5%）、恶性肿瘤（7.5%）、慢性心衰和或呼吸衰竭（7.5%）、下肢骨折（7.5%）、

严重创伤（7.5%）、自身免疫疾病（2.5%）。患者的精神症状中主要表现为：言行紊乱（22.5%），大喊大叫（10.0%），易激惹（20.0%）等。临床用药主要为氟哌啶醇注射液（27.5%）、奥氮平（55.0%）、氯氮平（5.0%）、利培酮（37.5%）、等。共有 24 人（60%）被采取过约束性保护措施，约束次数为 3.68±5.39 次，约束时间为[6（0，22.13）]。实验室检查主要表现为 D-二聚体增高为 36 例（90.0%），肢深静脉血栓 7 例（17.5），CT 肺动脉成像显示其中 9 例（22.5%）肺部膨胀不全，4 例（10.0%）肺部坠积性改变等。心电图的异常表现主要为窦性心动过缓（10%）和胸前导联T波倒置（7.5%）。

结论 应建立精神专科规范的 PE 组织构架和管理制度，采用“医护一体、多学科协作”的防治模式，构建起规范化的医院内 PE 防治管理体系，以减少 PE 的发生率及病死率。

关键字：肺栓塞；精神病；危险因素；防范措施

患者视角下影响失眠认知行为治疗的治疗双方因素

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目的 探讨患者视角下治疗双方因素对失眠认知行为治疗（Cognitive Behavior Therapy-Insomnia, CBTI）疗效的影响。

方法 运用质性研究方法，对上海市精神卫生中心 21 例失眠伴抑郁、焦虑患者开展连续 8 次的失眠认知行为治疗（CBTI），分别于 2、4、8 次进行半结构式访谈，并采用主题分析法对访谈资料进行编码分析。

结果 影响CBT-I疗效的患者因素包含治疗预期、对治疗的认同、动力与依从性和治疗内容的内化 4 个方面，具体如下：1，合理治疗期待，治疗过程中理性调整；2，积极认同治疗，配合治疗，相信治疗师宣教；3，动力与依从，寻求改变，愿意付出时间和精力，依从治疗师；4，治疗内容内化，具有接纳处理加工能力，自我反省，举一反三，愿意探索。 治疗师因素包含治疗师的技术运用、治疗具有针对性、治疗风格、督促与监督和给予希望 5 个方面，具体如下：1，专业性，熟悉治疗技术，自然熟练灵活运用技术；2，治疗有针对性，突出重点，不照本宣科；3，良性治疗风格，包括耐心、温和、亲切、鼓励、关心、轻松、信任；4，督促与监督，严格的要求，温和的反馈，增加患者动力，提高依从性；5，给予希望，愿意倾听，共情患者，引导积极心态。

结论 患者认同治疗，动力强，严格执行睡眠计划，参与程度高，内化个体经验有利于治疗，治疗师需要有足够经验，建立良好治疗联盟，激发患者动力，提高患者依从性，治疗具有针对性，前期需进行充分的心理教育，以增加 CBT-I 疗效。

关键字：慢性失眠，认知行为治疗，治疗关系，质性研究

心理援助热线 3806 例来电特征及问题分析

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目的 了解当前需要心理咨询服务人群的特征及需要解决的主要问题，为后续热线心理健康指导提供依据。

方法 选取 2023 年 1 月至 2023 年 6 月福州市心理咨询热线关于个人问题的来电者为研究对象，接线员在接电过程中收集来电者的人口学特征及主要问题。

结果 共接入 9530 人次热线， 3807 名符合要求的来电者纳入分析，75.9%（2890/3807）的来电者为女性，来电者有 32.1%（1221/3807）年龄低于 19 岁，43.8%（1667/3807）位于 19 至 29 岁。存在自杀意念有 31.6%（1202/3807），有 44.0%（537/1221）小于 19 岁的来电者存在自杀意念，19 至 29 岁有 27.6%（460/1667）。求询问题主要为心理障碍、恋爱婚姻中的心理问题、家庭外人际关系、子女教育问题、学习问题、工作问题及经济问题等。不同性别、年龄、婚姻状况及文化程度的来电者求询问题有所不同。

结论 心理咨询热线电话是公众获得心理支持的有效途径，部分来电者存在严重的心理问题。女性更易寻求心理援助；青少年及青年群体寻求心理热线援助比例高，但仍需关注中年及老年群体，应积极行心理咨询热线科普；存在情绪问题的青少年出现自杀意念占比高，应着重咨询员热线危机干预系统性培训。

关键字：心理咨询热线、心理健康状况、特征、自杀意念

自我同情在大学生抑郁情绪与疲劳间的中介效应

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目的 探究自我同情在大学生抑郁情绪和疲劳之间的中介作用。

方法 在 2022 年 9 月至 10 月，使用整群随机抽样的方法在湖北省武汉市四所高校抽取 404 名大学生，进行 9 条目病人健康问卷（Patient Health Questionnaire-9，PHQ-9）、自我同情问卷简版（Self-Compassion Scale-Short Form，SCS-SF）和多维疲劳量表（the Multidimensional Fatigue Inventory，MFI-20）问卷测试；对数据采用 SPSS 26.0 进行描述性统计、Pearson 相关分析，采用 PROCESS 3.5 检验中介作用。

结果 大学生抑郁情绪、自我同情和疲劳量表的总分平均分分别为（4.66±5.58）分、(38.60±5.83）分、

(54.18±11.30）分。Pearson 相关分析表明，抑郁情绪与疲劳呈正相关（r=0.49,P<0.01），与自我同情呈负相关（r=-0.40,P<0.01），自我同情与疲劳呈负相关（r=-0.70,P<0.01)。中介效应检验表明，在控制运动习惯的影响后，抑郁情绪对疲劳的直接预测作用显著（β=0.97，P＜0.01)；自我同情在抑郁情绪和疲劳的关系中起部分中介作用（效应值=0.502,95%CI:0.194 ~ 0.307)，中介效应占总效应的 52%。

结论 大学生抑郁情绪不仅直接影响疲劳症状，还通过自我同情间接对疲劳症状产生影响，提高大学生自我同情能力有助于缓解大学生受抑郁情绪的影响，改善大学生疲劳症状。

关键字：抑郁情绪；自我同情；疲劳；中介作用

元认知督导模式在临床心理实践中的应用

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目的 元认知是认识心理学领域中的重要概念，通过对认知的认知来促进认识过程的发展。临床心理实践中的新手咨询师们对于心理访谈过程的反思与认知的提高能够促进自身的胜任力水平。新手咨询师进入临床心理实践中时因对专业胜任力不足的焦虑会影响其专业表现，而不同的临床心理督导模型对督导师而言掌握及运用面临着挑战，如何在督导工作中快速有效地提高新手咨询师的专业胜任力是督导师们需要思考的问题，因此建立一种快速有效的督导方式至关重要。

方法 本文将总结临床心理督导工作，罗列出元认知督导过程中常用的提问，建立督导师元认知督导的工作理念。通过关键问题回溯元认知过程，促进新手咨询师来解剖头脑中的想法，形成专业思路从而建构个案概念化框架，觉察自己的态度、价值观，提高访谈技能，获得专业自信，最终有效地开展临床心理实践，保障来访者福祉。

结果 元认知督导和其他主要督导模式的比较，分析优势与局限，明确新手咨询师的职业需求，分析元认知督导作为跨流派的督导模式对于提高新手咨询师专业胜任力水平的重要作用。

结论 元认知督导模式作为临床督导工作的一个靶点帮助督导师们快速建立有效的督导干预方式，能够极大提高新手咨询师的专业胜任力，提升专业自信，高效地开展临床心理实践工作。

关键字：元认知；临床心理学；心理督导

The Experience of Family Caregivers with First Episode Mental Disorders:A Systematic Review

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Objective This systematic review synthesizes findings of caregivers' experiences in first episode mental disorders from qualitative research, which then provides evidence on early treatment and intervention choice for mental health and caregivers

Methods We systematically searched the Cochrane Library, Ovid, PubMed, Embase, Web of Science, CBM, CNKI, VIP and WANFANG DATE bases for qualitative document without time limitations. Thematic synthesis was used to analyze and synthesize results across studies. A critical appraisal of study quality and methodological rigor was conducted using the JBI Critical Appraisal Tool for qualitative studies in Australia

Results Twelve research articles, comprising fifty-nine caregiver experiences in eight categories, were included.?Two synthesized results revealed that caregivers' psychological transition from challenge to help-seeking and unfamiliarity with mental disorders. Due to the insufficient knowledge about mental health and inadequate skill training from social support, perceived stress increased for caregivers

Conclusion Our results suggest that more effective work to improve mental health service in early therapy and prognosis for patients and caregivers that is based on government support. Besides, sufficient care resource from mental health care institutions is necessary for caregivers in overcoming difficulties.

关键字：First episode mental disorder;Family caregivers;Caring experience;Qualitative research;Systematic review;Meta integration

精神分裂症、双相情感障碍、抑郁症共有和特有的脑功能异常模式研究

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目的 重性精神疾病具有不同的临床特征。然而，部分相同的临床症状和治疗药物对传统的诊断类别提出了挑战。本研究旨在探讨重性精神疾病共有和特有的临床症状和认知功能受损的潜在神经机制。

方法 本研究纳入 364 例受试者，包括精神分裂症（SCZ）118 例，双相情感障碍（BD）80 例，抑郁症（MDD）91 例，健康对照（HCs）75 例，收集其临床及静息态 fMRI 数据。计算静态和动态低频振幅(sALFF 和 dALFF)、局部一致性(sReho 和 dReho)、度中心性(sDC 和 dDC)，比较两组脑功能活动和功能连接的差异，并分析其与临床资料的关联。

结果 SCZ、BD 和 MDD 在左侧额下回的 dDC 降低和右侧直回的 dALFF 升高，与认知障碍相关。在疾病特异性异常中，SCZ 表现为左侧岛叶 dDC 增高、双侧额中回 sReho 增高、双侧尾状核 sALFF 增高；BD 表现为右侧尾状核 sDC 降低；MDD 表现为右侧尾状核 dDC 降低，左侧舌回 sReho 及 sALFF 降低。

结论 左侧额下回的动态远端连接降低和右侧直回的动态区域活动增加的跨诊断模式可能介导了重性

精神疾病的共同认知缺陷。在静态和动态水平上分布区域的异常活动和连接的混合疾病特异性模式可能与疾病的精神病理学特征有关。

关键字：静态，动态，低频振幅，局部一致性，度中心性

非自杀性自伤在不同精神障碍中的特征研究

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目的 非自杀性自伤（non-suicidal self-injury，NSSI）是指个体在没有自杀意图的情况下，采取一系列的直接、故意、反复伤害自己身体，且不会导致死亡的想法和行为。NSSI 患者大多同时满足至少一项其他的精神障碍诊断。其中，边缘型人格障碍（borderline personality disorder，BPD）患者的 NSSI 检出率显著高于其他诊断群体，其次为双相情感障碍（bipolar disorder，BD）和抑郁障碍(major depressive disorder，MDD)的患者。本研究旨在探索 NSSI 在 BPD、BD 及 MDD 患者中的发生特征。

方法 本研究为横断面调查，在全国不同地区的十二家医院精神科、医学心理科门诊患者中，入组符合 DSM-5 建议的 NSSI 诊断标准的患者 167 例，其中 BPD 患者 40 例，BD 患者 50 例，MDD 患者 77 例。使用渥太华自伤量表评估被试 NSSI 特征。采用描述性统计分析、卡方检验和方差分析等统计方法进行数据分析。

结果 所有 NSSI 患者中，BPD 组、BD 组和 MDD 组之间在性别、年龄与受教育程度等均不存在统计学差异（p＞0.255）。三组患者首次 NSSI 年龄平均在 13.29~13.60 岁，但组间无显著差异。NSSI 的隐匿性（X2=6.317，p=0.166）、冲动性（X2=3.210，p=0.206）、情绪性（X2=1.756，p=0.455）、功能性（X2=0.064~1.777，p＞0.172）和疼痛感知（F=0.082，p=0.922）及抵制 NSSI 动力（F=1.726，p=0.181）等特征均不存在显著差异。在成瘾性特征及情绪事件后 NSSI 方面，三组的差异具有统计学意义。其中，BPD 组在“更严重 NSSI 才能达到效果”条目的得分显著高于 BD 组（F=0.306，p=0.009）和 MDD 组（F=0.281，p=0.003），在经历“被抛弃”的情绪事件后实施 NSSI 的情况也显著多于 BD 组（F=0.320，p＜0.001）和 MDD 组（F=0.294，p=0.017）。

结论 NSSI 作为 BPD 的症状之一，其成瘾特质及发生被抛弃情绪事件后实施 NSSI 行为的表现，可能与 BPD 疾病症状有关。而 NSSI 的隐匿性、冲动性、情绪性、功能性和疼痛感知等特点以及抵制 NSSI 动力，可能与 NSSI 行为本身有关，在各疾病诊断间存在普遍性。

关键字：非自杀性自伤 边缘型人格障碍 双相情感障碍 抑郁障碍

精神分裂症冲动性与情绪、认知灵活性的关系

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目的 本研究探讨精神分裂症情绪、认知灵活性与冲动性的关系。

方法 运用共同方法偏差分析、相关分析、回归分析探讨情绪、认知灵活性和冲动性之间的关系。采用问卷调查的方式收集 243 名符合入排标准的精神分裂症患者的信息，包含人口学变量、冲动性、正性情绪、负性情绪、阳性症状、阴性症状、抑郁、焦虑、认知灵活性、愤怒等变量。

结果 将所有问卷条目进行共同方法偏差检验，结果显示，共有 24 个因子特征值大于 1，第一公因子方差解释变异量为 16.42%，小于临界值 40%，表明此研究不存在严重的共同方法偏差。精神分裂症冲动性得分及各个维度得分与年龄、首次发病年龄、本次住院时间等变量相关性无统计学意义。冲动性及各个维度与焦虑、抑郁、愤怒等负性情绪呈正相关，与认知灵活性、正性情绪呈负相关。精神分裂症焦虑、愤怒、认知灵活性、正性情绪对冲动性均有统计学意义（P＜0.01）。回归方程为：冲动性=120.134+0.464*焦虑+0.905*愤怒-0.551*认知灵活性-0.802*正性情绪。

结论 焦虑、抑郁、愤怒等负性情绪和冲动性及各个维度相关性显著，呈正相关。精神分裂症患者对识别负性情绪量表中除焦虑、抑郁、愤怒之外的情绪有缺陷。认知灵活性是冲动性以及各个维度的保护因素。精神分裂症的认知灵活性越高，冲动性越低。

关键字：精神分裂症 冲动性 情绪

针对抑郁症的认知行为疗法

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目的 自新冠疫情后抑郁症的发病率不断增加，根据我国调查报告显示我国抑郁风险检出率是 10.6%。所以抑郁症已成为重要的社会卫生问题；本文主要介绍针对抑郁症的认知行为疗法治疗，介绍认知行为疗法方法，对于抑郁症治疗的疗效。

方法 检索 PubMed、中国知网、万方数据知识服务平台，纳入有管针对抑郁症的认知行为疗法的中英文文献。本研究通过回顾抑郁症患者国内外相关研究，介绍了抑郁症的认知模型、认知行为疗法、认知行为疗法对抑郁症的治疗技术。

结果 因其基于循证、结构清晰、短程高效等特点，目前，CBT 已成为世界上传播最为广泛、被使用最多的、循证证据最强的心理治疗方法。抑郁症的认知水平从自动思维到功能性十条假设再到核心信念由浅入深；CBT 是以“问题为中心”和“以行动为导向”的短程、结构化的心理—社会干预模式。CBT 对抑郁症的治疗具

有多种优势，它可以帮助我们拥有美好生活的生活方式和人生智慧。

结论 抑郁症已经成为主要的公共卫生问题，其严重影响了人们的心理健康。本研究回顾国内外相关研究，超过 2000 项结果研究已经证明了 CBT 对广泛的精神疾病、心理问题和具有心理成分的医学问题的疗效。许多研究也表明，CBT 有助于预防或减少抑郁症未来发作的严重程度。本文提供了理论依据，并为 CBT 对于抑郁症的治疗提供参考。

关键字：抑郁症；认知行为疗法

青少年自伤自杀辨证行为疗法的研究进展

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目的 近年来世界范围内青少年自伤自杀发生率逐年上升，对青少年的影响尤为不良，严重损害青少年身心健康。辩证行为疗法作为一种新兴的、循证有效的心理疗法，已在美国广泛应用于自伤自杀的治疗中。辩证行为疗法是在传统的认知行为疗法上发展而来的新型认知行为疗法。本文探究该疗法针对青少年自伤自杀治疗，辩证行为疗法经过不断的发展、演变和改良，对青少年自伤自杀的干预效果逐渐显著。本研究回顾 DBT 针对青少年自伤自杀的治疗研究进展。

方法 检索 PubMed、中国知网、万方数据知识服务平台，纳入有关中国青少年自伤自杀研究和辩证行为疗法的中英文文献。本文通过回顾青少年自伤自杀的 DBT 治疗的国内外相关理论背景，介绍了 DBT 的发展和演变及针对青少年自伤自杀的新 DBT 方法。

结果 有关青少年自伤自杀的辩证行为疗法国外研究较多，国内研究较少；有关对青少年自伤自杀行为做辩证行为疗法干预的效益显著；辩证行为治疗通过不断的发展出新方法，使治疗手段更方便、高效率的完成。由 DBT 发展而来的 GDBT、DBT-A 和线上 DBT 等新疗法对青少年自伤自杀都有显著疗效。国内外研究证明 DBT 可以减少青少年自伤自杀行为。

结论 通过对青少年自伤自杀的DBT疗法的回顾，国内外DBT疗法对青少年自伤自杀行为的疗效是显著的。本文为我国青少年自伤自杀的 DBT 疗法的研究提供理论依据，通过本研究了解到 DBT 的发展和演变及新方法，各种新疗法都有显著疗效，帮助青少年减少自伤自杀行为，能够推动辩证行为疗法在临床上的普及应用。很多研究均表明 DBT 的治疗是有效的，但还需大量的研究证据去支持，因此还需要深入地研究 DBT 对青少年自伤自杀的干预策略。

关键字：青少年；自伤；自杀；辩证行为疗法

正念干预对物质使用障碍患者的抑郁焦虑情绪和自杀意念的干预效果

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目的 正念是一种有意识的觉察，通过一种特殊的方式集中注意力，有意识地、不做评判地专注于当下。基于正念的干预（Mindfulness Based Intervention，MBI）疗效在疼痛、失眠、抑郁症和焦虑症患者以及健康人中得到肯定。物质使用障碍（Substance Use Disorder，SUD）又称药物成瘾，是反复使用成瘾物质导致的一种复杂的慢性、复发性脑部疾病，其核心特征是不顾后果的强迫性觅药行为和反复发生的复吸行为。SUD 女性患者的抑郁症和焦虑症共病情况普遍，且可能存在相互促进的关系，同时也面临较高的自杀风险。少数研究显示正念干预对戒毒有较好疗效，但目前尚未有正念干预能否改善SUD女性患者的抑郁焦虑情绪和自杀意念的研究。鉴于 SUD 女性患者抑郁焦虑的高共病率以及高自杀率，本研究旨在比较正念干预前后 SUD 女性患者的抑郁焦虑情绪水平和自杀意念有无改善，进一步探索正念干预对 SUD 患者的治疗效果。

方法 本研究纳入甲基苯丙胺、海洛因、氯胺酮使用障碍的成年女性患者 21 例，由浙江大学医学院附属邵逸夫医院精神科医生对患者进行团体正念干预治疗。采用患者健康问卷抑郁量表（PHQ）、贝克焦虑量表（BAI）、贝克自杀意念量表（BSSI）对团体正念干预治疗前后的抑郁焦虑情绪和自杀意念进行测量，并使用配对 t 检验对干预前后的心理量表评分进行数据分析。

结果 本研究中患者的年龄为 41.05±8.93 岁，其中甲基苯丙胺 12 例，海洛因 8 例，氯胺酮 1 例，配对 t 检验结果显示：在干预前后，SUD 患者的 PHQ 均值差异显著（$t(20) = -4.41, p = 0.0003$），BAI 均值差异显著（$t(20) = -7.49, p < 0.0001$），BSSI 均值差异显著 $t(20) = -9.26, p < 0.0001$）。

结论 本研究发现正念干预对物质使用障碍女性患者的抑郁和焦虑情绪以及自杀意念有明显的改善作用，正念干预主要通过察觉个体内在的真正需求，从而发现尚未被自我察觉的、已有的、积极行为改变的内在动机。本研究结果提示正念干预可能有助于改善抑郁焦虑情绪，降低自杀意念，增强适应性情绪调节能力，为潜在提高戒毒的内在动机奠定基础。

关键字：正念干预 物质使用障碍 抑郁 焦虑 自杀

冬季运动员的心理因素特点研究

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目的 运动锻炼与心理健康存在着相互促进的积极作用，运动参与和锻炼对精神状态有益，可以改善情绪和提高生活质量，同时，良好的心理健康也会带来更

好的身体状况和运动表现。本研究拟探索冬季运动员的相关心理因素，比较其与健康对照是否存在显著差异，为更好地监测运动员心理健康状态进而使其在运动竞技状态下达到的更高的水平和更稳定的发挥提供理论依据。

方法 为探索冬季运动员的相关心理因素，并比较其与健康对照是否存在显著差异，我们收集了来自于体育学院的符合纳入标准的36名冬奥会特定项目运动员，同时按照年龄、性别等人口学资料匹配收集48名健康对照受试者，进行相关临床资料收集，其中包括受试者的包括性别、年龄、身高、体重、教育水平等基本个人信息，以及冬季运动员的运动等级、训练时长、转项经历、最好成绩等运动经历相关信息及健康对照组的学习/工作时长、最好成绩等，使用抑郁症筛查量表（PHQ-9）、广泛性焦虑障碍量表（GAD-7）、匹兹堡睡眠质量指数量表（PSQI）、青少年生活事件量表（ASLEC）等心理量表对研究对象进行评估，并比较两组人群的心理因素是否存在差异。

结果 冬季运动员与健康对照组年龄（p=0.727），身高（p=0.264），体重（p=0.071），BMI （p=0.066）等基本信息均无明显差异。比较两组抑郁症筛查量表p=0.628，广泛性焦虑障碍量表p=0.155，匹兹堡睡眠质量指数量表p=0.432，在两组青少年生活事件量表的各个维度中，人际关系p=0.105，学习压力p=0.024，受惩罚p=0.740，丧失p=0.129，健康适应p=0.651，其他p=0.028，在冬季运动员与健康对照组的青少年生活事件量表中学习压力及其他具有显著性差异，而其他相关心理量表均未见明显差异。

结论 冬季运动员与健康对照组的青少年生活事件量表中学习压力及其他具有显著性差异，冬季运动员的学习压力显著低于健康对照组。

关键字：冬季运动员、心理健康

厦门市心理援助热线负性生活事件来电者的特征

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目的 分析厦门心理援助热线负性生活事件来电者的特征及相关因素

方法 选取厦门心理援助热线2016年08月-2020年02月全部有效来电，将2421例来电纳入分析，接线过程中，由咨询师收集基本人口学资料并评估8个自杀相关因素。2421例来电者中，其中有负性生活事件来电者为1901例，无负性生活事件来电者为520例，比较两组在求助问题类型、人口学特征和自杀相关因素上的差异

结果 有负性生活事件来电组咨询的前五位问题是精神疾病问题（35.4%）、其他问题（17.0%）、工作问题（12.1%）、恋爱人际交往问题（11.5%）、学习问题（8.4%）。来电者自杀相关因素评估结果显示，有负性生活事件组在来电时的既往自杀未遂史、物质滥用、严重躯体问题、被虐待史、害怕被攻击、高抑郁情绪的出现率均高于无负性生活事件组（p＜0.01或0.001）。二分类 logistic 回归分析显示女性、学生、有物质滥用、既往自杀未遂史、教育年限是负性生活事件的危险因素

结论 热线咨询师对于有负性生活事件来电者要特别注意评估是否有既往自杀未遂史、物质滥用特征，以及重点评估女性、学生群体、教育年限比较高的群体，以便更好的为负性生活事件来电者提供帮助

关键字：负性生活事件；心理热线；自杀危险

What Is The Impact of The COVID-19 Pandemic on The Mental Health of Children and Young People with Long-standing Physical Health Conditions?

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Objective To systematically evaluate whether and what the impact of the COVID-19 pandemic on the mental health of children and adolescents with long standing physical health conditions.

Methods This review searched three databases for relevant and eligible studies to systematically assess the psychological impact of the COVID-19 pandemic on children and adolescents with LSHCs. Consistent search methods and search terms were used in PubMed, PsycINFO, and Web of science. Search terms included aspects of participant information, chronic physical disorders, and psychological outcomes. In total, this review contains two separate searches containing time limits or additional pandemic-related keywords. Two independent searches are completed in each of the three databases and therefore the results are exported. The final selection of eligible studies was based on the agreeable selection criteria.

Results The reviewer screened thirteen eligible studies involving 3969 child and adolescent participants. All the studies were cross-sectional designs, with only one study also contained a longitudinal comparison. The psychological outcomes were related to the anxiety symptoms, depressive symptoms, life satisfaction, and overall psychological status. The data collection methods used, and the chronic disorder groups studied varied in the studies. Some of the psychological outcomes particularly anxiety symptoms, showed inconsistencies among the studies.

Conclusion Based on the available evidence the COVID-19 pandemic has a psychological impact on children and adolescents with long standing physical health conditions, specifically worse depression outcomes, lower life satisfaction, and partially worse anxiety outcomes. However, the small sample size, incomplete coverage of domains and lack of follow-up data are significant limitations. Future applications should focus more on mental health issues around the group, and effective protection and intervention in crisis is needed.

关键字：Chronic Physical Disorders, Children, Young People, Covid-19, Mental Health, Systematic Review

突发公共卫生事件下高中生主动性人格和学业状况的关系：一个有调节的中介模型

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主动性人格是指个体不易受情境影响，能够积极采取主动行为影响周围环境的稳定倾向。本研究认为在充满不确定的环境中，主动性人格对于高中生的学业状况将起到关键的积极作用，因此本研究旨在探讨主动性人格对于高中生学业状况的影响及作用机制。目的　突发公共卫生事件下，探究高中生主动性人格的现状和特点，高中生主动性人格与日常中断、领悟社会支持、学业效能感、学业成就、学业情绪和日常性学业修复力的关系。

方法　本研究以浙江和广东两地两所普通高中的747 名高中生作为研究对象，采用《主动性人格问卷》、《学业自我效能问卷》等工具在不同时段进行多次问卷测验。使用 SPSS23.0 和 PROCESS 软件对数据进行分析。 本研究结论如下：（1）本研究高中生主动性人格、高唤醒学业情绪、日常性学业复原力和领悟性社会支持整体处于中等偏上的水平；学业自我效能、低唤醒学业情绪和日常中断整体处于中等水平；（2）主动性人格、学业自我效能在性别、学生干部和年级情况上存在着显著的差异，其中男生得分显著高于女生；学生干部得分显著高于非学生干部；高一学生得分显著高于高二学生；学业成就中，学生干部学业成就显著高于非学生干部；学业情绪在性别、学生干部和独生子女情况上存在显著差异上，男生的积极低唤醒学业情绪显著高于女生；女生的高唤醒学业情绪显著高于男生；学生干部的积极情绪得分显著高于非学生干部；非独生子女的消极低唤醒情绪得分显著高于独生子女；（3）主动性人格、学业自我效能与消极学业情绪存在显著负向关系，与其他变量存在显著正向关系；领悟性社会支持、主动性人格、学业自我效能、日常中断，四者之间两两呈显著正相关；（4）学业自我效能在主动性人格与学业成就、日常性学业复原力、积极学业情绪之间起部分中介作用；学业自我效能在主动性人格与消极学业情绪之间起完全中介作用；领悟性社会支持、日常中断能够在主动性人格与学业自我效能之间起到调节的调节作用，即当领悟社会支持水平更高时，主动性人格与学业自我效能之间的正向关系会随着更多的日常中断而变得更大。 从本研究中，我们发现主动性人格能够有效提升高中生学业自我效能感，进而提升和改善高中生的学业状况，包括学业成就、学业情绪及日常性学业复原力。此外，高中生感知到更多的社会支持，当经历更多的日常中断时反而更有助于其主动性人格发挥作用。因此不论是家长还是老师都

关键字：突发公共卫生事件；高中生主动性人格；学业状况；学业自我效能

正念训练对小学生单词记忆的影响

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目的　根据研究报告得出，中国有 75% 的儿童存在注意力不佳和许多心理上的问题， 如何让小学生拥有高品质的注意力和积极的学习态度是当今教育界关注的话题。 本课题研究主要目的是为了验证这种正念冥想训练其应用效果能否大大提高适龄儿童的正念觉知水平和对于单词的记忆能力。

方法　本研究采用随机实验法，组间前后测设计。在牡丹江市某小学六年级中随机抽取 2 个正念实验学习班和 1 个正念对照班，总共 123 名学生。通过进行正念训练和团体瑜伽辅导的方式分别对两个团体实验组进行综合训练,对照组不需要进行任何心理干预。所以此次通过针对小学高年级为期 8 周的正念训练，来研究正念训练是否能够提高英语单词的记忆。工具主要采用正念注意觉知量表(MAAS)和编写的无实际意义的英文单词表进行前后测。

结果　在正念觉知水平上发现：六年一班的正念前测分数和正念后测分数不具备显著的差异性（$p>0.05$）；六年二班的正念前测分数和正念后测分数不具备显著的差异性（$p>0.05$）；六.三班的正念后测分数显著高于正念前测分数（$p<0.05$）。在英文单词识记上：经过两两比较，发现六年三班的正念后测分数显著高于六年一班和六年二班的正念后测分数（$p<0.05$）；六年三班的单词记忆后测成绩高于六年一班和六年二班的单词记忆后测成绩（$p<0.05$）。

结论　（1）正念训练会提高小学生正念觉知水平（2）正念训练会影响小学生单词记忆效果，能够提高小学生单词记忆成绩。

关键字：正念训练；瑜伽冥想；正念注意觉知量表；单词记忆；小学生

Protective Effects of Keening in Chinese Funeral Rituals for Depression Among Bereaved Young Adults and The Therapeutic Effectiveness of Interpersonal Psychotherapy: A Comparison of Two Cases

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Prior literature has documented the positive effects of a variety of Chinese funeral rituals on post-bereavement mental health. However, no empirical evidence exists of the effect of keening (i.e., wailing to express grief for the deceased) on bereaved young adults' risk of depression. We assessed one case study involving two sisters. The

younger sister was diagnosed with depression two years after missing her mother's keening ritual, whereas the elder, who participated, displayed no depressive symptoms. The younger sister received interpersonal psychotherapy (IPT), which provided substitute emotional catharsis and enhanced interpersonal bonds. Psychological assessments of the younger sister revealed decreases in depressive symptoms throughout IPT. Self-reported feedback from the younger sister indicated that substitute emotional catharsis remedied her symptoms resulting from her absence from mother's keening ritual. Keening rituals played a protective role in post-bereavement depression in this case study of two young adults. IPT provided effective psychotherapy for bereavement-related depression.

关键字：bereavement, depression, funeral rituals, keening, interpersonal psychotherapy, case report

视觉统计概要的认知策略

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目的 认知系统通过神经网络对信息进行统计和推理。也就是说，通过认知计算得到抽象统计概要信息，而抽象统计概要信息主要用于迁移与推断。其中，视觉统计概要的表征、加工和迭代运行是认知智能演化的基石，反映认知维持视觉物理世界稳定和丰富的能力。高度结构化信息在视觉计算过程中产生冗余，随之而来的就是信息的高效压缩表征。 视觉统计概要是对结构化刺激统计规律的总结，相对精确的统计概要不仅弥补视觉系统的加工瓶颈，也帮助我们获得丰富的视觉体验。近年来，许多研究表明视觉统计概要中存在认知策略，这些结果的发现对以认知策略对注意资源和个体刺激表征的免疫为基础建立起来的经典统计概要机制提出了挑战和质疑。因此，本研究旨在从注意力的全新视角，揭示视觉统计概要的认知策略。 研究从凸显性对视觉统计概要认知策略的影响出发，考察多特征刺激中单特征视觉统计概要的认知策略相互影响。

方法 采用单特征刺激为材料，以认知策略为指标，采用质心范式，考察不同视觉统计概要的认知策略；采用多特征刺激为材料，分别在两种多特征刺激情景下，检验多特征视觉统计概要的认知策略的相互影响；

结果 不同刺激在视觉统计概要的认知策略不同；对多特征刺激进行视觉统计概要的过程中，各个特征的认知策略存在一定的相互影响。

结论 支持视觉系统基于凸显性对多刺激进行赋权并形成视觉统计概要，特征注意参与其中且存在相互影响。

关键字：整体表征，多特征，赋权，同质性

认知行为疗法对延长哀伤障碍患者疗效的 Meta 分析

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目的 系统评价 CBT 干预模式治疗延长哀伤障碍患者的临床症状的效果。

方法 计算机检索知网、万方、维普、中国生物医学文献数据库（CBM）、PubMed、Embase、Web of Science、Cochrane Library、Clinical Trail 等数据库，收集有关认知行为疗法治疗 PGD 患者哀伤、抑郁、焦虑、躯体化症状的随机对照试验，用 Cochrane 协作网研究偏倚风险评价工具评估研究质量。采用 RevMan 5.3 进行 Meta 分析。

结果 共纳入 7 篇文献，总样本量 495 例，Meta 分析结果显示，CBT 试验组哀伤评分〔标准化均数差（SMD）=-0.79，95%CI（-1.26，-0.31）， P=0.002〕、抑郁评分〔标准化均数差（SMD）=-0.61，95%CI（-0.99，-0.24）， P=0.001〕、焦虑评分〔SMD=-0.40，95%CI（-0.62，-0.18），P=0.0003〕即刻疗效均优于空白对照组；CBT 试验组与空白对照组躯体化症状比较，差异无统计学意义（P>0.05）。分析显示，CBT 对 PGD 患者治疗后即刻哀伤症状、抑郁症状、焦虑症状效果有明显改善（P<0.05），但对即刻躯体化症状的改善疗效不佳（P>0.05）。

结论 CBT 对 PGD 患者的哀伤、抑郁及焦虑症状的即刻疗效、3 个月随访有改善效果，但对躯体化症状疗效不佳，仍需进一步的临床研究证明其干预的有效性。

关键字：认知行为治疗、延长哀伤障碍、META 分析

广泛性焦虑障碍的认知行为治疗技术的德尔菲法研究

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目的 本研究拟使用德尔菲法（Delphi 法）探究国内对广泛性焦虑障碍（GAD）的认知行为治疗（CBT）技术的使用情况，形成专家共识，为规范我国心理治疗实践中针对 GAD 的 CBT 技术应用奠定理论基础。

方法 通过检索国内外数据库，汇总整理关于广泛性焦虑障碍的认知行为治疗的研究文献，筛选出 4 个类别、共 59 个运用于 GAD 治疗的 CBT 技术，并制定专家咨询表，发放给符合遴选标准的 24 名 CBT 领域的专家，前后进行了两轮咨询，最后依据统计分析的结果对这些技术的重要性进行排序。

结果 两轮咨询中专家的积极性和权威系数均高于 0.8，所有基本技术都在使用频率、对治疗的贡献程度和来访者的接受程度这三个维度上得到了专家较一致的认可，最后综合评分排名前 5 的技术成分依次为

资料收集、建立治疗联盟、临床心理评估、心理教育和目标设定。

结论 在广泛性焦虑障碍的治疗中，专家在三个维度上都达成共识的技术有：全部基本技术，包括建立治疗联盟、心理教育、资料收集等；部分认知技术，如识别自动思维、引导发现、可替代性思维等；部分行为技术如呼吸放松训练、担忧暴露、问题解决等；部分其他技术，如正念和睡眠管理。而综合评分排名靠后，但在 CBT 第三浪潮中得到了高度关注的新兴技术，如合理情绪想象技术、焦虑刻意增加实验、应激接种训练等在 GAD 治疗中的应用情况则有待进一步研究讨论。

关键字：广泛性焦虑障碍；认知行为治疗；德尔菲法；CBT 技术成分

癫痫清抑制海马神经元铁死亡改善 AD 模型小鼠学习记忆障碍的影响

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目的 研究癫痫清对 AD 模型小鼠海马神经元铁死亡的影响。

方法 将 36 只 AD 模型小鼠按体质量随机分为模型组、模型+铁死亡抑制剂（Fer-1）组，模型+铁死亡抑制剂（Fer-1）+癫痫清组，另取 10 只小鼠作为对照组。模型组小鼠侧脑室注射 Aβ25-35（3ug），造模后的第二天，除对照组外，其余各组小鼠腹腔注射 Fer-1（5mg/kg），连续给药 14 天，癫痫清组灌胃给予癫痫清（12.48g/kg），连续给药 28 天，Fer-1 及癫痫清均为每日一次。末次给药后，Y 迷宫和 Morris 水迷宫检测小鼠的学习记忆能力；苏木素-伊红（HE）染色观察脑组织的病理变化，尼氏染色观察尼氏小体的改变，ELISA 法测定小鼠海马组织 Fe2+、MDA、ROS 的表达水平，免疫组化法检测脑组织中 GPX4 的表达水平，免疫蛋白印迹法测定脑组织中突触相关蛋白 SYP、GAP-43、PSD95、GPX4 及 PTGS2 的蛋白表达量。

结果 癫痫清可改善 AD 模型小鼠的学习记忆能力；增加 AD 模型小鼠脑组织内尼氏小体的数量，降低 Fe2+、MDA、ROS 及 PTGS2 表达（P<0.05 或 P<0.01）；显著升高脑组织中 GPX4 及 SYP、GAP-43、PSD95 蛋白表达水平（P<0.05 或 P<0.01）。各给药组小鼠脑组织病理变化均得到不同程度的改善。

结论 癫痫清可通过抑制海马神经元铁死亡，修复受损伤的神经元，改善学习记忆障碍。

关键字：癫痫清；阿尔茨海默病；铁死亡；突触；神经元；学习记忆障碍

认知行为疗法与精神分裂症：临床随机对照试验 meta 分析的伞形评价

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目的 基于伞形综述的方法，对已发表的 meta 分析中关于 CBT 治疗精神分裂症患者的临床效果进行综合评价，为精神分裂症患者临床治疗方案的选择提供循证决策依据。

方法 检索 PubMed、Web of Science、CNKI、万方、维普数据库，筛选 CBT 和精神分裂症相关联的 meta 分析，检索时间为建库到 2023 年 6 月，由两名研究者根据纳入标准和排除标准进行独立检索与文献评估，使用 AMSTAR 对纳入文献的方法学进行质量评估。使用随机效应模型进行效应值合并计算。

结果 最终纳入合格文献 11 篇。其中，10 篇文献的研究结局包含对精神分裂症阳性症状的评价，合并效应值为[SMD=-0.35, 95%CI (-0.66,-0.04)]；6 篇文献包含对阴性症状的评价，合并效应值为[SMD=-0.10, 95%CI (-0.17,-0.03)]；2 篇文献包含对阳性和阴性综合征量表（PANSS）的评价，合并效应值为[SMD=-0.18, 95%CI (-0.53,0.18)]；5 篇文献包含对一般症状的评价，合并效应值为[SMD=0.36, 95%CI (-0.10,0.81)]；4 篇文献包含对幻觉症状的评价，合并效应值为[SMD=-0.29, 95%CI (-1.06,0.47)]；4 篇文献包含对妄想症状的评价，合并效应值为[SMD=-0.78, 95%CI (-1.72,0.15)]。

结论 认知行为疗法对精神分裂症患者的阳性症状与阴性症状临床治疗效果显著。，但对精神分裂症的一般症状、幻觉和妄想等临床症状治疗效果与其他临床治疗方案没有显著差异。

关键字：CBT；精神分裂症；阳性症状；阴性症状；伞形评价

Regulation of Gender and Recurrent Factors on Depressive Symptom in Remitted Patients with Major Depressive Disorder: A Follow-up Study.

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Objective Exploring the regulatory effects of gender and recurrent factors on depressive symptoms in remitted patients with major depressive disorders(MDD).

Methods A follow-up study with an interval of 6 months was designed for one year (t1: baseline, t2: 6 months and t3: 12 months) . There are 181 remitted MDD subjects（age: 38.82±9.91 years, 115 females, 111 recurrences) enrolled at t1, and 119 subjects completing three times evaluation (age: 39.50±9.75 years, 77 females, 79 recurrences). At each evaluation, all participants completed a self-administered questionnaire. Beck Depression Inventory (BDI) was used to assess depressive symptom.

SPSS28.0 was used for descriptive statistics of all variables. Mplus8.8 was used to conduct latent growth modeling (LGM) of maximum likelihood method for BDI score. Unconditional LGM was used to test the slope significance of BDI score and individual differences in initial level and slope. Gender (1=male, 2=female) and recurrence (1=first episode, 2=recurrence) were added separately into second level of unconditional LGM to construct a conditional LGM to test predictive effects of gender and recurrence on the initial level and slope of BDI score.

Results There was no significant differences among gender and recurrence rate between the missing subjects and the completed subjects. To avoid possible errors caused by data interpolation, 119 subjects were used for LGM analysis. BDI score decreased regularly from t1 to t3 (t1: 3.99±2.84；t2:3.02±3.02；t3:2.45±2.67).Conditional LGM showed goodness of fit (CFI=0.998，TLI=0.995，RMSEA=0.043). BDI score showed a significant linear decreasing trend (Slope=-0.784, p<0.001), indicating that BDI score decreased by 0.784 points every six months. There are significant inter-individual differences in intercept (B=7.462,p<0.001) and slope（B=1.280,p<0.05). Intercept is significantly negatively correlated with slope (r=-0.564, p<0.001). Gender has no significant path coefficient for intercept (γa=0.122,p＞0.05), but can significantly predict slope (γb=0.834,p<0.01). Recurrence did not predict intercept significantly (γa=-0.969,p＞0.05), but can significantly predict slope (γb=1.557,p<0.001). Multi-group comparison of gender's conditional LGM was conducted to analysis the path coefficient (γb) difference of gender to slope of BDI between the recurrence and the first episode, which indicated there is significant difference of between of the recurrence and the first episode. Recurrence's γb=1.226 (p<0.001), indicating that slope of female in recurrence is higher than male. First episode's γb=-0.807(p<0.05), indicating that slope of female in recurrence is smaller than male.

Conclusion BDI score of remitted major depression patients showed linear decreasing trend in one year. The lower the initial BDI score is, the slower the decrease of the score. Both factors of female and relapse have negative effect on BDI score.

关键字：remitted major depressive disorder, gender, recurrence, latent growth modeling

简短认知行为团体治疗对青少年抑郁障碍的临床疗效

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目的 探讨简短团体认知行为治疗对青少年抑郁障碍患者抑郁情绪、焦虑情绪、功能失调性认知、自动思维和应对方式的疗效。

方法 纳入40例来自山西省太原市某三甲精神专科医院，符合《国际疾病分类（第 10 版）》（ICD-10）抑郁障碍诊断标准的青少年患者（年龄 13~18 周岁）。应用随机数字法分为干预组（20人）和对照组（20人）。干预组青少年抑郁障碍患者进行 4 周共 8 次结构化的简短认知行为团体治疗联合抗抑郁药物治疗，对照组青少年抑郁障碍患者单用抗抑郁药物治疗。在基线、第 4 周末分别对干预组和对照组采用汉密尔顿抑郁量表-24（HAMD-24）、汉密尔顿焦虑量表-14（HAMA-14）、功能失调态度量表（DAS）、自动思维问卷（ATQ）简易应对方式量表（SCSQ）进行疗效评估。采用 SPSS 25.0 统计软件对数据进行统计分析。检验水准 α=0.05，P<0.05 认为具有统计学意义。

结果 （1）干预组在 HAMD-24、HAMA-14、DAS、ATQ、消极应对方式评分较治疗前均显著降低（P<0.05），在积极应对方式评分较治疗前显著提高（P<0.05）；观察组在 HAMD-24、HAMA-14、DAS、ATQ 评分较治疗前均显著降低（P<0.05），而在积极应对方式、消极应对方式评分较治疗前差异无统计学意义（P＞0.05）；（2）在 4 周治疗后，干预组 HAMD-24、HAMA-14、DAS、ATQ、消极应对方式评分显著低于观察组（P<0.05），积极应对方式评分显著高于观察组（P<0.05）。

结论 简短认知行为团体治疗可有效改善青少年抑郁障碍患者抑郁和焦虑情绪；简短认知行为团体治疗联合药物治疗可有效改善青少年抑郁障碍患者负性自动思维和功能失调性态度，提高患者积极应对方式倾向和降低消极应对方式倾向，且疗效优于单用抗抑郁药治疗。

关键字：青少年；抑郁；简短认知行为团体；干预研究

医务人员孤独症相关信息知晓情况的现况调查

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目的 了解专科医务人员（精神科、儿科、儿保科）和非专科医务人员（全科、内科、神经科、心理科等）对孤独症相关信息的知晓情况，为进一步开展医务人员的孤独症相关知识培训提供依据。

方法 采用横断面调查法，应用自拟的“孤独症相关信息知晓情况调查表”对 266 名医务人员（172 名专科医务人员和94名非专科医务人员）进行现况调查。

结果 调查发现，两组人群对孤独症相关信息的知晓情况确实存在差异。专科医务人员与非专科医务人员在判断孤独症是否为严重疾病方面，存在差异（p<0.05)；在孤独症主要行为表现是否包括无对视这一表现方面，专科医务人员识别率比非专科医务人员识别率要高，两组存在显著差异（p<0.01)；专科医务人员和非专科医务人员在对孤独症一般知识了解情况方面（孤独症是否属于罕见疾病、孤独症是否大多数存在特殊的能力或才能、孤独症是否多出现在高收入高

教育阶层）存在差异（p<0.05）；专科医务人员和非专科医务人员在选择去就诊的科室方面均存在显著差异（p<0.01）；在对孤独症治疗机构的选择方面：两组人群在选择康复医院、残联康复机构有显著差异（p<0.01），而在民政康复机构选择上存在差异（p<0.05)。

结论 专科和非专科医务人员对孤独症相关信息的认识是不平衡的。两组人群均对孤独症的部分方面的认识仍然存在一些误解。本研究具有一定的临床意义，可以根据本次调查结果对这部分人群进行有针对性的孤独症培训。

关键字：孤独症；信息知晓；现况调查；医务人员

认知行为疗法对失眠的治疗效果：一项伞形综述研究

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目的 认知行为疗法（Cognitive behavioral therapy，CBT）是一种心理社会干预疗法，治疗失眠短期内效果与药物相当，长期效果比药物持久，并且没有药物治疗的依赖性和副作用，是失眠的首选治疗方案，但是仍缺少认知行为疗法治疗失眠的确切量化证据。基于伞形综述的方法，对已发表的 meta 分析中关于认知行为疗法治疗失眠患者的临床效果进行综合评价，为失眠患者临床治疗方案的选择提供循证决策依据。

方法 采双人独立检索文献，文献来源于中国知网数据库、维普数据库、万方数据库、Pubmed、The Cochrane Library、Web of Science，收集认知行为疗法和失 眠人群的 meta 分析，检索时间从各数据库建立起至 2023 年 6 月 15 日。每项研究均由两名研究者独立根据纳入和排除标准进行评估，通过 AMSTAR 对纳入研究的方法学进行评估。

结果 最终纳入 10 篇合格文献。其中，7 篇文献研究结局涉及对失眠严重程度的疗效评价，合并效应值为[MD=-2.95,95CI%（-5.62,-0.28）；SMD=-0.86,95CI%（-0.97，-0.75）]；分别有 3 篇文献涉及对睡眠潜伏期、睡眠总时间、睡眠效率的评价，合并效应值分别为[MD=-9.85 分钟,95%CI（-12.57，-7.12）]、[MD=21.02 分钟,95%CI（11.69,55.54）]、[MD=10.13%,95%CI（6.51%,13.75%）]；有 2 篇文献涉及对匹兹堡睡眠质量指数的评价，合并效应值为[MD=-3.00，95CI%（-3.71，-2.03）]；有 2 篇文献涉及对治疗有效率的评价，合并效应值为[OR=3.25,95%CI（2.41,4.39）]。

结论 认知行为治疗可以缩短睡眠潜伏期，增加睡眠总时间，提高睡眠效率，降低失眠严重程度，即有效减轻失眠患者的的睡眠障碍，可有效治疗失眠。

关键字：认知行为治疗；失眠；伞形综述

甲磺酸齐拉西酮注射液与氟哌啶醇注射液治疗精神分裂症激越症状的疗效对照研究

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目的 分析甲磺酸齐拉西酮注射液与氟哌啶醇注射液治疗精神分裂症激越症状的临床疗效。

方法 选取 2022 年 1 月-2023 年 1 月期间我院收治的精神分裂症激越症状患者 51 例，入选患者随机分为三组，包括 A 组（n=17）、B 组（n=17）和 C 组（n=17）。A 组患者给予甲磺酸齐拉西酮注射液进行治疗，B 组患者给予氟哌啶醇注射液进行治疗，C 组给予甲磺酸齐拉西酮注射液+氟哌啶醇注射液进行治疗。采取 PANSS 评分、PANSS-EC 评分对三组患者治疗前后的激越症状改善效果进行评估，并统计三组患者治疗期间的药物不良反应发生情况，以此评估其治疗安全性。

结果 三组患者治疗前的 PANSS 评分、PANSS-EC 评分，均相当，P>0.05 组间比较差异无统计学意义；三组患者治疗后的 PANSS 评分、PANSS-EC 评分，较治疗前具有明显降低，P<0.05 组内比较差异均具有统计学意义。但三组患者治疗后的 PANSS 评分、PANSS-EC 评分，均相当，P>0.05 组间比较差异无统计学意义。A 组的不良反应发生率，显著低于 B 组和 C 组，P<0.05 组间比较差异均具有统计学意义；B 组和 C 组的不良反应发生率相当，P>0.05 组间比较差异无统计学意义。

结论 甲磺酸齐拉西酮注射液与氟哌啶醇注射液治疗精神分裂症激越症状，均可获得较为显著的激越症状改善效果，但甲磺酸齐拉西酮注射液得不良反应更少，治疗安全性更好。

关键字：甲磺酸齐拉西酮；氟哌啶醇；精神分裂症；激越症状

坦度螺酮与丁螺环酮治疗广泛性焦虑症的效果观察

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目的 观察广泛性焦虑症采用坦度螺酮与丁螺环酮治疗的效果。

方法 选取 2016 年 8 月至 2018 年月收治的广泛性焦虑症患者 58 例，数字随机法分为观察组 29 例，男 15 例，女 14 例，年龄 30~63 岁，平均年龄(46.03±9.87)岁；对照组 29 例，男 17 例，女 12 例，年龄 31~64 岁，平均年龄(45.98±8.89)岁，两组一般资料对比无统计学意义(P>0.05)。对照组采用丁螺环酮治疗，观察组实施坦度螺酮治疗，对比治疗效果、不良反应、焦虑(HAMA)评分、生活质量量表(SF-36)、临床疗效总评量表(CGI)等。

结果 通过统计学处理， 观察组治疗总有效率、生活质量各维度评分、不良反应发生率、HAMA 评分

均优于对照组，对比有统计学意义(P<0.05)；但两组治疗效果、临床疗效评分并无差异，对比无统计学意义(P>0.05)。

结论 本次结果为观察组生活质量评分、不良反应发生率、HAMA 评分均优于对照组，说明坦度螺酮较丁螺环酮更能改善患者的焦虑情绪，生活质量显著提升，安全性较高。但两组治疗效果相近，说明两种药物的治疗效果相当。 综上，坦度螺酮较丁螺环酮的应用价值更高，更值得推广应用。

关键字：广泛性焦虑症；丁螺环酮；坦度螺酮；治疗效果

碳酸锂联合阿立哌唑治疗双相障碍抑郁发作的疗效和安全性

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目的 探讨碳酸锂联合阿立哌唑治疗双相障碍抑郁发作的临床疗效及其安全性。

方法 将 150 例在 2018 年 6 月-2019 年 6 月时间段内我院接诊的双相障碍抑郁发作患者作为研究样本，随机分为观察组和对照组，各组均纳入 75 例患者。对照组单用碳酸锂，观察组则联合应用碳酸锂和阿立哌唑进行治疗。

结果 观察组患者的 HAMD-17 评分，在治疗前与对照组相当，P>0.05 差异没有统计学意义；在治疗 4 周后、治疗 8 周后和治疗 12 周后，均显著低于对照组，P<0.05 差异具有统计学意义。观察组患者的临床治疗总有效率 96.00%，明显高于对照组的 80.00%，P<0.05 差异具有统计学意义。观察组患者的临并发症发生率 29.33%，与对照组相当的 26.67%，P<0.05 差异具有统计学意义。

结论 碳酸锂联合阿立哌唑治疗双相障碍抑郁发作，可明显改善患者的抑郁状态，不仅能够获得更高的临床治疗效果，且具有较高的临床治疗安全性。

关键字：碳酸锂；阿立哌唑；双相障碍；抑郁发作；临床疗效；安全性

丙戊酸钠缓释片联合盐酸齐拉西酮治疗双相情感障碍狂躁发作的临床疗效

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目的 分析丙戊酸钠缓释片联合盐酸齐拉西酮治疗双相情感障碍躁狂发作的临床疗效。

方法 以 2019 年-2020 年期间在我科室治疗的双相情感障碍躁狂发作患者 106 例为研究对象，按照入院顺序奇偶性划分为两组，即观察组和对照组，每组各 53 例。两组患者均给予丙戊酸钠缓释片进行治疗，观察组患者在此基础上同时联合给予盐酸齐拉西酮进行治疗。

结果 相比对照组（73.58%），观察组患者的临床治疗总有效率（90.57%），明显更高，组间比较差异有统计学意义（P<0.05）。两组患者治疗前的 BRMS 评分，均相当，组间比较差异无统计学意义（P>0.05）；两组患者治疗 1 周、3 周和 6 周后的 BRMS 评分，均较治疗前有明显降低，组内间比较差异有统计学意义（P<0.05）；但两组患者治疗 1 周后的 BRMS 评分，组间比较差异无统计学意义（P>0.05）；但治疗 3 周和 6 周后，观察组患者的 BRMS 评分，均显著低于对照组，组间比较差异有统计学意义（P<0.05）。观察组患者的 TMT 评分，显著低于对照组，组间比较差异有统计学意义（P<0.05）；但两组患者的 TESS 评分相当，组间比较差异无统计学意义（P>0.05）。

结论 丙戊酸钠缓释片联合盐酸齐拉西酮治疗双相情感障碍躁狂发作，不仅疗效显著，且能够显著改善患者的躁狂症状、提升患者的认知功能，且不会明显增加患者的脂代谢异常的风险。

关键字：丙戊酸钠缓释片；盐酸齐拉西酮；双相情感障碍躁狂发作

儿童少年期狂躁症状临床特点的对照分析

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目的 本文主要探讨儿童少年期狂躁症的临床特点，为临床治疗和确诊提供参考。

方法 在我院 2019 年 3 月至 2021 年 2 月期间所收治的儿童少年期狂躁症患者中选取 10 例作为此次研究对象，作为观察组，选取同期收治的成年狂躁症患者作为对照组，观察比较两组患者的临床特点。

结果 儿童少年期狂躁症患者早期的症状比较复杂，但是不典型，经常会发生误诊的情况，和成年狂躁症没有本质上的区别，但是儿童少年期狂躁症患者在行为多且破坏性强、注意力不集中等方面明显多于成年狂躁症患者，思维联想加快少于成年狂躁症患者。

结论 儿童少年期狂躁症有特殊的症状和特点，临床医师在诊断时要充分注意，尽量避免发生误诊的情况。

关键字：儿童少年期狂躁症；成人狂躁症；临床特点；误诊

观察阿戈美拉汀与艾司西酞普兰治疗抑郁症抑郁和睡眠症状的效果

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目的 分析阿戈美拉汀与艾司西酞普兰对抑郁症

患者的抑郁症状和睡眠症状的改善效果。

方法 选取 2019 年 06 月至 2020 年 12 月期间在我院治疗的抑郁症患者 98 例，以随机数字表法分为观察组（n=49）和对照组（n=49）。对照组患者口服艾司西酞普兰进行治疗，观察组患者口服阿戈美拉汀进行治疗。

结果 观察组患者的治疗总有效率 79.59%，与对照组的 77.55%相当，P>0.05 比较差异无统计学意义。两组患者治疗前的 HAMD 评分，均相当，P>0.05 比较差异无统计学意义；观察组患者治疗 1 周、治疗 2 周、治疗 4 周和治疗 8 周后的 HAMD 评分，均显著低于对照组，P<0.05 比较差异有统计学意义。两组患者治疗前的 PSQI 评分，均相当，P>0.05 比较差异无统计学意义；观察组患者治疗 1 周、治疗 2 周、治疗 4 周和治疗 8 周后的 PSQI 评分，均显著低于对照组，P<0.05 比较差异有统计学意义。

结论 阿戈美拉汀与艾司西酞普兰治疗抑郁症，能够获得相当的临床治疗总有效率，但相比艾司西酞普兰，阿戈美拉汀对患者的抑郁症状和睡眠质量的改善效果具有显著优势，更具临床应用价值。

关键字：阿戈美拉汀；艾司西酞普兰；抑郁症；抑郁症状；睡眠

医学生同理心与学习倦怠的关系及相关因素

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目的 目的 本研究旨在探讨同理心对医学生学习倦怠的影响及自我效能感在两者之间的中介作用，并探讨宜人性人格在其中的调节作用。

方法 研究采用横断面研究设计，选取河北省某医学高校学生被试640名，使用方便抽样法抽取被试。采用中文版杰弗逊同理心量表医学生版、一般自我效能感量表、大五人格问卷简版（宜人性人格）和大学生学习倦怠量表编制成问卷进行调查。

结果 （1）医学生同理心和学习倦怠得分在性别、年级、生源地和是否为独生子女上没有显著差异；（2）医学生同理心、学习倦怠、自我效能感和宜人性两两间均呈显著相关关系；（3）控制性别、年级等人口学变量后，同理心对学习倦怠负向预测作用显著；（4）自我效能感在同理心与学习倦怠关系间起部分中介作用；（5）宜人性人格既正向调节同理心对自我效能感的预测作用，也正向调节自我效能感对学习倦怠的预测作用；（6）宜人性人格正向调节自我效能感在同理心和学习倦怠间中介效应的前后两条路径。

结论 自我效能感在同理心与学习倦怠关系中起中介作用；宜人性人格对自我效能感在同理心与学习倦怠关系间的中介路径（前后两条路径）有正向调节作用。增加医学生的同理心和自我效能感，可以预防和减少医学生的学习倦怠现象。

关键字：同理心；自我效能感；学习倦怠；宜人性人格；医学生

重性抑郁症患者血浆γ干扰素诱导蛋白 10 水平的研究

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背景 ：最近越来越多研究表明趋化因子在重性抑郁障碍（MDD）的发病中发挥了作用。在本研究中，我们检测了重性抑郁症(MDD)患者和健康对照者（HC）的血浆γ干扰素诱导蛋白 10（CXCL10）的水平，探索了该趋化因子在 MDD 患者和健康人中的水平是否存在差异，以及该趋化因子在 MDD 伴有自杀行为和 MDD 不伴有自杀行为的患者血浆中的水平是否存在差异。

方法 我们研究 25 名健康人和 33 名 MDD 患者，其中 16 名伴有自杀行为，17 名不伴有自杀行为。采用 17 项汉密尔顿抑郁评定量表(HAMD-17)评估重性抑郁症患者的疾病严重程性。通过 Luminex 多因素测定技术检测血浆 CXCL10 水平,两组 CXCL10 样本经过 Kolmogorov-Smirnov 检验满足正态性。采用两独立样本 t 检验分别验证该趋化因子在 MDD 患者和健康人中的水平是否存在差异，以及该趋化因子在 MDD 伴有自杀行为和 MDD 不伴有自杀行为的患者血浆中的水平是否存在差异。并用 Pearson 相关检验评估血浆 CXCL10 水平与抑郁严重程性(HAMD-17)评分的相关性。

结果 重性抑郁障碍组和健康对照组在年龄、性别上没有差异。血浆 CXCL10 在健康对照组和 MDD 组中没有显著差异（P＞0.05）。然而血浆 CXCL10 在 MDD 伴有自杀行为的患者中水平显著高于 MDD 不伴有自杀行为的患者（P=0.046）。并且发现 MDD 患者的血浆 CXCL10 水平与 HAMD-17 评分之间无显著关系。

结论 本研究结果表明，MDD 伴有自杀行为患者血浆 CXCL10 水平明显高于 MDD 不伴有自杀行为组，这提示 CXCL10 可能为识别 MDD 中自杀行为的生物标志物。

关键字：重性抑郁症 血浆γ干扰素诱导蛋白 10

神科住院患者手机使用隐私保护知信行现状的调查研究

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目的 了解住院精神障碍患者手机使用隐私保护知信行的现状，探讨其影响因素，制定相应的防范措施，为精神住院患者在使用社交媒体中的隐私保护护

理提供参考。

方法 采用自制调查问卷通过分层抽样法抽取南京某三甲医院精神科 7 个病房 120 名患者进行问卷调查。问卷包括一般资料和隐私保护相关的知识、态度、行为四部分。

结果 调查对象隐私保护知信行总分为(91.45±20.5263）分，处于较低水平，20%的调查对象知识水平处于中等水平，44.17%的调查对象知识水平较差；15.83%的调查对象态度达到良好，42.50%的调查对象态度较差；1.67%的调查对象行为达到良好，69.17%的调查对象行为较差；相关性分析发现，知识与年龄相关系数 r=0.414(P<0.01)；知识与文化程度相关系数 r=0.693(P<0.01)；知识与婚姻状况相关系数 r=0.309(P<0.01)；态度与年龄相关系数 r=0.443(P<0.01)；态度与诊断相关系数 r=-0.225(P<0.05)；态度与居住情况相关系数 r=0.218(P<0.05)；态度与婚姻相关系数 r=0.289(P<0.01)；行为与年龄相关系数 r=0.275(P<0.01)；行为与诊断相关系数 r=-0.442(P<0.01)；行为与居住情况相关系数 r=0.220(P<0.05)；行为与婚姻相关系数 r=0.244(P<0.01)。

结论 精神科住院患者知信行总分为较低水平，调查对象知识水平较差，被调查患者的隐私保护知识水平亟待提高。相关性分析发现，知识与年龄、文化程度、婚姻状况均为显著相关；态度与年龄为显著相关；态度与诊断、居住情况相关；行为与年龄、诊断、婚姻为显著相关；行为与居住情况相关。根据住院精神障碍患者隐私保护的现状，结合知信行理论模式，为医疗机构规范住院精神障碍患者隐私保护的认知、信念／态度、行为方面提供科学、严谨的调查工具，帮助精神科医疗机构分析住院精神障碍患者隐私保护知信行现状及影响因素，从而有针对性地完善制度与科学管理，可提升护理服务的满意度，实现患者、护士、医院、社会的多赢局面，推动护理事业的可持续发展，对构建和谐的住院环境具有重要的现实意义。

关键字：精神障碍；手机使用；隐私保护；知信行；影响因素分析

强迫症视觉空间工作记忆与静息态脑自发活动的功能磁共振成像研究

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目的 研究发现强迫症存在视觉空间工作记忆缺陷，但较少有研究关注这一缺陷的特点及其脑功能活动的特点，本研究拟探讨不同视空间工作记忆表现的强迫症在认知领域和临床症状上的差异及其脑功能活动的特点。

方法 共纳入 115 例强迫症患者和 48 例健康对照，依据视觉空间工作记忆分数的常模标准，将强迫症患者分为视觉空间工作记忆分数低于常模标准（LO-OCD，n＝65）和高于常模标准（HI-OCD，n＝50）的 2 个亚组。采用认知功能成套测验共识版（MCCB）测试认知功能；接着，利用 ALFF 和 FC 指标比较两组之间激活脑区和功能连接的差异，并分析其与临床症状的关系。

结果 （1）LO-OCD 组中 OCI-R 的强迫思维评分高于 HI-OCD 组；HI-OCD 组在 BACS-SC、NAB Mazes 和 BVMT-R 测验中分数高于 LO-OCD 组，并且在 CPT-IP 测验中分数高于健康对照组，其中 HI-OCD 组在注意/警惕领域的分数高于健康对照组，差异有统计学意义（p＜0.05）；（2）与 HI-OCD 组相比，LO-OCD 组在右侧楔前叶 ALFF 值增高，在右侧岛盖部额下回、右侧缘上回和左侧顶下缘角回 ALFF 值降低，左侧顶下缘角回的 ALFF 值与 OCI-R 的排序维度评分呈负相关（r=-0.434, p=0.01）；与健康对照组相比，LO-OCD 组在右侧额中回和左侧枕中回 ALFF 值增高，在左侧顶下缘角回和右侧顶下缘角回/顶上回 ALFF 值降低；HI-OCD 组在右侧额中回、右侧眶部额下回和左侧颞中回 ALFF 值升高，在左侧额中回、左侧背外侧额上回和右侧顶上回 ALFF 值降低，左侧颞中回的 ALFF 值与 BAI 评分呈正相关（r=0.373, p=0.042）；（3）以左侧顶下缘角回为种子点，与 HI-OCD 组相比，LO-OCD 组在右侧内侧额上回的功能连接增强；以左侧背外侧额上回为种子点，与健康对照相比，LO-OCD 组在左侧顶上回的功能连接减弱；与健康对照相比，以右侧楔前叶为种子点，HI-OCD 组在右侧三角部额下回的功能连接减弱；以左侧枕中回为种子点，HI-OCD 组在右侧额中回的功能连接减弱。

结论 部分强迫症在视觉空间工作记忆中表现更好，这部分患者在注意/警惕领域表现较好，并且临床症状也更轻；不同视觉空间工作记忆表现的强迫症患者异常激活脑区和功能连接存在差异，并且脑区的异常激活与对称/排序症状和焦虑程度的增加有关。

关键字：强迫症，视觉空间工作记忆，认知功能，静息态功能磁共振

强迫症认知行为治疗疗效及疗效与认知功能的关系

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目的 强迫症（OCD）是一种常见的致残性疾病，认知行为治疗是强迫症指南推荐的一线治疗方案。本研究开展强迫症的循证认知行为治疗，通过治疗前后的量表及认知测验对比，探究认知行为治疗疗效以及疗效与认知功能的关系。

方法 于 2021 年 3 月至 2022 年 11 月在南京医科大学附属脑科医院强迫症专病门诊就诊的 54 名患者参与了心理治疗，通过海报及公众号招募与强迫症组性

别、年龄相互匹配的健康对照组 57 例。编制 16 次认知行为治疗方案，使用自制一般情况调查表、国际神经精神科简式访谈问卷（M.I.N.I.）、耶鲁-布朗强迫量表（Y-BOCS）、强迫症症状分类量表-修订版（OCI-R）、贝克焦虑量表（BAI）、贝克抑郁量表第 2 版（BDI-II）、席汉残疾量表（SDS）进行基本信息收集、共病排查，临床症状和情绪状态评估；使用公认认知成套测验（MCCB）评估认知功能。收集治疗前、治疗中及治疗后患者的量表数据，分别在治疗前、治疗后进行认知功能评估。比较治疗前后量表及认知功能的差异，评估认知行为治疗疗效并进一步探究认知功能与疗效的关系。

结果 参加心理治疗患者的处理速度、推理和问题解决能力得分显著低于健康对照组，注意/警觉得分显著高于健康对照组；治疗后患者的 Y-BOCS、OCI-R、BDI、BAI、SDS 得分均显著下降，词语学习、视觉学习、推理和问题解决、整体认知功能和神经认知功能得分显著高于治疗前；治疗后患者在注意/警觉和词语学习上的得分显著高于健康对照，其他认知功能与健康对照没有显著差异。治疗有效与治疗无效患者的基线认知功能没有显著差异，仅发现了工作记忆对疗效的较小的负向预测作用。

结论 强迫症患者存在部分认知功能受损，包括处理速度和推理和问题解决能力，但是注意/警觉能力较健康对照更强。这些认知功能障碍与症状严重程度之间无显著相关。编制的认知行为治疗方案具有一定适用性，在减轻强迫症状、焦虑、抑郁情绪及对社会功能的影响方面都有显著疗效。经过治疗后患者的认知功能恢复到正常水平，基线较好的工作记忆能预测治疗后较低的 Y-BOCS 得分，其他认知功能对治疗疗效无预测作用。

关键字：强迫症；认知行为治疗；认知功能；MCCB

强迫症认知行为治疗依从性与疗效的相关研究

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目的 强迫症是一种常见的慢性波动性精神障碍，目前国内外指南推荐以暴露与反应阻止(exposure and response prevention， ERP)为主的认知行为治疗(cognitive behavior therapy，CBT)作为强迫症的一线治疗手段。并不是所有的患者在治疗结束时都能获得最佳疗效，探寻强迫症 CBT 疗效相关的过程性因素逐渐受到研究人员关注，其中依从性是 CBT 疗效的一种有效的预测因子。本研究旨在编制适用于强迫症患者的以 ERP 为主的 CBT 依从性调查工具，在治疗期间动态探索，从治疗师与患者双方评估，研究治疗依从性与疗效的交叉滞后关系，为提高强迫症患者治疗依从性及 CBT 的利用效率提供理论证据和实践支撑。

方法 本研究在南京医科大学附属脑科医院共招募强迫症者 52 例，其中 39 例患者完成 16 次 8 周治疗，13 例患者未完成治疗。对已经完成治疗患者的依从性进行回顾性评估，对正在治疗的患者严格按照时间节点进行评估。对中途退出的患者进行回顾性评估，并对其退出的原因进行研究。

结果 第一次测量的强迫症状严重程度显著影响第二次测量的治疗间依从性总分(β= -0.205，$p < 0.05$)，而第二次测量的治疗间依从性总分显著影响第三次测量的强迫症状严重程度，(β= -0.314，$p < 0.05$)；而第一次测量的治疗间依从性总分对第二次测量的强迫症状严重程度影响不显著，第二次测量的强迫症状严重程度对第二次测量的治疗间依从性总分影响不显著。第一次测量的强迫症状严重程度显著影响第二次测量的治疗间依从性质量(β= -0.117，$p < 0.05$)，而第二次测量的治疗间依从性质量显著影响第三次测量的强迫症状严重程度，(β= -0.815，$p < 0.05$)，而第一次测量的治疗间依从性质量对第二次测量的强迫症状严重程度影响不显著，家庭作业第二次测量的强迫症状严重程度对第三次测量的治疗间依从性质量影响不显著。

结论 治疗间依从性、治疗间依从性质量维度均与疗效存在交叉滞后关系：在 16 次治疗过程中，经过 4 次治疗后强迫症状越严重，5~8 次治疗间依从性及其质量维度越差，进而导致治疗结束后疗效越差。因此，早期症状改善能对之后患者的依从性及最终预后产生影响。

关键字：强迫症，暴露反应阻止治疗，认知行为治疗，依从性

强迫症认知行为治疗工作联盟与疗效的关系：依从性的中介作用

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目的 强迫症是一种常见的慢性波动性精神障碍，目前国内外指南推荐以暴露与反应阻止(exposure and response prevention， ERP)为主的认知行为治疗(cognitive behavior therapy，CBT)作为强迫症的一线治疗手段。并不是所有的患者在治疗结束时都能获得最佳疗效，探寻强迫症 CBT 疗效相关的过程性因素逐渐受到研究人员关注，其中依从性、工作联盟任务维度均是 CBT 疗效的有效预测因子。本研究旨在从治疗师与患者双方评估，探究工作联盟、依从性与 CBT 治疗疗效的关系，为提高强迫症患者 CBT 的利用效率提供理论证据和实践支撑。

方法 本研究在南京医科大学附属脑科医院专病门诊及住院部完成 8 周 16 次治疗的强迫症者 39 例，对治疗过程中患者的依从性、治疗联盟进行回顾性评估，对正在治疗的患者严格按照时间节点进行评估。

结果 以治疗师评分的工作联盟任务维度得分为自变量(X)，治疗间依从性量表总分为(M)，YBOCS 得分为(Y)构建中介模型，结果：95%置信区间为[-0.919, -0.048]，系数 c'不显著($p > 0.05$)，中介效应成立，且呈完全中介，效应量为-0.426；在以治疗间依从性质量维

度得分为中介变量的模型中，95%的置信区间为[-1.093，-0.145]，c’不显著，同样存在完全中介效应，效应量为-0.566。治疗间依从性中介了工作联盟和疗效。

结论 治疗师对工作联盟的任务维度评分越高，治疗间依从性、治疗间依从性的质量越好，进而治疗后患者的强迫症状严重程度越低，CBT 疗效越好。

关键字：强迫症，暴露反应阻止治疗，认知行为治疗，依从性，工作联盟

大一新生精神病风险综合征的早期识别及症状特征

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目的 研究大一新生精神病风险综合征的早期识别及症状特征。

方法 选取 2019 年 11 月-2019 年 12 月 1494 名九江学院大一新生为筛查对象，以 PQ-16＞6 分且通过 SIPS 访谈后诊断为 PRS（精神病风险综合征）69 例为 PRS 组，PQ-16＞6 分但通过 SIPS 访谈未诊断 71 例为 PRS 的为非 PRS 组。比较两组精神病风险综合征早期识别情况，精神病风险综合征的类型，精神病风险综合征的症状特征。

结果 PRS 组新生精神病风险综合征早期检出率 5.79%高于非 PRS 组 0.00%（P＜0.05）；PRS 组诊断类型共诊断 69 例，其中 APSS 类型 67 例，比例为 97.1%；GRDS 类型 2 例，比例为 2.9%，同时具有 APSS 和 GRDS 两种类型 2 例，比例为 2.9%。PRS 组 SOPS 评分均高于非 PRS 组（P<0.05）。

结论 大一新生群体中存在一定比例的精神病风险综合征个体，早期识别尤为重要，需要社会家庭学校医院的重点关注。

关键字：精神病风险综合征；PQ-16；PRS；精神病类型

加速度计测量的睡眠时长与心血管疾病发生和心血管死亡的关联

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目的 关于短睡眠和/或长睡眠时长是否与心血管疾病（CVD）风险有关一直存在争议。大多数现有的研究基于自我报告的睡眠时间。本研究旨在确定加速度计测量的睡眠时长与发生 CVD 和相关死亡风险之间的关联。

方法 本研究包括来自英国生物银行的 92,261 名参与者（平均年龄：62.4±7.8 岁，其中 56.4%为女性）。研究使用佩戴在手腕上的加速度计在七天内测量了平均每日睡眠时间。睡眠时长分为短睡眠（<7 小时/天）、正常睡眠（7-9 小时/天）和长睡眠（>9 小时/天）。通过医院记录或死亡登记确定了 CVD 发病率和相关死亡率。

结果 在中位随访期为 7.0 年的时间内，共有 13,191 名参与者发生了 CVD，1,079 名参与者死于 CVD。与正常睡眠时长相比，加速度计测量的短睡眠时长而不是长睡眠时长与发生总体 CVD（HR 1.06 [95% CI 1.02–1.10]）、相关死亡（HR 1.29 [95% CI 1.14–1.46]）、冠心病（CHD）（HR 1.11 [95% CI 1.03–1.19]）、心肌梗死（MI）（HR 1.14 [95% CI 1.03–1.26]）、心力衰竭（HF）（HR 1.20 [95% CI 1.08–1.34]）和心房颤动（AF）（HR 1.15 [95% CI 1.07–1.24]）的风险更高。观察到加速度计测量的睡眠时长与 CVD 发生之间呈现曲线剂量反应模式（Poverall < 0.001），并且发现了 L 型关联与总体 CVD 以及相关死亡之间的关联。

结论 加速度计测量的短睡眠时长与 CVD 发病率和相关死亡率的风险增加有关，而长睡眠时长与这些风险没有显著关联。保持足够的睡眠时长可能有助于促进心血管健康。

关键字：睡眠时长，心血管疾病，死亡率，英国生物银行

伴有童年创伤青少年抑郁症弥散张量成像的初步研究

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目的 本研究主要通过弥散张量成像（DTI）技术进行影像学数据采集，对所采集到的数据再利用基于纤维束示踪的空间统计学（TBSS）分析脑白质的各向异性分数（FA），探讨童年创伤对抑郁症患者脑白质的影响，识别伴童年创伤抑郁症患者脑白质异常的脑区，深入了解该种疾病发病的潜在神经影像学机制，提高对其的认识，为临床对该病的诊断、治疗及预防提供科学依据。

方法 样本选自在遵义医科大学附属医院就诊的青少年患者，总数为 30 例，且都满足精神障碍诊断与统计手册（第 5 版）抑郁症诊断标准。同时，随机入组 15 例青少年作为健康对照。使用自编的一般情况问卷开展一般资料的采集工作，使用汉密尔顿抑郁量表（HAMD）评估抑郁症状的严重程度，使用童年创伤问卷评估研究对象是否伴有童年创伤，根据诊断及量表评估的结果，将研究对象分为伴童年创伤抑郁症组（A 组）、不伴童年创伤抑郁症组（B 组）及健康对照组（C 组）。应用 DTI 技术对所有入组对象进行磁共振扫描，利用 TBSS 的方法对 FA 进行对比分析，总结出三组研究对象的 FA 差异。

结果 A、B、C 三组间的性别、年龄、受教育年限没有差异，A、B 两组间的 HAMD 分值没有差异（P＞0.05）。与 B 组相比，A 组 FA 值减低的脑区包括：

胼胝体体部、胼胝体压部、右侧辐射冠上部以及右侧上纵束（P<0.05）。与 C 组相比，A 组 FA 值减低的脑区包括：右侧海马、右侧放射冠后部、左侧放射冠上部、右侧放射冠上部、右侧上纵束（P<0.05）。与 C 组相比，B 组 FA 值减低的脑区包括：左侧内囊后肢前部、右侧内囊后肢前部、胼胝体体部、左侧海马、左侧小脑下脚、右侧放射冠后部、左侧辐射冠后部、右侧后丘脑辐射以及左侧辐射冠上部（P<0.05）。

结论 与对照组相比，伴童年创伤抑郁症患者的部分脑区存在白质微观结构的差异（表现为较低的 FA 值），未来需要更全面深入的研究，以更好地揭示抑郁症患者合并童年创伤的脑白质微观结构的影像学标志。

关键字：抑郁症；童年创伤；弥散张量成像；青少年

跨诊断 CBT 治疗可以显著减轻失眠人群的抑郁症状

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目的 抑郁症通常继发于长期的失眠，此前有研究指出失眠人群是抑郁症的高发人群，在失眠人群中进行情绪症状的干预或许可以显著降低其后期转化为抑郁症的风险。然而，心理疗法在中国运用较少，缺乏足够的实证研究揭示其在失眠人群中的应用效果。因此，本研究试图进一步探究并且证实心理疗法在特殊人群中的效用。

方法 在长沙一所大学招募被试。共纳入 81 名达到临床失眠标准的被试，其中实验组 44 名被试接受 7 周的情绪障碍跨诊断 CBT 治疗，对照组 37 名被试不接受任何的心理治疗。分别在被试基线阶段， 4 周，7 周以及 11 周随访阶段测量被试的情绪症状以及失眠症状，采用广义线性方程比较两组随着时间变化的情绪症状以及失眠现象的差异。治疗结束后收集实验组被试对于治疗方法的满意度的评估。

结果 相对于对照组，实验组的抑郁症状随着治疗次数的增加显著改善，但是随着治疗次数的增加，实验组和对照组的焦虑及失眠症状并没有显著差别。实验组被试报告了情绪障碍跨诊断 CBT 治疗具备良好的满意度。

结论 情绪障碍跨诊断 CBT 治疗可以显著改善失眠人群的抑郁症状，并且中国人群对于这一疗法的满意度和接受性较好，在中国进行跨诊断 CBT 治疗的推广和应用是具有一定的临床应用价值的。

关键字：认知行为治疗；抑郁症状；失眠人群

反刍思维和问题解决在抑郁障碍青少年生活事件和非自杀性自伤间的中介作用

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目的 探讨生活事件对抑郁障碍青少年非自杀性自伤的影响，以及反刍思维和问题解决在生活事件和非自杀性自伤之间的中介作用。

方法 采用青少年自评生活事件量表 (ASLEC)、社会问题解决量表 (SPSI-R) 、反刍思维量表（RRS）、青少年非自杀性自伤行为评定问卷对某三甲医院心理门诊收治的 406 名首诊抑郁障碍青少年进行调查研究。

结果 406 例抑郁障碍青少年中有 399 例有自伤行为，占比 98%。生活事件评分为(52.183±19.921)分，非自杀性自伤评分为(53.995±19.923)分，反刍思维评分为(60.921±12.751)分，问题解决评分为(92.163±16.364)分，生活事件与非自杀性自伤和反刍思维呈显著正相关(r=0.491、0.577，均 P<0.01)，与问题解决呈显著正相关(r=0.123,P<0.05)；反刍思维与非自杀性自伤、问题解决呈显著正相关(r=0.525、0.254，均 P<0.01)；问题解决与非自杀性自伤呈显著正相关(r=0.219,P<0.01)。生活事件对非自杀性自伤的直接效应值为 0.285(95%CI=0.187~0.382)，生活事件通过两条路径间接影响非自杀性自伤，反刍思维的单独中介效应值为 0.193(95%CI=0.121~0.267)，反刍思维和问题解决的链式中介作用效应值为 0.015(95%CI=0.002~0.036)。

结论 生活事件不仅直接作用于非自杀性自伤，并且可以通过反刍、问题解决间接作用于自杀意念。

关键字：抑郁青少年 反刍 问题解决 生活事件 非自杀性自伤

大学新生童年创伤对抑郁情绪的影响：家庭功能与心理弹性的链式中介作用

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目的 探索我国大学新生群体童年创伤、家庭功能、心理弹性和抑郁情绪之间的关系，并考察家庭功能和心理弹性在童年创伤与抑郁情绪之间的作用机制，为精神障碍的早期预防提供有价值的信息。1.分析一般人口学资料、童年创伤、家庭功能、心理弹性及大学生抑郁情绪之间的关系，为大学生心理健康干预提供理论基础及新的思路。2.探讨童年创伤与中国大学生抑郁情绪的关系，以期建立家庭功能及心理弹性在童年创

伤和抑郁情绪之间的链式中介作用模型，为深入理解童年创伤所致抑郁症的机制提供依据，促进大学生心理健康的发展。

方法 本研究使用便利抽样的方法选取中国八所大学的共 1075 名大学新生开展线上问卷调查，进行童年创伤问卷（CTQ-33）、抑郁量表（PHQ-9）、家庭功能量表、心理弹性量表（CD-RISC-10）的测量和评估，采用 SPSS 25.0 统计软件进行相关及链式中介效应分析。

结果 童年创伤程度越高的学生，其抑郁得分越高，而家庭功能得分和心理弹性得分越低 (p 均 < 0.001)；家庭功能和心理弹性与童年创伤、抑郁情绪分别呈显著负相关 (p 均 < 0.001)；链式中介的结果显示，通过家庭功能、心理弹性的中介作用及家庭功能和心理弹性的链式中介效应，童年创伤不仅能对大学新生的抑郁情绪产生直接影响，还可产生间接影响 （置信区间不含 0， P < 0.001）。

结论 童年期创伤既可以直接影响大学新生抑郁水平,也可以通过家庭功能、心理弹性以及家庭功能-心理弹性的链式中介效应间接影响，改善家庭功能可能能够通过提高大学新生个体的心理弹性水平，继而缓解童年期创伤对抑郁情绪的负性影响。

关键字：大学新生；童年创伤;抑郁;家庭功能;心理弹性;链式中介效应

一例针对失眠障碍伴焦虑症状患者的手册式强化失眠认知行为治疗个案报告

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目的 在自编强化失眠认知行为治疗手册的框架下对 1 例 44 岁失眠障碍伴焦虑症状的女性患者进行一对一、面对面心理治疗并构建个案概念化；呈现关键治疗过程并总结治疗经验，为探索失眠障碍伴焦虑症状患者的心理治疗方法及改进结构式强化失眠认知行为治疗手册提供临床实践。

方法 采用自编强化失眠认知行为治疗手册，对患者进行一次 1.5h 的初始评估及 8 次（每次 1h）的正式治疗。使用匹兹堡睡眠质量指数量表（PSQI）、汉密尔顿抑郁量表（HAMD-17）、汉密尔顿焦虑量表(HAMA)、睡眠功能失调信念与态度量表（DBAS-16）在治疗前、2 周、4 周、8 周、12 周对患者进行症状与信念的评估。使用睡眠日记记录个案治疗全程的睡眠数据如睡眠总时长，睡眠效率等。

结果 患者失眠症状、抑郁、焦虑症状均有明显改善。患者治疗结束后 PSQI 减分率为 58%，无焦虑症状（HAMA 总分为 5 分）及抑郁症状（HAMD-17 总分为 4 分），DBAS-16 总分上升，睡眠信念改善。睡眠时长增加 1.15h，睡眠效率增加至 91.05%。

结论 强化失眠认知行为治疗手册能够有效地指导失眠障碍伴焦虑症状患者的心理治疗，可有效改善患者失眠症状、抑郁、焦虑症状。

关键字：强化失眠认知行为治疗；治疗手册；个案概念化；个案研究

焦虑障碍研究协作组

重性抑郁障碍和双相障碍基于体素的点度中心度的比较研究

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目的 有研究报道 1/4 的双相障碍（Bipolar disorder, BD）患者被误诊为重性抑郁障碍（Major depressive disorder, MDD），因此临床上需要更多的临床信息或客观指标才能对两种疾病进行准确的鉴别诊断。本研究中，我们对 MDD 患者进行随访，以筛查转躁患者（基线尚未出现躁狂或轻躁狂症状，随访后确诊为 BD），并在基线采集静息态功能磁共振（Resting state functional magnetic resonance imaging, rs-fMRI），比较 MDD 和转躁患者之间的全脑范围的功能异同，为两种疾病的早期鉴别提供影像学基础。

方法 本研究共纳入 40 名 MDD，41 名转躁患者，40 名健康对照（Healthy control, HC）。基线采集所有受试者的 rs-fMRI 数据。患者组均经过随访，MDD 患者平均随访时间超过 3 年，转躁患者为随访过程中发现躁狂或轻躁狂症状，符合 DSM-IV 中 BD 的诊断标准，且经过至少一名副高级别精神科医生确诊的患者。HC 组与患者组的年龄、性别、学历年相匹配。使用基于体素的点度中心度（Voxel-based degree centrality, DC）对两种疾病的大脑功能的异同进行检测。

结果 单因素方差分析显示三组之间的差异主要在额叶和顶叶脑区。事后检验结果显示，与 HC 和 BD 患者相比，MDD 患者在左侧大脑半球的中央后回、中央前回、顶下小叶、额中回、缘上回、额下回存在 DC 值增高（P<0.05, Bonferroni 校正），而 BD 和 HC 在以上脑区没有统计学差异（P>0.05）。与 HC 和 MDD 患者相比，BD 患者在右侧大脑半球的中央后回、中央前回、顶下小叶、额中回、缘上回、额下回存在 DC 值降低（P<0.05, Bonferroni 校正），而 MDD 和 HC 在以上脑没有统计学差异（P>0.05）。

结论 两种情感障碍在疾病早期表现出大脑功能差异可能为两种疾病的早期鉴别提供影像学研究基础。

关键字：重性抑郁障碍；双相障碍；随访；功能磁共振；点度中心度

慢性酒精戒断期患者既往烟草使用、时间知觉、跨期决策的特征及对复饮的影响

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目的 酒精依赖是一种反复发作性的慢性脑部疾病，其慢性戒断期各种生物、心理和社会因素均可能导致复饮的发生。预防复饮则成为治疗酒精依赖的亟待解决的关键问题。本研究拟通过分析酒精依赖患者既往烟草使用、慢性戒断期内时间知觉及跨期决策和相关因素对复饮的影响，从而为预防复饮的发生提供科学依据。

方法 本研究采用病例对照研究的方法，对健康对照被试者 42 名(HC 组)和慢性戒断期的酒精依赖患者(AD 组)64 名进行评估和分析。AD 组则根据吸烟指数(SI)分为伴轻度吸烟行为的(LS 组)22 名、伴重度吸烟行为的(HS 组)42 名。临床研究用酒依赖戒断评估量表(CIWA-Ar)进行入组筛查；在酒精戒断慢性期初期（14+2d），使用自制调查表收集人口学资料及酒精使用情况，采用匹兹堡睡眠质量指数量表(PSQI)、贝克抑郁量表(BDI)、贝克焦虑量表(BAI)、宾夕法尼亚酒精渴求量表(PACS)、巴瑞特冲动性量表(BIS)评估被试睡眠质量、焦虑、抑郁、酒精渴求、冲动性程度。应用时间再现任务(TRT)评估感知计时能力，其指标持续时间再现比(Drr)、变异系数(CV)反映再现时间段的准确性、变异性；应用时间辨别任务(TDT)评估运动计时能力，其指标斜率(b)、主观相等点(c)反映辨别时间段长短的敏感性、准确性；应用延迟折扣任务(DDT)评估被试跨期决策特征，其指标延迟折扣率(k)反映决策的即时性偏好。于 AD 组酒精戒断 3 个月（90+3d）后时进行电话随访以调查其复饮情况。

结果 酒精依赖患者戒断后 3 个月的复饮几率为 51.6%，伴重度吸烟行为酒精依赖患者戒断后 3 个月的复饮几率为 61.9%，显著高于伴轻度吸烟行为酒精依赖患者戒断后 3 个月 31.8%的复饮率(X2=6.112, P<0.05)；PSQI、BDI、BAI、PACS、BIS 得分与时间知觉、跨期决策所有指标均未发现显著相关性；多因素分析发现跨期决策指标 k 值是酒精依赖复饮发生的危险因素之一(OR=1.383, P<0.05)。

结论 既往的重度吸烟行为和慢性戒断期跨期决策的偏向可能是复饮的危险因素之一。

关键字：慢性酒精戒断，复饮，烟草，时间知觉，跨期决策

Effectiveness of Telephone Interview on Screening Benzodiazepines Dependence in Outpatient Clinic

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Objective Benzodiazepines, a typical kind of anxiolytics, is often useful for anti-anxiety, sedative, insomnia and anti-epilepsy. It has been widely used in clinical practice, although there are more cases with dependence in these users. To investigate the effect of telephone interview based on structured interview outline on screening benzodiazepines dependence in the outpatient department.

Methods Average Daily Maximum Dose (ADMD)

was used to screen out the suspected benzodiazepines dependence population in the people who prescribed the benzodiazepines tablets in outpatient clinic, and 40 patients were selected by random number table method for telephone interview based on structured interview outline, and on-site assessment and diagnosis. The patients were evaluated by Benzodiazepines Dependence Questionnaire (BDEPQ) and diagnosed by International Classification of Diseases 10th Revision (ICD-10). Kappa test was used to compare and analyze the consistency among standardized interview outline and doctor's diagnosis and scale evaluation, and Fisher's exact probability method was used to evaluate the difference.

Results The telephone interview method based on the structured interview outline had a good consistency with BDEPQ scale evaluation (Kappa =0.773), the positive coincidence rate was 96.55%, the negative coincidence rate was 77.78%, and the total coincidence rate was 92.11%. There was no significant difference in positive detection rate between the two groups by Fisher's exact probability method (P > 0.05). The telephone interview also had a good consistency with on-site diagnosis based on ICD-10(Kappa =0.751), the positive coincidence rate was 93.55%, the negative coincidence rate was 85.71%, and the total coincidence rate was 92.11%. The difference was not statistically significant by Fisher's exact probability method (P > 0.05).

Conclusion The telephone interview method based on structured interview outline can effectively screen out the BZDs dependence patients, which is a simple method and is worth popularizing.

关键字：Benzodiazepines; Outpatient Prescriptions; Drug Dependence; Structured interview；Telephone

高职毕业生领悟社会支持与就业焦虑的关系：心理资本的中介作用

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目的 政府工作报告提出“高职扩招百万”的决定，导致高职生数量大幅度增加。受新冠疫情的影响，企业由于市场经济原因，用人需求减少。对于高职毕业生群体而言，由于在入学门槛、院校声誉、学历层次、社会认可、等方面的劣势，使得一定时期高职毕业生在劳动力市场当中处于弱势地位。这就导致高职毕业生在就业问题上存在着焦虑的状态。研究表明社会支持被认为是压力影响的中介和调节因素，而压力是造成焦虑的原因之一，领悟社会支持和心理资本都对焦虑症状成显著负相关。本研究探讨社会支持对高职毕业生就业焦虑水平的影响，以及心理资本在两者之间的中介效应。为高等职业院校缓解毕业生就业焦虑提供方向。

方法 本次研究为横断面研究，以方便取样的方式，向泰安市某高职学校 23 级毕业生发放《领悟社会支持量表》、《心理资本问卷》、《就业焦虑诊断量表》量表，测量研究对象的领悟支持、心理资本、就业焦虑水平。

结果 高职生领悟社会支持对应量表标准处于中间支持状态，心理资本水平高于理论均值，就业焦虑水平中等偏高。女生就业焦虑得分高于男生，男生的心理资本高于女生。心理资本在父母婚姻状况上有显著性差异（F=5.03,p＜0.01）。社会支持（F=2.25,p＜0.05)、心理资本（F=2.79,p＜0.05)在母亲受教育状况上存在差异。心理资本（F=2.94,p＜0.05)、就业焦虑（F=3.47,p＜0.001)在家庭月可支配收入状况上存在差异。根据中介效应检验结果，自变量社会支持对因变量就业焦虑存在显著的影响关系（β=－0.452，P＜0.001），说明总效应成立。自变量社会支持对中介变量心理资本存在显著的影响关系（β=0.513，P＜0.001），社会支持（β=－0.215，P＜0.001）和心理资本（β=－0.461，P＜0.001）都对于就业焦虑有显著的影响效果，说明高职生心理资本在领悟社会支持和就业焦虑之间起部分中介作用。通 Bootstarp 技术对中介作用进行检验，可以看出间接效应值-0.237，95%置信区间[-0.336 ,-0.147]不包括 0，间接效应成立。根据效应占比计算结果可以看出，积极心理资本的间接效应的占比为 52%，直接效应的占比为 48%。

结论 领悟社会支持与心理资本呈显著正相关，与就业焦虑呈显著负相关，心理资本与就业焦虑呈显著负相关．心理资本在领悟社会支持与就业焦虑间起部分中介作用。

关键字：高职生；领悟社会支持；积极心理资本；就业焦虑

伴有非自杀性自我伤害的抑郁障碍患者的家庭功能初步研究

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目的 运用家庭功能评定量表评估伴有非自杀自我伤害的抑郁障碍患者的家庭功能。

方法 将伴有非自杀性自我伤害（non-suicidal self-injury, NSSI）抑郁障碍的患者及其家属设为观察组，不伴有 NSSI 的抑郁障碍的患者及其家属设为对照组，运用家庭功能评定量表（Family assessment device，FAD），对比两组间患者及其家属以及组内患者和家属间对家庭功能描述的异同，寻找 NSSI 家庭功能潜在问题。

结果 两组患者及其家属 FAD 各项评分无统计学差异，但与对照组相比，观察组患者与家属之间，对自身家庭的问题解决、沟通及总体功能健康程度的评价差于家属的评价，差异具有统计学意义(P<0.05)。

结论 无论青少年抑郁障碍患者是否伴有非自杀性自我伤害，其家庭的功能可能比较相似，但伴有非自杀性自我伤害的抑郁障碍患者对家庭功能中问题解决、沟通及总体功能的不满意较其家属明显，对家庭的角色、情感反应、情感介入、行为控制等的评价和家属相

当。而不伴有非自杀性自我伤害的抑郁障碍的患者对家庭功能的评价和其家属相当。伴有非自杀性自我伤害患者所评价的家庭问题解决、沟通及总体功能方面等的“内在现实”和其家属评价的“外在现实”存在差异。

关键字：非自杀性自我伤害，抑郁障碍，家庭功能，家庭功能评定量表，家属

内隐认知对非自杀自伤患者自杀行为的前瞻性预测的研究

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目的 非自杀性自伤（Non-suicidal Self-injury，NSSI）发病率逐年增高，社会负担重，除了其本身的危险性外，还可能是未来自杀行为的危险因素。内隐联想测验可以前瞻性预测未来的 NSSI 的频率及严重程度，同时可以预测未来的自杀行为。但其在多大程度及多长随访期能预测自伤自杀行为，目前尚没有统一的结论。在这里，我们对内隐联想测验在自杀评估中的有效性进行了系统回顾。

方法 以“非自杀性自伤”或含“非自杀性自伤”并且“内隐联想测验”、“内隐认知”为检索关键字在中国知网、万方和维普数据库进行检索，以“ non-suicidal self-injury”或“deliberate self-harm” 或“self-mutilation”并且“implicit association”为关键字在 PsycINFO、Embase、Web of Science 和 Pubmed 数据库进行检索,时间范围为至 2023 年 1 月。两位作者对研究进行了独立评审。评价者之间的一致性通过组内相关系数来衡量。

结果 通过上述检索策略共检索出 189 篇文献。经过筛选、全文综述和研究选择，最终纳入 9 篇文献。系统评价研究显示，（1）所有研究都探讨了目前的非自杀性自伤行为与过去或未来自杀行为的关系；（2）参与 NSSI 的青少年比未参与 NSSI 的青少年表现出更强的 NSSI 内隐自我认同；对 NSSI 的内隐自我识别与更频繁和更严重的 NSSI 相关；（3）与非自杀对照组相比，最近试图自杀的青少年表现出更强的自我伤害的内隐认同，这与在成年人中观察到的模式相似;（4）对死亡的内隐认同可以前瞻性地预测青少年的自杀意念。

结论 NSSI 的一些特征与近期的自杀意念有关，包括自我感知的未来参与 NSSI 的可能性、对自杀的内隐认同以及 NSSI 在实现个人内部功能方面的有效性，表明 NSSI 的这些独特特征与自杀企图和行为有着密切的关系。

关键字：内隐认知；非自杀性自伤；自杀

基于正念减压训练对广泛性焦虑障碍患者的干预试验研究

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目的 广泛性焦虑障碍临床上治疗比较困难，单纯抗焦虑及抗抑郁药物治疗疗效不满意。应用正念减压训练(MBSR)的技术联合抗抑郁药物治疗广泛性焦虑障碍，对于提高焦虑障碍患者的生活质量和治疗依从性，降低疾病的复发率有较大的意义。

方法 本研究采用案例对照的方法，选取我院 1999 年 3 月至 2023 年 3 月住院广泛性焦虑障碍患者，共 90 例纳入研究，符合美国精神障碍诊断系统(DSM-IV)广泛性焦虑障碍诊断标准(包括排除标准)，并且患者治疗前汉密尔顿焦虑量表(HAMA) 评分≥14 分，焦虑自评量表（SAS）≥40 分，并且经检查患者均未患有其他重要器官的疾病。年龄16～60岁。采用随机分组，研究组采用抗抑郁药物+MBSR 组，对照组为单用抗抑郁药物组。所有的抗抑郁药物均由副主任医师或科主任查房并确定临床治疗方案，根据患者的病情在 1-2 周内逐渐加至常规治疗剂量，治疗刚开始可以根据情况合用小剂量苯二氮卓类药物（阿普唑仑、劳拉西泮等）；研究组在药物治疗的基础上配合 MBSR；由研究者本人及有精神科护士组成 MBSR 干预小组，训练共分 8 周进行，每周 1 次，每次 2 小时，以课上学习相关要点和课后完成家庭作业相结合的形式展开训练，每节课还会讨论分享家庭作业完成情况及体会。两组患者在治疗前和治疗后 1w, 2w, 4w, 6w 和 8w 末进行的汉密尔顿焦虑量表(HAMA)及 SAS 评定，并且记录所得评分，同时记录所有患者在治疗后 1w, 2w, 4w, 6w 和 8w 末采用副反应量表(TESS)所得的药物副反应评分。并且 HAMA 减分率≥75％为痊愈，≥50％为好转，≥25％为进步，<25％为无效，并以第 8 周末 HAMA 评分≤7 分为临床痊愈；于治疗后第 2、4、6、8 周末进行不良反应量表(TESS)评分及抑郁症病人治疗依从性问卷评分。于治疗前、治疗结束进行血常规、血生化等检查。治疗结束，评估两组的临床疗效及副反应及依从性比较。

结果 两组病人治疗前，HAMA 总分及因子分评分比较差异无统计学意义(P>0.05)；治疗第 8 周的两组病人 HAMA 减分率较治疗前比较，差异均有统计学意义(P<0.05)，治疗组的 HAMA 减分率明显优于对照组，经组间比较差异有统计学意义（P ＜0.01）。

结论 抗抑郁药联合 MBSR 能显著改善广泛性焦虑障碍患者的疗效，提高广大焦虑症患者的生活质量，促其早日回归社会，值得临床推广。

关键字：正念减压训练 广泛性焦虑障碍

Predicting Treatment Response in Adolescents and Young Adults with Major Depressive Episodes Using Graph Isomorphism Network

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Objective Major depressive episode (MDE) is the main clinical feature of mood disorders in adolescents and young adults and accounts for most of the disease course. However, 30%-40% of MDE patients not responding to clinical first-line interventions. It is crucial to predict treatment response in the early stages and identify biomarkers associated with treatment response. Graph Isomorphism Network (GIN), a deep learning method, is promising for predicting treatment response for individual MDE patients with more powerful representation ability to capture the features of brain functional connectivity.

Methods In this study, GIN was used to predict individual treatment response in 198 adolescents and young adults with MDE. The most discriminating regions were also identified for the treatment response prediction.

Results Using GIN approach, the baseline functional connectivity could predict 74.3% responders and 66.3% non-responders to treatment (accuracy 74.21%). Furthermore, the most discriminating brain regions were mainly involved in paralimbic and subcortical areas.

Conclusion GIN has shown potential in predicting treatment response for individual patients, which may enable personalized treatment decisions. Furthermore, targeted interventions focused on modulating the activity and connectivity within paralimbic and subcortical regions could potentially improve treatment outcomes and enable personalized interventions for adolescents and young adults with MDE.

关键字：Major depressive episode, adolescents and young adults, treatment respons, prediction

睡眠质量介导对新冠肺炎感染后病情进展的恐惧

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目的 SARS-CoV-2 病毒引起的新冠肺炎大流行是本世纪定义的突发公共卫生事件之一。新冠肺炎感染的快速爆发，在人群中引起了恐惧。因此，研究新冠肺炎感染患者中与进展恐惧（FoP）相关的危险因素和机制对改善患者康复后的身心不适和提高其长期生活质量具有重要意义。

方法 对 2023 年 1 月至 2 月 861 例门诊新冠肺炎感染者进行横断面调查。应用匹兹堡睡眠质量指数（PSQI）、抑郁自评量表（SDS）、焦虑自评量量表（SAS）和进展恐惧量表（FoP）对患者情绪状态、睡眠质量和疾病进展恐惧进行评估。统计方法采用受试者操作特征（ROC）曲线、Pearson 相关分析、二元 Logistic 回归分析和 Hayes 过程宏观分析模型检验。

结果 统计结果显示睡眠质量、焦虑、抑郁和对进展的恐惧之间呈正相关，相关系数在 0.541-0.814。调整偏倚后，睡眠质量、焦虑和抑郁是 FoP 的危险因素。在 ROC 曲线分析中，上述三个因素可以预测 FoP 的发生（AUC: 0.646, 0.703, 0.658）。焦虑、抑郁在睡眠质量和 FoP 中起着平行的中介作用，分别占总效应的 59.9% 和 13.8%。

结论 本研究采用中介模型调查了新冠肺炎患者的睡眠质量对 FoP 的影响，结果表明，焦虑和抑郁在睡眠质量与 FoP 的关系中起着平行的中介作用。这些发现为制定和实施基于群体的干预措施提供了潜在的指导，以应对后新冠时代的心理健康挑战。

关键字：关键词：睡眠质量、焦虑、抑郁、进展恐惧、门诊患者、后新冠

Association between Parental Migration and Non-suicidal Self-injury Among Left-behind Children and Adolescents: A Systematic Review and Meta-analysis

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Objective Although it has been suggested that parental migration increases the risk of non-suicidal self-injury(NSSI) among left-behind children and adolescents, there is still a lack of epidemiological evidence. We performed a systemic review and meta-analysis to evaluate the association between parental migration and the risk of NSSI among left-behind children and adolescents.

Methods We performed a systematic search of Embase, PubMed, and Web of Science from their establishment to March 2023 for all relevant studies of parental migration and NSSI. The effect sizes were reported as odds ratios (ORs) with 95% confidence intervals (CIs). Subgroup analysis was conducted based on different types of statistical analysis (multivariable and univariable analysis).

Results A total of 8 studies were included in this study. The results from all studies showed that parental migration was significantly associated with an increased risk of NSSI among left-behind children and adolescents (OR: 1.16, 95% CI: 1.04-1.29). In the multivariable analysis subgroup, there was no statistically significant association between parental migration and NSSI (OR: 1.03, 95% CI: 0.92-1.15). In the univariable analysis subgroup, parental migration was still associated with NSSI (OR: 1.19, 95% CI: 1.05-1.35).

Conclusion Parental migration increases the risk of NSSI among left-behind children and adolescents, but the effects may be affected by other confounding factors.

关键字：non-suicidal self-injury; parental migration; left-behind children; meta-analysis

泰州市区某高中高二学生焦虑、抑郁及失眠的初步调查

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目的 探索泰州市区某高中高二年级学生心理健康状况（包括焦虑、抑郁及失眠的情况）。

方法 采用整群抽样的方法抽取泰州市区某重点高中 932 名高二学生，使用 PHQ-9（患者健康问卷抑郁量表）、GAD-7（广泛性焦虑障碍量表）以及阿森斯失眠量表对学生的抑郁、焦虑及失眠的现状进行问卷调查，了解该学校高二学生的心理健康状况现状。

结果 抑郁情绪的检出率为 59%(550/932) ，其中轻度抑郁占 49.1%(458/932)，中度抑郁占 8.8%(82/932)，重度抑郁占 1.1%(11/932)。焦虑情绪的检出率为 50.86%(474/932)，其中轻度焦虑占 43.8%(408/932)，中度焦虑占 5.3% (49/932)，重度焦虑占 1.7% (16/932)。失眠的检出率为 33.4%(213 /932)，可疑失眠的检出率为 41.2%(384/932)。同时检出 3 种心理问题的学生占 54.4%(507/932)，检出 2 种心理问题的学生占 8.8%(82/932)，检出 1 种心理问题的学生占 14%(130/932)。女性学生相较于男性学生更容易出现抑郁（）及失眠（）的心理问题。

结论 泰州地区某重点高中高二学生焦虑、抑郁及失眠的初步调查提示大部分学生都存在一定的焦虑、抑郁以及失眠的心理问题，且女生相较于男生更容易出现抑郁及失眠的问题。

关键字：泰州地区；高二学生；焦虑；抑郁；失眠

外周白介素 18 与抑郁症患者脑功能局部一致性的相关性研究

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目的 抑郁症是一种常见的精神障碍，其病理生理机制尚未完全明确。本研究旨在通过分析白介素 18（IL-18）与静息态功能磁共振成像局部一致性（ReHo）之间的相关性，深入探讨 IL-18 是否与抑郁症相关脑区的异常脑活动存在联系，以揭示 IL-18 是否参与抑郁症的发生与发展。

方法 本研究采用病例-对照研究设计，共纳入 34 名抑郁症患者和 34 名健康对照者。所有研究对象均完成了一般人口学资料采集、临床评估、采血以及静息态功能磁共振成像扫描。通过汉密尔顿抑郁量表（HAMD-17）评估抑郁症的严重程度，利用酶联免疫吸附试验（ELISA）检测所有研究对象外周血中 IL-18 的浓度，采用静息态功能磁共振成像 ReHo 方法分析两组研究对象的自发脑活动特征并探索 ReHo 与 IL-18 水平之间的相关性。

结果 抑郁症患者的 IL-18 水平显著高于健康对照组（P<0.001）。此外，抑郁症患者左脑后扣带回区域的 IL-18 水平与 ReHo 之间存在显著的负相关，而在健康对照组中，IL-18 水平与 ReHo 之间没有显著的统计学相关性。

结论 抑郁症患者 IL-18 水平的显著升高揭示了 IL-18 可能参与抑郁症的发生和发展。此外，IL-18 与左脑后扣带回区域的 ReHo 之间显著的负相关表明在炎性状态下，IL-18 水平升高可能降低左脑后扣带回区域与周围脑区的局部一致性，干扰该脑区脑活动，从而导致注意功能、执行功能、记忆力以及情绪调控功能下降等抑郁症状出现的风险增高。

关键字：抑郁症，免疫炎性因子，白介素 18，局部一致性

脑电图预测焦虑障碍疗效的系统回顾分析

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目的 焦虑障碍具有高患病率和高复发率，SSRIs 类药物治疗和认知行为治疗（cognitive-behavioral therapy, CBT）是焦虑障碍的一线治疗手段。然而，焦虑障碍患者的疗效异质性较大，治疗有效的神经生物学机制和疗效预测因素不明，本文对脑电图预测焦虑障碍疗效的相关研究以及脑电指标变化与焦虑障碍症状间相关性研究进行了系统回顾，为焦虑障碍的个性化治疗决策提供电生理证据支持。

方法 检索 PubMed、Embase、Web of Science 数据库上的基于脑电图预测焦虑障碍治疗疗效的观察性研究。检索时间截止至 2023 年 3 月。采用纽卡斯尔-渥太华量表（the Newcastle-Ottawa Scale, NOS）对文献进行治疗评价。由 2 位评价员独立筛查文献、提取资料和进行文献质量评价。

结果 最终纳入 14 篇文献，现有研究的证据显示，基线期对负性情绪面孔刺激的高反应，如 P1、LPP（late positive potential, LPP）波幅增高可能预示更大的可能在药物、CBT 治疗中获益。而内感受错误相关的脑电指标，如错误相关负波（error-related potential, ERN）与药物、CBT 疗效间无明显相关性。而脑电指标的改变与焦虑障碍症状变化关系的相关研究较少，未得到一致性结论。

结论 有限的临床证据提示,基线期负性情绪刺激下的情绪感知相关的脑电指标，如 LPP 成分可能是焦虑障碍疗效预测的电生理标志物。但由于相关研究样本量偏小、方法学异质性较大，整体研究质量不高，尚需更多大样本、高质量的前瞻性研究以增加证据强度。

关键字：焦虑障碍；脑电图；疗效；预测

Examining The Effects of School-Vacation Transitions on Depression and Anxiety in Adolescents: A Network Analysis

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Objective The school-vacation cycle has a significant impact on the psychological stress of adolescents. Addressing the interactive pattern between depression and anxiety symptoms in adolescents could facilitate the prevention and treatment of both mental distress.

Methods Social demographic data, depression and anxiety symptoms were measured from 1,380 adolescent students during the school year (age = 13.8 ± 0.88) and 1,100 students during the summer vacation (age = 14.2 ± 0.93) in China. Multilevel mixed-effect models were used to examine the changes in depression and anxiety levels and the associated influencing factors. Networks analysis was used to explore the symptom network structures of depression and anxiety during school and vacation.

Results Depression and anxiety symptoms significantly decreased in the vacation compared to the school period. Being female, higher age, and lower mother's educational level were identified as longitudinal risk factors. Interaction effects were found between symptom change and the father's educational level as well as grade. Network analyses demonstrated that the anxiety symptoms, including “Nervous”, “Control worry”, and “Relax” were the most central symptoms at both times. The psychomotor disturbance, including "Restless", "Nervous" and "Motor" bridged depression and anxiety symptoms. The central and bridge symptoms showed variation across school-vacation.

Conclusion The school-vacation transition had an impact on students’ depression and anxiety symptoms. Prevention and Intervention strategies for adolescents’ depression and anxiety during school and vacation periods should be differentially developed.

关键字：anxiety, depression, network analysis, school-vacation transition

医务人员看待精神疾病态度对其医患关系和焦虑抑郁水平的网络分析

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目的 近几年来国内医患关系日趋紧张，患者暴力伤害、砍杀医护人员的案件数量居高不下，医患关系已经成为了一个不容忽视的话题，本研究旨在探讨综合医院门诊医务人员看待精神心理疾病态度、医患关系与医务人员抑郁焦虑情绪之间的网络关系，为改善医患关系和提升医务人员心理健康水平作出提示。

方法 对一所综合医院的 578 名门诊医务人员开展关于精神疾病态度、医患关系与抑郁焦虑情绪的问卷调查，分别构建“精神疾病态度-医患关系网络”、“与抑郁焦虑相关的网络”进行分析。

结果 在“精神疾病态度-医患关系网络”中，“M15（侮辱性描述）”和“D8（浪费时间）”的关联性最强，“M15（侮辱性描述）”是桥梁强度最高的变量。在“与抑郁焦虑相关的网络”中，对于情绪变量进行分析，“P1（快感缺失）”与医患关系中的“D10（交流困难）”和精神疾病态度中的“M2（生活质量差）”呈现出最明显的关联，且“P1（快感缺失）”是关键的桥梁症状。

结论 精神疾病态度中的“M15（侮辱性描述）”是医务人员对待精神心理疾病态度的潜在干预靶点。而抑郁指标中的“P1（快感缺失）”是需要改善的核心症状，针对性干预可能有利于提高医务人员心理健康水平并改善医患关系。

关键字：精神疾病态度，焦虑，抑郁，医务人员，

青少年抑郁症维持期干预荟萃分析

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目的 重度抑郁症给青少年和儿童的生活造成了不可忽视的负面影响，且由于其高复发率的特点，患者在达到临床缓解后仍面临着极大的疾病负担，因此预防抑郁的复燃或复发对改善青少年儿童的预后尤为重要。然而，目前学界关于这个人群的抑郁症维持期干预的方案及疗效尚无定论。本荟萃分析旨在对相关主题的随机对照试验和观察性实验结果进行综述，分析维持期干预对预防青少年儿童抑郁症复燃或复发的有效性与安全性。

方法 我们检索了 PubMed、Web of Science、Embase、Cochrane 等英文数据库和知网、万方和中国生物医学文献服务系统等中文数据库，检索策略参照了 PICO 原则，目标人群为确诊过重度抑郁症（并已达到临床缓解的）青少年和儿童（18 岁以下）；所有形式的干预，包括但不限于药物治疗、心理治疗、物理治疗等均被接受；任意对照；主要结局指标为复发人数和复发率；次要结局指标为复发中位时间、汉密尔顿评分差值中位数、任意原因中断研究的人数、因不良反应中断研究的人数及不良反应发生率。由四名人员独立浏览标题、摘要筛选符合纳入标准的文献；再通过阅览全文最终确定可纳入荟萃分析的研究；最后进行数据的提取、文献质量评价（Cochrane 风险偏倚评估工具）和数据分析。

结果 通过文献筛选，荟萃分析最终纳入了 18 篇文献中的 7 个随机对照试验，其中有 1 个研究涉及认知行为治疗，6 个研究为单纯药物治疗，药物包括舍曲林、氟西汀、帕罗西汀和西酞普兰。我们进行了复发率的风险比（95%可信区间）计算。与安慰剂组相比，舍曲林、氟西汀和西酞普兰复发率更低；另认知行为治疗组复发率也低于安慰剂组。

结论 荟萃分析的结果提示在青少年和儿童抑郁症患者中进行维持期治疗是有益于降低复发风险的，但需要更多数量、更大样本量的相关随机对照试验进一步探索维持期药物治疗的用药方法与剂量。而非药物治疗的研究试验设计多样性太大，使得比较研究的实施难度增高，没有得到足够的研究证据支持其有效性。未来我们需要更加关注抑郁症的复发预防干预，通

过研究找到有效安全的治疗方案指导临床工作。

关键字：抑郁症 青少年 维持期干预 复发预防 荟萃分析

抑郁障碍专病数据库建设

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目的 抑郁障碍是严重危害人类身心健康的精神疾病与公共卫生问题, 并具有临床表现差异大、诊断困难、治疗效果差、预后不良等疾病特点。建设抑郁障碍专病数据库, 用于患者医疗信息归纳、总结并开展临床研究项目, 将可显著提高抑郁障碍的临床诊治水平和科研创新能力。

方法 由上海市精神卫生中心牵头，联合上海市第十人民医院，上海交通大学附属仁济医院，复旦大学附属中山医院 3 家市级医院，通过专家共识建设抑郁症专病标准数据集，以此为基础对多中心抑郁症相关多源异构真实世界数据（包含随访信息）进行采集及数据治理，建立集数据洞察、数据检索、研究队列项目建立、随访和统计分析等多种功能的抑郁症专病数据库。因此将各中心医院信息系统（ HIS） 和常见临床业务系统数据集成整合，并基于医疗信息系统连接点患者主索引（ EMPI）进行患者关联和数据映射，基于诊疗规范和临床路径的标准化及结构化数据集完成抑郁症专病数据库的搭建。纳入院内所有抑郁障碍就诊患者，接入的数据范围包含《抑郁障碍标准数据集》中的 10 个模块,43 个子模块和 345 个数据元，包括患者全诊疗周期数据：患者人口学信息、病历信息（一诉五史）、抑郁诊断、检验检查、医嘱、治疗、量表评分、不良事件。

结果 成的抑郁障碍专病库，共纳入数据如下，2020 年 1 月（包含）-2023 年 3 月（包含）项目建设期内符合抑郁发作或复发性抑郁障碍的住院患者数量 4146 例，其中 3057 例完成了自然随访，年龄在 18-75 岁的住院患者数量为 3028 例，随访完成数量 2173。门诊患者诊断为抑郁发作或复发性抑郁障碍患者为 126884 例，年龄在 18-75 岁内患者数量为 103351 例。专病库接入的数据关键字段的填充率为 100%，完整性 73%。

结论 真实世界临床数据库可用来 d 构建精神疾病辅助诊断以及合理治疗选择的工具，将有望帮助精神科医生摆脱对于临床表型的主观分析与研判，从多方面找到精神疾病的本质特征提供帮助。

关键字：抑郁障碍 数据库

益气养阴法治疗老年新冠感染所致广泛性焦虑障碍临床观察

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目的 观察益气养阴法治疗新冠感染后广泛性焦虑障碍的疗效并观察其对新冠感染所致广泛性焦虑障碍具体症状的改善特点，与常规西药（草酸艾司西酞普兰）进行对比，尝试探讨其理论依据，以探求新冠感染所致广泛性焦虑障碍有效中药治疗方案。

方法 将 62 例经筛选后满足相关标准且知情同意的患者随机分成两组，对照组予以草酸艾司西酞普兰治疗，治疗组给予益气养阴中药汤剂，疗程为 4 周。入组前及治疗后均对患者进行汉密尔顿焦虑量表(HAMA)评分。

结果 两个组的 HAMA 量表的总评分均显著减低，有统计学意义(P＜0.05)。且治疗组量表的评分降幅超过对照组，分别比较其再评分结果显示均具备统计性差距(P＜0.05)，故可据此认为益气养阴中药汤剂的治疗效果整体上较草酸艾司西酞普兰 10mg/日更佳。经治两个组 HAMA 量表的精神症状和躯体症状两类因子分均降低，有统计学意义(P＜0.05)，说明两种治疗方案均能缓解新冠感染后广泛性焦虑障碍患者在精神和躯体两个维度上的焦虑症状。本研究同时观察到，经益气养阴中药汤剂治疗的患者其两项因子再评分均相对低于对照组，但其精神因子再评分结果间的差异度并未显示出统计学意义(P＞0.05)，表示两种治疗方案缓解病人精神情绪症状的效果基本相同；但是，两个组的躯体因子再评分结果间差别则显示出了统计学意义(P＜0.05)，治疗组的减分幅度超过了对照组，说明益气养阴中药汤剂对病人躯体形式的焦虑症状缓解效果较草酸艾司西酞普兰更佳。通过计算 HAMA 总评分前减分率评定疗效，可发现治疗组有效率为 93.55%，较对照组的 80.65%表现出了一定优势，但并不十分显著，但愈显率治疗组比例高达 64.52%，远高于对照组的 25.81%。由此可说明两种方案治疗新冠感染后广泛性焦虑障碍均有效，但相同治疗周期内，“益气养阴中药汤剂所达成的治疗效果明显更为可观。

结论 益气养阴中药汤剂与草酸艾司西酞普兰治疗新冠感染后广泛性焦虑障碍均可收获较为可观的成效。益气养阴中药汤剂对于 HAMA 总评分及其躯体性症状因子分的改善中均表现出了更明显的优势，其临床总有效率更高，同时愈显率的优势尤为显著。综合分析后可认为，益气养阴中药汤剂治疗新冠感染后广泛性焦虑障碍疗效可观，较草酸艾司西酞普兰更佳，并在改善焦虑患者躯体性症状方面更具优势。

关键字：益气养阴；新冠感染后广泛性焦虑障碍；HAMA

Disproportionality Analysis of Adverse Events Signals for Deutetrabenazine Based on The United States Food and Drug Administration Adverse Event Reporting System Database

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Objective This study aimed to analyze the AE reports related to deutetrabenazine, which were identified indication for TD through data mining of the United States Food and Drug Administration Adverse Event Reporting System (FEARS) database.

Methods Data of deutetrabenazine were extracted from the FAERS database between the second quarter of 2017 to the first quarter of 2023. Disproportionality analysis of Reporting Odds Ratio (ROR) was performed to identify the associated AE signals of deutetrabenazine by SAS software.

Results We obtained 1, 297 deutetrabenazine-associated adverse event reports during the study period. A total of 92 risk signals were detected, with the top five signals ranked as dyskinesia (ROR 2.28, 95%CI:1.87–2.78), depression (ROR 3.45, 95%CI:2.77–4.30), suicidal ideation (ROR 6.73, 95%CI:5.09–8.91), insomnia (ROR 1.76, 95%CI:1.38–2.25), and feeling abnormal (ROR 1.73, 95%CI:1.31–2.30). Among them, the top system organ class (SOC) was psychiatric disorders (21 signals).

Conclusion This study found that deutetrabenazine risk signals were associated with dyskinesia, depression, and suicidal ideation. The findings highlight the importance of regular check-ups in TD patients treated with deutetrabenazine and being on alert for related risk signals of depression and suicidal ideation for clinicians. More long-term safety studies in the real world are needed in the future.

关键字：Deutetrabenazine; Adverse events; FAERS database; Risk signals

The Effect of Oxytocin on Sex-Based Disparities in Adaptive Threat Reversal Learning

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Objective Previous studies have shown that women are more susceptible to anxiety disorders than men. Oxytocin receptors are highly expressed in brain structures important for modulating anxiety and threat learning (e.g., medial prefrontal cortex and amygdala), suggesting that oxytocin may be a promising pharmacological candidate for the treatment of anxiety disorders. A growing body of evidence shows that oxytocin facilitates threat learning and extinction across species. However, almost all previous studies have been conducted in male subjects, limiting the clinical application of oxytocin. The aim of the present study was to investigate whether there are sex differences in the effect of oxytocin on adaptive threat reversal learning.

Methods In a double-blind, placebo-controlled, between-subjects design, 180 healthy human subjects (half female) completed an adaptive threat reversal learning experiment using skin conductance response (SCR) and subjective rating questionnaires as measures of threat. Participants were randomly assigned to one of two groups 30 min before the task: (1) placebo (PLC) group, which received a placebo before the reversal task, (2) oxytocin (OT) group, which received a single intranasal dose of oxytocin (24 IU) before the reversal task.

Results (1) In the placebo condition, as expected, female subjects showed impaired adaptive threat reversal learning ability compared to male subjects. (2) Pre-experimental intranasal oxytocin facilitated threat reversal in female subjects but not in males, improving adaptive threat reversal only in female subjects.

Conclusion Compared to males, females are less able to flexibly switch and reverse threatening stimuli, which may explain their susceptibility to anxiety disorders. The effect of oxytocin on flexible threat control is sex-dependent, so that oxytocin in a therapeutic context may potentially have different effects on anxiety disorders in men and women.

关键字：Oxytocin, threat modulation, sex difference, anxiety disorders

曲唑酮联合渐进式肌肉放松训练对改善焦虑症导致的男性勃起障碍的研究

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目的 焦虑症全称焦虑性神经症,是临床上较为常见的一种神经症性疾病，以过分恐惧和焦虑情绪为主要表现。临床上大多数男性患者合并勃起障碍，在生活水平日益提高的今天，人们对生活质量的要求更高，这种质量也表现在对性生活质量的追求上。因此勃起功能障碍（ED）越来越被人们所重视，长期的 ED 容易使患者产生焦虑，焦虑也可与 ED 相互作用并且加重 ED 的程度。虽然 ED 与焦虑的关系已被多项研究证明，两者之间也存在互为因果的关系，但 ED 与焦虑共病的机制尚未完全明确。曲唑酮是一种具有镇静催眠作用的抗抑郁药，临床广泛用于抑郁、失眠及抑郁焦虑伴发或合并失眠的患者。此外，还有抗焦虑、改善梦魇障碍及性功能障碍等作用。渐进式肌肉放松训练,使患者能够放松全身肌肉的紧张程度,保持心情平静,缓解紧张、恐惧、焦虑等负性情绪。通过曲唑酮联合渐进式肌肉放松训练对改善焦虑症导致的男性勃起障碍提供临床依据。

方法 随机选取 80 例焦虑症伴发勃起障碍门诊或住院的男性患者，随机法分为干预组和对照组，干预组给予曲唑酮联合渐进式肌肉放松训练治疗，对照组仅给予曲唑酮治疗，通过国际勃起功能问卷-5（TheInternationalIndexofErectileFunction，IIEF-5）和广泛性焦虑量表（GeneralizedAnxietyDisorder，GAD-7）测评,对比分析两组患者治疗前后焦虑评分、勃起功能评分改善情况。

结果 治疗前,两组患者的焦虑评分、勃起功能评分进行组间比较,差异不明显;治疗后,两组焦虑评分、勃起功能评分明显好于治疗前,干预组焦虑评分、勃起功

能评分好于对照组,差异存在统计学意义(P<0.05)。

结论 曲唑酮联合渐进式肌肉放松训练对改善焦虑症导致的男性勃起障碍临床疗效显著,患者的焦虑症状、勃起功能得到显著改善,值得推广应用。

关键字：曲唑酮，渐进式肌肉放松训练，焦虑症，男性勃起障碍

首发未服药强迫症患者岛叶亚区功能连接变化及其与认知灵活性的相关性研究

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目的 非适应性习惯化学习可能是强迫症状的形成机制，表现为认知灵活性障碍和基于结果的变化调整自身行为的困难。而对应的习惯化网络与脑岛相关功能网络关系密切，但目前对于首次发作未服药强迫症（obsessive-compulsive disorder，OCD）患者脑岛叶亚区功能连接的研究较少，本研究主要探讨首发未服药强迫症患者以双侧岛叶亚区为种子点的静息态脑功能连接的变化及与认知灵活性之间的关系。

方法 本研究招募了 45 名 OCD 患者(OCD 组)和 40 名健康志愿者（对照组），均完成临床症状评估及威斯康星卡片分类测试(Wisconsin card sorting test,WCST)，并进行静息状态功能磁共振(rs-fMRI)的扫描。选取双侧前岛叶腹侧和背侧、双侧后岛叶 6 个种子点进行全脑功能连接分析，采用双样本 T 检验比较强迫症组与正常对照组之间的功能连接差异，使用 SPSS 22. 0 软件，采用 Pearson 相关分析 OCD 组差异脑区功能连接强度与认知灵活性之间的关系。

结果 与 HC 组相比，OCD 组左侧前岛叶腹侧与丘脑相关脑区的功能连接均较对照组减弱(P 均＜0.01)，OCD 组左侧前岛叶背侧与中央后回、右侧前岛叶背侧与中央后回和颞中回的功能连接较对照组增强(P 均＜0.01)。强迫症患者右侧前岛叶背侧与右侧中央后回的功能连接强度与错误应答数(r = -0.307,P = 0.042)和总应答数(r = -0.324,P= 0.032)呈显著负相关。

结论 OCD 患者左侧前岛叶腹侧、双侧前岛叶背侧的功能连接网络模式存在异常，且部分功能连接的异常与患者认知灵活性表现相关。

关键字：首发未服药强迫症，功能磁共振成像，岛叶亚区，功能连接

惊恐障碍患者 COMT 多态性与性别的关联研究

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目的 惊恐障碍患者 COMT 基因位点（rs4680、rs740603）与性别是否有关。

方法 病例组选自天津市安定医院以及天津市胸科医院转诊的惊恐障碍患者 85 名。因不能完成评估和随访，以及未完成血样本采集等脱落 16 名，最终 69 名患者入组（男 28 名，女 41 名），平均（47.0+10.9）岁，其中小学 15 名，初高中 29 名，大专及以上者 25 名。健康对照组主要来自天津市胸科医院健康体检中心，选择与之性别、年龄、受教育程度等相匹配的健康对照 78 名（男 33 名、女 45 名）。平均（49.36+10.66）岁，其中小学 17 名，初高中 44 名，大专及以上 17 名。使用惊恐障碍严重程度量表-中文版（PDSS-CV）总分≥10 分，且汉密尔顿焦虑量表（HAMA-14）总分≥14 分。入组后的惊恐障碍患者抽取外周静脉血，进行 COMT 基因位点（rs4680、rs740603）基因多态性检测，使用全血 DNA 提取和纯化试剂盒(Baio)，按照说明提取全基因组 DNA，采用 SPSS、Haploview 4.1 软件进行统计学分析和图表绘制。

结果 1.本研究中惊恐障碍患者与健康对照两组在人口学资料无统计学差异（P?0.05）。2.本研究中未发现 COMT 基因多态性（rs4680，rs740603）与惊恐障碍有相关性（P?0.05）。3. 在惊恐障碍患者中，COMT(rs740603)基因位点的等位基因及基因型频率与性别存在关联或关联趋势（P 分别为 0.015、0.060）。

结论 惊恐障碍患者 COMT rs740603 等位基因频率与性别有关.

关键字：惊恐障碍，COMT,rs740603,rs4680,性别

Hypocretin-1 通过海马乳酸代谢在抑郁症中的作用

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目的 由 Hypocretin-1（HCRT-1）调节的神经生理和行为过程在抑郁症中受严重影响。从不同水平揭示 HCRTR1 介导引起乳酸水平改变对神经元突触可塑性变化及个体认知功能改变，探讨抑郁症认知障碍发生机制。

方法 免疫荧光染色观察 HCRTR1 与 CB1 在抑郁症患者海马及海马原代星形胶质细胞中的共定位。建立 CUMS 模型，腹腔给予 HCRTR1 拮抗剂和 CB1 拮抗剂，观察各组抑郁、认知相关行为及糖酵解相关酶的改变。冷冻透射电镜观察各组海马突触可塑性的变化，并通过免疫荧光染色观察各组海马中 PSD95、SYP 及 DCX+、Sox2+GFAP-细胞数量的变化。分离原代海马星胶，给予生理盐水、HCRT-1、HCRT-1+HCRTR1 拮抗剂、HCRT-1+CB1 拮抗剂，测定干预前后乳酸水平变化；qPCR 检测糖酵解相关酶变化，并通过海马细胞能量代谢仪测定各组糖酵解速率。将星胶与神经元共培养，观察干预前后海马神经元形态变化。

结果 HCRTR1 与 CB1 在抑郁症患者海马及海马原代星胶中均有共定位。相比对照组，CUMS 组在旷场试验中心时间及高架十字迷宫开放臂时间明显下降，该现象在拮抗剂治疗后均得到改善；此外，CUMS 组

在 Y 迷宫中新臂时间以及新颖物体试验中对新物体探索时间较对照组显著下降，拮抗剂治疗后显著逆转该变化。CUMS 组海马中 PSD95、SYP 荧光强度及 mRNA 水平较对照组显著下降，DCX+及 Sox2+GFAP-细胞数量显著减少，以上现象在 HCRTR1 拮抗剂组和 CB1 拮抗剂组均得以逆转。冷冻透射电镜结果显示，CUMS 组中海马 CA3 区突触后致密区受损，并在分别给予 HCRTR1 和 CB1 拮抗剂后得以改善。qPCR 结果显示，CUMS 组海马中 GLUT1、MCT1、MCT4 的 mRNA 表达显著下降。给予星胶 HCRT-1 后，其培养基中乳酸水平及糖酵解速率显著降低，GLUT1，MCT1，MCT4，LDHA 的 mRNA 水平显著降低，而在 HCRTR1 拮抗剂组和 CB1 拮抗剂组中得以逆转。将各组星胶与神经元共培养，HCRT-1 组中神经元 TUJ1 染色荧光强度显著降低，凋亡数量显著增加，在 HCRTR1 拮抗剂组和 CB1 拮抗剂组中逆转。

结论 Hypocretin-1 可能通过 HCRTR1/CB1 改变海马星形胶质细胞内糖酵解相关因子的生成与活性，减少乳酸的生成，引起海马突触可塑性改变，进而导致抑郁个体认知功能受损。

关键字：Hypocretin-1；抑郁症；认知损伤

问题管理家（PM+）对伴非自杀性自伤行为青少年抑郁障碍患者疗效的初步探索

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目的 探索青少年抑郁障碍患者非自杀性自伤行为的发生率和相关影响因素以及问题管理家（problem management plus, PM+）对伴非自杀性自伤行为青少年抑郁障碍患者的临床疗效。

方法 根据纳入排除标准，共入组 76 例伴非自杀性自伤行为青少年抑郁障碍住院患者，随机分为使用 PM+和常规治疗（药物治疗和健康宣教）的试验组或使用常规治疗的对照组，每组各 38 例。在干预前和干预后对试验组和对照组收集一般临床资料、 HAMD-24、PHQ-9、GAD-7、RRS、FASM、符号编码测验（digit symbol substitution test, DST）、数字倒背（digit span backward, DSB）、威斯康辛卡片分类测验（wsiconsin card sorting test, WCST）和面孔情绪识别（facial emotion recognition, FER）量表，统计分析干预前后各量表评分情况。

结果 1.在干预后，试验组和对照组的 HAMD-24、PHQ-9、GAD-7 评分较干预前均降低，差异有统计学意义（P<0.05）；2.试验组 RRS 评分、非自杀性自伤行为频率较干预前降低，差异有统计学意义（P<0.05），符号编码、数字倒背评分较干预前升高，差异有统计学意义（P<0.05），对照组 RRS 评分、非自杀性自伤行为频率、认知功能在干预前后评分差异无统计学意义（P>0.05）；3.在干预后，试验组 HAMD-24、PHQ-9、GAD-7、RRS 评分和非自杀性自伤行为频率低于对照组，差异有统计学意义（P<0.05），试验组符号编码评分高于对照组，差异有统计学意义（P<0.05）。

结论 PM+联合常规治疗的疗效优于常规治疗，在治疗患者的抑郁、焦虑、思维反刍、非自杀性自伤行为、认知功能方面具有优势，可以应用于伴非自杀性自伤行为的青少年抑郁障碍患者。

关键字：问题管理家（PM+）；认知行为治疗；非自杀性自伤；青少年；抑郁障碍

Neuroticism and Extraversion Personality Shaping The Cognitive Bias: Association between Personality and Cognitive Bias in Adults with and without Depression

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Objective Cognitive bias plays a crucial role in the onset and persistence of depression. Research has established a link between personality and cognitive bias in healthy samples. In this study, we employed correlation and hierarchical regression analyses to explore the relationship between personality and cognitive bias in patients with major depressive disorder (MDD) and healthy controls (HCs).

Methods The study included 124 patients with MDD and 123 HCs, using the 16 Personality Factor Questionnaire (16 PF) and the Cognitive Bias Questionnaire (CBQ).

Results Our findings indicated that higher levels of neuroticism and lower levels of extraversion were positively linked to and predicted depressed cognitive bias, while lower levels of neuroticism and higher levels of extraversion were positively associated with and predicted non-depressed cognitive bias in both groups.

Conclusion Our study sheds light on the relationship between personality and cognitive bias from a clinical perspective, which could be beneficial in clinical diagnosis and treatment.

关键字：personality, cognitive bias, neuroticism, extraversion, major depressive disorder

Investigating The Association Between Childhood Maltreatment, Cognitive Bias, and Major Depressive Disorder

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Objective Studies have found that both childhood maltreatment (CM) and cognitive bias (CB) are risk factors of major depressive disorder (MDD), and CM may have negative effects on CB. In this study, the aims were to explore whether: 1. The association between MDD and CM are mediated by CB; 2. Specific type of CM predicts CB; 3. Higher Trauma counts (TC) predict more severe CB.

Methods One hundred and twenty-one MDD participants and one hundred and twenty healthy controls (HC) were enrolled for this study. CM was evaluated using the Childhood Trauma Questionnaire. CB was assessed with the Cognitive Bias Questionnaire, which exams two dimensions (depression and distortion) and includes four combinations: depressed-distorted (D-D), depressed-nondistorted (D-ND) nondepressed-distorted (ND-D) and nondepressed-nondistorted (ND-ND). Simple mediation analysis and hierarchical regression analyses were applied in our study to address our questions.

Results In the entire sample, CB mediated the relationship between CM and MDD. Within the MDD group, higher physical neglect (PN) scores predicted lower ND-ND scores. While, no similar relationship was found in HC group. Higher Trauma Counts (TC) were significantly associated with higher D-D and lower ND-ND scales.

Conclusion These data provide evidence for a possible mechanism explaining how exposure to trauma can progress to eventual depression. Notably, the findings highlight the importance of studying the impacts of PN in Chinese society. Additionally, higher TC may serve as a risk factor for more severe CB.

关键字：Major depressive disorder; childhood maltreatment; cognitive bias

Early Identification and Intervention in Pediatric Obsessive-Compulsive Disorder

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Objective This article aims to review the existing methods of early identification and intervention of pediatric OCD, and highlight the application prospects of establishing a tertiary prevention system based on clinical staging models of pediatric OCD.

Methods We start with the specificities of pediatric OCD, with the goal of exploring why effective early intervention has yet to be fully implemented. Then, we make an attempt to complete the framework of the three-level prevention of pediatric OCD by carefully reviewing the current research evidence that helps identify at-risk populations and perform primary prevention for pediatric OCD and further assess the measures of the secondary and tertiary stages of early intervention that have currently been proven to work or may work. We close by identifying gaps in the existing literature and considering the important research questions on this topic.

Results Since the etiology of pediatric OCD is still unclear, primary prevention is most lacking, and early interventions for pediatric OCD are currently focused on the secondary prevention stage, which aims to prevent the conversion of obsessive-compulsive symptoms into full-blown OCD; tertiary prevention mostly focuses on the alleviation of mild to moderate OCD, while interventions for co-morbidities are still in their infancy.

Conclusion Early identification and intervention in pediatric OCD require specific theoretical guidance and research evidence to support them. The proposal of hierarchical prevention strategies guided by a clinical staging model is promising; however, it requires greater investment in research on the pathogenesis of pediatric OCD as well as the long-term and large-scale effectiveness of established early intervention approaches.

关键字：pediatric obsessive-compulsive disorder; prevention; early identification; early intervention

童年期不可预测性对精神病理学的影响

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目的 童年期不可预测性（childhood unpredictability）作为童年不良经历的一个独立维度，对个体身心发展及精神病理学风险有独特且重要的影响，但几乎未被国内研究者关注。本文关注不可预测性对机体

神经生物学和精神病理学的影响，以期丰富精神科医生及临床研究者对童年不良经历的理解与认识。

方法 文献筛选以关键词“unpredictability”、“childhood unpredictability”为基本条件，检索中英文数据库，筛选与主题相关研究的国内外文献，进行系统综述。

结果 童年期不可预测性对机体的影响：童年期不可预测性对机体影响的研究多集中于神经内分泌（生理应激反应）、免疫（炎症反应）及中枢神经系统（脑功能与结构）的改变这三方面。 1 童年期不可预测性会影响个体的神经内分泌功能，研究表明经济不稳定和家庭混乱导致儿童皮质醇水平升高，不可预测的母亲行为与婴儿对疼痛应激源的皮质醇应激反应迟钝有关。2 不可预测的童年生活经历影响免疫功能，研究发现，混乱的家庭环境与青少年的炎性反应和促炎细胞因子水平呈正相关，而炎性反应会导致个体成年期健康风险升高。3 早年环境及母体信号的不可预测性影响皮层-边缘回路的发育与成熟，研究表明，不可预测的早期环境导致皮层-边缘神经回路的加速成熟；碎片化、不可预测的母体感觉信号与儿童内侧颞叶-前额叶皮质连接（钩束各向异性分数较高）改变[及海马依赖的记忆任务表现较差有关，上述神经回路发育的改变可能进一步影响了个体认知、情绪功能的发展。 童年期不可预测性对精神病理学的影响：童年期不可预测性增加个体抑郁、焦虑、物质滥用、反社会行为等内外化精神病理学风险：在内化情绪相关问题上，Glynn等的研究表明婴幼儿期时母亲情绪的不可预测性能够预测个体童年期内化问题及青春期焦虑抑郁症状；而18 岁前整体的环境不可预测性能够独立于童年创伤预测多个队列的精神病理学症状：女性的产后抑郁症状；暴露于创伤后退伍军人的快感缺失、焦虑、抑郁症状及自杀意念和青少年的快感缺失、焦虑、抑郁症状。 在外化行为相关问题上，长程纵向追踪队列研究表明童年环境不可预测性能够前瞻性且独立地预测个体在青春期时更严重的物质滥用、青少年犯罪、攻击性行为及注意力问题；同时也能够预测个体在成年早期时更高的攻击性水平和更多的违法行为。

结论 童年期不可预测性对机体发育及精神病理学有重要影响

关键字：童年不良经历；童年期不可预测性

Associations between Childhood Maltreatment and Personality Traits in Participants with and without Depression

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Objective Previous studies had shown an association between childhood maltreatment (CM) and personality traits. However, it is unknown whether this relationship is different in patients with major depressive disorder (MDD) and in healthy subjects; furthermore, little knowledge has been gained on the relationship between specific types of CM and specific dimensions of personality. Herein we report a comprehensive analysis of the relationship between CM and personality in a group of patients with MDD and a group of healthy controls (HC).

Methods One hundred eighty-eight MDD and 132 HC participants were enrolled in this study. CM was assessed retrospectively with the Childhood Trauma Questionnaire (CTQ), which includes the following five types: emotional abuse (EA), physical abuse (PA), sexual abuse (SA), emotional neglect (EN) and physical neglect (PN). The Sixteen Personality Factor Questionnaire(16PF) was used to assess the personality traits. The 16PF includes the following 16 factors: Warmth (A), Reasoning (B), Emotional Stability (C), Dominance (E), Liveliness (F), Rule-Consciousness (G), Social Boldness (H), Sensitivity (I), Vigilance (L), Abstractedness (M), Privateness (N), Apprehension (O), Openness to Change (Q1), Self-Reliance (Q2), Perfectionism (Q3), and Tension (Q4). A 2×2 analysis of covariance (ANCOVA) was conducted, with age, gender, and education controlled as covariates, to examine the interaction effects of CM and diagnosis on the 16PF factors. For the factors showing interaction effects, subsequent simple effect analyses were further performed using the Bonferroni correction. Hierarchical regression analyses were performed to investigate the relationship between specific types of CM and specific factors of 16PF in the MDD and HC groups, respectively.

Results CM and diagnosis showed significant interaction effects on the F, O, Q4 factors. Simple effect analyses revealed that the effects of CM on these three factors were significant only in the HC group and the effects of diagnosis for CM+ and CM-were both statistically significant. CM showed significant main effect on the C, L, Q2 factors. Diagnosis showed significant main effect on the C, E, G, H, L, Q2, Q3 factors. The C factor can predict by EA and PA in HC group and predict by EN in MDD group. Within the HC group, the O factor can predict by EA and EN, and the Q4 factor can predict by EA.

Conclusion In both HC and MDD groups, we found people suffered CM can be emotional, vigilant and tend to be alone. While in the HC group, people suffered CM can experience being cautious, nervous. EA and EN were important for predicting some personality traits.

关键字：childhood maltreatment, personality traits, major depressive disorder

Mental Health and Cognitive Function Among Medical Students after The COVID-19 Pandemic in China

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Objective Chinese people experienced a nationwide coronavirus disease 2019 (COVID-19) pandemic after the adjustment of epidemic response policies from December 2022 to January 2023. This study aims to explore the prevalence of mental and cognitive symptoms and their associated factors among medical students after the COVID-19 pandemic.

Methods A cross-sectional study was conducted between February 27th and March 8th, 2023. The symptoms of anxiety, depression, insomnia, post-traumatic stress disorder (PTSD), and cognitive function among medical students were examined using the Generalized Anxiety Disorder-7 (GAD-7), the Patient Health Questionnaire-9 (PHQ-9), the Athens Insomnia Scale (AIS), the Impact of Event Scale-6 (IES-6), and the Perceived Deficits Questionnaire-Depression-5 (PDQ-D-5). Data on demographic information was also collected. Statistical analyses were conducted to describe the prevalence and explore the associated factors of mental and cognitive symptoms.

Results Among 947 participants, the proportion of students experiencing anxiety, depression, insomnia, and PTSD symptoms was 37.8%, 39.3%, 28.3%, and 29.5%, respectively. The self-reported COVID-19 infection rate was 72.2 %. Higher grades, childhood, and current rural residence were identified as potential risk factors for mental and cognitive symptoms. Gender, age, average monthly household income, and COVID-19 diagnosis were not associated with mental and cognitive symptoms among medical students.

Conclusion Our findings revealed a high prevalence of mental and cognitive symptoms among Chinese medical students after the COVID-19 pandemic. Special attention should be paid to the mental health of higher-grade students and those residing in rural areas.

关键字：Medical students; post-COVID-19 period; Mental health; Cognitive function; Risk factors

MCC950 抑制 NLRP3 炎性小体活性降低 AD 模型小鼠 tau 蛋白研究

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目的 研究 NLRP3 炎性小体抑制剂 MCC950 对 P301s 模型小鼠（tau 蛋白特异性表达转基因小鼠）tau 蛋白的影响。

方法 按照随机数字法将 24 只 P301S 小鼠按体质量随机分为 P301S 模型组和 MCC950 组（10mg/kg），另取 10 只 C57BL6 小鼠作为对照组。P301S 模型小鼠于 9 月龄开始腹腔注射 MCC950，每日一次，连续给药 21d，注射体积为 10mL/kg；对照组和模型组小鼠腹腔注射等体积的生理盐水。末次给药结束后，采取行为学实验（Y 迷宫和 Morris 水迷宫）检测小鼠的学习记忆能力；苏木素-伊红（HE）染色观察模型小鼠海马组织的病理变化，ELISA 及免疫荧光染色法分别检测小鼠脑组织中 NLRP3 水平，westernblot 法检测小鼠脑组织海马及皮质中 ASC、caspase-1、IL-18、IL-1β、TNF-α 及 p-tau（Ser404，Thr231）的表达情况。

结果 与对照组相比，模型组小鼠自发交替反应率下降、水迷宫的游泳潜伏期较长，穿越平台次数及目标象限路程减少，NLRP3、ASC、caspase-1、IL-1β、IL-18、TNF-α、p-tau（Ser404，Thr231）表达明显增加。与模型组比较，MCC950 组小鼠自发交替反应率升高、水迷宫潜伏期较短，穿越平台次数及目标象限路程增加，NLRP3、ASC、caspase-1、IL-1β、IL-18、TNF-α、p-tau（Ser404，Thr231）表达明显减少。

结论 MCC950 可通过抑制 NLRP3 炎性小体活性来降低 AD 模型小鼠 tau 蛋白。

关键字：MCC950；NLRP3 炎性小体；阿尔兹海默病；tau

音乐治疗改善帕金森病患者淡漠、焦虑、抑郁及睡眠的疗效观察

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目的 观察音乐治疗对于帕金森病患者淡漠症状、焦虑、抑郁情绪及睡眠的临床疗效。

方法 将纳入的 80 例帕金森病患者，按照随机分组分为常规治疗组与综合治疗组，每组 40 例患者。常规治疗组进行常规的药物治疗及康复训练（包括吞咽训练、平衡训练、步态训练、四肢关节松动训练等运动康复以及相关理疗等，各项训练每天 1 次，每次 30-40 分钟，每周 5-6 次，共治疗 8 周），综合治疗组在常规治疗及康复训练的基础上予以音乐治疗（由专业音乐治疗师或护师通过音乐特质对患者产生影响，每天 1 次，每次 60 分钟，每周 5-6 次，共治疗 8 周）。治疗前和治疗 8 周后采用 Lille 淡漠量表（Lille apathy rating scale，LARS）评估患者淡漠表现，汉密尔顿焦虑量表（Hamilton anxiety scale，HAMA）、汉密尔顿抑郁量表（Hamilton depression scale，HAMD）评估患者的情绪，帕金森睡眠量表（Parkinson's disease sleep scale，PDSS）评估患者的睡眠情况。

结果 治疗前，常规治疗组和综合治疗组患者的 LARS、HAMA、HAMD、PDSS 评分组间比较，差异均无统计学意义（P＞0.05）。治疗后，两组患者 LARS、HAMA、HAMD 以及 PDSS 总分较治疗前均有改善（P

＜0.05），综合治疗组改善程度优于常规治疗组（P＜0.05）。

结论 音乐治疗结合常规康复可以更好地改善帕金森病患者的淡漠、焦虑、抑郁情绪及睡眠。

关键字：帕金森病；音乐治疗；淡漠；焦虑抑郁；睡眠

焦虑敏感性与惊恐障碍的关系研究进展

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目的 目前 PD 的确切病因和发病机制尚不清楚，相关研究表明，焦虑敏感性（Anxiety Sensitivity，AS ）与 PD 的易感性密切相关, 在 PD 发展和维持中起着重要作用，研究 AS 与 PD 的关系，探讨 AS 影响 PD 的心理机制，为进一步研究 PD 发病机制提供理论依据

方法 对国内外关于惊恐障碍和焦虑敏感性相关的文献进行系统综述。

结果 AS 是由个体对焦虑产生消极后果的恐惧产生的，已经成为 PD 基于认知理论的最具影响力的风险和维持因素之一。AS 在 PD 的发展和维持中起着重要作用，AS 与 PD 的病理过程密切相关，尤其 AS 的身体关注维度在 PD 中具有特征性的表现， AS 导致 PD 患者出现歪曲的认知偏向，并且 PD 患者存在与 AS 相关的大脑区域功能异常有关，包括杏仁核、下丘脑、海马、前额叶皮质、岛叶等部位存在功能异常，但目前仅仅局限在粗略的定位，具体的发生机制还有待于进一步探索，

结论 AS 在 PD 病理过程中起着重要的作用，尤其 AS 躯体关注度与 PD 易感性密切相关 ，本文系统综述了 AS 和 PD 的关系， AS 在 PD 中的作用机制与相关脑区功能异常有关，基于此，探索 AS 的干预方法有望被用于 PD 的临床治疗，为 PD 的治疗提供新的治疗靶点。

关键字：惊恐障碍； 焦虑敏感性；发病机制 ；治疗

焦虑症、抑郁症患者与正常健康人颅脑 CT 对比研究

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目的 研究焦虑及抑郁病人颅脑 CT 与正常健康人的差异。

方法 纳入 50 例焦虑症患者（研究 1 组）、50 例抑郁症患者（研究 2 组）及 50 例正常健康人（研究 3 组）于 2018.08~2019.08 在我院开展研究。所有人均行颅脑 CT 检查，统计并分析检查结果。

结果 三组颅脑各部位宽度测量值均无明显差异（P＞0.05）；研究 1、2 组病人大脑左额叶脑组织 CT 密度值分别为（34.13±0.48）、（34.27±0.51），右额叶脑组织 CT 密度值分别为（35.07±0.37）、（35.41±0.45）明显低于研究 3 组的（36.78±0.83）（36.92±0.79）（P＜0.05）；研究 1 组与研究 2 组相比，两组无明显差异（P＞0.05）。

结论 焦虑及抑郁病人颅脑 CT 显示左右额叶脑组织 CT 密度值相较于正常健康人存在差异，说明焦虑及抑郁的发生可能与大脑额叶功能出现改变有关。

关键字：颅脑 CT；焦虑症；抑郁症；脑功能

伴或不伴忧郁特征的首发未服药抑郁症患者皮质厚度的变化

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目的 忧郁型抑郁症是一种更严重的重度抑郁症类型，其核心特征是快感缺失。然而，忧郁型抑郁症的病理生理机制仍然不清楚。本研究旨在探索忧郁型抑郁症患者和非忧郁型抑郁症患者皮层厚度是否存在显著差异，并且这种皮层厚度差异是否可以作为区分二者的神经生物学标志物。

方法 招募了 137 名首发未服药的重度抑郁症患者和 75 名健康对照者，并且进行结构磁共振成像采集，使用基于表面的形态测量方法进行分析。同时，根据蒙哥马利-艾斯伯格抑郁评定量表(Montgomery-Asberg Depression Rating Scale，MADRS)和汉密尔顿抑郁评定量表(Hamilton Depression Rating Scale，HDRS-17)抑郁症评定量表的得分，将入组患者分为忧郁型抑郁症和非忧郁型抑郁症两个亚组。

结果 三组之间没有发现明显的皮层厚度差异。同样的，非忧郁型抑郁症组和健康对照组之间忧郁型抑郁症组和非忧郁型抑郁症组之间有明显的皮层厚度变化。然而，与健康对照组比较，忧郁型抑郁症组的左侧中央后回和右侧楔前叶的皮层厚度增大。而且，左侧中央后回和右侧楔前区的 CT 与疾病的严重程度(HDRS-17: r=0.077, p=0.549; r=0.081, p=0.526. MADRS: r=0.233, p=0.067; r=0.134, p=0.295, separately)和病程(r=0.240, p=0.059, r=0.241, p=0.057)没有关系。

结论 本研究结果表明，左侧中央后回和右侧楔前叶的皮层厚度改变可能是忧郁型抑郁症的独特病理机制。

关键字：忧郁型抑郁症；基于表面的形态学测量；皮层厚度

中西医结合疗法治疗焦虑症伴心血管疾病的效

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目的 中西医结合疗法治疗焦虑症伴心血管疾病的效果探讨。

方法 在 2020 年 11 月至 2021 年 11 月中选取到院进行治疗的焦虑症伴心血管疾病患者共 60 例，所有患者拥有正常的沟通能力，对用药的依从性较高，且经专科确诊为该病病症；随机分组，分别提供西医治疗（对照组），联合中医治疗（观察组），每组 30 例。对比分析临床效果，并使用 HAMA 量表对其焦虑症状实施评分，使用生活质量评分表对其生活质量实施评分。

结果 针对该疾病临床常采用西药治疗，盐酸氟西汀盐酸是治疗焦虑和抑郁常用药物，是选择性 5-羟色胺（5-HT）再摄取抑制剂，能够阻断突触前膜对 5-HT 的延长、增加 5-HT 的作用能够增加抗抑郁、抗焦虑的作用。中医范畴中，焦虑症属于“惊悸”“怔忡”的范畴，表现为惊狂、失眠、烦躁等症状，柏子养心丸为远志、百合、白术、当归、半夏、龙齿等药物组成，有着安定神志、疏肝解郁、调理神经衰弱的功效 。中西结合能够起到抗焦虑、镇静的作用。本次研究结果显示：治疗前两组患者心功能评分等级差异小，治疗后两组患者II级、III级、IV级差异小，生活质量评分相比，有可比性与对照组相比，观察组心功能I级人数偏多，干预后观察组生活质量评分高于对照组。此结果表明：中西治疗能够改善对该病的疗效。

结论 综上所述，焦虑症伴心血管疾病的发生概率随着社会的发展已呈上升发展趋势，可能严重降低患者对治疗的依从性及其生活质量，对其自主神经功能也有一定的影响，加深患者的心脏负担，促使心血管疾病加重，所以对该疾病患者采取有效的治疗极为紧迫。对该病患者使用中西医治疗能够改善治疗效果，优化心功能分级，减少焦虑症状，提高生活质量评分。

关键字：中医治疗；西医治疗；心血管疾病；焦虑症

认知偏向矫正训练缓解焦虑症状的影响因素述评

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目的 研究发现，对负性或威胁性信息的认知偏向可能是焦虑形成的原因之一，理论上可以通过改善不良认知偏向从而缓解焦虑症状，然而既往研究对于认知偏向矫正抗焦虑疗效的结论并不一致。本文旨在讨论认知偏向矫正训练缓解焦虑症状的影响因素，为指导更有效的认知偏向矫正训练提供依据。

方法 以关键词“认知偏向、认知偏向矫正、焦虑”在 PubMed、万方数据库上检索近十年的相关文献，共纳入中英文文献六十余篇，汇集了当前研究对于认知偏向矫正抗焦虑疗效的影响因素分析。

结果 在实验设计方面，注意和解释偏向矫正相结合的训练可能比单一训练更有效，未来的实验需要进一步验证；不同的训练范式可能产生不同的效果；实验参数（如训练时长、实验次数、刺激持续时间、填词难度等）也是影响实验结果的因素之一；线上训练经济方便，但其效果不如实验室训练，因此开发线上训练程序应尽可能地还原线下训练的规范性和压力体验；有针对性的训练材料、工作记忆负荷、想象暴露或焦虑意向启动、加强对训练的认识程度和依从性都是认知偏向矫正的增效措施，而在其中加入 VR 和游戏元素则可以增加参与度和趣味性。在参与者方面，年龄、性别、身份、基线症状严重程度、个体神经影像差异等都可能是实验结果的调节因素。

结论 认知偏向矫正训练在改善焦虑症状方面具有很好的应用前景，本文从实验设计因素和参与者因素两大方面讨论了其抗焦虑效果量存在差异的原因，为未来开发相关训练程序提供优化策略，也为选择适宜的训练对象提供参考。

关键字：认知偏向，认知偏向矫正，焦虑

The Relationship Between Personality Traits and Dysfunctional Attitudes in Individuals with Or without Major Depressive Disorder: A Case Control Study

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Objective Dysfunctional attitudes (DAs), which are characterized by distorted self-cognitions, were considered to be linked to personality traits. It was found that certain personality traits may predict DAs in patients with major depressive disorder (MDD). Yet, the relationship between personality traits and dysfunctional attitudes remains under-researched. This study aimed to examine examine the relationship between specific domains of Sixteen Personality Factor (16PF) and DAs in Chinese participants with or without MDD.

Methods One hundred and sixty-eight participants with MDD and 130 healthy participants were included in the study (Trial Registration Number: ChiCTR1800014591). Personality was assessed using 16PF Questionnaire. DAs were measured through the Chinese version of the Dysfunctional Attitude Scale-Form A (C-DAS-A).

Results The 16PF dimensions associated with DAs

were mainly concentrated in the four anxiety facets including factors C, L, O, and Q4, in both MDD and HC groups. There were significant differences in the 16PF dimensions that would explain the C-DAS-A total and subscale scores between the two groups. The specific 16 PF dimensions predicting the C-DAS-A total and subscale scores were as follows: factors B, C, F, G, H, and O in the MDD group, and factors I, L, N, Q2 , Q3, and Q4 in the HC group. The anxiety facets of 16 PF that explained DAs discriminated between the MDD and the HC groups.

Conclusion Personality traits, especially the anxiety-related personality traits, were associated with the development of DAs in MDD.

关键字：Sixteen personality factor (16PF); Dysfunctional attitudes; Major depressive disorder; Anxiety-related personality traits; Hierarchical regression

Exploring The Mediating Role of Somatic Symptoms and Sleep Conditions in The Relationship between Stress and Work Engagement in Grade-A Tertiary Hospital Administrators

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Objective Stress is closely related to occupational well-being and it influences the work engagement and workplace creativity of hospital administrators. Yet, it remains unclear the underlying factors for this association. The study aims to investigate the mediating role of work-related somatic symptoms and sleep conditions on the relationship between stress and work engagement/workplace creativity among hospital administrators. Hospital administrators are worth studying due to their critical role in ensuring the smooth operation of hospitals, handling emergencies, and delivering healthcare services.

Methods A designed questionnaire to examine stress, somatic symptoms, sleep conditions, work engagement, and workplace creativity was administered to hospital administrators in Chinese Grade-A tertiary hospitals. A total of 481 valid responses were included.

Results The predictive effects of stress on work engagement and workplace creativity were confirmed. It was found that stress affected work engagement/workplace creativity through the mediation role of somatic symptoms and sleep conditions, respectively. There was a chain mediation model of stress → somatic symptoms →sleep conditions→ work engagement, but not stress→ somatic symptoms →sleep conditions→ workplace creativity.

Conclusion The findings contribute to understanding of the underlying factors for the relationship between stress and work engagement/workplace creativity, emphasizing the role of somatic symptoms and sleep disturbance. Based on the findings, a combination of psychological support and physiological intervention was encouraged for hospital administrators.

关键字：Hospital administrators; Chain mediation model; Stress; Physical well-being; Work engagement

Impact of Childhood Maltreatment on Adult Resilience

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Objective Previous studies suggested that childhood maltreatment is associated with poor health outcomes. While not everyone who experiences abuse as a child goes on to experience poor mental health, some traumatized people are grown to be more resilient than others. Few studies have examined the association between childhood maltreatment and adult resilience. This study aimed to determine different relationships between specific types and features of childhood maltreatment with adult resilience among Chinese with and without Major Depressive Disorder (MDD).

Methods A total of 101 participants with MDD and 116 participants in the healthy control (HC) group from Zhumadian Psychiatric Hospital and its nearby communities were included in this analysis. Childhood maltreatment was assessed retrospectively using Childhood Trauma Questionnaire (CTQ). Adults' resilience was assessed by the Connor-Davidson Resilience Scale (CD-RISC). Generalized linear models were applied between childhood maltreatment (specific types and features) and resilience adjusting for covariates.

Results CTQ total score had a negative association with optimism score among participants in MDD (β=-0.087, P<0.001) and HC (β=-0.074, P=0.023) groups. Higher emotional neglect (EN) score (β=-0.169, P=0.001) and physical neglect (PN) score (β=-0.153, P=0.043) were related to a worse optimism score in MDD group. Emotional abuse (EA) score was associated with a worse tenacity score (β=-0.674, P=0.031) in MDD group. For participants in HC group, higher EN and PN scores were related to worse resilience scores (tenacity, strength, and optimism).

Conclusion Patients with MDD showed lower optimism than HCs, and childhood neglect had deleterious effects on optimism among individuals with and without MDD. EA in childhood was also linked to worse tenacity in adulthood among participants with MDD. These findings may point to interventions promoting optimism and positive psychology as effective ways to lessen the likelihood of MDD development and severity in traumatized people. The disease of MDD contributed to the worse per-

formance of all aspects of resilience. Childhood maltreatment independently contributed to optimism, with more severe childhood maltreatment predictive of worse performance of optimism.

关键字：childhood maltreatment, resilience, MDD, depression

Cognition Profiles Among Chinese in Late Life: Characterization and Risk Factors

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Objective Cognitive impairment has been a public concern bringing huge burden to society. A data-driven cluster analysis can reveal different cognitive characteristics of older Chinese adults, which may facilitate stratified medicine and even individualized intervention. The objective was to identify cognitive characteristics in older Chinese adults and to evaluate the associations between potential risk factors and cognitive impairment.

Methods This cluster analysis used data from wave four in the China Health and Retirement Longitudinal Study (CHARLS) in a population-based setting. The studies included Chinese residents aged 60 years and older. Global cognitive z scores were calculated regarding six cognition dimensions: general cognition, orientation, memory, language and praxis, executive function, and verbal fluency.

Results Among 8544 participants (≥60 years) included in the present, 50.6% were female, and 90% had a lower level of education. The participants were classified into two statistical data-driven clusters: one with globally impaired cognition (n=2980) and the other with relatively intact cognition (n=5564) based on cluster analysis of six cognition dimensions. Compared to participants in the cluster with relatively intact cognition, those with globally impaired cognition were more likely to be females, have a lower level of education, and engage in less social activities, including caring for grandchildren and community activities. Among participants with globally impaired cognition, female gender was negatively associated with orientation (β=-0.555; 95%CI, -0.667 to -0.443) and executive function (β=-0.301; 95%CI, -0.390 to -0.213), the score of Instrumental Activities of Daily Living (IADL) was negatively associated with orientation (β=-0.028; 95%CI, -0.041 to -0.015) and memory (β=-0.022; 95%CI, -0.033 to -0.011), and a greater intensity of physical activities was associated with better general cognition (600-2249: β=0.204; 95%CI, 0.073 to 0.336), orientation (600-2249: β=0.312; 95%CI, 0.186 to 0.438; ≥2250: β=0.205; 95%CI, 0.093 to 0.317) and memory (600-2249: β=0.184; 95%CI, 0.077 to 0.291).

Conclusion The cognition was found greatly heterogeneous among older Chinese adults. Lack of social connection, lower level of education, female gender, and less physical activity were significant risk factors for deteriorating cognition in this population.

关键字：Cognitive performance; cluster analysis; risk factor; older Chinese adults

Exploring The Relationships between Stress and Physical Well-being Among Grade-A Tertiary Hospital Administrators

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Objective Hospital administrators play a vital role in hospital management, decision-making and logistics. This study aims to investigate the impact of work-related stress on somatic symptoms and sleep among administrators in Grade-A tertiary hospitals.

Methods A designed questionnaire was administered to hospital administrators from December of 2022 to January of 2023 (including Perceived Stress Scale, Patient Health Questionnaire-15, Athens Insomnia Scale). A total of 481 valid responses were included.

Results Participants experienced relatively great stress, with nearly half experiencing moderate to high levels of somatic symptoms and 60% experiencing insomnia. Stress was positively associated with somatic symptoms (r = 0.383) and sleep conditions (r = 0.425). Female, senior positions, clinical departments, and elder age were risk factors for somatic symptoms and sleep disturbance.

Conclusion Somatic symptoms and sleep disturbance are prominent among hospital administrators, and this is closely related to the stress experienced. The decline in hospital administrators' physical well-being can have a negative impact on the smooth operation of hospitals. Therefore, attention and support for stressed individuals should be offered.

关键字：Hospital administrators; Stress; Somatic symptoms; Sleep

焦虑症与归因方式相关研究

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目的 探讨焦虑症患者的归因方式特点，分析焦虑症与归因方式之间的相关性。

方法 入组 70 例焦虑症患者。以归因方式问卷、汉密尔顿焦虑量表为研究工具对入组者进行测试，对性别、年龄、文化程度等维度上的差异进行统计分析，对患者组归因方式进行相关性分析。

结果 1.患者组焦虑量表分数显著高于对照组，差异有统计学意义（P＜0.01)。2.对负性事件的结果归因方式对照组倾向于外归因，患者组对负性事件的归因方式倾向于内归因，两者之间差异有显著性（t=5.526，

P＜0.01)；患者组对正性事件的内归因、持久性及全面性和正常对照组差异无统计学意义（P 均>0.05）。患者组性别、婚姻及户口、受教育年限等不同组别三个维度得分差异无显著性（P 均>0.05）。在负性事件中焦虑组和持久性归因显著性正相关(r =0.362; P＜0．01)；在正性事件中焦虑组和稳定性(r＝0．240，P＜0．01) 归因显著性正相关。

结论 1.性别、婚姻、户口及受教育年限等相关因素在焦虑症患者中汉密尔顿焦虑量表评分方面无显著影响。2.焦虑症患者在归因方式上对负性事件倾向于内归因与对照组患者在负性事件倾向于外在性有显著差异，且患者组在对负性事件和正性事件中均与归因方式中稳定性呈正相关。

关键字：焦虑症 归因方式

Association of Physical Functions and Cognitive Performances Among Chinese Elderly Population: Evidence From The China Health and Retirement Longitudinal Study

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Objective The current study developed a comprehensive model to investigate the relationship between different physical functions and cognitive performances among Chinese elderly population.

Methods 4869 participants (60-97 years) were drawn from China Health and Retirement Longitudinal Study measured in 2015 and 2018. Multiple linear regression models were used to determine the relationship between physical functions (BMI, grip strength, blood pressure, balance tests, gait speed, repeated chair stands and pulmonary function) and cognitive performances (general cognition, episodic memory, executive function, verbal fluency, orientation, and language and praxis).

Results Pulmonary function predicts all the cognitive performances in the current study. Right grip strength predicts all the cognitive performances except general cognition. Gait speed predict general cognition, episodic memory, verbal fluency, and language and praxis in subgroup of male aged 60-70 years.

Conclusion Our results indicated different physical functions have varying impacts on different cognitive performances controlling the impacts of other physical functions.

关键字：physical function; cognitive performance; cohort study; Chinese; older adults

Effectiveness of Computerized Cognitive Behavioral Therapy with Reaction Time As A Biomarker for Anxiety and Depressive Symptoms: A Randomized Controlled Trial

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Objective Computerized Cognitive Behavioral Therapy is an effective method of remote psychological intervention. Assessment of Computerized Cognitive Behavioral Therapy efficacy based on subjective symptom scales and objective biological indicators has the advantage of non-invasiveness and convenience. Predicting the treatment effect of Computerized Cognitive Behavioral Therapy by defining a biomarker provides supporting information for symptom assessment in clinical protocols.

Methods Through mental health screening, we obtained college students with symptoms of anxiety and depression and subjected them to a four-week randomized, controlled, parallel Computerized Cognitive Behavioral Therapy intervention study. Reaction time data and clinical symptoms were collected at baseline and at the end of treatment for intergroup comparisons and correlational analyses between the Computerized Cognitive Behavioral Therapy and waiting list groups. Multiple linear regression analysis was performed to predict the treatment efficacy of participants based on the correlation between response time and symptoms found at baseline.

Results In the mental health screening, we found differences and correlations in reaction time and clinical symptoms between the anxious depression group and the non-anxious depression group. Significant changes in reaction time were observed in the Computerized Cognitive Behavioral Therapy group compared to the wait-list control group, along with improvements in clinical symptoms after treatment. The efficacy of Computerized Cognitive Behavioral Therapy was based on the significance of pre- and post-treatment differences in symptoms and the range of post-treatment scores. Post-treatment scores were predicted by multiple linear regression analysis, with baseline response time as the independent variable and post-treat-

ment symptom scores as the dependent variable, and a linear regression model was developed, and the model was statistically significant.

Conclusion This study identified reaction time as an objective biomarker closely associated with anxiety-depression symptoms and Computerized Cognitive Behavioral Therapy efficacy. This study suggests that we hypothesize that reaction time characteristics could be an effective method for tracking psychotherapy progress and predicting efficacy.

关键字：Depression; Anxiety; Anxious-depression; Reaction Time; College students; Computerized Cognitive Behavioral Therapy

The Relationship between Sleep Disturbance and Obsessive– Compulsive Symptoms: The Mediation of Repetitive Negative Thinking and The Moderation of Experiential Avoidance

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Objective Studies have found that sleep disturbance is associated with obsessive–compulsive symptoms. This study aimed to elaborate on the mediating and moderating mechanisms between these two variables. We?hypothesized that repetitive negative thinking plays a mediating role in the relationship between sleep disturbance and obsessive–compulsive symptoms, and experiential avoidance plays a moderating role.

Methods This study included 639 Chinese adults. A questionnaire survey was used to assess sleep quality, obsessive–compulsive symptoms, experiential avoidance, repetitive negative thinking, and depression symptoms. A moderated mediation model was established.

Results After controlling for depressive symptoms, repetitive negative thinking partially mediated the positive correlation between sleep disturbance and obsessive–compulsive symptoms. This indirect relationship was significant in individuals with lower experiential avoidance levels. Particularly, the relationship between sleep disturbance and repetitive negative thinking was significant among individuals with lower experiential avoidance levels, but not among individuals with higher experiential avoidance levels.

Conclusion This study demonstrated that repetitive negative thinking partially mediated the impact of sleep disturbance on obsessive–compulsive symptoms. The findings suggest that when providing support to individuals with sleep disturbance and obsessive–compulsive symptoms, assessing their level of experiential avoidance is necessary for performing targeted interventions. Individuals with low experiential avoidance may benefit from a clinical intervention targeting repetitive negative thinking to improve sleep quality and obsessive– compulsive symptoms.

关键字：sleep disturbance, repetitive negative thinking, obsessive-compulsive symptoms, experiential avoidance, mediation, moderation

Effects of School Violence Exposure on Reactive Aggression: Longitudinal Chain Mediation of Social Anxiety and Sleep Quality

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Objective Based on the General Stress Theory and the physiological arousal theory of sleep, traumatic events and experiences such as violent exposure can influence individuals' brain function, mental health, and aggression. However, some reactions are acute and others are delayed, with different characteristics.

Methods We used the Proactive-Reactive Aggression questionnaire and the Pittsburgh Sleep Quality Index questionnaire to follow up 542 primary and middle school students in a three-wave survey (T1, T2, T3), each interval time was half a year. Moreover, we applied Mplus7.4 to construct the longitudinal chain-mediated role of social anxiety and sleep quality in the effect of school violence exposure on reactive aggression, and to compare the effect of gender.

Results (1) social anxiety (T2) - sleep quality (T2) longitudinally chain-mediated the association between school violence exposure (T1) and reactive aggression (T3). (2) Social anxiety (T2) had a separate longitudinal mediated effect in the association between school violence exposure (T1) and reactive aggression (T3). (3) There were gender differences in the chain-mediated effect of social anxiety (T1) - sleep quality (T3).

Conclusion When school violence exposure events occur, we should pay more attention to adolescences' social anxiety, which is conducive to further improving sleep quality, and preventing and reducing reactive aggression.

关键字：school violence exposure; reactive aggression; social anxiety; sleep quality; longitudinal chain mediation

经颅直流电刺激对迟发性运动障碍患者补体成分 4 的影响

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目的 探讨经颅直流电刺激（tDCS）对于迟发性运动障碍（TD）患者补体成分 4（C4）的影响，探索 C4 在迟发性运动障碍疾病发展中的作用。

方法 选取 2017 年至 2018 年来源于苏州市广济医院、苏州市社会福利总院、太仓市精神卫生中心、南

充市第六人民医院四家精神专科医院的43例住院精神分裂症伴迟发性运动障碍患者，随机分为实验组（23例）和对照组（20例）。研究期间，两组患者均接受常规药物治疗，分别在第一周、第三周、第五周进行干预，实验组予以经颅直流电刺激治疗，采用的电流为 2 mA，刺激部位为左侧背外侧前额叶皮质及对侧眶上缘；对照组相应地予以伪经颅直流电刺激治疗。两组患者均在入组基线期和第五周治疗结束后收集清晨空腹外周静脉血 5ml，采用酶联免疫吸附法检测两组患者血清中C4 浓度，使用配对样本 t 检验统计两组实验前后差异。

结果 两组的一般人口学特征如性别、年龄、病程、受教育程度等比较，差异均无统计学意义（P＞ 0.05），组实验组患者 C4 指标在治疗前后分析差异有统计学意义（P <0.05），对照组患者 C4 浓度在治疗前后分析差异无统计学意义（P>0.05)。

结论 经颅直流电刺激可能会降低迟发性运动障碍患者的 C4 浓度，提示 C4 可能在迟发性运动障碍疾病发展过程中起一定作用。

关键字：迟发性运动障碍；经颅直流电刺激；补体成分 4；

强迫症患者在归纳推理任务中的认知偏差评价

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目的 强迫症是一种精神障碍，表现为反复出现的强迫思维和行为。认知失调理论与神经生理病理学的解释都面临了较多理论和实践的困难，关于强迫症患者的干预和治疗也较为局限。所以本研究的目的是探究强迫症患者在不同（积极/中性/消极）情境下辨别力和归纳推理任务中的领域特殊性。

方法 本研究邀请了 64 名 17-48 岁的成年人（M = 29.1）参与，他们被分为了强迫症组（N =32）和健康对照组 （N =32）。本研究使用 2（任务顺序：推理-识别（I-D）/识别-推理（D-I）x2（任务复杂性：复杂/简单）x3（情 绪效价：积极/中性/消极）任务来记录参与者的反应时间（RT）和反应概率。采用信号检测理论的指标， 探讨其潜在的认知机制。

结果 （1）强迫组在推理和辨别任务中表现出较长的反应时（RT）；（2）在中性条件，复杂-识别-推理任务中表现出更高的决策标准（C），在积极和消极条件下，简单-推理-识别任务中表现出更高的决策标 准（C）。

结论 强迫症患者的反应准确性没有显著降低，他们对复杂任务的辨别能力下降，这表明学习能力降低，他们必须使用控制处理来处理本可以通过自动处理来处理的简单任务。

关键字：强迫症；归纳推理；辨别力；认知偏差；信号检测论；情绪效价

医学生抑郁症状、危险因素及临床相关性的性别差异

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目的 大学生群体心理健康问题是关系国家未来发展的重大公共卫生问题和社会问题之一。本研究旨在探讨大学生群体抑郁现状、危险因素及其性别差异

方法 本研究在河南省某一医学院校整群抽取 1.14 万人通过问卷的方式进行心理健康筛查，获有效样本 7657 例。主要采集大学生的人口学资料、抑郁症筛查量表（PHQ-9）、广泛性焦虑症量表（GAD-7）、失眠严重程度指数量表（ISI）、压力知觉量表（PSS）。采用 SPSS20.0 软件进行统计分析。对符合正态分布的计量资料采用均数±标准差描述，计数资料采用频数描述，组间比较采用检验采用 $\chi 2$ 检验。根据 PHQ-9 得分，将多少分的设为对照组，≥5 分的设为抑郁组。使用双因素方差分析来比较有无抑郁的大学生不同变量间的性别差异；在调整了每个性别的混杂变量后，采用二元逻辑回归分析有无抑郁的大学生群体之间的比值（OR）。所有 P 值均设置为＜0.05 的双尾显著性水平

结果 抑郁在男性和女性中的患病率分别为 26.2%（772/2952）和 25.0%（1178/4705）。在整个大学生群体中，吸烟、饮酒和压力感知异常的男性比例显著高于女性，愿意接受心理干预的女性比例显著高于男性，抑郁主要风险因素为饮酒、心理精神疾病史、精神疾病家族史、自杀意念、焦虑、压力和失眠。其中，吸烟和精神疾病家族史是男性抑郁大学生群体的独立风险因素(吸烟 OR=1.4；精神疾病家族史 OR=3.15)；年龄和自杀意念是女性抑郁大学生群体的独立风险因素（年龄 OR=0.918；自杀意念 OR=1.224）

结论 在大学生群体中，抑郁症状与饮酒、网络干预意愿、焦虑和失眠有关，不同性别的医学生有独立的风险因素，通过对大学生群体不同性别间的抑郁现状及风险因素研究，便于针对不同性别大学生制定相应的抑郁防治措施，从而改善和减少抑郁症状，提高大学生整体的心理健康水平

关键字：性别差异；风险因素；医学生

青少年抑郁障碍患者领悟社会支持与非自杀性自伤行为：有调节的中介模型

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目的 探讨青少年抑郁障碍患者领悟社会支持与非自杀性自伤行为的关系，以及童年虐待与忽视的中介作用和抑郁程度的调节作用。

方法 选取 84 例符合 DSM-5 诊断标准的青少年抑郁障碍患者，采用领悟社会支持量表(PSSS)、童年心理虐待与忽视量表(CPANS)、汉密尔顿抑郁量表(HAMD-24)、青少年自我伤害行为问卷进行临床症状评估。

结果 (1)领悟社会支持与非自杀性自伤行为呈显著负相关（r=-0.34，p＜0.01），领悟社会支持与童年虐待与忽视呈显著负相关（r=-0.32，p＜0.05）；(2)童年虐待与忽视在社会支持与非自杀性自伤行为之间起部分中介作用（总效应为-0.58，直接效应为-0.36，间接效应为-0.22，间接效应占总效应 37.9%）；(3)童年虐待与忽视与非自杀性自伤行为的关系（即中介效应的后半段路径）受到抑郁程度的调节，童年虐待与抑郁交互效应显著存在 p=0.000＜0.01 且显著调节中介效应（-0.037~-0.003 区间不包含 0）

结论 青少年抑郁障碍患者领悟性社会支持与非自杀性自伤行为之间存在着有调节的中介效应，童年虐待与忽视是二者关系的中介变量，童年虐待和非自杀性自伤的受到抑郁调节，具体来说，被试抑郁程度越重，在童年虐待对非自杀性自伤行为中起到的抑制作用越弱，童年虐待与忽视和抑郁共同作用下，非自杀性自伤行为更严重。

关键字：领悟社会支持；童年虐待与忽视；非自杀性自伤行为；青少年

成年初显期疾病焦虑个体的存在焦虑特征质性研究及团体咨询干预

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目的 疾病焦虑是个体基于某种或多种疾病先占观念，产生以死亡焦虑为核心特征的显著焦虑情绪，并在行动上表现为反复自我检查或寻求与疾病有关的确诊信息，或是适应不良的回避。本篇研究中，研究一旨在探讨存在焦虑在成年初显期疾病焦虑个体中的表现特征，尤其关注疾病焦虑个体对 Yalom (1980)所提出的四个终极存在议题的敏感度与觉察，并探索这种深层觉察同症状之间的联系。研究二以欧文亚隆团体咨询的模式为指导，考察在研究一基础形成的团体干预方案在成年初显期疾病焦虑个体中的应用效果。

方法 研究一采取质性研究方法，对 17 名成年初显期疾病焦虑个体进行半结构化访谈，将 17 份录音音频转化为文本材料，在 Yalom (1980)提出的四个存在焦虑的基本成分的框架下对访谈文本进行分析。研究二招募 14 名成年初显期疾病焦虑个体，平均分为干预组和对照组，干预组将研究一的结果转换为阅读材料，并形成团体咨询方案进行干预，对照组只进行阅读干预。

结果 研究一结果显示：(1)成年初显期疾病焦虑个体死亡焦虑的体验包括惊恐发作引发的濒死体验和童年时期死亡焦虑体验；死亡焦虑的内容包括死亡及其诱发因素和关系负担；死亡焦虑的影响因素包括重要他人的死亡焦虑及患重病致死经历、自身确诊或可能确诊重大疾病的经历、网络信息中同年龄段个体的死亡经历及疫情影响；成年初显期疾病焦虑个体面对死亡的基本态度是恐惧、回避与矛盾。(2)孤独焦虑的内容包括独自一人面对死亡威胁、独自一人在外留学及独自一人面对疾病焦虑；应对孤独焦虑的方式主要表现在通过疾病焦虑症状维系与父母、恋人、朋友融合、依赖的关系。(3)自由焦虑的表现主要在愿望抑制、消极做出决定两个方面；增加的选择、生命意志的缺失会引发疾病焦虑，对丧失意志的焦虑是疾病焦虑的内容之一；成年初显期个体通过疾病焦虑症状来转移做决定的责任、改变做决定时的价值排序、减少做决定后带来的心理负担、阻碍行动和决定的能力、抑制感受和愿望来回应自由焦虑，但疾病焦虑也会增强个体的愿望与意志。(4)无意义焦虑体验来源于疾病焦虑状态下死亡焦虑和意志的丧失，个体的应对方式包括创造、自我实现和享乐主义。

结论 本研究结论是：(1)成年初显期疾病焦虑个体的存在焦虑与症状表现之间有深层关联。(2)在研究一基础上形成的团体咨询方案对成年初显期个体的疾病焦虑水平有明显改善。

关键字：疾病焦虑，存在焦虑，团体咨询，存在主义心理治疗

老年精神病学组

基于群体药动学的老年患者漏服奥氮平补服剂量仿真研究

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目的 在精神患者长期治疗过程中，患者可能因多种原因不能按时服药，使患者病情恶化，增加患者经济负担。因此，需要制定补救策略，告知患者可选择的给药方案，以弥补因延迟或漏服给药而造成的疗效降低，并避免产生不良反应。本研究基于前期已建立的老年精神障碍患者奥氮平群体药动学模型，研究漏服场景下补服剂量，为临床提供补服方案。

方法 以临床常用方案奥氮平 10 mg，口服，每晚 21 点一次进行仿真，设计一次漏服、连续二次和三次漏服 3 个场景。应用 NONMEM 软件分析数据，评估不同漏服场景对奥氮平血药浓度的影响，并设计相应的补救方案。补服策略分为两次补服和一次补服，两次补服指患者立即服用 10 mg，在下次计划时间服用补服剂量，之后按原剂量方案服药。一次补服指跳过漏服剂量，在下次计划时间通过一次补服剂量，之后按常规服用。以血药浓度迅速达到稳态浓度水平为标准，考察相应的最佳补服剂量，补服剂量可最小精确到 2.5 mg（临床规格 5 mg 的一半和 10 mg 的四分之一）。

结果 漏服二、三次低于治疗窗的风险比漏服一次高，漏服三次所需要的补服剂量更大。在两次补服策略下，随着延迟时间的增加，第二次补服剂量逐渐减少。采取一次补服策略，其剂量并非常规经验的剂量加倍，若剂量加倍补服，可能会增加不良反应的风险。

结论 本研究通过群体药动学研究，制定了老年患者漏服奥氮平后的补救方案，可为临床药物治疗决策提供参考。

关键字：奥氮平；群体药动学；漏服；老年人

The Cognitive Effects of Adjunctive Repetitive Transcranial Magnetic Stimulation for Late-onset Depression: A Randomized Controlled Trial with 4-week Follow-up

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Objective Cognitive impairment is widespread in patients with from late-onset depression (LOD) and it is linked to poor outcomes. The cognitive effects of repetitive transcranial magnetic stimulation (rTMS) for LOD are not well understood. According to this study,we investigated the effects of rTMS on cognitive function in LOD patients.

Methods Fifty-eight elder patients (aged 60 to 75) with depression were enrolled and randomly assigned to a rTMS active group or a sham group. The participants received either active or sham rTMS over the left dorsolateral prefrontal cortex for 4 weeks, 5 days a week, at a frequency of 10 Hz rTMS at 120% motor threshold (MT). A Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) was used to measure cognitive function at baseline, end of 4-week treatment, and 4-week follow-up.

Results A total of 58 participants were enrolled in the study, seven of whom did not enter the randomization process due to ineligibility. Participants in the ITT sample were randomized to the rTMS group and it consisted of 26 active participants and 25 sham participants. Fifty-one participants (87.9%) completed the acute course of treatment. No significant difference was determined in age, education level, gender, and baseline HDRS score between the two arms. The proportions of patients on sertraline and escitalopram were comparable between the two groups at the end of 4-week treatment. We used the repeated measures ANOVA to test the differences after the 4-week treatment and another 4-week follow-up. We observed statistically significant differences in immediate memory the conclusion of the 4-week treatment ($F=4.629$, $p=0.038$) and 4-week follow-up ($F=4.684$, $p=0.037$). After the 4-week follow-up, a significant difference was found between the active and sham rTMS groups in terms of attention ($F=7.273$, $p=0.011$). We did not find significant improvements in visuospatial, language function, or delayed memory (all $p>0.05$). Neither during nor after treatment were any serious side effects observed. The following side effects were reported by patients receiving rTMS: headache (Active, n=7; Sham, n=4), and nausea (Active, n=3; Sham, n=4).

Conclusion The 120% MT rTMS was seen to improve the cognitive defects present in the active phase of late-onset depression, and therefore rTMS could provide early improvement in cognitive functions in clinical use.

关键字：late-onset depression, transcranial magnetic stimulation, cognition, random controlled trial

基于 16SrRNA 序列分析阿尔茨海默病与轻度认知障碍患者肠道菌群的差异性研究

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目的 目前关于阿尔茨海默病（Alzheimer's Disease，AD）和轻度认知功能障碍（Mild cognitive impairment, MCI）患者的肠道菌群研究结果存在不一致，且肠道菌群的构成会受到不同饮食习惯的影响。本研究旨在比较 AD 和 MCI 患者肠道微生物的丰度及其组成特征之间的差异，以及临床特征的关联性，以便为临床提出有效的指导和参照。

方法 本研究为一项病例对照研究，病例组来自

昆明医科大学第一附属医院精神科门诊和住院病人，诊断符合 AD 和 MCI 的诊断入组标准；正常对照组构成为选取与患者年龄、饮食习惯相匹配的家属或社区健康老年人为正常健康对照组。对他们进行认知量表评测筛查符合入组标准后规范收集粪便标本。通过对粪便标本的测序，分析出其中微生物 16SrRNA 基因的表达情况。

结果 AD 患者的肠道菌群的多样性高于 HC 组。三个组在纲、目、科、属水平上存在显著差异，这种差别具有统计价值（P<0.05）。HC 组在脱硫菌门水平低于 AD 组和 MCI 组，而在纲水平上，HC 组在脱硫杆菌纲水平低于 AD 组和 MCI 组；在目水平上，HC 组在毛螺菌目水平低于 AD 组。在脱硫弧菌目中，MCI 组的数量明显低于变形菌纲，而 AD 组的数量则明显高于前者。在科水平上，HC 组在毛螺菌科均低于 AD 组和 MCI 组，在伯克氏菌科低于 AD 组；在瘤胃球菌科高于 AD 组，而 MCI 组在瘤胃球菌科高于 AD 组，在伯克氏菌科低于 AD 组。在属水平上，HC 组在蓝绿藻菌属低于 AD 组和 MCI 组，在普拉梭菌属高于 AD 组和 MCI 组；在狄氏副拟杆菌低于 AD 组。 AD 患者和匹配的长期照顾正常对照者的肠道菌群具有差异性：AD 患者的肠道菌群在拟杆菌丰度高于正常对照者，在厚壁菌纲、普拉梭菌属、瘤胃球菌科、红蝽菌纲丰度上低于长期照顾的正常对照者。

结论 AD 和 MCI 患者肠道菌群的丰度和组成与认知功能正常人群有显著差异；AD 患者肠道菌群的多样性高于正常对照者。在门、纲、目、科、属、种水平上均有差异；AD 患者与长期照顾正常对照者的肠道菌群结构改变与痴呆病情严重程度和认知水平得分相关。

关键字：阿尔茨海默病；轻度认知功能障碍；肠道菌群；16SrRNA 序列分析

基层精神科门诊痴呆症患者的药物使用情况浅析

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目的 了解基层精神科门诊就医痴呆症患者的处方用药情况，并对其中存在的问题进行初步探讨。

方法 对 379 例痴呆症患者在基层精神科门诊就医的处方进行回顾性分析，统计就诊用药时的痴呆症的诊断、持续用药时间、精神科用药种类、联合用药等情况，重点是统计抗精神病药、抗痴呆药的使用情况。

结果 在 379 例痴呆症患者中男：女为 1:1.49，就诊时痴呆症的诊断主要是阿尔茨海默病 317 例（83.64%）。精神科持续用药时间的中位数 9 个月，其中男 11 个月，女 8 个月。精神科用的药主要是抗精神病药物 331 例（87.33%），其平均日剂量与 DDD 相当，两种抗精神病药物联合使用 106 例（27.97%），抗抑郁药物 67 例（17.68%）、心境稳定剂 47 例（12.40%），使用苯二氮?类药物 159 例（41.95%）；而使用抗痴呆药 262 例（69.13%），开处方药量 DDD 累计在 90 天以上仅为 103 例（27.18%）。

结论 基层精神科门诊痴呆症就医患者的处方存在的问题有：诊断不够明确，过度使用精神科药物，其中抗精神病药存在超量用药、持续用药时间过长、不当联合用药等不合理情况，不当使用苯二氮?类药比例高，而在抗痴呆药的使用方面，未能遵循尽可能坚持长期治疗的原则，存在用药率低、未持续用药等不足。这些问题的解决需要有规范和点评处方等行政方法来解决。

关键字：基层精神科门诊 痴呆症患者 处方药

认知障碍患者的发生相关因素分析与干预

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目的 了解居民老年痴呆水平情况，进一步分析老年痴呆患病影响因素，提供干预措施。

方法 在全市范围内开展老年痴呆调查，对象为 65 岁及以上的城乡常住居民，调查的基本单位为个人。老年痴呆指标调查。全市至少调查 1000 名 65 岁及以上老年人。在每个居委会（村）抽取 20 个有 65 岁以上老人的常住人口家庭，采用 AD8 问卷、简版社区痴呆筛查表(CSL-D)开展入户调查。采取集中调查或入户调查的方式进行面对面问卷调查，分为两阶段 (一)筛查阶段：由经过统一培训的调查员完成。使用 AD8 间卷和简版社区痴呆筛查表(CSI-D)进行调查。 (二)确诊阶段：对于 AD8 痴呆早期筛查问卷总分>2 分或简明社区痴呆筛查量表(CI$-D)<7 分，由具有高年资主治医师以上的精神科医师根据 CD10 进行相应疾病诊断，对明确诊断的患者，采用诊治情况问卷询问既往诊？情况。针对筛查出的所有老年痴呆阳性样本及同比例或 15%（两者取高者）的阴性样本进行复查。由当地具有老年期痴呆诊疗经验的精神科神经科医师提出诊断意见，并评价照护负担。

结果 发放问卷 1000 份，收回有效问卷 890 份。在接受调查的医务人员中，痴呆症状检出率为 7%,多因素回归分析显示，痴呆症状与吸烟、饮酒、高血压、高血糖、日均睡眠时间、躯体亚健康状态显著相关（p<0.001）。

结论 四平市老年痴呆患者的发生与生活习惯有很大关系，需采取针对性措施预防与干预。

关键字：认知障碍，相关因素分析与干预

16 例米那普仑治疗老年痴呆（AD）患者抑郁症状的疗效观察

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目的 阿尔茨海默症（AD）患者常常合并抑郁症，对 AD 患者的生活质量造成了巨大的影响。选择性 5-

羟色胺和去甲肾上腺素再摄取抑制剂（SNRI）如米那普仑，其用于 AD 患者的有效性和安全性仍有待研究，本次 16 例疗效观察的目的是比较 AD 合并抑郁症患者的临床表现同单纯抑郁症的区别，并进一步观察米那普仑对治疗 AD 合并抑郁症患者的疗效。

方法 从我院 2022 年 3 月至 2022 年 3 月的门诊患者中，共抽取 16 名 AD 患者（76-92 岁）和老年抑郁症（MDD）患者入组本观察，AD 诊断基于 DSM-IV 和 NINCDS/ADRDA 标准，16 名患者均符合抑郁症 ICD-10 标准，HAM-D17 评分大于 12，AD-MD 患者以每天 15mg 或 30mg 的剂量开始使用米那普仑。如果患者在 2 周内没有显示出改善，则剂量每 2 周增加 15mg/天。观察指标为 HAM-D17 评分、MMSE 评分和 GAF 评分。

结果 基线时 16 名 AD-MD 患者的平均 HAM-D17，MMSE 和 FAF 评分分别为 18.0±3.6（范围：12-24）,19.3±4.1（范围 9-25）和 34.1±12.3（范围 21-65）。AD-MD 患者和 MDD 患者的 HAM-D 评分基本相似。在 AD-MD 组和 MDD 组中，抑郁情绪、兴奋丧失以及焦虑（精神性）的得分最高，而 AD-MD 组中的精神运动性迟缓得分显著高于 MDD 组，MDD 组中失眠和焦虑显著上升。我们还发现，用米那普仑治疗的 AD-MD 患者的抑郁情绪，自杀倾向，兴趣丧失，精神运动性迟缓，焦虑（精神性），胃肠道症状，一般躯体症状和疑病症状均显著改善。

结论 AD 合并抑郁症患者同抑郁症患者相比在发病诱因、抑郁情绪、兴趣丧失、焦虑等方面均有相似的临床症状，但 AD 合并抑郁症患者更易发生精神运动性迟缓，而抑郁症患者更易出现失眠和焦虑。同时，米那普仑能够缓解 AD 合并抑郁症患者的抑郁情绪、自杀倾向、兴趣丧失、精神运动性迟缓、紧张、胃肠道症状、躯体反应和疑病症状等，具有较好的临床疗效和耐受性。

关键字：老年痴呆 抑郁症状 米那普仑 疗效观察

A Diagnostic Predictive Model Based on Gut Microbiota and Systemic Inflammation Indicators for Late Life Depression

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Objective Late Life Depression (LLD) is one of the most prevalent mental disorders in the elderly with largely unknown pathogenesis. A large number of studies have found that abnormal gut microbiota and inflammatory cytokines have been found to be potential biomarkers in Major Depression Disorder (MDD). However, there is still a lack of relevant research on LLD. Our aim was to analyze the abnormal gut microbiota of LLD as well as serum inflammatory cytokines to explore the combined diagnosis mode of them and to reveal the potential biomarkers of LLD.

Methods fecal samples from 29 LLD patients and 33 sex- and age-matched HC were enrolled. Demographic data, smoking and alcohol history data were also collected. Fecal microbial profiles were analyzed by 16S rRNA sequencing.12 plasma inflammatory cytokines were determined by enzyme-linked immunosorbent assay. we first analyzed the diversity and composition differences of the gut microbiota in the two groups and assessed the relationship among the changes in microbiota structure, inflammatory cytokines and clinical biomarkers. Then we extracted the predictive indicators and established a diagnostic model for the combination of microbiota and inflammatory cytokines.

Results Elevated systemic inflammatory cytokines and changed gut microbiota's taxonomic richness and composition were found in patients with LLD. Compared the relative abundance of gut microbiota between the two groups, at phylum level, Verrucomicrobia was significantly lower in LLD that of HC. At genus level, Coprococcus, Lachnobacterium, Oscillospira, Sutterella were higher in LLD that of HC. Megamonas, Citrobacter and Akkermansia in LLD were lower in HC. IL-6, IFN-γ, Verrucomicrobia and Akkermansia were correlated with the severity of depression. Megamonas was negatively correlated with IL-1β, IL-4, IFN-γ and IL-17. Our study extracted IL-6, Akkermansia and Sutterella as predictors and gut microbiota binds inflammatory cytokines achieved an area under the curve (AUC) of 0.962 between LLD and HCs.

Conclusion This study is so far the first to provide evidence for altered gut microbiota and systemic inflammation in LLD. These findings may aid to reveal the pathogenesis of LLD in the field of gut microbiota and systematic inflammation, and shed a new light for the diagnosis model of LLD.

关键字：late life depression;Gut Microbiota;Inflammation

性别对老年期抑郁障碍患者客观睡眠质量的影响

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目的 探索不同性别的老年期抑郁障碍患者客观睡眠质量的差异。

方法 本研究纳入了 70 名老年期抑郁障碍患者（年龄≥55 岁）作为研究对象。使用便携式睡眠呼吸监测仪对患者进行整夜睡眠监测，评估老年期抑郁障碍患者的客观睡眠质量。同时，收集患者的一般人口学资料，包括年龄、性别、体重指数（Body Mass Index，BMI）等。根据患者的性别，分为男性组（n=17）和女性组（n=53）。采用独立样本 t 检验或非参数检验（Mann-Whitney U 检验）比较两组患者客观睡眠指标之间的差异，并进一步分析探索各指标间的相关性。

结果 在本研究中，男性组老年期抑郁障碍患者的睡眠觉醒次数显著多于女性组患者（P=0.020）。并且，男性组患者的睡眠效率显著低于女性组患者（P=0.028），上述差异均具有统计学意义（P＜0.05）。男性组患者与女性组患者在年龄、BMI 及其他客观睡

眠指标的差异无统计学意义（P＞0.05）。女性老年期抑郁障碍患者的睡眠效率与觉醒次数为负相关关系（rs=-0.401,P=0.003）。男性组患者的睡眠效率与觉醒次数（rs=-0.689,P=0.002）、BMI（rs=-0.498,P=0.042）呈负相关关系。

结论 男性老年期抑郁障碍患者的客观睡眠质量比女性患者差。不论何种性别，老年期抑郁障碍患者觉醒次数越多，睡眠效率可能越低。此外，男性老年期抑郁障碍患者的体重指数越高，睡眠效率可能越差。未来仍需要大样本的研究进行验证。

关键字：老年期抑郁障碍，客观睡眠质量，性别，睡眠监测

荆州市老年居民心理健康素养的调查及影响因素

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目的 心理健康是日益关注的热点问题，而心理健康素养作为促进心理健康的重要途径，探索作用机制、扩展涵盖群体和内容等具有深远意义

方法 本研究以 2023 年荆州老年居民作为被试，采用方便取样方法进行居民心理健康问卷信息收集。调查问卷由人口学信息及心理健康素养两部分构成，心理健康素养分则为判断题 S1、自我评估题 S2 和案例题 S3 分数之和，使用 SPSS 27.0 进行数据分析

结果 1）本研究收集有效数据 1028 份（有效率 95%），男性 528 人，年龄为 60.29±14.58，文化程度中占比前两位的小学、初中各有 38.9%、26.6%，职业以农民、其他专业技术、商业三者占前三（79.8%、3.1%、5.9%），婚姻状况中已婚、离异及其他分别为 28%、26.5%、45.5%，19.7%的被试有饮酒史，23%有吸烟史，个人月收入占比排在前三位的是 0-1499 元（36.3%）、1500-2999 元（28.0%）和 3000-4999 元（26.5%），家庭月收入前三位分别为 0-2999 元（42.4%）、3000-5999 元（25.7%）及 6000-9999 元（15.0%）。2）心理健康素养中判断题 S1 得分 46.74±15.60，自我评估题 S2 分数构成 26.83±3.78，案例题 S3 分数为 25.69±6.90。总分范围 99.27±19.89。3）性别、年龄、文化程度、婚姻、家庭月收入、饮酒史、吸烟史与心理健康素养总分显著(-0.165 < r < 0.221)相关，职业、个人月收入与心理健康素养相关关系不显著。相关关系显著变量之中性别、年龄、婚姻与心理健康素养呈负相关，文化程度、家庭月收入、饮酒史、吸烟史与心理健康素养成正相关。4）多元线性回归分析，结果显示文化程度(β＝3.222)、家庭月收入(β = 0.955)、饮酒史(β = 2.183)显著正向预测心理健康素养，三者共同解释心理健康素养 5.4%的变异。5）二元逻辑回归分析显示各自变量并不能显著预测心理健康（p > 0.05）。

结论 1)荆州市老年居民心理健康素养与以往研究相比。2）从影响因素讨论，文化程度、家庭月收入、饮酒史对心理健康素养有积极影响。

关键字：心理健康素养；调查；影响因素；回归

荆州市农村老年人认知功能筛查阳性率调查及相关因素分析

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目的 调查荆州农村老年人的认知功能的现况和影响因素，为针对高危人群的个性化干预措施和预防服务提供了理论支持。

方法 于 2022 年 7—8 月采用多阶段分层随机抽取 65 岁及以上老年居民，收集其一般情况。使用痴呆早期筛查问卷(AD8)与简明社区痴呆筛查量表（CSI-D）--老人测试部分，评估老年居民的认知功能，采用 SPSS 21.0 软件进行统计分析，采用二元 logistic 回归分析所有危险因素。p 值<0.05)。

结论 (1)荆州市农村老年居民认知功能有不同程度的下降，筛查的阳性率高;(2)年龄大、经济地位低下和健康状况欠佳，容易出现认知障碍,应作为重点干预对象;(3)需采取积极措施加强对老年人认知障碍的有效防控，延缓认知功能的下降。

关键字：农村老人 认知功能 影响因素

贫血对老年稳定性冠心病患者经皮冠状动脉介入治疗术后的预后价值分析

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目的 探讨贫血对老年稳定性冠心病患者经皮冠状动脉介入治疗（percutaneous coronary intervention, PCI）术后的预后价值。

方法 选取 2016 年 6 月至 2017 年 12 月在南京梅山医院收治的年龄≥60 岁、PCI 术后及临床资料完整的稳定性冠心病患者作为研究对象进行回顾性队列研究分析。收集基线水平研究对象的一般临床资料、血红蛋白、C 反应蛋白、血脂、空腹血糖、糖化血红蛋白、血肌酐及心脏彩超下左心室心脏射血分数。随访终点为发生主要心血管不良事件（major adverse cardiac events, MACE），包括全因死亡、非致死性心肌梗死和非致死性脑卒中。根据血红蛋白水平将研究对象分为贫血组（n=32）和非贫血组（n=148），对两组间临床资料进行比较，并采用 Kaplan-Meier 法和多因素 Cox 回归分析评估贫血对老年稳定性冠心病患者 PCI 术后发生 MACE 的影响。

结果 完成随访的研究对象共 180 例，随访时间

中位数 702.5 天，发生 MACE27 例，占 15.0%。贫血组年龄、C 反应蛋白水平和发生 MACE 比例高于非贫血组，总胆固醇、甘油三酯、低密度脂蛋白胆固醇、肾小球滤过率、吸烟史和血脂异常比例低于非贫血组（均 P＜0.05）。Kaplan-Meier 曲线提示贫血组患者 MACE 发生率高于非贫血组（37.5%比 10.1%, Log-Rank P＜0.05）。多因素 Cox 回归分析显示，贫血组患者发生 MACE 的风险是非贫血组的 2.91 倍（HR=2.91, 95%CI: 1.13～7.48, P＜0.05）。

结论 贫血是老年稳定性冠心病患者 PCI 术后发生 MACE 的独立预测因素，临床中应加以重点关注。

关键字：贫血；稳定性冠心病；经皮冠状动脉介入治疗；预后

安庆地区认知障碍风险因素调查分析-基于电子评估工具的应用

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目的 调查安庆地区认知障碍患病情况，探讨认知障碍的风险因素。

方法 依据整层抽样法，在安庆地区随机抽取 2 个社区（一个农村地区，一个城镇地区），对 60 岁以上的老人进行横断面研究的认知筛查，使用电子评估工具特霍芬（Thoven Cognitive Self-Assessment，TCSA）进行认知初筛，认知初筛提示存在认知风险时，进一步为为老人安排 MMSE 量表评估认知，并收集患者的一般信息情况（包括年龄、性别、受教育年限、婚姻状态、居住情况、平素习惯、既往史等）。

结果 本研究对 110 名老人进行了认知筛查，其中城镇地区 43 名，男性 48 名，平均年龄：73.27±7.10 岁。其中存在认知障碍的 33 名（30%）。认知障碍老人 TCSA 初筛平均分为：6.90±2.23，认知正常老人 TCSA 初筛平均分为：2.79±1.36。在认知障碍老人中，TCAS 初筛中注意力得分与 MMSE 总分呈正相关（r=0.570**,p<0.001）,TCAS 完整筛查中时间定向得分（r=0.0.608**,p=0.001）计算功能得分（r=0.582*,p=0.011）与 MMSE 总分呈正相关。两组在年龄、性别、婚姻状态、饮食习惯、地理区域、BMI、高血压病史、糖尿病史、高脂血症病史、甲状腺疾病史、新型冠状病毒感染史、饮酒史等均无统计学差异（P＞0.05）。受教育年限（t=2.63,p=0.10）、居住地（X2=11.18，p=0.021）、心脏病史（X2=6.75，p=0.018）差异性有统计学意义。吸烟史（X2=5.83，p=0.064）接近显著差异，Logistic 回归模型在调整了居住地、受教育年限、心脏病史后，吸烟的老人相对不吸烟和已戒烟的老人，出现认知障碍的风险增加（OR=0.304，95%CL：0.105-0.884）。

结论 本研究表明安庆地区认知障碍的发生率高，其中高受教育年限、与子女配偶一起居住为保护因素，心脏病史、吸烟为风险因素。同时 TCSA 对社区认知筛查便捷有效，值得推广。

关键字：认知障碍；发生率；风险因素；电子评估工具

老年认知障碍中财务决策异常和额叶-皮层下神经环路

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目的 财务决策行为（financial decision making）和日常生活密切相关，个体在做出决策的过程中需要权衡收益（gain）和损失（loss），控制风险以最大化收益或最小化损失。相比青年人，老年人在面对财务问题时往往不能有效处理相关信息，带来财务滥用（financial abuse）风险。尽管如此，目前对财务决策异常的相关神经机制仍不清楚。本研究针对老年人财务决策异常的行为表现和相关脑网络进行研究，推测额叶-皮层下神经环路的改变很可能是这一问题的重要原因。

方法 研究采集了 40 名青年人和 60 名老年人的数据，整合认知评估量表、风险决策任务和磁共振影像数据，系统研究了老年人在不同风险决策任务中的行为表现。实验采用 balloon analogue risk task（BART）和 Iowa gambling task（IGT）评估被试的风险偏好和强化学习能力，而静息态和任务态功能磁共振用来分析行为相关的大脑活动性。

结果 相比青年人，老年人在 BART 任务中表现出更差的任务策略（即更少的打气次数和更低收入），反映出明显的保守策略。值得注意的是，并非所有老年人的风险行为都发生显著改变，相当一部分老年人仍然表现出和青年人类似的任务策略。进一步分析发现额叶-纹状体功能改变在 BART 任务表现中发挥了重要作用。在 IGT 任务中，我们发现老年人对高风险和低风险选项的区分能力明显受损，其中年龄和高频率的惩罚有密切关系，任务相关大脑活动性显示前额叶的多个脑区参与了衰老引起的风险决策异常。此外，我们发现额叶-杏仁核功能连接和 IGT 任务表现有密切关系，并且背侧和腹侧杏仁核功能网络这两条神经通路在财务决策中发挥了不同作用。

结论 我们的研究发现额叶-纹状体网络和额叶-杏仁核网络在老年人的风险决策异常中有重要作用，这两个网络之间的相互作用对保持正常财务决策能力至关重要。这些发现帮助我们更好地理解大脑老化过程的神经机制，同时为认知障碍的预测和干预提供了新的视角和靶点。

关键字：财务决策；认知衰退；额叶-皮层下网络；磁共振；衰老

八段锦在精神分裂症共病 2 型糖尿病患者中的

应用效果

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目的 分析探究健身气功·八段锦在精神分裂症共病 2 型糖尿病患者中的应用效果。

方法 选取 2019 年 1 月至 2020 年 12 月诊断明确的住院精神分裂症共病 2 型糖尿病患者 140 例，研究组在常规护理的同时进行八段锦练习，对照组接受常规护理；应用 2 型糖尿病患者生活质量特异性量表得分(DMQLS)和日常生活能力量表（ADL）进行测评，观察时间 12 周。①生活质量应用糖尿病患者生活质量特异性量表得分(DMQLS)：由疾病、生理、社会、心理、满意度 5 个维度共 87 个条目组成，其中疾病维度为 2 型糖尿病患者特异条目子量表，得分越高，提示患者生活质量越差，得分越低，提示生活质量越好。②日常生活能力量表（ADL）:包括 10 项检查内容，并有 0 分、5 分、10 分、和 15 分 4 种不同的积分标准，总分为 0～100 分，0 分表示 ADL 完全依赖，100 分表示 ADL 正常，40 分以下者有 ADL 功能重度损害，41～60 分者有 ADL 功能中度损害，61 分以上者有 ADL 功能轻度损害。③由 4 名经过统一培训的主治医师对入组患者进行 DMQLS、ADL 量表评定，在干预前、干预后 6 周、干预后 12 周 3 个时间点进行测评。

结果 两组受试者的 DMQLS 总分在 12 周末相对于基线的差异有显著统计学意义，最小二乘均值为 50.0；两组受试者的 DMQLS 疾病特异维度得分在 12 周末相对于基线的差异有显著统计学意义，最小二乘均值为 8.5；两组受试者的 DMQLS 生理维度得分、心理维度得分、、社会维度得分、满意度维度得分在 12 周末相对于基线的差异有显著统计学意义；两组受试者的日常能力评估量表得分在 12 周末相对于基线的差异有显著统计学意义。

结论 八段锦训练能够改善精神分裂症共病 2 型糖尿病患者的社会功能，有应用价值。

关键字：八段锦 精神分裂症 2 型糖尿病 生活质量

Concurrent Structural and Functional Patterns in Patients With Amnestic Mild Cognitive Impairment

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Objective Amnestic mild cognitive impairment (aMCI) is a clinical subtype of MCI, which is known to have a high risk of developing Alzheimer's disease (AD). Although neuroimaging studies have reported brain abnormalities in patients with aMCI, concurrent structural and functional patterns in patients with aMCI were still unclear.

Methods In this study, we combined voxel-based morphometry (VBM), amplitude of low-frequency fluctuations (ALFFs), regional homogeneity (Reho), and resting-state functional connectivity (RSFC) approaches to explore concurrent structural and functional alterations in patients with aMCI.

Results We found that, compared with healthy controls (HCs), both ALFF and Reho were decreased in the right superior frontal gyrus (SFG_R) and right middle frontal gyrus (MFG_R) of patients with aMCI, and both gray matter volume (GMV) and Reho were decreased in the left inferior frontal gyrus (IFG_L) of patients with aMCI. Furthermore, we took these overlapping clusters from VBM, ALFF, and Reho analyses as seed regions to analyze RSFC. We found that, compared with HCs, patients with aMCI had decreased RSFC between SFG_R and the right temporal lobe (subgyral) (TL_R), the MFG_R seed and left superior temporal gyrus (STG_L), left inferior parietal lobule (IPL_L), and right anterior cingulate cortex (ACC_R), the IFG_L seed and left precentral gyrus (PRG_L), left cingulate gyrus (CG_L), and IPL_L.

Conclusion These findings highlighted shared imaging features in structural and functional magnetic resonance imaging (MRI), suggesting that SFG_R, MFG_R, and IFG_L may play a major role in the pathophysiology of aMCI, which might be useful to better understand the underlying neural mechanisms of aMCI and AD.

关键字：Amnestic mild cognitive impairment；magnetic resonance imaging；Alzheimer's disease

A Case Report of EBV 4 + NMDAR Encephalitis Recurrence with Psychiatric Symptoms As The Main Clinical Manifestation

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Objective Encephalitis is one of the common organic mental disorders, and the associated psychiatric symptoms are seen at various stages of the course of the disease. Treatment options vary depending on the cause of encephalitis. This case report was conducted in order to describes? the importance of antiviral therapy and immunotherapy in clinical practice on encephalitis patients.

Methods We report the?clinical presentation, investigations, management, and disease course? of a rare case of Epstein Barr virus 4 (EBV4) with N-methyl-D-aspartate receptor (NMDAR) encephalitis.

Results The patient presented with psychiatric symptoms as the main clinical manifestation at relapse, did not respond to single immunotherapy, and improved significantly after combined antiviral therapy.

Conclusion This case suggests that we should consider the possibility of co-occurrence of viral encephalitis and autoimmune encephalitis in clinical practice and the importance of both antiviral therapy and immunotherapy.

关键字：Epstein Barr virus 4; anti-N-methyl-D-aspartate receptor; encephalitis; mental disorder

Early Vascular Ageing in Schizophrenia

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Objective Early vascular ageing (EVA), which is the premature ageing of vascular structure and function, contributes to the development of cardio- and cerebrovascular diseases in schizophrenia patients. As such, EVA is potentially one of the main pathological mechanisms contributing to elevated mortality rates in schizophrenia. However, there is a scarcity of comprehensive studies pertaining to EVA in schizophrenia. Therefore, a systematic review was conducted in order to investigate and summarize the current literature on EVA in patients with schizophrenia.

Methods A systematic review of the literature was performed according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines. A search of the electronic database PubMed was undertaken for studies published between January 2008 to September 2022. Our search strategy included the following terms mapped to the appropriate MeSH subject headings and “early vascular ageing”: ("schizophrenia") AND ("early vascular ageing" OR "vascular stiffness" OR "pulse wave velocity" OR "endothelial dysfunction" OR "vasodilation" OR "intima-media thickness" OR "early plaque formation" OR "hemodynamics" OR "telomere" OR "chronic vascular inflammation" OR "capillary density" OR "glucose and lipid metabolism disorder" OR "insulin resistance" OR "peroxidation stress" OR "arterial calcification" OR "elevated blood pressure"). Studies were included if they fulfilled the following criteria: (1) peer-reviewed studies; (2) presenting data on EVA in schizophrenia, regardless of the study design; or (3) described the epidemiology, clinical presentation, risk factors or management of EVA in schizophrenia.

Results In terms of data charting, our search revealed that this field of research is largely dependent on a small body of unsynthesized primary research articles and narrative reviews. The literature search yielded a total of 606 articles. After abstract screening and full-text review, 44 articles relevant to EVA in schizophrenia were included in this paper. The?results?of these 44 articles show?that EVA has a detrimental impact on the physical well-being and quality of life of schizophrenia patients. EVA and schizophrenia share common risk factors, such as genetic predisposition and environmental factors, which suggest that they might have similar underlying pathologies.

Conclusion Since the pathophysiological basis of EVA in schizophrenia is poorly understood, there is a need for comprehensive investigations so as comprehend the physiomorphological alterations associated with EVA and develop effective preventive strategies to delay or reduce the occurrence of cardio and cerebrovascular events in schizophrenia patients.

关键字：Early Vascular Ageing; Schizophrenia; Systematic Review.

Association between Housework and The Risk of Dementia Among Older Chinese Adults: A Prospective Cohort Study

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Objective Physical activity (PA) is known to improve physical functioning and mental health and to reduce the incidence of dementia. However, studies of the effects of non-recreational PA on the incidence of dementia, especially in East Asian populations, remain limited. In this study, we evaluate the association of doing housework with the risk of dementia among participants in the Chinese Longitudinal Healthy Longevity Survey (CLHLS).

Methods The analysis was conducted with data from 7237 CLHLS participants age over 65 obtained in 2008/2009, 2011/2012, 2014, and 2018. The frequency of housework performance was classified into four groups. A Cox proportional-hazards model was used to examine the association of the baseline housework frequency with the incidence of dementia, with adjustment for demographic and socioeconomic characteristics and lifestyle and health conditions.

Results The adjusted multivariate model showed that the incidence of dementia was lower among participants who did housework almost every day than among those who rarely or never did housework (hazard ratio = 0.49; 95% confidence interval, 0.39–0.61). The subgroup and sensitivity analyses yielded similar results.

Conclusion A high frequency of housework performance was associated with a reduced incidence of dementia among older Chinese adults, especially those who did not exercise regularly. The encouragement of engagement in housework would be a cost-effective measure promoting healthy aging in the Chinese population.

关键字：dementia, aging, housework, cognitive impairment, older Chinese adults, Psychiatry.

家庭支持对老年抑郁患者负性情绪的影响分析

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目的 研究家庭支持对老年抑郁患者负面情绪的影响

方法 将 2020 年 11 月—2022 年 10 月本院收治的 120 例老年（年龄>59 岁）抑郁患者纳入研究，采用家庭关怀指数问卷(APGAR)、汉密尔顿抑郁量表（HAMD）和汉密尔顿焦虑量表（HAMA）对其进行问卷调查。所有患者均明确抑郁障碍的诊断，入院后给予 5-羟色胺再摄取抑制剂（SSRIs）改善抑郁情况，告知研究事项后签署知情同意书。根据 APGAR 总分 ,把

抑郁症患者分成家庭关怀度好组和家庭关怀度差组。观察组患者男性 45 例、女性 38 例，年龄（41.48±6.56）岁；对照组患者男性 23 例、女性 20 例，年龄（42.14±5.84）岁。2 组患者一般资料的差异无统计学意义（P＞0.05）。2 组患者均给予急性期常规治疗干预，包括药物治疗、心理治疗、物理治疗等。对两组同时给予家庭支持心理干预，方法如下：组织患者家属学习抑郁障碍的相关知识，使家属正确认识抑郁的严重性、危害性以及开展家庭干预的必要性；鼓励家属在家庭环境中实施心理干预时，首先应当与患者交流并了解其心理状况，包括对病情、治疗方式等的担忧和顾虑；而后介绍康复良好的病例，使患者树立正确的心态面 对疾病和治疗；鼓励患者宣泄内心的情绪，向患者讲解疾病的必要知识，使患者在治疗过程中能够逐步树立起战胜疾病的信心。采用汉密尔顿抑郁量表（Hamilton Depression Scale，HAMD）、汉密尔顿焦虑量表（Hamilton Anxiety Scale，HAMA）评价两组患者的负面情绪的改善。

结果 家庭关怀度好者的 HAMD 评分（17.34±2.02）分、HAMA 评分（17.48±1.57）分，均低于家庭关怀度差者的HAMD 评分（26.39±2.23）分、HAMA 评分（27.29±1.41）分，t 值分别为 6.774、6.193，P ＜0.05。

结论 有力的家庭支持有助于缓解患者的焦虑和抑郁情绪，是老年抑郁患者康复期理想的干预方式。

关键字：老年抑郁、家庭支持；负性情绪

The Alteration of Dorsal-rostral Anterior Cingulate Cortex Functional Connectivity with Subjective Cognitive Decline and Late-life Depression

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Objective Late-life depression (LLD) and subjective cognitive decline (SCD) are significant risk factors for dementia. The anterior cingulate cortex (ACC) plays an essential role in cognitive function and emotional responses. However, it remains unclear whether alterations in the functional connectivity (FC) of the dorsal-rostral ACC are present with SCD or LLD, and whether these alterations are associated with cognitive deficits or depression.

Methods One hundred and six participants with SCD and 143 age-matched participants with LLD were recruited. Demographic data, comprehensive neuropsychological assessments, and resting-state functional magnetic resonance imaging data were collected. Bilateral dorsal and rostral ACC were selected as seeds to investigate FC changes in SCD and LLD.

Results 1) Compared to SCD, subjects with LLD performed worse cognitive and depressive performance; 2) LLD individuals exhibited decreased FC values between left caudal ACC to frontal gyrus, bilateral dorsal ACC to frontal gyrus, temporal gyrus, and precuneus compared to SCD, and the aberrant FC were positively correlated with cognition and negatively correlated with depression in; 3) there were positively mediated effects for the connectivity of the left caudal ACC and right dorsal ACC systems between SCD/LLD and depression, and the negatively mediated effects for the connectivity of the bilateral dorsal ACC systems between SCD\LLD and cognition.

Conclusion LLD and SCD individuals exhibit abnormal FC in both dorsal and rostral ACC, with abnormal dorsal ACC FC associated with depression and cognition, and abnormal rostral ACC FC associated with cognition. These results suggest that the dorsal and rostral ACC plays an important and different role in cognitive deficits or depression for LLD and SCD.

关键字：depression, cognition, functional connectivity, anterior cingulate cortex , mediation

伴有认知障碍的老年抑郁症患者认知功能的影响因素分析

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目的 了解伴有认知障碍的老年抑郁症(Late-life depression，LLD)患者认知功能的影响因素。

方法 选取 2021 年 5 月 1 日至 2022 年 12 月 31 日就诊于北京市首都医科大学附属北京定医院门诊和住院的伴有认知障碍的 LLD 患者，采用一般资料调查表、汉密尔顿抑郁量表 17 项（17-Item Hamilton Rating Scale for Depression，HAMD-17）及阿尔茨海默病评定量表 - 认知分量表 (Alzheimer's Disease Assessment Scale-Cognitive section，ADAS-cog)调查伴有认知障碍的 LLD 患者的基本情况、抑郁症状及认知功能。采用单因素分析及多元线性回归分析方法，探讨对伴有认知障碍的 LLD 患者认知功能的影响因素。

结果 符合入选标准的患者 118 人，平均年龄为 67.69±5.14 岁。单因素分析结果显示，有吸烟史、有饮酒史、有家族史、抑郁发作次数增加、既往改良电休克治疗（Modified electroconvulsive therapy，MECT）次数增加、收缩压升高、体重指数（Body mass index，BMI）升高均能增加 ADAS-cog 的分值。多重线性逐步回归分析结果显示，有吸烟史、有饮酒史、有精神疾病家族史、抑郁发作次数增加、HAMD-17 数值升高、BMI 数值升高、收缩压升高均能增加 ADAS-cog 的分值，偏回归系数（β）均大于 0。

结论 抑郁症的发作次数、抑郁症状严重程度、血压值、体重指数及吸烟饮酒史均是伴有认知障碍的老年抑郁症患者认知功能的独立危险因素。

关键字：关键词：老年抑郁症；认知障碍；影响因素

双侧额叶同步经颅交流电刺激联合 N-back 训练快速改善轻度阿尔茨海默病患者认知水平

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目的 阿尔茨海默症（AD）是神经退行性疾病，病理表现既有局部的神经元损伤，又有白质纤维连接受损，导致“连接中断综合征”。其脑电特征表现为脑区相位失同步和相干性下降。研究发现通过经颅交流电刺激（tACS）恢复同步可改善健康老人自然衰退的认知功能，但对于老年 AD 患者是否有效尚不明确。为此，本研究研究专门针对轻度 AD 患者采用双侧额叶同步 theta 波振荡并联合 n-Back 认知训练（工作记忆）的方式，来探索治疗 AD 的效果。

方法 收集 30 例轻度阿尔茨海默症患者，随机分配到真刺激组或假刺激组。每位患者共进行 10 次 N-back 认知训练，训练的同时在双侧前额叶给予经颅交流电刺激。训练前后分别评估患者的认知水平和神经心理状态。

结果 采用 t 检验、单因素重复测量方差分析及协方差分析，排除各因素（年龄、性别、受教育年限、基线心理量表及 N-back 认知训练）对认知水平的影响后，两组在简明精神状态量表（MMSE）、轻度认知功能损害筛查量表（sMCI）及费城词语学习测验（PVLT）三项认知评估中有明显统计学差异（MMSE：真刺激组总分治疗后提高 1.63 ± 2.56，假刺激组总分治疗后下降-0.50 ± 2.31，$p < 0.001$；sMCI：真刺激组总分治疗后提高 1.66 ± 1.89，假刺激组总分治疗后下降-0.18 ± 1.96，$p = 0.014$；PVLT：真刺激组治疗后提高 3.40 ± 3.62，假刺激组治疗后提高 0.64 ± 3.56，$p = 0.049$）。采用线性回归分析提示基线 MMSE 水平对 MMSE 治疗后提高分值有负性影响（真刺激组：$\beta = -0.3103$，$R2 = 0.3429$，$P = 0.0172$；假刺激组：$\beta = -0.3705$，$R2 = 0.5865$，$P = 0.0014$）。

结论 双侧前额叶同步经颅交流电刺激联合 N-back 认知训练可以快速改善轻度 AD 的认知水平，且 MMSE 提升分值与治疗前 MMSE 评分呈负相关。

关键字：经颅交流电刺激、N-back 认知训练、MMSE

术前肿瘤患者焦虑抑郁情绪及睡眠情况研究

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目的 研究术前肿瘤患者的焦虑抑郁情绪和睡眠紊乱情况，进一步了解患者的心理因素，降低手术患者应激反应，为围手术期肿瘤患者 ERAS 快速康复干预提供理论支持。

方法 由经过一致化培训的心理评估师于术前准备室对术前肿瘤患者进行心理评估，评估量表包括 GAD-7，PHQ-9，ISI，一般信息收集性别、年龄、婚姻情况、文化程度、肿瘤部位、是否首次手术、手术类型等内容，参与被试 880 人，有效数据 652 份，有效率为 74.09%，结果用 SPSS19.0 进行数据分析。并对其中 131 名筛查阳性的被试开展非结构化访谈，主要探索情绪诱发线索及认知方式，每人次时长不少于 15 分钟。

结果 术前肿瘤患者的 GAD-7 得分为 3.90±3.63，PHQ-9 得分为 3.70±3.78，ISI 得分为 6.54±5.39，患者焦虑情绪的检出率为 35.12%，抑郁情绪的检出率为 33.44%，睡眠紊乱的检出率为 40.80%，且三者之间显著正相关。肿瘤部位的主效应显著，肝胆胰肿瘤术前患者的焦虑抑郁情绪显著高于其他类型肿瘤，肝胆胰肿瘤及泌尿系统肿瘤的术前患者睡眠 ISI 得分显著高于其他类型肿瘤患者。抑郁和失眠的文化程度主效应显著，初中以下文化程度的患者的术前抑郁、失眠情况显著高于高中/中专及以上的患者，焦虑的文化程度主效应不显著。手术类型主效应显著，对自己手术不知情患者的焦虑抑郁及失眠得分显著低于微创或开放手术的患者，而后两者间差异不显著。此外，性别、年龄、婚姻、是否首次手术等主效应不显著。非结构化访谈的结果显示，患者焦虑担忧的个性特点、肿瘤相关负性经验、明显的躯体感受、低质量的医患关系、不可靠的疾病知识来源等因素均会影响患者对疾病及治疗的认知，往往存在高估风险概率和灾难化的认知特点，更容易引发、维持应激状态，造成焦虑抑郁情绪及睡眠紊乱。

结论 三分之一以上的术前肿瘤患者存在不同程度的焦虑抑郁情绪和睡眠紊乱状况。术前肿瘤患者对疾病和治疗的认知情况对其焦虑抑郁情绪及睡眠情况产生明显影响，性别、年龄、婚姻状况等一般因素对其情绪及睡眠影响的统计学差异不显著。

关键字：术前肿瘤患者，ERAS，焦虑抑郁，失眠，认知特点

胰腺癌患者伴发的焦虑及抑郁情绪与血脂水平的相关性

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目的 探讨胰腺癌患者伴发的焦虑及抑郁情绪与其血脂水平之间的关系。

方法 选取 2022 年 2 月-2022 年 9 月入住本院肝胆外科胰腺癌患者 40 例，入院时采用汉密尔顿焦虑量表(Hamilton Anxiety Scale, HAMA)和汉密尔顿抑郁量表(Hamilton Depression Scale, HAMD)评定患者的焦虑及抑郁情绪。同时对患者血清总胆固醇(TC)、甘油三酯(TG)、低密度脂蛋白(LDL)、高密度脂蛋白(HDL)、载脂蛋白 A1(ApoA1)及载脂蛋白 B(ApoB)进行测定。

结果 40 例患者中，可能存在焦虑情绪者 18 例，可能存在抑郁情绪组 18 例，同时可能伴发有焦虑及抑

郁情绪者 13 例。可能存在焦虑情绪组的 TC、TG、LDL 水平均高于无焦虑情绪组(P＜0.05)，且 HDL、ApoA1、ApoB 水平均低于无焦虑情绪组(P＜0.05)。可能存在抑郁情绪组的 TC、TG、LDL 水平均高于无焦虑情绪组(P＜0.05)，且 HDL、ApoA1、ApoB 水平均低于无抑郁情绪组(P＜0.05)。HAMA 评分及 HAMD 评分与 TC、TG、LDL 水平呈正相关，而与 HDL、ApoA1、ApoB 呈负相关。

结论 胰腺癌患者易伴发焦虑及抑郁情绪，本研究中焦虑和抑郁情绪的伴发率均为 45%，其中，同时伴发有焦虑及抑郁情绪率为 32.5%。胰腺癌患者伴发的焦虑及抑郁情绪严重程度与其血脂水平相关，更高水平的 TC、TG、LDL 与更低水平的 HDL、ApoA1、ApoB 可能更易促发焦虑及抑郁情绪的发生与发展。

关键字：胰腺癌；焦虑；抑郁；血脂

肿瘤患者营养相关心理问题研究综述

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目的 为了更好的研究肿瘤患者营养相关心理，改善肿瘤患者营养相关心理问题，提高肿瘤患者的生活质量。

方法 通过查阅并整理国内外相关文献，并对其进行系统的归纳总结与讨论。

结果 （一） 食物和营养可以在很对方面影响肿瘤患者的心理健康，如：(1)很多营养素都与情绪有关，甚至有抗抑郁的作用；(2)营养不良和低热量摄入行为是抑郁症发病的预测因子之一；(3) 脑-肠轴的研究表明，肠道菌群通过肠和脑之间的信息交流系统，经由免疫、迷走神经和神经内分泌途径，影响人的精神健康。营养不良会导致肠道菌群紊乱，进而导致抑郁、焦虑等心理问题。（二） 心理健康也在很多方面影响肿瘤患者的营养状况，如：(1) 以食欲明显减退为特征的癌症相关性厌食症，与神经递质血清素的损害有关，而血清素也是抑郁症的生物标志物；(2)根据心理学家汤姆金斯的情绪动机-分化理论，消极情绪会引发消极的动机，从而使得患者微血管收缩、血压升高、心率加快，抑制消化功能，出现食欲下降，使蛋白质和能量摄入不足，导致营养不良的发生；(3)抑郁患者微炎症状况多较非抑郁患者更严重，各种炎症因子活化可增加肌肉蛋白质的分解代谢，减少血清白蛋白的合成，引起贫血，造成营养不良；(4) 焦虑与功能性消化不良显著相关，消化道症状可先于焦虑出现，提示可能存在胃肠道驱动的脑功能紊乱。 （三）肿瘤患者营养相关心理问题根据营养支持方式可以分为:肠外患者营养心理问题、肠内患者营养心理问题和和直接进食患者营养心理问题。肠外患者营养相关心理问题包括：抑郁、身体形象的改变、丧失正常饮食能力、性活动的减少等；肠内患者营养相关心理问题主要由味觉变化和身体上的痛苦带来；直接进食的癌症患者营养相关心理问题主要包括：习得性厌食(影响食物的摄入和滞留)；食物偏好和选择的改变；预期性恶心和呕吐。 （四）营养相关心理问题的评估多使用营养风险筛查（NRS2002）和心理痛苦筛查（DT） （五）营养相关心理问题可以通过帮助患者进行情绪宣泄、帮助患者寻找社会支持、就餐环境的改善等方式缓解。

结论 （1）肿瘤患者的营养和心理健康可以在很多方面互相影响 (2)肿瘤患者营养相关心理问题可以分为：肠外患者营养心理问题、肠内患者营养心理问题和和直接进食患者营养心理问题。（3）营养相关心理问题可以通过帮助患者进行情绪宣泄、帮助患者寻找社会支持、就餐环境的改善等方式缓解。

关键字：肿瘤患者 营养 心理问题

阿尔茨海默病患者尿酸水平的研究

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目的 探讨阿尔茨海默病患者、正常老年人、精神分裂症患者的尿酸水平及之间可能的关系；探讨不同严重程度阿尔茨海默病患者的尿酸水平及之间可能的关系。

方法 对象：选取绵阳市某三甲医院自 2020 年 09 月 01 日至 2021 年 07 月 01 日出院的患者，按照患者出院时诊断分类，符合 ICD-10 诊断标准中 AD 患者 131 例，作为 AD 组；精神分裂症患者 123 例，作为疾病对照组（精神分裂症组）；选取该医院健康管理中心体检的人群，经过认知筛查后明确为正常 130 例，作为正常对照组（正常老年人组）。三组研究对象均符合纳入标准，同时符合排除标准。

方法 三组人员均完成尿酸水平检测。AD 组患者完善 MMSE、CDR 量表，正常老年人组需完善 MMSE、Hachinski 缺血指数量表。所有数据及统计分析通过 SPSS26.0 版本软件处理，设 P＜0.05 差异具有统计学意义。

结果 1、比较 AD 组、精神分裂症组和正常对照组，三组间在性别和年龄无统计学差异（P＞0.05）；在职业、文化程度、婚姻的差异具有统计学意义（P＜0.05）。 2、AD 组、精神分裂症和正常对照三组间在尿酸水平之间的差异具有统计学意义（F=20.51，P＜0.05），其中 AD 组尿酸水平（277.47±52.05）低于精神分裂症组（314.59±73.23）和正常老年人组（325.76±64.66），差异具有统计学意义（AD vs 精神分裂症：P＜0.05；AD vs 正常对照：P＜0.05）。 3、不同严重程度的痴呆患者比较，轻度、中度、重度 AD 患者三组见在尿酸水平的差异具有统计学意义（F=7.39，P=0.001），其中轻度 AD（244.08±47.69）低于中度 AD（282.86±50.12）和重度 AD（293.00±50.06），差异有统计学意义，（轻度 AD vs 中度 AD：P＜0.05；轻度 AD vs 重度：P＜0.05）。 4、Person 相关性分析发现，AD 患者中尿酸水平与年龄呈正相关（r=0.20，P＜0.05），与 MMSE（r=-0.28，P＜0.01）呈负相关。

结论 1、AD 患者具有较低的文化程度、较少的

脑力劳动以及不健康的生活方式。2. AD 患者尿酸水平明显高于慢性精神分裂症患者和正常对照；3. AD 患者的外周尿酸水平与痴呆的严重程度、年龄有相关性：患者痴呆的严重程度越重，尿酸越高、年龄越大。

关键字：阿尔茨海默病；精神分裂症；尿酸

122 例直肠癌患者焦虑抑郁情绪与生活质量的相关性分析

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目的 了解直肠癌患者的生活质量状况，并探索其包括负性情绪在内的影响因素，为临床干预提供理论依据。

方法 采用大肠癌患者生命质量测定量表 FACT-C(V4.0)中文版及汉密尔顿焦虑量表（HAMA）和抑郁量表（HAMD）评估预行手术的 122 例直肠癌患者生活质量和焦虑抑郁情绪，生活质量的影响因素分析采用 Logistic 回归分析。

结果 直肠癌患者整体生活质量是 105.78±15.042，生理维度生活质量 22.61±4.093，社会/家庭维度生活质量为 22.48±4.735，情感维度生活质量为 20.30±3.167，功能维度生活质量 19.75±4.985，附加关注维度生活质量 20.64±4.301。整体生活质量明显偏低的危险因素为 BMI<18.5（P<0.001）、从事脑力劳动者（P=0.024）、有焦虑（P<0.001）以及有抑郁（P<0.001）。

结论 直肠癌患者的情绪状态、体重指数（BMI 值）、职业都是影响其生活质量的危险因素。伴有焦虑抑郁情绪、消瘦（BMI＜18.5）、从事脑力劳动的直肠癌患者生活质量更低。临床中应该特别关注 BMI 偏低、从事脑力劳动的直肠癌患者，同时关注患者的情绪变化，以改善患者的生活质量。

关键字：直肠癌；焦虑；抑郁；生活质量

医务人员线上指导利培酮口服液精准 治疗老年精神障碍的效果分析

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目的 探讨医务人员借助＂微信+＂模式，采用语音、文字、视频等形式，远程指导老年精神病患者正确使用利培酮口服液治疗的效果。

方法 医务人员随机抽取 56 名长期（大于两年的）居家服用利培酮口服液治疗患有精神分裂症的老年（大于 50 岁）患者为研究对象，与患者（和/或家属），在 2022 年 3 月至 2023 年 2 月期间，借助＂微信+＂模式，采用点对面（微信群）或点对点（一对一微信）的语音、文字、视频通话等形式互动交流，远程普及推送精神健康知识、答疑解惑、指导患者正确量取药液的操作方法、准确执行医嘱用药的用法用量、告知个体化精准治疗方案的目的意义、提前预告可能出现的哪些 ADR、提醒患者定期作血压血糖血脂血粘度肝心脑肾肺胃肠等脏器功能检查以便及早预防或发现 ADR、如出现 ADR 后及时帮助应对和采取正确处置方法、收集监测并网上填报 ADR 信息报表，线上发放调查表，统计测评开展线上延伸药学服务期间，患者量取药液的操作方法正确率、执行医嘱的准确率、药物不良反应知晓及正确处置率、精神症状改善有效控制率、对远程医药学服务的满意度等，数据化统计、量表化分析，并与前一年度同期数据作比较。

结果 相关统计数据明显优于前一年度的数据。

结论 医务人员采取线上延伸医药学服务，对长期居家服用利培酮口服液治疗的精神分裂症老年患者有益，体现“智慧医疗”的深度、广度、和温度！值得推广。

关键字：微信+模式、精准医药学服务、居家服药患者、线上家庭医药师

运动训练治疗血管性痴呆的临床分析

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目的 研究探讨运动训练治疗血管性痴呆的临床分析。

方法 60 例血管性痴呆患者，并进行运动训练及接受神经内科常规治疗用药与护理，将其随机分为对照组和观察组各 30 例。对照组使用常规的内科药物治疗和护理 ，观察组在此基础上对患者进行、四肢运动锻炼治疗。

结果 两组患者经过 6 个月的持续治疗，监测 60 例患者的简易精神状态量表 (MMSE)〔1〕 和日常生活能力量表 10 项(ADL) 的相关指标 ，对照组没有明显改变，观察组 MMSE、ADL 有明显增强变化，差异有统计学意义(P<0.05)。在治疗的结果评定中，观察组总有效率高于对照组，差异有统计学意义 (P<0.05)。

结论 运动训练治疗能有效的控制血管性痴呆患者的病情，提高患者的认知功能，减轻功能障碍程度，改善生活质量，疗效显著。

关键字：运动训练；多奈哌齐； 血管性痴呆；临床分析

脑梗死患者 HB、hs-CRP 对其认知功能障碍的相关性分析

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目的 探讨脑梗死患者 HB(hemoglobin,HB)、hs-CRP(high-sensitivity C-reactive protein,hs-CRP)水平及

与认知功能的相关性

方法 采用酶联免疫吸附法（ELISA）检测 120 例脑梗死患者和 60 例健康者的血清 HB、hs-CRP 等水平，行神经心理评估，分析其与蒙特利尔认知量表（MOCA）的关系。根据 MOCA 评分结果分为脑卒中后认知正常组(NCI)、认知障碍组（vascular cognitive impairmen，VCI），血管性认知功能障碍 VCI 进一步分为非痴呆性血管性认知障碍（vascular cognitive impairment with no dementia，VCIND）和血管性痴呆（vascular dementia，VaD），检测受试者血清 HB、hs-CRP 等水平，分析上述各项因素的组间差异及与认知功能的相关性。

结果 120 例脑梗死患者中 VCI 组例占 94 例（78.33%），其中包括 51 例（42.50%）的 VCIND 和 43 例（35.83%）的 VaD 患者。血清 HB 水平：脑梗死组与正常组比较偏低，两两认知功能障碍组比较有差异，均有统计学意义（P＜0.05）；血清 hsCRP：脑梗死组 hs-CRP 浓度高于正常组，两两认知功能障碍组比较有差异，均有统计学意义（P＜0.05）。血清 HB、hs-CRP 浓度与认知障碍程度有关，经 Spearson 分析脑卒中后 MOCA 评分与 HB 水平呈正相关，与 hs-CRP 呈负相关（P＜0.05）

结论 血清 HB 偏低、hs-CRP 升高与脑卒中后认知障碍关系密切，HB 越低、hs-CRP 越高，患者认知功能损害越严重。

关键字：血红蛋白；贫血；超敏 C 反应蛋白；血管性认知功能障碍；脑梗死

哌罗匹隆对老年精神分裂症患者日常生活能力影响的对照研究

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目的 探讨老年精神分裂症患者应用哌罗匹隆对其日常生活能力的影响情况。

方法 研究组予以哌罗匹隆治疗，对照组予以利培酮治疗。采用日常生活能力评定量表（ADL）评分组间对比；用药结束两组 ADL 评分数据对比（组间、组内），本研究中涉及统计学检验方法、表述形式为：（1）计量资料：t、（x±s）；（2）计数资料：2/Fisher、[n（%）]。选用 SPSS.26.0 软件，P＜0.05 提示数据对比（组间/组内）存在统计学意义。

结果 用药前，日常生活能力评定量表（ADL）评分组间对比 P>0.05；用药结束两组 ADL 评分均较用药前有所提高，研究组该指标评价结果更优，数据对比（组间、组内）； 治疗方法 研究组予以哌罗匹隆（生产企业：丽珠集团丽珠制药厂，批准文号：国药准字 H20080217，规格：4lizhumg/s]治疗，初始计量每日 8mg（qd、po），之后根据患者耐受情况适时适量调整给药剂量，应注意控制每日给药量在 16mg 以下，连续用药 8 周。对照组经利培酮（商品名：卓夫，生产厂家：齐鲁制药有限公司，批准文号：国药准字 H20041808，规格：1mg/s）治疗，初始计量每日 2mg（qd、po），药物调整原则、给药时长等均同研究组，应注意控制每日给药量在 6mg 以下。记录并对比（组间、组内）两组日常生活能力变化情况，评价工具选用日常生活活动能力评分量表（activities of daily living，ADL）评价项目包括修饰（5）、洗澡（5）、进食（10）、大便控制（10）、小便控制（10）、穿衣（10）、用厕（10）、上下楼梯（10）、床椅转移（15）、步行（15），量表得分（总评分范围：0-100 分）与被评价者日常生活活动能力相关性为正。（注：该项目评价时间为用药前、用药结束）

结论 应用哌罗匹隆治疗老年精神分裂症患者有利于改善其日常生活活动能力。作者简介：崔隽，男，精神病学主任医师，任内蒙古锡林郭勒盟安神医院临床六科主任，联系电话：13204723529

关键字：精神分裂症；哌罗匹隆；日常生活活动能力

慢性精神障碍患者养老康复的思考

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目的 对慢性精神障碍患者养老康复现状进行分析，寻求更适合慢性精神障碍患者养老康复模式。

方法 收集２０１９年０５月——２０２３年０５月，西安市精神卫生中心康复托养中心患者中 800 例进行“医养结合”服务的精神障碍患者的资料，分别对他们的疾病类型、病程、年龄、婚姻状况分析总结；同时，调查家属将精神障碍患者放在专业机构进行托养的意愿。

结果 在这些患者中，精神分裂症位居第一：60.3%，老年痴呆患者位居第二位：24.8%； 精神疾病总病程≥30 年：53.2%，病程≤10 年：8.6%； 60 岁以上：58.5%，60 岁以下：41.5%； 患者离婚和未婚：78.3%，已婚：21.7%。家属将精神障碍患者托养在专业托养机构的愿意，大部分家属都愿意，愿意的占：85.2%。其中患者的年龄越大、病程越长、单身、重性精神障碍的患者及其家庭，更希望得到社会和专业机构长期的照顾和服务。

结论 精神障碍患者的年龄越大、病程较长、病情越重、单身的患者更多的在接受专业机构和社区养老康复服务，这些患者的家属也更愿意将患者长期托养在专业的养老机构和社区照顾下养老。从已有的文献资料来看，近年来出现的医养结合、社区养老、智慧养老等关键词的突出和增多，慢性精神障碍患者的“医养结合”、“智慧化养老”模式可能成为今后研究的趋势。

关键字：精神障碍 托养机构 养老康复

Efficacy and Acceptability of Second-generation Antipsychotics for Behavioral and Psychological Symptoms of Dementia: A Systematic Review

and Network Meta-analysis

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Objective Behavioral and psychological symptoms of dementia (BPSD) are highly prevalent in people living with dementia. Second-generation antipsychotics (SGAs) are commonly used to treat BPSD, but their comparative efficacy and acceptability are unknown.

Methods The present study conducts a systematic review of the published literature to retrieve all articles pertaining to outcomes of efficacy and acceptability associated with SGAs in treatments of BPSD. The efficacy was defined as the scores improved on the standardized scales presented by SMD. Acceptability was defined as the all-cause dropout rate present by OR. If the assumption of transitivity is valid and the evidence forms a connected network, Bayesian random-effects pairwise and network meta-analyses (NMAs) will be conducted.

Results Nineteen RCTs met the inclusion criteria with a total number of 6029 individuals containing 5 types of SGAs (quetiapine, olanzapine, risperidone, brexpiprazole, and aripiprazole) with intervention lengths ranging from 6 weeks to 36 weeks included in this NMA. A network plot of comparisons between eligible interventions is shown in Figure 1. For the efficacy outcome, compared with the placebo, brexpiprazole (SMD = -2.5, 95% CI -3.66 to -1.34) and risperidone (SMD = -0.62, 95% CI -1.19 to -0.04) showed more efficacious, while brexpiprazole showed more efficacious than any other included SGAs. In terms of acceptability, only aripiprazole (OR= 0.72, 95% CI 0.54 to 0.96) was better than the placebo. Figure 2 [Conclusion]This study first revealed the efficacy and acceptability of SGAs in the treatment of BPSD. The results of this study will be used to guide decision-making.

关键字：Dementia, BPSD, Antipsychotic

Visual-motor Functional Connectivity Impairment in MDD

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Objective The perceptual dysfunctions have been fundamental causes of cognitive and emotional problems in patients with major depressive disorder (MDD). However, visual system impairment in depression has been underexplored.

Methods A recently developed individual-oriented approach was applied to parcellate the cerebral cortex into 92 regions of interest (ROIs) using resting-state functional magnetic resonance imaging (rs-fMRI) data. Functional connectivity (FC) was compared at the whole-cerebrum level between the first-episode medication-na?ve (FEMN) patients with MDD (n=190) and age- and sex-matched healthy controls (HCs, n =190).

Results Significant reductions in FC were observed between the right lateral occipitotemporal junction (r-LOTJ) within the visual network (VN) and two ROIs within the sensorimotor network (SMN) in patients. The volume of r-LOTJ was also significantly reduced in MDD patients, indicating that this region is anatomically and functionally impaired. Behavioral tests confirmed that patients exhibited significantly reduced visual-motor processing speed compared to HCs.

Conclusion Taken together, our data suggest that functional connectivity between VN and SMN already shows a significant reduction in the first episode of MDD, which also coincides with visual-motor processing speed impairment. A specific region in the visual area, LOTJ, may be a hub of disconnection and may play a role in the pathophysiology of MDD.

关键字：Major depressive disorder; fMRI; Visual cortex; Processing speed; Individualized functional connectome

慢性精神分裂症患者 QTc 间期延长临床危险因素分析

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目的 分析慢性精神分裂症患者 QTc 间期延长临床危险因素。

方法 选取慢性精神分裂症住院患者 535 例，按 QTc 均值（440ms）分为延长组和非延长组，分析其人口学数据、心电图数据、血生化数据、用药情况等临床因素，探讨 QTc 间期延长的可能危险因素。

结果 延长组年龄、女性比例、空腹血糖值均高于非延长组(P<0.05)，用药剂量、吸烟率均低于非延长组(P<0.05)。药物联用组剂量高于单药组（P<0.05）。所有入组患者中不同单药组 QTcB 均值比较差异均有统计学意义（P<0.05），两两对比结果单用齐拉西酮、氯氮

平、氯丙嗪组 QTcB 均值较高，单用阿立哌唑组 QTcB 均值较低(P<0.05)。所有入组、延长组患者中不同单药组药物剂量比较差异均有统计学意义（P<0.05），单用齐拉西酮组剂量最高，单用奋乃静组剂量最低（P<0.05）。不同单药组间 QTcB 延长发生率比较差异均有统计学意义（P<0.05）。二元 Logistic 逻辑回归分析结果显示，与 QTcB 间期延长相关的临床危险因素为：使用氯氮平、女性、高龄、高空腹血糖(P<0.05)。

结论 慢性精神分裂症患者 QTc 间期延长临床危险因素为氯氮平、女性、高龄、高空腹血糖，临床药物治疗应予以关注。

关键字：慢性；精神分裂症；QTc 间期延长；危险因素

痴呆相关精神病研究进展

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目的 痴呆相关精神病（Dementia related Psychosis, DRP）是指在痴呆患者中出现的以幻觉、妄想为主要表现的神经精神障碍，是痴呆精神行为症状的重要组成部分，严重地影响患者社会功能和安全，给照料者带来巨大的苦恼和负担，是导致患者使用抗精神病药物和入住医疗或照护机构的主要原因；目前，受限于对这类症状群认识的局限性，高质量研究和水平管理明显滞后，有待规范术语、规范诊断细则等措施后的深入，以期促进服务者的认知和管理水平，提高 DRP 患者治疗安全和生活质量。

方法 对已发表的 DRP 关文献进行总结归纳，从定义、流行病学、病因和机制、临床特征、临床诊断和治疗管理的研究进展进行综述。

结果 2000 年，Jeste 和 Finkel 提出了“AD 精神病”术语和诊断标准；在此基础上，2020 年，国际老年精神病学协会（IPA）提出了“神经认知障碍精神病”专业术语和操作性诊断标准。DRP 可见于多种性质痴呆，总患病率为 20%至 70%，其中，路易体痴呆患病率为 75%，帕金森病痴呆为 50%，阿尔茨海默病痴呆 30%。DRP 机制尚不清楚，可由多种因素有关；社会心理因素包括躯体情况应激、过度心理不良刺激或适应不良的应对机制，社会孤立和病前人格等；淀粉样变、神经纤维缠结、路易小体等病理沉积相关的神经元死亡与 DRP 发生发展有关，葡萄糖脑苷脂酶基因、C9ORF72 等基因突变与 PD 和/或 LBD 相关精神病有关，5-羟色胺能、谷氨酸能以及多巴胺能等递质系统紊乱与 DRP 发生有关，血管因素也参与其中。严重而持久的（持续一个月以上）、排除非痴呆结局疾病所致精神病是 DRP 临床诊断要素。DRP 治疗管理应该是个体化、全病程与在实时评估的基础上针对性开展的。非药物干预措施包括适宜的心理治疗与康复以及环境改善，多奈哌齐、卡巴拉汀等胆碱酯酶抑制剂类药物、NMDA 受体拮抗剂美金刚以及多奈哌齐美金刚联合治疗可以缓解 DRP 症状与减少抗精神病药物使用；抗精神病药物中，利培酮在英国、澳大利亚等国获批用于 DRP 以及激越治疗，依匹哌唑治疗 DRP 疗效优于其他抗精神病药物，阿立哌唑在疗效和安全性上可能最佳，奥氮平最弱，抗精神病药物的使用需要严格限制，非必要不使用。抗焦虑抑郁药物可以减轻 DRP 激越症状且安全性较好。

结论 DRP 机制和临床治疗干预有待进一步研究，DRP 作为一个疾病条目以及相关诊断标准有利于研究的开展。

关键字：痴呆相关精神病；研究进展；综述

老年期抑郁障碍共病 2 型糖尿病患者血糖变异性特征及影响因素

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目的 1.描述不同临床特征的老年期抑郁障碍共病 2 型糖尿病患者血糖变异性的特征；2.探究老年期抑郁障碍共病 2 型糖尿病患者血糖变异性的影响因素。

方法 选取 2020 年 1 月至 2022 年 12 月在安徽医科大学附属心理医院老年心理科就诊的老年期抑郁障碍共病 2 型糖尿病患者 86 例（男 40，女 46），年龄（70.73±8.22）岁，作为研究对象。完成一般临床资料收集、实验室检查及动态血糖测定，采用 24 项汉密尔顿抑郁评定量表（HAMD-24）评定入组患者的抑郁症状程度。 1.根据不同临床特征将共病患者分组，分别比较不同临床特征患者的血糖变异性和抑郁症状。 2.分别根据平均血糖变异性幅度（MAGE）＜3.9mmol/L 和低血糖指数（LBGI）＜2.5 作为血糖变异性正常参考值标准，比较不同临床特征共病患者异常血糖变异性检出率的差异。 3.共病患者血糖变异性的影响因素分析。

结果 1.以性别、年龄段等不同特征分组，发现共病患者的血糖变异性存在差异。女性日间血糖平均绝对差（MODD）高于男性；年龄差异表现为低血糖指数（LBGI）在高龄患者中升高；HbA1c 水平≥7.0%组血糖变异性高于 HbA1c 水平＜7.0%组；随着糖尿病病程延长，LBGI 升高；抑郁症状严重程度差异：重度抑郁患者血糖变异性高于轻中度患者。（均 P＜0.05） 2. 分析共病患者异常血糖变异性的检出率：≥80 岁 MAGE 异常检出率较 70-79 岁高（P＜0.05）；随着糖尿病病程延长，异常 LBGI 检出率逐渐增加（P＜0.05）。 3.共病患者血糖变异性的影响因素分析：HbA1c 水平、焦虑/躯体化症状群和情绪波动是 LLD 组患者血糖变异性（CV、SDBG、MAGE）的影响因素（P＜0.05）；HbA1c 水平和焦虑/躯体化症状群是 gon'b 患者 HBGI 的影响因（P＜0.05）；而认知障碍症状群、阻滞症状、睡眠障碍症状和绝望感症状对血糖变异性影响不明显（P＞0.05）。

结论 1. 不同临床特征的老年期抑郁障碍共病 2 型糖尿病患者的血糖变异性有差异。 2.老年期抑郁障碍共病 2 型糖尿病患血糖变异性的影响因素包括

HbA1c 水平、焦虑/躯体化症状群和情绪波动，临床治疗中对抑郁障碍和 2 型糖尿病协同治疗，改善 HbA1c 水平，积极缓解患者的焦虑/躯体化症状和情绪波动，可能有助于改善血糖控制和结局。

关键字：老年人 抑郁障碍 2 型糖尿病 血糖变异性 影响因素

低频 rTMS 刺激治疗对老年焦虑抑郁共病患者生活质量及事件相关电位 P300 的影响

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目的 观察低频重复经颅磁刺激（rTMS）联合艾司西酞普兰治疗老年焦虑抑郁共病患者的疗效及安全性，以及对生活质量及事件相关电位 P300 的影响。

方法 采用随机数字表法，将 2021 年 2 月-2023 年 1 月期间我院收治的 60 例 符合《国际疾病分类（第 10 版）》(ICD-10)老年焦虑抑郁共病患者（年龄均≥60 岁），分为对照组（艾司西酞普兰治疗，山东京卫制药有限公司生产，5mg/片）和研究组（对照组的基础上接受低频 rTMS 治疗，武汉依瑞德医疗设备新技术有限公司生产的,每周 5 次，每次 20 分钟，连续 4 周），各为 30 例。观察 4 周，分别在治疗前及治疗后 1、2、4 周采用汉密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD）评定焦虑抑郁症状，在治疗前及治疗后 4 周采用副反应量表（TESS）评定不良反应；分别于治疗前、治疗 4 周后，采用 36 项简明生活质量调查量表（SF-36）评价患者生活质量，SF-36 包括生理或情感职能、躯体精力、生理或社会功能、疼痛、精神或总体健康这 8 个维度，得分越高表明生活质量越好；分别于治疗前、治疗 4 周后，对所有患者进行事件相关电位 P300 测试，仪器购自德国 Brain products 公司，型号为 actiCHamp Plus。数据分析应用 SPSS20.0 软件。疗效等计数资料以%表示，进行卡方检验。P300 潜伏期、P300 波幅等计量资料用（x±s）表示，分别采用成组 t 检验、配对样本 t 检验。检验水准为 α=0.05。

结果 研究组的临床总有效率高于对照组（P<0.05）。研究组治疗 4 周后 P300 潜伏期短于对照组，P300 波幅长于对照组（P<0.05）。研究组治疗 4 周后疼痛、生理职能、精神健康、生理功能、躯体精力、情感职能、社会功能、总体健康各维度评分高于对照组（P<0.05）。两组治疗 4 周后 HAMA）、HAMD 评分较治疗前下降，且研究组低于对照组（P<0.05）。两组不良反应发生率对比无统计学差异（P>0.05）。

结论 低频 rTMS 联合艾司西酞普兰治疗老年焦虑抑郁共病患者，可有效改善其焦虑症状及抑郁症状，提高生活质量，促进认知功能恢复，具有显著的临床疗效。本次研究样本量较少，远期疗效和安全性也因时间关系未能明确，在今后的研究中，加大样本量，延长观察时间，进一步验证联合治疗的有效性和安全性。

关键字：低频重复经颅磁刺激；艾司西酞普兰；老年焦虑抑郁共病；生活质量；事件相关电位 P300

Chemokine C-C Motif Ligand-7 (CCL7) Increased in Patients of Major Depressive Disorder and Correlated with Anxiety

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Objective Inflammatory response is a crucial factor involved in the pathogenesis of depression, Chemokine C-C motif ligand-7(CCL7) plays an essential role in the pathophysiological alterations of major depressive disorder (MDD) during the occurrence and development. Studies have shown that plasma CCL7 level is correlated with anhedonia in patients with MDD. In this study, we investigated whether the plasma CCL7 level is abnormal in MDD and correlated with depression and anxiety symptoms.

Methods We studied 94 MDD patients and 92 healthy controls (HCs). Plasma CCL7 levels were detected via Luminex multifactor assay technology. The Mahalanobis distance method was used to detect the outliers of plasma CCL7 levels in the HC and MDD groups. The Kolmogorov-Smirnov test was used to test the normality of two groups (HC and MDD) of CCL7 samples. The two-way Analysis of variance (ANOVA) was used for the comparison of CCL7 between diagnoses and genders, and the Partial correlation analysis was used to evaluate whether there was a correlation between plasma CCL7 levels and demographic information or clinical characteristics.

Results The plasma CCL7 levels were significantly higher in all participants in the MDD group than in those in the HC group. In the MDD group, after controlling for confounding factors such as gender and age, we still found that there was a positive correlation between plasma CCL7 levels and anxiety. We did not find any significant difference of plasma CCL7 levels between the first-onset group and the relapsed group, the drug-na?ve group and the drug-used group. There was no significant correlation of plasma CCL7 levels with demographic information and depression.

Conclusion In summary, plasma CCL7 levels are decreased in MDD patients and correlated with anxiety, which may be related to pathological alterations in glial cells.

关键字：CCL7, Major depressive disorder, anxiety, Inflammatory response

发病年龄对女性抑郁症患者大脑灰质体积的影响

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目的 抑郁症的患者的性别分布差异来自女性患者在青春期的激增，青春期同时是大脑重新布线发生

的时期。青春期起病和成人起病的抑郁症具有不同的临床特点，因此被认为是不同的抑郁症亚型。本研究将的主要目的是探索早发女性抑郁症和晚发女性抑郁症在大脑结构上的差异。

方法 研究对象为就诊于武汉大学人民医院精神卫生中心门诊的抑郁症患者，所有的参与者由两名有经验的精神科医生根据 DSM-5 诊断为抑郁症。使用自制一般信息调查问卷收集一般人口学信息及起病年龄、病程、复发次数等临床信息。汉密尔顿抑郁量表、9 项患者健康问卷、汉密尔顿焦虑量表、广泛性焦虑量表用于评估患者的抑郁及焦虑严重程度。斯奈斯-汉密尔顿快感量表评估患者快感缺失严重程度。童年创伤问卷评估患者 16 岁前发生的创伤事件。参与者在完成量表 1 周内进行核磁共振扫描。根据首次发病年龄将起病年龄≤19 岁定义为早发组（110 人），将起病年龄＞19 岁定义为晚发组（92 人）。使用 spm8 的 VBM 工具包结构影像数据进行预处理，预处理后的图像使用一般线性模型进行组间比较，使用团块水平 FEW 方法进行多重比较校正，显著性阈值为 P＜0.001。并提取灰质体积（gray matter volume, GMV）差异脑区的 GMV 值，参与后续相关分析。采用 SPSS v25.0 进行数据分析，对童年与父母分离情况、受教育程度、是否有自伤行为及消极想法进行卡方检验，对各量表分数、年龄、发病年龄、病程、复发次数及门诊次数进行 Mann-Whitney U 检验。采用相关 Spearman 相关分析探索差异脑区 GMV 值与起病年龄、抑郁程度及童年创伤之间的联系，P<0.05 为显著差异。

结果 早发组年龄显著小于晚发组（P<0.001），复发次数、门诊次数和自伤行为的发生均多于晚发组（P<0.01），童年创伤中情感虐待得分早发组显著高于晚发组（P<0.01）。全脑 GMV 分析显示相较于晚发组，早发组在右侧颞下回、左侧颞中回、右侧梭状回、右侧豆状壳核、左侧中央沟盖及左侧楔前叶增加（团块水平 FEW 校正，P＜0.001）。相关性分析发现发病年龄与情感虐待得分呈显著负相关，情感虐待得分与 HAMD-17 得分显著正相关，GMV 差异脑区的 GMV 值均与发病年龄呈显著负相关。

结论 童年期情感虐待与抑郁症的早发存在相关，早发的抑郁症可能影响正常的树突修剪进程，导致早发组在多个脑区的 GMV 大于晚发组。

关键字：抑郁症；发病年龄；神经影像；基于体素的形态学测量；灰质体积

轻度认知障碍与轻度行为障碍患者嗅觉功能的比较

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目的 轻度认知障碍（MCI）和轻度行为障碍（MBI）是痴呆的风险因素，分别代表了神经认知及精神行为的早期阶段。用中国人群嗅觉识别测验（CSIT）作为工具，探讨嗅觉测试在检测临床前期阿尔茨海默病（AD）中的作用，比较 MCI 人群以及 MBI 人群单独存在和混合存在的嗅觉识别功能，并分析各组间嗅觉损害严重程度的差异。

方法 从石家庄裕华区社区招募 240 例研究对象，分为四组分别为 MCI- MBI-组（n=86 例）、MCI+MBI-组（n=54 例）、MCI-MBI+组（n=49 例）、MCI+MBI+组（n=51 例），所有受试者完成成套的神经心理评估，并采用中国人群嗅觉识别测验（CSIT）测定嗅觉识别功能。

结果 1.MCI- MBI-组和 MCI-MBI+组年龄明显小于 MCI+MBI-组和 MCI+MBI+组（F=8.967P<0.001）。MCI- MBI-组和 MCI-MBI+组在 MMSE、MOCA 评分高于 MCI+MBI-组和 MCI+MBI+组（Z=121.429，P<0.001；Z=140.428，P<0.001），其中 MCI+MBI-组在 MMSE、MOCA 评分与 MCI+MBI+组相当。2.MCI-MBI-组和 MCI-MBI+组嗅觉评分高于 MCI+MBI-组和 MCI+MBI+组（Z=70.669，P<0.001），其中 MCI+MBI+组嗅觉评分最低。

结论 轻度行为障碍患者较轻度认知损害患者的发病年龄较早。仅出现轻度行为障碍患者较仅出现轻度认知障碍人群嗅觉功能保持较好，嗅觉检测可能对 AD 临床早期轻度行为障碍患者没有早期筛查价值，嗅觉检测可能不足以筛查早期 AD 的全部人群。

关键字：轻度认知障碍；轻度行为障碍；嗅觉功能；嗅觉识别测验

Effects Of Inflammatory Factors On Disease Severity In First-Episode Major Depressive Disorder

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Objective To explore the relationship between the severity of depression, anxiety, insomnia and serum cytokines of first-episode depression disorder, in order to provide potential biomarker indicators for early clinical recognition and early intervention of depression disorder.

Methods In this study, 113 subjects were included in the Depression group and 60 in the control group. All subjects were evaluated by using Hamilton Depression Scale-24 (HAMD-24), Hamilton Anxiety Scale (HAMA) and Insomnia Severity Index (ISI),and the levels of 12 peripheral blood serum cytokines were measured.

Results ① Compared with the control group, the depressive group had more serious anxiety symptoms and insomnia symptoms.② The levels of IL-2, IL-4, IL-5, IL-6, IL-8, IL-12p70, IL-17, IL-1β, TNF-α, IFN-α and IFN-γ in peripheral blood of depression group were significantly higher than those of control group.③ The severity of depression and anxiety was positively correlated with the levels of serum IL-2, IL-4, IL-5, IL-6, IL-8, IL-12p70, IL-17, IL-1β, TNF-α, IFN-α and IFN-γ in peripheral blood. There

was no statistical correlation between the severity of insomnia and the levels of serum 12 cytokines in peripheral blood. ⑤The levels of serum IL-6 and IFN-γ in peripheral blood can be used as risk factors to predict the risk of depression disorders, and the prediction model has high accuracy.

Conclusion Serum cytokine levels in peripheral blood may affect the severity of depression, anxiety and insomnia in patients with first-episode major depressive disorder, and have potential value in establishing a clinical diagnostic model, which may be used for early detection and diagnosis of major depressive disorder.

关键字：depression, anxiety, insomnia, cytokines

Executive Function Deficits in Patients with The First Episode of Late-life Depression before and after Antidepressant Treatment: A Task-fMRI Study

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Objective Executive function deficits (EFD) in late-life depression (LLD) has been reported to be associated with antidepressant treatment resistance, increased disability, and poor quality of life. However, the underlying neural mechanisms of EFD in patients with the first episode of LLD remains unclear. This study aims to explore the neuroimaging basis of EFD in LLD patients before and after antidepressant treatment.

Methods A total of 27 patients with first-episode, drug-naive LLD and 27 non-depressed controls (NCs) were recruited for the present research. Participants underwent the Trail Making Test (TMT), the 17-item Hamilton depression rating scale (HAMD-17) test, and task-state fMRI (ts-fMRI) scans under the neural Stroop task. Escitalopram or sertraline was adopted to treat depression, and the dosage of the drug was adjusted by the psychiatrist based on the patient's clinical conditions. LLD patients' executive functions, depressive symptoms, and brain activity during the neural Stroop task were examined again after six months of antidepressant medication.

Results Patients in the LLD baseline group spent more time on the TMT-A test than those in the NC group ($P < 0.05$). In the presence of an inconsistency between the word color and meaning, the accuracy rate of the Stroop task in the LLD baseline group was lower, and the reaction time was more than that in the NC group, with statistically significant difference ($P < 0.05$). The HAMD-17 score in the LLD follow-up group was significantly lower than that in the LLD baseline group ($P < 0.05$). More activated brain regions were present in the LLD baseline group than in the NC group, concentrated in the frontal lobe, parietal lobe, and cingulate gyrus; when performing the Stroop task, compared with the LLD baseline group, abnormal activation of relevant brains in the cingulate–prefrontal–parietal network of LLD patients still existed in the LLD follow-up group, such as the left middle cingulate gyrus, the left superior frontal gyrus, left inferior frontal gyrus, left middle temporal gyrus, right fusiform gyrus, left cuneus, right supramarginal gyrus, and right superior parietal lobule.

Conclusion LLD patients engaged more brain areas than the NC group while performing the Stroop task. Abnormal activation of the cingulate-prefrontal-parietal network could be a contributing factor to EFD in LLD. The continuous abnormal activation of the cingulate-prefrontal-parietal network may increase the severity of cognitive impairment in first-episode, LLD patients following the relief of depressive symptoms. Trial registration: ChiCTR, ChiCTR2100042370 (Date of registration: 21/01/2021).

关键字：Executive function, Late-life depression, Depressive symptoms, Task-fMRI

Transferability and Sustainability of Process-based Multi-task Adaptive Cognitive Training in Community-Dwelling Older Adults with Mild Cognitive Impairment: A Randomized Controlled Trial

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Objective This study aimed to evaluate the direct effects of a P-bM-tACT program on EF, the transfer effects on untrained cognitive domains, and further explore the sustainability of training gains for older adults with MCI in the community.

Methods In a single-blind, randomized controlled trial, 92 participants with MCI were randomly assigned to either the intervention group, participating in a P-bM-tACT program (3 training sessions/week, 60min/session for 10 weeks) or the wait-list control group, accepting a health education program on MCI (1 education session/ twice a week, 40-60 min/session for 10 weeks). The direct and transfer effects of the P-bM-tACT program were assessed at baseline, immediately after 10 weeks of training, and the 3-month follow-up. Repeated measures analysis of variance and a simple effect test were used to compare the direct and transfer effects over the 3-time points between the two groups.

Results The P-bM-tACT program yielded a greater benefit of direct and transfer effects in the intervention group participants than to the wait-list control group. Combined with the results of simple effect tests, the direct and transfer effects of participants in the intervention group significantly increased immediately after 10 weeks of training compared to the baseline ($F=14.702\sim62.905$, $p<0.05$), and these effects were maintained at the 3-month follow-up ($F=19.595\sim122.22$, $p<0.05$). Besides, the acceptability of the cognitive training program was established with a high adherence rate of 83.4%.

Conclusion The P-bM-tACT program exerted positive direct and transfer effects on improvement of cognitive function, and these effects were sustained for 3 months.

The findings provide a viable and potential approach to improving cognitive function in older adults with MCI in the community.

关键字：Mild cognitive impairment; Process-based adaptive cognitive training; Executive function; Transfer effects

基层医养人员对阿尔茨海默病患者照护认知的调查

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目的 探索基层医养工作人员（医生、护士、康复师、照料者、管理人员等）对阿尔茨海默病（AD）患者照护问题的认知情况。

方法 以 2019 年 1 月-12 月嘉兴市 8 所不同社区卫生服务中心、社区卫生服务站及医养结合机构的 64 名工作人员为调查对象，采用调查问卷的形式，收集这些被调查者的基本信息，分析其对 AD 的疾病基本认识、早期症状、突发情况及照护过程中应注意的问题的认知。

结果 调查人员对 AD 的疾病基本认识、早期症状、突发情况及护理过程中应注意的问题的认知程度不一，约 1/3 的基层医养工作人员对 AD 缺乏足够的认知。

结论 AD 患者主要以慢性进行性智力减退为主要的临床表现，随着疾病的进展，其生活自理能力不断下降，在生活中存在致伤的风险。由于对相关基本知识的缺乏，当前的 AD 患者的照护情况不容乐观。对于以家庭护理为主的 AD 护理模式，基层医疗机构是普及 AD 相关基本知识的关键，机构所属的医养人员对相关知识的掌握间接影响到 AD 患者的生活质量及疾病进展。通过对本市 64 名基层医养工作人员的 AD 相关知识的调查研究，在对 AD 的基本了解上，仍有将近 1/3 的基层医养人员处于对 AD“一知半解”的状态，有一半以上的基层医养人员从未接受过关于 AD 的知识培训；基层医养人员对 AD 的早期发现的认知程度明显缺乏；AD 患者突发状况的理解及照护过程中需要注意的问题，仍存在有大约 1/3 的基层医务人员缺乏相关认识。研究表明，当前有约 1/3 的基层医养人员对 AD 缺乏足够的认识，有待进一步加强培训。

关键字：阿尔兹海默症；基层医养工作人员；照护；调查研究

Serum Metabolic Profile in Schizophrenia Patients with Antipsychotic-Induced Constipation And Its Relationship with Gut Microbiome

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Objective Antipsychotics (APs), the cornerstone of schizophrenia treatment, confer a relatively high risk of constipation. However, the mechanisms underpinning AP-induced constipation are poorly understood. Thus, we hypothesized that (1) schizophrenia patients with AP-induced constipation have distinct metabolic patterns; (2) there is more than one mechanism at play in producing this adverse drug effect; and (3) AP-associated changes in the gut microbiome are related to the altered metabolic profiles.

Methods Eighty-eight schizophrenia patients, including 44 with constipation (C) and 44 matched patients without constipation (NC), were enrolled in this study. Constipation was diagnosed by Rome IV criteria for constipation and colonic transit time using radiopaque markers (ROMs) while severity was evaluated with the Bristol Stool Form Scale (BSS) and Constipation Assessment Scale (CAS). Fasting blood samples were drawn from all participants and were subjected to non-targeted liquid chromatography-mass spectrometry (LC-MS) metabolomic analysis.

Results Eleven metabolites were significantly altered in AP-induced constipation which primarily disturbed sphingolipid metabolism, choline metabolism, and sphingolipid signaling pathway (P value < .05, FDR < 0.05). In the C group, changes in the gut bacteria showed a certain degree of correlation with 2 of the significantly altered serum metabolites and were associated with alterations in choline metabolism.

Conclusion Our findings indicated that there were disturbances in distinct metabolic pathways that were associated with AP-induced constipation. In addition, this study presents evidence of a link between alterations in the gut microbiome and host metabolism which provides additional mechanistic insights on AP-induced constipation.

关键字：Antipsychotics; Constipation; Gastrointestinal Hypomotility; Mechanism; Metabolomics; Schizophrenia.

Serum Gut Hormone and Bile Acid Levels in Patients with Antipsychotic-induced Gastrointestinal Hypomotility

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Objective Constipation is a frequently, however, overlooked side effect in patients treated with antipsychotic medications, which is named as antipsychotic-induced gastrointestinal hypomotility. Gut hormones play important roles in gut motility related to constipation. While gut hormones have not previously been measured together with this side effect. We aimed to investigate se-

rum gut hormones difference in schizophrenia patients prescribed antipsychotic medications.

Methods We conducted a cross-sectional study of 88 patients with schizophrenia. Rome IV criteria for constipation and radiopaque markers for colonic transit time were jointly used to identify gastrointestinal hypomotility in patients with schizophrenia. Moreover, using the self-reported Constipation Assessment Scale (CAS) and the researcher-evaluated Bristol Stool Scale (BSS), we assessed the severity of constipation. Then, Seven gut hormones related to gastrointestinal motility were measured from fasting blood samples. Demographic and clinical data including age, gender, BMI, smoking status, medication, diagnoses, and serum total bile acid (TBA) levels were further analyzed.

Results The age range of patients was between 30 and 65 with an average age of 50.85. There were 44 patients diagnosed with gastrointestinal hypomotility (C), the other 44 patients with normal gastrointestinal hypomotility (NC) had matched age and gender. The main findings were as follows: (1) BSS and CAS scores were significant between the two groups ($p < 0.05$); (2) Gut hormone Ghrelin showed a higher level in the C group than that in the NC group (382.48 (266.79, 467.23) mmol/L v.s. 292.23 (225.55, 417.41) mmol/L, $p = 0.033$); (3) The level of TBA in peripheral blood in the C group was higher than that in the NC group (8.20 (4.43, 10.25) mmol/L v.s. 6.40 (3.80, 8.80) mmol/L, $p = 0.036$); (4) In the C group, there was a negative correlation between TBA level and BSS (Spearman's $r = -.499$, $p = 0.001$).

Conclusion In addition to antipsychotic pharmacological mechanisms, ghrelin seems to be another way related to antipsychotic-induced gastrointestinal hypomotility. Moreover, patients with antipsychotic-induced gastrointestinal hypomotility seem to have dysregulated enterohepatic circulations of bile acids related to the gut microbiome.

关键字：Antipsychotics; Gastrointestinal Hypomotility; Constipation; Bile Acid; and Ghrelin

Altered Intrinsic Default Mode Network Functional Connectivity in Patients with Remitted Geriatric Depression and Amnestic Mild Cognitive Impairment

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Objective Patients with geriatric depression exhibit a spectrum of symptoms ranging from mild to severe cognitive impairment which could potentially lead to the development of Alzheimer's disease (AD). The aim of the study is to assess the alterations of the default mode network (DMN) in remitted geriatric depression (RGD) patients and whether it could serve as an underlying neuropathological mechanism associated with risk of progression of AD.

Methods Design Cross-sectional study. Participants A total of 154 participants, comprising 66 RGD subjects (which included 27 patients with comorbid amnestic mild cognitive impairment [aMCI] and 39 without aMCI [RGD]), 45 aMCI subjects without a history of depression (aMCI) and 43 matched healthy comparisons (HC), were recruited. Measurements All participants completed neuropsychological tests and underwent resting-state functional magnetic resonance imaging (fMRI). Posterior cingulate cortex (PCC)-seeded DMN functional connectivity (FC) along with cognitive function were compared among the four groups and correlation analyses were conducted.

Results In contrast to HC, RGD, aMCI and RGD-aMCI subjects showed significant impairment across all domains of cognitive functions except for attention. Furthermore, compared with HC, there was a similar and significant decrease in PCC-seed FC in the bilateral medial superior frontal gyrus (M-SFG) in the RGD, aMCI, and RGD-aMCI groups.

Conclusion The aberrations in rsFC of the DMN were associated with cognitive deficits in RGD patients and might potentially reflect an underlying neuropathological mechanism for the increased risk of developing AD. Therefore, altered connectivity in the DMN could serve as a potential neural marker for the conversion of geriatric depression to AD.

关键字：Amnestic mild cognitive impairment (aMCI), bilateral medial superior frontal gyrus (M-SFG), default mode network (DMN), functional connectivity (FC), remitted geriatric depression (RGD).

正念疗法在常见精神心理问题治疗中的研究进展

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正念疗法（Mindfulness Therapy）是由正念（Mindfulness）发展而来的各种心理治疗方法。正念是指将注意指向当下，但对当下的体验不予评价。其起源于佛教中的“冥想”。事物变化无常,为此人常常有悲喜。人对愉悦体验会本能地生出贪爱、执取,而对痛苦体验则会嗔恨、排斥,因此人痛苦的根源在于其对体验的本能反应，而不是体验本身的愉悦与否，而正念就致力于改变这种本能反应。 传入西方后，Kabat-Zinn 教授将正念用于管理疼痛，后发展出正念减压疗法。后在此基础发展出各种正念疗法，主要包括正念认知疗法、辩证行为疗法、接纳与承诺疗法等。目前大量研究证据显示正念疗法对于抑郁症、焦虑症及成瘾障碍等精神心理问题均有改善及治疗作用。正念疗法则是通过改善负性思维，减轻抑郁症症状。研究发现 MBCT 能显著减少抑郁症复发风险。研究支持 MBCT 在靶向抑郁源性认知过程起效，通过转移注意力以减少过度广义的自传体

记忆和思维反刍。正念疗法也能显著改善焦虑症状，研究表明与 CBT 相比，MBSR 对中重度焦虑更有效。此外研究证实正念疗法对于强迫症状也同样有改善作用，MBCT 除能改善强迫症状外，还在某些方面同样有显著的改善效果（如减少强迫性思维占用的时间、减轻与强迫性思维相关的痛苦和干扰等）。Li 等发现正念疗法在减少物质使用频率和渴望等方面均有效，且优于其他疗法。其机制可能通过以下几个方面实现：减少压力相关大脑区域的激活；增加自上而下的调节，减少与物质使用相关的自动性。目前已经证实正念疗法与多种精神疾病（包括抑郁症、焦虑症、物质滥用）的一线治疗方案疗效相当，初步表明对治疗进食障碍和应激障碍有改善，对注意力障碍疗效尚不明确，可能适用于严重的精神疾病。随着信息技术的普及，近年来有关搭载手机应用软件行正念练习的有关研究越来越多，而相关随机对照研究及荟萃分析结果均显示出其有效性。与传统正念疗法相比，线上正念练习具有便捷、低成本、个性化等优点。另外由于正念疗法有助于改善认知，因此我们猜想这种搭载手机应用软件的正念疗法是否也有有助于老年抑郁症的治疗，这需要我们进一步研究证实。

关键字：正念疗法；正念减压疗法；正念认知疗法；抑郁焦虑；成瘾障碍；治疗方式

The Interaction of The GABRB3 Gene Mutation and Brain Structure in Major Depressive Disorder

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Objective Major depressive disorder (MDD) is a complex polygenic disorder, whose pathogenesis has not yet been fully elucidated. This study aims to investigate the low-frequency and rare genetic variation of MDD and its relationship with brain neuroimaging, which provides underlying evidence for genetic imaging mechanism of MDD.

Methods This study was approved by the Clinical Trials and Biomedical Ethics Committee of Sichuan University. All patients were diagnosed by the Structured Clinical Interview for DSM-IV Disorders. The low-frequency variants and rare mutations (Minor allele frequencies < 0.05) related to depressive phenotypes were filtered based on whole exome sequencing. Enrichment analyses on the set of genetic mutations specific to the MDD were run to investigate biological functions in the Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway. The pathogenicity rank order was used to explore the degree of genetic contribution to MDD. Then, this study extracted the structural indicators of each subject, including cortical thickness, cortical volume, gyrus curvature and brain sulcus depth by using the individualized brain region segmentation divided into 92 brain regions. The association between the GABRB3 gene and brain structure was performed by two-way analysis of covariance. The brain regions with statistical differences after multiple comparisons via the False Discovery Rate were analyzed post hoc.

Results A total of 87 people with MDD and 62 Health Control (HC) was recruited in this study. There were 146 genes mutated in people with MDD compared to HC, enriched in 17 KEGG pathways. The retrograde endocannabinoid signaling pathway was the most significant in function with MDD, in which GABRB3 gene ranked the highest through pathogenicity rank order, and its rs3751582 locus was screened to the genetic imaging analysis. This study found that the curvature of the left precentral gyrus of MDD was reduced compared with HC group (F=13.898, P_ad=0.028); the interaction between rs3751582 and diagnosis had a statistically significant difference in the curvature of the right middle frontal gyrus (F=13.592, P_ad=0.039). The post-hoc analysis found that compared with the HC unmutated group (TT), the absolute value of the curvature of the right middle frontal gyrus of the MDD unmutated group and the HC mutation group (CC+CT) both increased.

Conclusion GABRB3 gene mutation occupied an important position in the genetic pathogenicity of MDD. The curvature of the gyri was an index to evaluate the morphology of the cerebral cortex involved in the pathogenesis of MDD. Abnormal cortical morphology in the left precentral and right middle temporal gyrus may be potential biomarkers involved in the pathogenesis of MDD. Rs375158 mutation was associated with abnormal morphology of the right middle temporal gyrus cortex, leading to dysfunction of neural signaling of γ-aminobutyric acid type A receptors. But it's not about whether it causes MDD or not.

关键字：Major depressive disorder; Gene enrichment analysis; GABRB3 gene; Curvature of gyrus

老年抑郁症和焦虑障碍共病患者的临床特征及治疗

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目的 探讨抑郁症与焦虑障碍共病的老年患者，分析其临床特征，提出有效的治疗对策。

方法 本次研究选择的研究对象一共有 66 例，均为抑郁症与焦虑障碍共病的老年者。参考数表法分为对照组与观察组，每组 33 例。其中，对照组的护理效果为艾司西酞普兰治疗，观察组为舒肝解郁胶囊与艾司西酞普兰联合，比较分析两组治疗结果。

结果 以对照组为对比，观察组的临床总有效率显著提高，P＜0.05。以对照组为对比，观察组不良反应发生率呈降低的趋势，P＜0.05。以对照组的焦虑评分与抑郁评分为对比依据，治疗后观察组该指标降低幅度较大，P＜0.05。

结论 对于抑郁症与焦虑障碍共病的老年患者，可给予其舒肝解郁胶囊与艾司西酞普兰联合治疗，提高治疗效果，消除患者不良情绪，降低不良反应的发生率，值得推广。

关键字：老年；抑郁症；焦虑障碍；舒肝解郁胶囊；艾司西酞普兰

老年精神分裂症住院患者近期自杀意念与生活质量、抑郁症状的相关性研究

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目的 精神分裂症患者的自杀风险高于较一般人群， 目前大部分自杀相关的研究集中于年轻患者，对老年精神分裂症患者的自杀知之甚少。自杀被认为是一个多阶段连续统一体，其中作为关键的初始步骤的自杀意念，对于后续的自杀未遂和完成自杀，具有一定预测价值。本研究探讨老年精神分裂症住院患者近期自杀意念与生活质量、抑郁症状的相关性，以早期识别近期自杀意念可能的影响因素。

方法 研究采用横断面研究方法，共纳入深圳市康宁医院 50 岁以上的老年精神分裂症住院患者 252 名，根据贝克自杀意念量表的第四及第五个条目的回答来评估患者的近一周的自杀意念，并将其分为有无近期自杀意念组。分别收集患者的一般情况调查表、贝克自杀意念量表，世界卫生组织生存质量量表简化版、卡尔加里精神分裂症抑郁量表以评估患者的社会人口学资料、自杀意念、生活质量及抑郁症状。

结果 1.本研究发现老年精神分裂症患者近期自杀意念的发生率为 8.3%。 2.单因素分析发现，有近期自杀意念组男性（$\chi2$=12.125，P<0.001）、有自杀未遂史($\chi2$=30.625,P<0.001) 、 有 自 残 行 为 史($\chi2$=6.399,P=0.041)、有抑郁症状($\chi2$=78.588,P<0.001)的人数比例显著高于无近期自杀意念组，而生理 领域分（Z=-3.901,P<0.001）、环境领域分(Z=-5.282,P<0.001)、心理领域分（Z=-5.373,P<0.001）显著低于无 近期自杀意念组。 3.以近期自杀意念为因变量，将单因素分析中 P<0.1 的变量为自变量，进行二分类的 logistics 回归分析显示，有自杀 未遂史（β=1.560，P=0.037）、有抑郁症状（β=2.744，P<0.001）与近期自杀意念呈正相关，心理领域分 （β=-0.389，P=0.021）、生理领域分（β=-0.457，P=0.047）与近期自杀意念呈负相关。

结论 既往自杀未遂史、伴抑郁症状、生活质量低，尤其是心理及环境满意度低的老年精神分裂症住院患者可能更容易产生近期自杀意念，提示，在临床评估应关注这些因素，及时干预，降低自杀风险。

关键字：精神分裂症；老年人；近期自杀意念；生活质量；抑郁症状

Clinical Characteristics of Schizophrenia, Mood Disorders, and Dementia Among Older Adults: A Retrospective Study of 332 Consecutive Admissions

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Objective In this descriptive study, we aimed to identify the clinical characteristics of schizophrenia, mood disorders, and dementia among older adults.

Methods A total of 332 consecutive cases admitted from February 2021 to March 2022 were enrolled in this study. General information of patients was collected, including diagnosis, age, gender, level of education, marital status, drinking behavior, smoking behavior, course of mental disorder, type of admission, history of modified electroconvulsive therapy (MECT), hospitalization period, and medical expense. The Brief Psychiatric Rating Scale (BPRS), Geriatric Depression Scale (GDS), Generalized Anxiety Disorder 7-Item Scale (GAD-7), Insight and Treatment Attitudes Questionnaire (ITAQ), and Mini-Mental State Examination (MMSE) were employed to evaluate the participants' mental status. The types of and numbers of somatic diseases were recorded via the hospital information system. The Functional Activities Questionnaire (FAQ), Social Support Rating Scale (SSRS), Barthel ADL Index, Standardized Swallowing Assessment (SSA), and Mini-Nutritional Assessment (MNA) were applied to measure social and daily living function.

Results Of the 332 cases, 81 were schizophrenic (26 males, 55 females), 123 were patients with mood disorders (47 males, 76 females), and 105 were patients with dementia disease (37 males, 68 females). Age of patients with dementia disease > age of patients with mood disorders > age of patients with schizophrenia, and the difference was statistically significant (P < 0.001). The number of hospital days and medical costs of patients with the three diseases were not statistically significant (P > 0.05). One-way ANOVA was used to compare the variance of the crude score results in the four groups of subjects for a two-way comparison between the groups. The results revealed that the total scores of GDS, GAD, ITAQ, and MMSE were statistically significant (P < 0.05). The difference between the total scores of BPRS was not statistically significant (F = 2.046, P = 1.017). The total scores of FAQ, SSRS, ADL, SSA, and MNA were statistically significant (P < 0.001). The total scores of NGASR and BVC total scores were statistically significant (P < 0.001).

Conclusion Patients with geriatric psychosis may experience abnormalities in various aspects of thinking, cognition, emotion, and behavior that can adversely impact their daily lives. Though schizophrenia, mood disorders, and dementia disease all have cognitive impairment, differences in the degree and type of cognitive impairment result in differences in daily functioning. Patients with mood disorders were found to have higher NGASR scores

than those with schizophrenia and dementia disease and were considered to be at a greater risk for suicide. Assessing and identifying patients with mood disorders at high risk for suicide and intervening accordingly to reduce the risk of suicide in patients is a critical clinical issue for psychiatri

关键字：schizophrenia; mood disorders; dementia; older adults;

老年人财务决策中不利选择及与抑郁程度相关性的研究

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目的 财务决策能力是对奖赏相关风险信息进行选择和判断的能力，对个体的日常生活和生存发展至关重要。相比青年人，由于各项认知功能下降，老年人更容易遇到财务决策方面的困难。尽管有研究表明抑郁患者的财务相关风险行为发生明显改变，但正常老年人群中抑郁和财务决策的关系仍缺乏相关研究。本研究重点探讨老年人财务风险决策的改变，特别是抑郁情绪在其中发挥的作用。

方法 本研究采集了 173 名健康受试者数据，包括 110 名老年人（55-81 岁）和 63 名青年人（18-31 岁）。采用汉密尔顿抑郁量表（HAMD）评估其抑郁程度，以及简易精神状态量表(MMSE)评估认知功能，并记录被试者的年龄、性别、教育程度等一般资料。以爱荷华博弈任务(Iowa gambling task，IGT)为行为学范式，评估老年人的财务风险行为 （不利牌选择频率、有利牌选择频率和净得分）。按照 IGT 净得分＜0 为不利选择，净得分≥0 为有利选择进行分组。将研究对象分为老年不利组（净得分＜0）、老年有利组（净得分≥0）、青年不利组（净得分＜0）、青年有利组（净得分≥0）四个亚组。

结果 1） 老年人群中做出不利选择的人数占比（47.3%）明显高于青年人中不利选择的人数占比（31.7%）(?2=3.975，p＜0.05)；2）协方差分析显示，老年不利组中，不利牌选择频率明显高于老年有利组（p＜0.01），有利牌选择频率、净得分明显低于老年有利组、青年有利组（均 p＜0.01），HAMD 评分低于老年有利组（p＜0.05）；老年两组的 MMSE 评分均低于青年两组（均 p＜0.05）；青年不利组有利牌选择频率、净得分明显低于青年有利组（均 p＜0.01）； 3） 老年组中不利卡牌选择频率与抑郁程度成负相关(r=-0.288,p=0.029)； 4） 调节模型分析显示，抑郁程度与认知功能对老年人不利牌选择频率的影响上交互作用显著(β=0.277,p=0.003)，具体表现为在较高的抑郁程度下，不利牌选择频率和认知功能之间成显著正相关(β=0.016，p=0.013)，在较低的抑郁程度下，不利牌选择频率和认知功能之间无显著相关性。

结论 在面对潜在财务风险时，老年人更倾向于做出更多不利选择、更少有利选择、总体收益更少；抑郁水平越低，老年人越偏向于做更多不利选择；抑郁程度在老年人不利牌选择频率与认知功能的关系中起到正向调节作用。

关键字：老年人；财务决策；抑郁；爱荷华博弈任务

城市老年人抑郁与认知功能的相关性及性别差异

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目的 人口老龄化已成为全球普遍现象，与衰老相关的精神问题受到公众的普遍关注。拟对城市老年人抑郁和认知功能状况进行调查，并分析抑郁与认知功能的相关性及性别差异。

方法 采用分层抽样方法，选取安徽省合肥市某社区的 65 岁及以上老年居民作为调查对象。收集其一般资料，采用老年抑郁量表（GDS）、痴呆简易筛查量表（BSSD）对抑郁和认知功能状况进行评估。探讨老年人抑郁的相关因素，并分析抑郁、性别与认知功能的关系。

结果 共纳入 328 名符合条件的老年人，抑郁总体检出率为 14.9%。饮酒（OR=0.362）与抑郁检出低风险有关，与子女居住（OR=2.445）与抑郁检出高风险有关。析因设计的方差分析显示，抑郁组 BSSD 总分及语言（命令）理解、计算/注意、地点定向、时间定向和即刻记忆因子分均低于非抑郁组（均 P<0.05）。女性 BSSD 总分及常识/图片理解和地点定向因子分均低于男性，而语言（命令）理解得分高于男性（均 P<0.05）。抑郁与性别在常识/图片理解、语言（命令）理解和地点定向上的交互作用显著（均 P<0.05）。

结论 老年人抑郁与认知功能损伤有关，与各领域认知功能的关系存在性别差异，应加强关注老年女性群体，制定个体化的综合干预措施，为中国健康老龄化事业助力。

关键字：抑郁；老年人；认知功能；性别差异

阿尔茨海默病知识量表在社区医生中的因子结构研究

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目的 探索阿尔茨海默病知识量表（ADKS）在中

国社区医生中的因子结构维度。

方法 本研究为横断面研究，采用在线调查问卷的方式，共收集 1288 份问卷。采用主成分因子分析法研究社区医生及不同性别、不同学历的 ADKS 因子结构特点。

结果 1288 名社区医生完成问卷，平均年龄 38.5±9.2 岁，其中男性 389 例，女性 899 例，本科学历以下为 419 例，本科学历及以上为 869 例。根据主成分因子分析法，因子分析取特征值>1，全部社区医生得 8 因子（患者体验、疾病归因、神经学知识、照护需求、鉴别诊断、心理干预、生存结局、合并症），其中特征值分别为 3.22，2.58，1.73，1.64，1.43，1.37，1.35，1.11，分别解释 10.72%，8.60%，5.78%，5.48%，4.77%，4.57%，4.52%，3.69%的变异，共解释了 48.12%的总变异。本科学历以下的社区医生得 8 因子，其中特征值分别为 3.24，3.05，2.00，1.73，1.66，1.47，1.31，1.16，分别解释了 10.79%，10.16%，6.65%，5.77%，5.53%，4.89%，4.36%，3.87%的变异，共解释了 52.02%的变异。本科学历及以上的社区医生得 9 因子，其中特征值分别为 3.23，1.80，1.77，1.51，1.41，1.41，1.40，1.35，1.27，分别解释了 10.78%，6.01%，5.50%，5.03%，4.70%，4.69%，4.67%，4.50%，4.22%，共解释了 50.50%的变异。

结论 以社区医生为样本的 ADKS 呈 8 或 9 个因子结构，不同学历的的 ADKS 因子结构有所不同，量表具有较好的稳定性，ADKS 是较全面反映阿尔茨海默病知识掌握的重要测量工具。

关键字：阿尔茨海默病知识量表 社区医生 因子结构

老年抑郁患者经改良电抽搐治疗后的主客观睡眠变化

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目的 探究老年抑郁患者经 MECT 治疗后主客观睡眠的改变情况及主客观睡眠差异的变化和相关影响因素。

方法 对 27 名老年抑郁患者进行了纵向 MECT 干预性研究，并在基线时和治疗后分别进行主客观睡眠、临床症状的评估，使用匹兹堡睡眠质量指数（PSQI）、嗜睡量表（ESS）评估主观睡眠，多导睡眠监测（PSG）评估客观睡眠，汉密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD）评估临床症状。采用配对 t 检验比较各指标间的差异性，指标间的相互关系采用 Spearman 相关分析进行统计。

结果 经MECT治疗后患者的HAMA（2.04±0.45）、HAMD-24 （ 2.56±0.38 ） 得 分 较 治 疗 前 HAMA（26.63±1.81）、HAMD-24（37.22±1.21）得分降低，差异具有统计学意义（P＜0.01）。治疗后患者的主观睡眠的卧床时间（t=-2.759，p=0.010）、睡眠时间(z=-3.868，p=0.000 和睡眠效率(t=-5.559，p=0.000)均升高，睡眠潜伏期明显缩短（z=-4.109，p=0.00），PSQI 总分（t=10.738，p=0.000）明显减低；客观睡眠的 N1、N2 时间缩短、N3 时间延长、N2 比例减小、N3 比例增加、REM 潜伏期延长，而且经 MECT 治疗后主客观睡眠各指标的差值较治疗前显著降低。相关性分析显示基线时 HAMD-24 得分与主观睡眠时间前后差值呈正相关（r=0.410，P=0.034），与主观睡眠潜伏期（r=-0.410，P=0.034）、主观睡眠效率(r=-0.473，P=0.013)、REM 时间（r=-0.409,P=0.034）前后差值呈负相关；基线时 PSQI 得分与主观卧床时间（r=0.495，P=0.009）、客观睡眠时间（r=0.412，P=0.033）、主观睡眠时间（r=0.626，P=0.000）、主观睡眠效率（r=0.547，P=0.003）、N2%（r=0.390，P=0.044）前后差值呈正相关。

结论 老年抑郁患者普遍存在主客观睡眠的差异，表现为主观睡眠低估了客观睡眠。经 MECT 治疗后，他们的临床症状及主客观睡眠均有改善，其中主观睡眠的改善高于客观睡眠，治疗后的主客观睡眠差异较治疗前显著减小，主客观睡眠评价趋于一致，同时，基线时 HAMD-24 和 PSQI 得分越高，睡眠改善程度越高。

关键字：老年抑郁 改良电抽搐 主观睡眠 客观睡眠

Study on The Mechanism of Abnormal Arginine Metabolic Pathway Involved in Cognitive Impairment in Late-life Depression

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Objective : Late-life depression (LLD) is characterized by persistent low mood, lack of interest, and decreased energy, accompanied by sleep disorders, decreased appetite, and physical pain and discomfort. The symptoms of LLD patients are atypical, often accompanied by a variety of causes of cognitive decline. Because the pathogenesis of LLD is not clear, specific biomarkers and objective evaluation indicators of efficacy cannot be determined, and often missed diagnosis and misdiagnosis lead to poor prognosis. Clarifying the pathogenesis of LLD will help to promote early detection, diagnosis and treatment of LLD.

Methods 1. Clinical evaluation of LLD and screening of differential metabolites. Firstly, general clinical data were collected and the Gerontology Depression Scale (GDS), Hamilton Depression Scale-24 (HAMD-24) and Hamilton Anxiety Scale (HAMA) were used to evaluate the emotional status of the subjects. Then 1H nuclear magnetic metabonomics (1H NMR) method was used to observe the metabolic changes of LLD plasma. Pathway analysis was conducted based on MetaboAnalyst, and Spearman correlation was used to analyze its relationship with clinical symptoms and cognitive function of LLD patients. Finally, the diagnostic ability of key differential metabolites was evaluated by Receiver operating characteristic curve (ROC). 2. Establishment and evaluation of animal models of LLD with chronic unpredictable mild stress

(CUMS) and studies on mechanisms of arginine metabolic pathways. SD rats were selected and randomly divided into two groups based on baseline body weight: young normal control group (n=10) and young CUMS model group (n=15), and old normal control group (n=10) and old CUMS model group (n=15). The activity ability of the animals was evaluated by open field experiment. An animal model of LLD was established using chronic and unpredictable mild stimulation (12 types of stimulation randomly arranged) over a 4-week period. Behavioral experiments (open field test, Sucrose preference test, Y maze test, and novel object recognition test) were used to evaluate the model. The content of arginine and citrulline in LLD animal models and the key metabolic enzymes in the metabolic pathway were detected by molecular biology technology, and the relationship between them and the behavioral and cognitive function indexes of rats was observed by correlation analysis.

Results 1. Compared with healthy controls, the GDS of LLD patients (Z=18.485, P< 0.001), HAMD-24 (Z=18.360, P<0.001) and HAMA (Z=17.647, P<0.001) were higher in overall cognitive function (Z=0.000, P<0.001) and six cognitive dimensions including memory (Z=-3.917, P<0.001), information processing speed (Z=-4.268, P<0.001), visual-spatial function (Z=-3.870, P<0.001), executive function (Z=-4.268, P<0.001), language function (Z=-4.269, P<0.001) and social cognitive function (Z=-4.283, P<0.001) were statistically different. Plasma metabolites (lipids, lactate, arginine, succinate, dimethylami

关键字：Late-life depression; CUMS animal model; Arginine metabolism; Cognitive decline

Efficacy and Acceptability of Psilocybin for Depression Or Depressive Symptoms: A Systematic Review and Meta-analysis of Randomized Controlled Trials

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Objective :The purpose of this study was to investigate the efficacy and safety of psilocybin in the treatment of depression or depressive symptoms. Although SSRIs and SNRIs antidepressants are widely used, these drugs have a slow onset of action and require long-term medication, which may not only cause serious side effects, but also increase the expenditure on medical resources. Psilocybin has shown promising results in clinical trials and may offer a new alternative for treating depression. However, a systematic review of the available evidence is needed to assess the overall efficacy and safety of psilocybin in the treatment of depression or depressive symptoms.

Methods :The study protocol is registered at PROSPERO (CRD 42023369397) and follows the PRISMA 2020 statement for reporting systematic reviews.?PubMed, EMBASE, Web of Science, Cochrane Library and ClinicalTrials.gov were searched from the inception up until December 24, 2022. Effect size Hedges' g was used as an indicator of treatment efficacy, and other outcomes included response rate, withdrawal rate, and adverse reactions.

Results :A total of 7 studies were finally included. Two studies were judged to be at high risk of bias , four studies were judged to be at unclear risk of bias and one trial was judged to be at low risk of bias . Only 5 RCTs were included in the meta-analysis comparing psilocybin with placebo or low-dose psilocybin, involving a total of 349 adult patients, Hedge's g = -0.99, 95% CI -1.64 ~-0.34, I2 = 81.75%, P < 0.01. In the meta-analysis before and after psilocybin treatment, 7 studies were included, involving a total of 388 patients, Hedges' g=-1.34, 95% CI: -1.77 to -0.91, I2=85.4%, p

关键字：Psilocybin , Depression, Efficacy, Acceptability, Systematic Review , Meta-Analysis

Systemic Inflammatory Biomarkers in Electroconvulsive Therapy for Schizophrenia and Their Relationship with Treatment Efficacy

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Objective Immune inflammation has long been implicated in the pathogenesis of schizophrenia. Despite as a rapid and effective physical therapy, the role of immune inflammation in electroconvulsive therapy (ECT) for schizophrenia remains elusive. The neutrophils to lymphocytes (NLR), platelets to monocytes (PLR), and monocytes to lymphocytes (MLR) are inexpensive and accessible biomarkers of systemic inflammation. Thus, we aimed to observe the systemic inflammatory biomarkers following ECT in schizophrenia patients.

Methods In this study, 70 schizophrenia patients and 70 age- and sex-matched healthy controls were recruited. The systemic inflammatory biomarkers were measured before and after ECT. Bilateral temporal ECT was administered two to three times per week to schizophrenia patients. The Positive and negative symptom scale (PANSS) and the Mini-Mental State Examination (MMSE) were implemented to assess psychotic symptoms and cognitive function in schizophrenia at baseline and follow-up.

Results Our results indicated schizophrenia had significantly higher peripheral NLR, PLR, and MLR compared to healthy controls at baseline, while lymphocytes did not differ. After 6 ECT, the neutrophils and NLR were significantly reduced, while there was a downward trend in monocytes and MLR. Although PLR and lymphocytes remained unchanged following ECT, remitters had significantly higher lymphocytes but lower PLR compared to non-remitters. Moreover, systemic inflammatory biomarkers were correlated with the efficacy of ECT. For instance, baseline NLR, PLR, and MLR were negatively associated with the improvement in positive symptoms following ECT, while monocytes were negatively correlated with cognitive function after ECT. Furthermore, lymphocytes, as a protective factor, were negatively associated with the total PANSS scores and positive symptom scores,

while positively correlated with the reduction rate of PANSS following ECT.

Conclusion Overall, our findings further highlighted the presence of systemic inflammation in schizophrenia patients, and that ECT may exert a therapeutic effect in part by attenuating systemic inflammation. Further research may therefore lead to new treatment strategies for schizophrenia targeting the immune system.

关键字：schizophrenia, electroconvulsive, inflammation, NLR

Efficacy of 10 Hz Repetitive Transcranial Magnetic Stimulation in Elderly Patients with Post-stroke Mild Cognitive Impairment and Comorbid Dysphagia at Chronic Stage: A 4-week Treatment and An 8-week Follow-up

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Objective Cognitive impairment and dysphagia are the most common sequela of stroke at the chronic stage with a high comorbidity rate. This study aimed to determine whether 10 Hz repetitive transcranial magnetic stimulation (rTMS) could simultaneously improve these two sequela in elderly post-stroke patients at the chronic stage.

Methods This study was composed of a 4-week clinical trial and an 8-week follow-up period. 82 patients with post-stroke mild cognitive impairment (MCI) and comorbid dysphagia were recruited and randomized to the experimental group and control group. Patients in the experimental group received on bilateral dorsal lateral prefrontal cortex and premotor cortex on alternate days for 4 weeks, with the control group receiving sham rTMS. The Trail-making Test A (TMT-A), Trail-making Test B (TMT-B), Boston Naming Test (BNT), Hopkins Verbal Learning Test (HVLT), Clock-drawing Test (CDT), Standardized Swallowing Assessment (SSA), modified Mann Assessment of Swallowing Ability (mMASA) and serum levels of brain-derived neurotrophic factor (BDNF) were assessed at baseline and every 4 weeks during the treatment and follow-up.

Results After 4 weeks of treatment, the scores of TMT-A, TMT-B, BNT, SSA, and mMASA and serum level of BDNF in the experimental group were improved in comparison with those in the control group. After 4 weeks of follow-up, the scores of TMT-B, BNT, SSA, and mMASA in the experimental group were improved than those in the control group. After 8 weeks of follow-up, only the SSA score was significantly different between the two groups. From baseline to the end of follow-up, there was a significant group × time effect in the score of BNT, SAA, and mMASA.

Conclusion 10 Hz rTMS on bilateral DLPFC and PMC showed significant short-term efficacy in improving swallowing function and cognitive domains of attention and processing speed, executive function, and language in elderly patients with post-stroke MCI and comorbid dysphagia at the chronic stage, but with fading long-term efficacy in their cognitive function.

关键字：Cognitive Function; Swallowing Function; Repetitive Transcranial Magnetic Stimulation; Post-stroke

“医养结合”模式下对老年人“心理支持”服务项目探究

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目的 让千千万万老年人都能有一个幸福美满的晚年，离不开“医”“养”相向而行，共同发力，针对当前老年人容易产生的自卑、抑郁、老年性精神障碍，死亡恐惧等心理问题，如何促进老年人心理健康成为医养结合服务的一项重要课题。2019 年发布的《医养结合机构服务指南(试行)》提出，各类医养结合机构应当提供心理精神支持服务项目，服务内容包括但不限于环境适应、情绪疏导、心理支持、危机干预、情志调节等。伴随“医养结合”服务推进，老年人生理、心理问题的关注度也逐渐加强，“心理支持”服务对“医养结合”养老的影响问题也更加凸显。本文探究“医养结合”模式下对老年人的“心理支持”服务，将为切实解决老年人心理问题提供可参考依据。

方法 运用文献分析法，收集、阅读和整理相关的文献资料，获得相关理论支撑；通过总结归纳法，以发现、分析、解决问题为原则，在阅读、学习相关理论资料的基础上总结归纳“心理支持”视角看“医养结合”的必要性、当前“医养结合”模式下老年人易存在的心理问题及对策建议。

结果 本文通过研究发现，当前“医养结合”模式下老年人易存在自卑状态、抑郁状态、老年性精神障碍、焦虑状态、害怕死亡状态等心理问题，针对以上问题提出“医养结合”模式下对老年人“心理支持”服务的对策建议，认为应从加大心理支持与引导力度、与老年人建立情感联系、营造更良好的生活环境等方面共同发力，多层次，多角度关注了解老年人具体心理需求，强化心理健康教育辅导,真正使老有所养、老有所依、老有所乐、老有所安。

结论 习近平总书记强调，要“加强社会心理服务体系建设，培育自尊自信、理性平和、积极向上的社会心态”。而老年人心理健康问题应该引起全社会的高度重视，在正确认识老年人心理状况的基础上，积极探索提高老年人心理素质的有效途径，这样既可以增强老年人的信任感，又可以解决其实际心理问题。对他们在心理支持项目中取得的每一点进步，都要给予肯定、鼓励和支持，促使他们以积极健康的心态，良好的精神状况以及独立的人格品质去面对余生发展。

关键字：医养结合 老年人 心理支持

外周血性激素水平对青少年非自杀性自伤行为影响的研究

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目的 探讨性激素水平对青少年非自杀性自伤（NSSI）的影响，以及性激素水平与 HAMD-24 各因子评分的相关性。

方法 选取符合DSM-5的非自杀性自伤行为诊断的青少年患者 95 例（NSSI 组）；同期健康体检的青少年 78 例为 CN 组（CN 组），收集人口学资料及各组患者的促卵泡素（FSH）、促黄体素（LH2）、雌二醇（E2）、催乳素（PRL）、孕酮（P）和睾酮（T）水平。比较两组一般资料及外周血性激素水平，并分析单相抑郁症、双相抑郁症外周血性激素水平与 HAMD-24 各因子评分的相关性。

结果 NSSI 组 E2、PRL、P 水平高于 CN 组、NSSI 组 T 水平低于 CN 组，差异均有统计学意义（P＜0.05）；单相抑郁组与双相抑郁组外周血性激素水平比较，差异无统计学意义（P>0.05）。NSSI 组患者外周血 PRL 水平与 HAMD-24 体重因子评分呈正相关（r=0.206，P＜0.05）。单相抑郁伴 NSSI 组患者外周血 E2 水平与 HAMD-24 日夜变化因子评分呈负相关（r=-0.364，P＜0.01），外周血 PRL 与 HAMD-24 睡眠因子评分呈正相关。

结论 青少年 NSSI 可能与外周血 E2、PRL、P、T 水平变化相关。外周血 E2、PRL、P 水平升高及 T 水平降低可能对青少年 NSSI 产生影响。

关键字：非自杀性自伤 性激素水平 青少年

童年不良经历与老年抑郁症的关联研究进展

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目的 老年抑郁症(Late-life depression, LLD)指发生于老年期（≥60 岁）的抑郁障碍。一项荟萃分析表明中国老年人抑郁症状的总患病率为 22.7% (95% CI 19.4 - 26.4%)。随着世界人口老龄化，LLD 的经济、公共卫生和护理负担的直接和间接成本是巨大的。越来越多的证据表明，童年不良经历是老年抑郁症的一个危险因素。童年不良经历(Adverse childhood experiences，ACEs) 包含了广泛的创伤和痛苦事件，其威胁到了儿童在 18 岁之前的身体、家庭或社会安全。这些事件包括直接虐待和忽视，暴露于家庭功能障碍，身体或性虐待以及暴力等。有研究表明，童年不良经历与中国老年人抑郁症状存在剂量-反应关系，即暴露于多个不良经历，会增加老年人出现抑郁症状的几率。本文综述了童年不良经历与老年抑郁症相关的证据以及相关的机制。

方法 文章对童年不良经历与老年抑郁症相关的文献进行了检索，归纳总结了目前童年不良经历与老年抑郁症的联系，调节变量和相关机制。

结果 童年不良经历在整个生命周期中一直是构成抑郁症的重要危险因素，有研究表明，在儿童时期暴露于创伤性事件会使老年抑郁症的风险增加一倍，并增加反复发作的风险。另一方面，保护性因素被认为可以降低老年抑郁症以及反复发作的风险。其次，不同种类的童年不良经历、不同性别、不同人格均可作为中介因素影响老年抑郁症的发病；此外，复原力也可能是介导两者的重要因素。在机制方面，社会心理因素、基因、炎症、下丘脑-垂体-肾上腺轴等的相关研究也有报道，为以后的机制探索提供了思路。

结论 综上，童年不良经历可以作为老年抑郁症的风险预测因素。童年不良经历的数量、种类越多，在老年期越倾向于发展为抑郁症。目前关于童年不良经历与老年抑郁症之间机制方面的研究与综述仍比较缺乏，未来需要更多的研究对该领域进行深入的探索与补充。

关键字：童年不良经历，老年抑郁症，机制

BDNF、PI3K、AKT、CREB 浓度水平与首发未服药精神分裂症患者抑郁情绪和冲动性的相关性研究

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目的 分析首发精神分裂症患者抑郁情绪和冲动行为与血清蛋白因子水平的相关性，为临床评估精神分裂症抑郁情绪和冲动行为的严重程度及预后提供辅助方法。

方法 纳入首发未服药精神分裂症患者 70 例，健康对照者 69 例。ELISA 方法测定患者组与对照组外周血脑源性神经营养因子(brain-derived neurotrophic factor ，BDNF)、磷酸肌醇-3 激酶（phosphoinositide 3-kinases ，PI3K）、蛋白激酶 B（protein kinase B，AKT）和 cAMP 反应元件结合蛋白（cAMP-response element binding protein，CREB）浓度。以中文版卡尔加里精神分裂症抑郁量表（Calgary Depression Scale for Schizophrenia, CDSS）评估抑郁情绪，中文版简式冲动行为量表（The Short UPPS-P Impulsive Behavior Scale ，S-UPPS-P）评估冲动行为。使用 MBI SPSS 25.0 软件进行统计分析。

结果 ①患者组血清 BDNF、PI3K、CREB 浓度低于对照组,患者组 AKT 浓度高于对照组,差异均有统计学意义（均 P < 0.05）。②患者组 CDSS 总分、S-UPPS-P 总分高于对照组,差异均有统计学差异（P < 0.05）；在患者组 S-UPPS-P 量表中，缺乏预见性维度分、缺乏坚持性维度分、负性急迫性维度分、正性急迫性维度分、感觉寻求性维度分均高于对照组（均 P < 0.05），差异均有统计学意义。③患者组 CDSS 总分与 BDNF、PI3K、

CREB 浓度呈负相关（均 P < 0.05），与 AKT（P < 0.05）浓度呈正相关。④患者组 S-UPPS-P 总分与 BDNF、PI3K、CREB 浓度呈负相关（均 P < 0.05），与 AKT（P < 0.05）浓度呈正相关。

结论 精神分裂症患者外周血 BDNF、PI3K、AKT、CREB 表达量与对照组之间存在显著差异，首发精神分裂症患者的抑郁情绪及冲动行为量表评分与血清蛋白因子浓度存在相关性，精神分裂症相关血清蛋白因子水平、CDSS 及 S-UPPS-P 评分可能对患者的抑郁情绪和冲动行为及其相关风险具有预测作用,有望为精神分裂症患者临床治疗评估提供较客观的依据。

关键字：精神分裂症；抑郁情绪；冲动性；血清蛋白因子

BDNF/PI3K/AKT/CREB 正反馈回路对精神分裂症认知障碍的影响

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目的 探索精神分裂症（SZ）认知功能障碍的发生发展机制，为 SZ 诊断、治疗及预防提供一定的参考。

方法 ①动物水平：30 只 SPF 级健康雄性 6 周龄昆明小鼠随机分成正常对照组和 SZ 模型组，使用 MK-801 建立小鼠 SZ 模型；使用行为学实验分析小鼠的认知功能；检测 BDNF、PI3K、p-PI3K、AKT、p-AKT、p-CREB、CREB 的表达。②细胞水平：从正常对照组和 SZ 模型组小鼠脑组织中分离神经元（NM）细胞，检测 NM 细胞表面标志物和 NM 细胞活力；使用慢病毒过表达 BDNF、PI3K/AKT 激动剂、PI3K/AKT 抑制剂处理 NM 细胞检测 BDNF、PI3K、p-PI3K、AKT、p-AKT、p-CREB、CREB 的表达；验证 CREB 在 BDNF 上的富集区域，使用 CREB 激活剂和 CREB 抑制剂处理 NM 细胞检测 BDNF 和 CREB 的表达。

结果 ①动物水平：SZ 模型组小鼠逃避潜伏期延长（P＜0.05）和穿越平台次数减少（P＜0.05），存在认知功能损伤；SZ 模型组小鼠 BDNF、PI3K、p-PI3K、AKT、p-AKT、p-CREB、CREB 的表达减少（均 P＜0.05）。②细胞水平：NM 细胞表面标志物 NSE 和 MAP2 表达增多（P＜0.05），表明 MN 细胞分离成功；AQP3 和 NeuN 抗体表达明显，表明两组 NM 细胞活力较好；过表达 BDNF、激动或抑制 PI3K/AKT 发现，MN 细胞中 BDNF 表达减少（P＜0.05）时，PI3K/AKT 和 CREB 的活性（均 P＜0.05）会降低；CREB 与 BDNF 表达呈正相关（r=0.613），RIP 结果显示 CREB 中 BDNF 表达高于 IgG（P＜0.05），CREB 抑制剂抑制 BDNF 转录表达（P＜0.05），CREB 激活剂促进 BDNF 转录表达（P＜0.05），CREB 在启动子区富集调控 BDNF 的转录表达。

结论 ①在动物和细胞水平上，MK-801 诱导的 SZ 模型小鼠 BDNF 表达降低，减少 PI3K/AKT 信号通路对 CREB 的激活，进而减少 BDNF 形成一个正反馈回路，促进 SZ 认知功能障碍的发生发展。②保护神经元细胞可有效防止 SZ 认知功能障碍的发生发展。

关键字：精神分裂症；认知功能；正反馈回路；BDNF；CREB

尿液 AD7c-NTP 在阿尔兹海默症诊断中的研究进展

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目的 阿尔兹海默病（AD)是一种中枢神经系统退行性疾病，以进行性认知功能障碍为主要特征，病因至今未明，病情发展不可逆，从出现症状到确诊一般需要几年时间，潜伏期长。目前药物治疗是主要治疗手段，但不能根治，只可延缓病程，若有对病情进行早期监测和诊断的生物标志物，对 AD 的预防和治疗将有重要意义。研究发现 AD 神经变性的早期表现之一是一场表达的 AD7c-NTP 蛋白。在诊断 AD 的敏感性和特异性上，尿液样本 AD7c-NTP 也有较高水平。此外，尿液检测具有易操作性、无创性、经济性、安全性，家属和病人接收性高等优势，在临床上方便推广应用。

方法 AD 患者脑组织和脑脊液（Cerebro spinal fluid，CSF）和脊髓液中存在表达水平选择性升高的阿尔茨海默病相关神经丝蛋白（AD7c-NTP）。研究发现，AD7c-NTP 在 AD 患者的脑组织、脑脊液(CSF)及尿液中的表达水平会选择性升高，且 AD7c-NTP 升高的水平与痴呆病情的严重程度呈正相关，具有作为 AD 生物标志物的巨大潜力，AD7c-NTP 的临床诊断价值受到关注。本文就尿液 AD7c-NTP 在阿尔兹海默病的诊断中的研究进展展开综述

结果 AD7c-NTP 与其血浆同型半胱氨酸（Hcy)、外周血 CD45RA+亚型、血清 BDNF 等生物标记物联合使用，具有更高的诊断准确率，在临床上具有很大优势，因此 AD7c-NTP 是一种具有潜力的生物标记物。

结论 AD 被认为是世界第五大死因，目前尚无有效药物。AD7c-NTP 在 AD 早期脑皮层神经元、脑脊液、尿液中聚集或增加，与 AD 病情有明显的相关性，对 AD 的诊断具有很高的敏感性和特异性。在准确性性方面与脑脊液类似。此外，AD7c-NTP 检测具有非入侵性、经济安全、易获取、操作简单等优势，方便在临床上推广应用。目前关于 AD7c-NTP 在 AD 病变中的鉴于 AD 的作用机制及其生理病理功能还不清晰，且无完善的生物标志物与定量检测手段及明确的临界值范围，所以如何使其优化并形成灵敏、可靠、易操作的标志物是目前及今后需解决的一大问题。多种诊断技术各有其局限性，目前诊疗建议是联合运用多种诊断方法，如神经心理学评估、生物标记物检测、基因突变分析、影像学检查及计算机技术等，并尽早实施干预。

关键字：阿尔兹海默病（AD） 神经丝质蛋白 尿液 AD7c-NTP 生物标志物

基于磁共振波谱技术对老年期抑郁障碍患者神经代谢物水平的研究进展

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目的 磁共振波谱 (magnetic resonance spectroscopy, MRS) 是一种允许非侵入性检测活体体内代谢物浓度和大脑生化变化特征的核磁共振技术, 检测到的生化代谢数据为研究老年抑郁障碍患者大脑的结构和功能改变提供了更多的研究信息。本研究旨在通过MRS技术来比较老年抑郁障碍患者与健康对照者大脑各脑区神经生化代谢物的差异，进一步探讨其可能的神经生物学机制。

方法 使用老年抑郁和（MRS 或“磁共振波谱”）作为搜索词，检索 MEDLINE、Embase 和 PsycINFO 等数据库。纳入利用 MRS 研究比较老年抑郁障碍患者和健康对照组患者之间 N-乙酰天门冬氨酸(NAA)、胆碱复合物(Cho)、谷氨酸复合物(Glx)、谷氨酸(Glu)、谷氨酰胺(Gln)、肌醇(Ins)、肌酸(Cr)以及 γ-氨基丁酸(GABA)等与老年抑郁障碍有关的神经代谢指标的文章。确定了 11 项研究，共包括 233 名患者和 174 名健康对照。计算标准化平均差（SMD）以评估各神经代谢物水平的组差异。

结果 （1）与对照组相比，老年抑郁障碍患者全脑 NAA/Cr 水平更低，可能与老年抑郁障碍的病理生理学有关。(2）与对照组相比，老年抑郁障碍患者前额叶皮层（medial prefrontal cortex,mPFC）内的 NAA 水平降低;（3）两组间谷氨酸或谷氨酰胺、肌醇、γ-氨基丁酸水平差异无统计学意义;（4）在老年抑郁障碍患者中，mPFC NAA 水平的效应大小与任何临床变量之间没有关系。

结论 MRS 技术用于检测与老年抑郁障碍相关的生化代谢产物水平，可能作为探索患者潜在神经生物学证据的有效手段。

关键字：老年抑郁障碍；磁共振波谱

RTMS 对轻度认知障碍患者的认知功能影响的系统评价

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目的 重复经颅磁刺激（rTMS）是一种非侵入性脑刺激技术，通过这种刺激，短暂的磁场穿过头皮并在大脑皮层中感应电流。轻度认知障碍（MCI）是痴呆的前驱期，其特征是主观认知缺陷和客观记忆障碍，日常活动没有障碍。rTMS 被认为是轻度认知障碍潜在有效治疗方法。然而，由于 rTMS 参数的多样性和个体差异，这种疗法对于 MCI 有效性仍在争论中。本研究旨在讨论 rTMS 对轻度认知障碍患者认知功能影响的有效性，并进一步探究 rTMS 对认知功能影响的潜在机制。

方法 使用“轻度认知障碍”和“rTMS”或“重复经颅磁刺激”作为搜索词，检索 MEDLINE、Embase 和 PsycINFO 等数据库，纳入了双盲随机对照试验（RCTs）。主要结局是通过简易精神状态检查测量的一般认知的可接受性和治疗前变化，次要结局是记忆功能、语言流畅性、工作记忆和执行功能。检查重复经颅磁刺激治疗后认知益处的持久性（1，2，和≥3 个月）。一共纳入了符合以下所有标准的研究：（1）既往诊断为 MCI 的患者的临床人群;（2）rTMS 是唯一正在研究的干预措施;（3）认知功能作为行为结局指标。最后确定了 10 项研究，共包括 134 名受试者。计算标准化平均差（SMD）来评估 rTMS 对认知功能的效应大小。

结果 （1）左侧背外侧前额叶皮层（DLPFC）的高频 rTMS 和右侧 DLPFC 的低频 rTMS 显著改善了记忆功能;（2）针对右额下回的高频 rTMS 显著增强了执行功能;（3）高频 rTMS 与注意力、语言流畅性的短期改善显著相关;（4）连续 5-30 次 rTMS 疗程的效果可持续 4-12 周。

结论 rTMS 可能对 MCI 患者的认知功能产生有益影响，不仅在整体认知结果方面，而且在记忆，执行功能和注意力以及语言的表现方面，本研究为 rTMS 作为治疗 MCI 患者有效的治疗手段提供了依据。

关键字：轻度认知障碍，重复经颅磁刺激，认知功能

108 例合并亚临床甲状腺功能减退老年抑郁症住院患者临床特征分析

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目的 探讨合并亚临床甲状腺功能减退老年抑郁症住院患者的临床特征。

方法 对 2020 年 4 月至 2023 年 1 月我院收治的 108 例合并亚临床甲状腺功能减退(SCH)的老年抑郁症患者进行连续入组，同时以同期住院的 110 例正常老年抑郁症患者作为对照，采用 t 分析、卡方检验或非秩和检验对两组的相关临床变量进行对照分析。

结果 在人口统计学指标上两组的差异无显著统计学意义（P>0.05），但两组在病程（Z=2.106，P=0.035）、住院次数（Z=1.928，P=0.054）、合并躯体疾病数量（Z=2.093，P=0.036）、使用抗抑郁药物治疗种类（Z=2.158，P=0.031）、使用抗精神病药物（$\chi 2$=4.055，P=0.044）、住院治疗天数（Z=1.993，P=0.046）上的差异具有统计学意义，在从发病到就诊时间、血糖、胆固醇、甘油三酯、收缩压、舒张压、体重指数、合并使用情绪稳定剂及双相抑郁比例（P>0.05）上的差异无显著统计学意义。在 HAMD 量表的日夜变化（t=-2.054，P=0.041）、体重（t=-2.445，P=0.015）及睡眠障碍（t=-2.306，P=0.022）因子上差异具有统计学意义，但在躯体化/焦虑、认知障碍、迟缓、绝望感（P>0.05）因子上

差异无统计学意义。另外两组患者在促甲状腺激素(TSH)（t=13.413，P<0.001）、血清游离三碘甲状腺原氨酸(FT3)（t=-2.256，P=0.025）、血清游离甲状腺素(FT4)（t=-7.338，P<0.001）水平上差异具有显著的统计学意义。

结论 合并亚临床甲状腺功能减退的老年抑郁症患者存在独特的临床特征，花费更长的治疗时间，存在更多的病情发作次数，难治性增加，预后更差，所以针对亚临床甲状腺功能减退的干预是非常必要的。

关键字：亚临床；甲状腺功能减退；老年；抑郁症；临床特征

Sleep Disorders, Depression and Anxiety Symptoms Interact in The Community Elderly Population: Network Analysis and Community Detection Approach

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Objective Sleep disorders, depression and anxiety in the elderly are becoming an increasingly serious public health problem with the development of aging in China. Interactions lying among the symptoms of sleep disorders, depression and anxiety, is of great relevance to the study of 1) differential diagnosis of diseases, 2) treatment and prevention of the comorbidity. This network analysis and community detection sought to access how symptoms of sleep disorders, depression, and anxiety might interact in the elderly population.

Methods Psychometric data from 434 urban elderly dwelling in Jinjiang District, Chengdu, Sichuan Province, China, aged 60 or above, were analyzed. Sleep disorders, depression and anxiety symptom were measured with the Chinese version of the Patient Health Questionnaire-9 (PHQ-9), the Generalized Anxiety Disorder-7 (GAD-7) and the Pittsburgh Sleep Quality Index (PSQI), respectively. The general structure of these symptoms was explored by estimating a regularized partial correlation network utilizing the graphical Gaussian model (GGM). Central symptoms were identified via commonly used centrality indices (strength, closeness, betweenness) and expectation influence to assess symptoms' importance and influence. The robustness of edge weights and centrality indices of network analysis was evaluated by Bootstrapped difference test. The walktrap algorithm was applied into community detection.

Results The network map presented that, in the PHQ-9, thoughts of death had strongest link with feeling of worthlessness, while sleep difficulties in the same rating scale were most closely connected to sleep latency and sleep quality of sleep disorders (PSQI). With the stability of strength and expected influence in the network sharing similarity, it was shown that sleep difficulties and fatigue had the highest strength centrality, while the expected influence of sleep difficulties and difficulty in falling asleep were the highest. Community detection showed that there were five clusters in the network: intriguingly, all anxiety symptoms formed a cluster, psychomotor agitation/retardation and concentration difficulties formed a cluster. Sleep difficulties and appetite changes were greatly correlated to sleep duration, sleep disorders, sleep quality and taking hypnotic drugs and thus forming a cluster.

Conclusion Worthlessness might be of preventive significance to suicide in patients with depression. Sleep difficulties is the central symptom maintaining the sleep disorders-depression-anxiety network structure of the community elderly. Symptoms of sleep disorders are so closely related to those of depression, rather than anxiety in the community elderly, that they might overlap in aspects of diagnosis and treatment.

关键字：network analysis; community detection; sleep disorders; depression

强迫症患者心理社会因素与神经内分泌及免疫功能的相关分析

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目的 研究强迫症患者心理社会因素与神经内分泌及免疫功能的相关性。

方法 选 2019 年 1 月至 2022 年 1 月收治的 80 例强迫症患者为观察组，以同期体检的 80 例健康对象为对照组。两组患者均行心理评估【抑郁自评量表（SDS）、焦虑自评量表（SAS）】和症状评估【耶鲁-布朗强迫量表（Y-BOCS）】，同时行神经内分泌指标【促肾上腺皮质激素（ACTH）、皮质醇】、免疫功能指标（外周血 CD3+、CD4+、CD4+/CD8+）检测，比较 2 组患者上述评估及检测结果差异，分析强迫症患者心理社会因素与神经内分泌指标和免疫功能指标的相关性。

结果 观察组的 SDS、SAS 得分高于对照组，差异有统计学意义（P＜0.05）。观察组的 Y-BOCS 量表中维度得分及总分高于对照组，差异有统计学意义（P＜0.05）；观察组的 ACTH、皮质醇水平高于对照组，差异有统计学意义（P＜0.05）；观察组的 CD4+、CD4+/CD8+水平低于对照组，差异有统计学意义（P＜0.05）；强迫症患者的 ACTH 水平与其强迫思维和抑郁状态之间呈正相关性（P＜0.05）；强迫症患者的皮质醇水平与其强迫思维、焦虑状态、抑郁状态呈正相关性（P＜0.05）。强迫症患者的 CD4+水平与其强迫思维、焦虑状态、抑郁状态之间呈负相关性（P＜0.05）；强迫症患者的 CD4+/CD8+水平与其强迫思维、焦虑状态之间呈负相关性（P＜0.05）。

结论 强迫症患者存在明显的焦虑和抑郁状态，免疫功能相较健康群体更弱，同时患者 ACTH 和皮质醇水平越高则强迫思维和抑郁状态越严重，免疫功能越强则强迫思维和焦虑状态越轻。

关键字：强迫症；心理状态；临床症状；神经内分泌；免疫功能；相关性

老年首发脑卒中患者恢复期抑郁状况评估及其影响因素分析

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目的 探讨首发脑卒中恢复期抑郁(post-stroke depression, PSD)的发生情况，并分析其影响因素。

方法 收集 2020 年 1 月至 2020 年 12 月首次就诊于无锡市同仁康复医院的 350 名老年脑卒中患者，采用汉密顿抑郁量表(Hamilton Depression Scale, HAMD)评估脑卒中患者的抑郁状况，并收集患者社会人口学资料、临床症状、社会环境及行为方式的相关数据信息，分析脑卒中后引起抑郁的相关因素，采用 SPSS 20.0 软件进行统计学分析。

结果 本次调查发现 PSD 的发生率为 45.71%。在不同性别、病变性质、病变部位、吸烟、高血压、糖尿病、住院费用、发病季节、BMI 指数、NIHSS 评分、Barthel 指数评分、血压变异系数等因素之间差异均具有统计学差异(P<0.05)。脑卒中后抑郁评分与 NIHSS 评分、收缩压变异系数成正相关(r=0.935, P<0.05; r=0.921, P<0.05),与 Barthel 指数评分呈负相关(r=-0.964,P<0.05)。通过多因素 Logistic 回归分析发现男性(OR=8.624,95%CI:5.672~11.715)、脑梗死(OR=2.561,95%CI:1.256~3.567)、病变部位在右侧(OR=1.933,95%CI:1.024~3.026)、吸烟(OR=2.457,95%CI:1.611~3.625)、秋冬季节发病(OR=2.049,95%CI:1.201~2.919)、高 BMI 指数(OR=2.461,95%CI:1.426~3.432)是脑卒中后发生抑郁的危险因素，低 SBPV(OR=0.567,95%CI:0.352~0.758)和低 NISHH 评分(OR=0.256,95%CI:0.105~0.486)是脑卒中后发生抑郁的保护因素。

结论 在以后的临床工作中要重点关注男性、吸烟，在秋冬季节发病、病变部位在右侧、高 BMI、高 NISHH 评分及高收缩压变异的患者，预防脑卒中后抑郁的发生并采取干预措施。

关键字：脑卒中；抑郁；影响因素；Logistic 分析

草酸艾司西酞普兰联合神经肌肉电刺激治疗对老年抑郁症患者治疗情况的研究

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目的 探讨草酸艾司西酞普兰联合神经肌肉电刺激治疗对老年抑郁症患者抑郁焦虑情绪及认知功能的治疗情况

方法 选取 2022 年 6 月 1 日至 2023 年 6 月 30 日在青岛市精神卫生中心住院的，伴有抑郁焦虑情绪的老年抑郁症患者 80 例。采用随机数字表法分成对照组和实验组各 40 例。实验组给予草酸艾司西酞普兰 10mg/d 治疗同时，给予患者双下肢辅助神经肌肉电刺激治疗 10Hz,持续时间为 30 min bid。对照组仅给予草酸艾司西酞普兰 10mg/d 治疗。两组患者均在治疗前、治疗 3 个月后分别进行汉密尔顿抑郁量表、汉密尔顿焦虑量表评定抑郁焦虑的严重程度，数字符号替代测试、连线测验及动物流畅性测试评定认知功能。

结果 治疗 3 个月后，两组患者汉密尔顿抑郁量表及汉密尔顿焦虑量表评分明显低于各自治疗前，数字符号替代测试、连线测验及动物流畅性测试评分均较治疗前明显上升（P＜0.05）；与对照组相比，研究组的汉密尔顿抑郁量表及汉密尔顿焦虑量表评分明显降低， 数字符号替代测试、连线测验及动物流畅性测试评分明显升高（P＜0.05)。

结论 草酸艾司西酞普兰联合神经肌肉电刺激可以有效辅助改善老年抑郁症患者的抑郁焦虑情绪和认知功能。

关键字：老年抑郁症，神经肌肉电刺激，草酸艾司西酞普兰，抑郁焦虑，认知功能

老年抑郁症情绪刺激注意的加工时程与脑网络连接异常

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目的 情绪刺激注意异常被认为在老年抑郁症（LLD）的发生、发展及慢性化中起到关键作用，理解情绪刺激注意加工异常的神经心理机制与神经生物学基础对 LLD 临床诊疗的发展有着重要意义。本研究旨在阐明老年抑郁症情绪刺激注意过程的加工时程特征与脑网络连接模式。

方法 招募 39 名 LLD 患者及 40 名健康老年对照（HC），进行点探测范式并同步采集脑电图（EEG）信号，使用事件相关电位分析（ERP）提取 EEG 时域特征，使用功能连接分析提取 EEG 网络连通性特征。比较 LLD 与 HC 在不同情绪刺激下 ERP 指标、功能连接指标之间的差异。使用相关分析研究 EEG 指标与抑郁症状、认知损害间的相关性。使用路径分析探索 EEG 指标与抑郁症状、认知损害间的因果关系。

结果 ERP 分析结果表明 LLD 的 N170 和 P300 成分幅值相较于 HC 显著降低，而 LLD 和 HC 的 N170 和 P300 成分幅值在不同情绪刺激条件间均无显著差异；EEG 功能连接分析结果表明在情绪刺激注意过程中，LLD 患者存在默认模式网络（DMN）内部功能连接的增强、认知控制网络（CCN）与 DMN 间功能连接的增强及 CCN 与显著网络（SN）间的功能连接减弱；相关性分析结果提示情绪刺激注意过程 EEG 活动的变化与 LLD 的抑郁症状与认知损害有关；路径分析结果进一步表明情绪刺激注意过程中脑网络连通性的改变部分介导了 LLD 的抑郁症状及认知损害。

结论 LLD 情绪刺激注意的加工时程特征表现为早期情绪刺激感知的钝化以及晚期注意控制的适应性减弱。LLD 情绪刺激注意的脑网络连接模式表现为

DMN、CCN 以及 SN 三个网络内部或网络间的连通性异常。本研究加深了对 LLD 病理机制的理解，并为脑网络靶向的神经调控方案提供了潜在干预靶点。

关键字：老年抑郁症，负性注意偏向，脑电图，事件相关电位，功能连接

Changes and Clinical Significance of Serum Galactose Lectin -3 Levels in Patients with Alzheimer's Disease

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Objective To explore the changes of serum Galactose Lectin 3 (Gal-3) level in patients with Alzheimer's disease (AD) and its clinical significance, so as to provide experimental basis for the diagnosis of AD.

Methods According to the diagnostic criteria of NINCDS-ADRDA for AD, 82 AD patients admitted to the Department of Geriatrics of Suzhou Guangji Hospital from January 2020 to January 2023 were selected as the observation group, and 56 health examinees in the same period were selected as the control group. The general information and relevant medical history of the two groups were recorded, including gender, age, education level, smoking history, drinking history, and whether there was any history of diabetes, coronary heart disease, hypertension, etc. Collect two groups of fasting peripheral venous blood in the morning, centrifuge and collect serum, use enzyme-linked immunosorbent assay (ELISA) to detect the serum Gal-3 levels of the two groups, and compare the clinical basic data and serum Gal-3 levels of the two groups. Evaluate the cognitive function of the subjects using the Mini Mental State Examination Scale (MMSE); Pearson correlation analysis was used to investigate the correlation between MMSE scores and serum Gal-3 levels in AD patients; Draw a receiver operating characteristic (ROC) curve to analyze the diagnostic efficacy of serum Gal-3 levels in AD.

Results The MMSE score of the observation group was significantly lower than that of the control group (t=-15.519, P<0.01), and the Gal-3 level was significantly higher than that of the control group (t=9.216, P<0.01). Pearson correlation analysis showed a negative correlation between serum Gal-3 levels and MMSE scores in AD patients (r=-0.535, P<0.05). Receiver operating characteristic analysis showed that the area under the curve of serum Gal-3 level for diagnosing AD was 0.853 (95% CI: 0.793-0.912, P<0.05). The sensitivity is 89.3%, the specificity is 78.7%, and it has good diagnostic efficacy.

Conclusion The level of serum Gal-3 in AD patients is significantly increased, which is closely related to the decline of cognitive function. Serum Gal-3 may be a potential Biomarker for clinical auxiliary diagnosis of AD.

关键字：Alzheimer's disease； Galactose Lectin -3； Cognitive function； Diagnostic effectiveness

老年精神病患者新冠沉默型肺炎的临床特点及 CT 表现的对照分析

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目的 探讨老年精神病患者新冠沉默型肺炎的临床症状特点及 CT 表现，提高对老年精神病患者新冠沉默型肺炎的诊断和治疗水平。

方法 选取 2021 年 1 月至 2022 年 1 月期间在本医院接受治疗的老年精神病患者 87 例，其中新冠病毒感染阳性患者 28 例，收集其临床资料及 CT 影像资料。对照分析老年精神病患者新冠沉默型肺炎的临床症状特点及 CT 表现。

结果 28 例老年精神病患者新冠沉默型肺炎患者中，男性 16 例，女性 12 例，年龄范围为 65-89 岁，平均年龄为 75 岁。临床表现主要为咳嗽、发热、乏力、胸闷、气促等症状，其中发热和咳嗽是最常见的症状。CT 表现主要为双侧肺部磨玻璃影、实变影、斑片状影等，其中磨玻璃影是最常见的影像表现。28 例患者中，有 2 例出现了肺部感染并发症，其中 1 例患者出现了肺部脓肿。

结论 老年精神病患者新冠沉默型肺炎的临床症状特点和 CT 表现与一般新冠肺炎患者相似，但老年精神病患者的免疫力较差，易发生肺部感染并发症。对于老年精神病患者，应加强防控措施，定期进行体温监测和 CT 检查，及时发现和治疗新冠肺炎，减少并发症的发生。

关键字：老年精神病患者、新冠肺炎、沉默型肺炎、临床症状、CT 表现、肺部感染并发症。

经颅超声-神经肌肉刺激治疗仪治疗脑卒中患者睡眠障碍的临床观察

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目的 分析经颅超声-神经肌肉刺激治疗仪治疗脑卒中患者睡眠障碍的临床有效机制。

方法 抽取 2021.01-2022.12 本院收诊的脑卒中睡眠障碍患者共计 128 例，其中 64 例应用经颅超声-神经肌肉电刺激治疗，纳入到研究组中；64 例行常规治疗，纳入到对照组中。比较两组治疗前后睡眠质量及临床疗效。

结果 研究组治疗后 PSQI 评分显著低于对照组同期及本组干预前，数据比较有意义（P＜0.05）。研究组治疗后临床有效患者例数（57 例，占比 89.06%）显著高于对照组（45 例，占比 70.31%），数据比较有意义（$\chi2$=6.950，P=0.008）；研究组 SAS 及 SDS 评分显著低于对照组同期及本组护理前，数据比较有意义（P＜0.05）。

结论 针对脑卒中患者，应用经颅超声-神经肌肉

刺激治疗仪治疗，利于改善患者睡眠质量与负性情绪，提升临床应用成效，可推广。

【关键词】经颅超声-神经肌肉刺激治疗仪；脑卒中；睡眠障碍 睡眠障碍是一组以睡眠数量和（质量）、完整性和（或）节律性受损，或以睡眠中行为或呼吸异常为临床特征的异质性疾病。主要表现为入睡困难、过度睡眠、睡眠不足、昼夜颠倒及呼吸障碍等，易引起焦虑、抑郁等精神心理症状，导致生活质量下降。据统计卒中后睡眠障碍（poststroke sleep disorder,PSSD）的发生率高达 78%[1]，是脑卒中后病情严重程度的一个标志，一个重要并发症[2]，积极治疗 PSSD 对促进卒中恢复和防止卒中复发具有积极的作用。我科近两年来运用经颅超声-神经肌肉刺激治疗仪治疗脑卒中患者睡眠障碍取得良好的疗效，现报道如下。

关键字：经颅超声-神经肌肉刺激治疗仪；脑卒中；睡眠障碍

主观认知下降认知功能与肠道菌群的相关分析

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2012 年 NIA-AA 提出主观认知减退(Subjective Cognitive Decline，SCD)这个新概念，被认为是 AD 的临床前阶段。2014 年 Jessen 确定了 SCD 概念：在客观神经心理学测试正常的情况下，个体认为记忆或其他认知能力方面相对先前有所下降大量研究证实 SCD 是患 MCI 和 AD 的高危人群。一项荟萃分析对 SCD 的纵向流行病学研究发现，在未来 4 年的随访中，约 27%的 SCD 进展为 MCI，约 14%的 SCD 进展为痴呆。目前 SCD 的诊断主要基于个体主观感受，标准化神经心理评估测试无法检测到 SCD 个体细微的认知能力下降，因此寻找 SCD 可能的生物标志物，为 AD 的早期诊断和治疗提供帮助极为重要。 近年来有研究发现肠道菌群与阿尔茨海默病有密切联系。已有研究证明大脑和肠道通过自主神经系统、肠神经系统、神经内分泌系统和免疫系统等途径进行双向交流。肠道菌群作为肠-脑轴双向交流的关键调节因素，参与 AD 的发病过程。大量临床研究发现，与健康人群对比，AD 患者的肠道微生物多样性改变，包括拟杆菌增加，厚壁菌和双歧杆菌减少。在 SCD 阶段个体的认知功能尚未发生实质性损害，通过早期识别和干预可以避免发生客观的认知障碍，并阻断疾病的进程。本研究旨在探讨 SCD 阶段肠道菌群变化与认知功能的相关性，期望为 AD 的早期病理生理机制提供新思路，也为 AD 的早期诊断和干预提供新靶点。

关键字：主观认知功能下降 肠道菌群

Altered Brain Functional Networks in Schizophrenia with Persistent Negative Symptoms: An Activation Likelihood Estimation Meta-analysis

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Objective To investigate brain structural and functional characteristics of three brain functional networks including default mode network (DMN), central executive network (CEN), and salience network (SN) in PNS patients.

Methods We performed an Activation Likelihood Estimation (ALE) meta-analysis of functional connectivity (FC) studies and voxel-based morphometry (VBM) studies to detect specific structural and functional alterations of brain networks in PNS patients.

Results Twenty VBM studies and twenty FC studies were included. In the DMN, PNS patients showed decreased gray matter in the bilateral MFG and left ACG and a significant reduction of FC in the right precuneus. Also, PNS patients had a decrease of gray matter in the left iPL and MFG and a significant reduction of FC in the bilateral SFG in the CEN. In comparison with HCs, PNS patients exhibited reduced gray matter in the bilateral insula, ACG, left PreCG and right claustrum and lower FC in these brain areas in the SN, including the left insula, claustrum, IFG and extra-nuclear.

Conclusion This meta-analysis reveals brain structural and functional imaging alterations in the three networks and the interaction among these networks in PNS patients, which provides neuroscientific evidence for more personalized treatment.

关键字：persistent negative symptoms, functional connectivity, gray matter volume, default mode network, central executive network, salience network

老年抑郁障碍自杀风险影响因素的研究现状

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尽管在不同国家及不同地区的患病率不同，但总的来说，老年抑郁障碍(late life depression,LLD)在老年人群中是一种常见的精神障碍，且具有自杀率高的特点，LLD 患者自杀的风险比其他年龄组大得多，有 55%的老年患者在抑郁状态下自杀。老年抑郁障碍有慢性化趋势，也有的患者不堪抑郁症状的折磨，自杀念头日趋强烈以致自杀以求解脱。自杀不止是一个点事件，而是有一个发展过程。在这个过程中，患者最开始因为各种因素影响而产生自杀意念，然后是更具体的计划，即自杀企图；随着过程的继续，自杀企图不断重复，致命性不断增加，最终导致自杀。本文所述包括自杀过程中出现的自杀意念、自杀企图、自杀未遂等形式。LLD 自杀风险影响因素包括生物学因素、社会心理学因素、疾病因素等。本文涉及炎症因子、睡眠状况、应激、年龄、性别、种族、社会支持、人格、抑郁首发年龄、严重程度、发作史、药物治疗以及共病等因素。但由于影响因

素过多且各因素之间可能相互影响，故对于如何评估 LLD 患者的自杀风险还没有统一标准，需要对这方面进行更多的研究以建立模型，来为临床 LLD 患者自杀行为的评估和预防提供循证支持。本文旨在对 LLD 自杀风险的影响因素进行综述，以期为临床 LLD 患者自杀风险的评估和预防提供理论依据。

关键字：老年；抑郁障碍；自杀；影响因素

RTMS 联合西酞普兰对轻度认知障碍患者抑郁情绪的影响分析

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目的 应用重复经颅磁刺激(rTMS)联合西酞普兰改善轻度认知障碍患者抑郁情绪的疗效分析

方法 2022 年 7-12 月纳入本院老年科门诊及住院轻度认知障碍合并抑郁患者 45 例。对入组者进行随机分配，分为rTMS联合治疗组(rTMS+西酞普兰+多奈哌齐, n=15)、西酞普兰联合治疗组(西酞普兰+多奈哌齐, n=15)，对照组(西酞普兰单药治疗组, n=15)。在基线期(W0)与治疗 2 周(W2)、8 周(W8)、12 周(W12)、24 周(W24)，分别采用 ADAS-cog 量表评估认知功能、汉密尔顿抑郁(HAMD)量表评估抑郁、神经精神问卷（NPI）评估精神行为症状。采用 SPSS 23.0 软件进行统计分析，重复测量方差分析及简单效应分析比较各组的 ADAS-cog、HAMD、NPI 量表评分差异。

结果 (1)三组患者分别在 W0、8、24 进行 ADAS-cog 量表评估，组别×时间的交互作用(F=1.128, P=0.135)和组别主效应(F=0.646, P=0.325)不显著,时间主效应显著(F=12.325, P<0.001)。简单效应分析, rTMS 联合治疗组在随访 24W 时, ADAS-cog 量表评分显著低于基线期[(14.48±1.70),(18.25±2.50)](P=0.01)。(2)三组受试者分别在 W0、W2、W8、W12、W24 进行 HAMD 量表的评估，组别×时间交互作用显著(F=2.124, P=0.046);rTMS 联合治疗组、西酞普兰联合治疗组在各随访时间节点，HAMD 量表评分均低于基线期[(15.50±6.01), (22.95±2.87)，(27.64±2.46)](P=0.006)。(3)三组受试者分别在 W0、W12、W24 进行 NPI 量表的评估，组别×时间的交互作用不显著(F=1.126, P=0.085)，组别主效应及时间主效应均显著(F=3.724, P=0.042;F=14.423, P<0.001)。rTMS 联合治疗组 24 周时 NPI 量表评分低于西酞普兰联合治疗组[(32.78±2.21), (46.60±2.98)](P=0.028)，显著低于对照组[(32.78±2.21), (52.60±5.58)](P<0.001)

结论 rTMS 联合西酞普兰治疗能明显改善轻度认知障碍患者抑郁情绪，同时改善患者认知功能，减轻精神行为症状

关键字：经颅磁刺激,抑郁,认知功能,精神行为症状

Empathy Deficit in Male Patients with Schizophrenia and Its Relationships with Impulsivity and Premeditated Violence

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Objective : To explore the pattern of empathy characteristics in male patients with schizophrenia (SCH) and to examine whether empathy deficit is associated with impulsivity and premeditated violence.

Methods One hundred and fourteen male SCH patients were enrolled in this study. The demographic data of all patients were collected and the subjects were divided into two groups, namely, the violent group, including 60 cases, and the non-violent group, comprising 54 cases, according to the Modified Overt Aggression Scale (MOAS). The Chinese version of the Interpersonal Reactivity Index-C (IRI-C) was used to evaluate empathy and the Impulsive/Predicted Aggression Scales (IPAS) was employed to assess the characteristics of aggression.

Results Among the 60 patients in the violent group, 44 patients had impulsive aggression (IA) and 16 patients had premeditated aggression (PM) according to the IPAS scale. In the violent group, the scores of the four subfactors of the IRI-C, i.e., perspective taking (PT), fantasy (FS), personal distress (PD), and empathy concern (EC), were significantly lower than in the non-violent group. Stepwise logistic regression showed that PM was independent influencing factor for violent behaviors in SCH patients. Correlation analysis revealed that EC of affective empathy was positively correlated with PM but not with IA.

Conclusion SCH patients with violent behavior had more extensive empathy deficits compared with non-violent SCH patients. EC, IA and PM are independent risk factors of violence in SCH patients. Empathy concern is an important index to predict PM in male patients with SCH.

关键字：schizophrenic patients, neuropsychology, violence, aggressiveness, empathy

阿尔茨海默病患者记忆抱怨主诉的记忆护理

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痴呆是我国人口老年化中重大公共卫生问题，其中尤以阿尔茨海默病（Alzheimer's Disease，AD）为重[3]。针对痴呆，通过“早发现、早诊断和早治疗”才能发挥预防痴呆发生以及延缓痴呆发展的作用，从而到达改善痴呆患者的生活质量[3]。然而，由于人们对痴呆相关知识的欠缺，使得痴呆患者的就诊率普遍偏低[4]。我国受传统文化的影响，48.8%的照料者认为老人认知和行为障碍的表现是正常衰老过程[5]。从而导致痴呆老人未被及时诊断并加以治疗。因此世界健康卫生组

织 2016 年提出，在 2050 年要实现 50%的早期痴呆诊断率的防护目标[6]。记忆抱怨主诉（SMC) 主要指的是个人主诉或抱怨其记忆力下降的一种行为，该症状是阿尔茨海默病的早期表现之一[7]。基于早期预防原则，当老人出现 SMC 时及时就诊，对于 AD 的诊治方面具有积极的作用。在痴呆的治疗中，除却药物治疗，非药物疗法也至关重要。但是目前针对 AD 伴 SMC 行为的护理干预研究尚有不足。随着卫生事业以及国内外记忆护理的发展，将记忆护理应用于阿尔茨海默病患者的 SMC 行为是一个新的干预思路。因此在相关文献以及临床护理实践支持下，本文就我院记忆护理在阿尔茨海默病伴 SMC 行为的护理经验做一总结，提出“加强记忆知识宣教”、“强调记忆认可”、“加强记忆锻炼”的观点，旨在为该类患者的临床护理实施提供借鉴作用。

关键字：阿尔茨海默病；记忆抱怨主诉；记忆护理

双因素理论用于老年科中医护理管理质量改进的效果评价

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目的 评价双因素理论用于老年科中医护理管理质量改进的效果。

方法 医院在 2021 年 3 月开始在老年科中医护理管理工作中融入双因素理论，2020 年 3 月-2021 年 2 月为实施前，2021 年 3 月-2020 年 2 月为实施后，实施前老年科中医护理管理中均采取常规管理措施，实施后老年科中医护理管理均从激励因素与保健因素两方面着手开展护理管理工作，包括完善现有的中医护理管理制度，并制定护理质量改进方案等，比较实施前后老年科护理管理质量及护理满意度。

结果 实施后老年科基础护理、护理安全、中医护理技术、服务态度 4 个维度的护理质量评分均明显高于对照组（P＜0.05）；实施后老年科患者在健康宣教、用药指导、心理疏导、护患沟通 4 个维度的护理满意度评分均明显高于对照组（P＜0.05）。

结论 双因素理论用于老年科中医护理管理工作中，有效提升了护理管理质量，患者对护理工作也更为认可，值得推广。 双因素理论实施后，老年科基础护理、护理安全、中医护理技术、服务态度 4 个维度的护理质量评分均明显高于对照组（P＜0.05），表明双因素理论实施后老年科护理质量在护理安全等方面均有了明显的提升；研究还显示，老年科患者在健康宣教、用药指导、心理疏导、护患沟通 4 个维度的护理满意度评分均明显高于对照组（P＜0.05），表明双因素理论实施后，患者对护理工作的认可度有了明显的提升，双因素理论管理理念为柔性管理范畴内，在制定管理计划时，从激励因素与保健因素两方面着手，改善护理人员当前工作状态，并逐步提升护理质量。

关键字：双因素理论；老年科；中医护理管理；质量改进；效果评价

枣仁安神胶囊联合逍遥散加味治疗老年双相情感障碍临床研究

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目的 观察枣仁安神胶囊联合中药汤剂治疗老年双相情感障碍的临床疗效。

方法 选取 79 例老年双相情感障碍患者，按随机数字表法分为中药组 39 例及联合组 40 例，中药汤使用中药汤剂治疗，联合组采用枣仁安神胶囊联合中药汤剂治疗。比较 2 组临床疗效，比较 2 组治疗前后抑郁相关指标评分、神经功能[脑源性神经营养因子（BDNF）、5-羟色胺（5-HT）、胰岛素样生长因子-1（IGF-1）]、炎症因子[肿瘤坏死因子-α（TNF-α）、白细胞介素-22（IL-22）、白细胞介素-6（IL-6）]水平、氧化应激指标[总胆红素（TBIL）、羟基脱氧鸟苷（8-OHdG）、过氧化脂质（LPO）]的变化。

结果 治疗后，2 组情绪低落、失眠、思维迟缓评分均较治疗前下降，联合组上述 3 项评分均低于中药组，差异均有统计学意义（P＜0.05）。治疗后，2 组 BDNF、5-HT 水平均较治疗前上升，IGF-1 水平均较治疗前下降，差异均有统计学意义（P＜0.05）；治疗后，联合组 BDNF、5-HT 水平高于中药组，IGF-1 水平低于中药组，差异均有统计学意义（P＜0.05）。治疗后，2 组 TNF-α、IL-22、IL-1 水平均较治疗前下降，联合组上述 3 项水平均低于中药组，差异均有统计学意义（P＜0.05）。治疗后，2 组 TBIL 指标值均较治疗前上升，8-OHdG、LPO 指标均较治疗前下降，差异均有统计学意义（P＜0.05）；治疗后，联合组 TBIL 指标值高于中药组，8-OHdG、LPO 指标值低于中药组，差异均有统计学意义（P＜0.05）。联合组临床疗效总有效率为 95.00%，中药组为 79.49%，2 组比较，差异有统计学意义（P＜0.05）。

结论 枣仁安神胶囊联合中药汤剂治疗老年双相情感障碍，患者抑郁的症状得到缓解，改善了患者的神经功能水平，有效减轻患者的炎症反应，减轻氧化应激反应程度，有助于患者病情的恢复。

关键字：双相情感障碍；老年患者；枣仁安神胶囊；中药汤剂；氧化应激反应；炎症因子

The Role of Two Factors of Negative Symptoms and Cognition on Social Func-tioning in Male Patients With Schizophrenia: A Mediator Model

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Objective This study aims to compare cognitive function and social functioning in male patients with defi-cit syndrome (DS) and non-DS and to explore whether

cognitive function serves as a mediator in the relationship between the two factors of negative symptoms (motivation and pleasure (MAP) and expressivity (EXP) deficits) and social functioning in schizophrenia patients.

Methods One hundred and fifty-six male patients with schizophrenia and 109 age- and education-matched normal controls were enrolled in the current study. The Chinese version of a Schedule for Deficit Syndrome (SDS) was used for DS and non-DS categorization. The Brief Psychiatric Rating Scale (BPRS) and the Brief Negative Symptoms Scale (BNSS) were used to assess psychotic and negative symptoms in patients. The Social-Adaptive Functioning Evaluation (SAFE) was adopted to evalu-ate patients' social functioning, and a battery of classical neurocognitive tests was used to assess cognition, including sustained vigilance/attention, cognitive flexibility, ideation fluency and visuospatial memory.

Results We found that male patients with DS performed worse in all four cognitive domains and social functioning compared to non-DS patients. Both total negative symptoms and its two factors were significantly associated with all four domains of cognition and social functioning in male patients. Interestingly, our results indicate that only cognitive flexibility mediates the relationship between negative symptoms and social functioning in schizophrenia patients, but there were no differences between EXP and MAP negative factors in this model.

Conclusion Our findings suggest that DS patients may represent a unique clinical subgroup of schizophrenia, and the integrated interventions targeting both negative symptoms and cognition, especially cog-nitive flexibility, may optimally improve functional outcomes in schizophrenia patients.

关键字：schizophrenia; deficit syndrome; cognition; social functioning; negative symptoms; mediator model

The Effect of Antidepressant Therapy on A Patient with Progressive Supranuclear Palsy Accompanied by

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目的 Dementia with Lewy bodies (DLB) and Parkinson's disease dementia (PDD) are complex and heterogeneous disorders. Herein, we present a complex case of PSP with major depression and anxiety and fluctuating dementia in which DLB was initially suspected and discuss the effects of antidepressant therapy, resulting in emotional improvement and suppression of extrapyramidal motor symptoms.

方法 The assessment tools using in this case study included cognitive assessment scale (mini mental state examination and Alzheimer's disease assessment scale-cognitive subscale) and psychological assessment scale (Hamilton depression rating scale 17 items and anxiety rating scale)

结果 Antidepressant therapy can be effective in improving emotion and cognition among patients with late life depression in PSP.

结论 The effect of antidepressant therapy can improve the HAMD cores with PSP.

关键字：progressive supranuclear palsy, dementia, depression, anxiety, antidepressant therapy

住院老年期精神分裂症患者日常生活能力对衰弱的影响：营养状况的中介效应

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目的 了解老年期精神分裂症患者衰弱状况，并探讨日常生活能力与衰弱的关系以及营养状况的中介效应。

方法 采用便利抽样法，将 2021 年 1-8 月，选取在北京市某三级甲等精神卫生专科医院中的 191 例老年期精神分裂症患者为研究对象，采用一般情况调查表、Frail 指数量表、Barthel 指数量表、简易营养状态评估表（MNA）进行调查。

结果 191 名老年期精神分裂症住院患者日常生活能力得分（70.34±16.66）分，衰弱水平得分（2.48±1.79）分，营养水平得分（8.68±4.13）分。老年期精神分裂症住院患者衰弱水平与日常生活能力和营养水平之间呈两两显著负相关（$P<0.01$）。日常生活能力到衰弱的直接效应及中介效应的两条路径的 95%置信区间均不包含"0"，老年期精神分裂症住院患者营养水平在衰弱和日常生活能力之间的中介作用显著。

结论 日常生活能力及营养水平均与衰弱相关，营养水平是老年期精神分裂症症患者日常生活能力与衰弱的中介变量。 精神分裂症作为一类严重的精神疾病，给社会和家庭带来了巨大的经济和生活负担。据研究显示，中国精神分裂症患病率和伤残调整寿命年(YLDs)均显著高于全球平均水平[1]。有研究者认为，精神分裂症可能是一种加速衰老的综合征[2]。国外有研究显示，精神分裂症患者衰弱发生率为 28.1%[3]。衰弱是指个体生理储备下降或多种功能异常，使得机体易损性增加、抗应激能力减退的非特异性状态，是一种常见的老年综合征[4]。在我国住院患者中衰弱的发生率约为 18.0%-34.4%[5]。衰弱被认为是许多不良结局的风险因素，可能增加老年患者跌倒、失能、住院、早期死亡等的风险[6]，对患者、家庭、社会造成负担。此外，已有研究证实通过早期干预能够预防衰弱，甚至逆转衰弱[7]。2017 年亚太地区衰弱管理指南也提出，对老年人进行衰弱的早期筛查和管理效果显著[8]，早期识别衰弱并采取针对性干预措施，有助于避免或延缓衰弱导致的不良影响。国外研究表明入量不足、营养不良的老年患者衰弱的发生率会增加[8]。国内也有研究表明日常生活能力下降及营养水平低下是影响衰弱的重要因素[9]。

关键字：老年期；精神分裂症；衰弱；营养；日常生活能力

老年痴呆患者生活质量及其影响因素分析

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目的 调查老年痴呆患者生活质量的影响因素。

方法 采用老年痴呆患者生活质量量表(DQOL)、简易智能状态量表(MMSE)、痴呆临床分级量表(CDR)、痴呆病理行为问卷(BEHAVE-AD)、痴呆患者日常生活能力问卷(ADCSADL)对 53 例老年痴呆患者进行调查;采用一般资料问卷、照顾者负担问卷(CBI)、抑郁自评量表(SDS)对照顾者进行调查。 所得资料运用 SPSS17. 0 软件包进行录入及统计学分析。

结果 老年痴呆患者自评生活质量总分、自尊维度得分与他评呈低度正相关(P

关键字：痴呆; 生活质量; 影响因素

精神运动康复训练在老年精神分裂症患者中的应用研究

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目的 探讨精神运动康复训练对老年精神分裂症患者阴性症状、焦虑抑郁状态及日常生活自理能力的干预效果。

方法 选择 2022 年 5 月—10 月在苏州市广济医院精神科慢性病房住院的老年精神分裂症患者 74 例作为研究对象，采用随机数字表法将其分为研究组（37 例）、对照组（37 例），两组均给予精神科常规护理、康复训练、健康教育及心理疏导，研究组在此基础上予以精神运动康复训练干预，训练 10 周，每周 2 次，共 20 次。分别在干预前后对两组采用阳性和阴性精神症状评定量表（Positive and Negative Symptom Scale,PANSS）评定患者阴性症状，采用汉密尔顿抑郁量表（Hamilton Depression Scale，HAMD）评定患者抑郁状态，采用汉密尔顿焦虑量表（Hamilton Anxiety Scale，HAMA）评定患者焦虑状态、采用改良 Barthel 指数（modified Barthelindex, MBI）评定患者日常生活活动能力。

结果 研究组共有 35 例患者完成观察，对照组共有 34 例患者完成观察。研究组的 PANSS 阴性症状得分及总分均低于对照组，汉密尔顿抑郁量表及汉密尔顿焦虑量表得分均低于对照组，改良 Barthel 指数评分均高于对照组，两组比较差异均具有统计学意义（P<0.05）。

结论 精神运动康复训练能有效改善老年精神分裂症患者阴性症状、改善焦虑、抑郁情绪，提高日常生活能力。

关键字：精神运动康复 精神分裂症 干预性研究 康复护理

个性化饮水量图谱在住院失能老年患者中的应用研究

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目的 随着年龄的增长，老年人普遍面临脱水问题。失能老年患者由于自身疾病影响及活动受限等原因导致饮水不便，脱水风险更高。探讨个性化饮水量图谱对失能老年患者脱水状态的改善效果，为临床医护人员及照护人员预防和改善失能老年患者脱水提供参考。

方法 2023 年 1 月-5 月选取广州某三甲精神专科医院血清渗透压处于脱水倾向或脱水状态（≥295mmol/L）的失能老年人 39 例，随机分为试验组、对照组。试验组按照个性化饮水量图谱推荐的饮水量饮水；对照组进行常规饮水指导。分别于干预前、干预 2 周及干预 4 周后比较两组失能老年患者血清渗透压、便秘、泌尿系统感染情况。

结果 干预 2 周后，试验组的血清渗透压从干预前（298.66±1.96）mmol/L 下降至（294.51±1.53）mmol/L,干预 4 周后，试验组血清渗透压从干预前（298.66±1.96）mmol/L 下降至（292.46±1.60）mmol/L；干预 2 周后，对照组的血清渗透压从干预前（298.29±1.55）mmol/L 下降至（296.99±1.58）mmol/L,干预 4 周后，对照组血清渗透压从干预前（298.29±1.55）mmol/L 下降至（295.29±1.70）mmol/L，两组差异具有统计学意义（P＜0.05），两组便秘、泌尿系统感染发生率没有统计学意义。

结论 个性化饮水量图谱考虑到失能老年患者的个体差异，根据身高、体重以及自身饮水习惯给予个性化推荐饮水量，适用于失能老年患者，并能有效预防及改善其血清渗透压。

关键字：失能老年人； 饮水量图谱； 脱水

阿尔茨海默病激越症状群相关因素分析

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目的 分析阿尔茨海默病（AD）患者伴发激越症状的相关因素。

方法 选取上海市精神卫生中心 2022 年 10 月至 2023 年 6 月住院治疗的阿尔茨海默病患者 98 例。通过 Cohen-Mansfield 激越问卷（CMAI），选择任意一项评分≥3 分即认定为存在激越症状。全面评估和患者精神症状相关的患者因素、环境因素、照料者因素，探索

与激越症状相关的影响因素。

结果 共98例AD患者激越症状的发生率为 60.2%（59/98），其中轻度痴呆患者发生率为 16.9%（10/59）、中度痴呆患者发生率为 47.5%（28/59），重度痴呆患者发生率为 35.6%（21/59），Logistic 回归分析显示，以下症状与激越症状相关：患者的焦虑水平（OR = 0.153，95%CI：0.044 ~ 0.537；P = 0.003）、环境因素中“家中是否能看到庭院”（OR = 5.151，95%CI：1.279 ~ 20.751；P = 0.021）、照料者性别（OR = 4.628，95%CI：1.571 ~ 13.635；P = 0.005）、MMSE 评分（OR = 1.113，95%CI：1.034 ~ 1.199；P = 0.005）。

结论 AD 患者激越症状的发生率较高，患者存在焦虑症状、家中不能看到庭院、女性照料者以及较严重的痴呆是其出现激越症状的危险因素。

关键字：阿尔茨海默病 激越

进食障碍研究协作组

Comparison of The Urinary Proteome in Depressed Patients before and after Modified Electroconvulsive Therapy

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Objective Modified electroconvulsive therapy (MECT) is an effective treatment for mood and psychiatric disorders and provides rapid and significant improvements in severe symptoms of several mental health conditions.

Methods We attempted to compare the urinary proteome of each depressive patient before and after electroconvulsive therapy.

Results The common biological processes enriched by differential proteins through GO analysis with most patients mainly included cell adhesion (9/9 patients), immune response (7/9), axon guidance (7/9), and oxidation stress (7/9). Moreover, the common biological pathways identified by Ingenuity Pathway Analysis software showed that acute phase response signaling (7/9 patients), NRF2-mediated oxidative stress response (7/9), synaptogenesis signaling pathway (5/9), and ephrin B signaling (5/9) were all upregulated among each patient and were involved in promoting synaptic plasticity and neuroplasticity.

Conclusion Common biological processes and pathways in urine were reported to be related to the mechanism of MECT in the treatment of mental illnesses. In addition, the common differential proteins CSPG4, CBG, APP, NCAM1, and ARSA were suspected to be related to memory loss, memory damage, and memory formation, which might be the effects of MECT.

关键字：Major depressive disorder; Urinary proteome; Modified electroconvulsive therapy mechanism

Prefrontal Asymmetry Analysis of Resting-state EEG in Subclinical Depression College Students

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Objective Previous studies have found, Alpha asymmetry actually reflects depression where the left side of the forehead is less active than the right side. In this study, to explore whethe prefrontal asymmetry of the resting-state electroencephalogram(EEG) alpha band is exists in subclinical depression college students.

Methods 24 subclinical depression and 26 healthy college students were involved in this study.With the methods of Independent Samples t-test, we investigated the differences of the resting-state EEG scores of Fp2-Fp1，F4-F3，F3-Fp1 and F4-Fp2 in alpha band in the two groups，

as well as the correlation of EEG signals with depression state in subclinical depression college students.

Results Scores of Fp2-Fp1 and F4-Fp2 of alpha band were significantly lower in subclinical depression than those in control group (P ＜0.01), while no significant differences were found between F4-F3 and F3-Fp1 in alpha band in the two groups (P＞0.05). EEG scores showed no significant correlation with scores of HAMD24，BDI-II in subclinical depression group (P＞0.05).

Conclusion This study verified that subclinical depression also has prefrontal asymmetry, and found in the right hemisphere, in front of the forehead of subclinical depression the post-difference scores (F4-Fp2) were higher than normal, and both traits were not associated with depressive status.

关键字：EEG; subclinical depression; Asymmetry

抗抑郁药物种类和神经功能评分可预测卒中后抑郁障碍患者疗效

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目的 卒中后抑郁障碍(post stroke depression, PSD)是卒中后的常见并发症，约有 1/3 的卒中患者在卒中后不同阶段罹患 PSD，严重影响神经功能恢复和生活质量。然而目前对于 PSD 的治疗不规范，患者对治疗的依从性差，疗效欠佳，因此探讨影响 PSD 的疗效预测指标至关重要。

方法 入组 155 例 PSD 患者包括抗抑郁药组 114 例和未用抗抑郁药组 41 例，进行人口学资料、社会心理因素、卒中危险因素、神经功能、认知功能和抑郁严重程度评估，其中美国国立卫生院神经功能缺损评分量表(NIHSS), Barthel 指数(BI) 和改良 Rankin 评分(mRS)用于评估神经功能，简易精神状态检查(MMSE)和汉密尔顿抑郁量表(HDRS)评估认知功能和抑郁严重程度。采用方差分析、精确性检验、逐步回归、Bootstrap 方法进行统计学分析。

结果 两组患者性别，教育程度，吸烟饮酒史，糖尿病史存在显著差异(P 均<0.05)，而年龄，高血压，冠心病，高脂血症组间无显著性差异(P 均>0.05)。较未服用抗抑郁药组相比，服用抗抑郁药组具有高治愈率(9.76% vs 46.49%, P<0.001) 和低恶化率(19.51% vs 4.39%, P<0.001)。Logistic 回归结果示 NIHSS 得分，药物种类是 PSD 疗效的有效预测因子，其中 5-羟色胺和去甲肾上腺素再吸收抑制剂(SNRIs)类抗抑郁药疗效优于选择性 5-羟色胺再摄取抑制剂(SSRIs) (OR=1.476, 95%CI 1.049-2.126, P=0.030)，而 NIHSS 得分越高，PSD 患者预后更差，病情越难控制和治疗(OR=0.828, 95%CI 0.723-0.928, P=0.003)。

结论 PSD 患者神经功能缺损越严重，预后越差；对于确诊的 PSD 患者优选 SNRIs 类药物进行抗抑郁药治疗，将取得更好的疗效。

关键字：卒中后抑郁障碍；抗抑郁药；疗效预测

青年抑郁症自杀未遂的脑功能网络连接分析

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目的 探讨自杀未遂青年抑郁症患者静息态脑网络（resting-state network，RSN）内和网络间功能连接的差异，分析神经网络之间的相互作用，从而了解青年抑郁症自杀未遂所潜在的神经机制。

方法 采用基于群组的独立成分分析方法将静息态 fMRI 数据分解为不同的 RSNs，并提取 CEN、DMN 和 SN 三大核心认知脑网络，比较 SU、NSU 和 HC 三个 RSNs 内在脑活动特征以及脑网络功能连接（functional network connectivity，FNC）的差异。

结果 1、单样本 t 检验显示三组具有典型的 RSN 空间分布模式，三组脑网络进行 ANOVA 分析显示，三组间 5 个静息态脑网络内自发活动存在显著差异。2、三组间 FNC 分析发现，SU 组前默认网络（aDMN）与凸显网络（SN）和右侧额顶网络（R-FPN）的功能网络连接较NSU组降低，而凸显网络与右侧额顶网络（R-FPN）的功能网络连接增强；与 HC 组相比，SU 组前默认网络与左侧额顶网络（L-FPN）以及后默认网络（pDMN）的功能网络连接降低，而凸显网络与左侧额顶网络的功能网络连接增加；NSU 组后默认网络与右侧额顶网络的功能网路连接下降。

结论 青年抑郁症自杀未遂行为与 DMN、SN 和 CEN 三大核心神经认知网络功能连接异常有关，广泛涉及网络的多个节点。本研究为探寻青年抑郁症自杀未遂的大脑功能组织模式提供了新的证据。

关键字：青年抑郁症，自杀未遂，静息态脑网络，功能网络连接，独立成分分析

Incidence and Associated Factors of Nursing Errors Among Chinese Nurses: A Large-Scale Cross-Sectional Study

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Objective Nursing errors pose a serious threat to patient safety worldwide. However, very few studies have

investigated nursing errors among Chinese nurses. This study aimed to evaluate the incidence and correlates of nursing errors among a large sample of Chinese nurses.

Methods 1975 nurses were recruited through snowball sampling. A wide range of variables were collected, including demographic characteristics (partnership status, mental disorder history, and education level, etc.), work-related characteristics (years of nursing experience, weekly working hours, number of on-call duty per month, and violence experience, etc.), occupational wellness (work-life balance, burnout, meaning in work, etc.), mental health (quality of life, fatigue, depression, anxiety, perceived stress, and sleepiness, etc.), and information about nursing errors. A stepwise logistic regression model was used to determine the independent correlates of nursing errors.

Results 318 (16.1%) nurses reported nursing errors within the last three months, primarily nursing record error (103, 32.4%) and medication administration error (87, 27.4%). The following factors were found to be independently associated with nursing errors: being single (OR, 1.44; 95% CI, 1.06-1.94, p = 0.018), having a junior college degree or below (OR, 1.37; 95% CI, 1.05-1.79, p = 0.019), history of mental disorders (OR, 1.92; 95% CI, 1.16-3.20, p = 0.012), longer years of nursing experience (OR, 0.96; 95% CI, 0.94-0.98, p < 0.001), longer working hours (OR, 1.01; 95% CI, 1.00-1.02, p = 0.018), more working shifts (OR, 1.03; 95% CI, 1.01-1.04, p = 0.002), experiencing violence from patients (OR, 1.70; 95% CI, 1.18-2.43, p = 0.004), perceiving work as meaningless (OR, 2.36; 95% CI, 1.40-3.97, p = 0.001), and mental distress such as anxiety (severe, OR, 2.21; 95% CI, 1.30-3.77, p = 0.003) and excessive daytime sleepiness (OR, 1.41; 95% CI, 1.08-1.85, p = 0.011).

Conclusion High workload, impaired occupation wellness, and mental distress were closely associated with nursing errors. These findings could help in the early detection and prevention of nursing errors. Medical institutions and government agencies should take feasible measures to reduce the workload of nurses, improve their working environment, enhance their psychological well-being and monitor and minimise the occurrence of medical errors among nurses.

关键字：Nursing errors; Incidence; Mental health; Risk factors

加强心理学学习对医学生精神病学学习及心理健康的影响

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目的 通过对《心理学》和《精神病学》的教学内容进行适当调整，加强医学生对心理学知识的学习，揭示加强心理学知识的学习对医学生《精神病学》学习效果以及心理健康的影响。

方法 根据入学分班，随机将两个大班学生分别作为实验组和对照组。实验组学生在《医学心理学》学习过程中，重点倾向于“基础心理学”内容的学习，对照组学生则按照原教学大纲内容不做课程内容调整。在学习《精神病学》课程时，实验组加入《变态心理学》内容，强调精神障碍的心理学病因及心理治疗，对照组不做相关内容的调整。学期结束时对比两组学生期末结业考试笔试成绩。在学生毕业前压力最大时，进行两组学生 HAMA 和 HAMD 评分，比较两组间焦虑抑郁评分结果。

结果 两组学生之间《医学心理学》课程成绩无显著性差异（t=1.48, P=0.14）。实验组《精神病学》成绩高于对照组，有显著性差异（t=2.13, P=0.03）。实验组 HAMA 与 HAMD 评分值均较对照组低，有显著性差异（t=-9.51, P=0.00；t=-6.66, P=0.00）。

结论 在医学生的教育培训过程中，加强心理学内容学习，不但可以提高他们的《精神病学》考试成绩，还可以减轻他们面临毕业前压力时的焦虑和抑郁情绪。

关键字：心理学;医学生;精神病学;心理健康

托莫西汀联合度洛西汀治疗 ADHD 共病 MDD 转躁一例

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目的 注意缺陷与多动障碍（ADHD）共病情感障碍较多见，托莫西汀联合抗抑郁药物治疗 ADHD 共病重度抑郁发作（MDD）转躁风险高，临床中鲜少报道。现报道托莫西汀联合度洛西汀治疗 ADHD 共病 MDD 转躁一例，期望引起临床医生的注意。

方法 临床资料：患者男，18 岁，学生。因“间断情绪低、厌世、多疑 2 年，反复 2 个月”于 2020 年 8 月 21 日首住我院。诊断为：1、注意缺陷与多动障碍 2、复发性抑郁障碍，目前为不伴精神病性症状的重度抑郁发作。治疗过程，第一周托莫西汀 25-65 毫克/日，自觉注意力、睡眠改善，但情绪及躯体症状改善不明显，学习动力不足。第二周托莫西汀 65 毫克/日联合度洛西汀 20-40 毫克/日。情绪及躯体化症状明显改善，有动力学习，自觉能够部分集中注意力，但感觉效率欠佳。第三周托莫西汀增量至 80 毫克/日联合度洛西汀 40 毫克/日，自觉心情好，兴奋、话多，想做的事情多，感觉学习效率高，自信心提升。停服度洛西汀，托莫西汀减量至 65 毫克/日，联合富马酸喹硫平 25 毫克/日。情绪稳定性差，要求多，行为冲动，托莫西汀逐渐减量至停药，联合丙戊酸钠 1.5 克/日，富马酸喹硫平逐渐增量至 200 毫克/日。情绪稳定出院。出院 3 个月后随访，情绪稳定，自学准备考试。维持丙戊酸钠 1.5 克/日，富马酸 100 毫克/日。

结果 本文报道托莫西汀联合度洛西汀治疗 ADHD 共病 MDD 转躁一例，分析原因如下：1、托莫西汀与度洛西汀都具有抑制去甲肾上腺素再摄取功能。CYP2D6 是托莫西汀代谢的重要酶，度洛西汀对 CYP2D6 有抑制作用。联合用药时，度洛西汀通过影响肝酶 CYP2D6 降低托莫西汀的代谢水平，从而提高托

莫西汀的血药浓度，增加药物不良反应的风险，如肝功能异常、双相情感障碍（BD）激活等。2、相较于与不伴 ADHD 的患者，伴有 ADHD 合并症的 MDD 的年轻患者双相情感障碍的发生率更高。尤其在 ADHD 共病 MDD 治疗恢复初期，更容易出现轻躁狂表现。

结论 临床中对于年轻患者情感障碍的诊疗要考虑神经发育方面的问题。对于 MDD 合并 ADHD 的治疗要警惕 BD 的发生，谨慎托莫西汀联用其他抗抑郁药治疗，避免相同作用机制及影响 CYP2D6 代谢酶的药物。治疗过程中注意患者双相情感障碍及自杀意念的发生。

关键字：ADHD，MDD，BD，度洛西汀，托莫西汀

Aripiprazole's Effect on Metabolism in Patients with Behavioral and Psychological Symptoms of Dementia (BPSD) and The Correlation between Clinical Efficacy and Blood Concentration

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Objective To Observe the efficacy of aripiprazole in the treatment of behavioral and psychological symptoms of dementia (BPSD) and its effect on BMI, glucose and lipid metabolism, and explore the correlation between the blood concentration of aripiprazole and the clinical efficacy of BPSD.

Methods Thirty-six patients with BPSD were treated with aripiprazole for 6 weeks. BEHAVE-AD and TESS were used to evaluate.At the same time，to determination the BMI, fasting blood glucose (FBS), cholesterol (TC), triglyceride (TG), and high-density lipoprotein (HDL) of the patients. The blood concentration of aripiprazole was determined by HPLC.

Results The patient's BEHAVE-AD score decreased significantly after 6 weeks of aripiprazole treatment ($P < 0.01$)；There were no significant differences on BMI, fasting blood glucose, cholesterol, triglyceride, and high-density lipoprotein before and after treatment；The blood concentration of aripiprazole at the 4th and 6th weeks of treatment was significantly positively correlated with the BEHAVE-AD reduction rate, and the blood concentration of the effective group was significantly higher than that of the ineffective group.

Conclusions Aripiprazole is effective on treating BPSD, and it has little effect on the BMI、glucose and lipid metabolism. It is suitable for patients with cardiovascular and cerebrovascular diseases；There is a correlation between the blood concentration of aripiprazole on the treatment of BPSD, and the clinical effect, which suggests that the use of blood concentration to guide the treatment is more objective, and it is also conducive to adjusting the dose of the drug, which can provide a basis for clinical rational drug use.

关键字：Behavioral and psychological symptoms of dementia；Aliprazole；Clinical efficacy；Glycolipid metabolism；Blood drug concentration

老年人口腔衰弱与认知障碍相关性的研究进展

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目的 随中国老龄化进程的加剧发展，积极应对人口老龄化已上升至国家战略高度，关注老年口腔健康并积极组织开展防治认知障碍的系列特色活动被国家卫健委会列为2023年度健康中国建设行动的工作要点内容及重要行动部署。而口腔衰弱作为近期提出涵盖认知、生理与心理等多维层面的新概念，国内外现阶段主要集中于调查性研究数据积累，与认知障碍关联关系的理论证据也并不明确，亟需相应综述证据总结。

方法 通过对老年口腔健康研究领域国内外相关文献的系统分析，从概念内涵、流行病学现状、评估工具及影响因素四个方面对口腔衰弱予以解读分析，并从口腔运动功能、牙齿状况与牙周疾病两个方面探讨口腔衰弱与认知障碍的关联关系。

结果 口腔衰弱与认知障碍在老年群体中存在较高患病率，两者相互作用可成为影响老年人身心健康的高危因素，但现阶段欠缺口腔衰弱对认知功能受损至认知障碍病程进展的全路径分析及本土化评估筛查工具的证据汇总。

结论 后续研究需综合国家卫生政策的行动引导、基层卫生机构发展趋势及公众健康管理需求开展老年认知领域与口腔健康关联性深入研究，在社区/养老院/医院内开展拓展性观察研究及精准化健康管理，全面助力健康中国建设。

关键字：口腔衰弱；认知障碍；老年人；健康中国

负性生活事件与凉山州彝族 HIV/AIDS 青少年自杀未遂相关性研究

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目的 调查四川省凉山州彝族艾滋病病毒感染及艾滋病（HIV/AIDS）青少年自杀未遂发生率以及负性生活事件、睡眠、运动和药物治疗等因素是否与其存在相关性。

方法 采用普查的方法对四川省凉山州某县城共

180 名 11-19 岁的患有 HIV/AIDS 的彝族青少年进行横断面调查，主要结局指标包括该群体的自杀未遂发生率及负性生活事件、睡眠、运动、药物治疗等因素是否与自杀未遂相关。

结果 我们发现四川省凉山州彝族 HIV/AIDS 青少年自杀未遂的发生率为 13.9%，青少年生活事件是自杀未遂的危险因素（OR=1.047, p<0.001, 95%CI 1.027-1.067），在青少年生活事件的因子中，适应因子是自杀未遂的危险因素（OR=1.203, p=0.026, 95%CI 1.022-1.416），学习压力因子表现出了成为自杀未遂危险因素的倾向（OR=1.149, p=0.077, 95%CI 0.985-1.339），而受惩罚因子、人际压力因子、丧失因子与自杀未遂无显著的统计学相关性。而睡眠、运动、药物治疗均未发现与自杀未遂有显著的相关性。

结论 四川省凉山州彝族 HIV/AIDS 青少年自杀未遂的比例高，需要引起社会的重视，其中青少年生活事件是自杀未遂的独立危险因素，需要加强对有明确负性生活事件的 HIV/AIDS 青少年人群的自杀相关的筛查及早期干预。

关键字：HIV/AIDS 青少年； 凉山州； 彝族； 青少年生活事件； 自杀未遂；

针灸催眠法治疗广泛性焦虑障碍效果研究

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目的 广泛性焦虑障碍是精神科临床上比较常见的精神障碍，患者常常表现为心烦，坐立不安，紧张，易疲劳，注意力不集中，常常伴有出汗、肢体抖动、肌肉紧张或者身体疼痛不适等症状，严重时影响工作及日常生活，患者生活质量明显下降。针灸催眠治疗是中西医结合治疗，将中医针灸技术与催眠治疗技术融会贯通，应用于广泛性焦虑障碍患者中也能取得较好的治疗效果。本文聚焦研究针灸催眠法治疗广泛性焦虑障碍的临床效果。

方法 选择 2022 年 1 月份-2023 年 3 月份在我院首诊治疗的广泛性焦虑障碍患者为研究对象，随机分组，观察组（针灸催眠法治疗组）25 例，对照组（常规治疗组）25 例，连续治疗 3 个疗程后对比两组患者的治疗效果。

结果 观察组治疗后 HAMA 评分为（14.25±2.16），对照组治疗后 HAMA 评分为（15.15±2.83），两组治疗后 HAMA 评分与治疗前比较均有明显改善，差异具有统计学意义（P<0.05）；观察组治疗后 PSQI 评分为（6.23±2.86），明显低于对照组，差异具有统计学意义（P<0.05）。

结论 针灸催眠治疗广泛性焦虑障碍能够明显改善其睡眠，也能够产生与药物治疗相似的抗焦虑效果，适合在服药困难的患者推广应用。

关键字：针灸；广泛性焦虑；效果

针灸对进食障碍的治疗

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随着当今社会生活节奏的加快，西方审美观念的影响，饮食结构的改变，随着食物热量进入机体，而以瘦为美的观念的影响，5%-10%年轻人普遍存在进食方面的问题。进食障碍（Eating Disorder ED）是指进食行为为主的精神障碍。主要包括为神经性贪食症神经性厌食症、非典型性精神障碍等 3 个方面，其中青少年女性居多，发病年龄 10-30 岁之间，大约有 10%的青少年患有进食障碍。该病的发生主要原因个体因素、家庭因素、社会因素，它们之间并不是单一影响进食障碍的因素，而是它们之间相互共同影响。目前研究认为，5-TH 偏低及炎性因子异常时是 ED 发病的主要诱因，脾胃功能紊乱是 ED 的外在表现。经络是气血的运行，沟通脏腑，联系内外，贯穿上下的通路。故针灸在治疗进食障碍患者的选穴上多采用心、肝经和脾胃等经来取穴，也体现了心主神明，肝主疏泄、肾主开合之效。主穴采用足三里、脾腧、胃腧、公孙、内关。足三里是胃经的合穴，对脾胃的疾病治疗有很好的效果，还能对脏腑功能有调节的作用，公孙穴为脾之络穴，调脾胃之功能，行宽胸行气之效，内关，八脉交会穴，对心、脾、胸有疏理气机之效，对于便秘者选取支沟、天枢等，选取神门、少海穴等以养心安神。

关键字：进食障碍，针灸，穴位

基于“脑-肠-微生物轴”理论将中医药技术用于治疗女运动员三联征的基础与展望

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目的 女运动员三联征（female athlete triad，FAT）是指在女性运动人群中常观察到涉及伴有或不伴有进食障碍（eating disorders，DE）的低能量利用（low energy utilization，LEA）、低骨密度（low bone mineral density，BMD）和月经失调（menstrual disorders，MD）三个征象中任何一个征象的医学问题，其对女运动员的身心健康和竞技表现均会产生不良影响，甚至危及生命。本文尝试为治疗女运动员三联征提供一种新的干预靶点和策略，为广大运动健儿持续保驾护航。

方法 对国内外“脑-肠-微生物轴”理论发展的现状进行梳理，探讨将中医药技术应用于女运动员三联征的可行性。

结果 近年来，学者们持续聚焦研究肠道微生物群对人体的调控作用，“脑-肠-微生物轴”系统逐渐成为了医学研究的热点。研究发现，“脑-肠-微生物轴”不仅与 FAT 本身典型的三个临床征相关系密切，还与运动员主要的情绪波动紧密相联，更可以对涉及多个生理系统的并发症产生影响作用。以传统中草药、中药提取

物、药膳及针灸为代表的中医疗法，可直接对肠道微生物群产生影响作用，具有极大的潜力，未来可能会在FAT 的临床应用中发挥出更积极的作用。

结论 基于“脑-肠-微生物轴”理论，中医药技术可以用于治疗女运动员三联征，应用前景广阔。

关键字：脑-肠-微生物轴，女运动员三联征，中医药

进食障碍与完美主义的科学研究

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进食障碍（Eating disorders，ED）：是指以进食行为异常、对食物及体重和体型的过分关注为主要临床特征的一组疾病。主要包括神经性厌食症(anorexia nervosa，AN)、神经性贪食症(bulimia nervosa，BN)。神经性厌食是指患者因拒绝保持最低的标准体重，通过主动拒食或过分节食,有意地造成体重过低,形体消瘦，导致体重减轻;而神经性贪食的主要特征是因有反复发作的不可抗拒的摄食欲望导致暴食行为，之后又因担心发胖而使用各种方法减重。 完美主义：完美主义被描述为“苛刻的要求”，和“与现实情境相比，要求自己或他人有更高的工作质量”，完美主义者在工作和生活中并不满足于力所能及，而是通过设置并严格坚持不符合实际的高标准，并以是否达到这些标准来判断自我价值，如果没有达到预定标准，会对自己进行严厉批评甚至惩罚，极易导致焦虑、抑郁等情绪产生。 完美主义与进食障碍关系密切, 就其关系来说，还有许多问题及理论有待进一步完善。由于不同完美主义量表的差异较大，完美主义暂时也难以取得一致性解释。在治疗进食障碍的过程中如何科学规范的对完美主义进行干预，也是未来研究的重要课题。

关键字：进食障碍；完美主义

“脑-肠-微生物轴”理论用于治疗女运动员三联征的基础与展望

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目的 女运动员三联征（FAT）是指在女性运动人群中常观察到涉及伴有或不伴有进食障碍（DE）的低能量利用（LEA）、低骨密度（BMD）和月经失调（MD）三个征象中任何一个征象的医学问题。FAT 典型的临床征象是：进食障碍、骨质疏松和闭经，会导致女运动员体育竞技表现的直接下降甚至危及生命，并对女运动员今后终生的生活质量产生深远的影响。笔者尝试为治疗女运动员三联征提供一种新的干预靶点和策略，为广大运动健儿持续保驾护航。

方法 对国内外“脑-肠-微生物轴”理论发展的现状进行梳理，探讨将该理论应用于女运动员三联征的可行性，阐述了将“脑-肠-微生物轴”理论应用于女运动员三联征中的意义和作用。

结果 近年来，学者们持续聚焦研究肠道微生物群对人体的调控作用，“脑-肠-微生物轴”系统逐渐成为了医学研究的热点。研究发现，“脑-肠-微生物轴”不仅与 FAT 本身典型的三个临床征相关系密切，还与运动员主要的情绪波动紧密相联，更可以对涉及多个生理系统的并发症产生影响作用。

结论 “脑-肠-微生物轴”理论可以用于治疗女运动员三联征，应用前景广阔。未来的研究方向可能会针对脑-肠-微生物轴中的某一条途径进行深入研究，更应进一步开展相关的高循证级别的临床研究以及深层次的应用基础研究，从而为推广适合我国国情的 FAT 诊疗模式奠定基础。

关键字：脑-肠-微生物轴，女运动员三联征

青少年抑郁症非自杀性自伤行为的临床影响因素

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目的 探讨青少年抑郁障碍患者非自杀性自伤行为的临床特征及影响因素。

方法 本研究纳入郑州大学第一附属医院精神医学科符合入排标准的青少年抑郁障碍患者 316 例。根据《精神障碍诊断与统计手册》（第 5 版）第三部分非自杀性自伤的建议诊断标准，将患者分为伴 NSSI 组（n=202）和不伴 NSSI 组（n=114）。采用问卷收集患者社会人口学及影响因素资料。通过单因素及多因素 Logistic 回归分析筛选独立影响因素。

结果 1. 青少年抑郁障碍患者中最常见的 NSSI 方式为用刀片、玻璃等划伤皮肤。实施 NSSI 常见的原因为发泄自己的情绪、惩罚自己、得到更多的关注和帮助。 2. 多因素 Logistic 回归分析结果显示，女性(OR=10.46, 95% CI 3.91-27.94)、抑郁（OR=1.20, 95%CI 1.13-1.38）、冲动性(OR=1.05 ,95%CI 1.01-1.09)、母亲拒绝（OR=1.42, 95%CI 1.20-1.70）、母亲情感温暖（OR=0.77，95%CI 0.70-0.86）是青少年抑郁障碍患者 NSSI 行为的独立预测因素。

结论 1. 青少年抑郁障碍患者的 NSSI 行为危害性大，需引起医生、家长、学校以及社会的高度关注。2. 性别、抑郁、冲动性、母亲拒绝、母亲情感温暖是青少年抑郁障碍患者 NSSI 行为的独立影响因素。

关键字：青少年抑郁障碍 非自杀性自伤 临床特征 影响因素

Study of Transcriptional Differential Expression in Alzheimer`s Disease Patients

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Objective To investigate the relationship between changes in AD patients of their differential expression of transcriptional genes and clinical symptoms.

Methods Incorporate 30 Alzheimer's disease patients (group A) who meet the enrollment criteria in the outpatient clinic of Hefei Fourth People's Hospital and surrounding communities, and a healthy control group (group B) that matches their age, sex, and years of education (group B) 30 example. The MMSE scale and BEHAVE-AD scale were used to comprehensively assess the cognitive status of patients and healthy controls. Gene expression analysis was performed using mRNA transcript expression. Spearman rank correlation analysis was used to explore the relationship between differentially expressed genes and cognitive function and psychiatric symptom factors.

Results (1) MMSE and BEHAVE-AD scores in the AD group were statistically significant (P<0.05) compared with those in the healthy control group. (2) There were significant differential gene expression in peripheral blood samples from the Alzheimer's disease patient group (group A) compared with the healthy control group (group B), and the volcano map suggested that the number of differentially expressed down-regulated genes was significantly higher; GO enrichment analysis of differential genes located in top20 showed that GO:0005886, GO:0005887 , GO: 0016021, et al, and other related genes were significantly different in Alzheimer's disease patients (P < 0.05). (3) KEGG pathway analysis showed that the top20 differentially expressed genes in Alzheimer's disease patients (group A) and healthy controls (group B) were concentrated in five cellular functions: cellular processes, environmental information processing, human disease, metabolism and organ system pathways, with the highest enrichment in hsa04510 , hsa040880, hsa04141, hsa05200, hsa008830, hsa04740 , with statistically significant differences (P < 0.05).(4)Spearman's rank correlation analysis showed that orientation was negatively correlated with ENSG00000179046 (r=-0.663, P=0.014), delusion factor was negatively correlated with ENSG00000278106 (r=-0.639, P=0.019), et al.

Conclusion Patients with Alzheimer's disease have altered to differential expression of some genes at different levels, such as AL121758. Such alterations may be related to the cognitive and psychiatric symptoms of patients.

关键字：Alzheimer's Disease；RNA-Seq； Neurological diseases； Data Correlation

Altered Sensorimotor Network Function in Treatment-Naive Patients with First-Episode Major Depressive Disorder

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Objective Major depressive disorder (MDD) is an incapacitating psychiatric condition typified by recurring episodes of negative emotional and cognitive deficits, and its etiology remains uncertain. In this study, we enrolled 60 patients with drug-naive first-episode MDD and 60 healthy controls to investigate the potential neurobiological mechanisms underlying the clinical features of MDD.

Methods Specifically, we utilized the Measurement and Treatment Research to Improve Cognition in Schizophrenia Consensus Cognitive Battery to assess cognitive function and fractional amplitude of low-frequency fluctuation (fALFF) and measure spontaneous brain activity in resting-state functional magnetic resonance imaging. We then compared the differences in fALFF values between the two groups to identify the potential biomarkers of MDD.

Results Results revealed that compared with those of healthy controls, patients with MDD showed significantly decreased fALFF values in the somatosensory–motor network (SMN), including the right precentral gyrus/postcentral gyrus, right superior parietal lobule (SPL), and left supplementary motor area (SMA), and increased fALFF values in the right medial prefrontal cortex. Furthermore, correlation analysis suggested that the verbal learning deficits in patients with MDD are related to abnormal brain activity in the left SMA at rest. Lastly, support vector machine analysis showed that the fALFF values of the right SPL and left SMA exhibited high accuracy in differentiating MDD patients from healthy controls.

Conclusion Collectively, our findings suggested that reduced local activity in the SMN is a potential neurobiological basis of the clinical features of MDD and a potential biomarker for diagnosing and treating this disorder.

关键字：major depressive disorder, cognitive dysfunction, fractional amplitude of low-frequency fluctuation, support vector machine, somatosensory-motor network

Perceived Stress and Psychological Distress Among Chinese Frontline Healthcare Workers During The SARS-CoV-2 Epidemic: The Mediating Role of Coping Styles

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Objective The stress responses to infectious disease outbreaks may result in mental health problems among frontline healthcare workers. Many factors are associated with an individual’s perceived stress and mental status, especially coping styles. Understanding how different coping styles can effectively alleviate mental distress would enable more targeted psychological support.

Methods This cross-sectional survey was conducted in China between July and September 2021. Self-reported questionnaires, including the Patient Health

Questionnaire-9 (PHQ-9) and Generalized Anxiety Disorder-7 (GAD-7) to assess psychological distress, the Chinese Perceived Stress Scale (CPSS) to assess perceived stress, and the Simplified Coping Styles Questionnaire (SCSQ) to assess coping styles, as well as surveys of demographic and occupational characteristics, were distributed to 250 frontline healthcare workers during the SARS-Cov-2 Delta variant epidemic. The Process V4.0 syntax was used to establish the mediation model, and bootstrapping (5000 repetitions) was conducted to examine mediating effects.

Results The results demonstrated that perceived stress was significantly and positively associated with anxiety and depression among frontline healthcare workers. Mediation analysis showed that positive coping styles significantly mediated the effect of perceived stress on anxiety and depression, and accounted for 24.38% and 28.76% of the total effect, respectively. Negative coping styles significantly mediated the effect of perceived stress on depression, and accounted for 7.83% of the total effect. Perceived stress was a risk factor for psychological distress, and coping styles were a significant mediator in this relationship.

Conclusion Our findings can be used to formulate psychological interventions to improve the mental health of high-risk groups during the epidemic.

关键字：Perceived stress; coping styles; psychological distress; mediating role; COVID-19; frontline healthcare workers

Prevalence and Associated Factors of Suicidal Risk in Chinese Healthcare Workers 2 Years after The COVID-19 Initial Outbreak

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Objective Studies have confirmed that healthcare workers (HCWs) were at a high risk for mental distress and suicidal risk (SR) during the peak of the COVID-19 pandemic. However, there was limited evidence regarding their mental health status in the late COVID-19 pandemic. The present study aimed to determine the prevalence and associated factors of SR among Chinese HCWs 2 years after the COVID-19 initial outbreak.

Methods 2301 HCWs were recruited. We used the Suicidal Behaviors Questionnaire-Revised (SBQ-R) to detect their SR. Other mental distress (depression, anxiety, insomnia, sleepiness, burnout, alcohol abuse/dependence, and perceived stress) were assessed through validated questionnaires. Multiple logistic regression model was conducted to determine the independent risk factors of SR. We performed Receiver Operator Curves (ROC) and calculated the Area under the Curve (AUC) to evaluate the ability of our model in distinguishing from healthcare workers with and without SR.

Results 408 (17.73%) participants reported SR. Insomnia, emotional exhaustion, depressive symptoms, perceived stress, and a history of mental illness were independently associated with SR. Finally, the combination of these variables could excellently distinguish between HCWs with and without SR, with an AUC value at 0.81.

Conclusion Chinese HCWs were at a high risk for SR even 2 years after the outbreak of COVID-19 pandemic, which highlighted the consistent need for suicide related prevention for HCWs. Prompt screening and targeted intervention for insomnia, emotional exhaustion, depression, high stress, and pre-existing mental illness might help reduce SR.

关键字：Healthcare workers; Suicide

重复经颅磁刺激联合感统训练对孤独症患儿的效果观察

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目的 分析通过重复经颅磁刺激(rTMs)联合感统训练对孤独症的治疗效果。

方法 从 2021 年 1 月—2022 年 2 月于我院收治的孤独症患儿中随机抽取 88 例患儿，以抽签法分为对照组和观察组，各 44 例。对照组给予感统训练，观察组给予重复经颅磁刺激（rTMs）联合感统训练，对比两组患儿干预前后行为检查量表(ABC)、孤独症治疗评估量表(ATEC)、儿童生存质量普适性核心量表(PedsQL4.0),干预前后刻板行为(RBS-R)、孤独症行为(CARS)、睡眠障碍评分(PSQI)的结果及不良事件发生率。

结果 干预前，两组患儿 ABC、ATEC、PedsQL4.0 评分对比显示无明显统计学差异(P>0.05);干预后，观察组上述评分结果显示优于对照组(P<0.05);干预前，两组患儿 RBS-R、CARS、PSQI 评分对比显示无明显统计学差异(P>0.05);干预后，观察组上述评分结果显示优于对照组(P<0.05);两组患儿不良事件发生率对比差异无统计学意义(P>0.05)。

结论 对孤独症患儿采用 rTMs 联合感统训练效果显著，可改善患儿刻板行为，缓解孤独症症状，改善睡眠障碍，且不会增加不良事件。

关键字：重复经颅磁刺激；感统训练；孤独症；睡眠障碍；刻板行为

舍曲林联合小剂量阿立哌唑治疗青少年抑郁障碍临床疗效观察

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目的 探索使用盐酸舍曲林联合小剂量的阿立哌唑用于治疗青少年抑郁障碍（MDD）的疗效以及安全

性。

方法 采用前瞻性的设计，选择 2018 年 3 月~2019 年 12 月本院门诊和住院的 MDD 青少年患者共 70 例，随机分为研究组（n=36）和对照组（n=34），两组均予以盐酸舍曲林 1 日 100~150mg 口服治疗，研究组予以联合阿立哌唑 1 日 5~10mg 口服治疗，治疗持续 6 周。分别使用汉密尔顿抑郁量表（HAMD-24）和抑郁自评量表（SDS）在基线时及治疗后的第 2、4、6 周评定两组患者的抑郁症状，同时使用副反应量表（TESS）评估治疗中的不良反应。

结果 治疗 2 周末，治疗组合研究组的 HAMD-24 和 SDS 的评分均较基线有明显下降，并且持续下降至 6 周末。与对照组相比，研究组的 HAMD-24 和 SDS 的评分下降程度显得更加显著（P＜0.05）。治疗 6 周末，对照组的总有效率为 76.4%，研究组的总有效率为 91.67%，显示研究组的总有效率显著优于对照组（P＜0.05）。治疗 6 周期间，研究组和对照组的不良 TESS 评分显示无显著的差异（P＞0.05）

结论 盐酸舍曲林联合小剂量的阿立哌唑用于治疗青少年抑郁障碍的疗效良好，安全性较高，值得临床推广。

关键字：舍曲林；阿立哌唑；青少年；抑郁症；

柴胡加龙骨牡蛎汤联合西药治疗抑郁症的效果分析

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目的 探讨柴胡加龙骨牡蛎汤联合西药治疗抑郁症（major depressive disorde,MDD）的效果。

方法 方便选取 2020 年 1 月至 2021 年 12 月在福建省福能集团总医院接受治疗的 121 例 MDD 患者，以随机数表法将其分为研究组（60 例）与对照组（61 例）。对照组采用常规西药治疗，研究组在此基础上应用柴胡加龙骨牡蛎汤治疗。针对两组的临床疗效、睡眠障碍情况、生活质量与不良反应情况进行比较。。

结果 研究组总有效率为 96.67%，而对照组的总有效率为 83.61%，研究组的总有效率较对照组高，差异有统计学意义（$\chi2$=5.775，P＜0.05）。治疗 8 周时，研究组匹兹堡睡眠指数量表（PSQI）评分较对照组低，差异有统计学意义（P＜0.05），生存质量测定量表（QOL-BREF）量表中生理、心理、社会、环境评分较对照组高，差异有统计学意义（P＜0.05）。研究组不良反应发生率为 5.00%与对照组的 1.64%比较，差异无统计学意义（$\chi2$=0.276，P＞0.05）。

结论 柴胡加龙骨牡蛎汤联合西药治疗 MDD 的治疗效果确切，安全性较佳，能够有效的改善 MDD 患者的抑郁症状，保障其睡眠质量与生活质量，具有临床推广价值

关键字：柴胡加龙骨牡蛎汤；西药；抑郁症；

氟西汀联合坦度螺酮治疗强迫障碍的疗效和安全性观察

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目的 探讨氟西汀联合坦度螺酮治疗强迫障碍（OCD）的疗效和用药安全性。

方法 将本院 2017 年 4 月至 2019 年 7 月 80 例强迫障碍（OCD）患者随机分成两组（对照组 39 例和观察组 41 例），两组均口服氟西汀 1 日 40mg~60mg，观察组在上述基础上加用坦度螺酮 1 日 30~60mg 口服，治疗时间为 12 周。分别在治疗前及治疗后第 4、8、12 周对两组患者采用耶鲁布朗强迫症状量表（Y-BOCS）和汉密尔顿焦虑量表（HAMA）评定强迫和焦虑症状，同时使用副反应量表（TESS）评估不良反应。

结果 治疗第 4 周起，两组的耶鲁布朗强迫症状量表（Y-BOCS）和汉密尔顿焦虑量表（HAMA）评分均较治疗前明显改善。与对照组相比，观察组治疗 4~12 周，耶鲁布朗强迫症状量表（Y-BOCS）和汉密尔顿焦虑量表（HAMA）评分改善显著更大（P＜0.05）。治疗 12 周时，对照组总有效率为 64.10%，观察组总有效率为 87.81%，两组比较具有统计学差异（P＜0.05），结果显示观察组优于对照组。治疗期间，两组的不良反应发生率和 TESS 评分无统计学差异（P＞0.05）。

结论 氟西汀联合坦度螺酮治疗 OCD 的临床疗效好，用药安全性高，值得临床推广应用

关键字：氟西汀；坦度螺酮；强迫障碍；Y-BOCS 评分

百合知母汤联合伏硫西汀治疗对抑郁症患者的影响

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目的 分析临床使用百合知母汤联合伏硫西汀用于治疗抑郁症的治疗效果及安全性。

方法 选取从 2019 年 1 月至 2020 年 4 月于福能集团总医院收治的 105 例抑郁症的患者，根据患者治疗方案的不同，将其分为观察组（采取百合知母汤联合伏硫西汀治疗，共 50 例）与对照组（采取伏硫西汀治疗，共 55 例）。比较观察组与对照组的临床治疗效果及治疗前后汉密尔顿抑郁量表（HAMD）评分的变化，比较观察组与对照组在用药期间的药物不良反应发生率。

结果 观察组治疗的总有效率明显高于对照组（$\chi2$=4.719,P=0.030)；观察组与对照组在治疗前的汉密尔顿抑郁量表（HAMD）评分比较显示差异无统计学意义(t=1.374,P=0.128),观察组治疗后的汉密尔顿抑郁量表（HAMD）评分明显低于对照组的评分显示差异有统计学意义(t=5.465,P=0.044)；观察组与治疗组相比

较，在治疗期间的不良反应发生率比较差异显示无统计学意义(χ2=1.428,P=0.133)。

结论 百合知母汤联合伏硫西汀在临床上用于治疗抑郁症具有较高的治疗效果与安全性,能够有效改善患者的汉密尔顿抑郁量表（HAMD）评分,值得在临床上推广应用。

关键字：百合知母汤；伏硫西汀；抑郁症

Case Report: Prazosin Augmentation for Treating Comorbid Treatment-resistant Depression and Chronic Post-traumatic Stress Disorder

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Objective Psychological trauma in childhood can lead to post-traumatic disorder (PTSD) with protracted comorbid depression, which responds poorly to conventional antidepressants. Previous studies have shown that prazosin, an α1-adrenergic receptor antagonist, can help eliminate nightmares and improve sleep quality and suicidal ideation in PTSD patients.

Methods This case report presents that prazosin had a rapid antidepressant effect in a female adolescent PTSD patient with treatment-resistant depression (TRD). After informed consent, the patient was first put on prazosin at a low dosage of 0.25 mg at bedtime for 3 days with blood pressure monitored. The dose was then increased to 0.5 mg/day on day 4 and 1 mg/day on day 14. The patient reported no side effects and no significant change in blood pressure. The patient completed scales for depression, anxiety, PTSD, and cognitive functions before and after starting prazosin. PTSD symptoms, depressive and cognitive symptoms improved on day 3, and continued to improve after 1, 2, and 4 weeks of treatment. The patient was discharged 4 weeks after the admission and has been followed up. The patient has been on the same medications since discharge. The patient has been doing well and not been hospitalized for mood issues and not reported side effects. She is able to continue her education. Her parents have been satisfied with the improvements.

Results Prazosin improved not only depression symptoms but also sleep quality, suicidal ideation, and cognitive function. Prazosin was well tolerated without obvious adverse effects.

Conclusion Our preliminary study suggests that further clinical trials are needed to determine the efficacy and safety of prazosin in treating PTSD patients with comorbid TRD.

关键字：Prazosin; cognitive function; comorbidity; post-traumatic stress disorder; sleep disturbance; treatment-resistant depression.

伴暴食行为的功能性胃肠病 3 例个案报道

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目的 一些功能性胃肠病（functional gastrointestinal disorders，FGIDs）的患者，存在暴食（binge eating）行为。反复发作的暴食是暴食障碍（binge eating disorder，BED）和神经性贪食（bulimia nervosa，BN）的诊断特征之一，也可见于神经性厌食（anorexia nervosa，AN）。本文报道了 3 例功能性胃肠病并暴食的个案，并对消化道症状与暴食行为的关系、相关问题的识别与早期诊断、治疗等问题进行了讨论。

方法 3 例个案均为女性，年龄 24 岁~28 岁，因消化道症状前往消化内科门诊诊疗。专科医生对其进行问诊、查体，患者完善相关化验、检查并进行量表筛查（成人功能性胃肠病罗马 IV 诊断性问卷，DASS-21 量表，EDE-Q 量表）。针对不同患者，给与药物、行为调整、心理咨询等治疗。

结果 3 名患者都存在功能性胃肠病及暴食行为。经过治疗，2 名患者痊愈，1 名患者症状好转。

结论 暴食可能引发或加重消化道症状，引发胃肠功能紊乱，在治疗功能性胃肠病时，识别暴食行为和进食障碍潜在风险，进行早期干预和综合治疗，有利于患者的康复，有利于预防进食障碍的发生。

关键字：功能性胃肠病；暴食；进食障碍；诊断；治疗

Factors Associated with Suicidal Attempts in Female Patients with Mood Disorder

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Objective :Suicide is a common public event nowadays. Patients with mood disorders (MD) are often at high risk for suicide, and suicide is often associated with suicide attempts (SA). Therefore, predicting risk factors for SA will improve clinical intervention, research and treatment of patients with affective disorders. This study aims to establish a nomogram model to predict the relevance of SA in Chinese female patients with MD.

Methods A cross-sectional survey among 396 female patients was analyzed. All participants met the MD diagnostic groups (F30-F39) based on the Diseases and Related Health Problems 10th Revision (ICD-10). The Chi-Squared Test, t-test, and the Wilcoxon Rank-Sum Test were used to assess the differences of demographic information and clinical characteristics between the two groups. Logistic LASSO Regression Analyses was then used to

identify the risk factors of SA. A nomogram was further used to construct a prediction model. Bootstrap re-sampling was used to internally validate the final model. The Receiver Operating Characteristic (ROC) curve and C-index was also used to evaluate the accuracy of the prediction model.

Results After LASSO regression, 5 variables were significant predictors of SA. LASSO regression analysis showed that five factors led to the occurrence of suicidality, including BMI (β = -0.02, SE= 0.02), social dysfunction (β = 1.72, SE=0.24), time interval between first onset and first dose (β = 0.03, SE= 0.01), polarity at onset (β = -1.13, SE=0.25), and times of hospitalization (β = -0.11, SE=0.06). The ROC analysis assessed the ability of the nomogram model to recognize suicidality, with good results (AUC= 0.76, 95% CI: 0.71-0.80). The C-index of the nomogram was 0.756 in the internal bootstrap validation sets, indicated that the nomogram had a good consistency. The C-index of bootstrap resampling with 100 replicates for internal validation was 0.740, which further demonstrated the excellent calibration of predicted and observed risks.

Conclusion The results of this study suggest that the correlation between demographic information and clinical data of SA characteristics can be used to predict the risk of SA in Chinese women with MD.

关键字：Mood disorder, prediction model, suicidal attempt, Chinese population, LASSO regression

Changes of Resting-state MRI in Patients with Sleep Problems after COVID-19 Infection

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Objective Corona Virus Disease 2019（COVID_19）infection is widespread, and many people have problems such as easy fatigue and sleep disturbance after COVID_19 infection. However, the changes in brain function associated with the development of sleep problems after COVID_19 infection remain unclear.

Methods To investigate the changes in brain function in the population with sleep problems after COVID_19. In current study, 32 patients who developed sleep problems after neocoronary were collected, as well as 22 gender- and education-year-matched controls, and all subjects were scaled to exclude emotional problems.

Results As shown by resting-state magnetic resonance imaging the final results revealed that compared to the control group,the Low-frequency fluctuation (ALFF) values of the right putamen, part of the frontal lobe, extranuclear and the Lentiform Nucleus were significantly higher in the sleep problem group compared to the control group, while the ALFF values of the right inferior temporal gyrus The ALFF values of the right inferior temporal gyrus were lower than those of the control group, and the functional connectivity of the putamen with the right postcentral gyrus, right parietal lobe, and right precentral gyrus was found to be reduced.

Conclusion This explains to some extent the changes in sleep-related brain areas in people with sleep problems after COVID-19, The COVID-19 infection can cause changes in sleep-related brain areas.

关键字：resting-state MRI，sleeping problem，amplitude of low-frequency fluctuation; clinical study; coronavirus disease 2019, After COVID-19.

饮食与精神疾病

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目的 本综述旨在系统地对现有文献进行分析，以确定预防或治疗精神健康症状的营养干预措施，以及为进一步研究奠定基础

方法 本研究将广泛的搜索和重复筛选，根据膳食成分提取数据并进行分析。

结果 观察证据显示，精神疾病的存在与较差的质量饮食模式之间存在联系，精制碳水化合物和总脂肪的摄入量较高，纤维，ω-3 和 ω-6 脂肪酸，蔬菜，水果和某些维生素和矿物质(维生素 B12 和 B6，叶酸，维生素 C，锌和硒)的摄入量或水平较低。实验研究表明，使用健康饮食模式和特定的维生素和矿物质(维生素 B12 和 B6，叶酸和锌)和氨基酸(丝氨酸，赖氨酸，甘氨酸和色氨酸)有益。

结论 在过去的几十年里，对于什么是“健康饮食”的看法已经发生了显著的变化。这可能与解释评估整个饮食模式并将其评估为“健康”或“不健康”的研究有关。对总膳食脂肪、饱和脂肪和总膳食碳水化合物的看法都发生了变化。这限制了评估或实施“健康饮食”的观察性研究和实验性研究的普遍性，并需要彻底评估个别成分，如宏观和微观营养素。许多实施全饮食方法的干预研究并不清楚所提供的营养教育或所提出的建议，只是说他们主张改善营养。这是解释这些研究的一个局限性。此外，越来越多的研究证实，肠道菌群与精神疾病之间的关系以及治疗方法，但缺少饮食对精神疾病影响的研究。饮食与肠道菌群相互影响，引出新的问题，目前我国存在严重的食品安全问题，是否与逐年增长的精神疾病数量有关。

关键字：饮食 肠道菌群 精神疾病

活血化瘀法治疗抑郁症理论及应用探讨

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目的 对活血化瘀法治疗抑郁症进行理论及应用

探讨

方法 通过跟随老师（上海市精神卫生中心刘兰英教授及浙江省立同德医院冯斌教授）学习、阅读相关文献以及临床实践，对活血化瘀法治疗抑郁症的形成自己的理解，列举临床医案对活血化瘀法治疗抑郁症进行理论及应用的探讨。

结果 本病案患者患者情志不遂，气机运行不条达，“气为血之帅”，气滞则血行不畅，日久成瘀。此外患者伴失眠日久，耗伤阴血，心血不足，心失所养，心神不安，进一步加重郁证。心烦，常叹息，自觉胸闷，月经经量少、舌暗等均为气机郁滞、瘀阻脉络之象。诊断为郁病。辩证为：气滞血瘀。“久病必瘀”，“顽疾多瘀血”。叶天士《临证指南医案》：“大凡经主气，络主血，久病血瘀”，瘀血既是病理产物，又是疾病因素。因此可推治则为：行气消滞，活血化瘀。方药：血府逐瘀汤加减：炒桃仁 12 克、红花 12 克、川芎 9 克、赤芍 9 克、牛膝 9 克、当归 12 克、柴胡 6 克、制枳壳 9 克、桔梗 6 克、甘草 6 克、麦冬 10 克、北沙参 12 克、玫瑰花 10 克（后下）。七剂，水煎服，日 1 剂，早晚温服。1 月余后复诊。诉上次用药后症状明显好转，情绪好转，无故叹息减少，睡眠明显改善，晚上 11、12 点就能入睡，无心烦，无胸闷，二便调，月经经量较前稍变多，经期延长至 4 天。守方善后。

结论 抑郁症属中医“郁病”范畴。郁者，滞而不通。情志不遂，致气机郁滞，气滞则血行不畅，日久成瘀。活血化瘀是运用具有消散作用，或能够驱逐体内瘀血的药物，治疗血瘀病症的方法。活血化瘀法治疗抑郁症是古今医家在临床实践中不断探索形成的经验。灵活运用活血化瘀法治疗抑郁症乃对证治疗，可有效缓解患者病情。

关键字：抑郁症；郁病；中医中药；医案；活血化瘀；

医护人员对非自杀性自伤的态度及照护体验的质性研究的 Meta 整合

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目的 整合医护人员对非自杀性自伤的态度及照护体验的质性研究，为探索非自杀性自伤管理方案并制订干预策略提供参考。

方法 计算机检索 PubMed、Embase、Web of Science、Cochrane Library、EBSCO、CINAHL、中国知网、万方数据库、维普数据库、中国生物医学文献数据库中关于肠造口患者居家护理需求的质性研究，检索时限为建库至 2023 年 7 月。使用澳大利亚乔安娜布里格斯研究所循证卫生保健中心质性研究质量评价标准（2016）评价文献质量，采用 Meta 整合方法对结果进行整合。

结果 共纳入 15 篇文献，提炼出 64 个研究结果，归纳出 12 个类别，最终综合为 4 个整合结果：1.医护人员对非自杀性自伤的认知和态度：（1）知识水平和理解程度；（2）情绪和情感反应；（3）对患者的态度和偏见；2.医护人员对非自杀性自伤的照护体验：（1）情感反应和挑战；（2）专业技能和知识的应用；（3）与患者的沟通和关系建立。3.医护人员的支持和介入策略：（1）心理支持和情感关怀；（2）教育和信息传达；（3）多学科合作和团队协作；4.医护人员的培训和需求：（1）对非自杀性自伤的培训需求；（2）提高专业知识和技能的要求；（3）改进照护策略和流程的建议。

结论 医护人员在照护过程中面临情感反应和挑战。对非自杀性自伤患者的照护可能引起医护人员的情绪压力和心理负担。因此，提供心理支持和情感关怀对医护人员的健康和工作效能至关重要。

关键字：非自杀性自伤；医护人员；质性研究；Meta 整合

无抽搐电休克治疗决策主要参与者治疗前内心体验的质性研究

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目的 描述和分析无抽搐电休克治疗（MECT)治疗前决策主要参与者内心感受，为构建针对决策主要参与者 MECT 治疗前健康宣教及心理疏导建立依据。

方法 该研究为描述性现象学研究，采用目的抽样法，选取 2023 年 2 月—5 月在广州市某三级甲等医院就诊的 16 名既往未行 MECT 治疗的患者家属（即决策主要参与者）作为研究对象，进行面对面半结构式访谈，采用 Colaizzi 7 步分析法归纳并提炼主题。

结果 共提炼出 4 个核心主题：①决策主要参与者在 MECT 术前经历了一系列复杂的情绪和心理变化。首先，焦虑和不安是决策主要参与者普遍存在的情绪体验。他们担心治疗的风险和可能的副作用，同时也对治疗效果产生怀疑。这些焦虑和不安来源于对未知的恐惧和对亲人健康的关切。②决策困境是决策主要参与者面临的另一个重要问题，是由于大部分 MECT 治疗决策取决于决策主要参与者。他们需要权衡潜在的益处和风险，并与医生进行详细的讨论和咨询。这个过程中，决策主要参与者常常感到困惑和犹豫不决，因为他们希望为亲人做出正确的决定。③决策主要参与者均表示担心带来 MECT 带来副作用，这包括担心对智力、记忆力、脑部结构受损、麻醉意外。④决策主要参与者均期待 MECT 会带来正性作用，包括改善情绪、改变认知、矫正自伤自杀行为。

结论 决策主要参与者在面对患者做无抽搐电休克治疗时存在复杂的负性情感体验，既期望无抽搐电休克治疗可以改善疾病，又担心无抽搐电休克治疗带来的副作用，以及对无抽搐电休克治疗充满未知带来决策困难。医护人员应给予决策主要参与者健康宣教及心理疏导，制订有效的健康宣教内容及科普讲座，消

除决策主要参与者疑虑，缓解决策主要参与者担心焦虑的情绪，促使无抽搐电休克治疗按照诊疗计划进行。

关键字：无抽搐电休克治疗决策主要参与者

家族聚集性儿童青少年强迫症发病的影响因素研究进展

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目的 了解家族聚集性儿童青少年强迫症发病的可能因素。

方法 检索近5年中国知网、万方、维普、PubMed、Embase数据库文献并进行综述。

结果 共参考40篇文献。强迫症在遗传上存在家族聚集性，强迫症患者的一级亲属，尤其是双生子，患强迫症的风险更高，有家族史的患者，起病年龄更早，尤其儿童期发病的强迫症更加具有遗传性。强迫症家族聚集性还表现在患者及家属在“对称/排列”、“污染/清洁”、“怀疑/检查”这些强迫症状维度的高度一致性。家族性强迫症有明显的神经认知功能障碍，特别是在神经灵活性和工作记忆领域。fMRI研究发现，颞极参与了儿童强迫症的症状激发过程，而非成人经典的皮质-纹状体-丘脑-皮质环路，表明相对于成人，颞极可能在儿童强迫症或疾病早期阶段发挥主要作用，随着年龄的增长和病程延长，这种机制可能会消失。除直接遗传效应外，独特的环境也造成了此病的发生。儿童对父母行为的模仿和学习，容易出现与父母类似的强迫特质，成为强迫症发病的高危因素。追求完美、过分关注细节等人格在患儿父母中更常见，父母对孩子的高要求等行为，更容易使孩子形成完美主义的人格特质。父母养育方式（父母情感温暖、父亲惩罚、父亲过度保护、母亲拒绝、母亲过度干预和过度保护）作为中介，介导了少年外向性、神经质和精神质人格特征的发生，无疑是强迫症发生的人格基础。应激生活事件可前瞻性预测强迫症的发生，在排除遗传、共享环境后，虐待、忽视和家庭破裂史可能对强迫症状的严重程度有显著影响。青春期的焦虑敏感性是强迫症发生的危险因素，在面临创伤或压力事件时，患者的兄弟姐妹更倾向于采取被动反应和回避行为，因此更易遭受性虐待及情感虐待，为强迫症发生的恶性循环。不同于成人，儿童生活的大部分领域来自家庭，家庭成员有足够多的时间参与及维持儿童的强迫行为，故家庭顺应性（family accommodation，FA ）被称为“儿童强迫症早期标志”，父母的 FA 行为参与了多数患儿强迫症的发生且与疾病严重程度呈正相关。FA 与亲属的出发点背道而驰，因其进一步强化了患者的强迫症状和回避行为，并增加了患者及亲属的压力和焦虑。

结论 遗传、独特环境、不良家庭教养方式、父母人格特征、应激事件、FA等多因素共同造成家族聚集性儿童青少年强迫症的发生。家族聚集性分析尚不能区分这种现象是由狭义的遗传还是环境所致，且不能明确病因在多大程度上由遗传和环境因素影响。

关键字：儿童 青少年 强迫症 遗传 家庭 双亲环境

舞动治疗对改善青少年非自杀性自伤行为的效果研究

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目的 探讨舞动治疗对青少年非自杀性自伤行为的改善效果。

方法 选取广州市某三级医院精神科于2022年6月—2022年12月收治的NSSI患者作为研究对象，按照入院顺序，通过计算机生成随机数的方法进行随机分成2组。对其中的23例对照组采取常规护理，其中的24例试验组在常规护理的基础上采取舞动治疗干预。比较两组患者干预前后的非自杀性自伤行为、抑郁情绪和孤独感。

结果 两组在干预前的自我伤害行为问卷评分、健康问卷抑郁量表评分、UCLA 孤独量表评分差异无统计学意义（P 均>0.05）。舞动治疗组干预后的自我伤害行为问卷评分为为 2.00(0.00, 5.00）分，较对照组常规治疗后 3.00 (2.00, 14.50)分，明显降低，差异有统计学意义（P=0.013）；舞动治疗预后健康问卷抑郁量表评分为 7.00(3.00, 8.00) 分，较对照组常规治疗后 8 (4.00,13.00) 分，明显降低，差异有统计学意义（P=0.035）；舞动治疗干预后 UCLA 孤独量表评分为 38.70±8.20 分，较对照组常规治疗后 44.63±9.31 分，明显降低，差异有统计学意义（P=0.025）。

结论 舞动治疗可有效缓解存在非自杀性自伤行为，降低患者的抑郁情绪及孤独感。

关键字：非自杀性自伤；舞动治疗；青少年；随机对照研究

青少年非自杀性自伤行为风险因素及健康管理研究进展

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目的 现阶段非自杀性自伤行为已经成为严重影响社会公共卫生安全的问题，通过分析需要积极采取有效的措施。国外研究数据显示，美国青少年非自杀性自伤年检出率约为7.3%。关于国内青少年非自杀性自伤检出率为16.6%，抑郁症状、心理压力、童年受虐待史、物质滥用以及情感忽视、创伤障碍都是青少年NSSI高危因素。青少年非自杀性自伤行为严重威胁青少年身心健康，因其社会各界关注度较高，需要积极采取有效的措施。

方法 研究以疾病发生的风险因素为切入点进行

分析，对其发病机制以及特征与影响因素进行分析，对青少年非自杀性自伤行为具体的管理方法进行分析。

结果 青少年 NSSI 行为发生受到情绪因素、家庭因素、生物因素以及负性生活事件影响，发生率有所增加。青少年 NSSI 行为的改善加强关于健康管理工作研究，是提升青少年身心健康的关键，旨在能够从整体上改善青少年心理素质以及生理素质，使其能够健康发展。

结论 青少年 NSSI 行为发生受到情绪因素、家庭因素、生物因素以及负性生活事件影响，发生率有所增加。加强青少年健康教育指导，鼓励青少年参与社会活动以及团体技能练习，给予青少年心理指导，这样能够使青少年形成正确的心理、生理认知，避免 NSSI 行为的发生。

关键字：青少年；非自杀性自伤行为；健康管理

精神康复协作组

广州市住院精神分裂症及双相障碍患者生活质量保护因素分析

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目的 探讨住院双相障碍及精神分裂症患者生活质量水平的保护性因素。

方法 采用分层随机方法，在广州市 24 家精神卫生机构中抽取 4 家有住院部的医院，连续入组符合《国际疾病分类（第 10 版）》精神分裂症、双相障碍诊断标准的住院患者。采用自编人口学及临床特征问卷、世界卫生组织生活质量问卷简版 (WHOQOL-BREF) 评定患者的人口学、临床特征，以及生活质量水平。通过 t 检验及单因素方差分析患者的人口学、临床特征和生理领域、心理领域、社会关系领域以及环境领域间的关系；对于单因素分析结果有统计学意义的变量纳入多元方差分析。

结果 采用分层随机方法，在广州市 24 家精神卫生机构中抽取 4 家有住院部的医院，连续入组符合《国际疾病分类（第 10 版）》精神分裂症、双相障碍诊断标准的住院患者。采用自编人口学及临床特征问卷、世界卫生组织生活质量问卷简版 (WHOQOL-BREF) 评定患者的人口学、临床特征，以及生活质量水平。通过 t 检验及单因素方差分析患者的人口学、临床特征和生理领域、心理领域、社会关系领域以及环境领域间的关系；对于单因素分析结果有统计学意义的变量纳入多元方差分析。

结论 住院精神分裂症及双相障碍患者生活质量水平和多种人口学特征及临床特征相关，应根据相关特点进行有针对性干预，从而提高患者生活质量，促进全面康复。

关键字：生活质量；精神分裂症；双相障碍；睡眠；运动

易筋经对残留型精神分裂症阴性症状的干预效果：一项基于 PANSS 评分的随机对照研究

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目的 残留型精神分裂症是一种严重的精神障碍，患者主要表现为阴性症状。易筋经作为一种传统的养生锻炼方式，已经在多种疾病领域显示出积极的治疗效果。本研究旨在探讨易筋经对残留型精神分裂症患者阴性症状的改善作用，并评估其在精神卫生领域的潜在应用价值。

方法 本研究采用随机对照研究设计，共纳入 60 名符合纳入标准的残留型精神分裂症男性患者，其中干预组 30 名，对照组 30 名。两组均给予常规抗精神

分裂症药物治疗及康复训练，干预组患者在此基础上接受中国传统功法易筋经训练。易筋经训练共进行 12 周，每周安排 3 次，每次训练 45 分钟。在干预前、干预后 6 周和干预后 12 周，采用阳性和阴性症状量表（PANSS）评估患者的精神症状。

结果 经过 12 周的易筋经训练干预，干预组患者的 PANSS 阴性症状分量表得分和 PANSS 总分均低于干预前和干预后 6 周（均 P＜0.05），显示出显著的改善效果。而对照组各个时间点的上述评分差异均无统计学意义（均 P＞0.05），表明在常规药物治疗及康复训练基础上，易筋经训练对阴性症状具有显著的干预效果。在干预过程中，未发现易筋经训练引发的不良反应，表明该训练方法具有良好的安全性和可行性。此外，干预组患者在干预过程中普遍反映出身体力行、精神状态以及生活质量的提高，进一步显示出易筋经训练对残留型精神分裂症患者的综合干预效果。

结论 练习中国传统功法易筋经可改善残留型精神分裂症患者的阴性症状，有助于促进患者尽早康复及回归社会。易筋经训练具有良好的安全性和可行性，对患者的身体和心理状况均有所改善，进一步丰富了精神康复领域的干预手段。因此，易筋经训练值得在基层精神卫生机构中推广，以提高残留型精神分裂症患者的康复效果和生活质量。

关键字：残留型精神分裂症；易筋经；阳性和阴性症状量表；阴性症状

140 名精神科医护人员总体幸福感调查分析

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目的 由于精神科职业的特殊性，决定了精神科医护人员承受的压力较大。在工作中难免会有更多的负性体验，因此易于出现各种各样的心理问题。探讨 140 名精神科医护人员的总体幸福感及其影响因素，并对其进行研究分析，为今后精神科医护人员管理方面提供新的思路。为改进精神科医护人员工作状况，提高总体幸福感，营造良好的工作环境提供科学理论依据。

方法 采用总体幸福感量表(GWB)问卷调查方法，调查精神专科医院的 140 名医护人员作为调查对象，采用横断面调查方法，调查人员经过心理测量相关知识培训，发放问卷前向被调查者讲明调查目的、意义，统一指导语，取得被试支持与合作，问卷由精神科医护人员不记名完成。通过调查问卷将收集到的数据采用 spss10.0 进行统计分析，采用 t 检验，将收集到的资料进行归纳总结，并对其进行研究分析。

结果 在编制因素的比较结果中，在编精神科医护人员的总体幸福感高于合同制精神科医护人员，在对“健康的担心”这一因子中在编医护人员与合同制医护人员的得分相比较，结果是有统计学意义，表明在编精神科医护人员对自身健康的关心和关注程度高于合同制精神科医护人员，p<0.05；不同工龄总体幸福感各因子得分比较，本研究将工龄作为变量之一，通过方差分析比较不同工龄的精神科医护人员其总体幸福感的差异。结果表明，不同工龄的精神科医护人员其总体幸福感的差异是有统计学意义，在“情感和行为的控制”因子得分中，工龄 6—10 年的精神科医护人员与工龄＞10 年的精神科医护人员间的差异具有统计学意义（p<0.05）。不同职称总体幸福感各因子得分比较，本研究表明，在“忧郁或愉快的心境”和“松弛和紧张（焦虑）”两因子统计结果中，中级职称的精神科医护人员得分均低于初级职称精神科医护人员，差异有统计学意义（p<0.05）。

结论 具有中级职称较初级职称的精神科医护人员具有放松和愉快的心理体验；工龄大于 10 年的精神科医护人员对情感和行为的控制能力高于工龄 6-10 年的精神科医护人员；精神科医护人员在编人员的总体幸福感较合同制精神科医护人员高。提高精神科医护人员总体幸福感应考虑工龄、编制和职称等影响因素精神科医护人员从事高风险、高强度的工作，是一个处于特殊领域中的工作群体，报酬多少及报酬是否公平影响着员工的工作和积极性，因此应进一步健全在编与合同制医护人员的管理机制，对工作成绩突出的合同制医护人员给予物质和精神奖励

关键字：精神科 医护人员 总体幸福感 调查分析

通窍活血汤联合穴位经颅磁刺激治疗首发精神分裂症认知症状疗效分析

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目的 探讨通窍活血汤穴位磁刺激治疗精神分裂症认知症状疗效分析。

方法 选取 2021 年 1 月-2022 年 12 月于山东省精神卫生中心住院治疗的 89 例首发精神分裂症患者，采用随机数字表法分为对照组和观察组，对照组 46 例，观察组 43 例。对照组给予氨磺必利治疗，观察组给予氨磺必利治疗基础上，使用通窍活血汤加减联合百会穴穴位经颅磁刺激治疗治疗。2 组均连续治疗 4 周，比较 2 组临床疗效、中医证候积分、阳性与阴性症状量表（PANSS）、蒙特利尔认知评估量表（MoCA）评分及不良反应发生情况。

结果 观察组的总有效率 77.92%(34/43)高于对照组的 50.11％(23/46)，差异有统计学意义(P<0.05)；治疗后，观察组语言、记忆、学习等中医证候积分、阴性症状量表均低于对照组，蒙特利尔认知评估量表（MoCA）评分高于对照组，差异均有统计学意义(P<0.05)；观察组阳性症状量表与对照组，无统计学差异(P>0.05)；对照组不良反应发生率为 11.02％(7 / 46)，观察组为 8.19％(4 / 43)，差异无统计学意义(P>0.05)。

结论 首发精神分裂症患者在应用氨磺必利的基础上，加用通窍活血汤联合百会穴穴位经颅磁刺激治疗，可增强治疗认知症状效果，且无明显不良反应。

关键字：精神分裂症；认知症状；通窍活血汤；经颅磁刺激；百会

团体音乐治疗对精神分裂症记忆损伤改善的临床研究

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背景 精神分裂症是一种慢性致残性精神障碍，多起病于青春期晚期和成年早期，以阳性症状、阴性症状和认知缺陷为核心表现，加权终生患病率为 0.6%。认知障碍是影响患者现实生活功能的主要因素之一。研究发现音乐治疗对记忆改善存在促进作用。音乐治疗通过聆听音乐、演唱或者即兴演奏等方式，使治疗师帮助被治疗者缓解疾病症状，改善身心健康。现代音乐治疗以应用性强、疗效突出且无副作用等特点，从最初应用于恢复士兵心理、生理机能，迅速发展到各类疾病的临床治疗中。与单纯药物治疗相比，音乐治疗与药物治疗相结合的方式显示了其独特的优势。目前音乐治疗已在精神分裂症及认知功能的改善等方面取得显著成效。其中，中央音乐学院高天教授曾将聆听歌曲和音乐记忆力训练技术（musical memories training, MMT）结合，应用于阿尔兹海默症患者并肯定了音乐治疗对记忆功能的改善作用。另外，研究发现团体心理治疗具有改善人际沟通、构建社会支持体系等特性，适用于医院，对提高疗效具有积极作用，是公认的有效的医学干预方式之一。既往已有大量研究发现团体音乐治疗可通过认知技能训练增强患者的额叶功能，激活广泛分布的双侧脑区网络，使注意力、记忆力等认知功能得以改善。本研究为进一步探索团体音乐治疗对精神分裂症患者记忆损伤的改善作用，构建相应的治疗方案，促进其尽快恢复社会功能，为精神分裂症患者记忆损伤的改善提供新思路。 目的 探索构建团体音乐治疗对精神分裂症记忆改善的治疗方案

方法 本研究是一项单中心、评分员盲法病例对照研究，本项目筛选首都医科大学附属北京安定医院的住院精神分裂症患者 60 名，经过入排标准、量表评估后，按随机数字表法随机平均分配至音乐治疗组和正常治疗组，每组各 30 人，音乐治疗组每组人数控制在 8-12 人，入组后进行音乐治疗 12 次，每次 30 分钟，持续 2 周的音乐治疗，而正常治疗组按常规诊疗，无特殊干预，所有受试者在基线期（t0）、2 周（t2）时接受认知功能评测。

结果 有记忆损伤的精神分裂症患者经团体音乐治疗后记忆损伤明显改善

结论 团体音乐治疗对有记忆损伤的精神分裂症患者有一定治疗效果。

关键字：团体音乐治疗；精神分裂症；记忆损伤

医务人员对老年重性精神病居家患者远程康复指导的实践分析

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目的 探讨医务人员借助“互联网+”模式（微信和或微信群）对老年重性精神病居家患者远程康复指导的价值。

方法 随机选取长期居家服药的老年（50-85 岁）重性精神病患者共有 66 名，在 2022 年 3 月~2023 年 2 月期间，对其中的 33 例患者为对照组，进行门诊常规康复指导，另外的 33 例患者为观察组，在门诊常规指导外，再借助微信（群）给予强化康复指导，指导居家服药注意事项、讲解足量足疗程治疗的必要性，做好药品不良反应防范、监测、处置，规范居家照护、提升医嘱治疗方案的依从性，促进患者康复、减少病情复发等等。对比两组患者的睡眠质量、社会适应能力、焦虑状态等生活质量的影响，相关数据应用统计学专业软件 SPSS（21.0 版）处理，评分用（平均值 x 士 s）表示，t 检验，认为 $P<0.05$，有统计学意义。。

结果 观察组患者在线上强化康复指导干预后，睡眠质量、生活质量等都有所提升，焦虑症状也明显改善，相比于对照组，具有明显的优势，$P<0.05$。

结论 医务人员借助“互联网+”模式（微信和或微信群）开展远程强化康复指导，能够有效改善老年重性精神病长期居家患者的睡眠质量、焦虑状态，提高了其生活质量和社会适应能力，促进康复，值得推广开展。

关键字：远程康复指导 老年重性精神病居家患者 睡眠质量 焦虑状态

接受式音乐治疗对一例焦虑障碍儿童实践干预的应用研究

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目的 本案例阐述了一名 8 岁的正在上 2 年级的焦虑症（特定学校焦虑）患者天天（化名），在无法正常入学半年后，来到我院治疗。医生给予药物治疗和心理治疗一个月后无效，转介给音乐治疗师。

方法 音乐治疗的方法有很多种，可以分为接受式、再创造式、即兴演奏式和创造式四大类。接受式音乐治疗指的是，来访者在聆听音乐的同时，以语言的方式、非语言的方式或者通过其他媒介对音乐产生反应。治疗师给天天做音乐治疗评估后，采用音乐肌肉渐进放松技术和安全岛技术，共 8 次，分每周 2 次，每次 1 小时对患者开展音乐治疗。在首次治疗之前，给患者做焦虑自评量表（SAS）得分 71 分，为重度焦虑。首次治疗中，音乐治疗师采用音乐肌肉渐进放松技术给患者引导全身放松，引入海边的放松情景。第二次治疗中，引导全身放松后，引入想象带患者走在校园的门口，患者明显肌肉紧张后治疗师又采用音乐肌肉渐进放松技术。在后面的治疗中加入安全岛技术进行治疗。

结果 8 次治疗结束之后，患者焦虑自评量表（SAS）得分 39，属于正常范围。能够正常入学，后

续治疗师追踪一年，患者均能正常入学。

结论 接受式音乐治疗针对特定环境的焦虑症患者，不仅仅能明显改变症状，还能帮助患者进行正常的生活和学习。

关键字：接受式音乐治疗 、音乐肌肉渐进放松技术、安全岛

音乐治疗对一例选择性缄默症儿童的疗效评估

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目的 本案例呈现一名 8 岁正在读二年级的小学生千千（化名），在遭受一次校园暴力后，缄默半年。来我院儿少精神科求医后，一个月药物与心理治疗无效后，转介给音乐治疗师，治疗一个月痊愈出院。

方法 音乐治疗师采用歌曲演唱、音乐律动、音乐聆听和即兴演奏式音乐治疗的方法予以治疗。音乐治疗师通过评估患儿，设定每周两次，一个月共 8 次的音乐治疗计划。在评估中得知，千千长期遭受父亲的言语和家庭暴力，养成胆小懦弱的性格，学习成绩差，在一次与同学冲突遭受学校暴力后，虽能坚持上学但是不愿意再开口说话，只用点头和摇头来表达自己的需求。第一次音乐治疗活动中，采用音乐聆听，放松患儿的情绪，给患儿弹唱他喜欢的小儿歌，拉着他的手跳舞。天天很明显的紧张情绪得以放松，开心的咧嘴笑。在第二次音乐治疗活动中，我邀请他和我一起唱歌，我来唱歌词，他接歌词的最后一个字并用“啊”来代替，我惊喜的发现他可以用“啊”来演唱整首小星星的歌曲。在第三次音乐治疗活动中，我们加入了即兴演奏式的音乐治疗方法，他选择口风琴，通过吹奏练习口腔的力量，后又选择架子鼓来宣泄情绪。在第四次音乐治疗活动中，选择了歌曲演唱的音乐治疗方法，他愿意开口和我一起唱歌了。在后面的治疗中，我们又邀请了其他儿少精神科的小朋友们与我们一起即兴演奏，演唱歌曲。最后一次音乐治疗活动中，医生、千千的母亲、小朋友们和千千共同参与进来，给予孩子快乐与支持。

结果 千千经过一个月的音乐治疗，已经恢复了交流能力并且顺利入学。他的父亲经过医生的心理疏导也改变了对千千的教育方法。

结论 音乐治疗对于选择性缄默症儿童的治疗效果显著。

关键字：音乐治疗、歌曲演唱、即兴演奏式音乐治疗

抑郁他评和自评量表一致率分析及项目分变化

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目的 了解抑郁障碍患者不同自评量表及他评量表在临床严重程度评估中的一致率。

方法 对 81 名 2023 年 3 月至 2023 年 6 月在北京大学第六医院就诊的抑郁障碍患者及 83 名健康被试进行调查，收集人口学信息，所有受试者均在当天完成两份自评问卷：抑郁自评量表及病人健康问卷。同时由经过培训的医生完成汉密尔顿抑郁及汉密尔顿焦虑量表（17）评估。对资料进行统计学分析。

结果 研究纳入 164 名被试，抑郁组 81 人，健康组 83 人，人口统计学特征中，性别及抽烟喝酒未见明显差异性，年龄、家族史、婚姻状态存在差异性。量表得分示抑郁组 HAMD 均分 19.47±5.346，SDS 均分 55.67±8.302，PHQ-9 为 17.07±4.952，与健康组存在显著差异。依照 ICD-10 诊断轻中重度抑郁障碍，HAMD 区分健康者与抑郁患者的 AUC 为.994，SDS 为.885，PHQ-9 为.957，区分严重抑郁患者与轻中度抑郁患者的 AUC 分为别.808、.791、.708。在抑郁组中行相关性分析，HAMD 与 SDS、PHQ-9 分别为中相关及低相关（r 1=.497，r2.=391；P＜.005）。其中焦虑亚组 HAMD 与 SDS、PHQ-9 相关性差（r 1=.251，P1 =.299；r2=.170，P2 =.487）；非焦虑亚组 HAMD 与 SDS、PHQ-9 存在中等相关（r 1=.503，r2 =.401；P2＜.005）。重度抑郁亚组中 HAMD 与 PHQ-9 相关性差（r =.198，P=.130），与 SDS 存在低相关（r=.320，P =.013）；轻中度抑郁亚组 HAMD 与 SDS、PHQ-9 存在中等相关（r 1=.516，P=.017；r2 =.458，P2=.037）。由于 HAMD 中不同的项目最高分不同，使用加权平均值排名，在全身症状（.685）、入睡困难（.64）、抑郁情绪（.62）三个项目中加权平均值最高，激越（.145）、迟缓（.13）、性症状（.13）最低。

结论 三个量表均能较好的区分患者与健康人群及轻中度与重度抑郁患者。自评量表与他评量表的相关性随着 HAMA 评分及疾病严重程度的升高明显下降，提示严重焦虑及抑郁的患者对自身病情评估的误差更大，在此类患者中，自评量表对临床症状反映的准确性有待考察。另一方面，与既往研究相比，汉密尔顿因子分产生明显变化，可能与抑郁症相关知识的普及相关。

关键字：抑郁症；抑郁严重程度；汉密尔顿抑郁量表；抑郁自评量表；病人健康问卷

艺术治疗联合心理护理在精神分裂症患者中的应用

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目的 探讨艺术治疗联合心理护理在精神分裂症患者中的应用价值

方法 从本院 2022 年 1 月～ 2023 年 1 月收治的慢性精神分裂症患者中，选取 86 例慢性精神分裂症患者随机分为观察组（43 例）和对照组(43 例),对照组患者接受常规护理干预，对照组患者在常规康复护理基础上增加音乐，舞蹈，绘画艺术治疗联合心理护理干

预。两组均干预 8 周，比较两组干预前后的社会功能缺陷量表（Social Disability Screening Schedule,SDSS 评分）及生活质量评价量表(SF-36 评分)等评分变化情况。

结果 观察组精神分裂症患者在经过艺术治疗联合心理护理观察组干预前 SDSS 评分 12.25±2.41，干预后评分 7.23±1.06，对照组干预前 SDSS 评分 12.05±2.54，干预后评分 9.46±1.52，观察组干预后低于对照组干预后，而观察组干预后 SF-36 评分 78.46±3.26，对照组干预后 SF-36 评分 63.71±2.55，观察组高于对照组（P＜0.05）。

结论 实施艺术治疗联合心理护理干预在慢性精神分裂症患者的康复过程中能够产生较高的应用价值，不仅能够在一定程度上提高慢性精神分裂症的临床效果，有效的改善患者病情和心理状态，社会功能缺陷情况，更能提升患者的生活质量，促进患者康复。

关键字：艺术治疗；心理护理；慢性精神分裂症患者；生活质量

大脑形态学特征预测强迫症临床治疗疗效

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目的 强迫症的一线治疗方法包括药物治疗(选择性 5-羟色胺再摄取抑制剂)和心理治疗(认知行为疗法/暴露与反应疗法)，但仍有约 25%的患者治疗效果不佳。开发可以有效预测强迫症治疗效果的生物标记物有助于提高医疗效率，节省治疗成本。大脑形态学特征具有良好的稳定性与可靠性，在预测疗效上具有良好的应用前景。本研究旨在探索使用强迫症患者大脑形态学指标预测药物治疗和团体心理治疗的疗效。

方法 80 名患者在基线接受了磁共振扫描，随后 40 名患者接受了 12 周的药物治疗，而另外 40 名患者接受了 12 周的团体心理治疗。我们在体素水平上探索了两组患者大脑形态学特征与疗效的关系，并提取出可以显著预测的指标，使用一般线性回归来识别整体的预测性能。

结果 大部分可以预测疗效的指标(左侧中央后回沟深，右侧中央旁小叶沟深，左侧顶上小叶沟深，左侧缘上回沟深，左侧顶上小叶复杂度，右侧缘上回复杂度，左侧脑岛褶皱度，左侧中央前回褶皱度)在预测药物治疗和团体心理治疗的疗效上没有显著差异，而只有右侧颞中回的体积仅能预测药物治疗疗效而无法预测心理治疗疗效。一般线性回归结果显示：大脑形态学指标预测的疗效与实际疗效具有很高的相关性(整体疗效：$r=0.677, p<0.001$；药物治疗：$r=0.783, p<0.001$；团体心理治疗：$r=0.573, p<0.001$)。

结论 大脑形态学特征可以有效预测强迫症药物治疗和团体心理治疗的疗效。

关键字：强迫症；大脑形态学特征；疗效预测

医学心理科病房实行人性化护理的措施分析

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目的 探究人性化护理在医学心理科病房中的实际应用价值

方法 选取我科 2023 年 01 月-2023 年 05 月收治的 347 精神病患者中选 100 例作为研究对象，并且将其随机分为 S 组和 D 组，每组各 50 例患者。D 组采用常规的方式进行护理干预，S 组在常规护理的基础上采用人性化护理措施。D 组采用常规的方式进行护理，按照规定辅助患者用药、宣教，按时输液治疗和查房的基础性护理。S 组患者在采用常规的护理方式基础上进行人性化护理，具体措施如下所示：首先，环境护理。护理人员为患者提供安全、温馨的住院环境，包括床单元采用绿色格子、塑料床头柜、张贴暖心的安全宣教、病房温度、湿度适宜、光线充足、每个房间配备卫生间（马桶、洗手池、淋浴）等，地面采牛筋塑料胶防滑地垫，走廊张贴高血压、糖尿病、精神疾病等相关知识。对患者生活上进行照顾，最大程度的满足患者的合理需求。其次，在情感支持和健康教育的角度，护理人员加强与患者及家属的沟通，不定时进行安全及相关知识宣教。病区采用半封闭管理模式，嘱咐患者家属 24 小时陪伴患者，给与患者家庭的温暖和亲情的支持。同时医护人员积极鼓励患者多参加病区活动提高患者之间社交能力，对于病情较轻的患者予以一定的健康教育，目的就是为了提升患者的自我健康保护意识，提高服药依从性，从而促进患者的病情康复。再次，采取人性化和半封闭式的管理手段。在对患者进行人性化护理过程中充分尊重患者的人格，责任护士每天有计划对分管患者按护理等级进行宣教，定期对于患者开展文化娱乐活动（节日活动、季度生日会），病区还设有阅览室、象棋、扑克等活动从而丰富患者的日常生活。如果有特殊需求，经过床位医生评估病情后由家属签署请假告知书方可离开，在规定时间内返回病区。最后，加强护理人员的人性化护理理念。科内需要定期为护理人员进行培训，灌输人性化护理理念以及患者住院期间存在安全隐患能够及时评估并及时制定出防范措施，以此提升护理人员工作责任心。

结果 S 组患者在接受到人性化护理之后的病情好转情况要高于 D 组，（P＜0.05）；S 组患者的家属对于护理满意度要高于 D 组，（P＜0.05）

结论 对医学心理科病房采用人性化护理能够有效减少患者的住院时间，在降低患者住院期间护理风险的基础上还能够提升护理满意程度以及增进医护患关系，减少医护患纠纷。

关键字：医学心理科病房；人性化护理护理措施

潮水般的痛：发展性创伤、解离和自我隔离

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目的 本研究的目的是探讨发展性创伤、解离和自我隔离之间的关系，并深入了解它们对个体心理功能和临床障碍的影响。

方法 我们采用了综合性的研究方法，包括文献回顾、临床案例分析和定量研究。我们回顾了相关文献，探讨了发展性创伤、解离和自我隔离的概念和理论基础。同时，我们分析了一些临床案例，以了解发展性创伤、解离和自我隔离之间的实际联系。此外，我们还进行了一项定量研究，以验证发展性创伤、解离和自我隔离之间的关联。

结果 解离是与儿童时期的关系创伤经历有关的临床障碍的关键机制。发展性创伤，如虐待、忽视和与照顾者的互动中断，可能导致自我分裂，破坏不同经历和记忆的整合。这种分裂可以表现为解离症状，涉及意识、记忆、身份和感知正常功能的破坏。 解离可以作为一种防御机制，使个体能够与压倒性或创伤性经历断开联系，从令人痛苦的事件中创造心理距离。然而，长期和严重的解离可能对心理功能产生不利影响，并促使临床障碍的发展。 研究表明，解离与一系列临床障碍密切相关，包括解离性障碍、创伤后应激障碍（PTSD）、边缘型人格障碍和其他与创伤相关的障碍。解离可以加剧这些障碍的症状，如侵入性记忆、情绪调节困难、身份扰乱和人际关系困难。 此外，解离还可能影响治疗过程。具有解离症状的个体可能难以保持连贯的自我感，使他们难以参与治疗并整合创伤经历。了解解离与根植于儿童时期关系创伤经历的临床障碍之间的联系对于有效的诊断和治疗至关重要。针对解离并促进整合分裂经历的治疗方法可以有助于帮助个体从发展性创伤的影响中康复。 研究结果表明，发展性创伤与解离之间存在密切的关联。发展性创伤经历的个体往往会借助解离来应对过度压倒性的经历，以保持心理距离。然而，长期和严重的解离可能导致自我隔离，破坏个体的心理功能和行为表现。解离还与一系列临床障碍密切相关，包括解离性障碍、创伤后应激障碍和边缘型人格障碍。

结论 综上所述，发展性创伤、解离和自我隔离之间存在紧密的关系。了解这种关系对于有效诊断和治疗发展性创伤所导致的临床障碍非常重要。针对解离和促进自我整合的治疗方法可能对帮助个体从发展性创伤中康复起到关键作用。进一步的研究还需要探索发展性创伤、解离和自我隔离之间的机制和干预方法，以提供更有效的治疗策略。

关键字：发展性创伤、解离、自我失联、心理功能、临床障碍、解离性障碍、创伤后应激障碍、边缘型人格障碍、治疗策略、干预方法

一例肝豆核变性所致精神障碍的诊疗

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目的 一例以精神症状为首发症状的肝豆状核变性患者的病历分析，探讨肝豆状核变性所致精神障碍的临床表现，以提高对该病的认识。特别是在青壮年群体中，常被误诊为精神分裂症，这对患者的及时诊断和治疗并不利。临床上遇到可疑患者时应能够考虑到该疾病的可能性，防止误诊或延误病情，从而做到早期诊断、早期治疗。

方法 通过病历分享的形式

结果 肝豆状核变性(hepatolenticular degeneration，HLD）又名 Wilson 病（由 Wilson1912 首先报道和描述），是一种常染色体隐性遗传的铜代谢障碍性疾病，以铜代谢障碍引起的进行性加重的肝硬化、锥体外系症状、精神症状、肾损害及角膜色素(K-F)环等为主要特点。其致病基因 ATP7B 定位于 13 号染色体长臂（13q14.3）流行病学：HLD 的世界范围发病率为 0.5~3/10 万，致病基因携带者约为 1/90。在我国较多见，HLD 也是至今少数几种可治的神经遗传病之一，关键是早诊断、早治疗，晚期治疗基本无效。

结论 对于不明原因的精神异常,家族中存在肝病史的,尤其是青少年者,需高度警惕该病。本病应坚持终身治疗,如早期确诊,予以驱铜治疗,可防止肝脏和神经症状的发生,如已发生也可得到改善。未经治疗的病人多在症状发生后数年内死亡。总的来说，在驱铜的基础上联合抗精神病药物控制精神症状,并密切监测锥体外系不良反应,HLD 患者的整体社会功能均会有所改善。

关键字：肝豆状核变性；肝豆核变性所致精神障碍

Adjunctive Continuous Theta Burst Stimulation for Major Depressive Disorder Or Bipolar Depression: A Meta-analysis of Randomized Controlled Studies

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Objective As a novel therapeutic form of theta burst stimulation (TBS), continuous TBS (cTBS) has shown mixed results for major depressive disorder (MDD) or bipolar depression (BD). Thus, we performed a meta-analysis of randomized controlled trials (RCTs) using cTBS for an acute depressive episode in patients with MDD or BD.

Methods A systematic research was conducted in four major bibliographic databases (PubMed, EMBASE, Cochrane Library, and PsycINFO) from inception dates to February 3, 2023 to identify studies. The data were analyzed using a random-effects model.

Results In total, three RCTs (n=78, active cTBS=37 and sham cTBS=41) were included. No significant differ-

ences were found in terms of the improvement of depressive symptoms as measured by Hamilton Depression Rating Scale (HAMD) (3 RCTs, n=78, SMD=-0.09, 95% CI: -0.53 to 0.36; I2=0%; P=0.71) and study-defined response (2 RCTs, n=58, 26.7% versus 21.4%, RR=1.20, 95% CI: 0.48 to 2.96; I2=0%; P=0.70) between active and sham cTBS groups. Similar rates of adverse events and discontinuation due to any reason were found between the two groups (P>0.05).

Conclusion Preliminary evidence showed that cTBS appeared to be a safe and well-tolerated option for MDD or BD patients with an acute depressive episode, although not advantage on its antidepressant efficacy was showed. Future large-scale studies are warranted to assess the antidepressant effects of cTBS for MDD or BD patients with an acute depressive episode.

关键字：Continuous theta burst stimulation; major depressive disorder; bipolar depression; meta-analysis; efficacy

贯穿中医药文化的管理措施对病区护理质量的影响分析

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目的 探究贯穿中医药文化的管理措施对精神科病区护理质量的影响分析。

方法 研究时间为 2020 年 1 月至 2021 年 12 月，自 2021 年 1 月起调整精神科护理管理方案，将中医药文化融入到病区管理中，内容包括加强病区文化建设、加强中医药文化培训、调整护理制度及流程等，研究期间内精神科病区护士未做调动，分别统计 2020 年和 2021 年的精神科护理管理数据，对比不同时期护士的中医护理知信行评分，对比不同时期精神科病区的护理管理评分，并采用问卷调查法调查了解不同时期患者对护理服务的满意度评价。结果：2021 年精神科护士在中医护理方面的认知、信念、行为评分均显著高于 2020 年，对比数据有统计学意义（P＜0.05）；2021 年精神科病区的基础护理、优质护理、服务管理、安全管理评分均显著高于 2020 年，对比数据有统计学意义（P＜0.05）；2021 年精神科患者的护理满意度为 98.9%，显著高于 2020 年的 91.1%，对比数据有统计学意义（P＜0.05）。

结论 贯穿中医药文化的管理措施能够显著提高精神科病区护理管理质量，提高了精神科护士在中医护理方面的知信行评分，也改善了患者对护理服务的满意度评价，值得在临床上推广和应用。

关键字：精神科；中医药文化；中医护理；护理管理；满意度

运动以及建立身心联系在心理疾病康复中的应用

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目的 心理疾病患者在经过系统的医疗机构或者相应的辅助咨询之后，如何在回到之前的生活与工作中仍然可见保持稳定而健康的情绪状态和生活习惯，这点关乎与心理疾病患者能否很好的延续治疗效果以及有质量的生活的关键点。本研究意在为心理疾病患者提供一种可量化、可参考的方法和范例。来提升患者在治疗结束之后的生活质量以及识别预防心理疾病的复发。

方法 本研究通过六名实施人员以及两名专业运动员参与研究与记录。参与本研究样本为 15 名。通过对样本身体状态的评估以及遵循初学者建立运动习惯的规律为前提。第一阶段为：建立规律的运动习惯。遵循先少后多、先慢后快的健康运动理念，在 21 天内制定科学的运动计划。运动频率为一周三次，强度与距离根据当天样本的状态灵活制定。在运动手环与专业运动员的观察与评估下，避免运动损伤以及心肺损伤。第二阶段：在第一阶段的基础上提升身体感知能力，建立身心联系。由专业的运动程序来科学分析神经递质的分泌时间和阶段，强化身体感知能力。第三阶段：在神经递质的影响下进一步强化运动带来的愉悦与强大，真正做到把运动习惯变成日常生活的一部分，在后续的生活中继续强化身心联系以及运动带来的变化，进入良性循环。

结果 在所选样本中有 13 名成员在心理治疗的过程中完成了运动任务。其中呈现出了一些因为运动配合程度以及运动强度不同而产生的差别:1.运动产生的愉悦感以及与之相关的身心联系的建立与运动配合程度成正比。2.运动强度与运动产生的愉悦感呈现相关关系。因运动强度的提升基于样本身体素质以及心理疾病的严重程度有关，因而需要综合参考。3.成功的建立身心联系的样本在回归原本的生活以及工作中，都展现出了较之前更自信的状态，胜任力更强。人际交往能力也因为自信的状态有所提升。

结论 培养运动习惯，建立身心联系在心理疾病患者治疗以及回归原本生活与工作中具有积极的促进作用。但是，在诸如身体素质、对运动的接受程度以及心理疾病的严重程度不同时，呈现的积极作用有所影响。因此何时、何法让心理疾病患者在接受医疗以及药物治疗的同时，接受运动辅助治疗是一个比较关键的点。 基础设施的完善以及在社会文化的影响下普罗大众对运动和健康的重视以及接受程度仍然在无形中影响着运动在心理疾病疗愈过程中的进步。而这一点则需要整个社会和几代人的共同努力与铺垫。

关键字：神经递质分泌 建立身心联系 自信心与胜任力恢复

精神病患者被实施保护性约束的护理措施

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目的 通过对保护性约束的护理措施的分析，来提高干预的有效性，从而进一步保证患者的安全及生理心理最大程度的舒适度，避免并发症的发生。

方法 1、保护约束前的护理：⑴评估患者的躯体状况；⑵评估患者的配合程度；⑶做好与患者及患者家属的解释沟通工作，告知保护约束的目的；⑷控制现场环境，并将被保护约束的患者单独隔离在安全的环境内。2、保护约束中的护理：⑴再次评估患者躯体情况；⑵记录躯体情况并与患者家属沟通；⑶加强巡视，注意被约束部位的皮肤及血循情况；⑷加强生活护理；⑸加强心理护理，观察患者情绪变化，并及时安抚情绪。3、保护约束后的护理：⑴评估患者躯体情况及情绪状态；⑵加强心理护理，帮助患者进一步认识被约束的原因，减少仇恨心理；⑶适当的言语鼓励，增强患者治愈的信心，减少孤独感及被歧视感。

结果 通过上述护理措施，能得到患者与家属的充分理解及配合，能有效的提高安全性，从而减少意外事件的发生，能有效避免并发症的发生，能减少约束的时间，能提高患者治疗的依从性。

结论 精神病患者在被实施保护性约束时，通过耐心的沟通、严谨的评估、细致的工作，能明显提高干预的有效性，从而缓解精神临床症状，提高患者的治疗效果和生活质量，进而提高了护理的整体质量。

关键字：保护约束 精神病 护理

民族心理与精神医学学组

EQUIP——循证且免费的心理干预培训平台

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背景 全球大多数有精神疾病的人得不到有效的治疗。在 2.8 亿罹患抑郁的人群中，高收入国家每 5 人只有 1 人得到了合适的最低限度治疗，中低收入国家每 27 人只有 1 人，部分原因是受过良好精神卫生服务培训的工作人员数量不足。为了给成人和儿童提供有效的心理支持服务，提高助人者的能力，以及保证进行训练和提供服务的规范和质量，EQUIP 应运而生（Ensuring Quality in Psychological Support，保证心理支持的质量）。

主要介绍 EQUIP 是一个免费提供员工系统培训方案的平台，目标是为基本能力的评估和提升提供资源、工具和指导，以确保接受精神卫生和社会心理支持（MHPSS）培训的人员获得要提供安全有效治疗时所需的技能。EQUIP 采用基于能力的培训方法，可以帮助培训师和督导者将所有培训转化为提供量身定制反馈的培训。EQUIP 的能力包括以下三类：给成人（ENACT 工具）或者儿童青少年（WeACT 工具）提供服务所需的基本帮助技能；团队促进技能（GroupACT）；治疗或干预的具体技能，例如，问题解决/管理、人际、认知行为和聚焦创伤的治疗技术。作为一个数字化平台，EQUIP 涉及两个领域：对学员进行能力评估的界面以及给培训师、督导者和项目协调员提供的线上课程。使用者可以自定学习进度，平台可以离线运行，也已经有了多种语言版本，天津市安定医院承接了其中文版的翻译。EQUIP 已经有多个国家测试的经验支持，它在提高培训质量方面是可靠的。

关键字：EQUIP，精神疾病，循证，心理干预，培训

多维发育模型的心理治疗：案例报道

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目的 理解心理状态的复杂性需要全面考察自然环境、社会环境、心理系统和生物因素等维度之间的相互作用。有效的干预必须涉及这些维度，以提供有针对性的支持。社会文化环境对心理问题的形成具有重要影响，需要整合社会心理学进行咨询干预。心理疗法可以增强个体弹性，促进积极的人格变化，因此从发展的角度关注治疗的影响至关重要。多维发展模型心理疗法整合了社会文化经历的心理发展，通过接纳差异促进变革。

方法 案例背景和方法介绍了一个多维发展模型心理疗法案例。该案例涉及一位 41 岁的汉族女性，根据 DSM-5-TR 诊断为目前强迫障碍，创伤后应激障碍

和既往重性抑郁障碍，存在过度顺从、僵化完美主义和多种负性情绪，其症状与成长环境和经历有关。治疗师担任倾听者、支持者和客观观察者的角色，协助来访者形成认知差异并促进个人成长。

结果 治疗结果表明，来访者的自我肯定和灵活性显著改善，抑郁、羞耻、恐惧和愤怒减少，而快乐和轻松的情绪增加，强迫行为明显减少，建设性行为明显增加。来访者的人际关系得到了改善，来访者顺从和僵化完美主义的性格特征明显好转。

结论 本研究展示了多维发展模型在心理疗法中的应用。作为一种创新的方法。多维发育模型的心理治疗将社会心理学和发育心理学整合至心理治疗之中，在注重来访者的个体属性之外，更注重其社会属性，例如集体主义文化和父权文化，将治疗环境和日常环境链接起来了，将治疗从静止的方法转变为动态发展的过程。在将来需要开展多中心的随机临床对照研究来验证这一模型。

关键字：心理治疗；社会心理学；人格发育；多维发育模型；

王阳明心学的神志病预防养生学内涵和意义

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目的 本文介绍养生的意义、神志病预防养生学（神志养生）的意义，神志养生在中医“治未病”方面的意义，探讨了阳明心学的神志养生内涵。

方法 由于现在社会压力大，内卷化的加剧，所以做好神志预防养生的身心保健更加显得重要。探讨和实践神志病预防养生及基于中国传统文化新儒家学派王阳明心学的神志病预防养生学具有更多的现实意义，并具有心理卫生保健、躯体保健和社会时代的意义。

结果 探讨了王阳明心学神志养生内涵的的心性一元论哲学、真我良知和知行合一的思想，显示了其中医传统养生文化中的神志情志调理的整体观念。

结论 体现了王阳明心学及相关的中医养生之三观：即天人合一的宇宙观、阴阳平衡的健康观、内外兼修的修养观。继承、守正和实践中医传统神志养生方法有重要意义。当今社会环境下，由于持久不良的情绪、神志而引发的心身疾病越来越多了，这些神志变动都可破坏人体内外阴阳平衡，扰乱机体气血运行，耗伤脏腑精气，从而引起各种各样的躯体疾患。明代大儒王阳明的心学思想论及了相关的神志养生内涵，契合了养生先养心这一中医养生观的体现和神志养生理念，体现出中医学天人合一、形神合一的健康观。所以继承和实践中医传统神志养生方法，对于基于现代预防医学躯体疾病的预防和保健来说都是十分必要的。

关键字：养生 神志养生 阳明心学 心性一元论哲学 传习录

A Randomized Controlled Trial of Mindfulness-based Cognitive Therapy (MBCT) for Major Depressive Disorder in Undergraduate Students in China: The Efficacy, Serum Proinflammatory Cytokines and Brain-derived Neurotrophic Factor

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Objective To examine the efficacy of mindfulness-based cognitive therapy (MBCT) for college students with major depressive disorder (MDD).

Methods A randomized control trial with an intervention arm, MBCT and control arm, Group Counseling (GC) was performed. Primary outcomes were changes in depression, anxiety and sleep condition from baseline to post-intervention (8th week) measured by the 9-item Patient Health Questionnaire (PHQ-9) , the 7-item Generalized Anxiety Disorder scale (GAD-7), and the Pittsburgh Sleep Quality Index (PSQI).

Results 1. After intervention, there were significant differences for total scores of PHQ-9, GAD-7, and PSQI within MBCT group or GC group. 2. The reduction rates of PHQ-9, GAD-7 and PSQI, total scores of FFMQ and SCS in the MBCT group were significantly higher than those in the GC group after intervention. 3. The levels of IL-1β, Il-6, IL-8 and TNF-α in MBCT group were lower than those in the GC group, and the level of BDNF in MBCT group was higher significantly than that in GC group after intervention

Conclusion Either MBCT or GC is effective for college students with MDD. The efficacy of MBCT is better than that of the GC.

关键字：Major depressive disorder; Mindfulness-based cognitive therapy; Efficacy

青少年抑郁障碍患者自杀态度影响因素相关分析

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目的 研究青少年抑郁障碍患者自杀态度的相关因素，为青少年抑郁障碍患者自伤自杀预测与后续干预方向提供依据。

方法 偶然抽样法收集自 2021 年 4 月至 2023 年 3 月芜湖市第四人民医院门诊及住院部的青少年抑郁障碍患者。使用自编一般情况调查问卷、汉密尔顿抑郁量表-17 项(HAMD-17)、自杀态度问卷(QSA)、青少年生活事件量表(ASLEC)、父母教养方式评价量表

(EMBU)及网络成瘾量表(IAT)进行调查。受试者一般情况采取描述性统计，QSA 量表各维度得分与各量表得分采用 Pearson 相关分析。将一般情况与相关分析筛选出的影响因素共同纳入多元线性回归分析。

结果 共纳入符合要求的青少年患者 158 名。其中男性 41 人(25.9%)，女性 117 人(74.1%)，平均年龄为(15.44±1.65)岁。QSA 量表各维度中，对自杀行为态度与 ASLEC 量表中人际关系、受惩罚、丧失、健康适应、其他 5 个因子及 EMBU 量表中父惩罚与严厉、父过分干涉、父拒绝与否认、父过度保护、母过分干涉与保护、母拒绝与否认、母惩罚与严厉之间存在负相关(r= -0.298～-0.159, P 均<0.05)，与 EMBU 量表中母情感温暖与理解存在正相关(r= 0.209, P= 0.009)；对自杀者态度与 EMBU 量表中 F-V 和 M-II 存在负相关(r=-0.271,-0.157, P 均<0.05)；对安乐死态度与 ASLEC 量表中其他因子存在正相关(r=0.547, P<0.01)，与人际关系、受惩罚、健康适应因子及 EMBU 中父惩罚与严厉、拒绝与否认、过度保护之间存在负相关(r=-0.299～-0.157，P 均<0.05)。多元线性回归分析显示父亲受教育程度、近期有自伤自杀行为、抑郁程度、网络成瘾与父拒绝与否认因子得分负向预测 QSA 对自杀行为态度的得分(b=-0.354～-0.085, P 均< 0.051)；父亲受教育程度、近期有自伤自杀行为负向预测 QSA 对自杀者态度的得分(b=-0.233、-0.153, P =0.014、0.045)；父拒绝与否认因子得分负向预测 QSA 对安乐死态度的得分(b=-0.031, P=0.015)。

结论 较低父亲受教育程度、近期有自伤自杀行为、更严重的抑郁程度、有网络成瘾与父亲拒绝与否认的教养方式是青少年抑郁障碍患者出现自杀态度的危险因素。

关键字：青少年;抑郁障碍;自杀态度;影响因素

Relationship between Borderline Personality Features, Emotion Regulation, and Non-suicidal Self-injury in Depressed Adolescents: A Cross-sectional Stud

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Objective Non-suicidal self-injury (NSSI) is common among adolescents and has been linked to mental disorders and suicide in addition to physical injuries. According to the empirical avoidance model, adolescents with NSSI have stronger emotional affect and poorer emotional regulation than those without NSSI, and these constitute core features of borderline personality disorder (BPD). The relationship between borderline personality features, emotional regulation, and NSSI in the population is unclear. This study explored these associations to provide a theoretical basis for the treatment of NSSI in the future.

Methods Depressed adolescents (n = 1192) were evaluated using Chinese versions of the Function Assessment of Self-mutilation Scale, Emotional Regulation Questionnaire for Children and Adolescents, and Borderline Personality Features Scale for Children.

Results The majority of depressed adolescents (71.3%, 850/1192) had demonstrated NSSI in the past year, with cutting or scratching being the most common form (57.4%). Pearson correlation analysis with NSSI as a fixed factor (NSSI = 1, no NSSI = 2) revealed a negative correlation between NSSI and borderline personality features (r = -0.314, P < 0.01) but a positive correlation between NSSI and emotional regulation capacity (r = 0.159, P < 0.01), which was positively correlated with the expression suppression dimension (r = 0.079, p < 0.01); however, there was no significant correlation between the cognitive reappraisal dimension and expression suppression (r = 0.022, p > 0.05). The occurrence of NSSI was also positively correlated with borderline personality features in general (r = 0.314, p < 0.01). These results were statistically significant. Emotional regulation played a mediating role between borderline personality traits and NSSI in adolescents with depression (effect value = 0.151).

Conclusion Borderline personality features and emotional regulation ability were significantly correlated with NSSI in depressed adolescents. Borderline personality symptoms not only directly influenced NSSI risk in adolescents with depression, but also indirectly influenced NSSI risk through emotional regulation.

关键字：Adolescents, Non-suicidal self-injury, Borderline personality features, Emotional regulation

A Study on The Predictive Effect of Psychological Flexibility on Posttraumatic Growth

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Objective To explore the psychological impact of the epidemic on college students, explore the current situation of psychological flexibility and post-traumatic growth among college students, the relationship between the two, and the predictive role of psychological flexibility in post-traumatic growth

Method Using the Acceptance and Action Questionnaire, Cognitive Fusion Questionnaire, and Posttraumatic Growth Questionnaire, an online survey was conducted on college students, and a total of 381 questionnaires were received, of which 378 were valid;

Result (1) There was no statistically significant difference in the cognitive integration and post-traumatic growth of college students in terms of place of origin, total monthly family income, and whether they were only children, but the cognitive integration level of female students was lower than that of male students (=2.058, p=0.041); The empirical avoidance of college students has no significant difference in Demography variables; There is a significant difference in the post traumatic growth of college students in the discipline (F=3.673, p=0.026); (2) The empirical avoidance of college students is negatively correlated with post-traumatic growth (r~-0.18, p<0.01): (3) Re-

gression analysis shows that empirical avoidance is a negative predictor of post-traumatic growth (B-0.484, Beta-0.179, 1-3.49, p<0.001), with a total prediction of 4.8% variance.

关键字：acceptance and commitment therapy; College students; Posttraumatic growth: psychological flexibility

焦虑的精神动力学理解

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目的 焦虑是神经症的核心症状，探讨焦虑的潜意识含义，并从精神动力学的视角进行分类。

方法 一开始简要列出几个焦虑的案例，发现它们之间的症状特点有很明显的差异。本文从精神动力学的视角探讨焦虑背后的潜意识内容，介绍弗洛伊德的人格结构理论，阐明焦虑的积极、消极含义。根据焦虑的来源将其分为原发焦虑和信号焦虑并说明各自的作用；从心理发展水平的维度概述六类焦虑（超我焦虑、阉割焦虑、失去爱的恐惧、失去爱的客体的恐惧、被迫害焦虑、崩解焦虑）的成因、特点并引出相应的心理防御机制。最后通过几个焦虑的案例来论述如何进行精神动力学的评估、建立治疗联盟以及识别移情、反移情，强调精神科医生用药物治疗和心理治疗“两条腿走路”的重要性。

结果 通过心理动力学视角与焦虑患者进行互动，可以提高精神科诊断的准确性，更容易建立治疗联盟，增进疗效。

结论 精神症状只是表面现象，我们看到的只是患者整个生活史中的一个横断面。通过精神动力学的视角去理解患者，可以推导出患者心理学方面的病因以及生活成长环境对疾病的影响，对于焦虑的理解更加精细化，结合心理发展水平的维度评估疾病的严重程度，有助于提高风险防范，提高精神科诊断的准确性，建立治疗联盟，提高疗效。精神分析性心理治疗是一种充满人性化的治疗方法。

关键字：焦虑、精神分析、心理发展、诊断

Neurocognitive Risk Markers in First-episode Major Depressive Patients with Family History

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Abstract: Objective:To explore the difference of neurocognitive function between first-episode major depressive patients with positive family history,first-episode major depressive patients with negative family history and healthy people.To explore specific neurocognitive risk markers in first-episode major depressive patients with positive family history.

Methods We recruited 536 participants,including first-episode major depressive patients with positive family history(Positive family history group,PFHG,n=171),first-episode major depressive patients with negative family history(Negative family history,NFHG,n=185) and control group(Healthy people,HP,n=180).Patients are diagnosed according to the DSM-V(Major depression disorder,MDD).Repeatable Battery for the Assessment of Neuropsychological Status(RBANS) was used to assess neurocognitive function in five dimensions(Immediate memory,Visual span,Language function,Attention,Delayed memory).Psychiatric symptoms of Patient groups(PFHG and NFHG) were assessed using Hamilton Anxiety Scale(HAMA) and Hamilton Depressed Scale(HAMD, 24 items).

Results There were significant differences in each dimensions(Immediate memory,Visual span,Language function,Attention,Delayed memory,Total score) of BRANS test scores among three groups(P<0.001).Painet groups were significant higher than control group in each dimensions of BRANS test scores(P<0.001).NFHG was significant higher than PFHG in Language function score(P<0.001) and Total score(P<0.001).In the PFHG,Language function score was negatively correlated with HAMD score(r=-0.184, P=0.016).In the NFHG,Language function score was positively correlated with HAMA score(r=0.402, P<0.001) and negatively correlated with HAMD score(r=-0.364, P<0.001).Total score was negatively correlated with the HAMD score(r=-0.158, P=0.032).In the study,Language function score(OR=-0.819, P=0.042) and Total score(OR=-0.897, P<0.001) were independent variables of the onset of major depressive patients with positive family history.Total score was an independent variable of the onset of major depressive patients with negative family history(OR=-0.765, P<0.001).ROC curve analysis results indicated that the area under Language function score and Total score(PFHG) curve were 0.967(95%CI: 0.837-0.982) and 0.991(95%CI: 0.967-0.997),the area under Language function score and Total score(NFHG) curve were 0.883(95%CI:0.846-0.917) and 0.997(95%CI:0.983-0.998).

Conclusion Each dimensions of BRANS test scores were different between major depressive patients and healthy people.The language function score and total score of RBANS were correlated with parts of psychiatric symptoms.There may be specific risk markers for neurocognitive function in major depressive patients with positive family history.Language function score and Total score of RBANS can be considered as neurocognitive risk markers associating with the onset of major depression disorder with positive family history.

关键字：Key words:First-episode major depressive patients;Family history;RBANS; Neurocognitive risk markers

基于 TOPSIS 法建立注射用齐拉西酮药物利用评价标准及其应用结果分析

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目的 基于 TOPSIS 法建立注射用齐拉西酮药物利用评价（DUE）标准，评价其在精神专科医院临床使用的合理性。

方法 以注射用齐拉西酮药品说明书为基础，参考相关指南，专家共识以及高质量的文献的相关信息，通过专家咨询法建立注射用齐拉西酮 DUE 标准，同时采用加权 TOPSIS 法回顾性分析安徽省某大型精神专科三甲医院 2022 年 1—12 月使用注射用齐拉西酮的归档病例进行合理性评价。

结果 共纳入 269 份病例，完全符合评价标准的病例仅 31 例（11.52%），注射用齐拉西酮不合理应用常见于超适应症用药（46.47%）、BPRC-EC 评分较低达不到激越的标准（69.53%）、禁忌症人群和疾病用药（0.37%）、用药疗程超过最长时限（9.29%）、辅助检查及实验室检查在治疗前未完善（32.71%）、药物相互作用风险较高（13.01%）、特殊人群给药（2.97%）和药物序贯不合理（7.06%）。

结论 建立的注射用齐拉西酮的 DUE 具有较强的科学性、实用性和可行性，该院齐拉西酮注射剂临床应用中尚存在一些问题，不合理使用的情形较多，给患者的用药安全带来风险，医院应需加强注射用齐拉西酮管控，促进临床合理用药，保障患者用药安全。

关键字：建立的齐拉西酮注射剂的 DUE 具有较强的科学性、实用性和可行性，该院齐拉西酮注射剂临床应用中尚存在一些问题，需加强管控，促进临床合理用药。

一例进食障碍的心理动力学治疗

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目的 通过对一例清除型神经性厌食症的心理动力学治疗，探讨进食障碍的心理动力学意义。

方法 采用心理动力性治疗，遵守心理治疗设置，一周一次 ，每次 50 分钟，共 26 次，形成个案概念化，探讨进食障碍的原生家庭的动力，早期母婴关系，个性特征，心理发展阶段。建立良好心理治疗关系，探讨潜意识冲突，增强自我功能。

结果 进食障碍的人格特质：完美主义（厌食）、强迫（厌食）、冲动（贪食）、自恋（对身体外表的病态关心，需要来自社会环境的确认和接纳， 以及强烈的人际关系敏感）。社会依赖和自主：社会依赖表现在对他人的接纳与赞成的关注，自主指对独立、控制与成就的倾向。进食障碍患者中出现社会依赖与高自主的混合表现。神经性贪食症更与社会依赖相关联。 进食障碍的精神动力学理解：进食障碍具有明显的“口欲期”特征。表现为：指向食品的各种矛盾情感，而食品对于口腔而言，具有代表母亲或者养育性自体客体的象征意义。把它看作一种成瘾的表现，和其他成瘾者一样，他们只是为了让自己“愉快”才必须这样做，而不是为了争取真正的满足或者减轻孤独而采取一些行动。 食物是最早的自体客体，母亲和孩子之间的桥梁，作为一种象征物，代表了现实中或者曾经的与母亲有关的所有一切。食物的自体客体功能反映了一种养育的功能。这包含了三个主要方面：——食物作为一种自体客体的替代物在过往的使用；——在生理和心理状态的调节过程中对食物的使用；——自体客体幻想对于食物和进食活动的复杂影响。 从这种层面上来理解养育，食物不仅只是一般的食粮，它还是“心灵食粮”，象征了母亲或者后来的照料者的抚养和关怀的功能。 经典精神动力学认为，神经性厌食症是一种对口唇受孕恐惧的防御，之所以要回避食物，是因为食物象征性地等同于性和怀孕，这种焦虑在青春期不断增强。后现代心理动力学理论认为，不能发展出充分的自我感觉导致了神经性贪食症，母女之间的冲突型的支配关系造成了女儿不能发展出充分的自我感觉。食物成为这种失败关系的象征，女儿的暴食和泻出代表了需要妈妈和拒绝妈妈的冲突。

结论 咨询策略：进食障碍患者最离不开的是自己通过幻想切断与现实、与他人的任何联系，排斥任何可能的帮助与支持，咨询策略就需要消除幻想、一点一点进入现实。进食障碍的本质在于过度控制、痛苦的完美主义和固执的自我憎恶和戕害，进食障碍背后的核心根源在于缺爱。

关键字：进食障碍，动力性心理治疗

尿石素在精神疾病中的神经调节作用及应用前景

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目的 精神疾病是一类在各种环境因素影响下，大脑神经功能失调，导致认知、情感、意志和行为等精神活动异常且病因未明的疾病。随着疾病发病率的不断上升，又无明显减缓疾病进展的有效药物，这严重影响了患者的心身健康和生活质量。尿石素类化合物是鞣花单宁体内代谢产物及效应成分，具有抗炎、抗氧化应激、抗凋亡等生物活性，可通过血脑屏障发挥神经保护作用，是调节神经精神疾病的潜在活性小分子。本文主要对近年来国内外有关尿石素在精神疾病中可能存在的神经调节作用机制及治疗的潜在应用价值进行综述，以期为精神疾病的机制研究提供新方向，为尿石素在精神疾病治疗中的药物开发及科学利用提供新思路。

方法 本文从尿石素的结构和分类、尿石素的生物活性（包括抗炎、抗氧化应激、抗凋亡）及神经调节作用机制出发，对尿石素对精神疾病的保护作用进行综述，为寻找精神疾病的新药开发和治疗方式提供思路。

结果 尿石素是一类在神经调节方面具有明确生物活性的天然代谢小分子化合物，国内外研究表明尿石素类化合物可通过特有的神经调节功能发挥神经保

护活性进而改善神经元损伤和认知障碍，在神经精神疾病的研究中表现出明显的活性作用。

结论 尿石素的神经调节作用并不是某个单独的生物活性在起作用，而是表现出所有活性相互促进共同作用的结果。对尿石素有效的结构成分以及神经精神疾病方面的活性潜力进行深入的药理学研究，能为精神疾病的药理作用机制研究提供新方向。

关键字：尿石素；精神分裂症；抑郁障碍；神经调节

The Impact of Illness Duration on Brain Activity in Goal-directed and Habit-learning Systems in Obsessive-compulsive Disorder Progression: A Resting-state Functional Imaging Study

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Objective The structural and functional changes in brain regions associated with obsessive-compulsive disorder (OCD) are often related to the development of the disease. However, limited research has been conducted on how the progression of OCD may lead to an imbalance between goal-directed and habit-learning systems. We aimed to explore the relationship between duration of illness and imbalance of goal-directed and habitual-learning system.

Methods This study employs resting-state functional imaging to examine the relationship between illness duration and abnormal brain activity in goal-directed/habitual learning systems. Demographic, clinical, and multimodal fMRI data were collected from participants.

Results Our findings suggest that 1) OCD patients display reduced brain activities in both goal-directed and habit-learning brain regions, with a greater reduction observed in various fMRI indicators for goal-directed regions; 2) Abnormal brain activity is associated with illness duration; 3) The abnormalities observed in goal-directed regions are more effective in distinguishing different courses of OCD patients.

Conclusion Our results provide further evidence that impairment of goal-directed-related brain regions may contribute to OCD progression by disrupting the balance between goal-directed and habit-learning systems.

关键字：obsessive compulsive disorder; goal-directed; habitual-learning; duration of illness;

公立本科院校教师职业高原现状及相关社会心理因素分析与对策

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目的 职业高原是指员工在其职业发展进入到某个特定阶段时，由于客观因素和主观因素的影响,其晋升和承担更大责任的机会微小,不能获得新的知识与技能的一种状态。研究表明，职业高原（内容高原、中心化高原及层级高原）和工作倦怠关系密切，职业高原同样影响离职倾向。高校教师职业高原现象受到来越来越多的关注，本科生的培养目标简而言之就是学会学习，学习创新，学会合作。教师是本科人才培养的重要中坚力量，也是容易出现职业高原现象的主要群体。本研究旨在了解公立本科院校高校教师职业高原现象成因并有针对性的进行应对策略探讨，为高等教育事业健康发展在职业高原方面提供相应的理论依据和参考意见。

方法 本调查随机选取了辽宁省公立本科院校教师作为研究对象，一般情况资料包括：性别、年龄、婚姻状况、学历、职位级别、工龄、目前岗位工作时间、上级评价、自我评价和年终总评价。结合疫情防控等及高校特殊情况等要求，最终采用电子问卷形式调查。研究工具选用工作倦怠量表、 离职倾向问卷、应对方式问卷、组织支持问卷和职业高原量表。采用 SPSSAU 进行描述、汇总、方差、相关及回归分析，探讨各变量因素之间关系。

结果 离婚群体多发职业高原现象；36-45 岁为职业高原、职业倦怠及离职意向多发群体；大专学历最易出现职业高原。副高级更容易出现职业高原、职业倦怠及离职意向。工龄 16-25 年群体更容易出现职业高原。离职意向与组织支持,职业倦怠, 职业高原之间的相关系数值呈现出显著性，应对方式、职业倦怠会对离职意向产生显著的正向影响关系。组织支持会对离职意向产生显著的负向影响关系。

结论 作为公立本科院校教师，职业高原的存在是不可避免的现象，当具有中级、副高级职称教师感觉到自己的才华无用武之地，在工作中无法获得价值感，看到未来的职业发展前景不理想时，就会产生工作倦怠，进而产生离职意向。公立本科院校应建立切实可行的绩效评价体系，完善系统化继续教育培训，营造良好的高校文化及和谐的人际关系，提升高校教师主观幸福感，形成基于教师满意的人力措施，确立预报预警机制。高校要让本单位教师感受到来自人际关系的温暖和幸福，尤其对 36-45 岁之间、本岗工作 10 年、离婚的高校教师重点关注。平时更应该学习积极问题应对，避免消极应对，通过社会支持和有益身心的兴趣爱好，及时缓解工作倦怠及不良情绪，预防离职意向发生。

关键字：职业高原 职业倦怠 应对方式 社会支持

米氮平联合草酸艾司西酞普兰片治疗抑郁症的临床疗效研究

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目的 对米氮平联合草酸艾司西酞普兰片治疗抑郁症的临床疗效进行研究。

方法 本次的研究对象选为2022年2月份至2023年1月于我院进行治疗的50例抑郁症患者，按照数学随机法将所有患者分为两组，将对照组患者分为两组，将对照组患者治疗方式设定为草酸艾司西酞普兰片进行治疗，实验组患者则在对照组治疗的基础上加以米氮平进行治疗，可依据 HAMD-17 评分来对其进行对比记录，比较两组患者的疗效。本次的研究对象选为2022年2月份至2023年1月于我院进行治疗的50例抑郁症患者，按照数学随机法将所有患者分为两组，将对照组患者分为两组，将对照组患者治疗方式设定为草酸艾司西酞普兰片进行治疗，实验组患者则在对照组治疗的基础上加以米氮平进行治疗，可依据 HAMD-17 评分来对其进行对比记录，比较两组患者的疗效。本次的研究对象选为2022年2月份至2023年1月于我院进行治疗的50例抑郁症患者，按照数学随机法将所有患者分为两组，将对照组患者分为两组，将对照组患者治疗方式设定为草酸艾司西酞普兰片进行治疗，实验组患者则在对照组治疗的基础上加以米氮平进行治疗，可依据 HAMD-17 评分来对其进行对比记录，比较两组患者的疗效。

结果 实验组和对照组患者的 HAMD-17 均有改善，但前者更优于后者，本次实验数据存在差异性，具有统计学意义（P<0.05)。

结论 米氮平联合草酸艾司西酞普兰片较单一使用草本艾司西酞普兰片来说临床效果更为理想，可广泛推广于临床医学研究中。

关键字：草酸艾司西酞普兰片；米氮平；抑郁症；临床研究

“五受”心理治疗策略对恐惧症患者近期和远期疗效观察

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目的 探讨自创的“五受”心理治疗策略对恐惧症患者的近期疗效和远期疗效。

方法 选择玉林市退役军人医院在研期间收治的80例恐惧症患者为研究对象，随机分为试验组和对照组各40例，两组患者入组后均给予选择性5-羟色胺回收抑制剂（SSRIs）药物治疗，试验组患者在前述药物治疗基础上同时进行“五受”心理治疗策略治疗，分别于治疗前、治疗后4周和8周以及随访4个月、8个月和12个月用焦虑自评量表（SAS）、抑郁自评量表（SDS）和社会支持评定量表（SSRS）评价两组患者的近期和远期疗效。

结果 重复测量方差分析结果显示，两组患者SAS、SDS、SRSS总分比较差异均有显著统计学意义(F=181.35, F=461.052, F=365.48, P 均＜0.01)；治疗后SAS、SDS总分均呈下降趋势，SRSS总分呈上升趋势(F=713.35, F=3723.68, F=1348.15, P 均＜0.01)；两组患者治疗前后SAS、SDS、SRSS总分均存在组间*时间交互效应(F=33.51, F=151.69, F=87.48, P 均＜0.01)。进一步简单效应分析显示，研究组SAS总分治疗后第8周起、SDS总分治疗后第4周起即低于对照组(P＜0.01)，SRSS总分治疗后第4周起即高于对照组(P＜0.01)；与治疗前比较，两组患者第4周SAS、SDS、SRSS总分差异均有统计学意义(P＜0.01)，研究组SAS、SDS总分治疗后第4个月才停止下降，优于对照组(P＜0.01)。

结论 恐惧症患者在SSRIs药物治疗基础上联合整合式的“五受”心理治疗策略治疗，有利于改善恐惧症患者的焦虑和抑郁状态，提高患者健康状况和社会生活质量，近期和远期疗效较好。

关键字：恐惧症；“五受”心理治疗策略；疗效；生活质量

针刺心肝肾原穴治疗气郁化火型郁证的临床疗效观察

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目的 精神科诊断抑郁发作，符合中医诊断郁证，气郁化火型，两组患者全部口服 5-羟色胺再摄取抑制剂，其中56例患者合并针刺心肝肾原穴，进行研究组与对照组临床治疗效果的比较。

方法 将来自心身医学科住院患者中，筛选出符合入组要求的96例患者分成两组，研究组56例，口服 5-羟色胺再摄取抑制剂合并针刺心肝肾的原穴，针刺治疗每天一次，每五次为一个疗程。中医辨证:临床表现，精神抑郁，急躁易怒，胸胁胀满，口苦咽干，坐卧不宁，难以入寐，或头痛头晕，或耳鸣易怒，或大便秘结，舌质红，苔黄或薄黄或厚黄，脉弦数或细弦;诊断，郁证，证型，气郁化火；治疗原则，疏肝解郁，清肝泻火，治疗方法，神门穴，太冲穴，太溪穴，对称取穴，共6穴，在选准穴位处碘伏消毒，手消毒，执针手进针，押手协助，捻转补太溪，泻太冲，平补神门，得气，候针，留针30分钟，最后实施捻转补泻取针，无菌棉签按压 2 分钟，收拾物品结束。特别注意，在治疗前，医生要充分用中医理论解释针感，消除紧张心理，让患者放松接纳针刺；在治疗中，引导患者跟着针刺得气感放松，尽可能的注意力集中，把意念放在脚心涌泉穴部位，每天治疗 1 次，5 次为一个疗程；对照组40例，口服 5-羟色胺再摄取抑制剂，两组患者在治疗前、治疗后第一、 第二和第三疗程后进行评分，对HAMD、HAMA总分变化进行观察，对比分析治疗效果。

结果 三个疗程后 HAMD 总分平均值研究组11.5263，对照组 14.9444；HAMA 总分平均值研究组8.2105 ，对照组 10.8333。

结论 研究组与对照组HAMD、HAMA总分平均值有差别，研究组小于对照组，治疗效果优于对照组。

关键字：郁证 气郁化火 针刺 心肝肾 原穴

新冠疫苗接种对我国青少年及青年学生心理健康和校园欺凌行为影响的研究

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目的 虽然接种新冠疫苗在我国抗击新冠疫情中发挥着重要作用，但是，接种不同剂次的新冠疫苗对于青少年和青年学生心理健康影响的相关研究较少。同时，既往研究显示，在新冠疫情期间，校园霸凌行为比疫情前有所增加。接种新冠疫苗与学生校园霸凌行为之间的关系缺乏研究，有待深入探讨。因此，本研究旨在探索青少年和青年学生新冠疫苗的接种状况，以及新冠疫苗接种与学生心理健康、校园欺凌行为之间的相关性。

方法 本研究是一项使用问卷星进行的线上调查，于 2022 年 12 月 14 日至 2023 年 2 月 28 日期间在四川省 162 所学校（初中、高中和大学）90118 名学生中实施，共有 82873 名学生（92.0%）自愿参与并完成调查。在线问卷分为三个部分：1）个人和家庭的基本信息和疫情相关信息，如疫苗接种情况，隔离情况等；2）心理健康的相关信息，如患者健康问卷(PHQ-9)、广泛性焦虑量表(GAD-7)；3）不良行为相关信息，如校园欺凌行为问卷。在本研究中，将一年中一次及以上被欺凌经历的定义为校园欺凌的受害者。参与者按照新冠疫苗接种的不同剂次分为四组：1）未接种；2）接种一针；3）接种两针；4）接种三针及以上。本研究采用方差分析比较四个亚组之间的人口学资料和量表资料之间的差异；其次，使用二元逻辑回归分别对四个亚组的抑郁症状和焦虑症状的影响因素进行分析。

结果 四川省青少年及青年学生的新冠疫苗接种率相对较高，99.4%的参与者至少接种了一剂疫苗。接种新冠疫苗对青少年及青年学生的心理健康有积极影响：参与者接种的疫苗剂次越多，存在抑郁症状和焦虑症状等心理健康问题的人数占比就越少。另一方面，研究结果显示，同性倾向者、饮酒者和吸烟者更有可能接种三针及更多剂次的新冠疫苗。同时，接种更多剂次新冠疫苗的参与者，被校园欺凌的率就越低。此外，接种新冠疫苗四个亚组之间影响焦虑和抑郁症状的因素也各有不同。

结论 本研究结果表明，接种新冠疫苗对四川省青少年和青年学生的心理健康产生了积极的影响。接种新冠疫苗不同剂次与校园欺凌之间存在相关性，接种疫苗与校园欺凌行为之间的影响机制有待进一步研究。应注重新冠疫苗接种的积极影响，不断提升青少年和青年学生的心理健康。

关键字：新冠疫苗接种，校园欺凌，心理健康，青少年学生，中国四川省

广泛性焦虑障碍静息态功能磁共振局部脑区功能连接改变的研究

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目的 广泛性焦虑障碍（Generalized Anxiety Disorder, GAD）是以持续的紧张、担心，并伴有自主神经功能兴奋和过度警觉为主要特征的一种慢性焦虑障碍。广泛性焦虑障碍患病率很高，尤其多发于女性和老年人，严重影响我国成年人身心健康，降低患者的生活质量。近年来随着神经影像学的研究逐渐深入，借助影像数据来全面地探求广泛性焦虑障碍的发病机制，可能成为我们后续所关注的话题。本研究旨在基于静息态功能磁共振探讨广泛性焦虑障碍患者脑区活动特点，以及它们与临床特点之间的相关性。

方法 收集 2020 年 9 月至 2022 年 5 月就诊于哈尔滨医科大学附属第一医院精神科门诊的符合美国 DSM-5 中广泛性焦虑障碍的诊断标准的患者作为实验组，纳入同期人口学资料匹配的健康志愿者作为对照组。118 名受试者全部在 3.0T 核磁扫描仪设备上进行静息态功能磁共振扫描，扫描当天收集完毕所需临床资料，对受试者人口学数据进行均数±标准差分析，评估神经心理学量表进行。所有影像数据进行预处理后，对比率低频振幅（fractional Amplitude of Low-frequency Fluctuation, fALFF）、低频振幅（Amplitude of Low-frequency Fluctuation, ALFF）及局部一致性（Region Homogeneity, ReHo）等指标及两组被试的全脑灰质体积差异脑区进行独立样本 t 检验，以灰质体积差异显著的脑区为种子点构建全脑功能连接，比对患者与健康人群的脑区功能连接差异以及通过 HAMA、RBANS 评分分析疾病的脑区活动和认知损伤之间的关系。

结果 （1）实验组中伴有认知损伤的人数（27/69）明显高于对照组（17/39）。（2）实验组 ReHo 指标在两侧小脑、边缘叶较健康对照组降低，在缘上回、颞上回、颞中回，以及前扣带回、小脑前叶、舌回较健康对照组增加。（3）实验组的 ALFF 指标下发现在 Brodmann 11 区增加，在楔前叶则降低。

结论 （1） GAD 患者比健康人群存在更大比例的认知损伤。（2） GAD 患者的情绪调节紊乱可能和两侧小脑、边缘叶的功能下降及缘上回、颞上回、颞中回，以及前扣带回、小脑前叶、舌回功能活动的增强有关（3） GAD 患者楔前叶功能活动降低可能导致了 GAD 患者的情绪障碍

关键字：广泛性焦虑障碍；静息态功能磁共振；功能连接；差异脑区；种子点

心理健康专业人员对针对患者的谷歌搜索（PTG）的态度和实践：精神科医生与心理师的差异比较

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目的 针对患者的谷歌搜索（Patient target googling, PTG），指心理健康专业人员通过在线网络渠道获取来访者信息的行为，包括使用搜索引擎和社交媒体。PTG 一方面可以为治疗提供额外的信息、识别风险因素并提供及时的干预，但同时也涉及破坏治疗关系，侵犯隐私等伦理问题。目前 PTG 研究仅有来自西方的数据，整个亚洲地区在 PTG 领域仍是一片空白，且现有研究结果在不同群体间具有很大差异。本研究填补了以上两个空缺，在中国进行 PTG 的态度和实践调查，比较并分析了精神科医师和心理师两个主要心理健康专业群体的差异。

方法 本调查通过问卷星进行，调查内容包括心理健康专业人员对 PTG 的整体态度，适用情境态度，支持和反对原因，以及实际的 PTG 实践情况。

结果 该调查收到 943 份有效问卷，包括 422 名精神科医生，106 名心理治疗师和 415 名心理咨询师。调查数据显示心理治疗师和心理咨询师两个群体无显著差异，在结果中合并为心理师。对 PTG 的态度中，中国心理健康专业人员普遍对 PTG 表示担忧，希望得到更多指导。减轻对来访者/他人的伤害和破坏治疗联盟分别是支持和反对 PTG 的核心理由。PTG 实践中，26.5%的参与者报告曾使用过 PTG，其中 60.4%在使用之前征得了客户的同意，56.8%在使用后与客户讨论了搜索结果。与心理师相比，精神科医生对 PTG 持更积极的态度，但实际使用率较低。心理师，私立机构，接受过 PTG 指导以及对 PTG 帮助理解来访者的认同可以正向预测 PTG 行为的发生率。

结论 和西方国家相比，中国心理健康专业人员报告 PTG 实践率较低，可能与中国缺乏相关指导和内敛的文化特点有关。精神科医生和心理师两个群体存在显著差异，精神科医生对 PTG 的态度更加积极，但实践率更低，这可能与来访者类型和治疗方法偏好有关。虽然 PTG 存在对治疗关系和伦理的潜在风险，但其提供的额外信息也是互联网时代下促进治疗和干预的重要机会。未来需要进一步讨论和制定关于何时和如何有效使用 PTG 的指导方针。

关键字：针对患者的谷歌搜索（PTG）；心理健康；咨询伦理；患者-治疗师关系；边界问题。

中文版本人格组织结构化访谈（修订版）的信度和效度研究

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目的 随着《精神障碍诊断与统计手册》（Diagnostic and Statistic Manual of Mental Disorders, DSM）第五版的发布，人格障碍的诊断模式从以往的类别诊断逐渐转向了更精细的维度诊断。对此客体关系理论在对人格病理学进行概念化的过程中，开发了一种结构化的访谈，即人格组织结构化访谈（Stuctured Interview for Personality Organization, STIPO），以评估患者病理性的人格维度，并根据评估结果调整临床心理治疗干预策略。在应用中，该量表经历了一次修订。本研究希望探究该修订版量表在中国文化语境下的可用性。

方法 使用中文版本的人格组织结构化访谈（修订版）（Structured Interview for Personality Disorder - Revised, STIPO-R）和作为效标的 DSM-5 人格量表（Personality Inventory for DSM-5, PID-5）对 236 名被试进行施测（包含 144 名心理障碍患者和 92 名健康对照；83 名为男性，153 名为女性），并在 1 个月后对其中的 30 名心理障碍患者和 32 名健康对照进行复测。在所有的被试中随机选取 13 名，并在征得其同意后进行匿名录像，交由 3 名已受训的施测者进行评估。最终获得中文版 STIPO-R 的信效度和其他与临床应用相关的数据。

结果 总体而言，STIPO-R 显示出良好的内部一致性（Cronbach's $\alpha > .65$）、评分者间信度（$ICC > .905$, $p < .01$）、重测信度（$ICC > .935$, $p < .01$）、结构效度（$?2/df < 2.07$, $RMSEA < .067$, $CFI > .873$, $TLI > .841$）和效标效度（$r > .298$, $p < .01$），其中在内部一致性和结构效度上与国外对 STIPO-R 的研究结果稍有出入。此外，研究还发现 STIPO-R 在心理健康人群、伴有人格障碍的心理障碍患者中的得分具有显著的差异。

结论 中文版 STIPO-R 的信度和效度均良好，且能够很好地对不同人群进行区分，能够测量到被试不同的病理性人格维度，同时可以直接衔接临床心理治疗干预策略，具有良好的应用价值。

关键字：人格障碍，结构化访谈，客体关系，信度，效度

一项探索光疗对单双相抑郁发作患者睡眠症状改善情况的随机对照试验荟萃分析

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目的 单双相抑郁发作是常见的精神障碍，超过一半的患者同时伴发睡眠障碍。抑郁症状和睡眠问题相互影响，给患者带来巨大的痛苦。光照治疗作为一种安全且经济实惠、易于操作的物理治疗方法日益受到关注。循证证据表明光照治疗可改善季节性和非季节性抑郁发作症状。尽管其确切机制尚不明确，有研究认为光疗可能通过改善睡眠和调节昼夜节律等途径缓解抑郁症状。然而，目前尚无循证证据探索光疗对抑郁发作患者睡眠的影响。因此，本研究将评估光疗是否可改善抑郁发作患者睡眠症状，并据此验证光疗可通过缓解睡眠相关的症状来减轻单相或双相抑郁症患者抑郁症状的假说机制。

方法 使用计算机检索常用的 PubMed、Cochrane

Library（Trials）、Web of Science 和 Embase 数据库，获取关于光照治疗对单相或双相抑郁症患者的抑郁症状和睡眠相关指标变化的随机对照试验研究。检索时限为建库至 2023 年 6 月。两名研究人员按照纳入与排除标准独立筛选所得文献并进行文献回顾、数据提取和方法学质量评估。使用 RevMan 软件进行 Meta 分析，采用标准化平均差异（SMD）或均值差异（MD）及相应的 95%置信区间（CI）作为效应指标比较光照治疗组与对照组之间的差异。

结果 本研究最终纳入 7 篇随机对照研究，共 382 名单相或双相患者。荟萃分析结果显示，光照治疗可以显著降低患者的抑郁症状（SMD = -0.45；95% CI = [-0.90, -0.02]；p < 0.005）。然而，在以下睡眠症状方面，我们发现光疗与安慰剂之间没有显著差异：（1）睡眠时长：（SMD = -0.14；95% CI = [-0.54，0.26]；p = 0.49）；（2）睡眠效率：（SMD = 0.11；95% CI = [-0.01，0.03]；p = 0.41）；（3）睡眠质量：（MD = -1.85；95% CI = [-4.75，1.05]；p = 0.21）。

结论 我们的研究结果表明，光照治疗可显著改善单双相抑郁发作患者抑郁症状，然而，我们并未观察到光疗对睡眠症状的显著改善。我们的研究暂不支持光疗可通过改善睡眠发挥抗抑郁的作用。这表明光疗在治疗抑郁症的作用机制似乎并不涉及睡眠相关症状的改善。

关键字：光照治疗、睡眠、单双相抑郁发作

A Bibliometric and Visualization Analysis of Dialectical Behavior Therapy From 1998 To 2023

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Objective To elaborate the current research, development trend and hot spots of dialectical behavior therapy (DBT).

Methods The Web of Science Core Collection (WoSCC) database was employed to search citations related to DBT from 1998 to 2023. VOSviewers and CiteSpace were used to conduct this bibliometric and visualization analysis.

Results A total of 2,190 records were included with the increasing volume of DBT literature over the years. The United States held a leading position, with the highest number of publications, high-quality literature, and citation counts. The top journal in this field was Cognitive and Behavioral Practice. The research on DBT could be classified into three clusters: disease cluster (borderline personality disorder, eating disorder, suicide, post-traumatic stress disorder), pharmacotherapy cluster (olanzapine, fluoxetine, etc.), and emotion regulation cluster (mindfulness modules). The timeline of keywords revealed that DBT research has transitioned from focusing on psychiatric patients and clinical inpatient care to general healthcare, outpatient care, and online interventions. The effectiveness of treatment modules and application scenarios are recent and upcoming research hotspots in DBT.

Conclusion This study found that research in DBT can be divided into three aspects: treatment of different diseases, combined medication treatment, and emotional regulation mechanisms. Research on effective intervention modules and application scenarios may be the future hotspots and frontiers.

关键字：dialectical behavior therapy，bibliometric，visualization

系统家庭治疗改善青少年分离[转换]性障碍患者疗效的研究

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目的 通过对青少年分离[转换]性障碍患者的社会心理因素，如性别、年龄、人格特征、发病季节、诱因等进行分析，探索各因素与青少年分离[转换]性障碍发病的关联性，同时评价系统家庭治疗法对青少年分离[转换]性障碍患者的临床心理干预效果，为青少年分离[转换]性障碍的心理治疗与预后判断提供理论依据。

方法 本项研究选取在 2017 年 9 月～2018 年 10 月期间，在医院就诊符合分离[转换]性障碍诊断标准与排除标准，年龄在 7～18 岁的 55 例青少年分离[转换]性障碍患者，按照随机分配的原则，分为研究组（27 例）和对照组（28 例）。两组患者均用灭菌注射用水 4ml，肌肉注射，每日一次，并口服维生素 B12 片 25ug 每日一次。在症状发作时，临时应用灭菌注射用水 4ml 肌肉注射。对照组药物基础上联合系统家庭治疗。通过自制的一般状况、家庭情况调查表、艾森克人格量表（EPQ）、症状自评量表（SCL-90）、系统家庭动力学自评问卷（SSFD）收集资料，分别于治疗前后对两组患者进行量表测量。

结果 1.两组在 SCL-90 总分、阳性项目数、躯体化、人际关系敏感、抑郁、焦虑、敌对、恐怖、偏执、精神病性等项的前后测量，分值差异极其显著（P < 0.05），强迫因子前后测量，分值差异显著（P < 0.05）；SSFD 总分、家庭氛围、个性化、疾病观念等因子，前后测量分值差异极其显著（P < 0.001），系统逻辑因子均分前后测量分值差异显著（P < 0.05）。 2.艾森克人格量表（EPQ）评估：青少年分离[转换]性障碍患者的性格特征中，以不稳定型居多（67.9%）。 3.一般状况调查表显示：①性别：两组在年龄、性别差异无统计学意义(P>0.05)。②年龄分布：各年龄段均有发病，多集中在青春期前或青春期，8 岁～13 岁，其中 9 岁（25.45%）和 11 岁（23.64%）最多。③发病时间：多集中在 9 月份（30.91%），其次为 4 月份、7 月份。④致病因素：学习负担大为首要促发因素（46.5%），身体不适次之（25.5%），厌学（18.2%），同学矛盾（10.91%）。

结论 通过对研究组和对照组疗效的对照比较，系统家庭心理治疗联合药物治疗，更能有效改善青少年[分离]转换障碍患者各方面的症状；并能减少疾病的复发；通过系统家庭治疗能改善家庭关系，促进青少年患者疾病的恢复，更好的适应社会。

关键字：系统家庭治疗；青少年分离[转换]性障碍；药物治疗；康复；预后。

团体心理治疗对抑郁症疗效及治疗依从性的影响分析

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目的 针对团体心理治疗对抑郁症疗效及治疗依从性的影响展开分析。

方法 选取我院 2022 年 1 月-2022 年 12 月期间收治的 100 例抑郁症患者作为研究对象，随机分为对照组和研究组，各 50 例，对照组采用常规治疗，研究组在此基础上增加团体心理治疗，比较两组患者治疗前后汉密顿抑郁量表（HAMD）及治疗依从性。结果：治疗前，两组患者 HAMD 评分差异均无统计学意义（P＞0.05）；治疗后，研究组 HAMD 评分低于对照组，且治疗依从性优于对照组，差异均有统计学意义（P＜0.05）。在抑郁症患者治疗期间配合应用团体心理治疗有助于缓解患者抑郁症状，提升对治疗的依从性，具有推广及应用价值。

方法 对照组接受常规治疗，如药物治疗、心理疏导等，研究组在此基础上增加团体心理治疗，具体如下：（1）第一阶段：此阶段为第 1～3 次治疗，组建固定人数的抑郁治疗小组，心理治疗师需鼓励小组成员开展自我介绍，通过游戏、活动等形式，拉近团队成员之间的关系，为患者讲解团队心理疗法的意义及使用方式，让患者更加了解团队心理治疗的重要性。（2）第二阶段：此阶段为第 4～6 次治疗，鼓励团队成员之间相互倾诉自己遇到的问题，协助商量解决办法，在活动过程中心理治疗师也需要积极参与其中。（3）第三阶段：此阶段为第 7～8 次治疗，是团队心理治疗的最终阶段，引导小组成员之间相互交流自己生活中发生的改变，相互分享自己理想的世界。指导患者学习情绪管理方式，熟练应对抑郁情绪，同时鼓励小组成员之间在生活也要相互鼓励，相互支持。

结果 2.1 比较两组患者 HAMD 评分 对照组与研究组各 50 例患者，对照组治疗前后 HAMD 评分分别为 31.45±5.68 分、21.39±3.67 分，研究组治疗前后 HAMD 评分分别为 30.89±5.71 分、16.54±2.28 分，治疗前，两组患者 HAMD 评分对比无明显差异（t=0.492，P=0.624，P＞0.05）；治疗后，研究组 HAMD 评分明显低于对照组，对比差异为（t=7.938，P=0.001，P＜0.05）。2.2 比较两组患者治疗依从性 对照组治疗依从性评分为 84.56±3.69 分明显低于研究组 94.49±3.72 分，对比有差异（t=13.401，P

结论 在抑郁症患者治疗期间配合应用团体心理治疗有助于缓解患者抑郁症状，提升对治疗的依从性，具有推广及应用价值。

关键字：团体心理治疗；抑郁症；依从性

心理护理联合音乐辅助治疗对抑郁症患者的影响

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目的 研究在治疗抑郁症患者时，心理护理联合音乐辅助治疗所得到的临床效果。

方法 选择 2020 年 5 月-2022 年 10 月在我院治疗抑郁症的患者（共 60 例）作为实验观察对象，采用随机分组方法将研究对象分为对照组和观察组，每组各 30 例抑郁症患者。患者选取给予对照组的患者心理护理，而观察组的患者在给予同样的心理护理的标准上增加针对性的音乐辅助治疗。统计两组患者的临床数据 SSRS（社会支持评定量表）和 HAMD（汉密尔顿抑郁量表），以及患者的生活质量。

结果 将两组患者护理前后的数据相比较，可以发现护理后的 SSRS 评分明显较高，而 HAMD 评分显著较低。其中，观察组护理后的疗效更为明显。另外，观察组患者同对照组患者相比，生活质量各项评分均明显要高。所有差异均具有统计学意义（P<0.05）。

结论 心理护理联合音乐辅助治疗在治疗抑郁症时可以取得更好的临床效果。一方面提高了护理的质量，做到“以人为本”的服务理念；另一方面提高了护理疗效，抑郁症患者的各项症状均得到了明显的改善，这在一定程度上有助于患者的康复，进而帮助患者减少治疗时间，尽快回归正常生活。对于抑郁症患者而言，联合音乐辅助治疗的心理护理，能有更加有效的缓解患者的状态，帮助患者以积极良好的心态去对抗疾病，进而节省医护人员的工作时间提高护理效率和护理疗效，有效改善患者的病症。

关键字：心理护理；音乐辅助治疗；抑郁症

儿童注意缺陷多动障碍父母养育压力对消极情绪非支持性反应的影响：有调节的中介模型

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目的 本研究调查注意缺陷多动障碍（ADHD）儿童的父母在参加ADHD家长养育指导课程干预前（T1）、干预后（T2），父母养育压力对消极情绪非支持性反应的影响，分析父母教养能力感的中介作用与素质希望的调节作用。

方法 采用父母养育压力指数简版（Parenting Stress Index-Short Form, PSI-SF）、父母教养能力感量表（Parenting Sense of Competence Scale, PSOC）、父母应对儿童消极情绪反应量表-子维度（Coping with Children's Negative Emotion Scale, CONES）、成人素质希望量表（Adult Dispositional Hope Scale, ADHS）对 29 名年龄 10.69±2.92 岁的 ADHD 患儿的父母进行调查，使用 SPSS 26.0 软件进行统计分析，探究变量间的相关

性和有调节的中介模型是否成立。

结果 （1）T1 父母教养压力可以负向预测 T2 父母教养能力感（β=-.51，p<.01），T2 父母教养能力感可以负向预测 T1 消极情绪的非支持反应（β=-.73，p<.01），即父母教养能力感起中介作用；（2）T2 父母的素质希望在 T1 父母养育压力影响 T2 父母教养能力感中起负向调节作用（β=-.43，p<.01），即有调节的中介模型成立。

结论 在参与 ADHD 家长养育指导课程后，父母养育压力对消极情绪非支持性反应的间接效应成立，且素质希望在前半路径起调节作用。

关键字：注意缺陷多动障碍；儿童；养育压力；非支持性反应；中介调节

社会精神医学学组

河北省某精神专科医院抑郁症患者抗抑郁药使用情况调查

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目的 调查河北省第六人民医院(以下简称我院)抑郁症患者抗抑郁药使用现状，为临床合理使用抗抑郁药提供依据，优化抗抑郁药临床治疗方案。

方法 以 2018-2019 年我院住院及门诊抑郁障碍患者抗抑郁药医嘱及处方为依据，调查并分析患者的人口学资料、不同年龄组患者抗抑郁药使用种类、单一及联合使用抗抑郁药的种类及频率等，探讨我院抑郁症患者抗抑郁药的使用特点。

结果 共有 35258 例患者入组，其中男性 11843 例，女性 23415 例。全年龄组使用频率排序位居前 5 位的抗抑郁药依次为米氮平、艾司西酞普兰、舍曲林、盐酸帕罗西汀和盐酸度洛西汀; 青少年组（＜18 周岁）使用频率排名前三位为：舍曲林，艾司西酞普兰，氟伏沙明。成年组（18-60 周岁）组使用频率排名前三位为：艾司西酞普兰，米氮平，舍曲林。老年组（＞60 岁）使用频率排名前三位为：米氮平，艾司西酞普兰，帕罗西汀。SSRI 类药物为我院最常用的抗抑郁药。联合用药中，最常用的三种联合用药分别为艾司西酞普兰+米氮平、帕罗西汀+米氮平、度洛西汀+米氮平。老年患者合并用药较多，与其他两组相比差异具有统计学差异（P＜0.01）。

结论 住院及门诊抑郁障碍患者使用的抗抑郁药主要为新型抗抑郁药，SSRI 类药物为主要在临床应用的抗抑郁药物。米氮平为最为常用的联合药物，通常与 SNRI 或 SSRI 类药物合用。

关键字：抑郁症；抗抑郁药；大数据；使用频次

精神分裂症住院患者脂代谢异常的相关分析

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目的 精神分裂症作为重性精神疾病，疾病治疗过程中常会引起脂代谢异常。如何在有效控制精神分裂症病情的同时减少甚至避免对患者躯体健康的影响仍需进一步探究，本研究以精神分裂症住院患者为研究对象，探讨其脂代谢异常的发生率及相关影响因素，旨在对精神分裂症患者血脂升高采取相应预防措施提供理论依据。。

方法 采用自制的调查表对 527 例住院精神分裂症患者进行调查，分别收集患者的性别、年龄、受教育年限、婚否、住院时间等相关资料，同时检测身高、体重、空腹血糖、甘油三酯、总胆固醇等指标。

结果 527 例住院精神分裂症患者中，存在脂代谢异常的 111 例，发生率为 20.06%。血脂水平异常的精

神分裂症患者的本地户口、超重或肥胖占比及空腹血糖、甘油三酯及总胆固醇水平明显高于血脂正常的（P<0.05）。logistic 回归分析显示：精神分裂症住院治疗患者血脂代谢异常的影响因素依次为籍贯(OR=2.452,95%CI: 1.434-4.193)，体重指数(OR=0.911,95%CI: 0.864-0.960)和空腹血糖(OR=0.880,95%CI: 0.788-0.983)。

结论 本研究住院精神分裂症患者脂代谢异常发生率不高，但其平均水平明显高于普通人。本地、肥胖和空腹血糖高的精神分裂症住院患者更易发生脂代谢异常。

关键字：精神分裂症 脂代谢 相关分析

住院精神病患者跌倒风险评估的研究进展

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目的 进一步调试和开发适应我国住院精神病患者的文化背景的跌倒综合评估工具,更加科学地、全面地探讨住院精神科跌倒综合风险因素，从而探讨出有效及合适的评估工具。

方法 基于国内外住院精神科临床跌倒风险评估的发展现状，结合了精神科患者病情和精神科患者跌倒发生原因的现况，对国内外的各类住院精神病患者跌倒风险评估的特点、适用性、不足等方面进行论述。

结果 国外对跌倒风险评估工具的研究起步早，发展快；而我国仍属于起步阶段，大多将国外量表经翻译及信效度检验后引用，良好的信效度有助于准确评估患者的跌倒风险,临床环境需要信效度已经得到验证的工具。

结论 住院精神病患者跌倒并非单因素结果,而是综合因素导致的,住院精神患者跌倒风险因素不仅与自身疾病状况有关,还与特殊的封闭的居住环境等有关。对于住院精神病患者跌倒风险评估工具的选择尚未形成一个共识,各家医院使用的评估量表不一。首先,良好的信效度有助于准确评估患者的跌倒风险,临床环境需要信效度已经得到验证的工具。应该考虑到住院精神病患者所处医院环境的特点和这个群体的特殊性。最后,还应具备使用方便、条目容易理解、评估耗时短等特点,不要给患者和使用者造成额外的负担，在临床上具有可行性。

关键字：跌倒风险评估；MFS；Hendrich II Fall Risk Model；HFRM；JHFRAT；FFAT

ES-100H 失眠治疗仪对非器质性失眠症患者睡眠结构及睡眠质量的疗效研究

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目的 研究关于 ES-100H 失眠治疗仪对非器质性失眠症患者睡眠结构及睡眠质量的疗效研究。

方法 选取我院睡眠医学科 2022 年 7 月到 2023 年 5 月期间收治的且符合 ICD-10 非器质性失眠症诊断标准的 70 例患者，采用随机数字表法，分为观察组和对照组，每组各 35 人。对照组患者单独给予阿普唑仑 0.4mg 睡前口服。实验组给予阿普唑仑 0.4mg 睡前口服，同时给予重庆海坤医用仪器有限公司生产的 ES-100H 失眠治疗仪治疗，治疗强度为患者耐受度为宜，治疗频次为 2 次/d，连续治疗 2 周为 1 个疗程。分别在治疗前，治疗 1 周末和治疗 2 周末进行 PSQI、SPIEGEL、HAMA、HAMD 评分，并在第 10 天减量阿普唑仑原剂量的 1/4，并作疗效评定。两组患者均在治疗前和治疗后通过便携式睡眠呼吸监测仪进行整夜监测。应用 SPSS 软件包进行统计学处理，并进行分析。

结果 治疗前，实验组与对照组患者各项量表得分无显著差异，两组患者在治疗 2 周后 PSQI、SPIEGEL、HAMA、HAMD 分值均有显著程度降低（P<0.05），而通过分析便携式睡眠呼吸监测仪数据比较两组睡眠效率、总睡眠时间均有所增加，觉醒次数减少。合并 ES-100H 失眠治疗仪组 PSQI、SPIEGEL、HAMA、HAMD 减分率显著高于单药治疗组，而睡眠效率及总睡眠时间显著高于对照组（P<0.05），与对照组相比差异有统计学意义（P<0.05）。

结论 ES-100H 失眠治疗仪对非器质失眠症患者的睡眠结构及睡眠质量均有改善作用，效果优于单药治疗。

关键字：ES-100H 失眠治疗仪；非器质性失眠症；睡眠结构；睡眠质量

精神科一线医护人员健康危险性压力的现状及其影响因素的研究

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目的 压力对人类的心身健康的影响也越来越受到重视。健康危险性心理压力（Health Risk Stress，HRS）是指对健康产生危害后果的心理压力反应。目前研究发现 HRS 与许多慢性疾病关系密切。本研究通过调查精神科一线医护人员知觉压力水平和健康危险性压力状况，引入共情能力和人格特质这两个变量，分析影响健康危险性压力发生的相关因素，以期为预防或干预医护人员健康危险性压力发生的可行性方案提供依据。

方法 筛选相关文献的调查量表，形成调查问卷，收集一般人口学资料、中文版知觉压力量表、人际反应指针量表和简版大五人格问卷对精神科一线医护人员进行调查，选取深圳市某精神专科医院一线精神科医护人员作为实证研究对象，对该人群进行数据收集和问卷发放与回收。运用统计分析软件 SPSS 22.0 对收集

的数据进行整理、分析和统计采用 logistic 回归分析健康危险性压力状态的影响因素。

结果 共纳入 172 人，知觉压力量表总分 19.88±7.66，处于健康危险性压力状态共 34 人，占比 19.8%，logistic 回归分析结果显示年龄、学历、个人痛苦、神经质性和宜人性是职业倦怠的影响因素，其中个人痛苦特质是危险因素，而年龄、高学历、低神经质性和高宜人性特质是保护性因素。

结论 精神科一线医护人员健康危险性压力状况不容乐观，建议采取鼓励职工深造、入职心理特质筛查等措施以期达到预防的作用。

关键字：精神科、医护人员、健康危险性压力、知觉压力、共情能力、人格特质、logistic 回归

艾司西酞普兰联合针刺疗法治疗老年期抑郁症的疗效分析

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目的 研究艾司西酞普兰联合针刺疗法治疗老年期抑郁症的临床疗效。

方法 本研究选取临沂市精神卫生中心 2021 年 3 月-2023 年 3 月住院的 60 例年龄≥60 岁的老年患者作为研究对象，所有患者均符合 ICD-10 诊断标准中郁抑症的诊断，按照随机化数字表法将其分为对照组和治疗组，每组各 30 例，对比两组治疗效果。对照组给予患者艾司西酞普兰口服治疗，两周内缓慢加量至 10mg/日；治疗组在此基础上给予联合针刺疗法，每次四个穴位，留针 30 分钟，每周五次为一个疗程。利用汉密尔顿抑郁量表 17 项版（HAMD-17）和抑郁自评量表（SDS）评定抑郁症的严重程度，汉密尔顿焦虑量表（HAMD）评定焦虑的严重程度，以 HAMD、SDS、HAMA 的减分情况来评定其治疗效果，分别在治疗的第 0、1、2、3、4 周末将两组的量表评分作为对比来评估其临床疗效。

结果 治疗前 HAMD、SDS、HAMA 评分在对照组和治疗组中无显著性差异（P＞0.05）；治疗后两组的量表评分分数均较前下降，但治疗组优于对照组（P＜0.05）；对照组和治疗组其 HAMD、SDS、HAMA 评分差异具有统计学意义（P＜0.05）。

结论 艾司西酞普兰联合针刺疗法和艾司西酞普兰均能在老年期抑郁症的治疗中发挥良好的作用，但在艾司西酞普兰治疗的基础上加上针刺疗法对治疗老年期抑郁症会取得更好的疗效。

关键字：针刺疗法 艾司西酞普兰 老年期抑郁症

疫情下青少年不同屏幕使用时长与抑郁焦虑严重程度的关系

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目的 探讨疫情下青少年不同屏幕使用时长与抑郁焦虑严重程度的关系

方法 纳入 2022 年至 2023 年在南通市精神卫生中心门诊及住院的青少年患者为研究组，一共纳入 100 例。按一定比例选择其年龄与研究组相匹配的在南通大学附属医院儿科就诊的青少年为对照组，纳入 100 例。两组均填写一般情况问卷、生活方式问卷、BECK 抑郁自评问卷（BDI）、贝克焦虑量表（BAI）采用 SPSS 19.0 软件对有关资料进行统计学分析。

结果 研究组和对照组相比，两组之间抑郁、焦虑、屏幕使用总时间、看电视时长、短视频娱乐时长之间有显著差异；两组之间的网课时长、浏览网页时长、社交聊天时长、电子游戏时长之间无显著差异。研究组的抑郁和各个屏幕使用时间之间的关系采用 Pearson 相关分析。抑郁与屏幕使用总时间、电子游戏时长、短视频娱乐时间呈正相关（r=0.564、r=0.450、r=0.355）；焦虑与短视频娱乐时间呈正相关（r=0.422），与社交聊天时长呈负相关（r=-0.279）。

结论 疫情下，青少年屏幕使用越长，其抑郁越严重。短视频娱乐时长越长，越容易引起青少年的抑郁焦虑情绪的加重。适当的社交聊天有助于缓解青少年的焦虑情绪。

关键字：抑郁、焦虑、青少年、屏幕使用

社区门诊就诊人群心理健康状况分析

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目的 了解社区卫生服务中心门诊就诊人群焦虑抑郁等方面心理健康状况，为有针对性开展心理健康干预，制定综合干预策略提供依据。

方法 对某医院门诊就诊的人群进行心理健康状况问卷调查，不限男女。被调查者能够理解和签署知情同意书，既往无抑郁或焦虑诊断病史，能够独立完成调查问卷。排除既往存在自杀行为或精神病性症状，认知功能明显减退，不能理解评估量表等人群。使用广泛性焦虑障碍量表（Generalized Anxiety Disorder-7，GAD7）、抑郁症筛查量表(Patient Health Questionnaire-9,PHQ-9）进行门诊患者的心理健康状态调查。

结果 完成心理健康问卷 601 份，剔除重复和无效问卷 31 份，有效问卷 570 份，有效率 94.8%。调查人群中男性 201 例，女性 369 例，男女性别比为 0.54:1；年龄 18-93 岁之间，平均（58.76±15.458）岁。已婚 502 例，占 88.1%；离异或丧偶 67 例，11.8%；未婚 1 例，占 0.2%。其中有抑郁或者焦虑分值≥5 分的 214 人，阳性率 37.5%。其中抑郁分值≥5 分的 196 人，焦虑分值

≥5 分的 101 人，抑郁和焦虑两个得分都≥5 分的 83 人。不同性别抑郁总分及各维度得分差异均无统计学意义（P>0.05）；女性抑郁、焦虑症状得分均显著高于男性（T=-2.058，P=0.040；T=-3.085，P=0.002），抑郁症状得分与年龄呈显著正相关（r=0.107，P=0.010），焦虑症状得分与年龄无显著相关性（r=-0.001，P=0.973）；自杀倾向症状与性别之间也存在统计学意义（c2=3.896，P=0.048）。

结论 关注大众人群心理健康，加强宣传科普，对高风险人群采取科学专业的心理健康指导。

关键字：抑郁；焦虑；问卷调查；心理健康

Ω-3 脂肪酸对首发精神分裂症急性期疗效的研究

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目的 本研究旨在探讨服用深海鱼油补充 ω-3 脂肪酸对首发精神分裂症急性期患者改善精神病性症状与减轻代谢综合征发生风险的关系。

方法 筛选 2023 年 7 月至 2025 年 7 月在淄博市精神卫生中心门诊及住院的 54 例首发精神分裂症急性期患者，在 12 周的随机对照试验中，将符合 ICD-10 精神分裂症诊断标准并且服用抗精神病药物的 54 例患者，随机分配到鱼油组（N=30）和安慰剂组（N=24）。在治疗前及治疗后第 4、8、12 周对两组患者进行阳性与阴性症状量表（PANSS），外显攻击行为量表（MOAS），简明精神病量表（BPRS）量表评分，同时应用认知功能成套测验中文版（MCCB）评价两组患者治疗前后的认知功能评分，并采集患者血液生化指标，记录患者血胆固醇、甘油三酯、高密度脂蛋白(HDL)、低密度脂蛋白（LDL）水平。

结果 两组患者 PANSS、BPRS、MOAS 量表评分在第 4 周均降低，两组之间无统计学差异（P＞0.05）；在 8、12 周鱼油组评分明显低于安慰剂组,两组间有统计学差异（P＜0.05）。血胆固醇、甘油三酯、LDL 在第 4 周均升高，两组之间无统计学差异（P＞0.05）；在第 8、12 周安慰剂组高于鱼油组，两组间有统计学差异（P＜0.05）。HDL 在第 4 周均降低，两组之间无统计学差异（P＞0.05）；在第 8、12 周鱼油组降低幅度低于安慰剂组，两组间有统计学差异（P＜0.05）。干预后，两组患者 MCCB 评分相关指标均不同程度增加，且鱼油组患者的工作记忆、言语学习及问题推理维度评分和安慰剂组相比，评分提升比较明显（P＜0.05）。

结论 每日服用深海鱼油补充 ω-3 脂肪酸对首发精神分裂症急性期患者的精神症状改善明显，特别是减少冲动攻击行为和改善患者的认知功能，并且能够减轻代谢综合征发生风险。

关键字：ω-3 脂肪酸； 首发精神分裂症； 冲动攻击， 认知功能；代谢综合征

Mental Health Symptoms and Sleep Quality of Asymptomatic/mild SARS-CoV-2 Infected Individuals During Omicron Wave of The COVID-19 Pandemic in Shanghai China

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Objective To investigate the mental health symptoms (anxiety, depression) and sleep status and its associated factors among people infected with the SARS-CoV-2 omicron variant during the quarantine period in Shanghai.

Methods To investigate the mental health symptoms among participants with omicron infection, an anonymously online-survey questionnaire was used. The survey panel included 9-item Patient Health Questionnaire-9 (PHQ-9), 7-item Generalized Anxiety Disorder Scale (GAD-7), Pittsburgh Sleep Quality Index (PSQI) and 22-item Ruminative Responses Scale (RRS). Group comparisons and correlation analyses were employed to explore the epidemiological characteristics and factors of depression and anxiety symptoms.

Results A total of 960 participants effectively completed the survey. Of the total respondents, 583 participants (60.7%) were male, and the mean (SD) age was 34.33 (9.21) years (95%CI: 33.74-34.91). The prevalence of depressive and anxiety symptoms among the total participants was13.7% (n=151, 95% CI: 11.6%-15.7%) and 8.6% (n=90, 95% CI: 6.9%-10.3%), respectively. Age-stratified comparison showed that the prevalence of anxiety among the 36-45 years old group 12.9% (n=35, 8.9%-16.9%) was significantly higher than that of the 18-15 year-old group 7.4% (n=42, 5.3%-9.6% , p=0.011). Spearman correlation analyses showed that the rumination (RSS-22 score) was significantly positively correlated with depression (rho=0.706, p<0.001) and anxiety symptoms (rho=0.758, p <0.001), respectively.

Conclusion The results suggests that female and middle-aged populations manifest higher susceptibility to mental health distress during this Omicron variant epidemic. Population-specific psychological crisis intervention is warranted to improve the quality of epidemic prevention and the promote mental well-being of the public.

关键字：Omicron, asymptomatic, mild infection, anxiety, depression, COVID-19

Mental Health Status and Related Influencing Factors Among Healthcare Workers in COVID-19 Designated Hospitals

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Objective The novel coronavirus disease (COVID-19) is the most extensive global pandemic in nearly a century, with the highest level of a public health emergency.

Healthcare workers, as the main force and frontline responders in managing public health emergencies, face greater pressures and more severe psychological crises compared to the general public. This study aims to investigate the mental health status and related influencing factors among healthcare workers in COVID-19 designated hospitals. The findings will provide references for the formation of emergency healthcare worker teams and guidance for providing psychological counseling to this population.

Methods A psychological survey was conducted on 350 medical staff members at designated COVID-19 treatment hospitals using a self-designed general information questionnaire and SCL-90 (Symptom Checklist-90) through cluster sampling

Results In terms of somatization scores, there were statistically significant differences (P<0.05) among the research subjects of different genders, educational levels, marital statuses, reproductive statuses, experience working in infectious disease wards, workplaces, and years of employment.In terms of obsessive-compulsive symptom scores, there were statistically significant differences (P<0.01) among the research subjects of different age groups.In terms of interpersonal sensitivity scores, there were statistically significant differences (P<0.01) among the research subjects of different educational levels.In terms of depression scores, there were statistically significant differences (P<0.05) among the research subjects of different genders, ages, educational levels, marital statuses, reproductive statuses, workplaces, and years of employment.In terms of anxiety scores, there were statistically significant differences (P<0.05) among the research subjects of different genders, marital statuses, reproductive statuses, and workplaces.In terms of hostility scores, there were statistically significant differences (P<0.05) among the research subjects of different genders, ages, educational levels, marital statuses, and occupational types.In terms of phobic anxiety scores, there were no statistically significant differences among the research subjects of different demographic characteristics.In terms of paranoid ideation scores, there were statistically significant differences (P<0.05) among the research subjects of different age groups.In terms of psychoticism scores, there were statistically significant differences (P<0.05) among the research subjects of different genders, ages, and educational levels.In terms of other scores, there were statistically significant differences (P<0.05) among the research subjects of different genders, ages, educational levels, and years of employment.

Conclusion The mental health of medical staff at designated hospitals for COVID-19 treatment is influenced by individua

关键字：COVID-19;Health personnel; Mental health; Risk factors; Related influencing factors; Designated hospitals for COVID-19 treatment.

正念减压对广泛性焦虑患者的疗效研究

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目的 广泛性焦虑障碍是一种对多种境遇过分焦虑和担忧，以自主神经功能兴奋和过分警觉为特征的一种慢性焦虑障碍。目前针对此疾病的药物治疗已经存在，但是由于药物的副作用，使得患者的服药依从性较差，因此，探究有效的心理疗法缓解患者焦虑症状显得尤为重要。先前有研究显示，正念干预，例如正念减压疗法，可以有效缓解焦虑。正念减压疗法是否具有和药物治疗同样的效果呢？本研究设计临床试验证明正念减压疗法对广泛性焦虑患者的疗效是否不劣于艾司西酞普兰的疗效。

方法 对某院 83 名诊断为广泛性焦虑障碍患者进行临床试验。将患者随机分为艾司西酞普兰组（41 例）和正念减压组（42 例），艾司西酞普兰组进行常规的艾司西酞普兰药物治疗，正念减压组进行为期 8 周的正念减压训练。在基线、第 8 周和第 12 周由精神科医生使用临床总体印象量表评估患者的焦虑程度。

结果 完成治疗和随访的患者为 79 人（艾司西酞普兰组 40 人，正念减压组 39 人）。患者平均年龄为（45±7）岁，其中 48 人（60.75%）为女性。基线时，艾司西酞普兰组的 CGI 评分为（4.56±0.80）分，正念减压组为（4.51±0.79）分，组间差异为 0.05（P=0.64）；8 周时，艾司西酞普兰组的 CGI 评分为（3.13±1.27）分，正念减压组为（3.16±1.08）分，组间差异为-0.03（P=0.74）；12 周时，艾司西酞普兰组的 CGI 评分为（3.01±1.17）分，正念减压组为（2.98±1.16）分，组间差异为 0.03（P=0.81）。

结论 此临床试验的结果显示正念减压疗法对广泛性焦虑障碍患者的疗效不劣于艾司西酞普兰的疗效，而且正念减压疗法对患者几乎没有副作用，且易于实施，患者习得后可以在日常生活中自主进行，可以作为药物不耐受的广泛性焦虑障碍患者的替代疗法。

关键字：正念减压；广泛性焦虑障碍；艾司西酞普兰；临床研究；心理疗法

精神生化检验在医学影像中的应用

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目的 探讨精神生化检验在医学影像中的应用，深入了解其在医学影像诊断中的作用和意义。将重点研究精神生化指标在不同疾病诊断中的应用，为临床医生提供更加精准的诊断方案和治疗建议。

方法 将采用多种交流方式，包括学术报告、专题讨论、现场案例分析等。我们将邀请国内知名的医学影像学专家和精神生化学专家，分享他们在相关领域的最新研究成果和经验。还邀请临床医生和医学影像技术人员，分享他们在精神生化检验在医学影像中的应用中遇到的问题和解决方案。

结果 1. 深入了解精神生化检验在医学影像中的

应用，为医学影像学的发展提供新的思路和方向。2. 探讨精神生化指标在不同疾病诊断中的应用，为临床医生提供更加精准的诊断方案和治疗建议。3. 分享国内最新的医学影像技术和精神生化学研究成果，促进学术交流和合作，共同推进医学影像学的发展。

结论 精神生化检验在医学影像中的应用是一个新兴领域，具有广阔的发展前景。我们将继续深入探讨其在医学影像诊断中的作用和意义，为医学影像学的发展提供新的思路和方向。同时，还将分享最新的医学影像技术和精神生化学研究成果，促进学术交流和合作，共同推进医学影像学的发展。我们相信，通过共同努力，精神生化检验在医学影像中的应用将会得到更加广泛的应用和推广。

关键字：精神生化检验、医学影像、诊断、治疗、疾病、指标、技术、发展、思路、合作

护士心理状况研究进展

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目的 护理人员是医疗卫生队伍的重要组成部分，在整个医疗卫生服务体系中发挥着不可替代的作用。近年来，随着社会的发展和医学模式的转变，护士所承受的工作压力也越来越大。由于护理人员承受着巨大的工作压力，护士的心理状况也越来越受到人们的关注。本文通过对国内外护士心理状况研究进展进行综述，以了解护理人员心理状况、存在的问题及解决办法，为医院管理者制定合理的工作制度提供依据。

方法 护理工作具有职业性、技术性、社会性和技术性的特点，工作要求高，工作负荷重。在临床护理工作中，护士是与患者接触最多的人，是护理服务的主要提供者。护士不仅要为患者提供生理上的服务，还要满足患者心理上的需求。在目前医疗改革的背景下，护士还要承担繁重的工作任务，如查房、记录、写病历等。护士在医院中所扮演的角色是集护士、医生、患者于一身，护士除了要完成本职岗位上的工作外，还要完成其他角色任务。目前护理工作所承担的角色任务越来越多，如家庭护理、预防保健等。护士职业性强，工作负荷重，给护理人员带来了巨大的心理压力。

结果 护士作为护理工作的主要实施者，长期从事着高度紧张的工作，在工作中承受着巨大的精神压力，这种压力直接影响护士的身心健康。许多调查研究显示：护士患有焦虑、抑郁、失眠等心理问题的比率都很高，尤其是年轻护士。我国首个针对护士群体的研究发现：护士在护理工作中存在着诸多心理问题，包括职业倦怠、沟通障碍、抑郁等。当出现上述心理问题时，极易导致患者出现病情反复、护理纠纷等情况，严重影响护理质量和患者满意度。

结论 但是，护士的心理健康却越来越受到人们的关注。很多研究表明，护士心理健康状况普遍较差，导致其工作效率下降、生活质量降低、职业倦怠、护患纠纷增多等一系列问题，严重影响了护理人员的身心健康和工作效率，也给患者带来了巨大的痛苦和伤害。因此，为了提高护理人员的心理健康水平，降低护士工作压力及心理问题发生的风险，必须采取积极有效的措施来改善其心理健康状况。随着社会发展和医学模式转变的需要，我们应积极探索和采取多种途径来提高护士的心理健康水平。

关键字：护士 心理健康 压力

中医心理学视域下对老年精神科的管理探析

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目的 分析中医心理学视域下对老年精神科的管理效果。

方法 研究对象为湖州市第三人民医院在2020年6月至2021年6月收治的100例老年精神科患者，通过抽签的方式将 100 例患者划分为两组，分别为对照组和观察组（各 50 例），对照组进行常规管理，观察组在其基础上再基于中医心理学视域下进行干预管理，对两组患者管理前后的心理健康状况以及管理后的依从性、管理质量评分进行观察对比。

结果 心理健康状况方面，和观察组比较，对照组管理前的心理维度、行为维度及人格维度差异比较均无统计学意义（P＞0.05），管理后的心理维度、行为维度及人格维度均明显较观察组高（P＜0.05）。依从性方面，和观察组比较，管理后对照组总依从率明显更低（P＜0.05）；对比分析两组患者的管理质量评分，显示观察组明显比对照组较高（P＜0.05）。

结论 本文结果显示：观察组患者的管理质量相比于对照组明显较高，P<0.05。根据现代心理学研究表明：人体中情绪变化剧烈且长期变化会影响到机体 HPAA 调节水平发生相应的变化，中枢多种神经递质以及相应的合成酶、神经酶等表达也会发生相应变化，对机体脏腑功能会产生不良影响，为此需要加强患者的心理状态干预措施。基于中医心理学基础上对老年精神科患者进行相应的管理措施，能避免因疾病给患者及家属带来精神压力，对患者的情绪改善作用比较明显，应用价值比较高 基于中医心理学视域下对老年精神科患者进行临床管理可以在更大程度上改善患者不良心理，更有利于提高患者的依从性。

关键字：中医心理学视域；老年精神科；依从性

浅谈如何降低精神病人财务负担及医院对应策略

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目的 长期以来，精神障碍患者面临着资源不平衡和获得精神卫生保健的机会有限，对社会及财政负

担影响日益增加。为促进精神生卫生的长久可持续发展，故在现行政策下，不仅要减少精神病人的财务负担，同时我们又要兼顾医院的生存压力，现我们试图找寻两全其美的方案，为更公平和可持续的精神卫生提供机会和战略。

方法 在精神卫生系统研究项目的背景下，实施资源重新整合的方法，包括三个步骤：1 整合现有各级医疗机构，组建功能齐全、层级分明、资源共享的集约化新型医疗卫生机构—医联体；2.优化医院人力资源，打破机构属性，既可以加强一级机构精神卫生工作人员对精神疾病认识的广度，也不降低对疾病深度的认识，予以强制手段在三级医院减少或不设立门诊机构，和三级和一级机构实施双向转诊，专科专治；3.加强政府领导，应充分发挥公立医院“公益”作用，对政策要适当改革，通过分级诊疗合理分流病人，和加强财政管理及优化设计。

结果 精神卫生问题严峻性挑战包括在体制、体系、发展环境和总体水平中存在众多问题，以厦门地区为例，探索精神疾病二级防治网体系。

结论 建立精神卫生医疗机构、社区康复机构及社会组织、家庭相衔接的精神障碍社区康复服务模式。

关键字：精神疾病 财政负担 医联体 社区康复

网络精神病学组

从心理学角度克服“空心病”空虚感的建议

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目的 有学者提出大学生群体中缺乏支撑意义感和存在感的价值观，即不知道自己是谁、自己为何而活，不知道自己存在价值和意义为何，并称之为“价值观缺陷所致心理障碍”，给予形象名称“空心病”。并认为对一般的心理咨询和精神医学治疗无效。本文综述从心理学角度克服空虚感的建议。

方法 文献检索空虚感的心理学干预相关文献，并进行综述。

结果 空虚感是一种常见的心理状态，它可以被定义为一种内心的空虚和缺乏目标感的感觉。许多人都会经历这种感觉，尤其是在面对重大生活变化、人际关系问题或者职业困境时。然而，空虚感如果得不到适当的处理和克服，可能会对个人的心理健康和生活质量产生负面影响。 从心理学角度来看，首先，个体需要正视并认识到自己的空虚感。这意味着要有意识地观察和分析自己的情绪和思维模式，以便更好地理解空虚感的原因和影响。心理咨询师或心理学专家可以提供专业的指导和支持，帮助个体更好地认识自己的情绪和心理需求。正念疗法、内观疗法均值得尝试。其次，建立积极的自我认同和自我价值感对于克服空虚感至关重要。个体可以通过培养自己的兴趣爱好、发展自己的技能和才能来提高自己的自信心和满足感。此外，与他人建立积极的人际关系也可以增强个体的自我价值感和归属感，从而减轻空虚感的程度。 另外，积极的思维模式和心理调适技巧也是克服空虚感的关键。个体可以通过学习正向思考和自我鼓励的技巧，来改变消极的思维模式。此外，学会应对压力和情绪调节的技巧也可以帮助个体更好地应对空虚感带来的负面情绪和情绪波动。 在日常生活中，个体可以通过制定明确的目标和计划来克服空虚感。这些目标可以是个人发展、职业发展或者社交关系方面的。制定目标和计划可以帮助个体找到生活的方向和目标，从而减轻空虚感的程度。此外，建立健康的生活习惯，如规律的作息时间、合理的饮食和适度的运动，也有助于提升个体的心理健康和克服空虚感。 最后，寻求社会支持和参与有意义的社会活动也是克服空虚感的重要途径。个体可以通过参加志愿者活动、加入兴趣小组或者参与社区活动来与他人建立联系，增加社交支持和归属感。此外，与他人分享自己的感受和情绪，寻求他人的理解和支持也可以减轻空虚感的程度。

结论 空虚感不总是代表着精神疾病或特殊形式的抑郁症，心理学对克服空虚、“空心病”仍大有可为。

关键字：心理学；空虚；空心病

荆州市大专院校生网络成瘾现况及相关因素分

析

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目的 了解荆州市大专院校生网络成瘾现况并分析相关性，为预防大专院校生网络成瘾提供一定的理论依据。

方法 本研究采用方便取样法收集数据，于 2021 年 6 月至 2022 年 1 月选取荆州市两所专科大学，使用冉茂盛整编的《青少年学生心理健康调查问卷》进行测试，内容包括一般人口学资料、网络成瘾量表（IAT）、抑郁自评量表（PHQ-9）、焦虑自评量表（GAD-7）、失眠严重程度指数量表（ISI-5）等工具。采用 SPSS21.0 软件进行统计分析。

结果 共收回 4898 份问卷，其中有效问卷 4883 份，男性 2358 人，女性 2525 人，大专一年级 1315 人，二年级 3227 人，三年级 341 人，以 ITA 量表 40 分作为界值，存在网络成瘾的有 2221 人（45.5%），其中轻度 41-59 分的有 1542 人（31.6%），男生 748 人，女生 794 人；中度 60-80 分的有 611 人（12.5%），男生 364 人，女生 247 人；重度 80 分以上 68 人（1.4%），男生 47 人，女生 21 人。将该群体的一般人口学资料，家庭经济状况，心理健康问卷结果，日常行为习惯等数据纳入多元 logistic 回归模型，经模型调整后，最终确定了男性（OR=1.586, 95% CI：1.028-2.163, P=0.005）、日常较少进行体育锻炼(OR=1.684, 95% CI：1.219-2.084, P=0.006)、PHQ-9 的总分(OR=1.875, 95% CI：1.389-2.328, P=0.016)为荆州市大专院校生出现中重度网络成瘾的相关因素。

结论 荆州市大专院校生出现网络成瘾的检出率较高，可能严重影响其身心健康，应引起社会各界及学生自身的足够重视，并积极采取措施进行防控。

关键字：大专院校生；网络成瘾；因素

正念干预进食障碍的心理机制

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目的 疾病意识缺乏和改变动机低下给进食障碍的治疗带来了很大的挑战。近年来，基于正念的干预模式在治疗暴食症方面积累了一些疗效研究证据，但总体上对其他进食障碍的研究还相对有限。这可能是由于缺乏对正念如何改善进食障碍症状的深入理解以及对其在严重精神疾病中适用性存在担忧。为了进一步改进和个性化治疗，有必要探索基于正念的治疗在进食障碍中的潜在心理机制。

方法 使用 PubMed、PsycINFO、Embase、知网、万方、维普对相关文献进行检索，时间为自建库起至 2023 年 6 月 30 日，提取相关干预参数和结果信息，对心理干预机制进行分析讨论。

结果 正念干预进食障碍的心理机制可能包括特质正念、重复的负性思维、自我同情、去中心化、心理灵活性、情绪调节以及内感受性。首先，特质正念是指个体在日常生活中保持正念的能力和倾向，其中有觉知地行动和不反应这两个方面与进食障碍症状相关。通过觉知地行动，患者可以更清楚地察觉驱动不良进食行为的认知、情绪等，通过以一种不反应的方式面对，有助于患者不受其控制或陷入消极的情绪和行为循环中。其次，重复负性思维是指难以控制地对负面内容进行过度和重复的思考，包括担忧和反刍两种形式。通过减少担忧和反刍，患者可以降低对身体形象和食物的过度关注，从而减少对自身的羞耻感、内疚感，以及补偿行为和限制行为的发生。第三，有研究发现，进食障碍症状与自我同情水平呈负相关。通过培养正念态度可以促进自我同情的发展，帮助患者减少自我判断，通过宽容和接纳自己的身体来减轻进食障碍症状。第四，进食障碍患者常常对身体形象和食物摄入持有固定的、负面的认知和情绪。去中心化可以帮助患者将其视为主观经验而非客观事实，减少过度认同。第五，正念包括以觉察和接纳的态度面对当前的经验，心理灵活性则在此基础上强调个体根据自己的价值和目标来选择和实施行为。进食障碍常伴随着固守和刚性的思维和行为模式，通过培养心理灵活性，患者能够更加清晰地识别和关注自己的价值，更好地适应不同的情境和需求。第六，通过正念的觉知、接纳、非评判，有助于个体抑制冲动性的情绪驱动行为，减少进食障碍症状的发生。第七，正念作为一种观照和重整内心状态的态度与训练方法，被证实能提升内感受能力。通过提高对饥饿和饱腹感的觉知、增强身体连接和信任，患者能够更好地调节自己的饮食行为。

结论 本文提出了一些可能的心理机制，未来仍需进一步研究来验证。

关键字：正念；进食障碍；心理机制；

临床大规模抑郁焦虑共病患者治疗前后的网络比较分析

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目的 新冠肺炎流行期间，抑郁焦虑共病人群数量激增。与单一抑郁或焦虑相比。合并症造成了更严重的功能损伤、更差的治疗效果和预后以及更低的患者满意度。与主流的共同病因模型相比，精神病理学的网络分析是研究合并症的一个新视角，它可以从症状水平上更好地识别合并症的典型症状以及两种障碍间的合并机制，揭示传统评估工具无法捕捉到的病情变化。

方法 本研究在 2019 年 11 月至 2022 年 11 月期间，收集了 787 名合并症患者（平均年龄为 31.8 岁，67.1%为女性）治疗前后（T1→T2）的 Zung 氏抑郁自评（SDS）和焦虑自评（SAS）量表数据，采用高斯图模型（GGM），引入扩展贝叶斯信息准则（EBIC）最小

绝对收缩和选择算法（LASSO)对网络进行了估计。计算了节点强度和桥梁强度，使用 bootnet 评估了网络的稳健性，并利用网络比较测试（NCT）来探索治疗前后和不同性别群体的网络差异。

结果 获得的网络模型是高度稳定和准确的。“空虚感”在合并症状中表现出最高的强度中心性，尤其在青少年群体中最为明显；网络中最强的边缘出现在两个障碍的重叠症状之间（心动过速-心悸，疲劳-易疲劳，睡眠困难-失眠）；大多数桥梁节点与 SDS 的情绪、生理和心理症状有关，失眠与 SAS 的躯体症状相关。尽管治疗过程中评估工具的总分降低，但 NCT 证实网络的整体强度显著增加（p = .03）。此外，在男性的网络分析中“精神解体”显示出更高的强度中心性。

结论 本研究（1）确定了合并症中最核心症状—空虚感，支持了“空心病”的理论，为进一步治疗合并症提供准确的干预靶点；（2）揭示了两种障碍之间的起到合并作用的桥症状以及合并的路径，重叠症状和两种障碍各自独立症状簇的发现再次验证了两种疾病有共同的结构又表现出独特的特征；（3）证实了当前评估工具对症状的变化的掩盖，以及合并症网络的性别差异。因此，将网络分析整合到诊断、治疗和随访过程中有助于制定个性化干预措施并加速合并症人群的康复。

关键字：网络分析；网络比较测试；合并症；抑郁；焦虑；治疗效果

Dynamic Low-Frequency Amplitude Abnormalities in First-Episode Depression Patients

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Objective Depression is one of the most common mental illnesses, typically characterized by a lack of happiness and interest. People with depression may even have serious suicidal behavior, which brings a serious burden to society and family. Resting state functional magnetic resonance imaging (fMRI) can noninvasively detect the resting state of human brain. The low-frequency amplitude is a well-established rs-fMRI index that characterizes the intensity of neuronal activity in a local brain region at rest. It is well known that the brain is highly dynamic, not static, and dynamic low-frequency amplitudes may be able to detect dynamic neuronal activity that static low-frequency amplitudes cannot. However, the dynamic low-frequency amplitude characteristics of first episode depression have not been fully described.

Methods 43 subjects with first-episode depression and 32 age-/sex-matched healthy controls were recruited. All subjects underwent MRI scans. Then, we calculated the dynamic low-frequency amplitudes of all subjects using the sliding window method. Finally, a two-sample t-test was performed on the dynamic low-frequency amplitudes of the two groups of subjects. The correction method uses the GRF method with the voxel threshold set to p=0.005 and the cluster threshold set to p=0.05.

Results The results of the two-sample t-test showed that the variability of dynamic low-frequency amplitudes differed between the first-episode depression group and the healthy controls in several brain regions. The first-episode depression group had lower dynamic low-frequency amplitudes in the left and right supplementary motor areas (voxels=38, t= -4.28) as well as in Vermis area 6 (voxels=72, t= -4.12).

Conclusion Our findings suggest that patients with first-episode depression also have abnormal neuronal activity in the cerebellum, which provides a new perspective on the pathogenesis of depression.

关键字：Dynamic Low-Frequency Amplitude, Functional Magnetic Resonance, First-Episode Depression.

内质网应激在抑郁症中的研究进展

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摘要：抑郁症是一种以情绪低落为主要表现的常见精神障碍，其病理生理机制复杂且药物治疗效果欠佳。大量研究表明，内质网应激在抑郁症的病理生理中起着关键作用，但至今尚未能全面了解其机制。文章结合近年来对抑郁症的临床和临床前研究，从神经炎症、神经可塑性和氧化应激等方面对内质网应激影响抑郁症的作用机制进行综述，以期为抑郁症机制研究提供新思路。之后，本文总结了近年来几种常用抗抑郁药物对内质网应激通路的影响，以及中药和其他靶向内质网应激的药物在发挥抗抑郁作用时的潜在机制。内质网应激可能是抗抑郁药研发的新方向，并可能有助于探索抑郁症的辅助治疗。 Depression is a common mental disorder mainly manifested by depression. Its pathophysiological mechanism is complex and drug treatment is not effective. Many studies have shown that endoplasmic reticulum stress plays a key role in the pathophysiology of depression, but its mechanism has not been fully understood so far. Combined with recent clinical and preclinical studies on depression, this paper reviews the mechanism of ER stress on depression from neuroinflammation, neuroplasticity and oxidative stress, in order to provide new ideas for the study of depression mechanism.

关键字：关键词：抑郁症；内质网应激；神经炎症；神经可塑性；氧化应激

高迁移率族蛋白 1 在抑郁症发病机制中的研究进展

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目的 抑郁症的病理机制复杂，研究表明神经炎症在抑郁症的病理机制中发挥着重要作用。高迁移率族蛋白 1（high mobility group box 1，HMGB1）是一种

广泛存在于真核细胞内的非组蛋白 DNA 结合蛋白，释放至胞外后可引发炎症性级联反应，继而导致抑郁症的发生。本文对 HMGB1 在抑郁症中可能涉及的病理机制进行综述，以期对后续研究提供借鉴。

方法 在 Pubmed 上搜索“HMGB1”和“depression”等关键词，选择符合主题的文章进行综述。

结果 HMGB1 是一种普遍存在的染色质蛋白，在真核哺乳动物细胞中表达。HMGB1 分子大小约 25kDa，存在于细胞核内，由 214 个氨基酸组成。HMGB1 由 3 个不同的域组成，即 A 和 B 两个 DNA 结合结构域以及一个带负电荷的羧基端（c 端）。A 结合域与抗炎作用有关，B 结合域与促炎作用有关，羧基端则参与对 DNA 结合亲和力的调控。 生理状态下，HMGB1 主要存在于细胞核中，与 DNA 结合，有助于 DNA 的修复、复制、转录和基因组稳定。而在缺氧等病理情况下，免疫细胞和损伤或死亡的非免疫细胞会产生 HMGB1 到细胞质中，最终排泄到细胞外环境中并诱导一系列反应。这种易位与核定位序列中的赖氨酸残基乙酰化相关。 HMGB1 在脊椎动物细胞中广泛表达并存在两种形式，即核结构性因子和分泌性炎症因子。在早期大脑发育过程中，HMGB1 在中枢神经系统中表现出复杂的时空分布特点。它促进了神经元的生长和细胞迁移至关重要的过程，如前脑发育。成年后，HMGB1 可以诱导损伤后的神经炎症，如脊髓和大脑的损伤。HMGB1 在胞外作为警报蛋白可以激活 RAGE 和 TLRs 神经炎症通路，进一步导致炎症性级联[6]。近来研究表明，HMGB1 在神经炎症、犬尿氨酸通路、神经发生及氧化应激等介导的抑郁中有重要作用。

结论 HMGB1 在抑郁症病理机制中发挥着重要作用，对 HMGB1 的深入研究有助于揭示抑郁症的病理机制，并为以后的诊断和治疗提供新的思路，以缓解抑郁症给患者及其家庭所带来的痛苦，并减轻抑郁症给社会带来的疾病负担。

关键字：抑郁症； 炎症； 高迁移率族蛋白质类

电生理学在儿童青少年抑郁症早期识别诊断中的研究进展

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目的 儿童青少年抑郁症一直是社会关注的焦点之一，早期识别和干预治疗对于预防抑郁症的发展至关重要。近年来，随着电生理学技术的不断发展，对于儿童青少年抑郁症的早期识别和干预治疗技术的研究也取得了一些进展。本综述旨在总结电生理学技术在儿童青少年抑郁症早期识别诊断中的研究进展，以促进对儿童青少年该疾病的准确诊断和早期干预。

方法 通过中国知网和 PubMed 进行相关文献检索和综合分析，收集了有关于电生理学在儿童青少年抑郁症方面的研究。本综述主要关注了脑电图（EEG）和近红外光谱（NIRS）的应用。

结果 许多研究表明，儿童青少年抑郁症患者存在特定的电生理学改变例如 EEG 的研究发现患者大脑皮层的 alpha 波和 beta 波活动较高，而 theta 波活动较低，表明脑电图可以用于预测儿童青少年抑郁症的风险。NIRS 的研究发现，患者在执行认知任务时与正常对照组相比，前额叶皮层的氧合血红蛋白浓度降低，表明该区域的脑血流量减少，这可能与患者的认知功能下降有关，表明 NIRS 技术能够在儿童青少年抑郁症的早期诊断和治疗中发挥重要作用。

结论 电生理学作为一种无创的技术，在儿童青少年抑郁症早期识别与诊断中具有重要的价值。通过对 EEG 和 NIRS 技术的综合运用，可以更好地了解抑郁症的神经机制，并为个性化治疗提供指导。然而目前依旧存在一些挑战，如标准化处理方法的缺乏、样本量较小、各研究设计不一致等。未来需要进一步开展大样本、多中心的研究，以验证现有的早期诊断方法，并探索新的检测方法以提高准确性和可靠性，同时要建立处理方法和数据分析的标准，以更好的推动该领域的发展，为儿童青少年抑郁症的治疗提供更多有效的技术手段。

关键字：儿童青少年抑郁症；脑电图；近红外光谱

网络游戏障碍与焦虑障碍共病研究进展

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目的 网络游戏障碍(Internet Gaming Disorder, IGD)在 2013 年被纳入《精神障碍诊断与统计手册》第五次修订版本的研究附录中,常与焦虑障碍、抑郁障碍、注意缺陷与多动症、强迫障碍等发生共病。本文综述了几项有关 IGD 与焦虑障碍共病的相关研究，以期为今后 IGD 与焦虑障碍共病在临床的识别、诊断以及治疗干预等方面提供一定的参考。

方法 本文对网络游戏障碍与焦虑障碍的共病研究进行文献检索，总结了目前两种疾病共病研究现状。

结果 综上，焦虑是 IGD 重要的风险预测因素。焦虑程度越高越倾向于发展成为 IGD。同时，IGD 患者常伴发较高的焦虑水平。以上结论说明，IGD 与焦虑共病者的身心健康将面临更多症状与挑战，需要更加有效的治疗手段以干预降低共病发生的风险。目前关于 IGD 共病方面的研究与综述仍十分缺乏，未来需要更多研究对该领域进行进入的探索与补充。

结论 目前的研究表明 IGD 个体比普通玩家更易与焦虑障碍、抑郁障碍、注意缺陷与多动症、强迫障碍发生共病。IGD 伴焦虑障碍者在抑郁、焦虑评分方面均高于 IGD 不伴焦虑障碍者。同时，焦虑也证实会增加个体患 IGD 的风险。有学者在印证社交焦虑与发生 IGD 直接相关的同时，也发现网络游戏消极元认知在

社交焦虑与 IGD 关系中的中介作用最强。两种疾病的相关性在男性个体中更为显著。诊断方面，有研究通过微表情识别技术发现，焦虑量表得分与 IGD 个体识别快乐情绪面孔的正确率成负相关，这项技术未来可能会对两种疾病的共病与诊断提供帮助。

关键字：网络游戏障碍；焦虑障碍；共病

阿立哌唑增效伏硫西汀治疗难治性抑郁的临床疗效观察

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目的 探讨阿立哌唑增效伏硫西汀治疗难治性抑郁症的疗效、耐受性以及社会功能的改善情况。

方法 选取 2020 年 1 月-2020 年 12 月临沂市精神卫生中心门诊或住院治疗的 73 例难治性抑郁患者为研究对象，随机分为对照组（36 例）和治疗组（37 例）；随访过程中脱落 3 例，其中治疗组 2 例，自行停药，对照组 1 例，自行停药；最终有 70 例患者完成研究，对照组（35 例）和治疗组（35 例）。对照组经 1 周清洗期后，口服伏硫西汀治疗，初始剂量 10mg/d，1 周后加量至 20mg/d。治疗组在对照组的基础上口服阿立哌唑，初始剂量 5mg/d 口服，1 周内逐渐加量至 5-10mg/d。两组患者均连续治疗 8 周。在不同时间节点对受试者进行汉密尔顿抑郁量表（HAMD）评分、席汉残疾量表（SDS）评分、药物副反应量表（TESS）评分。

结果 经过为期 8 周的治疗，治疗组有效率为 88.6%，对照组有效率为 68.6%，两组比较差异有统计学意义（P＜0.05）。两组 HAMD 在第 2、4、8 周末均比治疗前明显下降（P＜0.05），与对照组相比治疗组在第 2、4、8 周末评分降低更明显（P＜0.05）。治疗第 8 周末治疗组社会功能恢复更显著，与治疗前相比，差异具有统计学意义（P＜0.05）。

结论 伏硫西汀联合阿立哌唑治疗难治性抑郁起效更快、疗效更好，社会功能恢复相对较快且安全性较好。

关键字：难治性抑郁症；伏硫西汀；阿立哌唑

精神医学创新之路——人工智能技术应用与展望

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综述摘要 近年来，随着人工智能（Artificial Intelligence，AI）技术的迅速发展，AI 在医学领域的应用也逐渐深入，尤其是以思维为研究对象的精神病学方向，人工智能技术在精神诊断和治疗方面的需求与发展方向相关度很高。本文首先介绍了人工智能技术在精神病学早期诊断、病程进展预测、个体化治疗和信息获取、辅助决策方面的应用，并分析了相关研究进展及典型案例。探讨了人工智能在精神病学领域应用所面临的挑战和未来发展趋势。 人工智能技术在精神病学的应用主要包括：生物标志物检测方法、语言及行为分析技术用于早期诊断；数据挖掘与机器学习技术用于疾病进展预测与风险评估；治疗方案评估与模拟、治疗监测与调整用于个性化治疗计划；自然语言处理技术在文献分析及临床决策中的应用。本文还通过分析一些典型案例，如语音分析技术应用于双相情感障碍的诊断、利用机器学习预测精神分裂症复发等，引发未来行业发展方向的思考。同时，本文讨论了人工智能技术在精神病学领域面临的挑战，如数据质量与数据安全问题、技术集成与部署的困难、模型泛化能力的提升、跨学科协同创新、法规与伦理问题等。 综上，人工智能技术为精神病学领域带来了巨大的发展潜力。在未来，需要加强各类技术的集成与部署，提高模型的泛化能力，以推动人工智能在精神病学中的广泛应用，实现精神病学与人工智能领域的共同进步。

关键字：人工智能；精神医学；诊断；治疗；综述

基于文献计量学和可视化分析探究能量稳态失衡在诱发抗精神病药相关代谢综合征的作用

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目的 本研究旨在通过文献计量学和可视化分析的方法，分析抗精神病药相关代谢综合征（AIMetS）的研究现状和发展趋势，阐述“能量稳态失衡”在诱发 MetS 过程中发挥的作用以及机制。

方法 从 Web of Science Core Collection（WoSCC）数据库中检索 2006 年至 2021 年符合标准的 AIMetS 相关文献。使用 R-biblioshiny 进行描述性分析，CiteSpace 进行合作网络分析、共引分析、爆发检测，VOSviewer 进行关键词共现分析。

结果 从 WoSCC 数据库中检索到 3478 篇文章。从 2006 年以来，文章发表量处于波动增长趋势。AIMetS 的研究在国家/地区之间存在广泛合作关系。影响力最大的国家、科研机构和作者分别是美国、伦敦国王学院和 Christoph U Correll。突现引文和突现关键词表明，“稳态”是近年来的热点话题，与 AIMetS 的发生机制有关。抗精神病药作用于 G 蛋白偶联受体，不仅能发挥治疗效果，还能扰乱细胞内的能量稳态。根据突现关键词和“关键词+”，“LC-MS/MS”是该领域研究中重要的分析工具，其发展可促进研究的开展。

结论 这项文献计量学研究展示了 AIMetS 研究的新趋势，开拓了研究的新视角，有助于进一步了解该领域的热点和前沿。目前，重点关注于 AIMetS 发生过程中能量稳态失衡的分子机制。这一研究还有助于研究人员了解该领域中最有影响力的国家/地区、机构和作者，从而促进未来研究合作。

关键字：抗精神病药；代谢综合征；能量稳态；文

献计量学；可视化分析

医务人员共患抑郁和焦虑的网络分析

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目的 本研究旨在探讨医院医务人员抑郁和焦虑症状共病的网络结构。

方法 2022 年 9 月 13 日至 2022 年 9 月 19 日济宁地区进行，共招募了 450 名医务人员作为研究对象。患者健康问卷（Patient Health Questionnaire, PHQ-9）、广泛性焦虑症量表（Generalized Anxiety Disorder Scale,GAD-7）分别用于测量抑郁和焦虑症状。对症状进行正则化偏相关网络分析，关注网络中各项目的预期影响和可预测性。使用 R 软件对网络进行统计分析和可视化。

结果 共病抑郁症（PHQ-9 ≥ 5）和焦虑症 GAD-7 ≥ 5 的患病率为 26.9%。GAD.4（“难以放松”）和 GAD.2（“不能停止”）整个抑郁-焦虑网络的中心症状，这些症状对于理解该人群中抑郁和焦虑网络模型的结构具有重要意义和影响力。GAD.5（“静坐不能”）和 PHQ.8（“思维迟缓”）是连接抑郁和焦虑的最关键的桥梁症状。性别与网络全局强度、边权重分布或个体边权重无关。

结论 本研究结果表明静坐不能和思维迟缓是医院医务人员共病抑郁和焦虑症状的核心症状。以这两个症状为主要的干预靶点，可能有助于预防和治疗医务人员抑郁和焦虑的共病。

关键字：医务人员 抑郁 焦虑 网络分析

单胺类神经递质介导肠道菌群在抑郁症发生发展中的研究进展

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目的 抑郁症是一种发病率高、复发率高的慢性精神疾病，近年来研究其发病机制及对更有效治疗手段的探索越来越受关注。肠道菌群通过内分泌、免疫系统及神经递质等调节宿主的行为、认知和情绪功能这些新的发现激发了新的想法，即抑郁症发生与肠道菌群异常的相关性是通过神经递质的改变实现的。如果证实了这一理论，可以为抑郁症的诊断和治疗提供新的思路。

方法 大量阅读了近五年的国内外对单胺类神经递质通路的最新研究成果，对目前与抑郁症有关的肠道菌群，尤其是细菌种和属的异常及神经递质之间的相关性，联系日渐成熟的微生物-肠-脑轴理论进行分类和总结。

结果 人为改变和重构肠道菌群组成是目前最常用的探究肠道菌群对大脑中神经递质的影响方法，多项研究使用无菌或抗生素耗竭肠道菌群的啮齿动物为研究肠道菌群分布、单胺类神经递质和抑郁症状及严重程度提供了合适的研究工具。无菌鼠与常规菌群鼠之间的差异最大化展示了肠道菌群缺失的影响，包括血清和大脑中 5-HT 水平下降、DA 代谢水平降低和肠道系统中 NE 分泌的减少，表明肠道菌群对宿主体内单胺类神经递质代谢有着不可或缺的作用，并且它的异常与抑郁样症状的出现相关。并且通过引入特定细菌后相关症状的缓解，直观地探究某一微生物群与宿主之间的关系。

结论 目前人工构建抑郁症患者肠道菌群的大致模型，证实了肠道菌群丰度下降通过神经递质影响抑郁样症状的可能性，并且通过特定菌群丰度的调整与神经递质变化和抑郁症状缓解之间的相关性，为后续研究特定菌群与抑郁症患者突出症状的相关性提供更多理论支持，为抑郁症提供了个体化、针对性的治疗策略。

关键字：抑郁症；肠道菌群；单胺类神经递质

中小学教师心理健康和职业倦怠感现状的调查研究

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目的 教师的负面情绪及职业倦怠感可通过影响其身心健康和工作状态，对其所教学的学生产生学习生活受挫、性格发展不良等负面影响。调查不同年龄、工作身份和学科的多位教师的焦虑、抑郁情绪现状及职业倦怠感情况，关注教师行业人群的心理健康现状，为教师的心理干预提供依据，为学生发展提供更优环境。

方法 对 313 位中小学教师进行问卷调查，采用宗氏抑郁自评量表（self-rating depression sale, SDS）和宗氏焦虑自评量表（self-rating anxiety sale, SAS）衡量教师的心理健康状况现状、Campbell 幸福感指数量表中乐观性测试表和职业倦怠感量表（(Maslach Burnout Inventory General Survey, MBI-GS）测试幸福感和职业满意度。

结果 自评量表得分达到焦虑水平（SAS 得分≥50）的共有 64 人，占样本的 20.4%；得分达到抑郁水平（SDS 得分≥53）的共有 100 人，占样本的 31.9%。SDS 得分存在工作身份差异，小学教师的 SDS 得分显著高于中学教师（$p<0.05$）；以 SDS 第三题“我晚上睡眠不

好”对教师睡眠质量进行粗略估计，教师睡眠质量与工作年限有关，教龄小于 20 年的教师睡眠质量显著好于教龄大于 20 年的教师（p<0.01）。MBI-GS 得分存在年龄和工作年限的差异，不同年龄的教师，年龄越小、教龄越短，职业倦怠感更重；其中，个人低成就感维度也存在年龄和教龄的差异，而情感耗竭维度得分存在性别和年龄差异。

结论 中小学教师的工作任务不仅是为学生教授知识，同时也是青少年学生身心良好发展的重要因素和参与者，教师的健康心理和情绪稳定不仅可以提升教师自己的生活质量和个人发展，也是青少年学生健康成长不可或缺的一部分。因此，应对教师群体的抑郁焦虑情绪现状更加重视，提高幸福感指数，减轻职业倦怠感，提高教学质量，在教育行业中发挥出更大的价值。

关键字：教师心理健康；职业倦怠；焦虑；抑郁

针刺治疗喹硫平致不宁腿综合征 1 例

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目的 不宁腿综合征是一种常见的神经系统感觉运动障碍类疾病，是以下肢深部不适感及活动患肢的欲望为特征，喹硫平是治疗精神病的常见药物，而喹硫平所致的 RLS 也有学者报道。精神科药物导致的不宁腿综合征易影响患者的服药进程、降低患者治疗依从性。在此，通过本病例，讨论针刺治疗喹硫平致不宁腿综合征的诊疗方法。

方法 患者，女，36 岁。主诉：情绪低落、双下肢感觉异常半年。患者于半年前，逐渐出现情绪低落，安静时双下肢有虫蚀感，活动好转。外院给予“草酸艾司西敦普兰”，症状加重。入院后行汉密尔顿抑郁量表：21 分；焦虑量表 17 分。多导睡眠视频提示存在周期性肢动，余检查均正常。诊断：1.抑郁发作；2.不宁腿综合征。治疗上，将喹硫平减量，症状缓解，但仍反复诉下肢虫蚀感，要求中医治疗。中医方面予以针刺治疗，针灸处方：百会、神庭、印堂、人中、安眠、内关、神门、血海、足三里、内外膝眼、三阴交、照海、申脉、合谷、太冲、足运动感觉区、下肢感觉区。每次针灸时间为 20 min，每周 5 次，5 次为 1 个疗程。进针手法：照海穴用补法，申脉穴用泻法，其余穴位用平补平泻。

结果 经针刺治疗 1 个疗程后诉双下肢酸胀感存在，双侧膝关节蚂蚁爬行感减弱，睡眠每晚约 4h，大便稀，加天枢。2 个疗程后诉双下肢酸胀感明显减轻，双侧膝关节蚂蚁爬行感明显减弱，无须跪卧和夜间下床步行，不适时经捶打可入睡，睡眠每晚约 6 h。治疗方案不变。3 个疗程后症状基本消失，睡眠正常，二便正常。

结论 不宁腿综合征以双下肢感觉异常为突出表现，静息时出现或加重，活动缓解，夜间症状突出而导致睡眠障碍。临床中容易漏诊及误诊。不宁腿综合征分原发性及继发性，继发因素多且繁杂。精神药物所致不宁腿综合征虽属罕见，但症状严重时，患者可因此加重焦虑、抑郁情绪，影响治疗依从性，应引起临床医师的高度重视近年来，中西医协同诊疗在精神科中运用广泛，将中医药的“减副增效”作用运用到精神科日常诊疗中往往会取得不错的效果。

关键字：喹硫平；不宁腿综合征；针刺

柴胡加龙骨牡蛎汤加减治疗青少年抑郁症的临床研究

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目的 分析柴胡加龙骨牡蛎汤治疗青少年抑郁症的临床疗效。

方法 选取广州医科大学附属脑科医院 2022 年 8 月至 2023 年 5 期间收治的 84 例青少年抑郁症患者，按照随机数字表法将所有患者分为对照组与治疗组，各 42 例。对照组予盐酸舍曲林治疗，根据患者耐受性进行调整药物用量，最大剂量 200mg/日。治疗组在运用盐酸舍曲林基础上，联合中药柴胡加龙骨牡蛎汤加减治疗，比较两组抗抑郁治疗效果及汉密尔顿抑郁量表 -17 版本（Hamilton depression scale-17 version,HAMD-17）、匹茨堡睡眠质量指数（Pittsburgh sleep quality index,PSQI）、健康状况调查简表（short form 36-item health survey,SF-36）对患者的抑郁及低动力症状、睡眠质量和生活质量进行评价。记录治疗过程中的不良事件。

结果 治疗后，治疗组总有效率为 92.9%，显著高于对照组的 78.6%，两组差异具有统计学意义（P<0.05）。与治疗前比较，两组患者治疗后 HAMD-17 评分和低动力症状总分均明显下降，差异具有统计学意义（P<0.05）；治疗后，治疗组低动力症状总分明显低于对照组（P<0.05）。治疗后，治疗组睡眠质量比对照组改善更加明显，差异具有统计学意义（P<0.05）。与治疗前比较，两组患者治疗后健康状况均改善明显（P<0.05）；治疗后，治疗组精神健康比对照组改善更明显，差异具有统计学意义（P<0.05）。治疗过程中，治疗组出现便秘 1 例，治疗过程中无其他明显不适；对照组出现便秘 3 例，口干 1 例，嘱患者增加膳食纤维摄入和增加日间饮水量后改善，未予停药或特殊处理。

结论 柴胡加龙骨牡蛎汤联合盐酸舍曲林治疗青少年抑郁症效果优于单用盐酸舍曲林，柴胡加龙骨牡蛎汤加减可以有效改善抑郁症患者的低动力症状，并可显著改善睡眠质量和生活质量，值得进一步临床推广。

关键字：柴胡加龙骨牡蛎汤；青少年抑郁症；盐酸舍曲林；汉密尔顿抑郁量表-17；低动力症状；

PTSD 睡眠障碍的睡眠多导图特征总结

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目的 创伤后应激障碍是一种临床症状严重、预后不良的慢性精神障碍，异态睡眠、睡眠呼吸障碍及睡眠相关运动障碍等睡眠障碍是PTSD患者常见的症状。考虑到 PTSD 患者可能存在合并的睡眠障碍症状，且睡眠障碍对患者的生活质量影响较大，利用生理指标对 PTSD 的合并睡眠障碍进行更加精细化的了解，对于良好的预后和准确的干预有重要意义。本文回顾了PTSD 患者的 PSG 监测特征，以探究 PTSD 患者的睡眠生理指标的特征，对于临床医生对于 PTSD 合并睡眠障碍患者的诊治也有一定的启示和应用价值。

方法 回顾并学习多导睡眠监测应用于 PTSD 患者睡眠障碍的研究，通过睡眠过程中的生理变化总结PTSD 睡眠障碍的特点。

结果 PSTD 患者存在客观的睡眠障碍，通过 PSG 发现，主要特点为: 呼吸暂停或浅呼吸事件增加，OSA 发病率高于普通人;睡眠深度降低和中枢觉醒增强，睡眠碎片化;REM 期的副交感神经张力降低，可能有丘脑皮质环路的病变。

结论 结果显示，PTSD 患者的睡眠障碍情况与其情绪调节能力的恢复及 PTSD 病程长短有关。PTSD 和睡眠障碍都是生理和心理社会因素综合的结果，在 PTSD 合并睡眠障碍患者的治疗和护理中，除了关注 PTSD 的治疗外，需要关注其睡眠障碍的进展。加强对 PTSD 患者睡眠障碍的深入研究对于提高 PTSD 患者的预后有重要意义。

关键字：PTSD 睡眠障碍 PSG

社会心理服务研究协作组

A Case Report of Acute Psychiatric Disorder Induced by Areca Nut Use

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Background As already mentioned, Areca nut（AN）is the fourth most common abused drug after nicotine, ethanol, and caffeine by providing popular psychoactive substances. AN could be used to treat schizophrenia but acute mental disorders caused by betel nut remained rarely known. Case presentation：This case report describes a 30-year-old male patient who presented with disorganized speech and behavior and had a history of betel nut chewing for the past 2 years. Detailed examination and assessment led to the diagnosis of Acute Psychiatric Disorder induced by Areca nut use. The patient responded well to antipsychotic treatment and showed resolution of symptoms after discontinuing betel nut consumption. One month after discharge, the patient returned to our clinic due to recurring auditory hallucinations after resuming betel nut chewing. After counseling and support were provided to emphasize the importance of abstaining from betel nut use, follow-up half year revealed no recurrence of acute psychiatric disorder symptoms.

Conclusion This case report demonstrates an example of Acute Psychiatric Disorder Induced by betel nut chewing. Observations reported in this case highlight that betel nut can be used not only for the treatment of schizophrenia but also potentially contribute to the development of mental disorders.

关键字： Acute Psychiatric Disorder, Areca nut, Arecoline

如何提高医护工作人员的专注力

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目的 提高医护工作人员的专注力，减少或避免意外事件的发生。

方法 原因：1、分析专注力不足的影响有哪些？⑴专注力不足会导致工作效率下降；⑵专注力不足会降低创造力；⑶专注力不足会影响决策能力；⑷专注力不足会增加工作压力和焦虑。

方法 2、提高专注力的应对措施：⑴适度的休息；（2）适量的运动⑶练习正向；⑷刺激需求；（5）控制情绪降低焦虑与无聊感。（6）内观冥想。 分析：调取我院 4 个年度意外事件报告表，分别为对未实行应对措施提高专注力的两个年度（2019 年-2020 年）所发生的意外事件与实施应对措施提高专注力的两个年度（2021 年-2022 年）所发生的意外事件进行系统的综合分析。

结果 2019 年-2020 年两个年度所发生的意外事

件总例数为 106 例、严重事件 5 例，2021 年-2022 年两个年度所发生的意外事件总例数为 74 例、严重事件 2 例，通过数据对比，未实行应对措施 2019、2020 年度发生的意外事件比率及严重事件例数明显高于已实施应对措施 2021、2022 年度所发生的意外事件。

结论 通过关注医护工作人员及给予相应的加强训练，医护工作者专注力的提高，能够明显有助提高工作效率，增强了医护人员的自信心，并明显减少意外事件发生的几率。

关键字：意外事件 专注力 医护工作者

苏州市社会心理服务体系建设试点工作法制化建设研究报告

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习近平总书记在党的十九大明确指出要“加强社会心理服务体系建设，培育自尊自信、理性平和、积极向上的社会心态”。苏州市委市政府高度重视试点建设，2019 年，苏州市积极申请、顺利启动国家社会心理服务体系建设试点。按照《“健康中国 2030”规划纲要》要求，将试点作为推进平安苏州、健康苏州的重要抓手，作为保障和改善民生、加强和创新社会管理的重要举措，着力推进精神卫生立法进程，通过法制化保障社会心理服务体系建设。 2020 年 5 月 1 日《苏州市精神卫生条例》正式颁布实施。《条例》的施行，为加快推进全市精神卫生事业发展提供了有力支撑，为切实维护精神障碍患者合法权益提供了法制保障，具体的建设策略有：一是出台政策，健全体系。二是高度重视，培训到位。三是整合资源，强化宣传。《条例》实施以来，对我市精神障碍患者康复、就业、社会保障等各方面发展均起到重要的推动作用。一是构建全市社会心理服务平台。通过加强体系建设、信息化建设和市级指导中心建设，整体推进全市社会心理服务体系建设试点工作。二是规范精神障碍诊疗和心理咨询服务。目前，全市 45 所二级以上综合医院已设置心理（精神）科，配备专（兼）职心理咨询师和精神科执业医生。100%精神专科医疗机构开设心理门诊，为患者提供药物治疗和心理治疗相结合的服务。三是有效减少社会危害和减轻家庭负担。通过建立监护责任补偿保险机制、开展精神分裂症患者长效针剂管理试点工作，加强全市严重精神障碍管理治疗工作。

关键字：法制化建设 社会心理服务体系建设

荆州某三所大学大专生焦虑症状和社会支持的相关性分析

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目的 调查大专学生焦虑症状的现况，分析影响焦虑的相关因素，为针对高危人群的个性化干预措施和预防服务提供理论支持。

方法 于 2021 年 6 月-12 月在湖北省荆州市某大专院校采用方便抽样的方法，选取大专生作为调查对象，使用《青少年学生心理健康调查问卷》进行测试。采用二元 logistic 回归分析所有危险因素。

结果 1.样本总数 5337，有效样本 4883，样本有效率 91.49%。其中一般人口学资料，年级：专一 1315 例、专二 3227 例、专三 341 例；性别:男性 2358 例、女性 2525 例；民族：汉族 4295 例、其它民族 588 例；与父母共同生活 3418 例、与祖父母或外祖父母、父母共同生活 797 例、单亲家庭（父母离异后未再婚）280 例、重组家庭（父母离异后再婚）116 例、其它 272 例；家庭经济收入良好 153 例、一般 3536 例、很差 1194 例；婚恋状况：恋爱 789 例、没有恋爱 4050 例、其它 44 例；独生子女 1145 例、非独生子女 3738 例。 2.?泛性焦虑?评量表：没有焦虑症状 3630 例、有焦虑症状 1253 例。 3.社会支持评定量表：低社会支持水平者 233 人，中等社会支持水平者 4101 人，高社会支持水平者 549 人。 4.相关性分析：大专生社会支持总分与 GAD-7 总分之间呈负相关（r=-0.285，P＜0.01）。 5. 单因素分析：焦虑与筛查对象的年级、与谁在一起生活、家庭经济情况、社会支持等级有统计学差异（P<0.05），与性别、民族、婚恋状况、是否为独生子女无统计学差异（P>0.05）。 6.回归分析，回归分析，将是否存在焦虑症状作为因变量，将单因素分析中有统计学意义的变量作为自变量，使用二元 logistic 回归分析，结果发现，大专三年级（OR=1.492，），重组家庭（父母离异后再婚）（OR=1.886），家庭经济收入很差（OR=3.194，）的大专生发生焦虑的风险高。

结论 (1)荆州某大专院校学生焦虑症状发生率 25.7%；(2)不同人口学特征(年级、与谁在一起生活、家庭经济情况)及不同社会支持等级出现焦虑症状存在不同；(3)家庭经济收入很差的大专生发生焦虑的风险高；⑷需采取积极措施保护大专生的心理健康，加强认知教育，改善家庭经济状况对学生产生的影响，同时增加社会支持。

关键字：大专生；焦虑；社会支持

基于精神科大型设备临床合理使用评价指标体系的构建与分析

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目的 构建精神专科医院大型设备临床合理使用评价指标体系。

方法 以某三级甲等精神专科医院 64 排 CT 为例，结合《医疗器械临床使用管理办法》、《三级医院评审标准（2022 版）》要求，以安全、有效、经济、适宜作为

出发点，采取定性和定量相结合的方式，从安全性指标、有效性指标析、经济性指标、适宜性指标四个方面构建基于精神专科医院大型医疗设备临床合理使用评价指标体系

结果 该设备机械性能良好，基本能保证临床诊断安全；2022 年经济收益率为 22.43%，患者阳性率为 70.94%，经济效益较差，分析原因主要是设备维保费用较高，约占设备运行成本 50%的比例，在后续的管理中，应加强 CT 维护保养管理，降低设备维修维护费；设备功能利用与医院学科特点相适宜。

结论 结合《医疗器械临床使用管理办法》、《三级医院评审标准（2022 版）要求，以安全、有效、经济、适宜作为出发点，从安全性指标、有效性指标析、经济性指标、适宜性指标四个方面构建基于精神专科医院大型医疗设备临床合理使用评价指标体系，采取定性与定量相结合的评价模式，促进设备合理使用及精细化管理。通过该指标体系，能够有效分析和掌握大型设备临床使用效果，及时发现问题，避免医患纠纷。

关键字：安全、有效、经济、适宜、临床合理使用、评价指标

运用 FOCUS-PDCA 降低精神专科医院功能检查设备故障发生次数

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目的 运用 FOCUS-PDCA 降低精神专科医院功能检查设备故障发生次数。精神专科医院由于学科属性特点和控制运营成本的原因，设备维修人员较少，尤其是二级或者小型精神专科医院 ，因此，结合精神专科医院设备特点，运用质量管理工具有效降低设备故障发生次数，对于提高设备维修效率和规范设备管理具有很重要的作用。

方法 本文通过汇总某三级精神专科医院功能检查类医学装备维修报告，运用 FOCUS-PDCA 管理工具，发现问题，提出改进措施:（1）设备与其配件分区管。脑电记录盒等信号采集设备与其配套的心电电极片等分区管理，其中浸润待用的电极片放置在专用电极盒内，主机设备外套上隔水带，形成干湿分离，防止有水进入设备主机内部，损坏设备（2）优化操作流程。设备开机使用之前，确保每次设备开机前检查设备外观及其附件是否正常，电源插头有无变形，及时发现隐患；设备开机使用 4 小时后，关机或者进入待机模式，确保设备散热系统及时散热；设备关机后，须及时进行消毒和擦拭，防止设备沾染灰尘，机械转动不灵活。（3）规范电源线路摆放。检查设备线路，用分线器、粘钩将设备电源线路分类整理，簇集成束，防止设备电源皮破损发生短路等。

结果 医疗设备三周内故障发生次数 33 次，降低到三周内医疗设备故障发生次数 7 次，其中线路异常和机械异常问题改善效果明显

结论 FOCUS-PDCA 质量管理工具运用到医疗设备维修管理中心，是规范医疗设备使用，降低设备故障率、创新设备管理模式的有效途径[2]。本次质量改进活动，质量改进小组通过制定系统图的方法查找问题原因，制定对策，有效较低了功能检查设备故障发生次数，提高了设备的开机率和使用率

关键字：FOCUS-PDCA，设备故障，改善效果

网格化心理健康服务对我区医务职工心理健康影响研究

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目的 了解我区医务职工的心理健康状况，构建网格化心理健康服务体系，探讨网格化心理健康服务对医务职工心理健康的影响。

方法 构建网格化心理健康服务体系，区内医疗卫生机构进行随机分层抽样，抽取综合性医院 2 所+社区服务中心 10 所，研究组和对照组均包含综合性医院 1 所+社区服务中心 5 所；分别分层抽取综合性医院和社区服务中心医务职工各 50 名、30 名，每组医务职工共计 200 名。研究组予以推行网格化心理健康服务体系，对照组不推行，每周一次，持续 12 周，每家机构均完成 12 个主题的心理健康培训或团辅。分别于基线期和 12 周末测查一般健康问卷、焦虑自评量表（SAS）、抑郁自评量表（SDS），比较二组之间差异。

结果 共 400 名医务职工的一般健康问卷（GHQ-12）发现大部分医务职工处于低危险组，共有 324 人，占比 81.0%；中高危险组 76 人，占比 19.0%。基线期两组 SAS 评分和 SDS 评分差异无统计学意义（P>0.05），12 周后，研究组的 SAS 评分和 SDS 评分均小于对照组，差异有统计学意义（P<0.05）。

结论 网格化心理健康服务对我区医务职工的焦虑、抑郁情绪平有一定的提高作用；目前所构建的网格化心理服务体系经过实践具有可操作性。

关键字：网格化；心理健康服务；医务职工；心理

精神专科医院急诊服务特点变化——源于 2020-2022 年的急诊数据

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目的 了解华南区域精神专科医院广州医科大学附属脑科医院近 3 年急诊服务特点，进一步了解精神科急诊变化趋势及发展方向。

方法 回顾性调查 2020 年 1 月 1 日至 2022 年 12 月 30 日期间，广州医科大学附属脑科医院急诊就诊患者的一般人口学资料、急诊分诊和急诊诊疗情况，对数据进行统计描述和分析。

结果 共纳入 19730 例精神科急诊患者，2021 年急诊就诊人次最高，为 8224 人次；在急诊患者去向方面，急诊留观及入院比例总体呈现增长趋势，但 2021 年有所下降；在诊疗病种方面，仍然以重性精神病为主，且合并躯体疾病的患者人次呈递增趋势，差异具有统计学意义（P<0.05）；在诊疗资料方面，市外就诊比例总体呈现增加趋势，且由外院 120 或警察、社区等陪同送入我院的比例呈现递增状态，差异具有统计学意义（P<0.05）；

结论 精神专科医院急诊服务需求总体呈现增长情况，间中可能受重大公共卫生事件的影响；精神科急诊服务由单一化转向多样化发展，合并躯体急症比例增加，综合急诊的发展具有必要性；华南区域精神专科医院急诊服务由局部化向区域化发展，推动区域分级诊疗仍是目前的主要发展方向；急诊服务仍以精神科危重症救治为主，开展院前急救业务可能会促进精神专科医院救治效率。

关键字：精神科；急诊；服务；特点

心理咨询从业人员离职意愿相关因素分析-湖北省宜昌市为例

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目的 以宜昌市为例，了解心理咨询从业人员离职原因分析，以求为心理咨询行业管理提供参考。

方法 采用分层抽样的方法，调查宜昌各县市心理服务从业人员现状，主要包括从业人员的基本信息(性别、年龄、受教育程度等)、专业受训及工作情况、压力、职业倦怠、心理弹性、离职意愿情况，采用多元有序 Logistic 回归分析离职意愿与相关因素的关系。

结果 对性别、年龄、是否已婚、文化程度、专业背景、单位性质、培训时长、是否督导、是否定期参加病例讨论、从事心理工作时间、收入满意度、压力感知、职业倦怠、心理弹性等 14 个研究因素比较不同级别离职意愿是否有差异，进行卡方检验或 Kruskal-Wallis 检验，结果显示:性别、年龄、是否督导、收入满意度、压力感知、职业倦怠、心理弹性和心理咨询从业人员离职意愿分级有显著性影响(P<0.05)。将显著因素进一步进行多元有序 logistic 回归结果显示性别（男性相对于女性：β=-1.237,P=0.002）、年龄(30 岁以下相对于 50 岁以上:β=-3.059，P＜0.001) 、是否督促(定期接受督导相对于未接受督促：β=-1.031，P=0.006) 、薪酬满意度(对薪酬满意相对于不满意：β=-1.516，P=0.001)、职业倦怠（β=0.046，P=0.001）、心理弹性（β=-0.036，P=0.033）是离职意愿分级的危险因素。

结论 女性、年龄偏大、未定期接受心理督导、对薪酬不满意、高职业倦怠、低心理弹性心理咨询从业人员更易产生离职意愿。

关键字：心理咨询从业人员；离职意愿；有序 Logistic 回归

南通市精神卫生防治人员心理健康与职业倦怠现状调查和影响因素研究

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目的 探究南通市精神卫生防治人员心理健康与职业倦怠现状及其影响因素。

方法 本研究选取了南通市 7 个县市区的精神卫生防治工作者作为调查对象，共 298 名。使用了自制的一般资料问卷、一般健康问卷（GHQ）和工作倦怠量表（MBI-GS）对其进行心理健康现状和职业倦怠现状评估。

结果 共有 257 名精神卫生防治工作者参与了本研究并完成了有效问卷，有效率为 86.3%。结果显示，81.3%的工作者一般健康问卷总分低于 3 分，而 18.7%的工作者总分高于等于 3 分。其中，28%的工作者存在睡眠障碍，14%的工作者快感缺失，10.1%的工作者缺乏自信。在职业倦怠方面，74.7%的工作者属于轻度职业倦怠，25.3%属于中、重度职业倦怠。具体而言，31.5%的工作者情绪衰竭中、重度，16.7%的工作者玩世不恭中、重度，43.2%的工作者成就感低落中、重度。情绪衰竭与工作者年龄和工作年限呈负相关，玩世不恭与工作者年龄、工作年限和文化程度呈负相关，成就感低落与工作者文化程度呈明显负相关。在性别和婚姻状况方面，精神卫生防治工作者情绪衰竭、玩世不恭和成就感低落存在显著差异。

结论 南通市精神卫生防治人员的心理健康状况良好，但普遍存在不同程度的职业倦怠，其中成就感低落最为明显。职业倦怠受多种因素影响，年龄较小、工作年限较短和文化程度较低是职业倦怠的危险因素。

关键字：精神卫生，心理健康，职业倦怠

青少年抑郁障碍同家庭环境因素及遗传的相关性研究进展

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目的 了解应对方式与心理弹性对青少年抑郁情绪以及自杀意念的影响，了解其对青少年抑郁情绪以及自杀意念的相关性，旨在为今后临床能够尽早干预不良的心理情况并为青少年的心理健康做出指导，降低青少年抑郁症的发病率，减轻青少年的自杀意念。

方法 拟选取疑似抑郁症的 104 例青少年患者作为研究对象，根据其临床诊断结果分为抑郁症组和非抑郁症组。采用 Kutcher 青少年抑郁量表（SAS）比较两组的抑郁情况；采用自杀意念自评表（SIOSS）评估患者的自杀意念；采用特质应对方式问卷（TCSQ）评估患者的应对方式；采用心理弹性量表（CD-RISC）评估患者的心理弹性。统计分析两组 KADS-11、SIOSS

评分、TCSQ 评分、CD-RISC 评分。采用 pearson 分析应对方式、心理弹性与抑郁情绪和自杀意念的关系。采用 SPSS25.0 统计软件进行数据处理分析。

结果 统计分析两组 KADS-11、SIOSS 评分、TCSQ 评分、CD-RISC 评分。采用 pearson 分析应对方式、心理弹性与抑郁情绪和自杀意念的关系。采用 SPSS25.0 统计软件进行数据处理分析。

结论 良好的家庭环境，及时发现青少年情绪问题，尽早干预，可有效避免或减少青少年抑郁的发生，减少抑郁导致自杀意念的产生，减少不良后果的产生。

关键字：抑郁障碍；家庭环境因素；遗传；研究进展

援助新冠肺炎高风险地区核酸采样医务人员任务完成后的心理健康状况调查

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目的 了解援助新冠肺炎高风险地区进行核酸检测样本采样医疗卫生人员任务完成后的心理健康状况和心理症状的发生率，及其与应对方式和人格特征之间的相关性。方法 以 157 名援助医疗卫生人员为研究对象，应用问卷星微信小程序对研究对象进行线上普查；应用焦虑自评量表（SAS）、抑郁自评量表（SDS）和创伤后应激障碍自查问卷（PCL）、自我评估可能会出现的焦虑症状、抑郁症状和应激反应症状，应用特质应对方式问卷和成人版艾森克人格问卷分别评估研究对象的应对方式和人格特征。

方法 以 157 名援助医疗卫生人员为研究对象，应用问卷星微信小程序对研究对象进行线上普查；应用焦虑自评量表（SAS）、抑郁自评量表（SDS）和创伤后应激障碍自查问卷（PCL）、自我评估可能会出现的焦虑症状、抑郁症状和应激反应症状，应用特质应对方式问卷和成人版艾森克人格问卷分别评估研究对象的应对方式和人格特征。

结果 援助队员心理症状检出率为 10.8%（17/157 人），其中 PTSD 症状检出率为 7.0%（11/157 人），抑郁症状检查率为 6.4%（10/157 人），焦虑症状检出率为 3.1%（5/157 人），且多为轻度症状。有心理症状和无心理症状者在平均年龄、平均工作年限、积极应对评分、消极应对评分和 EPQ 问卷的内外向（E 分）、情绪稳定性（N 分）和精神病性（P 分）评分等方面均存在差异，具有统计学意义（P＜0.05）。SAS、SDS 与 PCL 评分之间呈正强相关（r=0.569～0.683，P 均＜0.05）。SAS、SDS 与 PCL 评分与消极应对评分呈正相关，与积极应对呈负相关，且与 SDS 和 PCL 评分之间的相关性达到高度相关（r=-0.507～0.675），与 SAS 评分亦达到中等程度相关（r=0.476 和-0.416）；E 和 P 分与三个症状量表评分之间相关性几乎均已达到中等或强正相关（r=0.294～0.637），E 分与 SDS 评分呈中等程度的负相关（r=-0.326），与 PCL 呈负弱相关（r=-0.266）。二元 logistic 回归分析中，消极应对和工作年限进入回归方程，决定系数为 0.335，预测准确率达到 93.1%。

结论 新冠肺炎病毒核酸检测样本采样援助人员任务完成后总体心理健康状况良好，但少部分人员出现心理问题值得关注；消极应对是心理问题发生的独立危险因素，在今后的心理干预中应开展针对性的应对方式和策略优化训练。

关键字：新型冠状病毒肺炎；心理健康；应激反应；医务人员

探讨氟哌啶醇治疗非酮症高血糖偏侧舞蹈症的诊断学特征并文献复习。

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目的 探讨抗精神病药物氟哌啶醇及镇静安眠类药物治疗非酮症高血糖偏侧舞蹈症的诊断学特征。

方法 回顾性分析我院心理科收治的 1 例非酮症高血糖偏侧舞蹈症患者的临床资料，并对非酮症高血糖偏侧舞蹈症进行文献复习。患者男性，64 岁，因“ 右侧肢体不自主运动 10 余天” 入院，临床表现为偏侧舞蹈样运动, 血糖增高，尿酮阴性，颅脑磁共振成像(MRI) T1 加权像提示左侧基底节区异常高信号。结合患者现病史、既往史、相关影像资料后综合考虑患者诊断为非酮症高血糖偏侧舞蹈症，经为期数十天的治疗，具体为积极控制血糖，加用抗精神病药物氟哌啶醇及镇静安眠类药物治疗，10+天后患者舞蹈样症状消失，规律随访 3 个月复查头颅 CT 提示患者左侧基底节区异常高信号的病灶缩小，至今病情稳定无复发。

结果 临床上患者出现舞蹈样症状，高血糖，尿酮阴性，颅脑 MRI 提示基底节区异常信号灶时提示非酮症高血糖偏侧舞蹈症，经积极治疗，予以抗精神病药物氟哌啶醇及镇静安眠类药物控制患者舞蹈症状。

结论 非酮症高血糖偏侧舞蹈症这一少见的疾病提醒我们在社会心理服务的临床工作中,应重视非酮症高血糖偏侧舞蹈症的发生，在临床工作中及时、积极地控制血糖，善于应用抗精神病药氟哌啶醇及镇静安眠类药物，是稳定和改善病情的重要因素。

关键字：抗精神病药物；镇静安眠药；非酮症；高血糖症；舞蹈症；

甲流感染对临床医务人员焦虑水平影响的研究

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目的 公共卫生事件往往在人群中的影响范围很广，刺激强度较大，造成的精神创伤也相对较为严重。在我国，自新冠疫情逐渐结束后，在今年春季，各地开

始出现甲型流感的散发病例。甲型流感相较新冠致命性低，但同样具有传播迅速的特点，同时其造成的呼吸系统症状与新冠较为接近。考虑到新冠感染对医务人员心理状态的影响，本研究旨在明确甲流感染是否会造成临床医务人员的焦虑情绪。

方法 通过问卷形式展开本研究。本研究计划纳入研究人员共300名，分别为未感染甲流组医务人员，已感染未愈人员和已感染已愈人员。每组纳入研究对象各 100 名。排除合并其他呼吸道疾病感染的受试者或不能明确为甲流感染的受试者。实验组为 2023 年 1 月起感染甲流未愈或已愈的临床医务人员，对照组为未感染甲流的医务人员，通过汉密尔顿焦虑量表对三组人群的焦虑程度进行评估，以探讨甲流感染是否会加重医务人员的焦虑水平。

结果 比较三组受试者的焦虑水平的结果显示，感染甲流未愈或已愈的医务人员其焦虑程度相较未感染医务人员的差异未达到统计学意义。同时，比较感染甲流未愈和感染甲流已愈的医务人员的焦虑水平，其差异同样未达到统计学意义。

结论 本研究得出以下结论，感染甲流未愈或已愈均不会对临床医务工作人员的焦虑情绪造成显著性的影响。

关键字：甲流感染；临床医务人员；焦虑水平

剑桥人格解体量表 meta 分析

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目的 剑桥人格解体量表为国际上较为常用的研究人格解体-现实解体障碍的量表，但是尚无大样本统一的因子结构，本研究拟通过 meta 分析探索剑桥人格解体量表的因子结构。

方法 通过文献筛选后，根据各文献量表中报告的载荷量，并进行以载荷量排序，每个因子代表为1组，而每个条目所在组为载荷量绝对值最大的那一组，并记为 1，余记为 0，构建每篇文献的共生矩阵，最后每篇文献共生矩阵求和并计算 Jaccard's 系数得到相似度矩阵，此为未加权的相似度矩阵。而加权相似矩阵为研究样本量乘以共生矩阵后得到的相似度矩阵，结果以加权相似度矩阵为主。而未加权相似矩阵作为敏感性分析。最后对相似矩阵进行主成分分析，成分数使用平行检验和碎石图确定，使用 promax 旋转因子，以载荷量大于 0.4 且相较于其他成分载荷量差异＞0.1，则确认为该成分。

结果 共纳入 6 篇文献，共计 1535 人，其中 3 篇为英文版，3 篇为翻译版，涉及到西班牙语、意大利语、希腊语版本。最后得到 4 个因子成分：异常身体体验（8，15，20，11，27，12，19，3），情感麻木（7，25，28，18，22），自我解体（13，1，23，26，24，2，6），主观回忆异常（14，17，21，16）

结论 剑桥人格解体量表可分为 4 个因子，为人格解体-现实解体障碍的进一步研究提供了基础。

关键字：剑桥人格解体量表；meta 分析；人格解体-现实解体障碍

对交往困难咨询者的综合心理治疗

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目的 在心理咨询工作中探索一套解决人际交往困难行之有效的心理治疗方法。

方法 对交往困难的79例咨询者进行个别心理治疗，用调整认知的方法，对他们的自我认知、对他人的认知和与他人关系的认知进行调整；同时对因交往不良人际矛盾所引起的负性情绪也进行调整与治疗，并进行交往沟通技巧提高训练。治疗前后分别用得克萨斯社交行为问卷（TSBI）、惧怕否定评价量表（FNES）。

结果 1.治疗后较治疗前得克萨斯社交行为问卷（TSBI）评分提高；惧怕否定评价量表（FNES）评分减少；咨询者中有 72 例（91.2%）认为，通过心理治疗增强并提高了自己交往能力的信心，对今后处理人际交往问题有很大帮助。

结论 交往沟通技能的学习是一个长期的实践过程。在治疗中有 72 例（91.2%）认为自己的交往沟通技能有所增长。咨询者除了在治疗室面谈时学习有关技能，主要还是在其学习生活环境中反复实践，整个治疗中虽有步骤，但一定要充分考虑个体差异、针对不同的核心问题，把认知调整、情绪调整和交往沟通技能训练有机的结合起来。当然期望在治疗期间把咨询者交往中的问题全部解决是不现实的，并且影响交往的因素还很多，如个人道德品质、性格修养，能否遵守人际规则与交往对象能否情感相容等。但对心理问题进行综合治疗，无疑能提高他们对交往应激的应对能力，有益于他们的心理健康发展。有望这种综合治疗方法在实践中进一步完善发展。

关键字：交往困难者 心理综合治疗 观察

音乐运动疗法联合心率变异性生物反馈对精神分裂症患者轻度认知功能障碍的影响

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目的 探讨音乐运动疗法联合心率变异性生物反馈对精神分裂症患者轻度认知功能障碍的影响。

方法 选取 2021 年 5 月至 2022 年 10 月在安徽省某三级甲等精神病院住院治疗的精神分裂症患者例，将其随机分为对照组和试验组，各 40 例。对照组患者实施精神科常规护理措施。试验组患者在常规护理的基础上，进行 30 次的心率变异性生物反馈和 36 次的音乐运动干预训练。观察两组患者干预前后 MMSE、N-BPRS、NOSIE 量表和 Stroop 测试的得分变化。

结果 干预后两组患者在 MMSE、N-BPRS、NOSIE 和 Stroop 测试中的的得分比较，与对照组相比，差异有统计学意义（P0.05）。

结论 音乐运动疗法联合心率变异性生物反馈可以提高精神分裂症患者的认知功能，改善患者的激惹抑郁情绪，稳定病情。

关键字：音乐运动疗法；心率变异性生物反馈；精神分裂症；认知功能

党建引领精神专科医院高质量发展的实践与探析

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目的 精神专科医院发展必须坚持和加强党的全面领导，健全现代医院管理制度。芜湖市第四人民医院充分发挥党建引领作用，将党建工作与业务工作有机融合，推动医院高质量发展，取得较好成效。

方法 党的十九大报告明确提出新时代党的建设总要求和实施健康中国战略[1]，党的二十大强调要把保障人民健康放在优先发展的战略位置。2021 年 6 月，国务院办公厅印发《关于推动公立医院高质量发展的意见》，强调要坚持以人民健康为中心，加强党对公立医院的全面领导，标志着公立医院正式走向高质量发展道路[2]。芜湖市第四人民医院创建于 1969 年，是集医疗、教学、科研、公卫等于一体的三级甲等精神病专科医院，开放床位 1688 张，专业技术人员 612 人，院党委设有 8 个党支部，现有党员 168 人，精神科为安徽省“十四五”临床重点专科，为蚌埠医学院附属医院、国家级住院医师规范化培训基地、国家精神康复基地、安徽省精神科转岗医师培训基地、安徽省精神科专科护士临床实践基地等。近年来，医院坚持以习近平新时代中国特色社会主义思想为引领，充分发挥党委把方向、管大局、作决策、促改革、保落实的领导作用，切实把党的领导融入医院治理各环节，以高质量党建推动医院高质量发展[3]。

结果 在新时期新阶段下，医院党委以习近平新时代中国特色社会主义思想为指导，深入学习贯彻党的二十大精神和习近平总书记系列讲话指示精神，统筹常态化疫情防控和精神卫生事业高质量发展，先后获得全国三八红旗集体、全国改善医疗服务示范医院、全国健康科普作品征集大赛优秀奖，安徽省先进基层党组织、文明单位、健康促进医院、心理健康普及先进集体，芜湖市先进基层党组织、第十九届市级文明单位、芜湖市第一批“两应”基层党组织、芜湖市公立医院综合目标考核一等次等荣誉，成功入选基层党建工作“领航”计划省级示范库。医院的社会影响力、职工的凝聚力得到提升，构建了和谐的医患关系，推动医院健康稳定发展。

结论

关键字：精神专科医院 党建引领 高质量发展

青少年社交媒体使用对心理健康的影响：伞状综述

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目的 青少年的社交媒体使用和心理健康问题长期受到关注，但对于两者关系方向和效应大小结论不一。本研究拟整合该领域综述，了解领域内综述的类型和特征，从更高层次探究两者关联及影响因素，总结目前研究不足和未来改进方向。

方法 检索 5 个英文数据库(EBSCO、ProQuest、Web of Science、PubMed、Embase)和 3 个中文数据库(CNKI、万方、维普)自建库至 2023 年 4 月 15 日所有已发表的综述并进行分析。提取了文献第一作者、发表年份、纳入研究数量及时间范围、样本年龄、社交媒体使用变量、心理健康变量、影响因素、综述类型、结果和观点、研究局限，使用 Zotero、Office 2016 软件进行记录、分析和总结。

结果 39 篇综述被纳入研究，包括 13 篇叙述性综述，11 篇 meta 分析，9 篇系统综述，4 篇范围综述，2 篇伞状综述。对主要研究变量社交媒体使用和心理健康进行了概念化，对其中的调节、中介因素及保护和危险因素进行了归纳总结，对过往研究的局限按出现频率进行陈列。

结论 青少年社交媒体使用和心理健康关系及影响因素复杂，须确定更系统的模型和框架，拓展研究内容和方法并转向更微观的个体视角作进一步探索。

关键字：青少年;社交媒体使用;心理健康;伞状综述

炎症性肠病患者外出事件相关心理调查研究

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目的 炎症性肠病（inflammatory bowel disease，IBD）的症状在一定程度上影响了 IBD 患者的外出旅游和社交活动，为了研究 IBD 患者外出事件及其担忧程度的相关因素。

方法 选取了从 2020 年 9 月至 2022 年 3 月于南京医科大学附属淮安第一医院门诊就诊的 IBD 患者为研究对象，采用自行设计的调查问卷通过问卷星进行调查研究。所有病人填写一般资料及外出活动相关事件的担忧程度。

结果 共有 529 例 IBD 患者完成问卷。在克罗恩病（CD）患者中，≤40 岁的人数以及男性人数的占比均高于溃疡性结肠炎（UC）患者（均 P<0.05）；对外出相关事件中，UC 患者对于出门和坐大巴的担心程度高于 CD 患者（P<0.05），而两组患者对于旅游和找不到卫生间担心程度的差异无统计学意义。在疾病的发作

期，85.9%的 IBD 病人担心外出找不到卫生间；在疾病的缓解期，48.7%的 IBD 病人担心外出找不到卫生间。无论是在疾病的发作期还是缓解期，UC 患者对于外出找不到卫生间的担心程度高于 CD 患者（均 P<0.05）。

结论 IBD 的疾病类型和年龄、性别以及部分外出相关事件相关，临床中应该重点关注患者外出活动的生活质量，采取针对性的干预，改变其应对方式。

关键字：精神心理健康；心身疾病；炎症性肠病；疾病类型；外出活动；应对策略

《职场心理健康》指南要点解读

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3.中华医学会胸心血管外科分会

目的 受到全球经济危机余波和新型冠状病毒肺炎疫情等持续影响，不少国家和地区的经济呈现负增长，在职员工工作压力加重，缺勤、病假、员工流失率与日俱增，同时引发抑郁、焦虑、孤独、倦怠等一系列心理健康问题。本文对《职场心理健康》指南的推荐内容及证据要点进行有针对性的解读，着重解读针对有心理健康问题或高风险职业员工的心理健康干预，并结合我国实际情况和临床实践为读者提供关于促进职场心理健康的最新建议。

方法 英国国家卫生保健与临床优化研究所（National Institute for Health and Care Excellence，NICE）于 2022 年 3 月 2 日发布了《职场心理健康》指南，该指南涵盖了如何在职场中为员工的心理健康创造合适的条件，旨在促进支持性和包容性的职场环境，并帮助有心理健康问题或有潜在心理健康风险的人群。本文对该指南推荐内容及证据要点进行有针对性的解读。

结果 英国 NICE 发布的《职场心理健康》指南，强调了职场心理健康的重要性，提出了总体策略以及针对企业、管理层、个人、政府等方面的推荐意见，倡导了应对高风险职业人群和存在心理健康问题或高风险的员工实施额外的干预，例如应使用专业心理健康评估工具对员工心理状况进行定期监测，应识别和减少压力来源，确保使用个体化且有效的干预方法等。

结论 政府及企业内的全体人员均应意识到职场心理健康的重要性，主动进行预防性干预措施，促进职场心理健康。

关键字：英国国家卫生保健与临床优化研究所(NICE)；职场；心理健康；指南解读

COVID-19 防控隔离观察人员精神心理状况及影响因素分析

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目的 了解疫情防控期间隔离观察人员的精神心理状况及其影响因素，为针对性精神心理干预提供参考依据。

方法 以 2020 年 1 月 27 日至 3 月 21 日在上海市 11 个隔离点接受隔离观察的人员为研究对象。采用自编一般情况调查表、症状自评量表（SCL-90）对隔离观察人员心理状况及其相关因素进行调查分析。结果：共入组隔离观察人员 1568 人，其中 SCL-90 筛查阳性者为 586 人，占 37.4%。筛查阳性者中存在躯体化、强迫、人际关系敏感、抑郁、焦虑、敌对、恐怖、偏执、精神病和其它（失眠）等症状的占比分别为 13.8%、11.3%、9.8%、10.5%、42.6%、6.3%、9.6%、7.2%、0.8%和 13.8%。与国内常模比较，隔离观察人员 SCL-90 的躯体化、强迫、抑郁、焦虑、恐怖、偏执等因子分及阳性项目数偏高，差异有统计学意义（P＜0.01）。多元线性逐步回归方程分析显示：女性（%），身体健康状况、家庭状况、被动入住、诉求次数等变量进入回归方程（P＜0.01）。

结果 接受隔离观察的人员确实存在较为突出的心理问题，其中以焦虑反应最为显著，女性、健康状况差者、有未成年儿女一起接受隔离观察者、被动接受隔离者的心理健康状况需要特别关注。

结论 接受隔离观察的人员确实存在较为突出的心理问题，女性、健康状况差者、未成年儿女同行者、被动接受隔离者容易出现心理症状。

关键字：新型冠状病毒疾病；隔离观察人员；精神心理状况；影响因素；

Personalized Repetitive Transcranial Magnetic Stimulation for Depression Treatment

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Repetitive transcranial magnetic stimulation(rTMS) is a rapid and effective treatment for major depressive disorder (MDD), but treatment varies widely within and between individuals, with approximately 50% of patients remaining unresponsive to treatment. Many studies have now personalized the stimulation parameters of repetitive transcranial magnetic stimulation (e.g., stimulation location, intensity, and coil angle) according to the anatomical and functional structure of human brain, but primarily, in addition to these parameters, other intrinsic states of the individual such as activity,circadian rhythm, neural oscillation and neuroplasticity also contribute to the variations of rTMS effects. In this review, we discuss studies involving state effects to better understanding the interaction between rTMS and brain states. We propose two possible ways including using multimodal treatment and adaptive

closed-loop treatment to embrace rTMS and patients' intrinsic states and inspire optimization of the rTMS treatment for depression.

关键字：Depression,rTMS,State dependency,Personalized medicine,

Progress and Promise for The Treatment of Psychiatric Disorders: Psychoactive Substances with Therapeutic Potential

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Psychoactive substances, including psychedelics, cannabinoids, and ketamine, have gained increasing attention for their therapeutic potential in neurological and psychiatric disorders. Their rapid onset of action and effectiveness in treating refractory disorders have made them particularly favored in the field of scientific research and healthcare. In this review, we mainly discussed recent preclinical studies about the therapeutic effect of psychedelics, ketamine, psilocybin, MDMA, and THC in some psychiatric disorders. Further we attempted to discuss whether different psychoactive drugs share a common mechanism of action in their efficacy for psychiatric disorders. Of these, the synaptic plasticity mediated through the mTOR pathway may be a shared underpinning. Next, we discussed their psychoactive properties and adverse reactions, as well as promising directions for future investigations. In light of these challenges, there is a growing need to strengthen the management regulations for medical psychoactive substances and further investigate their therapeutic effects and underlying mechanisms.

关键字：Psychotropic substances；therapy；synaptogenesis；mTOR

精神障碍患者对保护性约束的认知及体验的质性研究

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目的 本研究旨在探索经历过保护性约束的精神障碍患者的主观体验及认知。

方法 对上海市某精神卫生中心 8 名处于康复期并且经历过保护性约束的精神障碍患者进行半结构式访谈。访谈通过录音笔进行记录，并逐字逐句转录。转录后对资料进行整理并使用解释性现象学分析法进行分析。

结果 经过分析后共提炼出 5 个上升位主题和 13 个副主题：对约束的认知（规训与惩罚，安全防范措施）；对约束措施的应对（公开地抵抗，策略性服从）；负性身心体验（身体失去控制，饱受躯体不适，遭受心理困扰）；约束相关的照护需求（改进约束工具，获得情感支持，获取信息需求，满足生理照护）；约束带来的转变（重新定位医患关系，提升自我管理能力）。

结论 保护性约束在保护精神障碍患者安全的同时，也带来了不容忽视的负面体验。不同的患者对保护性约束有不同的态度和反应。在约束期间，患者的生理和心理需求没有得到充分满足。同时，保护性约束对患者的行为管理和良好治疗关系的建立产生影响。医护人员应更多地关注被约束的精神障碍患者，满足其生理和心理需求，并根据西方国家现有的关于减少约束的循证资源以及中国的国情和文化，积极探索符合我国国情的精神科保护性约束缩减策略。

关键字：精神障碍；保护性约束；认知；体验；质性研究

初步探讨精神药理影像遗传学研究进展及临床前景。

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目的 本文旨在探讨精神药理影像遗传学研究的进展以及其在临床前景中的应用。

方法 本文采用文献综述的方法，对精神药理影像遗传学的研究进展进行梳理和总结，并分析其在临床前景中的应用前景。

结果 精神药理影像遗传学是一门新兴的研究领域，其研究对象是精神障碍的发生机制、药物治疗的效果以及个体差异等方面。近年来，随着脑成像技术和基因测序技术的发展，精神药理影像遗传学的研究取得了许多重要的进展，例如发现了与精神障碍相关的基因和脑区，揭示了药物治疗对脑区功能的影响，以及揭示了个体差异在精神障碍发生中的重要作用。这些研究成果为临床治疗提供了新的思路和方法。

结论 精神药理影像遗传学的研究为精神障碍的发生机制和治疗提供了重要的理论基础和实践指导。随着技术的不断进步和研究的深入，精神药理影像遗传学的应用前景将会日益广阔。

关键字：精神药理影像遗传学，精神障碍，基因，脑成像，药物治疗

晚期恶性肿瘤患者疼痛的心理护理研究进展

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近年来波兰和国际上癌症患者心理治疗研究现状概述。解释心理援助的必要性，从心理援助的概念和作用开始；研究癌症患者和临终患者的心理反应，制定癌症患者的死亡心理治疗内容，研究影响心理治疗效果

的因素和动机因素，为癌症患者的临床心理治疗提供参考依据。癌症疼痛被认为是人类生活的第五个重要症状，仅次于血压、脉搏、心率和呼吸。在肿瘤本身、治疗方法和心理因素等因素的影响下，晚期恶性肿瘤患者往往会出现癌症疼痛的早期症状，并持续恶化，显著降低了他们的生活水平，导致对治疗的不良依赖。先前的研究表明，晚期恶性肿瘤患者急性肿瘤疼痛的发生率在 60%至 80%之间。近年来，在理解、理解和健康治疗癌症疼痛方面取得了重大进展。中国住院患者的癌症疼痛治疗率显著上升。然而，医疗专业人员、晚期癌症患者及其家属对癌症疼痛的治疗存在许多误解，并且没有合适的工具来评估癌症健康或健康管理方法。许多患者出院后仍留在家中，没有成熟的健康管理服务，疼痛后也没有得到充分有效的医疗护理。其中，50%-80%的患者在分泌物分泌后，癌症疼痛和慢性疼痛得到部分缓解。如何减轻恶性肿瘤患者因癌症引起的疼痛已成为一个亟待解决的问题。本文概述了治疗恶性肿瘤患者癌症疼痛的最新研究。疼痛评估没有统一的标准，疼痛专家缺乏，护士缺乏相关知识和培训，家庭社会支持系统不足，不同类型的癌症，不同类型疼痛和疼痛持续时间。未来，我们希望关注癌症疼痛患者的成瘾行为，为癌症疼痛提供个性化的临床干预，推动“癌症疼痛标准化治疗”疾病的示范，建立医院与社区的合作模式。建立服务平台，完善癌症疼痛患者电子信息网络，完善癌症疼痛患者的管理和服务，促进健康促进，如癌症疼痛患者教育和社会健康促进。提高社区癌症疼痛患者的治疗效果。

关键字：恶性肿瘤；心理护理；进展

心理干预对肝癌患者行钇 90 放射性微球介入治疗护理中的应用价值

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目的 研究对肝癌患者行钇 90 放射性微球治疗围手术期实施健康教育和心理干预的临床效果。

方法 实施行钇 90 放射性微球治疗的患者对新技术知识缺乏、放射元素的危害，但又渴望生命的延续，而产生的焦虑、恐惧以及抑郁的心理。将我院介入二科 2022 年 1 月-2023 年 1 月例 4 例确诊原发性肝癌行钇 90 放射性微球治疗的患者，采用随机数字法分二组。对照组给予常规护理，干预组实施心理护理和健康教育。比较两组护理前后的效果。

结果 护理后，干预组患者的肿瘤知识掌握评分（８９．５1±２．２６）分，较之对照组（７２．１2±１．２１）分显著升高（Ｐ＜０．０５）；在干预前两组患者焦虑、抑郁评分均无显著差异（Ｐ＞０．０５），干预后两组患者焦虑自评量表和抑郁自评量表评分低于对照组（Ｐ＜０．０５）。

结论 健康教育和心理干预对肝癌患者行钇 90 放射性微球治疗围手术期中缓解恐惧、焦虑的心理，同时充分了解钇 90 新技术相关知识，树立与病魔做斗争的信心，实验效果显著，值得提倡。心理护理通过了解恶性肿瘤患者的认知、处理方式、性格特点，采取适当的干预措施，改善不良的认知、行为、焦虑、抑郁等，贯穿于肿瘤的治疗全过程，并延伸至居家恶性肿瘤患者，能让患者以积极的心态面对及配合治疗，提高恶性肿瘤患者生活质量[9-10]。对恶性肿瘤介入治疗患者进行全程个性化的心理干预，不但可以改善患者的消极心态，而且可以改变患者的负面认知和负面情绪，且可改变家庭成员和伴侣的不良认知可以让家人更多的关心和理解患者的病情和痛苦，让患者有信心承受疾病和治疗的痛苦，并减少在治疗过程中产生的副作用

关键字：围手术期心理干预；健康教育；钇 90 的防护

运动-心理-睡眠干预对前列腺癌患者癌因性疲乏及心理弹性的影响

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目的 探讨即运动-心理-睡眠干预对前列腺癌患者癌因性疲乏及心理弹性的影响。

方法 2021 年 8 月至 2022 年 8 月选取前列腺癌患者 92 例，应用随机数字表将患者分为观察组及对照组，每组各 46 例，两组患者均行手术+术后化疗治疗，对照组术后行常规性护理，观察组在对照组基础上实施运动-心理-睡眠护理干预（即运动-心理-睡眠干预），比较两组干预前后癌性疲乏、心理弹性及生活质量的改变。

结果 干预后观察组癌性疲乏评分较对照组明显下降（P<0.05），而干预后观察组心理弹性总评分及欧洲癌症患者生命质量评定量表（EORTC QLQ-C30）评分较对照组明显提高（P<0.05）。

结论 运动-心理-睡眠护理干预能有效提高前列腺癌患者心理弹性，运动-心理-睡眠护理干预还可以减轻前列腺癌患者癌因性疲乏，从而改善患者生活质量。饮食对于癌症患者康复起到重要的作用，因为合理的饮食能够补充充足的营养，并且提高身体的免疫机能，增加治疗效果，从而达到促进患者康复的目的。而本研究并没有将饮食干预纳入到前列腺癌患者护理干预中，在日后的研究中本研究将拓展干预方案内容，对患者实施多维度护理干预，从而促进患者身心健康，提高患者生活质量。

关键字：运动-心理-睡眠、前列腺癌、癌因性疲乏、心理弹性

心理社会支持在改善肿瘤患者治疗依从性中的作用及其实践探讨

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目的 探讨心理社会支持在改善肿瘤患者治疗依从性中的作用及其实践，总结心理社会支持对肿瘤患者治疗依从性的影响以及实践中的有效心理社会支持模式。

方法 多种心理社会支持模式如心理治疗、支持团体和家庭支持等。 1 开展更多针对不同肿瘤类型、治疗阶段和患者特点的心理社会支持干预研究，以提高心理社会支持的针对性和有效性。 2 加强心理社会支持的跨学科合作，如整合医学、心理学和社会工作等领域的专业知识，以实现更全面、有效的心理社会支持。 3 关注心理社会支持的长期效果和持续性，探讨如何在患者治疗全程中提供持续、有效的心理社会支持。 4 利用现代信息技术，如网络、移动应用等，开发创新的心理社会支持服务模式，以满足更多患者的需求。

结果 肿瘤患者在治疗过程中可能面临情绪困扰、心理压力、社会孤立等问题。研究表明，心理社会支持对于肿瘤患者的治疗依从性、生活质量和生存期具有积极影响；心理社会支持可以提高患者的依从性，改善生活质量，并提高治疗效果。

结论 总之，心理社会支持在改善肿瘤患者抗癌治疗依从性中具有重要意义。通过深入研究和实践探讨，有望为肿瘤患者提供更加有效、人性化的心理社会支持，从而提高治疗依从性，改善生活质量，并提高治疗效果。

关键字：心理社会支持；肿瘤患者；依从性；实践探讨

Inhibitory Microcircuit of The Orbitofrontal Cortex Regulated by The Perineuronal Nets Modulates Conditioned Place Preference for Cocaine

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Objective To understand the underlying molecular mechanisms of the microcircuit function change of the Orbitofrontal cortex (OFC), and its possible role in regulating drug addiction-related behavior

Methods Transgenic Mice, Chemogenetics, Optogenetics, Electrophysiology, Conditioned Place Preference Test

Results Withdrawal from cocaine compromised inhibitory transmission in the OFC with different contributions from the OFC interneurons. And Cocaine mice showed impaired function of microcircuit in the OFC mediated by the increased SST–PV inhibition. Knockdown of the perineuronal nets reduced SST–PV inhibition diminished place preference of Cocaine mice in CPP test.

Conclusion The present study revealed the important role of the inhibitory microcircuit and SST-PV synapse of the OFC in CPP, a common model of drug addiction. Enhanced SST-PV synapse strength inhibits PV+ neurons which compromised inhibition in the OFC. Furthermore, The perineuronal nets is important for SST-PV synapse maintenance, modulation of their expression regulated inhibitory microcircuit function in the OFC, and the drug addiction-related behavior of mice.

关键字：Orbitofrontal cortex, Inhibition, microcircuit, circuit

抑郁症中的负性认知偏向

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抑郁症是一种常见而严重的精神疾病，其特征为持久的负性情绪体验，以及对负性刺激的注意偏向。本综述旨在对抑郁症患者负性认知偏向进行系统综述，总结抑郁症患者负性认知偏向特征和相关的神经机制，并进一步探讨负性偏向与抑郁症病程及严重程度的关系，以及对治疗效果的预测。首先，我们对现有的实验和临床研究数据进行综合分析，揭示抑郁症患者负性刺激的加工特征。在神经机制方面，回顾使用脑成像技术得到的证据，如功能性磁共振成像（fMRI）和脑电图（EEG），探讨抑郁症患者注意偏向的神经基础。以有研究提示抑郁症患者在加工负性情绪刺激时存在不同脑区的异常激活。具体来说，抑郁症患者前额叶皮层和扣带回显示出与注意加工相关的异常活动，这些神经异常与注意偏向密切相关，可能导致他们对负性情绪的过度关注和加工。此外，我们还探讨了抑郁症患者的注意偏向与病程和严重程度之间的关联。在抑郁症的早期阶段，患者的注意偏向可能对病程的发展产生一定的影响。而在疾病的严重程度方面，负性认知偏向可能与抑郁症的病情加重有关。总体而言，抑郁症患者负性认知偏向的研究为我们更深入地了解该疾病的神经机制提供了重要的线索。未来的研究应关注抑郁症患者的个体差异，疾病异质性可能会导致研究结果的不一致，区分抑郁症患者的不同亚型，并进一步探索不同亚型与其他认知和情绪加工能力的关系。此外，将负性认知偏向作为抑郁症的一个新的治疗目标也是有潜力的，并可能帮助改善抑郁症患者的症状及疗效预测。总之，从行为表现到神经机制进行系统综述，我们对抑郁症患者的负性认知偏向有了更深入的了解，根据负性偏向识别出抑郁症的不同亚型，有助于我们更好地理解抑郁症的发病机制，并提供新的治疗策略。

关键字：抑郁症，负性认知偏向，注意偏向

社区精神卫生服务对精神卫生管理的重要性

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诸多调查显示，心理、行为问题在人群中普遍存在，其中严重精神障碍对人群功能损害严重，精神心理问题的疾病负担日益增长，成为不可忽视的公共卫生问题。 而开展社区精神卫生服务，能够早期、长期、全周期的对精神心理问题进行干预，通过对医院治疗和家庭治疗的有效衔接，建立健全更加完善的医患联盟，早期识别轻症问题，长期随访重症疾病，对社区居民提供有效帮助，帮助精神疾病的患者把握继续学习、成长和改变的机会，从而更好地提高居民心身健康水平。服务重点包括评估、计划、实施、评价和协调，主要包括生理康复、心理康复、职业康复与社会康复等环节。当居民出院后回到社区时，需要加强沟通联络，进行随访干预。首先，需要评估居民的需求，从而制定相应的医疗服务计划，为其提供相关的精神心理卫生服务，跟踪服务执行的情况，评估服务效果。同时，需要关注患者及家属间的关系，促进患者及家属的相互理解，有效引导家属督促患者参加康复锻炼，提高服务依从性，促进更高的恢复水平。

关键字：社区 精神障碍

新式保护性约束用具在精神科中的应用现状

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摘要 近年来，国内许多学者都对保护性约束用具进行了研究，经过临床实践创新出了许多新型的约束用具。通过检索文献，本文综述了目前国内精神科中新的约束工具的应用现状，其主要形式是选取较新的约束工具进行相关阐述，包括研发、使用、可能出现的问题以及相应的护理措施，其中也涉及到了有关约束制度的改进以及对于传统约束用具的改良和通过创新发明的新型约束工具。通过对相关约束工具的阐述，为新型保护性用具以及病人的个性化护理在临床中的实践提供参考依据。在临床保护性约束过程中出现的一些问题，比如长期约束患者肢体功能的损伤、皮肤损伤或者在约束过程中伦理问题等，随着约束方法和护理措施的不断改进，在保护性约束过程中产生的问题也在逐步解决，护理服务质量也有了很大提升。首先在约束产生的并发症方面，改良之后的约束方式能在大限度的防止病人皮肤损害、非计划性拔管等不良事件的发生,其次，设计者也把更多的注意力放在了关乎伦理的问题上。由于传统的约束工具外形，在约束时给病人及家属以惩罚感，因此在设计新式工具上还考虑到外形的问题，因而使约束工具更加人性化。笔者通过总结一些新的解决方法，最大程度的提升住院患者的体验感，进一步提升精神科护理的质量。

关键字：新式保护性约束；保护性用具；精神科；保护性约束制度

2022 年度苏州市心理危机干预与援助热线来电者特征分析

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目的 通过分析 2022 年度来电数据，研究来电者特征与咨询内容之间的关系，了解心理热线来电特征在疫情不同阶段的变化及发展趋势，以期为后续工作的开展提供建议和帮助。

方法 针对 2022 年 1 月-12 月苏州市心理援助热线的 15202 例来电数据，通过基础信息筛选后选取信息完整来电共计 5188 例，进行描述性统计、卡方分析分析和 Goodman-Kruskal tau 系数分析变量间的关系。

结果 1. 热线来电总体上婚恋类型（已婚；未婚；丧偶/离异；不详）和性别类型（男；女）下的求助类型表现均有显著差异（$\chi2 = 1166.832$、158.467, $p < 0.001$）。不同性别的风险程度存在显著差异（$\chi2 = 13.296$, $p < 0.05$）；2.一年内，10 月份的来电量最多，10-12 月的来电者自杀风险最高；3.来电求助类型主要是精神心理类、恋爱问题以及婚姻家庭类问题。

结论 来电者的自杀风险在秋冬季节较高，心理热线求助类型在性别和婚恋分类上具有显著差异（$p < 0.001$），已婚女性求助精神心理问题的数量是已婚男性的两倍，接线员需要更加重视秋冬季出现的心理健康问题，对已婚女性进行更多地帮助和支持，社会心理机构需要对老年人给予更多地社会心理援助。

关键字：心理援助；心理热线；心理咨询

物质依赖学组

酒精使用障碍与细胞因子研究进展

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目的 从免疫学角度对酒精使用障碍与细胞因子之间的关系进行归纳总结，了解酒精使用障碍的可能发病机制，探索进一步治疗的可能手段和方法。

方法 使用“酒精使用障碍”、“酒精依赖”、“酒精成瘾”、“酒精滥用”和“细胞因子”、“白细胞介素”、“肿瘤坏死因子” 作为关键词搜索中外数据库，查找相关文献。从酗酒、戒断、渴求三个疾病阶段及共病情况共计 4 个方面，阐述酒精使用障碍与细胞因子，尤其是白细胞介素、肿瘤坏死因子间的关系。

结果 在酗酒阶段，酒精使用障碍患者通常表现为促炎因子水平升高，而在戒断期，通常认为存在白细胞介素-6、白细胞介素-10 水平的降低，渴求期研究结果不甚一致，有研究认为白细胞介素-6、肿瘤坏死因子-α 水平显著升高，亦有研究认为肿瘤坏死因子-α 水平与渴求程度呈负相关。而当酒精使用障碍患者合并躯体及其他精神心理疾病后，研究结果更是千差万别，缺乏较为统一及一致的结果。

结论 酒精使用障碍患者由于其本身疾病的特殊性，长期大量的酒精摄入会对各种身体器官和心理状态、人格特点产生影响。故而难以做到控制一切混杂因素，去单纯探究细胞因子与该疾病之间的相互影响。然而，对于酒精对身体和心理产生的负面影响的忽视，甚至是该疾病的诊断要点之一。故而，对于复杂共病状态之下的酒精使用障碍患者细胞因子变化情况的研究具有很现实的临床意义。

关键字：酒精使用障碍，细胞因子，白细胞介素，肿瘤坏死因子

使用酒精引起的精神和行为障碍临床分析

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目的 探讨我县使用酒精引起的精神和行为障碍患者的临床特征。

方法 对 2016 年-2022 年在我院住院，诊断符合 ICD-10 使用酒精引起的精神和行为障碍诊断标准，诊断为使用酒精引起的精神和行为障碍的患者，共 76 例、均为男性（同一患者因同一诊断多次住院算一例）。主要对使用酒精引起的精神和行为障碍的患者临床主要症状、合并躯体疾病情况、治疗情况，预后情况等进行统计分析。

结果 临床主要症状：1、精神障碍表现，76 例患者均不同程度出现精神障碍症状，主要有幻觉、妄想、情感症状、震颤谵妄、人格障碍、记忆障碍。2、戒断症状，其中 65 例患者出现不同程度的戒断症状，主要有手震颤、睡眠障碍、植物神经功能亢进、精神运动性激越、一过性的幻觉或错觉、焦虑、癫痫发作、恶心呕吐。3、躯体情况，其中 48 例患者出现不同程度的躯体损失，主要有周围神经损害、消化系统损害、肝损害、心血管损害、呼吸系统损害。治疗及预后情况：采取综合治疗措施，治疗疗效好，基本痊愈出院，但复发率高、再住院率高，本县患者除首次住院死亡后，再住院率基本达 100%。

结论 因使用酒精引起的精神和行为障碍的患者本身自控力差，意志力较为薄弱，酒精容易获取，而泗阳县又称酒乡，是洋河酒、双沟酒量产地，酒文化悠久，其饮酒环境亦不利于患者康复。

关键字：酒精 精神和行为障碍

青少年网络成瘾与逆反心理的相关性研究

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目的 深入了解青少年逆反心理与青少年网络成瘾的相关性，有利于我们更好的了解青少年网络成瘾的原因，及时实行相关干预措施。

方法 采用随机抽样法采集 300 例芜湖市初、高中学生的人口学资料信息，收集受试者性别、年龄、父母文化程度等一般信息；使用中文网络成瘾量表的修订版（CIAS-R）评估受试者的网络成瘾情况；使用青春期逆反心理问卷测量评估受试者的逆反心理情况。

结果 受试者中达到网络成瘾程度的受试者为 164 人，占 54.7%，未达到网络成瘾程度的受试者为 136 人，占 45.3%。两组受试者的性别、年龄、父母文化程度等一般情况相比差异无统计学意义（$P<0.05$）。青春期逆反心理量表评估后结果显示所有受试者中逆反心理严重者为 60 人，占受试者的 20%，一般逆反心理者为 189 人，占受试者的 63%，逆反心理较轻者为 51 人，占受试者的 17%；青少年网络成瘾组与非网络成瘾组在逆反心理上相比差异有统计学意义（$P<0.05$）。网络成瘾组与逆反心理之间呈负相关性（$r=-0.66, P<0.05$）。

结论 青少年学生中网络成瘾者所占比例较大，且该群体成瘾程度越高，逆反心理可能越严重。社会及家庭可以多关注青少年网络成瘾，可从关注青少年心理健康，从而降低青少年逆反心理，以此来降低青少年网络成瘾的可能性。

关键字：青少年；网络成瘾，逆反心理

甲基苯丙胺使用障碍者短期戒断后的睡眠状况调查

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目的 分析甲基苯丙胺使用障碍(methamphetamine use disorder， MUD)患者戒断 3 个月内的睡眠状况。

方法 对来自湖南省长沙市新开铺强制隔离戒毒所的 276 名戒断时间不超过 3 个月的 MUD 患者的睡眠情况进行调查研究，采用匹兹堡睡眠质量指数(Pittsburgh Sleep Quality Index， PSQI) 问卷进行主观睡眠质量评估并使用心肺耦合（Cardiopulmonary Coupling，CPC）分析对患者的客观睡眠指标进行评估。

结果 MUD 患者的 PSQI 总分为 7. 22 ±5. 18(分)，主观睡眠较差感受的患者占比为 46.4%(PSQI>5); CPC 结果显示 MUD 患者的睡眠总时长为 7.05 ±1. 37（小时）、熟睡时间为 4.33 ±1. 42（小时）、浅睡时间为2.89 ±0. 75（小时）、REM睡眠时间为1.97±0. 47（小时）。与主观睡眠感受良好的患者相比，主观睡眠感受较差的患者表现出更短的睡眠总时间和熟睡时间、更长的浅睡时间和更低的睡眠效率（P<0.05）。

结论 戒断时间在 3 个月以内的 MUD 患者中有接近一半的个体存在睡眠较差的主观感受，这种较差的主观睡眠感受可能与个体更短的睡眠总时间和熟睡时间及更低的睡眠效率相关。

关键字：甲基苯丙胺; 睡眠质量; 匹兹堡睡眠质量指数问卷；心肺耦合分析

The Association of Multilayer Network Switching Rate and Craving in Chronic Electronic Smokers

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Objective Abnormal multilayer network switching rate were found in substance disorder. However, the role of switch between brain networks and craving in chronic electronic cigarettes (e-cigs) users is poorly understood.

Methods We acquired the resting-state fMRI from 93 e-cigs users and age- and sex- matched health controls (HCs). The network switching rate, which refer to a region transits between various networks, was calculated via a spatiotemporal multilayer modularity model. The relation analysis was used to estimate the relationship craving and network switching rate.

Results We found the network conversion rate of the insula, occipital lobe, temporal lobe and cerebellum was negatively correlated with craving scores ($p<0.05$, premutation test $p<0.05$, 10000 times) in e-cigs users.

Conclusion Our findings show on the importance of brain dynamics predicting craving. The ability to switch between network configurations thus appears to be a fundamental feature representing drug craving.

关键字：multilayer network, fMRI, craving, addiction

上海某美沙酮门诊丙肝阳性阿片类依赖患者丙肝知识知晓状况及接受治疗情况调查

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目的 了解上海美沙酮门诊丙肝阳性阿片类依赖患者对丙肝知识知晓状况及接受相关治疗情况，为区域重点人群消除病毒性肝炎公共卫生危害目标，为后续服务及制定政策提供依据。

方法 于 2023 年 5 月,上海市某美沙酮门诊作为调查点，偶遇抽样，问卷调查,回顾收集人口学资料、丙肝感染知识问卷、既往是否接受过丙肝治疗及结果等资料,Epi Data 3.1 建立数据库，SPSS 进行数据处理。

结果 美沙酮门诊丙肝阳性阿片类依赖患者占比67%，共调查 88 人,75％丙肝阳性阿片类依赖患者感染前存在共用注射器注射毒品行为,89.7％存在共用吸毒容器现象。100%丙肝阳性阿片类依赖患者知晓丙肝不治疗会进展为肝硬化和肝肿瘤，62.5%患者了解到现在医疗发展丙肝已经可以治愈，94.3%患者愿意接受丙肝治疗，但其中 76.8％因为治疗费用高、副作用大或是治疗时间太长等原因没有接受过任何形式丙肝治疗，对于丙肝治疗费用，34%的患者能接受 3000 元以上的治疗费用，26.2%的患者能接受 2000-3000 元的治疗费用，39.8%的患者能接受 1000-2000 元的治疗费用。

结论 美沙酮门诊阿片类依赖患者是丙肝的重点防护人员，阳性比例高，丙肝阳性前普遍存在相关高危行为，大部分人未接受过治疗服务，需要加强丙肝宣传及治疗费用补助等综合服务。

关键字：阿片类物质依赖患者，丙肝治疗

Understanding Public Stigma Towards People with Alcohol Use Disorders in China

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目的 To evaluate the nature of public stigma and identify specific factors that contribute to public stigma towards alcohol use disorders in China.

方法 A cross-sectional online survey was conducted in the general population of China towards people with alcohol use disorders.

结果 A total of 1,100 participants from 34 province-level administrative regions completed the survey, with a mean age of 39 years. Almost one-third of participants believed that people with alcohol use disorder were weak-willed. Nearly 70% of participants suggested that patients should pay for the treatment of alcohol-related problems themselves. The higher the perceptions of dangerousness, responsibility, segregation, and need for legal coercion of people with alcohol use disorders, the higher the level of

fear, anger, and pity, and therefore, the greater level of perceived public stigma and more desire for social distance.

结论 Programs to help reduce alcohol-related stigma should be helpful.

关键字：alcohol use disorders;public stigma;general population

Γ-羟基丁酸前体依赖综合征一例及文献复习

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目的 报道一例于成瘾医学科住院治疗的 γ-羟基丁酸（GHB）前体（1,4-丁内酯、1,4-丁二醇）依赖综合征患者，进行相关文献复习，增强精神科医师对新精神活性物质及其导致依赖综合征的认识。

方法 回顾性收集一例收治于我院成瘾医学科 GHB 前体依赖综合征患者的病例资料，包括病史、辅助检查、诊疗过程、出院后随访情况。检索中文（中国知网、万方）及外文（PubMed、Embase、Cochrane Library、Web of Science）数据库，对丁二醇所致依赖相关研究进行文献复习。

结果 患者青年男性，自 5 年前开始使用 1,4-丁内酯用于抵消甲基苯丙胺兴奋作用。4 年前，停用甲基苯丙胺，仍继续使用丁内酯。频率高时按小时口服（平均 1ml/h）。2 年前，因丁内酯受管制，换为使用 GHB 前体 1,4-丁二醇，网购获得，每日需定时或按需口服，停用后即感心慌、手抖、烦躁。外出需随身携带，因影响正常生活，无法自行戒断，患者要求住院治疗。诊断“使用多种药物和其他精神活性物质”引起的依赖综合征，住院期间主要给予奥沙西泮替代治疗，心慌、手抖等戒断反应逐步缓解，顺利出院。出院 1 月后随访，患者正常生活，未再使用 1,4-丁二醇。文献复习提示，生理状态下人体内本身存在内源性 GHB，而外源性 GHB 属于新精神活性物质，易被滥用。1,4-丁内酯、1,4-丁二醇为 GHB 前体，在体内迅速转变为 GHB 发挥作用。GHB 代谢半衰期短是本例患者每日需定时或按需口服的原因。治疗方面，对于 GHB 前体及 GHB 依赖综合征的戒断，多采用苯二氮?类药物替代治疗。

结论 本例患者先后使用两种 GHB 前体，依赖综合征症状典型，经治疗恢复良好。目前 1,4-丁内酯已被列入管制，而 1,4-丁二醇易获取，需警惕 1,4-丁二醇物质依赖情况，建议于医疗机构内进行戒断治疗及支持康复治疗。

关键字：γ-羟基丁酸，1,4-丁内酯，1,4-丁二醇，依赖综合征

地西泮输液泵静脉给药救治酒精震颤谵妄患者一例

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目的 报道一例于成瘾医学科住院治疗的酒精戒断震颤谵妄患者，采用地西泮输液泵静脉给药方式予以救治；进行相关文献复习，探讨酒精戒断震颤谵妄的治疗途径。

方法 回顾性收集一例收治于我院成瘾医学科出现酒精戒断震颤谵妄的患者的病例资料，包括病史、辅助检查、诊疗过程等。检索中文（中国知网、万方）及外文（PubMed、Embase、Cochrane Library、Web of Science）数据库，对地西泮输液泵静脉给药方式救治酒精戒断震颤谵妄进行文献复习。

结果 患者中年男性，饮酒 35 年，嗜酒伴情绪不稳、敏感多疑 5 年，停酒 3 天后出现震颤谵妄，入院时临床机构酒精依赖戒断评估表（CIWA-Ar）评分 24 分。查体不合作，患者谵妄状态，表现激越，双上肢震颤，心率增快。在心电监测及血氧饱和度监测下每日两次给予地西泮输液泵以恒定速度静脉给药，根据患者反应追加口服地西泮。同时进行补充 B 族维生素，纠正电解质紊乱，控制心率等对症支持治疗。经两日治疗，患者震颤谵妄消失，意识清晰，后期顺利参与康复治疗。文献复习提示，酒精戒断震颤谵妄患者建议采用地西泮静脉给药方式，保证药物快速吸收起效。静脉输液泵通过电子控制装置，作用于输液导管或注射器，能够控制给药速度，提高地西泮用量准确性，提高医疗安全性，提高护理质量。

结论 采用静脉泵控制静脉输注的给药方式治疗酒精戒断震颤谵妄，有助于地西泮稳定、持续发挥作用，可能成为救治酒精戒断震颤谵妄患者的重要治疗手段。

关键字：酒精戒断综合征，震颤谵妄，地西泮，输液泵，病例报道

团体治疗对酒依赖患者情绪和睡眠的疗效影响

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目的 研究酒依赖患者在团体心理治疗后情绪和睡眠的疗效影响。

方法 选取 2021 年 5 月至 2022 年 5 月在杭州市第七人民医院就诊的酒依赖患者，诊断符合 ICD-10 酒依赖诊断，用随机数字方法分为研究组（n=51）和对照组（n=53）。两组患者使用地西泮替代治疗，减量过程遵循中国物质依赖防治指南。研究组给予团体心理治疗，总共 10 次，每次 45 分钟，对照组给予一般健康教育。对两组患者入组时（基线）和治疗 2 周后进行汉密尔顿焦虑量表(HAMA)、汉密尔顿抑郁量表(HAMD)及匹兹堡睡眠质量问卷（PSQI）对焦虑、抑郁情绪和睡眠质量进行评估。

结果 研究组经治疗后 HAMA 分数（4.37±0.77），低于对照组 HAMA 分数（12.70±1.56），差异有统计学意义（$P<0.05$）。研究组在治疗后 HAMD 分数

（4.75±1.48），低于对照组 HAMD 分数（11.62±1.36），差异有统计学意义（P＜0.05）。研究组经治疗后 PSQI 分数（4.51±1.22），低于对照组 PSQI 分数（7.45±0.93），两组比较，差异有统计学意义（P＜0.05）。

结论 团体心理治疗对酒依赖患者情绪改善和睡眠起作用。

关键字：团体心理治疗；抑郁；焦虑；睡眠

团体心理治疗对酒依赖患者复饮率及生活质量的影响分析

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目的 评价团体心理治疗对酒依赖患者复饮率及生活质量的影响。

方法 研究设定起止时间为 2021 年 10 月~2023 年 2 月，从我院收治的酒精依赖患者中抽选出 72 例以随机双盲法分组，对照组常规药物治疗，观察组接受团体心理治疗，每组 36 例。对照组予以常规药物治疗，指导患者口服 B 族维生素，加强营养支持治疗，遵医嘱服用苯二氮卓类药物安眠，抗焦虑、抑郁药物缓解。观察组接受团体心理治疗，具体措施：（1）心理教育。（2）针对性心理疏导。（3）行为教育。纠正不良行为习惯，密切监测其身体变化，多组织病友间相互交流，团体分享戒酒心得，分享个人有效的戒酒方法，相互鼓励.

结果 相较于对照组，观察组患者治疗后的复饮率显著偏低，其各方面生活质量评分显著升高，差异有统计意义(P<0.05)；治疗前两组心态和自我效能感评分差异无意义，治疗后观察组患者的焦虑和抑郁评分显著低于对照组，其自我效能评分显著高于对照组，组间差异有意义(P<0.05)。、

结论 对酒精依赖患者实施团体心理治疗既能够降低其复饮率，缓解其负面情绪，还能有效提高患者的生活水平和自信状态，值得临床采纳。综合上述，团体心理治疗既能够帮助酒依赖患者成功戒酒，还能引导其乐观、积极生活，值得临床借鉴

关键字：团体心理治疗；酒依赖；复饮率；生活质量

光纤记录静脉单次注射海洛因或甲基苯丙胺后伏隔核内多巴胺释放情况

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目的 运用光纤记录技术初步探索，比较海洛因或甲基苯丙胺静脉单次注射后，伏隔核(nucleus accumben, NAc)内的多巴胺(dapomine , DA)的浓度释放情况。

方法 使用 Sprague Dawley（SD）大鼠品系,在 NAc 脑区立体定位注射多巴胺探针的腺相关病毒并植入光纤,3 周后进行静脉插管以及 DA 探针信号记录。监测单次注射海洛因（0.06mg/kg）与甲基苯丙胺（0.09mg/kg）后 NAc 脑区 DA 释放情况，并进行比较。同时通过实验箱侧置摄像头记录大鼠行为活动。记录结束后,对大鼠进行心脏灌流取脑,并做冠状切片及 DAPI 染色,通过荧光显微镜观察病毒表达情况与光纤记录位点。

结果 静脉注射海洛因（0.06mg/kg）后,大鼠出现了了运动减缓→运动能力回复的不同阶段，在这一过程中 DA 的释放随大鼠所处状态的改变,呈现为先升高后回落至基线，上升的持续时间为 30s，df/f 值为 6%。静脉注射甲基苯丙胺（0.09mg/kg）后,大鼠出现了了运动增强→运动能力回复的不同阶段，在这一过程中 DA 的释放随大鼠所处状态的改变,呈现为为先升高后回落至基线，上升的持续时间为 60s，df/f 值为 15%。

结论 静脉单次注射海洛因或甲基苯丙胺后，NAc 的 DA 均会释放增加。静脉单次注射海洛因后 DA 释放量低于静脉单次注射甲基苯丙胺。静脉单次注射海洛因后 DA 释放的持续时间短于静脉单次注射甲基苯丙胺。

关键字：光纤多巴胺探针记录；海洛因；甲基苯丙胺；伏隔核

富马酸喹硫平治疗使用酒精引起的精神和行为障碍的临床疗效观察

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目的 探讨富马酸喹硫平治疗使用酒精引起的精神和行为障碍的疗效和安全性。

方法 一、入组标准：1、选择 2016 年 1 月至 2022 年 12 月在本院住院诊断符合 ICD-10 使用酒精引起的精神和行为障碍诊断标准，诊断为使用酒精引起的精神和行为障碍的患者，（同一患者因同一诊断多次住院算一例）。2、患者及家属对本次研究内容了解并自愿签署知情同意书；3、排除有明确药物过敏史，存在严重自杀倾向，认知功能存在障碍，合并机体其他严重疾病的患者。共 76 例。二、用药使用方法：富马酸喹硫平片（湖南洞庭药业股份有限公司，国药准字 H20010117）根据病情在 150mg-750mg/天调整，三：采用 BPRS（简明精神病评定量表）量表分别与治疗前和治疗后进行疗效评定，并以副反应量表评定结果评价其副反应。

结果 根据 BPRS（简明精神病评定量表）减分率评定疗效，76 例中痊愈：16 例（21.05%），显著进步：42 例（55.26%），进步 17 例（22.37%），无效 1 例（1.31%）。显效率（痊愈加显著进步）为 76.31%，有效率（痊愈加显著进步加进步）为：98.68%。副反应共 5 例，2 例嗜睡、2 例椎体外系反应、1 例便秘，副反应发生率为 6.58%。

结论 根据相关文献资料，对比相关数据，对使用酒精引起的精神和行为障碍的患者实施治疗时，在对患者实际情况进行充分考虑的基础上，临床上可积极

选用富马酸喹硫平片，以使治疗效果提升，使药物不良反应减少，从而促进患者生活质量得到有效改善。

关键字：喹硫平 酒精 精神和行为障碍

游戏障碍筛查评估与治疗新进展

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目的 本文综述了近年来游戏障碍筛查评估工具与治疗的新进展，为游戏障碍诊断准确性及治疗有效性提供循证依据，促进游戏障碍患者功能恢复，早日回归社会。

方法 通过检索到的 242 篇文献进行分析，有 36 篇关于筛查评估治疗的文献较好，能够准确反映游戏障碍的筛查与评估。

结果 据中国互联网中心 2022 年 8 月 31 日发布的《第 50 次中国互联网络发展状况统计报告》，截至 2022 年 6 月，我国网络游戏用户规模达 5.52 亿。随着网络游戏普及率提高，过度参与游戏带来的多重问题受到社会各界重视。游戏障碍（Gaming Disorder,GD）被定义为持续或反复使用电子或视频游戏的行为模式，表现为对游戏行为失去控制，以致其它兴趣和日常活动都须让位于游戏，即使出现负面后果，游戏仍然继续下去或不断升级，并持续较长时间。游戏障碍患者导致的个人及社会公共卫生问题正日益凸显，逐渐成为世界各地卫生组织广泛讨论的话题。尽管游戏障碍被纳入 ICD-11 确认定义成为了一种精神类疾病，统一了诊断标准，但临床仍存在漏诊高、误诊率高及治疗难度大等问题。为了提高游戏障碍的诊断正确率，国内外研究者开始研发针对 ICD-11 诊断标准的评估筛查工具，也取得了一些进展。在游戏障碍的治疗上，研究者也开始尝试运用药物治疗、物理治疗及心理治疗开展了有意义的治疗探索。

结论 随着网络游戏的发展，游戏障碍的发病率逐年上升，给社会、家庭带来了严重危害。在游戏障碍的临床诊疗过程，由于对该病的认识有限，常缺乏科学准确的筛查评估工具和有效的治疗手段，使得游戏障碍的诊疗管理过程具有挑战性。随着游戏障碍纳入 ICD-11,人们对该病的认知得到进一步提高，相关筛查评估手段和治疗方案得到了更新，为临床工作提供了新的参考。 在未来诊疗过程中，临床工作者应首先要提高自身对于游戏障碍的识别度；其次要利用有效的筛查评估工具来准确识别游戏障碍并量化疾病的严重程度，将筛查评估工具的使用贯穿疾病诊治的全过程，包括疾病初期、治疗干预期以及康复期；最后，应根据筛查评估工具的测量结果，结合患者的社会-心理-生物学因素，注意合并其他精神疾患的可能，个性化使用合适的综合干预手段，从而提高游戏障碍的临床治疗水准，为游戏障碍患者造福。

关键字：游戏障碍；筛查评估工具；治疗干预

知信行健康教育对酒精所致精神障碍患者自知力和酒精渴求的影响

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目的 探讨知信行健康教育对酒精所致精神障碍患者自知力和酒精渴求的影响。

方法 选取 2021 年 1 月～2021 年 12 月收治的 30 例酒精所致精神障碍患者为对照组，2022 年 1 月～2022 年 12 月收治的 30 例酒精所致精神障碍患者为干预组。对照组采用精神科常规健康宣教，干预组在此基础上采用知信行健康教育。采用自知力及治疗态度问卷（ITAQ）及宾夕法尼亚酒精渴求量表 (PACS)进行评定，比较两组患者的自知力及酒精渴求程度。

结果 干预组和对照组入院时、3 周后、6 周后 ITAQ 评分依次上升（P<0.05），且干预组 3 周、6 周后 ITAQ 评分均明显高于对照组（P<0.05）。干预组和对照组入院时、3 周后、6 周后 PACS 评分依次下降（P<0.05），且干预组 3 周、6 周后 PACS 评分均明显低于对照组（P<0.05）。

结论 知信行健康教育能够纠正患者不良认知，提升自知力，有效减轻酒精所致精神障碍患者对酒精的渴求程度，降低复饮率，同时，有利于家庭关系的良好维系，提高患者和家属的满意度。本研究的开展能够为临床护士开展多形式健康宣教拓展思路，引导护士懂得如何以护理目标为导向进行健康宣教，为后续的精神病护理提供更多的循证证据。

关键字：知信行理论；健康教育；酒精所致精神障碍；自知力；酒精渴求

草酸艾司西酞普兰治疗老年期功能性消化道疾病的疗效研究

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目的 功能性消化道疾病无法用器质性病变解释的功能性疾病。证据表明这种功能紊乱与消化道微生物种类与丰度相关，且既往研究结果显示精神科药品帮助治疗有效。本研究拟探讨在对症治疗基础上，使用草酸艾司西酞普兰对老年期功能性消化道疾病患者临床症状的改善情况，并探讨菌群变化与临床症状的相关性。

方法 本研究共招募试验组 43 人，对照组 40 人。入组时收集了一般人口学信息，成人饮食行为问卷、地中海 14 项饮食问卷、简易精神状态检查量表、胃肠症状评定量表、简明利兹消化不良量表、ZUNG 式焦虑、抑郁自评量表，并收集大便标本送检；受试者都使用消化科常规药品进行对症治疗，试验组同时使用草酸艾司西酞普兰片 10mg/天，12 周后评估再次胃肠道症状评定问卷、简明利兹消化不良问卷、ZUNG 式焦虑、抑

郁自评量表，并于 12 周结束时再次取得受试者大便标本。两次大便标本进行 16S 扩增子分析。

结果 受试者入组时的一般年龄、性别、身体质量指数（体重/身高 2）、受教育程度等一般人口学资料，及饮食行为、认知功能、焦虑抑郁情绪症状在评分皆无统计学差异，经过 12 周治疗后试验组胃肠道症状与情绪症状评分显著下降，干预前后分数差异具有统计学意义（P＜0.05），且加用草酸艾司西酞普兰后胃肠道症状与情绪症状评分显著低于未加用组评分（P＜0.05）。16S 扩增子分析结果显示，送检标本质量良好，标本数量充足，治疗后试验组与对照组肠道微生物种群数量上升，种群丰度均匀性提高，组间菌群种类差异变化有统计学意义（P＜0.05）。在使用草酸艾司西酞普兰治疗 12 周以后试验组有属水平 4 个物种属、种水平 2 个生物种出现显著变化。相关性分析提示，产丁酸菌属丰度与 3 项量表评分成负相关。进一步二元逻辑回归分析显示产丁酸菌属与胃肠症状评定量表和 ZUNG 式抑郁自评量表评分具有回归关系，P 值分别为 0.006、0.026。

结论 本研究结果显示在消化科常规对症治疗的基础上使用草酸艾司西酞普兰片，对治疗老年期功能性消化道疾病的临床效果更加显著。患者在经过 12 周治疗后肠道微生物种类与丰度会有明显改变，其中产丁酸菌属的丰度增加与临床症状的改善密切相关。在使用草酸艾司西酞普兰片后，受试者胃肠道症状与情绪症状改善明显，肠道中产丁酸菌属丰度升高或可解释产生疗效的原因。

关键字：功能性消化道疾病；草酸艾司西酞普兰；临床症状；16S 扩增子测序

雄安新区普通人群精神卫生知识知晓率调查及影响因素研究

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目的 了解雄安新区普通人群心理健康状况和精神卫生知识知晓率，分析低知晓率人群特征，为针对性地开展社区心理健康教育提供依据。

方法 动员雄安新区 20 个社区卫生服务中心和 33 个乡卫生院工作人员通过发送二维码海报、网址链接等方式邀请所辖范围内 15~70 周岁居民参与填写在线问卷。问卷由自编一般人口学资料和精神卫生与心理保健知识问卷两部分构成。

结果 2591 份问卷中 2517 份问卷有效。总知晓率为 77.22%，平均得分(15.44±2.61)分。问卷四个模块中，精神疾病知识方面正确率(67.95%)精神卫生相关节日部分正确率(55.51%)较低。通过单因素分析显示不同年龄段、受教育程度、职业、月收入、婚姻状况、心理健康自我评价对精神卫生知识问卷得分有影响，差异有统计学意义（p＜0.05），而与性别、民族无关。多重线性回归显示受教育程度，职业，婚姻状况，年龄，自我心理健康评价是问卷得分的影响因素。

结论 河北雄安新区在成立之前大部分区域在行政划分上属于河北省保定市。2011 年保定市社区居民精神卫生知识知晓率为 56.91%。本次调查雄安新区普通人群知晓率为 77.22%，相较于 2011 年，有明显的提升，达到了全国精神卫生工作规划(2015～2020 年)的要求。与国内其他城市相比，雄安新区居民精神卫生知识知晓率高于石家庄市，福建省普通居民，也高于上海市嘉定区和北京市西城区，整体在全国范围内处于较高水平。低受教育程度、离异/丧偶、目前暂未工作,无收入的居民得分率较低。 在问卷四个知识类别中，精神疾病知识部分得分率和精神卫生节日部分得分率较低，应持续加大全民心理健康科普宣传力度，提升心理健康素养。可以利用微信公众号推送，短视频平台等新媒体，制作出有针对性的、易于传播的宣教内容，同时注重相关知识系统性的普及，从而改变固有观念，提高精神疾病的诊疗率。 总体而言，雄安新区普通人群精神卫生知识知晓率仍需进一步提高。应着重加强精神卫生节日相关节日的宣传，低受教育程度、离异/丧偶、目前暂未工作,无收入的居民应该是今后精神卫生知识宣教的重点。

关键字：雄安新区；精神卫生；知晓率；相关因素

酒精戒断相关睡眠障碍的研究进展

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目的 酒精戒断相关睡眠障碍是酒精成瘾者停止饮酒之后出现的入睡困难、睡眠维持困难及早醒症状等一系列睡眠障碍，与酒精成瘾的发生、进展、恶化及复发相关，其机制涉及氨基丁酸、谷氨酸、褪黑素和食欲素神经递质的稳态失衡。本文旨在综述酒精依赖戒断相关睡眠障碍的睡眠周期变化、神经生化机制进展以及治疗方法的更新，包括拟研发中的药物，以期为酒精依赖戒断相关睡眠障碍提供循证的干预并指明今后研究方向。

方法 通过对中国知网、万方数据库、维普数据库、中国生物医学文献数据库、PubMed、Web of Science、Embase、Cochrane 图书馆等资源的系统检索，掌握国内外现有治疗酒精戒断相关睡眠障碍的诊疗方案，比较治疗酒精戒断相关睡眠障碍的治疗方法，并发现找出治疗方法的更新，包括拟研发中的药物治疗方案，为开展科学的“睡眠”研究提供依据。

结果 本综述最终通过各大数据库检索共参考引用中英文文献 47 篇。

结论 饮酒与失眠的关系较为复杂。长期持续的饮酒或酒精戒断均可导致睡眠问题，其中最常见的问题就是失眠。另一方面，失眠患者通过饮酒来改善睡眠也相当常见，然而即使酒精依赖患者停止饮酒，酒精依赖戒断所致相关睡眠障碍仍可能会持续多年，美国学者 Roehrs 等人将这一现象称为酒精戒断相关睡眠障碍（insomnia associated with alcohol cessation，IAAC）。作为 IAAC 的一线推荐，行为认知疗法由于耗时长，

专业性强、人力物力耗费大，且专业性要求较高，在临床上难以大范围开展。目前尚缺乏最优的药物药物治疗以及完备的治疗方案。作为急性脱瘾一线用药的苯二氮卓类药物由于与酒精的交叉耐受性，且存在滥用风险，不建议用于治疗 IAAC。临床上较多使用曲唑酮和富马酸喹硫平治疗 IAAC，尤其合并情绪症状、失眠及精神症状患者。而加巴喷丁和食欲素受体拮抗剂在治疗成瘾、控制渴望和减少复发等方面有较好的前景。今后需要更深入研究其发病机制，充分考虑影响因素，以期寻找更有效的治疗手段，更有效地治疗 IAAC。

关键字：酒精成瘾，酒精戒断；失眠；睡眠周期；作用机制；治疗

广州某医学院校大学生手机依赖现状及相关影响因素

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目的 了解医学院校大学生手机依赖现状及其影响因素，为改善手机依赖现状提供参考。

方法 通过方便抽样方法，使用问卷星平台评估了广州某高校医科大学生，发放 1607 份问卷，收回有效问卷 1569 份，有效回收率为 97.6%。问卷包括社会学人口资料、生活方式和健康状况、智能手机依赖量表简版（SAS-SV）、 失眠严重程度指数量表（ISI）、爱泼沃斯嗜睡量表（ESS）、贝克抑郁量表-13（BDI-13）、宗氏焦虑自评量表(SAS)、清晨型与夜晚型量表-5（MEQ-5）、一般拖延量表（GPS）、自我控制量表（SCS）、反刍思维量表（RRS）。根据 SAS-SV 对是否存在手机依赖进行分组。采用 SPSS 26.0 软件对数据进行统计分析。计量资料两组间比较采用独立样本 t 检验。计数资料两组间比较采用 x2 检验。多因素分析采用二分类 Logistic 回归分析。以 P＜0.05 为差异有统计学意义。

结果 参与者的年龄 19.86±1.16 岁（15~27 岁），手机依赖者为 944 人（60.2%）。二元 Logistic 回归分析显示，非独生子女[OR=1.510, 95%CI (1.179，2.020)]、每天使用手机时长>4 小时[OR=1.664, 95%CI (1.277，2.169)]、睡前使用手机>1 小时[OR=1.585, 95%CI (1.121，2.241)]、学习兴趣低[OR=1.767, 95%CI (1.379，2.265)]、日间嗜睡[OR=1.678 95%CI (1.266，2.224)]、中间型[OR=1.416 95%CI (1.030，1.947)]和夜晚型睡眠时型的医学生[OR=2.266 95%CI (1.432，3.588)]以及有抑郁症状[OR=1.835 ，95%CI (1.398，2.410)]是医学生手机依赖的影响因素。

结论 本研究中医学生手机依赖现象较普遍（60.2%），其中是否为独生子女、每天使用手机时长、学习兴趣、是否存在日间嗜睡、睡眠时型、抑郁症状是医学生手机依赖的重要影响因素。

关键字：手机依赖；医学生；影响因素分析；手机使用时长；

抑郁症及抗抑郁药物对疼痛阈值的影响

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目的 在疼痛患者群体中，常常伴有止痛药使用，随之而来的抑郁情绪以及药物依赖和滥用的风险也在提升。疼痛感知和抑郁症背后的神经环路机制可能同时存在交互或分离。本研究综述抑郁症以及相关抗抑郁药物对疼痛阈值的具体影响，进而讨论潜在的神经环路机制，以及各因素间可能存在的相互作用。这些药物降低抑郁情绪，改变疼痛感知，为疼痛患者使用止痛药物的相关物质依赖的治疗提供新的思路。

方法 检索大量文献，收集各种研究过程及结论并进行筛选、分类和汇总。

结果 抗抑郁药物氯米帕明、文拉法辛、米氮平、氟西汀、氟伏沙明、西酞普兰、艾司西酞普兰、帕罗西汀、舍曲林、度洛西汀、氯胺酮等药物会在不同的给药模式、间隔时间、剂量大小、不同的疼痛刺激模式的影响下对疼痛阈值产生不同甚至相反的作用。

结论 降低自发痛的疼痛阈值的有阿米替林（3 mg/kg）、米氮平；增加自发痛疼痛阈值的有氟西汀、舍曲林（20 mg/kg）、氟伏沙明（20 mg/kg）、西酞普兰（20、30mg/kg）、地昔帕明（5、10、20mg/kg）、丙咪嗪（10、20mg/kg）、阿米替林（10-30 mg/kg）、度洛西汀(30 mg/kg)、帕罗西汀、吗啡；增加诱发痛疼痛阈值的有氯米帕明、米氮平、文拉法辛、氟伏沙明、帕罗西汀、吗啡、地昔帕明（20 mg/kg）、度洛西汀、(2R,6R)- HNK、氯胺酮、氟西汀。

关键字：抑郁症，疼痛阈值，神经递质，突触可塑性

对强制隔离戒毒机构收治新精神活性物质戒毒人员的思考

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目的 新精神活性物质在全球范围内流行趋势增长较快。截至 2022 年底，UNODC 报告的新精神活性物质超过 1150 种，我国列管的新精神活性物质已达 188 种。目前我国强制戒毒机构在戒治新精活物质戒毒人员过程中面临挑战。

方法 采用定性研究方法，对上海市青东强制隔离戒毒所收治的新精活物质的学员，进行一对一访谈。访谈内容包括人口学、心理学、社会学及其他特征进行

调查，并在此基础上对强制隔离戒毒机构戒治该类人群提出建议。

结果 在 2023 年 5 月-6 月，共计访谈新精神活性物质学员 10 名，滥用品种包括合成大麻素受体激动剂、合成阿片类、致幻剂、兴奋剂、镇静催眠药、分离剂，该类人群主要是青少年、合并情绪问题比例高（80%共病抑郁、焦虑、人格障碍等）、具有突出的不稳定的家庭关系及负性教养经历、对新精活物质的法律管控情况认知不足。结合我国强制隔离戒毒机构现况，我们建议：1、新精神活性物质与“海洛因”、“冰毒”等毒品一样具有极强的滥用潜力和认知损害特点，需要从生理、认知、心理、家庭教育等多维度全面综合戒治；2、考虑到新精活物质品种繁杂，可根据药理作用机制、使用动机、临床特点等对戒治学员进行分类管理，创建临床路径，以便整合强制隔离戒毒机构现有诊断评估和治疗康复手段实现该类患者的全面戒治；3、应加强强制隔离戒毒机构相关专业人员关于新精神活性物质滥用相关知识培训，提升知识教育、心理康复能力；4、加强与医疗、心理、社会工作等专业机构联系，开展多学科临床研究和联络会诊，不断完善和优化应对新流行毒品的戒治能力。

结论 新精神活性物质流行日趋增多，强制隔离戒毒机构应探索针对该类物质滥用者的分类戒治路径，实现综合、高效、科学戒治。

关键字：新精神活性物质，强制隔离戒毒机构

灵长类动物的特征性行为及其在物质依赖研究中的应用

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目的 物质依赖是严重危害个人及社会的公共卫生问题，其潜在的神经机制尚未明确，需要合适的实验动物模型以进行临床前研究，灵长类动物是理想的选择。非人灵长类动物具有较高的认知水平和复杂的行为，可用于研究脑结构和功能以及其演化机制，为解析人类高级认知功能的神经环路结构和工作原理，提供必要的可侵入性实验材料。本文综述了国内外灵长类动物的特征性行为及其在物质依赖动物模型中的应用进展，分析了目前应用存在的困难和问题，探讨了未来的可能研究方向。

方法 计算机检索 PubMed，收集灵长类动物行为学的研究及物质依赖相关的灵长类动物模型的研究。检索时间为建库至 2023 年 4 月。英文检索词包括“non-human primate”，“behavior”，“substance use disorder”,“monkey",“withdrawal"等。

结果 灵长类动物的行为十分丰富，且由于不同的年龄、性别、饲养条件，都会对猴子的行为造成影响。其在静止时的特征性行为主要有蜷缩姿势和睡眠，而在运动时的行为则更加丰富，包括自发运动、反应性运动、刻板行为、攻击性行为、顺从性行为、自我性行为、环境探索等。在物质使用期间，灵长类的不少行为会发生变化，诸如睡眠、刻板行为。同时，在药物戒断后，这些行为也会发生改变。

结论 本文介绍了非人灵长类动物用在精神疾病研究中可能会出现的一些特征性行为，以及这些行为可能在物质依赖动物模型上的应用。尽管已经有不少特征性行为在成瘾模型中得到应用，但是对于成瘾问题的部分症状，如失控性用药、幻觉、妄想等的模拟仍存在不足，本文也呼吁开发新的针对灵长类动物的认知行为学实验，拓展行为学观察的维度，从而为物质依赖的临床前研究提供更理想的动物模型。

关键字：非人灵长类动物；行为；物质依赖；

酒精使用障碍性别差异的神经影像学研究进展

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酒精使用障碍（alcohol use disorder，AUD）是一种复杂的疾病，与多种疾病的发生发展密切相关，给个人和社会都带来了不良的后果。近年来国内外研究表明女性较男性呈现出了更为显著的饮酒率和饮酒量的增长，AUD 女性相较男性存在“伸缩效应”，即在 AUD 发生发展方面存在一个加速过程，越来越多的研究注意到了性别差异对 AUD 的影响，但性别差异的神经机制仍不完全清楚。 女性和男性在性激素、染色体、基因表达、解剖学和生理学方面均存在生物学差异，社会文化差异、社会支持因素也对不同性别 AUD 患者存在不同影响。在既往多数神经成像研究中，部分研究纳入了男、女两种性别，但其中大部分纳入的女性患者严重不足或者不成比例，在检测性别差异对结果的主要或交互影响方面能力不足。近年来磁共振成像技术在 AUD 性别差异相关脑改变进行了动物模型研究和临床研究，从动物模型、结构磁共振、弥散张量成像、磁共振波谱及功能磁共振等方面进行了性别差异性研究。既往研究发现 AUD 动物模型和 AUD 患者存在形态和功能特征的相似性，神经化学因子和激素的影响可能在性别依赖行为中发挥促进作用，动物模型的研究将有助于探索性别差异神经机制和促进药物治疗的发展。在临床研究中，AUD 的女性和男性不仅在大脑结构和功能的恢复也可能存在性别差异，而且不同性别 AUD 患者在神经反应性、情绪刺激处理等功能都体现了性别的差异性，但结果仍存在不一致。 未来的神经成像研究可能还需考虑到压力相关的病理生理、脑发育过程、类固醇性激素、月经周期、吸烟及与其他精神疾病的共病情况并加以控制，以凸显 AUD 性别差异的神经机制，进一步指导未来的研究、临床实践和药物治疗。

关键字：酒精使用障碍；性别差异；神经生物学机制；功能磁共振；结构磁共振

EMA 方法在精神心理数字医疗方向的应用

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目的 着当代社会智能手机和可穿戴传感器等设备的越发普及，为跟踪心理健康状况和监测疾病提供了新的机会。通过智能手机主动或被动进行的生态瞬时评估是一种能使临床医生和研究人员建立数字表型的有用方法。该方法主要基于时间或基于事件发生收集数据，故可反映被试者当下最真实的状态。

方法 本文对国内外将生态瞬时评估方法应用于精神心理数字医疗方向的相关研究进行综述，发现该方法已被证实应用于多种精神障碍，期望能够更好的监测患者心理精神心理健康水平，为促进康复提供科学依据。

结果 虽然 EMA 的使用日渐成熟，但相关研究表明使用 EMA 评估精神心理健康目前仍有一定的局限性，突出表明需要被动评估方法来补充结果数据。首先，EMA 依赖于个人经历的自我报告。自我报告测量的显著局限性适用于 EMA 研究，包括参与者可能对自己的情绪调节过程了解有限，即使是在当时进行测量。其次，在应用中还存在一些实际的限制。首先密集的纵向数据收集对参与者来说可能是耗时和繁重的，降低了长时间(比如几周到几个月)采样的能力。这种可行性的限制使得捕捉对严重应激的情绪调节具有挑战性，这些应激自然发生得相对较少，但也正是已被发现与心理健康结果风险最相关的应激类型。即使全天重复抽样，研究人员仍受限于评估这些过程的最大适当次数，如何将负担降至最低、并增加参与者完成调查并继续研究的可能性是需要思考的。此外，在日常重复评估中可以包含的问题数量的限制影响了评估的策略的制定。最后，被试需要大量在学校或工作的时间导致使用智能手机完成 EMA 调查的可能性有限。

结论 日后若能找出精神心理疾病相关的生理靶标，将 EMA 方法应用于智能手机、智能手环等电子设备，利用电子设备所收集到的被动评估数据与所采集到的主动评估数据相结合，便能够更好的解决目前的局限性。关于数字卫生干预措施的研究越来越多，有望提高精神卫生服务的可及性和实时提供支持的能力。

关键字：生态瞬时评估；精神卫生；心理健康；情绪监测；干预措施

酒精依赖复发的神经影像学研究进展

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目的 作为一种慢性、复发性脑疾病，酒精依赖已给全球造成了巨大的社会和经济负担。超过 2/3 的酒精依赖患者在急性戒断后数周内出现的复饮行为，因此破解酒依赖复发的“密码”，这对于发展酒精依赖的预防复发是至关重要的。尽管社会心理学因素及神经认知功能与复饮的风险有关，但目前寻找酒精依赖复发的神经生物学标记仍是研究的热点。

方法 随着神经影像技术的不断进步，越来越多的研究者开始利用磁共振影像技术来预测酒精依赖患者的复发研究。既往神经影像学研究，包括结构和功能磁共振成像（MRI）、和正电子发射断层扫描（PET）。这些研究多采用纵向设计，针对特定的神经影像表型是否能预测未来的临床结果。

结果 既往研究主要涉及的脑区集中于前额叶、纹状体和扣带回等关键脑区。多项研究表明在戒酒早期前额叶的结构和功能完整性与更好的治疗结局相关，可预测复发时间，因此恢复前额叶结构和功能的药物或物理治疗策略可能对那些复发风险高的人有益。纹状体激活是渴求反应的基础，既往研究表明纹状体对酒精线索的激活可以预测酒精依赖的治疗结局。扣带皮层的功能连接是酒精依赖患者对酒精和压力线索神经生物学反应的关键因素，也是后期复发的标志，扣带回功能连接的完整性对维持戒酒很重要。未来的临床研究可以利用这些信息来开发新的治疗策略，并针对高复发风险的酒精依赖患者定制个体化的治疗方案。

结论

关键字：酒精依赖、复发、神经影像、结构、功能

肠道菌群在酒精依赖认知损害中的研究进展

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酒精依赖是个人健康严重受损的主要因素之一，可造成心理和躯体损害，其中认知损害最为常见。同时酒精依赖也会引起肠道菌群失调。近年来，越来越多的研究显示，肠道菌群在酒精依赖发生发展过程中有着一定的作用，而肠道菌群失调也与多种神经系统疾病的发生发展息息相关。目前对酒精依赖的药物治疗可能造成进一步的影响，不利于认知功能的恢复，寻找兼顾治疗酒精依赖与降低其他损害的方法仍是我们需要努力的方向。 肠道菌群的紊乱会影响 5-羟色胺、谷氨酸、γ-氨基丁酸、多巴胺等神经递质的合成与代谢，酒精依赖又可通过影响 5-羟色胺、谷氨酸等中枢神经系统兴奋性神经递质的受体，而增加中枢神经系统的平衡负担，也可因为抑制性神经递质 γ-氨基丁酸增强酒精耐受性和依赖性。并且，酒精依赖所致肠道菌群紊乱可引起革兰氏阴性细菌增加，从而促进脂多糖水平引发炎症反应，同时炎症反应的增加会加重酒精依赖患者认知损害与菌群失调。此外，酒精依赖和酒精诱导的肠道菌群失调可以通过影响脂质代谢和氨基酸代谢来影响大脑和认知功能。 未来我们可根据这些信息从肠道菌群入手，通过使用益生菌或粪菌移植改善肠道微生物平衡，影响大脑-肠道微生物组群轴信号，从而改善酒精依赖患者认知功能损伤，这将可能成为热点和新兴治疗靶点。

关键字：肠道菌群；酒精依赖；认知损害；神经递质；炎症反应

酒精依赖渴求相关影响因素的研究进展

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目的 渴求是酒精依赖的核心症状之一，是对饮酒有强烈欲望，并且会影响情感和动机领域。渴求的产生和饮酒愿望有关，且具有强制性，所以在预防复发治疗中降低渴求至关重要。

方法 既往研究支持生物因素、心理因素及社会因素这三大影响因素影响酒精依赖的渴求的发生发展。

结果 酒精依赖渴求影响因素包括遗传、性别和年龄、激素、脑结构和功能、人格特征、情绪、创伤及创伤后应激、家庭环境。在酒精依赖者中可能存在影响渴求的独特遗传因素，性激素与酒精依赖男性患者的渴求相关。神经影像学研究发现，腹内侧前额叶皮层和前扣带皮层在放松状态下的过度激活和在应激状态下的低激活可能导致戒酒期酒精依赖患者对酒精的高度渴求。人格特征通常被认为在物质使用障碍的发展中起着关键作用，也通常作为物质使用的预测因素。在渴求方面存在性别差异性，情绪症状在女性患者的渴求和复饮中起着重要作用，而男性更多是由于社会压力而饮酒。创伤线索与酒精线索都可以引发渴求，而创伤线索和酒精线索的结合引发的渴求比两者单独引发的渴求更为强烈。酒精滥用是儿童期受到虐待的主要后遗症，家庭环境对渴求有较大的影响，因此积极的家庭环境具有保护作用。

结论 渴求可以是由多个影响因素共同作用下产生的，每个人产生渴求的因素各不相同，所以个性化的治疗或可减低酒精依赖患者复饮的概率，目前针对酒精依赖患者渴求的个性化治疗较少，可以进一步深入研究。研究个体最易产生渴求的风险因素，针对个体和因素进行个性化的心理干预及物理治疗，来探究个性化治疗的疗效。

关键字：酒精依赖；渴求；影响因素

游戏障碍的非药物治疗研究进展

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游戏障碍已被世界卫生组织列为一种精神障碍疾病，表现为对游戏行为失去控制，以致其它兴趣和日常活动都须让位于游戏，即使出现负面后果仍然继续游戏或不断升级，并持续较长时间。其可导致各种精神躯体和社会功能危害如睡眠不适、关节痛、头痛、癫痫、焦虑症、抑郁症及注意力缺陷症等。游戏障碍已有 DSM-5 和 ICD-11 两种国际公认的诊断标准，但尚缺乏权威的治疗指南。 目前尚未有针对游戏障碍的特效药物治疗，主要干预方法为心理治疗和物理治疗，本文基于游戏障碍发生与发展的“个体-情感-认知-执行”理论模型对游戏障碍的认知行为疗法、正念疗法、家庭治疗、团体心理治疗、经颅直流电刺激疗法、重复经颅磁刺激疗法以及电针疗法进行了总结与展望，该模型认为游戏障碍是由易患因素（个体的神经生物学和心理特征）、调节因素（应对方式和对互联网的认知偏差）、中介因素（情感认知反应和执行功能下降）三者相互作用的结果，我们分析了已有的非药物治疗针对以上不同因素对游戏障碍的治疗起到积极作用以及不同治疗方法的最新研究进展，以期为游戏障碍治疗的临床和科研提供参考。 本文的通过回顾与总结发现游戏障碍治疗的最新研究趋势具有以下特点：一是治疗方式的多样性。随着新技术的发展，心理治疗与 VR 技术的结合为游戏障碍的治疗提供了新的发展方向，互联网的应用使心理治疗的方式从线下扩展到了线上，进一步增加了心理治疗的便利性和易用性。二是干预对象的多维性，干预对象由个人扩展到家庭、学校、社会等不同维度，逐渐向基于“生物-心理-社会”模式的系统治疗发展。同时发现目前研究存在的一些不足，也是未来需要努力的方向：（1）研究对象的代表性存在限制。还待更多的大样本量随机对照试验对上述治疗方法的疗效加以核实。（2）缺乏具有操作性的诊断工具。游戏障碍的 ICD-11 诊断标准的发布具虽有一定的共识意义，但对中国人群的适应性还有待改进。（3）评估工具的指标受患者的主观影响大。待更客观的指标如电生理、自主神经反应等对疗效进行评价。

关键字：游戏障碍 心理治疗 物理治疗 研究进展

酒精使用障碍患者认知功能状况及其影响因素

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目的 探究 AUD 患者认知功能状况及其影响因素；

方法 纳入符合 DSM-5 诊断标准的 AUD 患者。使用自编问卷采集人口统计学和酒精使用情况，用酒精使用障碍筛查量表(AUDIT)、匹兹堡睡眠质量指数量表（PSQI）、贝克焦虑量表（BAI）、贝克抑郁量表（BDI）评估患者酒精依赖程度、睡眠、焦虑及抑郁情况，在患者戒断症状控制后（临床机构酒精戒断状态评定量表（CIWA-Ar）评估<7），使用认知成套测验 (MCCB)评估认知功能；比较 AUD 患者与中国 MCCB 常模（常模数据各分测验标准分(T 分)呈均数为 50，标准差为 10 的正态分布）认知数据的差异，并进行相关分析探究 AUD 患者认知的影响因素；

结果 1、共入组 37 例符合 DSM-5 诊断标准的中重度 AUD 患者。与常模相比，AUD 患者在符号编码(t=2.71)、工作记忆(t=4.65)、词语学习(t=3.01)、推理和问题解决(t=2.42)、总体综合分数(t=2.64)显著低于常模($p<0.05$)； 2、AUD 患者认知功能的影响因素相关性分析显示：月总酒精消费量与处理速度、范畴流畅测验 T 分呈负相关（$r=-0.34, p<0.05$；$r=-0.40, p<0.05$），AUDIT

分数与符号编码测验 T 分呈负相关(r=-0.34,p<0.05)；PSQI、BAI 及 BDI 与认知无显著相关；

结论 AUD 患者存在多方面的认知功能异常，其中处理速度的异常可能与酒精使用量、酒精依赖严重程度相关。

关键字：酒精使用障碍 认知

依托咪酯滥用引发成瘾的病例报道

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目的 依托咪酯是一种咪唑衍生的超短效、脂溶性非巴比妥类镇静剂，其在临床上常用于麻醉。然而，近年来依托咪酯滥用呈现爆发性增长的趋势，尤其是以电子烟油的形式在地下药物市场广泛流通。本文通过病例报道，旨在深入探讨依托咪酯滥用引发的成瘾的症状及临床表现，以提高临床医生对该问题的认识。

方法 本篇病例报道详细描述了依托咪酯滥用引发的成瘾问题。患者资料：男性，35 岁。主要症状：该患者长期滥用依托咪酯导致成瘾。他在吸食后会感受到全身放松、愉悦感，这使得他对依托咪酯产生强烈的渴求。当他试图停止使用依托咪酯时，出现焦虑、不安、失眠、肌肉疼痛等戒断症状。此外，他还出现了食欲减退、体重减轻、注意力和记忆力下降的问题。

结果 以上病例展示了依托咪酯滥用引发的成瘾的不同症状和临床表现。吸食依托咪酯隐蔽性及成瘾性强，长期吸食依托咪酯可导致身体对药物产生耐受性，患者需要增加剂量以达到相同的效果，从而加重了成瘾风险。戒断症状是依托咪酯成瘾的一个显著特征，患者可能出现焦虑、不安、失眠、肌肉疼痛等症状。同时，依托咪酯滥用还可能导致注意力和记忆力下降，食欲减退和体重减轻。

结论 依托咪酯滥用引发的成瘾对患者的身体和心理健康构成威胁，临床医生应增强对该问题的认识。早期干预和治疗对于防止成瘾的进一步恶化至关重要。通过了解依托咪酯滥用引发的成瘾的症状及临床表现，临床医生能更好地识别和处理相关病例，从而保护患者的健康。

关键字：依托咪酯；滥用；成瘾；症状；临床表现

住院精神分裂症患者院前吸烟调查

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目的 吸烟是导致精神分裂症患者发病和过早死亡的首要可控因素之一，也是造成精神分裂症患者过早死亡的心血管事件的主要危险因素。在一般人群中烟草消费呈现下降趋势，而对于精神分裂症患者却是例外。因此，本研究旨在了解精神分裂症患者的吸烟现状和精神分裂症患者合并烟草使用障碍情况。

方法 采用分层整群抽样的方法抽取样本，使用自编调查表、尼古丁依赖严重程度量表（FNTD）对住院精神分裂症患者的吸烟状况进行调查和分析，根据美国精神障碍诊断与统计手册第 5 版（DSM-5）烟草使用障碍诊断标准对筛查阳性者（FTND≥5）进行诊断。

结果 研究期间共收治精神分裂症患者 631 例，符合入组标准者 542 例，发放问卷 542 份，中途退出 14 人，剔出无效问卷 15 份，收回有效问卷 513 份，有效问卷回收率 94.6%。其中，在 513 名精神分裂症患者中终生吸烟率男、女及总体分别是：45.3%、16.5%、33.7%，现吸烟率男、女及总体分别是：31.6%、8.7%、22.4%，男性患者的终生吸烟率和现吸烟率均明显高于女性（x2=45.66，P<0.001；X2=37.04, P<0.001）；精神分裂症共病烟草使用障碍的时点共病率男、女及总体分别是：28.3%、7.3%、19.9%，男性精神分裂症患者的烟草使用障碍患病率高于女性（x2=34.32，P<0.001）。

结论 精神分裂症共病烟草使用障碍对诊断、治疗及康复造成很大的影响，这毋需质疑。我们的研究发现在住院精神分裂症患者中存在很大比例的烟草使用障碍患者，尤其是男性精神分裂症患者，这应引进我们的足够重视。

关键字：精神分裂症；吸烟率；烟草使用障碍

1 例酒精戒断谵妄合并躯体疾病患者的护理

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目的 报道 1 例使用酒精引起的戒断状态伴有谵妄合并肺炎 、肺气肿合并肺大泡、陈旧性肺结核、低氧血症、低钾血症、戊型肝炎抗体阳性、丙型肝炎病毒携带者患者的护理，为给同类患者的护理提供参考策略。

方法 回顾广州医科大学附属脑科医院物质依赖科 1 例酒精戒断震颤谵妄合并躯体疾病患者的病史资料以及治疗、转归情况，并总结护理要点。

结果 经过 14 天的治疗和护理，患者表现安静，对答切题，未诉躯体不适，双手震颤较前减轻，步态平稳，思维连贯，未见幻觉妄想，咳嗽咳痰明显减少，睡眠饮食可，二便正常。住院期间未发生自伤和伤人，未发生跌倒，出院后 2 个月能坚持服药，未出现复饮。猝死风险入院时 111 分（极高危），一周后降为 34 分（低风险）；跌倒风险评分入院时 6 分（中风险），两周后降为 1 分（低风险）；ADL 风险评分入院时 50 分（中度依赖）两周后 100 分（无需照顾）。

结论 患者震颤谵妄合并躯体疾病，病情危重，应加强病情观察、防猝死、防受伤以及改善营养状况是重点突出的几方面的护理，以帮助患者平安度过病情危重期；另外，谵妄病人昼轻夜重，要加强夜间的观察，同时也要提供生活护理；在患者病情稳定且能进行有效沟通时要实施心理干预，激发患者戒酒的动机；患者出院后可以提供延续性护理，巩固治疗效果，降低复饮

率。

关键字：酒精戒断 谵妄 躯体疾病 护理

双相和抑郁患者接受无抽搐电休克治疗对相关生物样本参数的影响及预测

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目的 本研究旨在分析无抽搐电休克治疗对双向情感障碍及抑郁障碍的葡萄糖、白细胞、高密度脂蛋白胆固醇、低密度脂蛋白胆固醇及甘油三酯相关指标的不同影响及预测。

方法 2021-2022 年度在我院进行无抽搐电休克治疗（Modified electroconvulsive therapy，MECT）干预的抑郁症(Depressive Disorder，DD)以及双相情感障碍(Bipolar Disorder，BD)住院患者，共计 206 名，其中 BD 患者 52 名，DD 患者 154 名。分别收集其在 MECT 干预前后的葡萄糖、白细胞、高密度脂蛋白胆固醇、低密度脂蛋白胆固醇及甘油三酯值，并提取相关指标作为特征带入改进的支持向量机算法进行分类预测，以达到抑郁障碍和双相情感障碍的预测分类，协助临床医生预防病诊断疾病类型，发现两种疾病是否转变，采取措施并及时控制。

结果 BD 与 DD 患者的女性人数均大于男性人数，BD 患者多为农民，占比 48.15%，DD 患者多为学生，占比 54.55%。BD 患者与 DD 患者的一般情况：年龄(P=0.002，Z=-3.159)、职业(P=0.001，Z=3.358)及住院天数(P=0.002，Z=-3.145)有显著差异。BD 患者接受 MECT 前后的葡萄糖(P=0.023，Z=-2.275)与甘油三酯(P=0.011，Z=2.551)有显著差异。DD 患者接受 MECT 前后的甘油三酯(P=0.002，Z=3.133)有显著差异。患者接受 MECT 干预治疗后，葡萄糖干预前后差值比有显著差异(P=0.017，Z=-2.381)，白细胞与甘油三酯的比值有显著性差异(P=0.015，Z=2.434)，高低密度脂蛋白胆固醇与甘油三酯比值有显著性差异(P=0.011，Z=2.557)。将这些显著性指标作为特征带入改进的支持向量机算法，十次平均预测精度最达 80.0%。

结论 双相情感障碍被确诊前约有三分之二被误诊为其他心理问题，绝大多数会被诊断为抑郁症。患有抑郁障碍而未换双相情感障碍患者可以通过抗抑郁药物加上心理及 MECT 干预治疗，但是如果未检测到患有双相情感障碍人群按照这种方法治疗时，可能会出现更多并发精神问题，使双相情感障碍更加严重，甚至出现自杀念头或行为。本文通过研究经过 MECT 后双相情感障碍与抑郁障碍的显著性指标，预测经过干预后是否有发生两种疾病间的变化，辅助诊断。

关键字：无抽搐电休克治疗 双相情感障碍 抑郁症 白细胞 葡萄糖 高密度脂蛋白胆固醇 甘油三酯 支持向量机

Exploring The Functions of A Smartphone-based Digital Alcohol Consumption Intervention Mini-program To Address The Difficulties of Abstinence for Native Drinkers in China: A Mixed Methods Approach

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Objective Chinese Wine Culture influences people's attitudes toward alcohol. The current study focuses on exploring the main features of a localized digital alcohol consumption intervention mini-program to address the difficulties of abstinence for native drinkers, as a promising way for long-term management of rehabilitation from alcohol use disorder.

Methods A mixed-method approach was used in this study. The self-report quantitative questionnaire recruited three groups of participants, 89 drinkers, 67 drinkers' relatives, and 30 medical staff. The focus group qualitative interview inspected 36 participants' perspectives on the core topics, including 21 drinkers, 4 drinkers' relatives, and 11 medical staff.

Results Combining the results from the quantitative study and qualitative study, the top difficulties of abstinence for native drinkers are (a) the strong craving from the inside, (b) the environmental influence, and (c) the psychological states. Correspondingly, the most desired main features in an alcohol consumption digital intervention tool are (a) the daily track of drinking conditions and craving level, (b) periodic feedback reports that can share with others, and (c) mood improvement training. Moreover, the top factors that influence participa[Fundation item: This work was supported by the National Nature Science Foundation of China (82171484) and Shanghai Jiao Tong University (YG2023ZD25). Ethic statement: The ethics committee of Shanghai Mental health center approved this study (REC number: 2018-59R1). * E-mail: dujiangdou@163.com]nts' intention to use/recommend the tool are (a) whether the tool is effective, (b) whether the user experience is good, and (c) whether the tool can replenish the deficiency of the current alcohol treatment.

Conclusion Future work needs to balance what patients want and what the world expects so that potential users can benefit best from the digital intervention tool in the context of Chinese culture.

关键字：alcohol use disorders, alcohol consumption, digital mental health intervention, mixed methods

抑郁症动物模型评价的研究进展

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目的 抑郁症是一种常见、慢性、易复发的精神疾

病，严重危害人类的身心健康，其病因和发病机制至今尚未明确，需借助抑郁症动物模型进行深入研究。模型构建成功的评价方法以及抗抑郁治疗有效的判断标准是抑郁症动物模型研究的关键。目前缺乏对抑郁症动物模型评价体系的整理与总结。因此，本文归纳总结了抑郁症动物模型的评价方法，进一步提出了改进方向，以期建立多层次抑郁模型评价体系，为今后的研究提供参考。

方法 文章针对抑郁症动物模型评价方法检索相关文献，从行为学、血清生化学、组织形态学、分子生物学方面，归纳总结了抑郁症动物模型的评价方法。

结果 目前判断抑郁模型是否构建成功的方法主要基于行为学评价。部分研究仅采用强迫游泳实验和悬尾实验，以绝望状态下不动时间延长作为模型构建成功的标准。许多研究结合蔗糖偏好实验，此法是评估模型快感缺失最简单的方法，快感缺失则可以作为评价抑郁动物模型的核心标准。目前多数研究将抑郁行为评价、焦虑行为评价、认知行为评价结合考虑，使模型评价更为全面，但有学者提出行为学实验多样，不同实验指标会相互影响和重复，如何有效的选择行为学实验组合仍需进一步探索与研究。也有学者以行为学评价为基础，通过血清皮质酮和 BDNF、下丘脑炎性因子、海马神经递质及其受体表达水平，多层次评价模型构建情况。此法从行为学、血清生化学、分子生物学角度阐明抑郁模型损伤情况，评价指标更为客观全面。

结果 目前抑郁模型缺乏统一的评价标准，实验的可重复性差。在未来抑郁模型评价的研究中，不同的模型构建应有不同的评价标准，需结合现代行为学、生物化学、组织形态学、分子生物学技术，建立一套规范、有效的多层次抑郁模型评价体系，为阐明抑郁症的发病机制，探索抗抑郁治疗方法提供依据。

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关键字：抑郁症；动物模型；评价体系

慢性酒精中毒性小脑变性

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目的 本文报道一例慢性酒精中毒性小脑（alcoholic cerebellar degeneration，ACD）变性通过戒酒、补充 B 族维生素、营养支持等治疗症状改善的患者，拟通过对该病例的报道,介绍 ACD 的临床、影像表现，探讨发病机制和治疗措施，为临床的甄别、诊治提供依据。

方法 一名 38 岁男性,因言语含混 1 年，凭空视物，行走不稳 2 月来院治疗。患者长期饮酒 15 年，酒量逐渐增加，近 8 年强制性觅酒（平均每日饮 40-50° 白酒 500-1000ml），饮酒不分顿，晨空腹饮酒，饮酒时进食少，停酒后心悸，坐立不安，出汗等躯体不适，伴情绪低、失眠，凭空视物，撞头、外跑。已通过医疗手段戒酒 3 年，1 年前复饮（每日饮 50°白酒约 500ml），渐出现言语含混，近 2 月行走不稳，凭空视物。入院查体见患者饮水呛咳，构音欠清、吟诗样言语，双眼可见细小水平眼震。双手指鼻欠准，Romberg 征阴性，加强试验阳性。余查体未见明显异常。血常规提示贫血，生化示肝损害。头 MRI 可见双侧额顶部脑沟、裂略增宽、加深；双侧小脑半球脑沟增多、增宽，双侧小脑上沟增宽。胸椎 MRI 平扫未见明显异常。综上提示小脑共济失调，予地西泮 30mg/日脱瘾治疗，维生素 B1 0.1g 每日肌注并口服复合维生素 B，曲唑酮 200mg/日改善睡眠及情绪。治疗 33 天饮水呛咳缓解，治疗 48 天后构音障碍、行走不稳有所好转，出院 3 个月随访患者仍有构音欠清，行走不稳，程度较前减轻。

结果 长期大量饮酒患者可出现渐进性躯体小脑共济失调症状,如构音障碍、眼球震颤，步态不稳等表现，需结合患者饮酒史、症状体征及头 MRI 检查结果协助诊断。ACD 是嗜酒者常见的小脑变性疾病，该患者通过戒酒、补充维生素 B 1 等对症治疗症状有所改善。

结论 慢性酒精中毒性小脑变性是一种中毒性共济失调疾病，起病隐匿，易被忽视或误诊。临床诊断需依靠饮酒史、症状体征及影像学改变。目前 ACD 的发病机制尚不明确，治疗方面患者在戒酒、补充维生素、甲钴胺、抗焦虑药物及联合中医治疗，症状可停止进展或得到改善。

关键字：慢性酒精中毒 小脑变性

团体认知行为治疗对男性酒依赖患者的影响

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目的 本研究探讨团体认知行为治疗对男性酒依赖患者心理康复的影响。

方法 本研究采用随机奇偶数法将患者分到干预组和对照组，其中对照组 44 人，42 例完成治疗，该组仅使用药物替代治疗；干预组 45 例,43 例完成治疗；该组患者在药物替代治疗的基础上结合团体认知行为治疗；治疗安排为，每组治疗患者人数 8-10 人，治疗次数共 8 次，每周二次，由一位精神科医师一位心理治疗师共同主持，主要内容为提高戒酒动机、制定戒酒计划、探讨在潜在诱发饮酒情景的应对策略以及如何处理复发等方面。两组分别在入组时、治疗 4 周后采用简易应对方式问卷（SCSQ）、自尊量表（SES）及强制性饮酒问卷(OCDS)进行评定。

结果 在治疗 4 周后，结合团体认知行为治疗的干预组在简易应对方式问卷(SCSQ)中的积极应对评分、自尊量表（SES）的评分高于仅使用药物替代治疗对照组（$t=2.837$，$P<0.01$；$t=2.157$，$P<0.05$）；干预组在简易应对方式问卷（SCSQ）中的消极应对评分、强制性

饮酒问卷(OCDS)的评分低于对照组，（t=-2.052，P<0.05；t=-4.052，P<0.01）。

结论 团体认知行为治疗可以促进男性酒依赖患者的更多使用积极应对方式，减少其对消极的应对方式的使用，患者对自己更加自信，对酒精的渴求度更低；从而整体提高酒依赖患者的心理康复效果，减少心理依赖，更好的保持戒酒状态。

关键字：酒依赖；男性；团体；认知行为治疗

组织关怀对护理本科生手机成瘾倾向的影响：压力知觉和自我控制的链式中介作用

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目的 探究护理本科生组织关怀与手机成瘾倾向的关系，通过构建链式中介模型，考察压力知觉和自我控制在二者关系间的作用机制。

方法 选取陕西省 3 所高校 900 名护理本科生为调查对象。分别采用组织关怀气氛问卷、压力知觉量表、自我控制量表和大学生手机成瘾倾向量表评估护理本科生组织关怀程度、压力知觉水平、自我控制能力和手机成瘾倾向。运用 Hayes 编写的 SPSS-process 的模型 6 进行链式中介效应分析，采用 Bootstrap 法进行中介效应检验。

结果 （1）护理本科生手机成瘾倾向与组织关怀气氛（r＝-0.156，P＜0.001）和自我控制（r＝-0.468，P＜0.001）呈负相关；与压力知觉（r＝0.362，P＜0.001）呈正相关。（2）压力知觉和自我控制分别在在组织关怀与手机成瘾之间的关系起中介作用，相对中介效应值分别为 15.25%和 16.95%。（3）组织关怀可以通过压力知觉-自我控制中介链对护理本科生手机成瘾倾向产生间接效应，相对中介效应值为 18.64%。

结论 组织关怀、压力知觉和自我控制是护理本科生引发手机成瘾的重要影响因素，组织关怀不仅直接影响护理本科生手机成瘾倾向，而且可以通过压力知觉、自我控制的链式中介作用间接影响其手机成瘾倾向。

关键字：组织关怀；护生；手机成瘾；压力知觉；自我控制

复发性抑郁障碍共病丙泊酚成瘾 1 例报道

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目的 本文报道一例复发性抑郁障碍患者长期大量使用丙泊酚助眠并成瘾。拟通过对该病例的报道,阐述丙泊酚奖赏效应机制、滥用危害及丙泊酚成瘾治疗方法、对共病治疗的重要性。

方法 一名 40 岁女性,医务人员，因“间断情绪不稳 16 年，反复使用丙泊酚 1 年，强制性加量 20 日”住院。患者自 16 年前怀孕后便反复出现心烦、易怒、没兴趣、入睡困难，严重时存在自杀行为，多次于精神专科医院住院，诊断：“复发性抑郁障碍”，先后予以多种抗抑郁剂联合二代抗精神病药治疗，效果欠佳，长期存在入睡困难。1 年前患者开始自行静脉注射丙泊酚助眠，渐出现耐受和戒断症状。近 20 日自觉压力大、疲乏，更加频繁使用丙泊酚，平均每晚使用 8-10 支（20ml/支）。1 周前曾在使用丙泊酚后出现胸闷、呼吸困难，自行注射地塞米松缓解，后仍继续使用。为戒药、改善睡眠住院。患者入院后予以地西泮日高量 30mg 缓解戒断症状，文拉法辛、丙戊酸镁缓释片治疗情绪问题。患者住院 1 周未出现严重戒断症状，以工作为由自动出院。患者未规律复诊，出院后 4 个月后随访仍间断情绪低、失眠、使用丙泊酚。

结果 丙泊酚作为一种超短效的静脉麻醉药，具有愉悦兴奋的作用及重复使用的特性，频繁使用存在耐受，减少或停用后存在戒断反应，存在药物成瘾及滥用的潜在特性，特别是在医务工作者中。

结论 患者孕期起病，既往多种抗抑郁剂治疗效果不佳，应对抑郁特征做谨慎评估，调整治疗。患者为解决失眠、情绪问题而逐渐强制性使用丙泊酚，这提示我们对共病评估、治疗的重要性。患者使用丙泊酚期间曾出现胸闷、呼吸困难，提示我们要对丙泊酚狭窄的安全范围予以重视，对此类药物应严格管理。

关键字：丙泊酚；成瘾；复发性抑郁

不同民族 AUD 患者嗜黏蛋白艾克曼菌（AKK）的丰度差异比较及与 ALD 之间的关系

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目的 探究不同民族酒精使用障碍患者嗜黏蛋白艾克曼菌（AKK）的丰度差异比较及与 ALD 之间的关系。

方法 招募新疆医科大学第一附属医院及新疆精神卫生中心就诊的汉族、维吾尔族酒依赖的患者和性别年龄匹配的健康对照组，采集临床信息，包括基本人口学资料、自制饮酒情况调查表，使用“酒精使用障碍筛查量表”（AUDIT）进行酒依赖严重程度评估。采集生物样本，包括 EDTA 血浆和血细胞、粪便样本等在实验室进行后续处理，分别冻存于-80C 冰箱。EDTA 血浆样本进行肝肾功能检验并进行肝肾功能严重程度的评估；粪便样本通过 16SrRNA 测序检测菌群种类及相对丰度；血细胞样本通过提取基因组 DNA 进行酒精代谢酶的基因型鉴定。

结果 长期酒精依赖会导致菌群 alpha 多样性显著下降；门水平上，放线菌门在汉族、维吾尔族酒精依赖人群中显著降低；属、种水平上，艾克曼菌属、艾克曼菌在汉族酒精依赖人群中显著降低；长链脂肪酸在汉族、维吾尔族酒精依赖人群中显著降低。汉族人群的

种水平菌群 beta 多样性与谷草转氨酶、谷氨酰转肽酶有关联，维吾尔族人群则是与总胆红素、间接胆红素有关联。

结论 长期酒精依赖会导致菌群 alpha 多样性显著下降；门水平上，放线菌门在汉族、维吾尔族酒精依赖人群中显著降低；属、种水平上，艾克曼菌属、艾克曼菌在汉族酒精依赖人群中显著降低；长链脂肪酸在汉族、维吾尔族酒精依赖人群中显著降低。汉族人群的种水平菌群 beta 多样性与谷草转氨酶、谷氨酰转肽酶有关联，维吾尔族人群则是与总胆红素、间接胆红素有关联。

关键字：酒精使用障碍，肠道菌群，嗜黏蛋白艾克曼菌，民族

大麻二酚抑制大脑皮层发育

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目的 目前全球范围内大麻的使用率在不断增加，部分国家正在将其移除管控名单。研究表明，孕期使用大麻会影响子代的发育以及认知功能等，这主要是由于大麻中的精神活性成分四氢大麻酚导致的。但是大麻中的另一种非精神活性成分大麻二酚（Cannabidiol, CBD）对胎儿的影响目前并不清楚。临床上，CBD 可缓解孕妇的恶心呕吐以及焦虑等症状，因此其在孕妇中的使用率呈升高趋势。值得注意的是，由于其具有亲脂性，CBD 可以通过胎盘进入胎儿体内；已有动物实验表明，孕期 CBD 摄入会影响子代体重，在不同物种，不同性别中会产生不同的影响，这些证据对孕期使用 CBD 的安全性提出质疑。本研究旨在探讨 CBD 对胎儿大脑发育的影响。

方法 通过体外培养人大脑皮层类器官，模拟胎儿脑发育的过程。这期间将大脑类器官暴露于 CBD，模拟孕期 CBD 的摄入。通过免疫荧光实验、分子实验、电生理实验以及单细胞测序实验，观察 CBD 对干细胞的增殖以及皮层神经元的分化成熟造成的影响。

结果 初期研究结果表明：CBD 暴露造成脑室区面积降低，抑制放射状胶质细胞增殖，抑制神经元成熟。

结论 本研究发现 CBD 抑制大脑皮层发育，孕期不应摄入 CBD，应进一步探究孕期 CBD 暴露的安全性。

关键字：大麻；大麻二酚；大脑类器官；大脑发育

Motor Aspects of Addiction

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Objective Functional alternation of motor-related cortex regions, e.g., precentral gyrus (PCG), supplementary motor area (SMA) and premotor cortex (PMC) has been described in patients of both substance and non-substance use disorder. However, motor aspects of addiction have been discussed mostly as a consequence following repeated drug administration. Whether and how these regions are involved in addiction remains unexplored.

Methods We provide a brief update on latest studies of motor-related cortex regions, and then discuss a possible hypothesis for these regions being involved in abuse and relapse.

Results Evidence from some recent studies highlights the function of motor-related cortex regions, especially non-primary motor cortex, in learning, planning, memory and cognition. Rodent studies focusing on the MOs, a homologous region of non-primary motor cortex, have linked it to reward-driven skill learning and cue-evoked early-stage motor planning, which can also be critical processes in the reinforcement stage of addiction. Anatomically, MOs forms reciprocal connections with various cortical and subcortical regions including sensory cortex, medial prefrontal cortex (mPFC), striatum and thalamus, indicating a comprehensive function. Despite emerging evidence, studies directly link motor-related cortex regions to addiction are sparse.

Conclusion Motor-related cortex regions can regulate learning, planning, memory and cognition process other than motor behavior. Whether they are involved in addiction is a long neglected question worth investigation.

关键字：addiction; motor; non-primary motor cortex; MOs; motor planning

妇女精神医学学组

儿童青少年情绪障碍的跨诊断认知行为治疗

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目的 流行病学研究表明，儿童青少年焦虑症和抑郁症的患病率分别为 32.4%和 10.6%。在临床上，高达 75%的儿童青少年存在共病。因此需要一种适用于整个障碍类别的跨诊断治疗方法，解决儿童青少年情绪障碍的高共病率问题。

方法 计算机检索 PubMed、中国期刊全文数据库（CNKI）、维普中文科技期刊数据库（VIP）、万方学术期刊全文数据库（Wanfang）自建库至 2022 年 10 月期间发表的论文进行了全面系统的检索。搜索词包括“儿童青少年情绪障碍”；“认知行为治疗”；“CBT”；“跨诊断认知行为治疗”。本文综述共包括 53 篇文献，其中国内一篇。

结果 一些研究结果支持所有的情绪障碍中都存在一种气质因素——神经质。高度神经质的儿童青少年会比其他人更频繁地体验到强烈的情绪。因此跨诊断 CBT 的重点是治疗神经质本身。此外，Wells 的元认知理论提出，所有的情绪障碍都存在一种特定的负性思维模式——认知注意综合征，也为跨诊断治疗提供了一定的理论基础。儿童青少年情绪障碍的跨诊断 CBT 包括五种主要技术。首先是情绪聚焦的行为实验，要求患者通过行为的改变，觉察情绪对自己的影响。其次还通过实施一些能使患者体验到与经历强烈情绪时相同的身体感觉的行为实验来让患者意识到这些身体感觉是无害的并且是可以自行消失的。然后练习如何识别自动思维，学习使用侦探思维（重新评估自动解释）挑战自动思维。接着学习非评判觉察，如果注意到自己对体验有任何的评判，尽量使用更中立友善且更贴近事实的语言对这些评判进行重述。最后进行情境性情绪暴露，患者通过进入并忍受那些困难等级不断提高的、与强烈情绪相关的情境，意识到自己有能力面对这些情境。最近的几项 Meta 分析，证明了跨诊断 CBT 可以改善共病焦虑症和焦虑症状的严重程度。Kennedy 和 Bilek 的研究表明跨诊断 CBT 对儿童和青少年的的单一障碍与其共病都有所改善，并且会在更长的随访期内对治疗产生持续的反应。Sandín 等人还开发了一个互联网版本的跨诊断 CBT，研究表明其在减轻儿童青少年焦虑和抑郁症状以及潜在的脆弱性和维持过程方面有效。

结论 情绪障碍在儿童青少年时期存在横向共病和与发育顺序相关的纵向共病，跨诊断 CBT 不局限与某种特定的情绪障碍，可以有效的解决共病问题。此外减少了治疗师的培训时间和成本，有利于向更多的临床工作者推广。

关键字：儿童青少年；情绪障碍；跨诊断认知行为治疗

强迫症患者的认知精神病理学模型初探

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目的 强迫症是临床上常见的一种慢性精神障碍，且其症状表现具有高度的复杂性和异质性，从认知精神病理学模型这一整合的视角去探究强迫症的内在发生机制，对于强迫症的诊断和治疗，具有重要的意义。

方法 对 PubMed、知网、维普、万方学术期刊全文数据库发表的论文进行了全面系统的检索。

结果 对于强迫症这一常见的精神障碍来说，临床症状有其神经心理学基础。目前已有多项研究证实，强迫症患者神经认知、认知信念、自知力、社会认知等方面存在广泛的认知损伤，且它们之间相互影响。在神经认知方面，强迫症患者的记忆、注意、执行功能等存在缺陷，这在一定程度上为强迫症患者强迫信念及负性元认知信念的产生和维持奠定了一定的神经基础；在自知力方面，强迫症患者的症状自知力和认知自知力是其能否正确认识自身疾病表现、想法及行为表现的基础，这会直接影响到其他认知范畴的歪曲程度和灵活程度；在认知信念方面，认知信念范畴内强迫信念和元认知信念关系密切，它们彼此交融、相互影响，此外，其歪曲、不灵活的信念也会影响患者的社会认知，甚至强化患者在特定神经认知缺陷上的神经基础；在社会认知方面，强迫症患者的社会认知能力不足，会进一步巩固其歪曲的信念和较差的自知力。 强迫症患者的疾病严重程度及症状表现和其各方面的认知缺陷密切相关。表现为认知功能受损越严重的患者，病程越久，症状越复杂、越严重。此外，其特定的认知缺陷不同，患者的症状表现也千差万别，甚至它们还会影响到患者的共病诊断及其治疗。以强迫清洗为例，在神经认知上，强迫清洗患者存在表象记忆快速衰退、反应抑制功能受损的现象，这就导致其“总觉得自己清洗得不够干净”和“忍不住总要去清洗”，在认知信念上，强迫清洗患者受“无法承受不确定性”、“完美主义”的强迫信念以及“需要执行仪式的元认知信念”的影响，强迫清洗患者为了确定内心的“确定感”和“完美感”，即他们“为了确保自己一定清洗得非常彻底，保证不会有任何一点细菌残留”，他就必须“去清洗，直到自己不再能想到细菌”，在自知力上，强迫清洗患者的自知力越差，其症状也就越严重，在社会认知上，其存在的社会认知缺陷会导致患者社会功能受损，甚至发展出社交焦虑、抑郁等其他疾病。

结论 强迫症患者的神经认知、认知信念、自知力及社会认知存在其内在的关联性，且与其症状表现及严重程度密切相关，为建立强迫症认知精神病理学模型提供了可能。

关键字：强迫症；认知精神病理学；认知功能

2 型糖尿病共病抑郁障碍与血管紧张素的相关研究

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目的 研究 2 型糖尿病患者共病抑郁障碍与血清血管紧张素的相关关系，进一步探究血管紧张素在 2 型糖尿病患者共病抑郁障碍患者中的作用。

方法 随机选取健康对照组 23 例，抑郁障碍组 29 例， 2 型糖尿病组 30 例，2 型糖尿病共病抑郁障碍组 38 例，共计 120 例。采用汉密尔顿焦虑量表评估焦虑、汉密尔顿抑郁量表评估抑郁。采用 ELISA 法测定血清血管紧张素I、血管紧张素II水平。

结果 2 型糖尿病共病抑郁障碍组血管紧张素II水平高于健康对照组和抑郁障碍组（p 均＜0.05）；2 型糖尿病组血管紧张素II水平高于健康对照组和抑郁障碍组（p 均＜0.05）。ROC 曲线分析显示，当临界值＞41.97 时，血管紧张素I对 2 型糖尿病共病抑郁障碍具有保护性意义，最大敏感度为 0.066，最大特异度为 0.783（AUC＝0.696），P＝0.016。当临界值＞120.91 时，血管紧张素II诊断 2 型糖尿病共病抑郁障碍的最大敏感度为 0.90，最大特异度为 0.57（AUC＝0.72），P＝0.007。血管紧张素II水平升高是 2 型糖尿病共病抑郁障碍发生的危险因素。当临界值＞116.30 时，血管紧张素II诊断 2 型糖尿病的最大敏感度为 0.86，最大特异度为 0.52（AUC＝0.68），P＝0.027。

结论 血管紧张素I、血管紧张素II可能参与了 2 型糖尿病共病抑郁障碍疾病的发病机制，并有望成为未来 2 型糖尿病共病抑郁障碍疾病诊断评估的有效指标。

关键字：2 型糖尿病共病抑郁障碍；血管紧张素

本土化模式的自杀者亲友互助团体探索

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目的 了解自杀者亲友对互助团体的需求情况，探索适合为中国大陆自杀者亲友提供有效心理支持的互助团体模式，提高自杀者亲友的参与率和干预效果。

方法 研究对象全部为 2002-2020 年参加北京心理研究与干预中心“自杀者亲友支持小组”、“手拉手心连心亲友互助团体”的 20 位自杀者亲友，全部签署知情同意书。利用自编团体体验及需求问卷进行访谈，内容包括团体的名称、环境需求、身份名称、主题、频次、意义，收获等，访谈时间约 30 分钟。对问卷访谈内容进行分类、频次统计。

结果 1.团体名称：全部被访者倾向使用“手拉手心连心亲友互助团体”这个名称，原因为体现支持和温暖感。最不希望名称为包含“自杀”词汇的名称，原因为被标签化、增加羞耻感。2.环境需求：出现频率由高到低依次为安全、安静不被打扰、交通方便，相对固定。3.身份名称：接受度最高的是“自杀者亲友”，不被接受名称由高到低依次为“自杀幸存者”、“自杀遗族”、“自杀身亡者亲友”、“自杀丧亲者”。4.活动主题：全部被访者赞同每次活动有一个确定的主题。5.活动频次：大部分被访者赞同每月 1 次，只有刚刚经历亲人自杀离世不太久的人，希望能够一周一次。6.意义：全部被访者均认为团体存在的本身就是一个有效支持（即便是有时候自己不能来，但觉得在就心安）。7.收获：频次最高的为悲伤情绪有所改善、与同命人在一起、讲述自己的故事、被理解、被接纳、不被评判、获得自杀相关知识以及对生命意义有更深入的思考。举例：亲友 A 说：“我觉得自己是幸运的。在我最最迷茫，没有方向，感觉是人生的至暗时刻，我加入了小组，在这里我可以毫无顾忌的把自己的真心话讲出来，没有可以哭的地方这里可以，大家毫无保留的分享和帮助，很温馨，很温暖。”亲友 B 说：“我是小 jing，非常感谢亲友小组对当时的我的帮助，让我在一次次的活动中，通过向亲友说出自己的故事，聆听亲友的故事，让自己破碎的心慢慢接受现实并有勇气继续生活。感谢亲友活动组织的老师和陪伴我的亲友们。”

结论 自杀者亲友互助团体的名称建议为“手拉手心连心亲友互助团体”，在安全、安静不被打扰、交通方便、相对固定的环境举行，每月一次，每次有一个固定的亲友需要的主题，使用一个饱含温暖和支持的团体名称，在不评判、相互支持、彼此温暖的团体氛围里讲述自己和逝者的生命故事。以自杀者亲友需求为导向的本土化团体服务模式，有利于提高参与率和干预效果。

关键字：心理危机干预，自杀，亲友小组

抑郁症症认知功能、BDNF 及临床相关因素初步分析

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目的 探讨抑郁症患者认知功能受损情况、脑源性神经神经生长因子(BDNF)、相关临床因素如病程、抑郁症状严重程度、起病年龄、受教育程度之间的关系。

方法 采用方便取样法匹配性别、年龄，选取 50 例抑郁症住院患者为研究组，50 例健康志愿者为对照组，使用重复性成套神经心理状态测验(RBANS)评估患者及的对照组的认知功能，使用酶联免疫吸附(ELISA)测患者组及对照组脑源性神经神经生长因子(BDNF)含量，并用表(HAMD)评定病情严重程度。

结果 与对照组比较，研究组 RBANS 评分总分明显低于对照组(66.52±11.08 vs 93.04±6.90 , t=-14.37, P < 0.001)，RBANS 五个因子得分均明显低于对照组，血清 BDNF 水平低于对照组(10.46±4.41 vs 13.22±4.54, t=-3.09, P <0.001)。相关分析显示，研究组认知功能损害程度与 BDNF 水平成正相关（r=0.199，P=0.047）及 HAMD 程度成负相关（r=-0.314，P=0.026），进一步多元线性回归分析发现认知功能和抑郁症起病年龄、病程及抑郁症严重程度相关，和 BDNF 水平及病程不相关。

结论 抑郁症患者的认知功能在多个维度均受损，

神经营养因子水平下降，发病年龄越早，抑郁症程度越重，认知功能受损越严重，受教育程度越高对认知功能存在保护作用。

关键字：:抑郁症;认知功能;BDNF

The Influence of Reformed Mental Health Education Course on The Level of Mental Health in College Students

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Objective Based on the shortage of practice teaching links in traditional college students' mental health education course, group psychological counseling, group sand tray play and quality development training are integrated into the teaching system, and the influence on students' mental health level is discussed.

Methods SCL-90 was used to evaluate the mental health status of students before and after teaching, and SPSS 26.0 was used for statistical analysis, and single sample t test and paired t test were used for statistical analysis. A P value of less than 0.05 was considered statistically significant.

Results It was found that the scores of somatization factor, obsessive symptom factor, interpersonal sensitivity factor, depression factor, anxiety factor, terror factor and psychosis factor were significantly reduced after teaching.

Conclusion This teaching reform not only makes up for the limitations of traditional university mental health education, but also has important significance for improving students' mental health level, and is worth popularizing and applying.

关键字：Mental health education of college students; Group psychological counseling; Group Sand tray Play; Quality development； SCL-90

基于脑龄预测模型的精神分裂症的脑老化研究进展

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目的 精神分裂症是一种严重的精神疾病，其病因和病理机制仍不完全清楚。既往研究发现精神分裂症患者可能存在着与生理性老化有着本质不同的病理性加速老化现象。近年来通过应用基于脑龄预测模型的方法，研究者们开始关注精神分裂症患者的脑老化过程。本综述旨在总结基于脑龄预测模型的精神分裂症脑老化研究进展，并讨论其对疾病理解和治疗的潜在影响。

方法 通过检索多个学术数据库和相关领域的期刊（如 PubMed、IEEE Xplore、PsycINFO、MEDLINE 和 Web of Science）收集近年来发表的基于脑龄预测模型的精神分裂症脑老化研究文献。我们对这些文献进行了全面的回顾和分析，以获取研究方法、分析技术和研究结果的详细信息。

结果 首先，我们回顾了精神分裂症脑老化研究中使用的各种脑龄预测模型的方法和技术。这些模型基于神经影像学数据，如结构磁共振成像和功能磁共振成像等，通过机器学习或深度学习算法，基于大量健康对照的脑影像数据构建常模，进而通过该常模预测患者的脑龄，并将患者预测脑龄与其实际脑龄进行比较。 其次，我们总结了基于脑龄预测模型的精神分裂症脑老化研究的主要发现。研究结果表明，相对于健康对照组，精神分裂症患者的脑龄普遍较高，显示出加速脑老化过程。这种脑龄增长与疾病的严重程度和病程长短相关，并涉及多个脑区和功能网络，如额叶皮质、杏仁核和默认模式网络等。 进一步地，我们讨论了基于脑龄预测模型的精神分裂症脑老化研究的潜在意义。这些研究有助于深入理解精神分裂症的病理生理机制，并提供了新的生物标志物和预测工具。此外，脑龄预测模型还可以用于评估治疗效果和制定个体化的治疗策略。 最后，我们提出了未来研究的方向和挑战。未来的研究应进一步验证和复制这些发现，增加样本的多样性和规模，并深入探索脑龄增长的机制和与临床结果的关联。此外，需解决数据采集和处理的标准化问题，并加强跨研究的数据共享和合作。

结论 综上所述，基于脑龄预测模型的精神分裂症的脑老化研究为我们提供了对疾病进展和病理生理机制的新视角。这些研究对精神分裂症的早期诊断、预后评估和个体化治疗具有重要意义。

关键字：脑龄预测模型； 精神分裂症； 结构磁共振成像；功能磁共振成像；脑老化

无抽搐电休克治疗对精神分裂症患者阴性症状和记忆的影响分析

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目的 观察无抽搐电休克治疗精神分裂症患者的阴性症状的临床疗效及对记忆功能的影响。

方法 选取 2018 年 1 月～2019 年 1 月我院收治的 104 例精神分裂症患者，按照住院时间顺序分为对照组与治疗组各 52 例。对照组给予常规抗精神病药物治疗，治疗组采用无抽搐电休克治疗。分别于治疗前、治疗 4 周、8 周、12 周末进行阳性症状、阴性症状及韦氏记忆量表(WMS)评定，两组患者临床治疗效果和记忆影响。用副反应量表评定两组患者治疗期间不良反应发生情况。结果：治疗结束时，两组患者临床疗效相当（P＞0.05），治疗组起效快，尤其是阴性症状的改善明显优于对照组（P<0.05）。治疗组在开始治疗 4 周内对记忆影响明显，与对照组相比有差异性（P<0.05），但在治疗 8 周时逐步恢复，与对照组相比无差异性（P＞0.05）。治疗组不良反应发生率低，与对照组相比有

差异性（P<0.05）。

结果 治疗结束时，两组患者临床疗效相当（P＞0.05），治疗组起效快，尤其是阴性症状的改善明显优于对照组（P<0.05）。治疗组在开始治疗 4 周内对记忆影响明显，与对照组相比有差异性（P<0.05），但在治疗 8 周时逐步恢复，与对照组相比无差异性（P＞0.05）。治疗组不良反应发生率低，与对照组相比有差异性（P<0.05）。

结论 药物与无抽搐电休克治疗精神分裂症患者均可取得显著效果，无抽搐电休克对患者记忆功能有短暂影响，但不良反应少，因此患者耐受性更好，易被患者接受，值得推广。

关键字：抽搐电休克 精神分裂症 记忆功能

针刺治疗对精神分裂症患者顽固性幻听的随机对照多中心研究

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目的 评估针刺治疗对精神分裂症患者顽固性幻听的疗效。

方法 114 例入组患者按随机数字表以 2:1 分为治疗组和对照组，治疗组给予针刺治疗，采用主穴+配穴治疗方案，主穴：百会、印堂、神庭、内关、劳宫、神门、太溪、昆仑。配穴：①痰气郁结型：丰隆、行间；②痰湿内阻型：丰隆、阴陵泉；③气滞血瘀型：血海；④阴虚火旺型：复溜；⑤阳虚亏损型：关元。耳周及头部诸穴，采用 30 号 0.5～1.0 寸毫针行输刺法，得气后行捻转泻法；四肢穴位依据中医辨证分型合理运用徐疾、迎随等补泻手法，留针 30min，10min 行针 1 次。每周 3 次，4 周为 1 个疗程，连续治疗 3 个疗程；对照组不予针刺干预。两组患者的精神科药物保持不变。分别于治疗前和治疗 12 周时评估患者的阳性与阴性症状量表（PANSS）、精神症状评定量表（PSYRATS）。

结果 治疗 12 周时针刺治疗组 PANSS、PSYRATS 总分明显降低（P＜0.05），其中 PANSS 量表幻觉行为（P3）因子分有显著降低（P＜0.01），PSYRATS 量表听幻觉频率（A1）、听幻觉持续时间（A2）、听幻觉响度（A4）因子分有显著降低（P＜0.01）。

结论 接受针刺治疗的患者与对照组相比，治疗前后幻听有明显改善，主要表现在幻听的频率、持续时间及响度方面。另外，接受针刺治疗的患者与对照组相比，阴性症状和一般精神病理状况评分亦有改善。

关键字：精神分裂症；顽固性幻听；针刺治疗

青少年非自杀性自伤的研究进展

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目的 非自杀性自伤（Non-suicidal self-injury，NSSI）是指个体在没有自杀意图的情况下对身体组织进行的自我破坏，并且这样的行为是不被社会和文化所认可的，包括切割皮肤、割手腕、撞墙、烧伤、打伤、烫伤等。有研究表明 NSSI 对预测自杀尝试是最为有力的因素，并且已作为一个单独诊断纳入《精神疾病诊断与统计手册》第 5 版（DSM-5）。青少年是非自杀性自伤的高发人群，并且在青春期随着年龄的增加患病率也不断升高，性别间也存在显著差异。

方法 本文将对非自杀性自伤相关的危险因素从家庭环境、社会环境以及个人特征三方面进行综述，并通过目前对非自杀性自伤相关的脑电生理改变、脑影像学涉及的结构变化和功能损伤以及脑内神经递质阿片肽物质相关的神经生理学研究对其发生机制进行总结。

结果 目前影响非自杀性自伤的危险因素主要涉及家庭、社会以及个人三个方面，其中不良的家庭氛围和亲子关系等在非自杀性自伤的发生中起到极大的推动作用，并且情感虐待和情感忽视是其独立的危险因素。通过增强家庭和社会支持以及在青春期这一高发年龄段中有效的引导青少年正确处理情绪可以更有效的改善非自杀性自伤的情况。对非自杀性自伤的脑功能机制研究近几年多集中于 MRI 及 fMRI，也有少量的研究对其脑电生理和内源性阿片类物质进行了探究，其中大多数研究发现非自杀性自伤的发生与执行控制功能的缺陷密不可分，并且情绪的过激反应和调节缺陷、较高的冲动性、自我的负性认知、异常的奖赏机制等都参与了非自杀性自伤的发生，但在社区青少年和精神障碍青少年中可能存在机制上的细微差异，精神疾病的发生在一定程度上也对非自杀性自伤有推动作用。目前的研究多为横断面研究，只有少数涉及探究干预效果的研究存在纵向观察的过程。

结论 对于未来的研究可以对非自杀性自伤的发生进行动态追踪，根据相关危险因素建立有效的预测模型，在行为发生的早期进行有效的干预。另外，可以在不同的疾病诊断和单纯的非自杀性自伤行为者中分别探讨，以控制疾病本身的影响，也可以应用多模态的研究模式，更加精确地对非自杀性自伤可能的发生机制进行探究，寻找特异的生物标记物，为干预策略和疗效评估提供客观的依据，更加有效的降低非自杀性自伤的发生率以及改善非自杀性自伤的预后。

关键字：非自杀性自伤；青少年；危险因素；神经生理学

持续性头痛与系统性红斑狼疮

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目的 女性出现持续性头痛、焦虑、抑郁等情绪，

治疗效果欠佳时，需要我们精神科医生考虑系统性红斑狼疮。

方法 采用回顾性病例分析的方法，对我院精神科参与联络会诊相关病例进行个案报道。

结果 该病例表现为持续性头痛3年，伴有焦虑、抑郁、疲劳、绝望 1 年。患者 3 年中反复就诊综合医院和精神专科医院，诊断："1.不伴有精神病性症状的重度抑郁发作 2.躯体化障碍"给予各种抗抑郁药物（草酸艾司西酞普兰、文拉法辛、度洛西汀）及联合小剂量抗精神药物效果均欠佳。后患者出现贫血、血尿、蛋白尿、关节疼痛、口腔溃疡、乏力、食欲差等症状，查抗核抗体 lgG 型 (+)，抗双链 DNA 抗体 lgG 型(IIF)(+)，抗双链 DNA 抗体 lgG 型(CLIA) 阳性(+)，抗 RNP 抗体 lgG 型(LIA) 弱阳性(+)，抗组蛋白抗体 lgG 型弱阳性(+)，抗核小体抗体 lgG(LIA) 阳性(++)。 类风湿因子 26↑IU/ml。血沉：115↑mm/h。诊断：系统性红斑狼疮，给予激素及免疫抑制剂等治疗。激素冲击及免疫抑制剂治疗后头痛、焦虑抑郁情绪消失。

结论 对于年轻女性出现不典型头痛等症状，头痛性质、程度等用心理因素有无法解释，不要忘记考虑系统性红斑狼疮。

关键字：系统性红斑狼疮 持续性头痛 抑郁

戒断期间睡眠质量差的甲基苯丙胺使用者肠道菌群的改变

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目的 甲基苯丙胺(MA)滥用在世界范围内造成了大量的社会问题。睡眠障碍是与 MA 成瘾相关的一个突出问题，可能是复发的危险因素，肠道微生物群可能在睡眠障碍的病理生理机制中发挥重要作用。因此，改善睡眠质量可能有助于治疗甲基苯丙胺成瘾，而针对肠道微生物群的干预可能是一种很有前途的方法。

方法 我们招募了 70 名 MA 使用者，并将他们分为睡眠质量好组(MA- GS;PSQI 总分< 7,n = 49)和睡眠质量差组(MA-BS;PSQI 总分≥7,n＝21)，根据他们的匹兹堡睡眠质量指数(PSQI)得分来研究睡眠质量改变与粪便微生物群之间的关系。此外，我们比较了 MA-GS 组和健康对照组(HC;n = 38)组之间菌群的差异，该组比较并消除了睡眠问题的干扰。采用 16S rRNA 测序技术鉴定肠道细菌。

结果 目前的研究表明，MA-GS 组和 MA-GS 组之间肠道微生物群的相对丰度存在差异。此外，Sutterella 菌属的丰度与白天功能障碍呈正相关。此外，MA-GS 和 HC 之间的比较揭示了各种细菌分类群的 β 多样性和相对丰度的差异。

结论 总之，本研究调查了 MA 使用者肠道微生物群的变化。此外，我们证明肠道微生物群的变化可能与白天功能障碍有关，这表明肠道微生物群可能是 MA 使用者使用和睡眠质量差的生物标志物。

关键字：成瘾，甲基苯丙胺，肠道菌群，睡眠质量

针刺胆经五输穴治疗抑郁症理论与临床疗效探讨。

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目的 通过梳理从少阳胆经输穴论治抑郁障碍的理论及临床疗效，探讨抑郁治疗的新思路。

方法 针刺胆经五输穴配合抗抑郁药物治疗情志疾病。中医辩治抑郁症归纳为气血阻滞的病理过程，通过调整经络系统中的气血流动来缓解症状。针灸作为中医医学中的一种治疗方法，可以通过刺激穴位调整行，起到缓解抑郁症状的作用。中医学理论辩治抑郁从湿、从瘀、从虚；从肝、从脾、从肺、从肾，综合来看，可以总结为：阳气不足、气血运行不畅。通过调整经络脏腑系统中的气血流动，可以缓解抑郁症的症状。其中，胆经在情志方面具有重要作用。胆经起源于目外眦，沿着面颊、耳后、颈侧、躯干外侧一直延伸至足部，在中国医学中被称为情志之脏。胆主决断，在精神意识思维活动中，负责判断事物、做出决断。胆为中正之官，中精之府。十一经皆取决于胆，"凡十一藏皆取决于胆"。取决于胆的生发。胆为少阳，主生发之气。人的勇敢、怯懦、或正或邪，皆源于此。胆者，担也。胆经被视为奇恒之腑，主要负责决断和决策。情绪的产生和调节与胆经息息相关。胆经的气血流动畅通与否，会影响情绪的稳定和情绪失调的。五输穴是经气运行的源头。"所出为井，所溜为荥，所注为输，所行为经，所入为合，二十七气所行，皆在五输也"（《灵枢.九针十二原》）。在治疗情志疾病中有确切的疗效，如在针灸穴位治疗抑郁障碍的选穴中，五输穴是最常被选用的穴位，而且与其他穴位配合选穴也很频繁。临床上对于重性抑郁患者，在抗抑郁药物治疗基础上加用针刺胆经五输穴，预实验，实验组与对照组治疗后第 4 周末缓解率分别为 62.1％和 54．3％，疗效显著。

结果 抗抑郁药物治疗联合针刺胆经五输穴能增加治疗抑郁障碍的疗效。

结论 从胆经论治，尤其重视经脉五输穴的作用，可以为治疗抑郁症提供一个新的角度。

关键字：少阳胆经；五输穴；抑郁障碍。

中药治疗抗精神病药物所致闭经临床疗效的 Meta 分析

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目的 中药治疗抗精神病药物所致闭经的有效性和安全性。

方法 计算机检索 Cochrane Library，PubMed，Embase，CNKI，中国生物医学文献数据库（CBM），维

普 VIP，万方数据库（2022 年 09 月 04 日），收集中药治疗抗精神病药物所致闭经的随机对照试验，对其治疗抗精神病药物所致闭经的总有效率、治愈率、不良反应发生率及复发率进行 Meta 分析。采用 Cohrane 偏倚风险评估工具进行质量评价。利用 RevMan5.3 软件进行统计分析。

结果 纳入 22 项随机对照试验，共 1861 例患者。Meta 分析结果显示：加用中药在提高总有效率[RR=1.29，95%CI (1.16，1.44)，I2=84%]、治愈率[RR=1.62，95%CI (1.45，1.80)，I2=30%]，并降低不良反应发生率[RR=0.56，95%CI (0.41，0.76)，I2=0%]和复发率[RR=0.16，95%CI (0.06，0.42)，I2=0%]方面有优势。

结论 中药治疗抗精神病药物所致的闭经安全有效，但由于纳入文献的数量和质量普遍偏低，研究结果仍需要多中心、大样本、高质量的临床随机对照试验来进一步验证。

关键字：抗精神病药物所致闭经；中药；临床疗效；meta 分析

抑郁症患者静息态功能磁共振脑功能连接分析

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目的 观察基于静息态功能磁共振成像（rs-fMRI）的抑郁症患者功能连接（FC）变化情况。

方法 纳入抑郁症患者 43 例，健康人群 55 例进行功能连接的研究。采用汉密尔顿抑郁量表 17 项对所有被试进行神经心理评估。对所有被试进行静息态功能磁共振扫描，在 MATLAB 上应用 SPM12 及 CONN18b 对 rs-fMRI 数据进行预处理，以左眶部额上回、左楔前叶定义为种子点，比较两组研究对象功能连接强度的差异。并将差异有统计学意义脑区的 FC 值与 HAMD 做相关性分析。

结果 以左眶部额上回为种子点（ROI）计算与全脑的功能连接，并比较抑郁症组与健康对照组之间的差异，结果提示：左眶部额上回与右侧颞下回、左侧舌回、右眶部额中回、左中央后回功能连接发生改变；以左楔前叶为种子点（ROI）计算与全脑的功能连接，并比较抑郁症组与健康对照组之间的差异，结果提示：左楔前叶与右侧额下回、左左侧梭状回、右眶部额上回、左侧额中回、右顶下缘角回功能连接发生改变。见表 2 及图 3、4。

结论 与健康对照组相比，抑郁症患者存在广泛的前额叶-海马、颞叶功能连接存在异常，存在默认模式网络、注意网络的功能改变，抑郁症患者默认模式网络中 FC 异常可能是导致患者情绪敏感性增加、选择性注意偏差的潜在病因之一。而注意网络在病理生理机制中发挥着中介作用，注意网络中 FC 异常可能是抑郁症患者的潜在病因，是其发生注意功能障碍、认知功能损害可能的生理病理机制之一。

关键字：抑郁症；静息态功能磁共振成像；功能连接；脑默认网络

伴焦虑症状的抑郁症患者肠道菌群多样性与炎症因子的相关性研究

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目的 抑郁症是最常见的心境障碍之一，而伴有焦虑症状的抑郁症（Anxious Depression,AND）表现出了治疗依从性低，药物耐受性差，自杀风险高的特点，给患者造成了极大的痛苦，也增加了治疗的难度。近些年肠道菌群在抑郁症病理机制中的作用得到进一步证实，然而关于 AND 肠道菌群以及炎症因子的研究却鲜有报道。因此本研究探讨 AND 患者肠道菌群特异性改变，以及差异菌群的相对丰度与炎症因子的相关性，从而更全面的探索 AND 的发病机制。

方法 本研究纳入 20 例 AND 患者，34 例健康对照（healthy controls ,HCs）签署知情同意书后收集粪便标本，外周血液标本，一般临床资料。基于 QIIME2 高通量测序平台，采用 16S rRNA 高通量测序技术对细菌的 V3-V4 区域进行测序，并进行生物信息学分析。采用酶联免疫吸附法（ELISA）检测血清中炎症因子水平。使用 SPSS23.0 软件对临床资料进行统计学分析。

结果 1、二组受试者年龄，性别，BMI 均无显著差异（$p>0.05$）。2、与 HCS 组相比，AND 组 α 多样性 Pielou_e 指数差异具有统计学意义（$p<0.05$）。β 多样性差异具有统计学意义（$R=0.138$ $p<0.05$）。3、采用 LEFse 分析共发现两组间存在 35 种差异菌群，其中 7 种差异菌群在 HCS 富集，28 种差异菌群在 MDD 中富集。4、相关分析发现，Bacteroides($r=0.516$, $P<0.05$)相对丰度与与血浆 IL-17A 含量呈正相关，Sutterella($r=0.479$, $P<0.05$)，Parabacteroides($r=0.577$, $P<0.01$)相对丰度与 IL-1β 含量呈正相关，Desulfovibrionaceae($r=-0.578$, $P<0.01$)，Deltaproteobacteria($r=-0.581$，$P<0.01$),Cyanobacteria($r=-0.493$, $P<0.05$)相对丰度与 IL-6 含量呈负相关。

结论 本研究发现与 HCS 相比 AND 肠道菌群多样性存在显著差异，差异菌群相对丰度与炎症因子显著相关，这些结果提示 AND 患者肠道菌群失调可能引起机体外周血促炎因子的上升，从而导致 AND 机体的炎症反应，有望为 AND 的诊疗、改善预后提供理论基础。

关键字：抑郁症 肠道菌群 炎症因子

精神疾病中肠道微生物组研究趋势：文献可视化

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目的 越来越多的研究表明，肠道微生物群与精神疾病的发生发展有着密切的关联。肠道微生物群（GM）通过免疫和代谢途径能够影响中枢神经系统。反过来，大脑通过神经内分泌信号影响肠道微生物组成。这就是肠道微生物群 - 脑轴。为了更全面地了解肠道微生物组的发展现状、研究热点和未来趋势，我们通过文献计量学方法进行了彻底的回顾性分析

方法 我们检索了 Web of Science 核心馆藏的科学引文索引扩展版，以获取 2002 至 2021 二十年间精神疾病与肠道微生物组的相关文章。应用 R-bibliometrix，CiteSpace 和 VOSviewer 对收集的数据进行分析和可视化。

结果 我们共纳入了 864 篇与肠道菌群相关的文章。出版物在 20 年间呈现指数型增长，表明该领域正在蓬勃发展。中国和美国是发文量最多的两个国家，中美之间的合作在所有国家之间也最为密切。Brain and Behavior immunity 是最具影响力的期刊。CRyan JF 是该领域最具生产力作者。DINAN TG 是最具影响力的作者。UNIV COLLCORK 是该领域最具影响力的机构。抑郁症的脑肠轴研究是目前的研究热点。肠道菌群与疾病之间的免疫途径是未来的研究趋势。

结论 我们的研究为近二十年来精神疾病的肠道微生物组研究提供了多维度的视角和整体知识结构。快速扩展的研究能够较快推动脑肠轴研究的发展，为揭示肠道微生物组的功能和作用提供基础，最终有助于指导临床患者诊断或治疗。

关键字：肠道微生物组 脑肠轴 精神疾病

甲基苯丙胺成瘾者抑郁症状与肠道菌群改变的研究进展

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目的 甲基苯丙胺成瘾是一种严重的药物滥用问题，其不仅对身体健康造成了严重危害，还与心理健康问题密切相关。抑郁症状在甲基苯丙胺成瘾者中普遍存在，抑郁症状会加重甲基苯丙胺成瘾者的药物渴求及自杀风险，导致其戒断困难、复吸风险升高、自杀风险升高。然而，甲基苯丙胺成瘾者产生抑郁症状的具体机制尚不清楚。

方法 研究综述了甲基苯丙胺成瘾者抑郁症状与肠道菌群改变的研究进展，并对其后续研究提出展望。

结果 甲基苯丙胺成瘾者多伴随抑郁症状，可能是通过影响单胺神经递质的调节，破坏纹状体中的 DA 突触和 5-HT 突触等产生抑郁症状。动物实验表明甲基苯丙胺戒断会诱发小鼠抑郁样行为，并伴随肠道菌群的稳态失衡、肠屏障损伤、5-HT 代谢失调，5-HT 受体拮抗剂干预后发现，5-HT 受体拮抗剂可以通过 5-HT 代谢途径减轻甲基苯丙胺戒断的抑郁样行为和肠道损伤。同时有研究表明甲基苯丙胺成瘾者的肠道菌群同健康对照相比有显著性差异，而肠道菌群同抑郁症状相关，因此肠道菌群或许成为干预甲基苯丙胺成瘾者抑郁症状的新靶点。

结论 肠道菌群或成为干预甲基苯丙胺成瘾者抑郁症状的新靶点，为探究甲基苯丙胺成瘾人群抑郁症状发生的机制提供新的思路，为改善该人群抑郁症状提供新的干预方向，对如何降低甲基苯丙胺复吸具有一定的启示意义，并帮助甲基苯丙胺成瘾人群更好回归社会。

关键字：甲基苯丙胺 抑郁症状 肠道菌群

性别对焦虑障碍患者神经内分泌的影响

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目的 探讨不同性别焦虑障碍患者的神经内分泌变化。

方法 在这项研究中，收集 2021 年 10 月至 2022 年 9 月就诊于郑州大学第一附属医院精神科的焦虑障碍患者 136 例，最终纳入符合焦虑障碍入组标准的患者 95 名，其中男性 43 名（M 组）、女性 52 名（F 组）。采用电化学发光法检测焦虑障碍患者促肾上腺皮质激素（ACTH）、皮质醇（COR）、C 反应蛋白（CRP）、白介素 6（IL-6）、同型半胱氨酸（HCY）、游离 T3(FT3)、游离 T4(FT4)、促甲状腺激素（TSH）。采用自动生化分析仪检测血浆总胆固醇(TC)、甘油三酯(TG)、高密度脂蛋白(HDL)和低密度脂蛋白(LDL)水平。

结果 两组比较发现，M 组收缩压、HAMA 躯体焦虑因子分、8 点、16 点、24 点 ACTH、FT3、HCY 均显著高于 F 组（P＜0.05）；皮质醇分泌节律消失定义为 16：00 或 24：00 皮质醇水平/8：00 皮质醇水平≥50%为皮质醇分泌节律消失，F 组节律紊乱为 31 人（发生率为 59.62%），M 组节律紊乱为 35 人（发生率为 83.33%），两组间差异有统计学意义（$\chi2$=5.265 P=0.022 ）。F 组 HAMA 精神性焦虑因子分、HDL 高于 M 组（P＜0.05）；多因素 Logistic 回归分析发现 M 组躯体性焦虑的高危因素包括 CRP（OR=1.848，95%CI=1.112～2.315）、皮质醇紊乱（OR=1.313，95%CI=1.216 ～ 1.453 ）、吸烟（OR=1.021，95%CI=1.002～1.049）。

结论 男性组皮质醇昼夜节律紊乱发生率高，并且 CRP 显著升高，可能是皮质醇节律中介因素之一。男性焦虑障碍更容易引起神经内分泌紊乱，CRP、皮质醇节律紊乱、吸烟是男性躯体性焦虑的高危因素。

关键字：焦虑障碍；皮质醇节律；C-反应蛋白

女性双相障碍治疗与孕产期的管理

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目的 男性和女性双相障碍发病率相当。相较于

男性，女性双相障碍的病程因遗传和生理特点有其特殊性，且女性双相障碍患者可能存在妊娠需求，孕产期治疗具有挑战性。针对上述问题进一步探究，有助于女性双相障碍治疗与孕产期的管理。

方法 通过中国知网、万方及 Pubmed 等数据库进行文献检索。

结果 女性双相障碍病程特殊性：1、与生殖相关的激素波动影响女性双相障碍的病程。具体来说，女性在月经前、产后和围绝经期有症状加重的风险； 2、女性因更多抑郁发作可能更多使用抗抑郁药物，而可能经历快速循环、混合躁狂和抗抑郁药物诱发躁狂发作；3、女性双相障碍药物治疗中需注意与药物治疗相关的内分泌改变，如锂盐相关的甲状腺功能减退，丙戊酸盐治疗相关的多囊卵巢综合征(（PCOS）。在育龄期女性双相障碍患者中，共病 PCOS 发生率较高，使用丙戊酸盐亦可能导致 PCOS 等代谢综合征； 4、育龄期女性口服避孕药与精神科药物可能存在相互作用，如口服避孕药可诱导拉莫三嗪的代谢，服用拉莫三嗪的女性通常需要提高拉莫三嗪的剂量；目前尚无口服避孕药与丙戊酸盐、碳酸锂或非典型抗精神病药物之间药物相互作用研究和报道。 5、一旦发现意外怀孕，患者更有可能突然停止所有精神科药物治疗，这增加了疾病复发的风险。 孕产期治疗具有挑战性： 1、为了更好管理备孕、孕期、产后、哺乳时期的女性双相障碍患者，孕前咨询应该是临床治疗的组成部分。 2、女性双相障碍在孕前如考虑停药，应逐渐停用药物（大于 15 天）；孕前服用丙戊酸盐的女性，必须在临床督导下换用其他精神药物； 3、孕期前三个月是胎儿器官发育关键时期，此时期暴露于传统心境稳定剂与增加胎儿畸形风险相关，对于女性双相障碍孕期前三个月一般建议尽量不用药；如果需要治疗，建议使用最小有效剂量的单药治疗。拉莫三嗪单药治疗具有最大安全数据，建议该药物作为孕期一线心境稳定剂。 4、丙戊酸盐与严重的出生缺陷相关，如低智商、自闭症、神经发育迟缓，应避免在怀孕期间使用。锂盐可能导致婴幼儿心血管异常，在怀孕前 3 个月不建议使用；锂盐的不良反应是剂量依赖的，孕期应尽可能使用最低有效剂量，并应坚持监测血锂水平。 5、产后是女性双相障碍的高危时期，哺乳导致的睡眠剥夺对疾病亦有不利影响，产褥期精神病或躁狂女性禁止哺乳。

结论 针对女性双相障碍，需根据患者临床资料、怀孕计划、伴发内分泌疾病、家庭支持等制定个体化治疗方案。

关键字：双相障碍；女性；孕产期；内分泌；治疗

难治性强迫症治疗新进展

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目的 强迫症是一种以反复出现的强迫观念和或强迫行为等为主要临床表现的精神疾病。在最新流行病学中，全球强迫症患病率为 1%-3%；我国强迫症患病率为 2.4%。在寻求治疗的个体中，高达 92.3% 终生共病，长期缓解率为 60%。而难治性强迫症患者是指经过充分的一线治疗试验但未获得满意疗效的患者。因此，探讨其治疗方法是研究难治性强迫症不可或缺的一部分，这也为临床医生带来新的治疗思路。

方法 通过汇总 Pubmed 、迈特思创等数据库 2020-2023 年的文献发现，使用脑深部刺激，经颅磁刺激，药物等治疗方法观察难治性强迫症的治疗效果。

结果 与健康对照相比，我们发现非运动性丘脑底核的慢性深部脑刺激对难治性强迫症的症状改善；低频重复经颅磁刺激可以改善难治性强迫症患者的强迫症状；昂丹司琼、格拉司琼、阿立哌唑等可以作为难治性强迫症的增强剂；度洛西汀、伏氟沙明超阈值剂量治疗后强迫症状改善；咖啡因作为强迫症的辅助治疗可以减轻强迫症症状的严重程度，辅助使用对谷氨酸能和血清素能系统等基础通路具有潜在神经调节作用的营养保健品在 Y-BOCS 评分上显示有改善。

结论 强迫症通常治疗很艰难，并且对物理治疗和药物等治疗方案有抵抗力。但是我们还是发现了一些难治性强迫症治疗的新进展。今后会扩展更多治疗思路，为难治性强迫症治疗带来更多选择方案。

关键字：难治性强迫症，脑深部刺激，经颅磁刺激，药物

奥氮平联合碳酸锂治疗双相情感障碍的临床效果

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目的 观察双相情感障碍（BD）采用奥氮平联合碳酸锂治疗的临床效果。

方法 ?选取辽宁省精神卫生中心 2020 年 7 月至 2022 年 7 月收治的 BD 患者 88 例，根据随机数字表法分为观察组（n=44）和对照组（n=44），对照组采取碳酸锂治疗，观察组给予奥氮平 + 碳酸锂治疗，对比两组治疗效果、不良反应、疾病改善情况、症状评分。

结果 本研究结果显示，治疗后观察组 BRMS 评分和 CGI-s-BP 评分较对照组更低，表示联合治疗可有效改善患者病情和症状。同时观察组有效率高于对照组，表示联合方案的效果更好。究其原因，碳酸锂在临床中普遍应用，是一种心境稳定剂，可对糖原生成激酶 3 进行抑制，进而阻碍脑组织对异常能量的摄取，刺激神经突触前膜吸收去甲肾上腺素，提高单胺氧化酶活性，阻碍即将释放的去甲肾上腺素，进而减轻患者躁狂表现。而奥氮平是非典型抗精神病药物，服用后会切断即将传递的突触，从而对躁狂症状进行控制。两种药物联合应用可实现相辅相成的作用，促进疗效的提升。本研究中，观察组不良反应发生率低于对照组，但没有统计学意义。说明，两种治疗方式的安全性相近，利用奥氮平+碳酸锂治疗并不会增加药物不良反应的发生概率。有研究表明，两组患者在治疗过程中发生的头

晕、胃肠道反应等不良反应程度均较轻，在减小剂量后都可缓解，患者具有良好的耐受度，安全性较高。

结论 在 BD 患者治疗中应用奥氮平联合碳酸锂治疗，药物不良反应较少，可有效改善患者的临床症状，提升治疗效果，安全性较高。

关键字：双相情感障碍 ； 奥氮平 ； 碳酸锂 ； 不良反应

阿立哌唑与氯氮平对慢性精神分裂症患者疗效及脂质指标的影响

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目的 探讨阿立哌唑与氯氮平对慢性精神分裂症（SCH）患者疗效及脂质指标的影响。

方法 选取 2019 年 7 月至 2020 年 6 月辽宁省精神卫生中心收治的 78 例慢性 SCH 患者，随机分为观察组（n=39，给予阿立哌唑治疗）和对照组（n=39，给予氯氮平治疗）。比较两组治疗后的不良反应发生情况、治疗效果及脂质指标。

结果 观察组治疗总有效率高于对照组，差异有统计学意义（P＜0.05），表明在治疗慢性 SCH 时阿立哌唑较氯氮平的效果更显著。阿立哌唑是抗精神病的第二代药物，存在稳定多巴胺的作 用，在多巴胺较多的环境下可抑制亢进的多巴胺，继而使患者的阳性症状得到改善，在多巴胺较少的环境下可将多巴胺神经元上调，从而改善其阴性症状[7]。同时，治疗后，两组 TG 水平比较，差异有统计学意义（P＜0.05），但两组 TC、LDL-C、HDL-C 水平比较，差异均无 统计学意义（P＞0.05），表明与阿立哌唑比较，氯氮平可对慢性 SCH 患者脂质代谢产生显著的影响。究其原因可能是与多种递质受体存在关系，利用对 5-羟色胺 2A 受体进行拮抗，从而使脂质代谢异常的风险增加。氯氮平可直接作用胰岛 β 细胞，加快分泌和释放胰岛素，进而增加 TG 水平。观察组躯体健康、心理健康、社会功能评分均高于对照组，差异均有统计学意义（P＜0.05）；两组物质生活评分比较，差异无统计学意义（P＞0.05），说明阿立哌唑较氯氮平更能改善患者的生活质量。阿立哌唑可稳定脂质代谢水平，同时不良反应少，可为改善患者的生活质量的创造良好的条件。观察组不良反应发生率低于对照组，差异有统计学意义（P＜0.05），说明阿立哌唑治疗慢性 SCH 患者的不良反应较少。分析其原因为阿立哌唑对 5-羟色胺 T1A 受体和多巴胺受体产生激动作用，同时拮抗 5-羟色胺 2A 受体，可按照患者有关神经递质水平进行拮抗和激动作用，进而保证平衡，减少不良反应的发生。

结论 在慢性 SCH 患者的临床治疗中，阿立哌唑较氯氮平的治疗效果更佳、不良反应少，但脂质指标无显著改变。

关键字：慢性精神分裂症 ； 脂质指标 ； 阿立哌唑 ； 氯氮平 ； 不良反应 ； 生活质量

喹硫平联合丙戊酸镁治疗对双相情感障碍患者生活质量的影响

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目的 分析双相情感障碍（BD）采用丙戊酸镁联合喹硫平治疗的效果及对其生活质量的影响。

方法 选取 2020 年 5 月至 2021 年 6 月医院收治的 98 例 BD 患者，采用随机法进行分组，分为观察组和对照组，各 49 例。对照组采取丙戊酸镁治疗，观察组在对照组基础上联合喹硫平治疗，对比两组的生活质量、睡眠质量、焦虑评分、抑郁评分及治疗效果。

结果 本研究结果显示，观察组治疗总有效率高于对照组（P＜0.05），表示喹硫平联合丙戊酸镁治疗可使患者 BD 进一步改善。究其原因为：①喹硫平可提升药物在大脑皮质部分位置的浓度，阻碍 DI 受体处在激活状态而引起的氨基丁酸紊乱的情况；②该药物可使丙戊酸镁治疗的敏感度得以提升，使部分丙戊酸镁结合递质成分或神经元间质成分的作用提升，让渗透药物浓度的效果提高[8]。观察组 SAS 评分、SDS 评分均较对照组低（P＜0.05），分析原因可能是喹硫平使 5 羟色胺浓度增加，也可能是喹硫平将腺苷酸环化酶激活，从而使多巴胺分泌功能得到改善。观察组治疗后其睡眠质量评分低于对照组（P＜0.05），表明喹硫平联合丙戊酸镁治疗 BD 患者可有效改善其睡眠质量，进而提升患者治疗依从性，降低患者出现其他心境障碍性疾病的概率。另外，除肢体疼痛评分外，其他维度评分对比，差异均有统计学意义（P＜0.05），表示 BD 给予喹硫平联合丙戊酸钠治疗可使其生活质量显著提升，主要是因为喹硫平可改善神经元电传导和稳定神经递质。

结论 对于 BD 患者来说，给予其丙戊酸镁联合喹硫平治疗可获得良好的效果，可有效改善患者的焦虑和抑郁症状，提升其睡眠质量，提高生活质量。

关键字：双相情感障碍 ； 生活质量 ； 喹硫平 ； 丙戊酸镁 ； 抑郁 ； 焦虑 ； 睡眠质量

双心境稳定剂联合奥氮平治疗双相情感障碍患者的效果

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目的 分析双心境稳定剂联合奥氮平治疗双相情感障碍患者的效果。

方法 选取 2020 年 8 月至 2022 年 8 月于辽宁省精神卫生中心接受治疗的 172 例双相情感障碍躁狂发作患者，根据治疗方法的不同随机分为对照组和观察组，各 86 例。对照组选择双心镜稳定剂，即碳酸锂片联合丙戊酸钠治疗，观察组在对照组基础上加用奥氮平治疗。比较两组疗效、Bech-Rafaelsen 躁狂量

表（BRMS）评分、不良反应发生情况。

结果 心境稳定剂可治疗患者的情绪恶劣、激越、冲动、不稳定等情绪。碳酸锂可作用于突触前膜，使其对去甲肾上腺素的摄取能力加强，进而使去甲肾上腺素在神经内含量减少，确保去甲肾上腺素正常的功能，对提升单胺氧化酶在体内的活力十分有利，强化其降解去甲肾上腺素的功能，进而使临床症状缓解；同时，联合丙戊酸钠治疗可使中性粒细胞作用减少，使患者的状态更稳定。有关资料指出，将心境稳定剂与抗精神病药物联合治疗双相情感障碍躁狂发作可取得显著的成效。本研究选择的奥氮平可选择性阻断中脑边缘系统的通路，将其用于治疗狂躁发作的患者中的成效显著。本研究结果显示，观察组临床治疗总有效率、治疗 2、4、6 周后 BRMS 评分、不良反应发生率均优于对照组，差异有统计学意义（均 P＜0.05）。

结论 应用双心镜稳定剂联合奥氮平双治疗相情感障碍患者可取得确切的疗效，迅速控制躁狂的发作，且安全性较高。

关键字：双相情感障碍 ；躁狂 ；奥氮平 ；双心境稳定剂 ；不良反应

草酸艾司西酞普兰联合盐酸度洛西汀治疗抑郁症患者的效果

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目的 分析草酸艾司西酞普兰联合盐酸度洛西汀治疗抑郁症患者的效果。

方法 选取 2020 年 1 月至 2022 年 2 月辽宁省精神卫生中心收治的 74 例抑郁症患者，随机分为观察组（37 例，采用草酸艾司西酞普兰 + 盐酸度洛西汀治疗）和对照组（37 例，采用盐酸度洛西汀治疗），比较不良反应、汉密尔顿抑郁量表（HAMD）评分、汉密尔顿焦虑量表（HAMA）评分、多伦多述情障碍量表（TAS-20）评分、Snaith 快感缺失量表（SHAPS）评分、艾森克人格问卷（EPQ）评分。

结果 本研究结果显示，观察组 EPQ 评分、TAS-20 评分、SHAPS 评分、HAMD 评分、HAMA 评分、不良反应发生率均低于对照组，差异有统计学意义（P＜0.05）。由此表明，在抑郁症患者的临床治疗过程中，二种药物联合应用的效果更佳，且安全性更高。分析原因为：盐酸度洛西汀是再摄取 NE 和 5-HT 选择性抑制剂，属于二环类化合物。草酸艾司西酞普兰为一种代谢产物，具有主要的药理活性成分，可剂量依赖性地、高效地、选择性地对 5-HT 转运体进行抑制，对中枢神经系统处在神经末梢突触前的 5-HT 产生抑制其再摄取的作用，进而实现良好的抗抑郁效果。该药物可对海马细胞超声促进其生长的作用，进而使早期抗抑郁效果得到显著提升。当二种药物联用时可增强治疗效果，但并不会增加不良反应发生率。

结论 盐酸度洛西汀与草酸艾司西酞普兰联合治疗抑郁症的效果确切，可有效改善患者的负面情绪，缓解其情感缺失，且不良反应较少。

关键字：抑郁症 ；盐酸度洛西汀 ；草酸艾司西酞普兰 ；不良反应 ；焦虑 ；情感缺失 ；人格 ；情感表达

文拉法辛联合阿立哌唑治疗难治性抑郁症患者的效果

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目的 分析文拉法辛联合阿立哌唑治疗难治性抑郁症患者的效果。

方法 选取 2020 年 11 月至 2022 年 1 月辽宁省精神卫生中心收治的 82 例难治性抑郁症患者，根据床号奇数偶数法分为对照组（床号偶数者）和观察组（床号奇数者），每组 41 例，对照组仅给予文拉法辛治疗，观察组采取文拉法辛联合阿立哌唑治疗，比较两组患者的治疗效果、认知功能及不良反应发生情况。

结果 本研究结果显示，观察组治疗总有效率高于对照组，差异有统计学意义（P＜0.05）。分析其原因为：阿立哌唑为一种衍生物，是多巴胺系统稳定剂。此药物对大脑中的 D2 受体和 5-HT2 受体具有较强的亲和力，可使 5-HT2A 受体被阻断，减弱对多巴胺释放的抑制性，促使 D1 受体和激动，同时阿立哌唑是 D1 受体激动药，有助于调节情绪，进而实现良好的抗抑郁作用。文拉法辛是非典型抗精神病药中的新型药物，可高度抑制 5-HT 和去甲肾上腺素（NE），进而到达改善抑郁症的效果。两组非持续错误数、总反应数、持续性错误数评分比较，差异均无统计学意义（P＞0.05）；但观察组完成分类数、正确反应数评分均高于对照组，差异有统计学意义（P＜0.05）。究其原因为：阿立哌唑同多巴胺 D2、D3 受体存在很强的亲和力，可使亢进的多巴胺活动明显降低，同时使低兴奋的多巴胺神经元提升，促进认知功能的改善。两组不良反应发生率比较，差异无统计学意义（P＞0.05），说明联合用药在提升治疗效果的同时并未增加不良反应，安全性较高。

结论 文拉法辛联合阿立哌唑在难治性抑郁症患者治疗中的应用效果显著，且不良反应发生率较低。

关键字：难治性抑郁症 ；文拉法辛 ；阿立哌唑 ；认知功能 ；不良反应

阿立哌唑与舍曲林共同治疗青少年抑郁症的效果研究

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目的 探究阿立哌唑与舍曲林共同治疗青少年抑郁症的效果。

方法 对照组患者使用舍曲林治疗，临床医师给

予患者盐酸舍曲林片（生产企业：浙江乐普药业股份有限公司；国药准字：H20052202），50mg/次，1 次/d，治疗剂量范围为每日 50g-100mg，起始量为 50mg/d，1 周内拎出那个意识根据患者情况逐步增加至 150-200mg/d。 研究组患者在对照组的基础上，采取阿立哌唑与舍曲林共同治疗。具体如下：在服用盐酸舍曲林片基础上，联合服用阿立哌唑（生产企业：江苏恩华药业股份有限公司；国药准字：H20140121），1 次/d，起始剂量为 10mg，在服用 2 周后，可依照患者实际状态进行药物的增减。

结果 本次研究中将患者分为，单纯选择使用舍曲林治疗的对照组，以及在使用舍曲林基础上，联合食用阿立哌唑治疗的研究组进行对比分析，结果显示，两组患者在治疗前，HAMD 评分对比差异不明显，P＞0.05，但在治疗后，相对于对照组患者来说，研究组 HAMD 评分得到显著降低，P＜0.05。除此之外，治疗后，相较对照组 19.57%的不良发生率，研究组 4.35%的不良反应发生率显著较低，P＜0.05。因此能够看出，使用阿立哌唑与舍曲林共同治疗青少年抑郁症临床治疗效果显著，不仅可以改善患者抑郁症状，还可以减少不良反应发生，具有推广意义。

结论 阿立哌唑与舍曲林共同治疗对青少年抑郁症患者抑郁状态改善明显，且可减少患者不良反应，安全性高并且治疗效果显著，临床价值高。

关键字：阿立哌唑；舍曲林；青少年；抑郁症

艾司西酞普兰治疗难治性抑郁症的临床研究

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目的 探讨艾司西酞普兰治疗难治性抑郁症的临床疗效。

方法 选取 2019 年 5 月至 2021 年 5 月期间在我院进行治疗的难治性抑郁症患者 100 例，采取国际通用随机字母表法将入组患者分为两组，观察组和对照组均包含 50 例。两组患者均给予 1 周时间的药物清洗期，观察组患者给予口服艾司西酞普兰进行治疗，对照组患者给予口服文拉法辛进行治疗。

结果 观察组患者和对照组患者治疗总有效率分别为 58.0%和 22.0%；组间差异具有显著性（P<0.05）。观察组患者治疗后抑郁因子分、焦虑/躯体症状分、睡眠因子分及 HAMD 总分分别为（3.13+1.53）分、（4.35+1.15）分别、（1.75+2.05）分和（13.63+3.10）分；对照组患者治疗后抑郁因子分、焦虑/躯体症状分、睡眠因子分及 HAMD 总分分别为（6.19+3.20）分、（6.53+1.70）分别、（4.13+2.09）分和（21.02+2.14）分；组间差异均具有显著性（P<0.05）。

结论 本次研究证实，艾司西酞普兰在难治性抑郁症的临床治疗中也具有以上优点，从而使其能够获取较文拉法辛更加优秀的治疗效果。艾司西酞普兰治疗难治性抑郁症能够显著提高患者的临床治疗效果，对于改善患者 HAMD 各维度评分具有显著作用，是目前临床治疗难治性抑郁症较为理想的药物。

关键字：艾司西酞普兰；难治性抑郁症；临床疗效

嗅觉与心境障碍的关联主要来自生理因素还是心理因素？

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背景 嗅觉与情绪的相关性为许多文献描述和研究，其与情绪障碍的相关性及其背后的机制仍然为学界争论。相比于视觉和听觉这些用来授受信息的感官，嗅觉更难以描述和定量，这为对其研究造成困难。在这篇综述中，我们归纳了气味对情绪的影响，以及心境障碍患者对气味的反应。 目的 通过文献检索，归纳嗅觉与心境障碍的关系，总结其背后的生理和心理学机制。

方法 通过“PubMed”和“知网”两个学术检索引擎查找相关文献，形成综述。英文关键词包括“olfactory”、“odor”、“mood (disorder)”；中文关键词包括“嗅觉”、“气味”、“心境”、“心情”、“心境障碍”等。横断面研究、队列研究、回顾性研究、综合述评均被纳入分析，其中未设置对照组、未明确定义嗅觉和气味种类的文献会被排除。

结果 纳入的大部分文献均认为嗅觉与心境障碍有关，其中可能的原因是嗅觉传导通路与额叶皮质和边缘系统联系紧密，而后者与情绪障碍有关。一方面，双相情感障碍和抑郁障碍患者的嗅觉均有可能发生改变，这些改变主要发生在患者对气味的敏感性上。抑郁状态的患者对低浓度气味较心理健康的人群更敏感；（轻）躁狂状态患者对气味敏感度则下降，其背后的机制尚未发现有文献详述。另一方面，气味可以影响心境。有研究认为，芳香族化合物可改变心境，缓解焦虑。气味刺激增加了 5-羟色胺（5-HT）水平或多巴胺（DA）水平。对于气味改变心境的机制有两种假设，分别是药理学假说和心理学假说。前者认为，气味分子通过血液和嗅神经两个途径进入大脑，改变情绪；后者认为气味通过情绪学习以及认知加工来实现。前者不能解释为什么气味对情绪的改变有立竿见影的效果；后者不能解释不同文化背景和种族的人对气味的反应类同。对于心境障碍患者嗅觉敏感度的改变如何影响他们对气味的认知和情绪反应，未找到相关的文献专门讲述。

结论 心境障碍与嗅觉的关系更可能是生理、心理两因素掺杂，共同作用的结果。

关键字：嗅觉，心境障碍，气味，神经递质

团体生物反馈治疗对围生期抑郁症的干预效果研究

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目的 围生期抑郁不但严重影响孕产妇自身及子代健康，还关系到家庭以及社会的和谐稳定。临床需要一个简单易操作、起效较快、安全无副作用的治疗方法。本研究探讨在临床实践中，团体生物反馈治疗对围生期抑郁的临床实际干预效果、起效原理以及注意事项。

方法 采用病例对照研究，纳入 2019 年 10 月至 2023 年 5 月在常州市妇幼保健院心理科就诊且符合围生期抑郁诊断标准的孕产妇。自愿接受单一团体生物反馈治疗的为治疗组，共 101 例，拒绝治疗的为对照组，共 126 例。分别进行一般情况评估、HAD 自评和 HAMD 量表评定，以及 LF/HF 检测。治疗组接受 10 次的团体生物反馈治疗，要求在 3 周内完成。团体生物反馈治疗采用南京伟思公司的团体生物反馈仪（型号 FreeMind-G）。孕妇使用的治疗方案为前静息评估（1min）+腹式呼吸（呼吸幅度训练）+渐进式肌肉放松训练（模块 3/模块 6）+α 波音乐（随机切换）+后静息评估（1min），产妇的治疗方案在渐进式肌肉放松这一项目中，可选择模块 1、模块 3 和模块 6。10 次为一个疗程，要求在 3 周内完成，一次可 4 个人同时训练。

结果 在基线时，治疗组的 HAMD 值（18.71±3.01）、HAD 值（17.06±2.63）均显著高于对照组（P<0.001）。试验结束后，治疗组的 HAMD 值（7.53±2.81）、HAD 值（13.90±3.26）均显著低于治疗前（P=0.000），且 LF/HF 值（1.23±0.60）较治疗前（0.58±0.28）有显著升高（P=0.000）；对照组试验后的 HAD 值（22.52±3.47）较试验前（22.98±3.34）无明显差异（P= 0.284），HAMD 值（15.81±3.04）较试验前（17.06±2.63）有显著下降（P=0.001）。治疗组中对治疗有反应者（HAMD 降分率在 50%-74%）77 人（10.1%），达到好转程度者（HAMD 降分率≥75%）5 人（5.0%），HAMD＜7 分达临床缓解者 46 人（45.5%）。治疗组 HAMD 的 5 个因子中，分值下降幅度较大的为认知障碍、焦虑、阻滞和睡眠障碍。

结论 团体生物反馈治疗作为一种安全、无副作用、可标准化的治疗方法，能够改善围生期抑郁的认知障碍、焦虑、抑郁情绪、睡眠症状，更容易被孕产妇接受，推荐将团体生物反馈治疗作为轻中度围生期抑郁的一线治疗方法。

关键字：围生期抑郁；团体治疗；生物反馈治疗；干预

运动对围产期抑郁症干预效果的系统评价再评价

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目的 围产期抑郁症是指从妊娠开始到分娩后 1 年内发生的以情绪低落、快感缺失为核心症状的心境疾病，具有较高的发病率和严重性。传统的治疗方法如药物治疗并不能完全满足所有患者的需求，存在一些局限性。运动干预作为一种非药物的治疗方法，近年来受到了广泛的关注和研究。本研究拟对已发表的关于运动干预围产期抑郁症的系统综述或 meta 分析进行再评价，探讨其潜在作用和效果，以期为未来的研究和临床实践提供科学依据和指导。

方法 选取 PubMed、Cocharne library、Web of Science、Embase、中国知网、万方数据库、中国生物医学文献等数据库对自建库至 2023 年 7 月关于运动干预围产期抑郁症的系统评价/meta 分析进行检索。由两名研究员根据纳入标准和排除标准独立筛选文献并提取数据，并采用 AMSTAR 2 对纳入的文献进行方法学质量评价，使用随机效应模型合并效应值。

结果 共纳入 16 篇系统评价或 meta 分析。合并效应显示，运动干预能够减轻孕产妇的抑郁症状（SMD=-0.66, 95%CI：-0.93 ～ -0.39）。其中，7 篇文献包含了瑜伽对围产期抑郁症干预效果的评价，合并效应值为（SMD=-0.88, 95%CI：-1.27 ～ -0.48）；5 篇文献包含了有氧运动对围产期抑郁症干预效果的评价，合并效应值为（SMD=-1.05, 95%CI：-1.66 ～ -0.43）；2 篇文献包含了舞蹈对围产期抑郁症干预效果的评价，合并效应值为（SMD=-0.88, 95%CI：-1.79 ～ 0.02）。

结论 运动对围产期抑郁症干预效果显著，可有效减少患者的抑郁症状。运动项目是影响运动干预围产期抑郁效果的重要因素。有氧运动对改善孕产妇抑郁具有最大干预效应，其次是瑜伽，舞蹈对孕产妇抑郁的影响尚不明显。

关键字：运动；围产期抑郁症；系统评价再评价

Exploration of Metabolites for Depression in Children and Adolescents Based on Metabolomics: A Systematic Review

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Objective In this study,we reviewed metabolomics studies conducted on children and adolescent depression, aiming to understand the changes of metabolites in depression patients in children and adolescent and analyze the potential application of metabolomics in pediatric depression prediction and diagnosis.

Methods Relevant articles were recruited from Pubmed, web of science, Cochrane Library, and Embase databases from January 2010 to February 2023.The metabolites were systematically examine and compare.MetaboAnalyst online software was used to analyze metabolic pathways.

Results A total of 8 articles were included in this

study. A total of 11 differential metabolites were collected, of which 76 had HMDB numbers.In this study, Dysregulation of metabolic pathways involved Biosynthesis of unsaturated fatty acids, Aminoacyl tRNA biosynthesis,Tryptophan metabolism,and Steroid hormone biosynthesis.Tryptophan metabolism having the highest expected value of 0.398.

Conclusion This study summarizes the significant metabolic changes in depression in children and adolescents, providing clues for prediction and diagnosis.

关键字：depression, metabolomics,children,adolescent

青少年抑郁症患者睡眠障碍和快感缺失症状的相关性

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目的 本研究旨在探讨青少年抑郁症患者睡眠障碍和快感缺失之间关系，为青少年抑郁症的早期诊断和治疗提供新的方向。

方法 采用横断面研究设计，纳入 200 例 12~17 岁符合《精神障碍诊断与统计手册》第 5 版诊断标准的青少年抑郁症患者。采用汉密尔顿抑郁量表、汉密尔顿焦虑量表、斯奈思-汉密尔顿快感量表、匹兹堡睡眠质量指数、席汉残疾评定量表、中学生应激源量表、儿童少年生活质量量表，分别评估患者的抑郁程度、焦虑程度、快感缺失程度、睡眠质量、社会功能、应激程度和生活质量。所有入组的患者完成相关量表的填写和评估后，根据 PSQI 评分是否大于 7 分将患者分为“睡眠障碍（PSQI>7）”和“无睡眠障碍（PSQI≤7）”两组收集其数据并进行统计分析。

结果 青少年抑郁症患者中睡眠障碍的患病率为 85.5%。对于快感缺失症状指标，通过多元线性回归模型分析快感缺失症状和睡眠障碍之间的关系，结果显示未调整混杂因素的模型中与不伴睡眠障碍的青少年抑郁症患者相比，伴睡眠障碍的患者快感缺失症状评分升高 5.21 分，且差异有统计学意义（P<0.001）。纳入年龄、性别、焦虑评分、抑郁评分以及应激事件评分后快感缺失症状评分高 2.91 分（P<0.05），结果均有统计学意义。对于生活质量指标，结果显示未调整任何混杂因素的模型中与无睡眠障碍的青少年抑郁症患者相比，有睡眠障碍的患者生活质量评分低 10.9 分，且差异有统计学意义（P<0.001）。纳入年龄、性别、焦虑评分、抑郁评分及应激事件评分后生活质量评分低 6.14 分（P<0.001），结果均有统计学意义。对于社会功能指标，即席汉评定量表数据统计结果提示，尽管在学业方面伴或不伴睡眠障碍青少年抑郁症患者之间受影响的程度无显著差异，但不可忽视的是，所有青少年抑郁症患者学业受到重度到极重度影响的患者占 60%。此外，伴睡眠障碍的青少年抑郁症患者社交能力和家庭责任方面受到严重影响的患者占比更多，且两组间差异有统计学意义（P<0.05）。

结论 与不伴睡眠障碍的患者相比，伴有睡眠障碍的青少年抑郁症患者，快感缺失症状更严重，生活质量更低，在社交能力和家庭责任方面受到严重影响的比例更高。

关键字：睡眠障碍；快感缺失；青少年；抑郁症

拼贴画心理疗法对卵巢癌患者复发恐惧的干预效果

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目的 探讨拼贴画心理疗法对卵巢癌患者复发恐惧的干预效果，旨在减轻卵巢癌患者复发恐惧水平，并将其转化为积极情绪，改善患者预后。

方法 采用便利抽样法选取 2019 年 10 月~2022 年 10 月东南大学附属中大医院妇科收治的卵巢癌复发患者 130 例为研究对象，将 2019 年 10 月至 2021 年 4 月收治的卵巢癌患者作为对照组，将 2021 年 5 月至 2022 年 10 月收治的卵巢癌患者作为观察组。对照组实施常规护理，观察组在此基础上给予拼贴画心理疗法干预，采用中文版应对方式问卷（Medical Coping Modes Questionnaire，MCMQ）对两组患者干预前后的差异状况做出判断，希望水平评估采用 Herth 希望量表（Herth hope index，HHI），复发恐惧评估采用恐惧疾病进展简化量表（fear of progression questionnaire short form，FoP-Q-SF），观察并比较两组患者应对方式、希望水平以及复发恐惧水平情况。

结果 比较两组病人应对方法、希望水平和复发恐惧水平情况。在实施拼贴画心理疗法干预措施后，比较 MCMQ 屈服程度（6.17±0.21 vs 10.68±1.36，t=26.423）与回避维度评分（10.28±1.41 vs 13.68±2.85，t=8.621），观察组低于对照组，差异具有统计学意义(P＜0.05)；在希望水平 HHI 评分方面（11.25±1.45 vs 9.52±2.06，t=5.537），观察组高于对照组，差异具有统计学意义(P＜0.05)；在复发恐惧 FoP-Q-SF 评分方面（15.95±1.14 vs 18.24±1.65，t=9.206），观察组低于对照组，差异具有统计学意义(P＜0.05)。

结论 在卵巢癌患者中运用拼贴画心理治疗干预，能够显著改善患者的应对方式水平，有效提高卵巢癌患者希望水平，减轻癌症复发恐惧水平，帮助卵巢癌患者建立疾病恢复信心，帮助患者重返社会。

关键字：拼贴画心理疗法；卵巢癌；复发恐惧；应对方式；希望水平

团体心理治疗结合“情绪宣泄坊”在一例强制抑郁症患者情绪管理中的应用

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目的 探讨强制医疗的抑郁症女患者的情绪管理方式方法。强制医疗的精神障碍患者已经成为社会各界关注的焦点，在强制住院的精神疾病中，女性抑郁症患者占有一定比例。抑郁症不但对患者本人的生命质量产生严重影响，还给家庭、社会造成严重负担，在应激环境中，患者以否定、逃避等消极方式应对，负性情绪无法得到合理的排解和宣泄，导致其抑郁症状加重。

方法 团体心理治疗技术为一项心理护理模式，其通过对多种心理治疗手段的整合，并借助团体内不同患者间的相互正性影响，最终达到有效治疗的作用。对抑郁症患者采用团体心理治疗技术进行干预，可改善患者的负性情绪及精神状况，提高康复效果。情感宣泄是引导患者把自己心里的积郁与痛苦倾诉出来或以物击、呐喊等运动方式来疏泄愤怒、抑郁或不良情绪，采用动静结合的方式，从器具选择、器具宣泄到讨论交流，让患者被关注、有交流，互相倾诉与交谈；引导患者采用积极的应对方式处理情绪，可防止自伤、自杀事件的产生。

结果 通过对一例强制的抑郁症女患者进行团体心理治疗加上个性化的情绪宣泄坊的干预，使患者能更好地调节负性情绪，享受亲密感，增强了自信心，获得满足感，从而提高患者的心理社会功能和对外界环境的适应能力。

结论 情绪宣泄坊和团体心理治疗技术能改善抑郁症患者的负性情绪及精神状况，患者掌握自己的情绪管理，通过合理地情绪宣泄途径，有效减轻了焦虑、抑郁等负性情绪，从而减少了临床不良事件的发生。

关键字：抑郁症；团体治疗；情绪宣泄坊；情绪管理

双相障碍病人孕期和产后的管理与治疗

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目的 双相障碍是精神科常见的一种重性精神疾病，具有容易复发的特点。对女性双相病人而言，由于孕期前三个月用药对胎儿有致畸风险，产后四周内体内激素水平剧烈变化以及涉及到哺乳相关问题，均容易导致病情的复发。因此，我们需要对育龄期女性的用药进行管理与评估，平衡孕期未经治疗的双相障碍对胎儿或婴儿的潜在有害影响、孕期药物使用的方法及相关风险。

方法 通过中国知网、万方及 Pubmed 等数据库进行文献检索。

结果 临床医生在为育龄期双相障碍患者开具处方时，应考虑其怀孕的可能性；双相障碍患者有怀孕计划时，也应提前向医生说明。并非所有患有双相障碍的女性都需要在怀孕期间接受维持治疗，但目前仍没有办法提前判断哪些患者可以在怀孕停药情况下不发病。经治疗与未经治疗的双相障碍均可能与不良的母婴结局有关。 在妊娠期，药物使用除了关注对母亲的疗效、耐受性和安全性，必须评估对胎儿或新生儿的负面影响。前三个月使用传统心境稳定剂（锂盐、丙戊酸和卡马西平），与增加的胎儿畸形风险相关。怀孕前，心境稳定剂应缓慢减药至停药；一旦妊娠期使用某种药物治疗的高风险已过，已停止该药物治疗的女性可考虑重新起始药物治疗。心境稳定剂的维持治疗与妊娠期情绪发作较少和较晚复发有关，尤其对于一些有自我伤害史、或既往发作康复延迟、自知力损害、支持欠佳的女性，药物治疗恢复可降低母亲和胎儿的整体风险。在哺乳期，母亲的健康和稳定应放在婴儿喂养方式之前，若药物治疗可行，首选最低有效剂量单药治疗。

结论 治疗计划应该在个案的基础上决定，同时考虑当前和既往的临床信息。密切监测对于及早发现情绪发作的新症状至关重要，及早发现和处理临界值以下的症状可能会预防症状的全面发作。

关键字：双相障碍；孕期；产后；心境稳定剂；复发

新冠疫情下孕产妇心理调查以及与生产结局的关联研究

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目的 根据以往新型冠状病毒感染的临床经验，大规模疫情的爆发可能会对孕产妇心理产生负面的影响。本研究旨在比较 2022 年上海疫情大规模爆发前和大规模爆发期间孕妇的焦虑和抑郁水平，以及相关影响因素的差异。

方法 针对 2021 年 1 月 1 日至 2022 年 4 月 14 日在复旦大学附属妇产科医院建卡且档案数据完整的 11993 名孕妇，我们根据实际情况，将 2022 年 3 月 1 日至 4 月 14 日间建卡的 786 名孕妇定义为疫情爆发期组，其余为疫情爆发前组。使用个案控制匹配后，获得疫情爆发期和非疫情爆发期各 783 名孕妇数据进入最终分析。两组孕妇均在建卡当天完成 GAD-7 和 PHQ-9 量表以评估心理状态。其中，基线人口学变量、临床诊断数据、心理量表的差异性检验用 SPSS 进行分析，使用 R 对整体的症状网络进行网络分析。针对后续跟踪的妊娠和新生儿数据，应用 Logistic 回归方法探索基线心理状态对其的影响。

结果 基线：两组孕妇的抑郁、焦虑水平无显著差异。基于混合图形模型网络分析结果表明两个网络的人口学变量间存在强相关关系，焦虑、抑郁间存在强正相关关系。基于高斯图形模型的网络分析表明两组间存在不同的抑郁、焦虑症状联结网络，“难以放松”是两组共同的中心症状。“抑郁情绪”是疫情爆发期孕妇的桥梁症状，“无意义感”是疫情爆发前孕妇的桥梁症状。网络差异结果发现疫情爆发期组中“无意义感”与“难以放松”间的相关显著大于疫情爆发前组。随访：疫情爆发期组脱落率 21.1%，爆发前组脱落率 15.8%。回归结果表明，在疫情爆发组中，抑郁、焦虑总分无法显著

预测妊娠结局和新生儿数据；在疫情爆发前，抑郁总分负性预测了妊娠期糖尿病可能性（?? = - 0.425, ???? = 0.181, ?? = 0.019, odds ratio = 0.654）。我们进一步分析了抑郁、焦虑各分项症状对随访数据的预测，总体来看焦虑各症状与生产结局关系更密切。

结论 新冠疫情大规模爆发以及相关的资源、社交不便等，并不会对孕妇的整体的抑郁、焦虑状态产生显著的负面影响，但抑郁焦虑症状网络提示疫情爆发期的孕妇存在一些抑郁、焦虑子项的心理健康风险更高，需要重点关注和优先干预“难以放松”和“抑郁情绪”的症状。孕妇的抑郁、焦虑总分以及各症状会影响出现产妇综合征和新生儿综合征的概率，且在不同疫情时期，心理状态对生产结局的影响不同。

关键字：孕妇，新型冠状病毒，抑郁，焦虑，网络分析

轻度认知障碍的肠道菌群与肌肉状况关系的研究进展

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目的 阿尔兹海默症（AD）以认知能力进行性丧失为特征, 研究表明，除了认知障碍外，AD 还伴随着肌肉状况的显著恶化，目前 AD 引起肌肉状况显著下降的机制尚不清楚，也没有针对 AD 患者肌肉状况下降的有效干预手段。轻度认知障碍（MCI）是 AD 的早期阶段，也是进行早期干预以延缓肌肉状况恶化的最佳人群。也有研究发现，在 MCI 患者中存在肌肉衰减情况，具体为肌肉力量、肌肉功能和肌肉质量的衰减。肠道菌群是存在于胃肠道内数量庞大种类繁多的微生物群，近期肠道菌群变化在肌肉衰减中的重要作用逐渐受到人们的关注。本篇综述中,我们回顾了支持 MCI 和健康老年人肌肉状况的差异以及肠道菌群参与肌肉状况下降的相关科学依据，以总结证实 MCI 患者肌肉状况的显著下降及肠道菌群对肌肉状况的作用，探索 MCI 患者中肠道菌群影响肌肉状况下降的可能性。

方法 我们在 pubmed、知网等中英文文献搜索平台上查阅了有关 MCI 与健康老年人肌肉状况差异、肠道菌群与肌肉状况下降相关性、肠道菌群对肌肉状况下降作用机制的文献。

结果 研究表明 MCI 患者与健康老年人相比存在肌肉状况的显著下降，表现为骨骼肌指数、握力、6 米步速下降及起立行走计时测试、5 次坐立测试时间的延长；多项人与动物模型试验研究表明肠道菌群相关参数与肌肉质量、肌肉力量、肌肉功能之间存在相关性，人类肠道微生物群可通过其代谢产物短链脂肪酸、丁酸盐及改变肠道通透性，调节血清总氨基酸、炎症状态，胰岛素抵抗，神经肌肉接头稳定性改变肌肉状况。也有研究表明通过服用益生菌改变肠道菌群构成可改善患心衰、肝硬化等患者肌肉状况，且肌肉状况的改善与肠道通透性、全身炎症和氧化应激的标志物和神经肌肉接头退化血浆标志物下降有关。

结论 虽然尚无证据显示 MCI 患者肠道菌群对肌肉状况下降的作用，但我们总结认为,现有文献证据支持 MCI 患者中肠道菌群影响肌肉状况恶化的可能性，因此未来可探究 MCI 老年人与健康老年人肌肉状况下降不同的肠道菌群机制，为通过肠道菌群手段对 MCI 患者肌肉状况恶化进行干预提供理论依据。

关键字：轻度认知障碍 肠道菌群 肌肉状况

Prevalence of Complex PTSD in Veterans and Military Personnel: A Systematic Review and Meta-analysis

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Objective Numerous soldiers engaged in warfare once or now and are at a high risk of complex traumatic stress disorder (CPTSD). The current systematic review and meta-analysis examined the prevalence of CPTSD and its relevant factors among veterans and military personnel.

Methods Pubmed, Embase, PsycINFO, PsycArticle, Web of Science, CNKI, and Wanfang databases were systematically searched, from their commencement date until May 30, 2023. Meta-analysis of included studies was performed using the random-effects model.

Results Ten studies involving 7332 participants were included in the meta-analysis. Of them, five reported factors related to CPTSD. The pooled prevalence of CPTSD was 24.1% (95% CI:15.7–35.2%). Psychological distress (e.g., depression, anxiety and loneliness) were positively associated with the diagnosis of CPTSD. CPTSD was also related to worse quality of life, more behavioral problems and less perceived social support.

Conclusion Nearly one-fourth of the veteran and military personnel suffer from CPTSD. Due to the worse outcomes and greater burden brought by CPTSD, targeted evidence-based interventions for emotional dysregulation, negative self-concept and disturbance are warranted.

关键字：complex post-traumatic stress disorder, veteran, military personnel, prevalence, systematic review, meta-analysis

惊恐障碍相关综述的研究进展：当前知识与未来展望

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背景 惊恐障碍是一种常见的精神障碍，影响多达 5%的人口。恐慌症在焦虑症中是独特的，因为恐慌症状能导致濒死感等强烈的躯体症状。文献中有大量关于惊恐障碍的循证医学研究，但是，迄今为止尚未发表关于此类研究的整体表现，影响的研究。本研究从文献计量学的角度探讨和绘制了惊恐障碍相关系统综述

和荟萃分析的研究成果与研究趋势。

方法 进行了广泛的文献综述，文章来自 Web of Science（WOS）。使用使用 R、VOSviewer 和 CiteSpace 对收集的数据进行分析和可视化。这种方法可以更深入地探索这一特定研究领域的热点和新兴趋势 结果：共有来自 4362 位作者的 1410 篇文章发表在 478 个期刊上。随着时间的推移，出版物产量呈现波动趋势，表明该疾病领域未得到大家的广泛关注。惊恐障碍研究领域最活跃的国家是美国、英国和意大利。美国和意大利国家间合作最多。Journal of Affective Disorders 与 Am J psychiatry 是最具生产力的期刊。Coplan JD 是领域内最有影响力的作者。根据关键词分析，惊恐障碍经常与焦虑谱系障碍一同研究。认知行为疗法是惊恐障碍的主流治疗方法。惊恐障碍与其他精神疾病间的关系仍然是目前的研究热点。

结论 本研究通过文献计量分析，将惊恐障碍的综述研究可视化。惊恐障碍的与其他疾病症状和（或）生理差异性可能是未来的研究重点。

关键字：惊恐障碍；文献计量分析；综述。

青少年重症抑郁患者早年生活压力暴露情况与大脑 MRI 影像改变研究现状

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目的 早期生活压力(ELS)与成年期发展为重度抑郁症(MDD)的风险增加有关，然而，ELS 与早期 MDD 发病的关联以及青少年 MDD 患者的脑功能成像改变的关联尚不清楚。我们估计了脑功能影像改变与 18 岁前 MDD 发病风险之间的关系。此外，还研究了八种特定形式的 ELS(即性虐待、身体虐待、贫困、身体疾病/伤害、家庭成员死亡、家庭暴力、自然灾害和情感虐待)与青少年发病 MDD 风险之间的关系。

方法 使用 PubMED、PsycINFO 和 Science Direct 数据库进行文献检索，确定年龄分别为 13-18 岁和 19-25 岁的年轻和年长 MDD 青年的 fMRI 研究，并在科学数据库中进行了系统的搜索，以评估 ELS 和 18 岁前是否存在重度抑郁症的研究。

结果 共鉴定出情绪加工、认知控制、情感认知、奖励加工和静息状态功能连接 5 个功能成像域的 28 个研究。“扩展内侧网络”区域(包括前扣带、腹内侧和眶额皮质)以及杏仁核的活动升高最一致地涉及这五个区域。青少年 MDD 的特征是腹内侧额叶区、前扣带区和杏仁核的异常激活，这与内侧网络区域在抑郁症病理生理中的潜在作用大致一致。此外，经历过 ELS 的个体比没有 ELS 病史的个体更有可能在 18 岁之前发展为重度抑郁症。

结论 :青少年 MDD 的特征是腹内侧额叶区、前扣带区和杏仁核的异常激活，这与内侧网络区域在抑郁症病理生理中的潜在作用大致一致。经历过 ELS 的个体比没有 ELS 病史的个体更有可能在 18 岁之前发展为重度抑郁症。

关键字：青少年 重症抑郁症 早年生活压力 脑影像

原发性抑郁症患者五态人格特征研究

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目的 探讨原发性抑郁症患者的五态人格特征，以用于抑郁症的预防、治疗、康复的整个医疗过程，帮助抑郁症患者早日获取身心康复。

方法 采用横断面的研究方法，对符合纳入标准的病例进行人口学资料的采集、中医《五态人格测验》量表调查，收集数据，统计分析原发性抑郁症患者的五态人格特征。

结果 200 例原发性抑郁症患者中，男 93 人（46.5%），女 107 人（53.5%），女性多于男性；有诱因的（或应激事件）117 人（58.5%），无诱因的（或应激事件）83 人（41.5%）；家族史阴性 135 人（67.5%），家族史阳性 65 人（32.5%）；轻度抑郁症患者 14 人（7%），中度抑郁症患者 34 人（17%），重度抑郁症患者 152 人（76%）。抑郁症患者太阳、少阳、阴阳和平、太阴人格维度得分与全国常模得分比较均有统计学意义（$P<0.05$），而少阴维度得分与全面常模得分比较无统计学意义（$P>0.05$），抑郁症患者太阳、少阳、阴阳和平人格维度得分均低于全国常模得分，而太阴人格维度得分高于全国常模。

结论 太阴人格可能是原发性抑郁症患者的人格特征。太阴人性格内向明显，具有多虑、悲观、胆小、孤僻等负面性格特质，太阴人格更倾向于患抑郁症，是抑郁症的一个易发因素，而太阳人格、少阳人格及阴阳和平人格得分又均明显低于正常人，说明原发性抑郁症患者反应的强度、灵活性及平衡性都较常人差，这些情况与临床相符合。本研究作为初步探讨，受样本量的限制，具有一些局限性，但经研究原发性抑郁症的人格特征确实与全国常模存在差异，希望能抛砖引玉，为抑郁症的人格研究提供思路。

关键字：原发性抑郁症；五态人格；太阴人格。

200 例抑郁症患者中医体质分布研究

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目的 研究抑郁症患者中医体质分布情况，为抑郁症的治疗及预防提供新的思路和方法，以期研制一种以调理病理体质为基本内涵的个体化、综合、长期的抑郁症康复模式。

方法 采用横断面调查研究方法，对北京回龙观医院的住院及门诊 200 例抑郁症患者，调查人口学资料及采用中医体质分类与判定量表进行评定，收集数

据，分析抑郁症患者的中医体质分布情况。

结果 200 例抑郁症中，年龄: 18 岁～65 岁, 平均(37.73±15.49) 岁, 发作次数：1-10 次，平均(1.63±1.06) 次,首发年龄 8 岁-63 岁之间，平均(31.83±14.78) 岁,总病程 1 个月-45 年，平均（5.54±7.42）年。男性 93 人（46.5%）,女性 107 人（53.5%）, 女性多于男性。轻度抑郁症患者 14 人（7%）, 中度抑郁症患者 34 人（17%），重度抑郁症患者 152 人（76%）。200 例抑郁症患者中医体质分布由高到低为：气郁质 112 例（56%）、气虚质 48 例（24%）、阳虚质 21 例（10.5%）、痰湿质 8 例（4%）、血瘀质 5 例（2.5%）、湿热质 4 例（2%）、阴虚质 2 例（1%），其中气郁质、气虚质、阳虚质共占 90.5%。偏颇体质以复合体质居多，共 118 例 (59%)，除去主体质外（即复合体质中得分最高的体质），夹杂体质出现频率从高到低为气虚质 68 例（39.5%），阳虚质 30 例（17.4%），气郁质 27 例(15.7%)，痰湿质 20 例（11.6%），血瘀质 10 例（5.8%），阴虚质 8 例（4.7%），湿热质 7 例（4.1%），特禀质 2 例（1.2%）。

结论 气郁质、气虚质、阳虚质可能为抑郁症患者的主要致病体质。以气郁质的人抑郁症的发病率最高，这与我们中医有关郁证是以“气机郁滞”的主要病因病机论述一致，因而在抑郁症的防治过程中贯穿“疏肝解郁”为核心的治疗原则，对抑郁症患者进行有效的预防与治疗。同时，气虚质在主体质中频率仅次于气郁质，在夹杂体质中出现频率最高，从而说明气虚质对抑郁症的发病也起到了重要作用，故对气虚质的调摄对抑郁症的治疗及预防也要重视。从而我们得出一个对于抑郁症预见性的建议，健康人群平素就该将“调畅情志、增补元气”的理念贯穿到日常生活中，做到防微杜渐，防患于未然。

关键字：抑郁症；中医体质；中医体质分类与判定量表；横断面研究。

精神科实习影响非精神科护士对精神障碍态度的对照研究

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目的 探究非精神科护士关于精神障碍患者态度的影响。

方法 采用一般情况调查表和精神疾病社区态度量表（CAMI）中文版调查 1324 名非精神科护士关于精神障碍患者的态度及相关影响因素，使用多元线性回归分析非精神科护士对于精神障碍患者态度的相关影响因素，分层线性回归分析精神科实习对非精神科护士精神障碍态度的影响。

结果 经历精神科实习的非精神科护士独断看法得分（OR = 3.57, 95%CI = 2.60-4.91）和社会限制得分(OR = 1.34, 95% CI = 1.02-1.76)，高于没有经历精神科实习的非精神科护士；经历精神科实习的非精神科护士仁慈观点得分(OR = 0.43, 95% CI = 0.34-0.54)和社区精神卫生观念得分(OR = 0.51, 95%CI = 0.40-0.65)，低于没有经历精神科实习的非精神科护士，差异有统计学意义（P＜0.05）。多元线性回归结果显示受教育程度、长期居住在城市和个人护理经历与独断看法呈正相关（P＜0.05），与仁慈观点呈负相关（P＜0.05），未婚、受教育程度、长期居住在城市和个人护理经历与社会限制呈正相关（P＜0.05），与社区精神卫生观念呈负相关（P＜0.05）。分层线性回归结果显示，在控制人口学统计变量(如年龄、受教育程度、婚姻状况等)后，精神科实习与仁慈观点和社区精神卫生观念呈负相关（P＜0.05）。

结论 有精神科实习经历的非精神科护士对精神障碍患者的同情和接受度较低，精神科实习未能改善非精神科护士对精神障碍患者的消极态度，这可能与实习时间较短有关。加强护理专业学生的精神卫生相关课程培训，让护理专业学生能够更为全面深入地了解精神障碍，可能会促进非精神科护士对精神障碍患者的积极态度，将更有利于精神障碍患者及时寻求治疗。

关键字：心理健康 态度 精神科实习 护理教育

大学生抑郁和焦虑症状与情绪调节困难的网络分析

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目的 大学生处于心理交替变化和思想成长的特殊阶段，可能会面临抑郁、焦虑等情绪问题。大量研究表明，情绪调节困难是抑郁和焦虑障碍的跨诊断因素，但情绪调节困难各维度与抑郁和焦虑不同症状间的具体关系的研究仍然不足。近年来精神病理学研究中新兴的网络分析方法为探索其具体关系提供了可行性。本研究使用网络分析方法，探索大学生抑郁和焦虑症状与情绪调节困难不同维度的症状网络，识别网络中的核心节点，为促进大学生心理健康提供实证依据。

方法 使用病人健康问卷（PHQ-9）、广泛性焦虑问卷（GAD-7）和情绪调节困难量表（DERS），采用方便取样的方式，通过问卷星对 593 名大学生进行测量。使用网络分析方法探索抑郁、焦虑和情绪调节困难的症状网络。

结果 网络中影响力最大的节点是缺乏有效的情绪调节策略。其他中心性较高的节点包括：难以静坐、情绪接受困难、自杀和自伤想法、难以控制担忧和冲动控制困难。中介中心性最强的节点是自杀和自伤想法。自杀与自伤想法与冲动控制困难节点之间的边权重最高。

结论 情绪调节困难与大学生抑郁和焦虑症状有关。缺乏有效的情绪调节策略对于大学生焦虑和抑郁有重要影响，需要教授大学生有效的情绪调节策略，提升大学生使用适应性情绪调节策略的能力。高校心理工作者和临床专业人员需要关注存在抑郁和焦虑症状的大学生的自杀和自伤风险，提升其冲动控制能力。

关键字：大学生，抑郁，焦虑，情绪调节困难，网

络分析

以精神障碍为首发症状的可逆性胼胝体压部病变综合征 1 例报道及文献复习

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目的 结合病例报道及文献复习总结可逆性胼胝体压部病变综合征（Reversible splenial lesion syndrome，RESLES）的诊治经验。

方法 分析 2022 年 11 月我院 1 例以精神障碍为首发症状入住精神科病房的青年女性 RESLES 患者的临床表现及影像学改变，同时对中国知网、万方数据库及 PubMed 中既往发表的 RESLES 病例进行复习和总结。

结果 本病例为一名 30 岁的女性患者，有双相情感障碍病史 10 年，长期规律服用“拉莫三嗪、碳酸锂、喹硫平”等药物治疗，病情控制平稳可正常工作生活，入院前两个月自行减停药物，此次患者因再发话多，行为冲动，疑人害 3 天由家属请警察协助送入院。入院时神经系统检查不配合，暂未引出病理征。精神检查：意识清晰，衣着整洁，接触不合作，对答部分切题，话多，交谈中多重复讲英语单词或短语（如 don't、no、ok），思维内容暴露不充分，存可疑言语性幻听，存被害妄想，担心母亲家人有危险，注意力不集中，智能检查不配合，情绪不稳，易激惹，意志活动增强，行为增多，冲动，自知力无。入院后患者症状呈波动状态，入院第三天上午患者缄默不语，紧闭双眼、不动、不配合服药进食，第三天下午躁动吵闹，自言自语讲英语单词，紧张不安。夜间吵闹明显，觉得病房不安全，夜间及每天上午时间人物地点定向力均有误，下午定向力准确，可以简单对答，诉担心家人在家有危险。入院第四天有发热，热峰 38.7℃，经对症处理后无再发热。入院初考虑患者为病情复发躁狂发作，但入院后患者每天波动性的症状及夜间谵妄和发热等表现考虑不排除器质性可能。完善腰穿脑脊液免疫固定电泳提示仅见脑脊液中 IgG 型寡克隆区带，提示鞘内合成；头颅 MRI 提示胼胝体压部局限性圆形病灶。经神经内科会诊考虑 RESLES，予地塞米松联合阿昔洛韦治疗 2 周后患者病情逐渐好转，白天交谈正常，仅夜间有 1-2 次谵妄表现，予氟哌啶醇片处理后夜间谵妄得到控制，经一个月治疗好转出院，出院时复查头颅 MRI 胼胝体异性信号影较前缩小，出院后三个月复查该病灶已消失。

结论 结合案例分析发现 RESLES 的发病机制尚无定论，常见于感染或停用抗癫痫药物的病人，可能与细胞毒性水肿有关，因此治疗上使用激素或联合抗病毒药物一般可获得较为理想的疗效。以精神障碍为首发症状的 RESLES 病例，尤其有精神疾病史的患者很容易被误诊，在临床工作中需注意留意鉴别。

关键字：可逆性胼胝体压部病变综合征，精神障碍，

精神分裂症的声音情绪知觉及其诊断意义

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目的 :认知和情绪障碍是精神分裂症的核心特征之一;声音情绪识别的评估可能有助于精神分裂症的检测。我们利用声音情感识别和详细的临床特征来探讨情感的认知和社会方面的差异。

方法 :由训练有素的临床精神科医生评估患者的临床症状以及社会和认知功能。进行声音情绪知觉测试，包括情绪识别和情绪强度的评估。106 名精神分裂症患者(SCZ)和 230 名健康对照(HC)被招募。声音情绪识别任务包括 42 种标准化的情绪声音，由两名专业的性别戏剧演员表演，包括七种情绪:愤怒、冷静、厌恶、恐惧、悲伤、讽刺和惊讶。每种情绪有六种声音，包括三种男声和三种女声。高低材质也被操纵，具有不同的情感强度。强度按 100 分制进行分级。得分越高，情绪强度越大。完成语音情绪判断后，进入下一个试验，所有试验按伪随机顺序进行。

结果 :考虑到情绪识别，SCZ 的所有类别情绪得分均显著低于 HC。考虑到情绪强度，患者在愤怒、冷静、悲伤和惊讶方面的得分明显低于对照组。情感类别认知的一致性在 SCZ 和 HC 之间存在差异。在诊断测试中，只有声音情感识别的总分被发现是精神分裂症存在的可靠指标。

结论 :本研究显示精神分裂症患者具有声音情绪感知受损的特征。此外，精神分裂症的声音情绪知觉的外显和内隐加工应被视为不同的实体。本研究提供了一种语音识别工具，以促进和改善精神分裂症的诊断。

关键字：精神分裂症，声音情感感知，认知

抑郁症患者多药联用及其影响因素研究

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目的 了解抑郁症患者多药联用的患病率，探究抑郁症患者药物使用数量与疾病数量之间的关系，并研究年龄对疾病数量的影响。同时，还筛选出抑郁症患者多药联用的影响因素，旨在通过控制这些影响因素，去改善抑郁症患者多药联用的情况，进而去尝试改善抑郁症患者的躯体疾病数量情况，为改善抑郁症患者的多药联用情况提供科学依据，同时改善抑郁症患者的生活质量。

方法 采用便利抽样于 2019 年 10 月至 2021 年至 9 月期间，从东北地区各基层医院和社区收集符合 ICD-10 诊断的抑郁症患者，采用问卷调查和体格检测的方法收集其人口统计学及其他相关信息（性别、年龄、药物使用情况、躯体疾病情况、抑郁症严重程度及病程等）和体格检查信息(身高、体重、血压、血糖、血脂等)。采用分类变量的单因素 Pearson?2 检验，计

算出抑郁症患者多药联用影响因素中差异具有统计学意义的变量。然后将这些变量纳入多因素 logistic 回归分析筛选出东北地区各基层医院和社区抑郁症患者多药联用的主要影响因素。

结果 东北地区抑郁症患者多药联用患病率 P=40.3%，药物使用数量与疾病数量之间呈现正相关(R=0.117，P< 0.001)，同时，年龄与疾病数量也呈现正相关(R=0.338，P<0.001)。多因素 logistic 回归分析结果显示，抑郁程度是抑郁症患者多药联用的危险因素(β=0.334，OR=1.397,P<0.05)。

结论 在抑郁症患者中，药物使用数量与疾病数量之间存在一定的相关性。这表明药物治疗在减轻抑郁症症状和控制疾病进展方面具有重要作用。随着药物使用数量的增加，抑郁症患者的疾病数量也呈上升趋势。此外，年龄对疾病数量的影响也不容忽视，随着年龄增长，疾病数量呈上升趋势。最后，我们还发现抑郁程度的增加会增加抑郁症患者选择多药联用的可能性。这可能是因为抑郁程度的加重导致患者对药物治疗的需求增加，从而选择多种药物进行联合治疗。这一发现强调了抑郁症患者心理健康的重要性，并提醒医生在制定个体化治疗方案时应综合考虑抑郁程度。这些发现对医生和患者在制定个体化治疗方案时具有重要意义，强调了综合治疗和个体化治疗的重要性，为改善抑郁症患者的治疗效果提供了参考和依据。

关键字：抑郁症，多药联用，躯体疾病数量

精神病人月经期间病情波动与血药浓度变化关系

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目的 病情的稳定性对精神病人长期预后有着重要的影响，临床上观察到女性患者在月经期有一定比例患者出现病情波动，且波动后有些患者出现持续性加重或者出现拒服药的情况，因此减少病情波动可改善预后。现讨论月经期波动是否与血药浓度下降相关性，就我院 60 例住院患者月经期病情的变化和药物的浓度进行监测和分析，以及患者月经前后药物剂量调整的个体化用药后的改变。以此减少月经期患者病情波动，巩固患者疗效，改善预后。

方法 1.1 对象 选取 2018 年 1 月-2022 年 6 月在我院住院符合 ICD-10 精神分裂症诊断标准，服用阿立哌唑片，月经规律、无严重躯体疾病的 18-45 岁女性精神分裂症患者 60 例，且月经前精神症状基本缓解。1.2 方法 至少 2 个月经周期对 60 例患者月经前第 5d、中第 5d 和后 5d 分别进行阳性与阴性症状量表（PANSS）[1]评测，评测当日同时检测血药浓度（阿立哌唑）[2]，波动组为 A 组（n=35），稳定组为 B 组（n=25）；分析病情变化与血药浓度变化的关系，见表 1。对血药浓度下降的患者中，服用量未达最大量患者（n=16），在下一月经周期提前将阿立哌唑片加量 5mg，再次行量表评测及药物浓度检测，见表 2。

结果 2 入组患者中出现病情波动共计 35 例，月经期间血药浓度较平日有所下降，PANSS 评分增加，药物浓度降低，月经结束后 PANSS 评分与药物浓度回升；病情稳定组有 25 例，PANSS 评分和药物浓度趋于稳定；可见月经期病情波动者伴随着药物浓度降低；病情波动患者，提前调整剂量干预减少血药浓度降低程度有利于病情稳定。

结论 月经史女性的一种正常生理现象，月经来潮体内一些性激素改变、胃肠道的吸收、肝药酶活性增强可导致浓度改变，此外，还可能与雌激素有抗多巴胺的作用相关[4]，继而可诱发病情复发或加重原有精神症状。本次研究中，月经期间药物浓度下降可引起病情波动，在月经规律的患者中可提前适当调整药物剂量，可减少月经来潮时病情的波动。但目前研究样本量小，药物种类单一，后续可增加样本量及药物种类进一步研究月经与病情间的关系。

关键字：精神病人；月经期；血药浓度；病情

司法精神病学组

18 例轻度认知障碍司法鉴定分析

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目的 对轻度认知障碍的司法鉴定进行分析

方法 回顾性分析首都医科大学附属北京安定医院精神疾病司法鉴定科 2017 年至 2022 年 5 年间的 18 例诊断为轻度认知障碍的司法鉴定进行分析。分析指标主要包括：鉴定类别、鉴定事项、鉴定结论。

结果 (1)5 年间 18 例鉴定以民事类司法精神病鉴定为主，共 16 例(88.9%， 16 /18), 刑事类司法精神病鉴定 2 例(11.1%，2 /18)； (2) 鉴定事项主要是的民事行为能力、刑事责任能力、诉讼能力、精神状态；(3) 民事行为能力 14 例，其中完全民事行为能力 10 例(71.4%，10 /14)，限制民事行为能力（28.6%，4/14），诉讼能力 2 例，其中有诉讼能力 1 例，无诉讼能力 1 例，刑事责任能力 2 例，其中 1 例为限制刑事责任能力，另 1 例只评定精神状态。

结论 轻度认知功能障碍是指记忆力或其他认知功能进行性减退，且未达到痴呆的诊断标准。轻度认知障碍是司法鉴定实践中评定的一个难点，通常情况下会被评定为完全或限制民事行为（刑事责任）能力，很少会做出无民事行为（刑事责任）能力的结论。对于轻度认知障碍这部分人群做出鉴定结论之前一定要慎之又慎，其中不乏有争议的案件，应从客观实际出发，了解鉴定的缘由，全面调查，必要时进行补充调查，鉴定结论要有充分的理由、详细的说明，这不仅仅是鉴定人对自己的保护，也关系到被鉴定人和他人的巨大权益。

关键字：轻度认知障碍；司法精神病学；司法鉴定

A Forensic Case of Pedophilia

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Objective investigating the judicial mental health issues of a pedophilia case.

Methods Report a pedophilia case.

Results A 39-year-old guy who claimed to have epilepsy and mental retardation was indicted for molesting children on multiple occasions. Further testing revealed that he had somewhat lower IQ than the normal population but did not reach the diagnostic standards for mental retardation.His actions are more in line with a pedophilia diagnosis.A total of eight Paraphilias are listed in the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and include pedophilia, exhibitionism, voyeurism, sexual sadism, sexual masochism, frotteurism, fetishism, and transvestic fetishism. Pedophilia is any sexual activity with a prepubescent child, where the offender/patient is at least sixteen years of age, and the victim is at least five years younger. Exhibitionism is the exposure of an individual's genitalia to unsuspecting strangers for sexual satisfaction.Furthermore, the effects of misdiagnosis are unknown, and there is still no agreement on the offender's legal repercussions.However, the majority of legal cases choose to categorize pedophilia as a complete criminal offense.Unquestionably, a history of epilepsy may also contribute to the behavior.According to some research, the development of acquired pedophilia appears to be mostly dependent on injury to the right frontotemporal lobe, with the anterior hypothalamus remaining intact.

Conclusion Although DSM-5 refers to pedophilia as pedophilic disorder, the individual in this case was found to be entirely criminally liable.

关键字：Forensic Psychiatry；Pedophilia；Pedophilic Disorder；Sexual sadism；Criminal Liability

【病例报告】冲动控制障碍病理心理机制与精神分析理论相关性探讨 1 例

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摘要：冲动控制障碍在司法精神病学中也是与犯罪行为关系较为密切的一种精神疾病。冲动控制障碍是一组罕见的病理冲动（或意向）综合征，这种综合征是在没有合理动机的情况下，急剧地产生，不可避免地付诸行动，并较快地终止。在实施不可抗拒的冲动前，一般先有一种不断增强的紧张感，在实施行为过程中得到释放，即产生一种轻松感。一般都没有对这一冲动或意向的有意识的抵抗，在实施行为以后一般没有悔恨或内疚感。这类障碍一般都是反复出现，本人不能控制的。产生这类行为的目的是为了获取心理上的满足，并没有个人经济或其他获利的意图。精神分析是指由奥地利精神医学家弗洛伊德于 19 世纪末所开创的一种特殊心理治疗方法。其特点是经由分析来了解病人潜意识的欲望与动机，认识对挫折、冲突或应激的反应方式，体会病理与症状的心理意义，并经指示与解释，让病人获得对问题之领悟;经过长期的治疗，善用病人与治疗者所产生的转移关系，来改善病人对人的关系，调整心理结构，消除内心之情感症结，以促进人格之成熟及适应能力。主要的理论包括心理决定论、潜意识理论、人格结构论、驱力理论、防御机制等基本理论，也包括逐渐发展起来的客体关系理论，依恋理论、自体心理学等在经典精神分析基础上发展起来的理论。本文报道 1 例冲动控制障碍患者的病理心理机制及精神分析理论视角的相关探讨。

关键字：冲动控制障碍，精神分析理论，潜意识理论

真实世界社区居民对抑郁认知及参与抑郁研究

的分析

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目的 随着国家对心理健康问题的重视和科普知识的普及，公众对抑郁症的认知度也在逐渐提高，但不少人对抑郁症的认识依然存在很多误区，这可能导致失去尽早接受正规治疗的机会，失去早日康复的可能。基于此，本研究针对社区群体对抑郁认知水平及参与抑郁研究的因素进行调查，并对相关影响因素进行分析。

方法 通过微信及网络平台对社区居民发布问卷，问卷包含收集一般社会人口学资料、病例测验及参与抑郁科研项目意愿三部分内容,在本次分析中根据数据的特性主要运用独立样本检验和方差分析，用回归分析探寻公众参与抑郁研究的相关影响因素，软件使用spss25 版本实现分析步骤。

结果 （1）1171 人参与本次调查，有 66 人 (5.6%)的回答被排除在分析之外，有效回答率为 1105（94.4%），受试者中专业技术人员占比最多（42%） ,年龄层次以青中年占绝大多数（80%）、平均年龄(38.12 土 11.77)岁，女性较多(777 例，70%)，已婚者占大多数(72%)，绝大多数对象文化水平较高，高中及以上水平者占87%。（2）对抑郁的识别：69%受访者能识别属于心理上有问题，抑郁症的正确识别率最高（58%）；（3）对抑郁的归因：受访者主要认为是工作压力太大（64%）；（4）对抑郁的求助方式："找人做心理咨询"（37%）、看精神科医生（26%）是受访者建议的主要求助方式。（5）对抑郁患者的态度：认为抑郁患者具有是非判断能力（45%）与认为很难说（44%）几乎是对等的，多数受访者（64%）认为患者治疗后能继续工作；超过一半受访者（52%）认为抑郁患者对他人造成伤害的可能性会增加。（6）公众对抑郁认知水平的高低与对抑郁的识别($p<0.01$)、归因($p<0.01$)、求助方式($p<0.01$)及对抑郁患者的态度($p<0.01$)均存在显著性，（6）同时在性别（$p<0.05$）、文化程度($p<0.01$)、工作类别($p<0.01$)上存在显著差异，而与婚姻状态及年龄段无明显差异；

结论 社区公众对抑郁存在较好的认知水平，存在较高的参与抑郁研究意愿，但真正能参加并持续到底的仍不多，回归分析显示每次参与耗费时间过长、我不愿意被长期调查及我怕我的隐私会被泄露是参与抑郁研究负负相关，而我的全面体检结果及心理健康状况及建议是参与抑郁研究的保护性因素，但有意思的是抑郁认知水平的高低与参与抑郁研究不存在显著相关。

关键字：社区居民，抑郁认知水平，参与抑郁研究

【案例报告】从一个司法鉴定个案看待精神病诈病问题

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目的 本文旨在通过分析精神病诈病案例，探讨精神病诈病的表现形式和特征，讨论精神司法鉴定中如何识别和评估精神病诈病，并分析精神病诈病与真实精神疾病的区别和相似之处，以增进对精神病诈病问题的认识。

方法 本文将通过分析案例，结合相关文献，从多个角度对精神病诈病进行探讨。首先，将介绍精神病诈病的定义和表现形式。其次，将探讨精神司法鉴定中如何识别和评估精神病诈病的方法和步骤。然后，将分析精神病诈病与真实精神疾病的区别和相似之处，以便更好地理解其本质。

结果 通过案例分析和综合文献研究，本文得出了以下结果：精神病诈病的表现形式多种多样，包括模拟精神症状和躯体症状等；在精神司法鉴定中，识别和评估精神病诈病需要进行详细的面谈、观察和其他心理测试、医学检查等，同时需要与相关人员进行沟通；精神病诈病与真实精神疾病之间存在区别和相似之处，评估人员需要具备专业知识和经验，以避免不公正的判决。

结论 精神病诈病作为司法鉴定中的一种常见问题，对司法正义和公正性提出了挑战。在评估被鉴定人的精神状态时，准确识别和评估精神病诈病至关重要。本文的研究和讨论有助于增进对精神病诈病问题的认识，为评估人员提供指导，以更好地保障患者权益和追求司法公正之间取得平衡。

关键字：精神病诈病、司法鉴定、精神状态评估、真实精神疾病、案例分析、公正性

浅析中国司法精神病鉴定的现状与对策

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目的 目前我国精神病司法鉴定中还存在很多需解决的难点，本文将对司法精神病鉴定中现状与对策进行探讨。

方法 本文将分别从刑事案件及民事案件两个角度进行阐述目前的存在难点、疑点，结合实际工作经验，提出新的解决方法。刑事案件司法鉴定中，提出对证据材料中周围材料电子数据的真实性的鉴定，提出涉及重大、复杂的案件时，司法鉴定人还需要更多的周围材料佐证，以及勘察现场的必要性。民事案件司法鉴定中，提出关于证据材料真实性的质疑，比如关于病历资料的真实性与充分性以及司法鉴定人通常从哪些方面提出质疑。提出对重伤昏迷不醒的病人鉴定流程简易化，比如通过云鉴定的方式视频连线完成。从法医人才队伍建设的角度提出新的看法，法医人才的培养，需要完善法学、工科、心理学、数学知识的学习。司法相关部门应完善对司法鉴定人的监督与管理，提高其思想道德水平与法律意识。最后将计算机技术眼动追踪仪，和人工智能算法算力，以及时空贝叶斯回归模型纳

入未来解决司法鉴定的问题的思考范围。

结论 司法精神病鉴定工作是我国司法鉴定制度中的重要组成部分，该项工作的进一步完善有利于维护精神病患者合法权益，保护了人民群众财产及人身安全，有利于犯罪预防及犯罪行为的矫正，该项制度会逐渐完善。

关键字：刑事责任能力；民事行为能力；法医人才队伍建设；计算机科学；人工智能技术

睡眠障碍研究协作组

食欲素及其受体拮抗剂在睡眠和睡眠障碍中的研究进展

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目的 失眠等睡眠障碍一直困扰着全球 10%以上的成年人，虽然目前已有多种催眠药物上市，但潜在的副作用如“宿醉”效应、药物依赖性等限制了它们的应用。近些年，食欲素及其受体系统在睡眠中的重要调节作用被广泛报道。本文将阐述食欲素及其受体拮抗剂在睡眠和睡眠障碍中的研究进展，以期为失眠等睡眠障碍的治疗提供参考。

方法 本文通过回顾文献，详细阐述食欲素及其受体的结构和功能，食欲素系统在睡眠中的生理调节作用，食欲素受体抑制剂的研发历史及临床进展。

结果 食欲素广泛分布于中枢神经系统的神经元中，它们投射到大脑的不同区域（如中缝背核和腹侧被盖区等），从而调节各种生理功能。食欲素系统在调节睡眠-觉醒周期中发挥着至关重要的作用，若其缺乏会引起啮齿类、犬类动物和人类出现嗜睡，若其过度表达则会引起 REM 睡眠破碎化和 NREM 睡眠减少，从而有可能引起失眠等睡眠障碍。作为治疗失眠的新靶点，食欲素受体拮抗剂可通过阻断食欲素与其受体（OX1R 或 OX2R）的结合来抑制觉醒，从而促进睡眠作用。根据与 OX1R 和 OX2R 的结合亲和力，可将食欲素受体拮抗剂分为：选择性食欲素受体拮抗剂（single orexin receptor antagonist, SORA），和双重食欲素受体拮抗剂（dual orexin receptor antagonist, DORA）。DORA 同时作用于 OX1R 和 OX2R，具有比 SORA 更强的促进睡眠作用，是主流的食欲素受体拮抗剂研究方向。目前，已有 Suvorexant、Lemborexant 和 Daridorexant 3 种 DORA 获批用于治疗失眠症，多种药物仍处于临床或临床前研究。荟萃分析显示：DORA 在疗效和安全性方面均优于安慰剂，有利于改善入睡时间，长期服用未观察到明显的依赖性、反弹性失眠和戒断综合征，表明其可能优于其他传统催眠药物，更适合慢性失眠患者的长期用药。

结论 近年来，食欲素及其受体在睡眠调节中重要作用的发现，以及食欲素受体拮抗剂的陆续开发，为失眠等睡眠障碍的治疗提供了新的途径。现有研究表明，相较于苯二氮?类等传统失眠治疗药物，Suvorexant 和 Lemborexant 等新型食欲素受体拮抗剂，具有更强药理作用和较少副作用，可有助于解决当前失眠治疗药物面临的诸多困境。

关键字：食欲素；食欲素受体拮抗剂；睡眠障碍；失眠；SORA；DORA

中西医结合治疗抑郁障碍失眠疗效研究

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目的 研究分析对抑郁障碍失眠患者施予中西医结合治疗的价值及效果。

方法 回顾性分析本院 2015 年 12 月-2018 年 2 月收治的 104 例抑郁障碍失眠患者的资料，将其中接受米氮平的 52 例作为 A 组，另外接受舒肝解郁胶囊联合米氮平的 52 例作为 B 组，观察比较其结果。

结论 中西医结合在运用在临床中，失眠即为睡眠产生始发与持续产生障碍，进而使得患者自身的睡眠质量较难与人身体中正常的生理需要相符，同时，这一病症还会对患者平日的生活带来过多的影响[1]。患者产生睡眠障碍大多与其身心、人格特点间相关。有研究人员指出了，多于 70%-0%的抑郁患者会产生失眠，而失眠又会使得患者自身的抑郁有所加重[2]。因此，在对抑郁实施治疗的同时，应促使患者自身的失眠得以好转。舒肝解郁胶囊即为纯中药型抗抑郁药品，其具备较优的抗抑郁功效；米氮平也具备相应的抗抑郁成效，然而，单一运用会产生许多不良反应，进而对最后的治疗成效带来影响[3]。因此，临床中现阶段把中医与西医加以融合，收获了较优的治疗成效[4]。鉴于此，本研究为了分析对抑郁障碍失眠患者施予中西医结合治疗的价值及效果，选出本院 2019 年 12 月-2021 年 2 月收治的 104 例抑郁障碍失眠患者，到对抑郁障碍失眠患者施予治疗后，其相应的治疗成效十分突出，能够促使患者自身的睡眠质量得以好

结果 B 组患者的汉密尔顿焦虑评定量表（HAMA）总分、睡眠改善情况、汉密尔顿抑郁评定量表（HAMD）总分、治疗疗效好于 A 组患者，P＜0.05。

关键字：研究;治疗;抑郁障碍失眠;中西医结合;效果;睡眠质量

Prevalence and Factors Associated with Depressive Episodes in Patients with Chronic Insomnia Disorder

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Background s: Insomnia with depressive episodes differs significantly from insomnia alone in terms of clinical presentation, treatment, and prognosis and has a worse prognosis and more severe risks, requiring high priority and active management. We investigated the incidence and risk factors of depressive episodes in patients with chronic insomnia.

Methods A total of 819 patients with first chronic insomnia were recruited. A detailed self-designed questionnaire collected general information and socio-demographic characteristics, including age, gender, weight, height, education level, marital status, somatic symptoms, suicide attempts, smoking, and alcohol consumption. Measures included the Hamilton Depression Inventory (HAMD), the Clinical Global Impression-Severity Inventory (CGI-S), the Hamilton Anxiety Inventory (HAMA), and the Pittsburgh Sleepiness Scale (PSQI).

Results The prevalence of depressive episodes in patients with chronic insomnia (68.6%) was much higher than that of non-depressive episodes (31.4%). PSQI scores, HAMD scores, HAMA scores, and CGI-S scores were significantly higher in the group with depressive episodes than in the group without depressive episodes, and age was significantly lower in the group with depressive episodes than in the group without depressive episodes. There were significant differences in marital status, occupation, and somatic symptoms between the two groups but no significant differences in gender, suicidal intent, smoking, and alcohol consumption. In addition, correlation analyses revealed that age was negatively associated with depression severity in patients with chronic insomnia. PSQI scores, HAMA scores, and CGI-S scores were positively associated with depression severity in patients with chronic insomnia. In further regression analyses, marital status, occupation, age, PSQI score, and HAMA score were independent risk factors for depressive episodes associated with chronic insomnia patients.

Conclusion Our findings suggest that people with chronic insomnia are more likely to experience depression. Among patients with chronic insomnia, marital status, occupation, age, sleep status, and anxiety status were independent risk factors for depression.

关键字：chronic insomnia, depressive episodes, factors

中医基于微生物-肠-脑轴理论治疗失眠的研究进展

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目的 近年来，随着微生物-肠-脑轴理论研究的不断深入，肠道菌群对于精神疾病发病及治疗的作用越来越受到重视，已有研究证实，肠道菌群可通过肠－脑轴调节睡眠，而中医药能通过调节肠道菌群改善睡眠，本研究结合中医对肠、脑关系及失眠的认识，探讨中医基于微生物-肠-脑轴理论治疗失眠的理论基础，为中医药治疗失眠的机制研究提供新的思路与策略。

方法 参考文献资料，以当前国内外的研究热点脑-肠-微生物轴为切入点，结合中医传统理论，对中药、针灸治疗失眠的中医理论基础、相关机制研究的新进展做出综述，从微生物-肠-脑轴理论探讨中医药方法诊治失眠的理论依据。

结果 中医学关于心（脑）与五脏六腑的双向调节理论及失眠与各脏腑的关系理论与肠－脑轴理论相契合，中医理论结合微生物－肠－脑轴研究探讨中医治疗失眠的机制，从多组分、多靶点的角度分析了中医药治疗失眠的生物学基础。

结论 中医药治疗失眠具有独特优势，目前针灸治疗失眠基于肠－脑轴通过调节肠道菌群的研究还较少。基于微生物-肠-脑轴通路，未来可以利用临床观察、动物实验、药理研究等手段发现更客观、微观的微生物学理论，将微生物学与中医学相结合，为临床治疗失眠提供更多的思路和方法。

关键字：中医，失眠，微生物-肠-脑轴

普拉克索致不宁腿综合征共病 OSA 患者出现强迫性购物的个案报道

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目的 探讨一例普拉克索致不宁腿综合征共病阻塞性睡眠呼吸暂停的患者出现强迫性购物可能性

方法 本文报道了一例49岁的女性不宁腿综合征伴阻塞性睡眠呼吸暂停患者，予以普拉克索、氯硝西泮、复方硫酸亚铁等药物及持续气道正压通气治疗。并回顾性分析了普拉克索治疗这例不宁腿综合征合并阻塞性睡眠呼吸暂停的患者出现强迫性购物的临床资料及诊疗经过，并对相关文献进行复习。

结果 住院治疗过程中患者出现强迫性购物。 1.治疗结果：经住院治疗 27 天后患者双下肢腿部不适感较前明显减轻，强迫性购物明显缓解，情绪较前平稳，焦虑情绪及睡眠较前改善。出院前复查：汉密尔顿焦虑量表：5 分；血常规、肝肾功、心肌酶谱未见明显异常；血清铁蛋白 86.7μg/l。 2.随访： ①出院后 20 天：患者双下肢不适感明显缓解，睡前偶有双下肢酸胀感，情绪稳定；继续予以普拉克索 0.5mg qn、氯硝西泮 2mg qn、多巴丝肼 62.5mg qn 及 CPAP 治疗。 ②出院后 56 天：患者基本无双下肢不适感，情绪尚可；停用多巴丝肼，余继续予以普拉克索 0.5mg qn、氯硝西泮 2mg qn 及 CPAP 治疗。 ③出院后 91 天：患者自行尝试将普拉克索减量至 0.25mg qn，再次出现双下肢酸胀感，夜间睡前明显，故再次将普拉克索加量至 0.5mg qn，余继续予以氯硝西泮 2mg qn 及 CPAP 治疗。 ④出院后 162 天：患者双下肢酸胀感较前缓解，病情稳定，继续普拉克索 0.5mg qn，氯硝西泮 2mg qn 及 CPAP 治疗。 3.转归：经治疗后双下肢不适感明显缓解，未再出现强迫性购物，睡眠及情绪改善。随访至今，病情基本稳定，但病情缠绵暂无法停药。

结论 普拉克索可以导致不宁腿综合征出现强迫性购物，在诊断 RLS 时，如果合并有其他睡眠相关症状时，建议尽量完善多导睡眠监测，避免漏诊；另外在使用普拉克索治疗 RLS 时应提高对强迫性购物等少见不良反应的关注。

关键字：不宁腿综合征；普拉克索；强迫性购物；

镇静催眠药物使用障碍患者明尼苏达人格测验分析

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目的 采用明尼苏达多相人格测验（MMPI）研究失眠患者镇静催眠药物使用障碍患者的心理特征。

方法 采用方便取样法，于 2021 年 9 月至 2023 年 9 月，对我院就诊的门诊和住院睡眠药物使用患者进行精神检查。 入组标准为：（1）年龄>18 岁；（2）有读写能力、能够配合完成调查；（3）符合 DSM-5 睡眠药物使用障碍诊断标准。排除标准：（1）非就医目的来门诊取药或替他人求治；（2）交流困难、语言障碍；（3）认知功能损害、脑器质性障碍、痴呆；（4）重性精神疾病；（5）强烈自杀倾向；（6）长期服用精神活性物质；（7）孕期、哺乳期。对诊断符合 DSM-V睡眠药物使用障碍患者做 MMPI 量表评测，观察其各个因子的偏离情况

结果 镇静催眠药物使用障碍患者在 Pt、Hy、Pd 项目分值高； F、L、K 分值均偏高。

结论 目前睡眠药物处方量大，对应的睡眠药物使用障碍患者相对多。研究睡眠药物使用障碍的人格相关风险因素可以对未来睡眠药物成瘾、有害性使用等提供预警。本研究提示失眠患者镇静催眠药物使用障碍患者的多相人格测验有部分共性特征，比如精神衰弱、心理稳定性差，癔症、心理成熟度差，精神病态、规则遵从程度差，效度量表分值普遍偏高，以 F 分高为著，提示被试者存在痛苦体验，不愿暴露自己，缺乏自信，不能客观评价自己，夸大优点，淡化或不承认缺点。

关键字：镇静催眠药物使用障碍 明尼苏达多相人格测验

疏肝解郁安神汤治疗抑郁症的效果以及对患者睡眠质量和神经递质的影响观察

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目的 观察疏肝解郁安神汤治疗抑郁症的效果以及对患者睡眠质量和神经递质的影响。

方法 选取我院 2021 年 1 月-2023 年 1 月确诊为抑郁症的 150 例患者，按随机数字表法分为对照组和观察组两组，各 100 例。两组均采用常规治疗方法，观察组在此基础上给予疏肝解郁安神汤煎服，两组疗程均为 40 日。观察疗效并分析对患者睡眠质量及神经递质的影响。

结果 治疗后观察组患者 PSQI、HAMD 评分均下降且低于对照组（P＜0.05）；观察组患者神经递质包括 5-TH、NE、DA、GABA 水平均上升且高于对照组（P＜0.05）；观察组总有效率 92.00%高于对照组 74.00%（P＜0.05）。

结论 采用疏肝解郁安神汤治疗抑郁症患者，可提高患者睡眠质量，促进神经递质释放，治疗效果佳，

值得推广。

关键字：抑郁症；疏肝解郁安神汤；睡眠质量；神经递质

失眠认知行为疗法不同技术成分的疗效比较研究

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目的 失眠认知行为疗法（CBT-I）是目前失眠障碍的一线治疗方法，其有效性已得到循证医学研究的证实（van der Zweerde，Tanja et al.2019）。CBT-I 的主要治疗靶点是不良睡眠习惯、不规律的睡眠-觉醒时间表、与睡眠相关的无益想法，以及与睡眠相关的焦虑和过度清醒。尽管有大量研究证据表明认知行为疗法对失眠患者有效，但失眠症状及伴随的焦虑等症状并不总是完全缓解，仍有许多患者在治疗后仍有残留症状。为了进一步优化治疗方案，有必要对 CBT-I 的治疗成分进行研究。研究表明，由刺激控制和睡眠限制组成的行为干预是改善睡眠潜伏期和减少夜间唤醒的预测因素；认知干预能显著降低夜间唤醒；而睡眠卫生和放松训练不能预测任何改善（Harvey, Linda et al. 2002; Harvey, Allison G et al. 2014）。值得思考的是，在预测失眠患者症状改善方面，认知治疗成分和行为技术成分之间是否存在差异。结合中国失眠患者的心理特点，本研究旨在验证 CBT-I 对中国失眠患者治疗的疗效，并探讨 CBT-I 的不同技术成分及其影响疗效的相关因素，为 CBT-I 进一步的本土化和个体化提供依据。

方法 将符合 DSM-5 失眠障碍诊断标准的 90 名门诊患者随机分为三组：（1）认知行为治疗组（CBT；n=30）；（2）认知治疗组（CT；n=30）；（3）行为治疗组（BT；n=30）。所有干预组每周接受一次干预，为期 8 周。分别在基线期、第 4 周、第 8 周、第 16 周和第 24 周时评估失眠严重程度指数（ISI）、贝克焦虑量表（BAI）和多维疲劳量表（MFI-20）。

结果 ISI 评分显示，与其他两组相比，CBT 组下降最为显著，在第 8 周随访时，时点×组间的交互作用显著（$p<0.05$），BT 组的改善程度介于 CBT 组和 CT 组之间，仅次于 CBT 组，但与 CT 组无显著差异。从改善趋势来看，BT 组的改善速度快于 CT 组，但不如 CT 组持续。第 4 周 BAI 评分显示 CBT 组优于 CT 组（$p<0.05$），MFI 评分在组内有所下降，但无组间差异。

结论 CT 和 BT 均有效，CBT 效果最佳。CT 和 BT 在起效时间和维持效果上存在差异，这也表明它们对疗效的预测效果不同。

关键字：失眠认知行为治疗；行为治疗；认知治疗；疗效研究

睡眠相关性节律运动障碍个案报告

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目的 我们报告了一例患有睡眠相关性节律运动障碍(rhythmic movement disorder, RMD)合并阻塞性睡眠呼吸暂停综合征(Obstructive sleep apnea, OSA)的病例。本文讨论了利用多导睡眠监测及持续正压通气(continuous positive airway pressure, CPAP)和相关药物对 RMD 的临床诊治过程。

方法 一例 14 岁男性患者报告了眠差打鼾伴头部不自主运动 13 年，患者接受了睡眠监测(polysomnography, PSG)和连续 8 天的持续正压通气及药物治疗。

结果 RMD 合并 OSD 的患者在接受持续正压通气和氯硝西泮（0.5mg 1/晚）、普拉克索（0.125mg 1/晚）治疗后，睡眠呼吸紊乱指数(apnea hypopnea index, AHI)从入院时的 40.6 次/小时降低至治疗后最低 1.2 次/小时。周期性腿动指数(periodic leg movement index, PLMI)、睡眠效率等均较治疗前改善。半年后随访提示患者夜眠中未再出现头部不自主运动及肢体运动。

结论 氯硝西泮、普拉克索联合 CPAP 治疗 RMD 合并 OSA 的患者睡眠障碍安全有效。普拉克索也可作为临床 RMD 的药物治疗。

关键字：撞头；多导睡眠监测；普拉克索；持续气道正压通气

Suicidal Ideation in The General Population in China after The COVID-19 Pandemic Was Initially Controlled

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Objective The COVID-19 pandemic increases the risk of psychological problems including suicidal ideation (SI) in the general population. In this study, we investigated the risk factors of SI after the COVID-19 pandemic was initially controlled in China.

Methods We conducted an online questionnaire via JD Health APP in China in June 2020. Demographic data, feelings and experiences related to the COVID-19 pandemic and psychological problems were collected. The participants (n = 14,690) were divided into the non-SI and SI groups. A binary logistic regression analysis was used to examine the correlates of SI.

Results Nine percent of the participants (1328/14690) reported SI. The regression analysis showed that SI was positively associated with ethnic minority (OR = 1.42 [1.08–1.85]), age (e.g. 18–30 years: OR = 2.31 [1.67–3.20]), having history of mental disorders (OR = 2.75 [2.27–3.35]), daily life disturbance due to health problems (OR = 1.67 [1.38–2.01]), being around someone with the COVID-19 (OR = 1.58 [1.30–1.91]), being uncertain about effective disease control (OR = 1.23 [1.03–1.46]), and having depressive symptoms (OR = 4.40 [3.59–5.39]),

insomnia symptoms (OR = 2.49 [2.13–2.90]) or psychological distress (OR = 1.87 [1.59–2.18]).

Conclusion The prevalence of SI was relatively high in general population after the COVID-19 pandemic was initially controlled in China. SI should be monitored continually after the COVID-19 pandemic.

关键字：Suicide; Mental health; Coronavirus; Infectious diseases; Cross-sectional survey; Psychological symptoms

发作性睡病前 100 篇引用最多的论文:文献计量学分析

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Objective The number of citations to a paper represents the weight of that work in a particular area of interest. Several highly cited papers are listed in the bibliometric analysis. This study aimed to identify and analyze the 100 most cited papers in Narcolepsy research that might appeal to researchers and clinicians.

Methods We reviewed the Web of Science (WOS) Core Collection database to identify articles from 1985 to 10 March 2022. The R bibliometric package was used to further analyze citation counts, authors, year of publication, source journal, geographical origin, subject, article type, and level of evidence. Word co-occurrence in 100 articles was visualized using VOS viewer software.

Results A total of 7589 manuscripts were searched on the Web of Science. Over the course of 20 years, the total number of citations for the top 100 works of literature varied, but reached a peak in 2018 (Figure 1). The total citation frequency of the top 100 highly cited literature was 51513(ranging from 248 to 2,303), with a mean citation frequency of 515.13 and a median citation frequency of 355.5. The 100 articles were published in 57journals. Of these 57 journals, the highest h-index was JOURNAL OF NEUROSCIENCE (h-index = 10), followed closely by Sleep (h-index = 7) (Figure 2). The top countries and institutions contributing to the field were the U.S. （Figure 3） and Stanford University（Figure 4）. Sakurai T. was the most productive author, ranking first in citations. Journal of neuroscience had the highest number of manuscripts published in the top 100 (n =10), followed by Sleep (n = 7) （ Figure 5 ） .The citation analysis showed ， “Hypothalamic regulation of sleep and circadian rhythms” [Clifford B. Saper et al.] was cited 1,690 times, followed by “International Classification of Sleep Disorders-Third Edition” [Michael J Sateia MD. with 1,471 citations and the third most cited is “Practice Parameters for the Indications for Polysomnography and Related Procedures: An Update for 2005” [Clete A. Kushida et al.], with 1,079 citations.The most cited manuscript (Chemelli RM, Willie JT,et al. Narcolepsy in orexin knockout mice: molecular genetics of sleep regulation. Cell. 1999 Aug 20;98(4):437-51. 2,303 citations) reported orexin regulates sleep/wakefulness states, and that orexin knockout mice are a model of human narcolepsy, a disorder characterized primarily by rapid eye movement (REM) sleep dysregulation.Co-occurrence analyses suggest that locus-coeruleus neurons 、 neuropeptide-y are future research trends.

Conclusion This study provides a detailed list of the most cited articles on Narcolepsy. The analysis provides researchers and clinicians with a detailed overview of the most cited papers on Narcolepsy over the past two decades. Notably, Studies on orexin 、hypothalamic signalling and neuronal networks 、new biomarkers and Immunoomics are still potential areas of focus for future research.

关键字：Narcolepsy、bibliometric analysis

失眠的短程行为治疗在 1 例广泛性焦虑伴失眠患者中的应用

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目的 总结失眠短程行为治疗在 1 例广泛性焦虑伴失眠患者中的护理体会。

方法 失眠的短程行为治疗(BBTi)源于 CBTi,是以睡眠限制和睡眠刺激控制两大核心治疗技术辅以睡眠卫生教育，围绕调节睡眠节律，增强睡眠驱动力进行治疗失眠的。已有研究显示在治疗失眠上，效果与 CBTi 相当。2022 年 8 月 30 日，我院收治一位广泛性焦虑合并失眠的患者，入院时患者过度紧张、担心，入睡困难，睡眠维持困难，住院后在药物治疗的同时，给予短程失眠行为治疗的心理护理和对症护理，患者的焦虑症状缓解，睡眠得到改善。

结果 广泛性焦虑患者常常因持续显著的紧张不安，伴有自主神经功能紊乱，警觉性增高，引起睡眠障碍，造成患者生活质量下降。该患者因父亲得了肠癌后，不断幻想自己也会得癌症，整日忧心忡忡，经过药物治疗、放松训练、失眠短程行为治疗等一系列精心护理后取得了较好的治疗效果。患者汉密尔顿焦虑量表评分由 28 分降为 12 分，失眠严重程度指数量表评分由 22 分降为 8 分。

结论 在整个护理过程中，渐进式肌肉放松训练方法简单易行，取得了较好的效果，失眠短程行为治疗简单易学、可操作性强，治疗周期短，起效快，可有效缩短入睡潜伏期、减少失眠症状、提升睡眠效率，对日间功能进行改善，可以让更多的失眠患者参与进来。

关键字：失眠，短程行为治疗，广泛性焦虑，护理

中国青少年噩梦影响因素分析

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目的 探讨在青少年群体中噩梦体验的流行病学

资料及其影响因素。

方法 以线问卷调查的形式，采用噩梦障碍指数（the Nightmare Disorder Index Questionnaire，NDI）、自编欺凌评估量表、失眠严重程度指数（Insomnia Severity Index，ISI）、压力感知量表（Perceived Stress Scale 14-item version，PSS-14）、健康问卷抑郁量表（Patient Health Questionnaire-9，PHQ-9）和广泛性焦虑障碍量表（Generalized Anxiety Disorder-7 ，GAD-7）对 6014 名年龄在 12-18 岁（含）的青少年进行问卷调查，并建立线性概率模型，对发生噩梦的概率进行估算。结果：1975（32.8%）名青少年过去 1 个月内曾有噩梦体验，噩梦组的男性比例显著低于无噩梦组，而噩梦组的平均年龄、欺凌量表总分、PSS-14 总分、ISI 总分、PHQ-9 总分、GAD-7 总分均显著高于无噩梦组。模型得出线性概率回归函数的调整公式为：。

结论 青少年噩梦体验频率较高且受多方面因素影响，可以就一些基本的人口学信息和临床常用量表，来对噩梦的风险进行预测和比较。

关键字：青少年；噩梦；发生风险；影响因素；预测

癫痫共患不宁腿综合征临床分析

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目的 睡眠障碍是癫痫常见共患病之一，两者相互影响，严重影响患者的生活质量。不宁腿综合征（restless legs syndrome，RLS）是临床常见的睡眠相关运动障碍。我们进行一项临床研究，分析癫痫共患 RLS 的临床特点，提高临床医生对共患病的诊治能力。

方法 共 17 名癫痫共患 RLS 患者纳入研究。所有患者均进行了多导睡眠图和长程视频脑电图监测，并进行了匹兹堡睡眠质量指数量表（PSQI）、国际 RLS 严重程度评估量表（IRLS）、癫痫生活质量问卷（QOLIE-31）、汉密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD）问卷调查。收集患者癫痫发作频率、癫痫发作的分类、痫样放电的分布脑区、正在使用的抗癫痫发作药物等，进行统计学的分析。

结果 共患 RLS 的癫痫患者多为局灶性起源，药物难治，头皮脑电图显示的放电脑区主要在双侧颞区。PSG 提示癫痫共患 RLS 患者睡眠碎片化。癫痫共患 RLS 患者存在较低的生活质量和明显的焦虑抑郁情绪。部分癫痫共患 RLS 患者误诊为药物性难治性癫痫，重新评估后应用多巴胺受体激动剂后明显好转。

结论 癫痫共患 RLS 具有颞区放电、局灶性起源、药物难治、低生活质量等特点。RLS 的管理不仅使患者的癫痫得到更好的控制，而且提高了他们的生活质量。

关键字：不宁腿综合征，癫痫，睡眠障碍

Relationship between Social Support and Daytime Sleepiness: Mediating Roles of Loneliness and Problematic Smartphone Use

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Objective Sleep problems have become a serious threat to public health worldwide. Daytime sleepiness is an important indicator of many sleep problems, which have a significant impact on academic performance, physical and mental health, and wellbeing among medical students. We aimed to explore the factors associated with daytime sleepiness among medical students.

Methods We conducted a cross-sectional survey of 466 medical students recruited via convenience sampling. Self-rated psychometric scales, including the Social Support Rate Scale, the Epworth Sleepiness Scale, the Chinese version of the UCLA loneliness scale, and the Mobile Phone Addiction Index (MPAI), were utilized to evaluate social support, daytime sleepiness, loneliness, and problematic smartphone use. A sequential mediation model was constructed with daytime sleepiness as the dependent variable, social support as the independent variable, and loneliness and problematic smartphone use as mediating variables. Age, gender, and grade were taken as covariates.

Results Social support among medical students was negatively associated with loneliness, problematic smartphone use, and daytime sleepiness. A sequential mediation analysis showed that loneliness (the first mediator) and problematic smartphone use (the second mediator) sequentially mediated the path from social support to daytime sleepiness among medical students. Moreover, there were also significant mediating roles observed in the relationship between social support and daytime sleepiness via loneliness only, and problematic smartphone use only.

Conclusion Social support, psychology, and health behaviors among medical students influence their daytime sleepiness. Interventions targeting medical student loneliness and health-related behaviors might attenuate the effects from low social support, and further improve daytime sleepiness.

关键字：Social support, Daytime sleepiness, Loneliness, Problematic smartphone use

Serum Zonula Occludens-1 and Claudin-5 Levels in Patients with Insomnia Disorder: A Pilot Study

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Objective This research aimed to investigate serum Zonula occludens-1 (ZO-1) and claudin-5 (CLDN5) levels to show whether or not their eventual changes in patients

with insomnia disorder could have etiopathogenetic importance. There was no research investigating serum ZO-1 and CLDN5 concentrations in insomnia disorder.

Methods This study included 60 insomnia disorder patients and 45 normal controls. None of the patients received drugs for insomnia. The patients completed Insomnia Severity Index (ISI) and Pittsburgh Sleep Quality Index (PSQI), and Polysomnography (PSG) to score the insomnia disorder symptoms. Venous blood samples were collected, and serum ZO-1 and claudin-5 levels were analyzed by enzyme-linked immunosorbent assay (ELISA).

Results Serum ZO-1 level was significantly higher without a significant difference between age, sex, and body mass index, whereas the difference in serum claudin-5 level between the two groups was not statistically significant. In addition, ZO-1 levels were positively correlated with ISI and PSQI and negatively with N1 and N1_perc. We also demonstrated a positive correlation between the levels of CLDN5 and HAMA, and a negative correlation with total sleep time (TST), N1 and N1_perc.

Conclusion Our findings suggest an association between these intestinal and brain endothelial permeability markers and insomnia disorders. However, these remain modest and preliminary and need more extensive studies, including long-term follow-up populations and involving gut microbes, to further validate and explore the mechanisms involved.

关键字：Insomnia Disorder, Blood-Brain Barrier, intestinal permeability, Claudin-5, Zonula occludens-1, biomarker

Nightmares During The COVID-19 Pandemic in Chinese Adolescents: Frequency, Content, and Associated Factors

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Objective Nightmares are prevalent in Chinese adolescents. To describe and characterize nightmare profiles in Chinese adolescents during the Corona Virus Disease 2019(COVID-19) pandemic,we conducted.a cross-sectional study to collect information from Chinese adolescents from May 1–30, 2022.

Methods We analyzed data from 7,223 participants (10-20 years) who shared general information about themselves and the content of their nightmares through a questionnaire. The average age of the participants was 15.89 ± 1.447 years, and 1,139 (35.5%) were aged 10–15 years, while 6,084 (64.5%) were aged 16–20 years.

Results Girls, participants aged 16–20 years, and high school students scored higher on the Chinese version of the Nightmare Distress Questionnaire(NDQ-CV) and both subscales than boys, participants aged 10–15 years, and middle school students, respectively. 13.7% of the participants reported at least one nightmare per week. Among the socio-demographic variables included in the logistic regression analysis, age, sex, and fear of COVID-19 were significantly associated with nightmare frequency. Fear of -COVID-19 was associated with an increased likelihood of nightmares about COVID-19, being chased, being threatened/attacked, bad interpersonal communication, ghosts/monsters, sickness/death, and anxiety.

Conclusion As fear of COVID-19 increased, nightmare stress increased. Assessment and intervention of frequent nightmares should be incorporated into mental health services in adolescents.

关键字：nightmare; nightmare distress; COVID-19; pandemic; adolescents

宁波市60岁及以上社区老年人社交隔离与睡眠时长和睡眠质量的关联性研究

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目的 探究社区老年人中社交隔离与睡眠时长和睡眠质量的关联性。

方法 选取2022年6月至2022年8月宁波市≥60岁的社区老年人7762名，通过问卷了解调查对象的社会人口学特征、生活方式、慢性病史、心理问题（抑郁、焦虑）、社交隔离和睡眠情况（睡眠时长和睡眠质量）的信息。采用多因素logistic回归模型和人群归因危险度分析社交隔离与睡眠时长和睡眠质量的关联。采用KHB中介效应测度法检验抑郁和焦虑的中介作用。

结果 睡眠时长异常组（＜6h或＞8h）人数为2656（34.2%），睡眠质量差组为1115人（14.4%），社交隔离为917人（11.8%）。在调整相关混杂因素后，与无社交隔离组相比，有社交隔离的老年人睡眠时长异常和睡眠质量差的OR值（95%CI）分别为1.49（1.29-1.73）和1.32（1.09-1.59）。其中女性社交隔离与睡眠时长异常和睡眠质量差的OR值（95% CI）分别为1.54（1.28-1.85）和1.33（1.06-1.68）；男性社交隔离与睡眠时长异常和睡眠质量差的OR值（95% CI）分别为为1.36（1.06-1.74）和1.25（0.88-1.76）。＜80岁老年人社交隔离与睡眠时长异常和睡眠质量差的OR值（95% CI）分别为1.56（1.32-1.84）和1.42（1.15-1.76）；≥80岁老年人社交隔离与睡眠时长异常和睡眠质量差间关联无统计学意义。多因素调整的人群归因危险度分析显示：5.26%的睡眠时长异常和3.18%睡眠质量差归因于社交隔离。抑郁部分中介社交隔离和睡眠时长和睡眠质量间关联，中介效应占比分别为5.68%和9.87%。

结论 老年人中社交隔离与睡眠时长和睡眠质量的相关，需要重视老年人中社交隔离状况，尤其要关注女性和＜80岁的人群。

关键字：老年人；睡眠时长；睡眠质量；社交隔离

以精神症状为首发的脑腱结节性黄瘤病 1 例

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目的

方法 脑腱结节性黄瘤病（cerebrotendinous xanthomatosis，CTX）是线粒体酶固醇 27-羟化酶缺乏所导致的常染色体隐性遗传病，临床表现以全身症状为特征，包括新生儿黄疸或胆汁淤积、顽固性腹泻、青少年白内障、肌腱黄色瘤、骨质疏松症、冠心病和广泛的神经精神体征。该病罕见且起病隐匿，在疾病早期，出现的症状可能存在非特异性，导致严重的诊断延迟或漏诊，平均诊断周期长达 23 年。本例患者，男性，32 岁，以精神障碍为首发症状就诊，表现为孤僻、懒散、自语、行为怪异，治疗中多种抗精神病药物效果差，副作用明显。并存在步态不稳，写字由大变小。病史中幼时易腹泻，足跟腱处有结节。辅助检查提示头颅 MR 多处有异常信号，脂蛋白(a)高等，考虑为以精神症状为首发的脑腱黄瘤病患者，经基因检测确诊后，予以鹅去氧胆酸胶囊联合抗精神病药物治疗，取得积极的疗效。

结果 本文对患者临床资料进行回顾并进行相关文献复习，分析脑腱结节性黄瘤病特点，与精神疾病鉴别要点，提示诊治精神疾病中细致查体的重要性，旨在帮助提高精神科临床医师对本病的甄别能力，为后续临床工作提供经验指导。

结论

关键字：脑腱黄瘤病 精神障碍 精神分裂症 共济失调

阿戈美拉汀治疗抑郁症合并睡眠障碍的心肺耦合疗效评估

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目的 探讨阿戈美拉汀治疗抑郁症合并睡眠障碍的临床疗效以及心肺耦合的疗效评估价值。

方法 本研究对象为 2020 年 3 月-2023 年 1 月 96 例抑郁症合并睡眠障碍患者，简单随机法分为两组。对照组采用舍曲林治疗，观察组在对照组基础上联合阿戈美拉汀治疗，均治疗 2 个月。治疗前后通过汉密尔顿焦虑（HAMA）、抑郁量表（HAMD）评估负性情绪改善情况，采用心肺耦合睡眠质量评估系统评估睡眠改善情况。

结果 治疗后两组患者 HAMA 评分、HAMD 评分均显著降低，且治疗后观察组两项评分均低于对照组，（P<0.05）；两组治疗后总睡眠、熟睡、快速动眼(REM)睡眠时间显著增加，浅睡、觉醒时间显著降低，且治疗后观察组各项心肺耦合参数均优于对照组，（P<0.05）。

结论 阿戈美拉汀治疗抑郁症合并睡眠障碍能够有效改善负性情绪以及睡眠质量，心肺耦合能够有效评估患者睡眠情况。

关键字：阿戈美拉汀；抑郁症；睡眠障碍；心肺耦合

多导睡眠监测在神经变性疾病中的应用研究

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目的 目前大多数神经变性疾病的病因、发病机制尚不明确。睡眠障碍是神经变性疾病常见主诉之一，两种共病后，加重了病情的严重程度，同时加大了治疗的难度。本文将对神经变性疾病患者睡眠障碍及 PSG 特征进行简要综述。有助于明确睡眠障碍与这些神经变性疾病之间的关系，提高临床医生对疾病的进一步认识，为未来的研究提供基础。

方法 以“PSG”、“polysomnogra*”、“ sleep architect*”、“sleep monit*”、“Sleep Wake Disorders[Mesh]”、“Neurodegenerative Diseases[Mesh]”为关键词在国外 PubMed、Web of Science 数据库进行检索。中文文献检索资源来自中国知网、万方，关键词“多导睡眠图”、“多导睡眠监测”、“睡眠监测”、“睡眠障碍”、“神经变性疾病”、“神经退行性疾病”，时间截止到 2023 年 4 月 31 日。最终纳入 44 篇文献。纳入标准是病例对照研究、队列研究、随机对照试验、meta 分析以及系统综述类文献。

结果 在神经变性疾病的早期，甚至疾病发生之前即可存在睡眠的变化，且与认知功能的改变存在一定的相关性。PSG 参数的变化对疾病的进展及预后还存在着预测作用。目前的研究主要是关于常见的帕金森病和阿尔茨海默病，对于亨廷顿舞蹈病、路易体痴呆、多系统萎缩等相对少见的疾病研究较少。

结论 研究神经变性疾病的睡眠障碍及 PSG 变化对理解疾病的病因、发病机制十分重要。今后的研究需继续从睡眠角度探索疾病的潜在生物学标志物，探讨对患者睡眠障碍进行治疗是否可对疾病的发生发展产生影响，以期达到早期筛查、早期诊疗、改善预后。

关键字：多导睡眠监测；睡眠障碍；神经变性疾病

失眠相关量表汉化及开发现状

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目的 失眠症（insomnia）是最常见的睡眠障碍，长期失眠对个体的身心健康有严重的负面影响。选择恰当的测量工具作为失眠的评价指标，对于科研和临床工作者而言尤为重要。本文对失眠相关量表的汉化及开发现状进行了总结，并对失眠相关量表开发过程中所存在的问题进行了探讨。

方法 文献检索数据库为 Web of Science,Pub Med,

中国知网,万方数据库和维普期刊网，并结合文章内的参考文献对量表进行整理和总结。

结果 失眠相关量表可以分为睡眠质量及失眠相关症状评估、睡眠障碍评估、失眠特异性评估、失眠影响因素评估以及针对特殊人群的评估五类。其中，国内外应用最为广泛的失眠相关量表是匹兹堡睡眠质量指数（Pittsburgh Sleep Quality Index, PSQI），其次是失眠严重指数量表（Insomnia Severity Index, ISI）；国内自主开发的量表中，使用最为广泛的是睡眠状况自评量表（Self-Rating Scale of Sleep，SRSS）。

结论 目前，失眠相关量表开发过程中存在一些问题，如量表信息介绍不全面，心理测量学指标规范化不足，量表质量不高，在目标人群和测评内容维度上特异性不足等。未来，国内应当开发更多本土化的、具有针对性的失眠评估工具，并对量表的编制过程进行规范化。

关键字：失眠；量表；睡眠障碍；睡眠状况

Insomnia Severity and Its Relationship with Homocysteine and Folate Levels in Patients with Major Depressive Disorder

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Objective explore the association between insomnia severity and homocysteine (Hcy) and folate levels in patients diagnosed with major depressive disorder (MDD).

Methods Insomnia severity was assessed using the Insomnia Severity Index (ISI) and the Pittsburgh Sleep Quality Index (PSQI) in 57 MDD patients before and after treatment. Plasma Hcy and serum folate levels were measured in these patients before and after treatment (4-6 weeks of acute phase treatment) as well as in 20 normal controls. Differences in Hcy and folate levels were compared between MDD patients and normal controls, as well as between pre- and post-treatment MDD patients and MDD patients with different levels of insomnia severity.

Results Plasma Hcy levels were significantly higher in the MDD group compared to the control group, while serum folate levels were significantly lower in the MDD group (all $P < 0.01$). Pre-treatment Hcy levels were significantly higher than post-treatment levels, while pre-treatment serum folate levels were significantly lower than post-treatment levels (all $P < 0.01$). There was no significant correlation between insomnia severity and plasma Hcy or serum folate levels in MDD patients before and after treatment (all $P > 0.05$).

Conclusion MDD patients have elevated plasma Hcy levels and reduced serum folate levels, which significantly improve after antidepressant treatment, suggesting the involvement of Hcy and folate in the pathogenesis of MDD. However, there is no significant correlation between insomnia severity and pre- and post-treatment Hcy and folate levels in MDD patients.

关键字：Major depressive disorder, Insomnia severity, Homocysteine, Folate

团体失眠认知行为疗法治疗失眠共病阻塞性睡眠呼吸暂停的个案报道

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目的 失眠与阻塞性睡眠呼吸暂停（OSA）共病（COMISA）可导致疾病相互影响，造成更严重的病情和躯体损害，其治疗也比任何一种单独的疾病都更加困难。COMISA 的治疗方案目前尚未达成共识，本文旨在报道一例通过 CBT-I 获得良好治疗效果的 COMISA 病例，为 COMISA 的治疗提供借鉴经验。

方法 采用 6 周标准化的 CBT-I 封闭式团体，对 1 例 COMISA 患者进行治疗，其余团体成员均以慢性失眠障碍伴轻度焦虑抑郁情绪入组，不伴有 OSA。患者男，35 岁，病程 3 年，期间未接受其它治疗。尝试持续气道正压通气(CPAP)治疗，因自感戴呼吸机后入睡更加困难而放弃。使用失眠严重程度指数量表（ISI）对患者失眠严重程度进行评估，Epworth 嗜睡量表（ESS）评估日间嗜睡症状，使用汉密尔顿抑郁量表 24 项（HAMD-24）、汉密尔顿焦虑量表（HAMA）评估患者焦虑抑郁水平，对睡眠质量变化采取睡眠日记和多导睡眠监测（PSG）主客观两方面的记录和评估。

结果 治疗后患者失眠明显改善，ISI 由 22 分降至 14 分。焦虑抑郁情绪明显减轻，HAMD-24 由 10 分降至 2 分，HAMA 由 7 分降至 1 分。主观睡眠质量改善：睡眠日记的睡眠潜伏期由 41.7 分钟减少至 27.5 分钟，总睡眠时间由 333.3 分钟延长至 386.3 分钟,入睡后觉醒时间由 83.3 分钟减少至 16.3 分钟，夜间觉醒次数由 5 次减少为 1.1 次。客观睡眠质量改善：PSG 的夜间觉醒次数由 30 次减少至 23 次，觉醒指数由 32.8 降低至 14.4，N1 期睡眠比例由 33.2%降低至 17.0%，N2 期睡眠比例由 44.2%提高至 54.6%。治疗后不同睡眠姿势和睡眠阶段的 AHI 均降低，患者 AHI 由 32.7 降至 13.2，OSA 由重度降至轻度，同时，日间嗜睡水平大幅下降，ESS 由 13 分降低至 4 分。

结论 CBT-I 能够通过改善失眠，有效缓解 COMISA 患者的夜间呼吸暂停和日间嗜睡症状。当患者由于失眠症状的存在无法耐受 CPAP 治疗时，CBT-I 干预可为患者带来上述多方面的获益，因此 COMISA 的治疗方案中应重视 CBT-I 的应用。

关键字：团体失眠认知行为疗法；失眠；阻塞性睡眠呼吸暂停

认知行为疗法对失眠障碍的临床疗效研究进展

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随着社会压力的增大，失眠障碍已成为了常见病，失眠障碍的患病率高、就诊率低、危害大，有跌倒和认知功能损害等风险，严重影响日常生活和工作功能，广泛干扰着城市及农村的各个年龄阶段的人，尤其是中老年人，在成年人群中失眠的患病率为 10%~40%，老年人群中失眠的患病率为 30%～60%。 失眠障碍的治疗包括药物治疗、认知行为治疗、心理治疗、物理治疗，目前国内主要以药物治疗为主，现有药物的不良反应多，会产生依赖性和耐受性，而且苯二氮卓类药物具有较明显的戒断反应。失眠的认知行为疗法(Cognitive behavioral therapy for insomnia，CBT-I)是一种针对失眠障碍患者的有时限的结构化治疗方法，是一种包括行为技术、放松和认知疗法在内的多成分治疗，主要通过对失眠患者进行睡眠卫生健康教育、纠正睡眠的错误认知和行为、刺激控制、睡眠限制、放松训练等方法来改善睡眠质量，国内外指南均推荐认知行为疗法作为失眠障碍的一线治疗方法，失眠的认知行为疗法相比于药物治疗，其产生的不良反应更小，安全性更大，与药物相比疗效更稳定，具有更好的远期疗效。 本文旨在总结认知行为疗法在失眠障碍中的应用及临床疗效，将 CBT 与更多物理方法或中成药物联合治疗失眠，便于后续该技术的进一步完善与更新，以便更多的患者获益，提高患者生活质量的同时增加社会劳动力。

关键字：失眠障碍；认知行为疗法；药物治疗；临床疗效

The Impact of Personality Traits, Sleep Quality, and Job Burnout on Mental Health of Petition Cadres in China

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Objective The purpose of this study is to investigate the mental health status of Petition Cadres in Shanxi Province, China, to explore the relationship between their mental health, neuroticism, sleep quality and job burnout, to reveal the risk factors of the mental health of Petition Cadres, and to provide a scientific basis for improving the mental health of Petition Cadres.]

Methods A convenient sampling method was used to investigate the mental health of 182 (95 males and 87 females; age range: 22-60 years old; mean age: 37.73±7.975 years) Petition Cadres in Shanxi Province, China. Symptom Checklist 90 (SCL-90), Neuroticism (N) of Eysenck Personality Questionnaire(EPQ), Pittsburgh Sleep Quality Index (PSQI), and Maslach Burnout Inventory (MBI) were used to evaluate mental health, neuroticism personality traits, sleep quality, and job burnout. SPSS 22.0 software package was used for statistical analysis.]

Results We found that (1) the SCL-90 showed that 40.11% (73/182) of the subjects had positive symptoms; (2) Correlation analysis showed that N, PSQI, and MBI were significantly positively correlated with the total score and all factor scores of SCL-90 ($p<0.05$). (3) Mediating effect analysis showed that some mediating effects of PSQI and MBI between N and SCL-90 were significant, and the mediating effect of PSQI and MBI accounted for 16.56% and 12.09% of the total effect, respectively.]

Conclusion The mental health of the Petition Cadres in Shanxi Province needs to be improved. Neuroticism, sleep quality and job burnout are related to their mental health. Neuroticism is a risk factor for the mental health of Petition Cadres, and neuroticism would affect mental health through sleep quality and job burnout.]

关键字：Petition Cadres; The mental health; Neuroticism; Sleep quality; Job burnout.

医学生强迫症状和睡眠质量的关系

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目的 探究不同性别的医学生强迫症状和睡眠质量的相关性。

方法 针对厦门市某三甲医院 900 名实习生通过网络问卷星平台发放问卷，采用香港中文大学定式化睡眠问卷（修订版）、失眠严重程度指数（ISI）、爱普沃兹嗜睡量表（ESS）调查他们的一般情况及睡眠情况，广泛性焦虑障碍量表（GAD-7）和 9 项健康问卷（PHQ-9）调查他们的焦虑、抑郁情绪，强迫症症状分类量表(修订版)(OCI—R 调查他们的强迫症状。

结果 不同性别医学生的强迫症状在强迫思维(N 男生=202（99.51），N 女生=685（99.85），?2=26.802，P<0.05)、核查(N 男生（%）=203（100.00），N 女生（%）=686（100.00），?2=19.413，P<0.05)、混合(N 男生（%）=203（100.00），N 女生（%）=686（100.00），?2=18.681，P<0.05)维度上及焦虑(N 男生（%）=203（100.00），N 女生（%）=686（100.00），?2=35.301,P<0.05)、抑郁(N 男生（%）=203（100.00），N 女生（%）=686（100.00），?2=40.773，P<0.05)情绪有显著性差异。强迫症状的 6 个维度：洗涤、强迫思维、贮存、排序、核查、混合均和失眠(r 洗涤=0.320 ,r 强迫思维 = 0.356,r 贮存= 0.331，r 排序=0.329，r 检查= 0.263，r 混合=0.320,P<0.05)、嗜睡(r 洗涤=0.405 ,r 强迫思维 = 0.391,r 贮存= 0.439，r 排序=0.403，r 检查= 0.204，r 混合 =0.199,P<0.05)、抑郁(r 洗涤=0.511,r 强迫思维 = 0.598,r 贮存= 0.552，r 排序=0.546，r 检查= 0.431，r 混合 =0.478,P<0.05)情绪正相关，强迫思维、排序维度和周末在床时间(r 强迫思维 =-0.069, r 排序=-0.078,P<0.05)呈负相关。

结论 医学实习生的强迫症状与焦虑、抑郁、睡眠质量有关，且强迫症状越严重，焦虑、抑郁及睡眠质量相应变差。医院和学校应该对心理睡眠状况不佳的实习生进行干预。

关键字：医学实习生 强迫症状 维度 焦虑 抑郁

睡眠

草酸艾司西酞普兰联合劳拉西泮对抑郁伴失眠患者睡眠质量的影响

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目的 研究草酸艾司西酞普兰联合劳拉西泮对抑郁伴发失眠患者睡眠质量的影响，分析患者大脑的神经递质治疗前后的变化，以及大脑功能状态的变化趋势，为临床干预、治疗提供一定科学依据。

方法 选取 2021 年 2 月至 2022 年 6 月广西脑科医院收治的 79 例抑郁伴发失眠患者作为研究对象，采用联合治疗法（草酸艾司西酞普兰联合劳拉西泮）对患者进行干预治疗，通过脑涨落图仪检测患者脑内神经递质活动变化情况，及大脑功能状态的变化。

结果 与治疗前对比，治疗后患者脑内的去甲肾上腺素（NE）、γ-氨基丁酸（GABA）、谷氨酸（GLU）、乙酰胆碱（Ach）、多巴胺（DA）、5-羟色胺（5-HT）、抑制递质 13、兴奋递质 3、大脑总功率、兴奋抑制指数分别为 174±52.94、60.94±26.83、152.5±77.38、114.7±33.82、100.7±49.29、161.1±21.28、222±82.02、39.34±18.38、642.8±118.38、1.64±0.56。其中，γ-氨基丁酸（GABA）、和多巴胺（DA）显著高于治疗前，5-羟色胺（5-HT）呈现相反的趋势，差异具有统计学意义（P<0.05）。

结论 采用草酸艾司西酞普兰联合劳拉西泮治疗抑郁并发失眠的疗效显著，该治疗方案能有效改善患者失眠状况，可为临床推广应用提供一定参考依据。

关键字：神经递质；抑郁症；失眠；脑涨落图

RTMS 刺激视觉皮层 V1 区在抑郁症伴睡眠障碍患者中的临床疗效

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目的 观察导航系统 rTMS 刺激左侧视觉皮层 V1 区对抑郁症伴睡眠障碍患者的临床疗效。

方法 择 2020 年 7 月-2020 年 11 月我院心理精神科收治的 50 例抑郁症伴睡眠障碍的患者作为研究对象，按随机原则分为对照组和观察组。对照组给予经典靶区（L-DLPFC）经颅磁刺激治疗，观察组给予在导航系统下探索的新靶区左侧视觉皮层 V1 区的经颅磁刺激治疗。观察两组患者的匹兹堡睡眠质量（PSQI）、HAMD 及 HAMA 量表判断治疗疗效。

结果 治疗后 2 组 PSQI 评分、HAMA、及 HAMD 评分均明显降低，与同组治疗前比较差异有统计学意义（P＜0.05）；对照组与同组治疗前比较在 PSQI 总分、睡眠质量、入睡时间、睡眠时间、睡眠效率、睡眠障碍方面优于治疗前，差异有统计学意义（P＜0.05），观察组与同组治疗前比较在 PSQI 总分、睡眠质量、入睡时间、睡眠时间、日间功能障碍方面优于治疗前，2 组比较差异无统计学意义（P＞0.05）；治疗后，2 组均发生了不良反应，对照组发生不良反应率为 68%，观察组为 76%，2 组比较无统计学意义（P＞0.05）。

结论 经典靶区（L-DLPFC）与左侧视觉皮层 V1 区的经颅磁刺激治疗均可改善抑郁症伴睡眠障碍患者的睡眠质量，减轻患者焦虑抑郁症状，值得临床推广应用。

关键字：导航 rTMS;视觉皮层 V1 区；抑郁症；睡眠障碍

童年不良经历对青少年负性情绪的影响：自我厌恶的中介作用及性别的调节作用

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目的 探究童年不良经历对青少年负性情绪的影响中自我厌恶的中介作用和性别的调节作用。

方法 采用问卷法收集人口学变量，应用童年不良经历问卷修订版、患者健康问卷、广泛焦虑障碍筛查问卷及自我厌恶量表于 2022 年 5 月 1 日至 5 月 30 日在中国山东省日照市 5 所高中（90 个班）和 5 所初中（60 个班）进行调查，共得到 7012 份青少年有效问卷。采用 SPSS 22.0 软件数据录入与分析，进行 Mann-Whitney U 检验人口学变量与变量的关系，各变量间相关性采用 Spearman 相关系数表示，应用 PROCESS 插件检验链式中介。

结果 （1）童年不良经历与自我厌恶(r=0.459，P<0.01)及负性情绪(r=0.427，P<0.01)，自我厌恶与负性情绪(r=0.566，P<0.01)之间均呈显著正相关；（2）自我厌恶在童年不良经历与青少年负性情绪中起中介作用，中介效应值为 0.293，中介效应值占总效应的 60.41%。（3）自我厌恶的中介路径受到性别的调节，相较于男生而言，女生的童年不良经历对自我厌恶预测作用更大。

结论 童年不良经历对青少年负性情绪具有预测作用，同时可以通过自我厌恶对负性情绪产生影响，性别在中介路径中起调节作用。

关键字：青少年；性别；童年不良经历；负性情绪；自我厌恶

Impact of COVID-19 Infection on Sleep As Well As on Psychology During The Post Epidemic Period

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目的 To explore the impact of new corona virus infection on sleep disturbances and psychological disorders in the post epidemic period and the association between sleep disturbances and mental disorders.

方法 Demographic questionnaire, ISI, PSQI, GAD-7, PHQ-9 and ESS scale were used to assess demographic information, insomnia, sleep quality, anxiety, depression and sleepiness, respectively.

结果 The proportion of people infected with anxiety during the acute phase is 43.65%, and the proportion of people with depression is 55.56%. In addition, we also found that COVID-19 infection can directly cause sleep and psychological changes, with some changes in anxiety and depression possibly related to post infection sleep disorders, and the mediating effect of insomnia on infection and depression is 28.24%.

结论 Poor sleeping individuals have worse resistance to COVID-19 infection, accelerating the infection to mental status impairment.

关键字：COVID-19, excessive sleepiness, insomnia, anxiety, depression

结核病患者失眠症状与抑郁状态的关系： 基于交叉滞后模型的纵向研究

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目的 探究结核病患者治疗期间失眠症状与抑郁状态的关系。

方法 2022 年 3 月-2022 年 5 月，在四川、广西三所不同的三级甲等医院，采用便利抽样方法选取符合标准的初治结核病患者进行为期6个月的纵向随访。基于结核病的治疗特点，借助匹兹堡睡眠质量指数（PSQI）、患者健康问卷-9 条目抑郁量表（PHQ-9）对纳入研究对象于开始用药治疗当天（T1），治疗 1 月末（T2），治疗 2 月末（T3），治疗 6 月末（T4）进行失眠症状、抑郁状态动态测评。采用 Mplus 8.3 构建交叉滞后模型对患者失眠症状及抑郁状态的关系进行分析。

结果 共纳入研究对象 266 名，其中男性 166 名（62.4%），平均年龄 48.1±18.0 岁。交叉滞后模型自回归结果显示：两个变量在不同时期自回归系数均显著；交叉回归结果显示：T1 失眠症状显著预测 T2 抑郁状态（P＜0.05），T1 抑郁状态显著预测 T2 失眠症状（P＜0.05）；T2 失眠症状显著预测 T3 抑郁状态（P＜0.05），T2 抑郁状态对 T3 失眠症状的预测作用无统计学意义（P＝0.165）；T3 失眠症状显著预测 T4 抑郁状态（P＜0.05），T3 抑郁状态显著预测 T4 失眠症状（P＜0.05）。

结论 结核病患者失眠全程预测抑郁，抑郁部分时期预测失眠，提示我们可以尝试通过改善失眠症状来减轻患者的抑郁水平。

关键字：结核病 失眠症状 抑郁状态 交叉滞后模型 预测关系

The Emergence of COVID-19 Over-concern Immediately after The Cancellation of The Measures Adopted by The Dynamic Zero-COVID Policy in China

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Objective This study aimed to report COVID-19 over-concern prevalence and associated factors after the relaxation of the health-protective measures in China.?

Methods A team of experts came to a consensus on the diagnostic criteria for COVID-19 over-concern, and the person must fulfill at least 5 of the following: 1) at least five physical symptoms; 2) stocking up at least five items related to protecting oneself during the COVID-19 pandemic; 3) obsessive-compulsive symptoms related to the COVID-19 pandemic; 4) illness anxiety related to the COVID-19 pandemic; 5) post-traumatic stress symptoms; 6) depression; 7) anxiety; 8) stress and 9) insomnia. An online survey using snowball sampling collected data on demographics, medical history, views on COVID-19 policies, and symptoms of COVID-19 over-concern. Multivariate linear regression was performed using significant variables from the previous regressions as independent variables against the presence of COVID-19 over-concern as the dependent variable.

Results 1332 respondents participated in the study. Factors significantly associated with COVID-19 over-concern were younger age, poor health status, concerns about family members, perceived usefulness of vaccination, negative impact on income/employment/studies/family ($p<0.05$).

Conclusion After canceling measures associated with dynamic zero-COVID policies in China, around one-fifth of the respondents fulfilled the diagnostic criteria for COVID-19 over-concern.

关键字：COVID-19, overconcern, China, dynamic zero-COVID, illness anxiety, depression, anxiety and stress

入睡前觉醒量表测评短暂失眠障碍患者的效度和信度

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目的 评价中文版入睡前觉醒量表（Pre-sleep Arousal Scale, PSAS）测评短暂失眠障碍（brief insomnia

disorder，BID）患者的效度和信度。

方法 选取 170 例 BID 患者和 150 例正常睡眠者（normal sleeper，NS），完成 PSAS、医院焦虑抑郁量表（Hospital Anxiety and Depression Scale，HADS）、失眠严重程度指数（Insomnia Severity Index，ISI）。其中，72 例 BID 患者在 3 个月后接受 PSAS、HADS、ISI 重测。

结果 BID 组的 PSAS 分值呈现正态分布，PSAS 分值与 HADS、ISI 分值均呈正相关（r=0.55、0.40，均 P＜0.01）。探索性因子分析和平行分析结果显示 PSAS 趋向于双因子结构（躯体觉醒和认知觉醒），方差解释值为 55.84%，条目载荷为 0.46～0.89。BID 组的 PSAS 及其分量表分值均高于 NS 组（均 P＜0.001）。受试者工作特征曲线（ROC）显示 PSAS 的最佳划界分为 32/33（灵敏度 0.72，特异度 0.81）。Chronbach α 和 Spearman Brown 分半信度分别为 0.91 和 0.76，条目与总分的相关系数为 0.41～0.85（均 P＜0.01），重测信度为 0.37（P＜0.01）。此外，PSAS 分值变化率与 ISI、HADS 分值变化率均呈正相关（均 P＜0.05）。

结论 中文版 PSAS 测评 BID 患者的睡前觉醒程度具有良好的效度和信度。

关键字：入睡前觉醒量表；短暂失眠障碍；效度；信度

阻塞性睡眠呼吸暂停综合征共病抑郁障碍患者的躯体-社会快感缺失与抑郁程度的关系

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目的 探讨阻塞性睡眠呼吸暂停综合征(obstructive sleep apnea syndrome, OSAS)共病抑郁障碍患者的躯体-社会快感缺失水平与抑郁的相关性，更好的为临床二者共病的诊疗和后期康复提供依据，减轻患者及家属对疾病的担忧及疑虑，鼓励患者出院后积极面对生活，提高患者预后，提高临床疗效。

方法 选取 2023 年 3 月至 2023 年 6 月在新疆维吾尔自治区人民医院临床心理科住院治疗的抑郁障碍患者共 35 名，按照是否患有 OSAS 分为抑郁障碍共病 OSAS 组（15 名）和单纯抑郁障碍组（20 名）。采用汉密尔顿抑郁量表(HAMD)、中文版修订社会快感缺失量表(RSAS-C) 、中文版修订躯体快感缺失量表(RPAS-C)评估每位患者的抑郁水平、躯体及社会快感缺失水平，并对收集的资料采用秩和检验的方法进行分析。

结果 共病 OSAS 的抑郁障碍患者和单纯抑郁障碍患者的快感缺失水平与抑郁水平有显著差异，共病 OSAS 的抑郁障碍患者躯体-社会快感水平和抑郁水平均明显高于单纯抑郁障碍患者（P＜0.05）。并且共病组的躯体快感缺失与抑郁的相关性比社会快感缺失与抑郁的相关性更加显著。

结论 OSAS 可能对抑郁障碍病人的躯体-社会快感缺失水平和抑郁水平有影响,主要表现在共病有 OSAS 的抑郁障碍病人有更严重的抑郁和躯体-社会快感缺失症状,但与 OSAS 的严重程度无关，并且患者的躯体快感缺失症状比社会快感缺失症状更加明显。

关键字：阻塞性睡眠呼吸暂停综合征；抑郁；躯体快感缺失；社会快感缺失

抑郁症相关性失眠的临床特征与多导睡眠图研究

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目的 分析抑郁症相关性失眠的临床特征，并探讨多导睡眠图的应用效果。

方法 选取 2019 年 3 月～2020 年 3 月于日照市精神卫生中心接诊的 68 例抑郁症相关性失眠患者作为本次研究的实验组，所有患者均伴有失眠症状，并于同一时期选取 45 例健康人员为本次研究的对照组，采取汉密尔顿抑郁量表（HAMD）、汉密尔顿焦虑量表（HAMA）、匹兹堡睡眠质量指数（PSQI）来评定抑郁症患者的抑郁、焦虑以及睡眠质量情况，观察抑郁症患者的临床特征，并采用多导睡眠图（PSG）监测，对两组的睡眠总时间、卧床时间、入睡后醒 觉时间、睡眠潜伏期、清醒次数、睡眠效率、睡眠维持率等进行观察和比较。

结果 抑郁症相关性失眠患者的临床特征以认知障碍、迟缓症状和绝望感的表现最为突出，并且 HAMD、HAMA 量表平均分分别为 28.35±6.41 分和 18.75±10.28 分；实验组的 PSQI 总分和各项因子分均高于对照组（P＜0.05）；实验组睡眠总时间、卧床时间、入睡后醒觉时间、睡眠潜伏期、清醒次数均长于对照组；但是睡眠效率、睡眠维持率均短于对照组（P＜0.05）。

结论 抑郁症相关性失眠患者行 PSG 监测，能够较好地显示患者的睡眠进程指标，具有较高的临床应用价值，值得推广。

关键字：抑郁症；失眠；临床特征；多导睡眠图

Exploring The Relationship between Problematic Smartphone Use and Sleep Quality in Adolescents with Depression From A Network Perspective

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Background : Problematic smartphone use (PSU) is associated with poorer sleep quality. Few studies explore the interactions between symptoms of PSU and sleep quality components. This study uses network analysis to construct interaction of them and identify specific symptoms bridge these aggregations.

Methods The data was from baseline data of the cohort study of Chinese Adolescent Depression Cohort (CADC). We recruited 2343 adolescents with depression aged from 12 to 18 years old. Mobile Phone Addiction Index and Pittsburgh Sleep Quality Index were used to assess symptoms. We used network analysis to assess the importance of symptoms and identify the bridge symptoms in the network.

Results The core symptom of PSU and sleep quality network was P2 (anxiety and craving), linked to the entire symptom network and had the most potent effect with other symptoms. S7(daytime dysfunction), S5(sleep disturbances), and P2(anxiety and craving) had higher bridge expected influence values. Most of edges with stronger weight were located within the groups. The strongest association between symptoms was S3(sleep duration) and S4 (habitual sleep efficiency). The edge connecting symptoms "P2" and"S5" had the strongest weight between PSU and sleep quality. Conclusions: PSU leads to poorer sleep quality, most likely by its symptom of "anxiety and craving". Improper mental state of PSU, especially such as "difficult to witch off mobile phone" and "feel anxious or lost without mobile phone", lead to the situation.

关 键 字： Depression; Adolescent; problematic smartphone use; sleep quality; Network analysis

精神创伤研究协作组

A Path Analysis of Child Abuse Affecting Self-confidence by Attribution and Coping Styles in Depressive Patients

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Objective Child abuse is the most serious problem for the development of children. The aim of this study was to investigate the relationship among child abuse experience, attribution and coping styles, and self-confidence in major depressive disorder (MDD) patients.

Methods A sample of 180 MDD patients and 120 healthy persons as normal control participated in the study, both groups of subjects were homogeneous. Child abuse, attributional styles, coping ways, depression and self-confidence were measured with Childhood Family Environment Questionnaire (CECA), Attributional Style Questionnaire (ASQ), Trait Coping Style Questionnaire (TCSQ), Personal Evaluation Inventory (PEI), and Hamilton Depression Scale (HAMD). Descriptive statistics, correlation and regression analysis were conducted using SPSS 19.0 (SPSS Inc, USA).

Results Depressive patients had experienced significantly more child maltreatment than normal control, they use more passive attribution and coping styles in lives than normal control group ($p<0.01$) and have significantly lower self-confidence than normal control ($p<0.01$). The results of the Pearson correlation analysis showed that in the MDD group, all forms of child maltreatment, including paternal hatred, paternal ignore, maternal hatred, maternal ignore, sexual abuse and physical abuse, their severity showed significant positive correlations with passive attribution (internal, stable and global attribution of adverse events) and passive coping ($\beta = 0.31$; $p < 0.01$). Results from path analysis showed that the association between the severity of maltreatment exposure and self-confidence was significantly mediated by passive attribution and coping. The indirect effects of child abuse on self-confidence were -0.32, the total effects of child abuse on self-confidence were -0.65. The present study also has demonstrated a strong dose-response relationship between child abuse experience and depressive syndrome in adulthood ($\beta = 0.28$; p

关键字：child abuse, attribution, coping, passive, positive, self-confidence, depression

双相情感障碍与吸烟

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目的 双相情感障碍患者的吸烟率高于普通人群，且在逐年增高，吸烟不仅会影响疾病的进展，而且会导

致较高的死亡率和发病率，但目前吸烟对该疾病的影响尚未有明确研究结果，因此本研究的目的是探讨吸烟情况对双相情感障碍患者发病年龄及疾病症状严重程度的影响。

方法 在山西省太原市山西白求恩医院门诊及住院部招募 200 名双相情感障碍患者（符合 DSM-V诊断标准），收集其一般资料（性别、年龄、婚姻情况、职业情况、受教育程度等）、吸烟情况及临床指标（首次发病年龄、疾病严重程度等），根据吸烟情况将 200 名患者分为吸烟组及非吸烟组，观察并比较两组患者的发病年龄、疾病严重程度（临床总体印象量表分数）。

结果 本研究结果表明 200 名双相情感障碍患者中，57 名患者（28.5%）有吸烟史。两组患者的一般资料（性别、年龄、婚姻情况、就业情况、受教育程度等）无统计学差异(表 1)。与非吸烟组双相情感障碍患者相比，吸烟组患者发病年龄较小（表 2），临床总体印象量表分数较高（疾病程度较严重）（表 3）。在回归模型中，发病年龄、疾病严重程度与双相情感障碍患者吸烟情况均有显著相关性（表 4）。

结论 与非吸烟组双相情感障碍患者相比，吸烟组患者首次发病年龄较小，疾病程度较严重。并结合既往研究结果，探讨了吸烟对双相情感障碍及其他精神疾病患者产生影响可能的作用机制。

关键字：双相情感障碍；吸烟；发病年龄；疾病严重程度。

涤痰镇心汤结合利培酮治疗癫狂（精神分裂症）的临床研究

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目的 探讨涤痰镇心汤结合利培酮治疗癫狂（精神分裂症）的临床疗效

方法 1 治疗方法：对照组利培酮口服剂量在每日 3-6 毫克之间。治疗组：在对照组用利培酮基础上同时加用“涤痰镇心汤”为主方加减，方中运用朱砂镇静安神，胆星、贝母、橘红清涤痰浊；石菖蒲、远志、茯神宣窍安神；麦冬，玄参养阴清热；栀子清心除烦；黄连、大黄清泻胃肠实火。朱砂 1 克， 胆星 10 克、 贝母 10 克、 橘红 15 克；石菖蒲 15 克、远志 20 克 茯神 15 克 麦冬 15 克 玄参 15 克 栀子 15 克； 黄连 10 克 生大黄（后下）5 克，镇心涤痰，清肝泻火。 2,.2 疗效标准 治疗前和治疗后 1、2、4、6 周，由经过 PANSS 量表评分培训的 2 名医师评分，评分一致性检验的相关数平均为 0.85。 疗效评分：PANSS 量表减分率（治疗前评分-治疗后评分）÷治疗前评分×100%≥75%为治愈，50%-74%为显著进步，25%-49%为进步，<25%为无效。治疗效果 两组临床疗效比较。治疗组 100 例。显效 84 例，有效 13 例，因患躯体疾病脱落 3 例，临床显效率为 84%。对照组 100 例 46 例显效、54 例有效，显效率 46%。

结果 1、利用传统经典的方剂治疗现代医学已经明确了癫狂，对于挖掘经典方剂的理论研究具有很重要的意义,有利于经方的传承。 2、 “涤痰镇心汤”为主方加减有明确的疗效和明确的组方原则。 3、癫狂(精神分裂症)是临床常见的疾病，具有明确的诊断标准和明确的临床诊断方法。因此具有可行性。 4、该方法应用临床后，能够较好的开发中西医结合在传统的方剂研究中的研发工作，合理的利用现代医学理论解释传统的理论。 5、完善了中医癫狂(精神分裂症)的治疗方法。

结论 利培酮合并涤痰镇心汤治疗的方法，优于单纯利培酮治疗，在单用利培酮时会出现失眠，焦虑，激越，静坐不能，溢乳，月经紊乱等副作用，涤痰镇心汤结合利培酮治疗后，一方面可以增加临床疗效，另一方面可有效减少抗精神病药物引起的不良反应。患者及家属对此项治疗非常满意，同时还提高了患者的生活质量、社会功能及临床治愈好转率。采用“涤痰镇心汤”为主方加减口服，充分体现了中医辩证施治的特点，发挥了中医药标本兼治的优势。此法治疗精神分裂症，具有治疗周期短，依从性好，容易被广大癫狂（精神分裂症）的患者所接受的特点，可以为精神分裂症的患者及家庭找到一条通往“健康”的路，值得在临床上推广.

关键字：涤痰镇心汤、利培酮、癫狂（精神分裂症）、临床疗效

The Impact of The COVID-19 Epidemic on The Career Expectation of Chinese Medical Students

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Objective The COVID-19 pandemic has profoundly altered the study and lifestyle of medical students and led to an increased risk of infection. This situation may affect medical students' career expectations and future career choices. Therefore, this study aims to determine the impact of COVID-19 on Chinese medical students' career choices and expectations.

Methods We conducted an online cross-sectional survey of Chinese medical students in December 2022. The survey was designed by combining dichotomous, multiple-choice, and similar response scale questions. Participants were asked about the impact of the COVID-19 global pandemic on medical students' medical education, clinical rotations, career choices, and career expectations.

Results A total of 538 medical students completed the questionnaire. The results showed that 294 (54.6%) could not participate in clinical rotations. 234 (43.4%) believed that the epidemic disrupted medical education. In addition, 162 (30.1%) of individuals did not intend to pursue a medical career after graduation. Those who lived with their families (43.5%) were the most likely not to pursue a medical career. Interestingly, medical students who

perceived high academic stress were more likely to pursue a medical career versus the opposite (75.7% vs. 64.9%, p < 0.01). Furthermore, 47.8% of medical students who were being sequestered in schools believed that the COVID-19 pandemic was harmful to medical expectations.

Conclusion The COVID-19 pandemic disrupted medical education and clinical training of medical students. In addition, the epidemic affected medical students' future career choices and expectations.

关键字：COVID-19; career expectations; medicine; students; clinical rotations; career choice.

全程健康教育模式对非自杀性自伤患者心理弹性影响分析

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目的 研究在非自杀性自伤患者治疗过程中开展全程健康教育模式取得成效结果，以及对于心理弹性的影响。

方法 选择 2021 年 5 月-2022 年 5 月收治的非自杀性自伤患者 98 例计入研究，开展函数随机排列设为实验组、参照组，其中参照组（49 例/组，常规护理），实验组（49 例/组，基于以上内容进行全程健康教育模式），分析护理前后心理状态测评值、健康教育评分结果、生活质量测评值，满意率测评值。

结果 ①心理状态测评值，护理前，两组对比无差异（p>0.05），护理后，实验组获值更理想，优于参照组，具备差异（P<0.05）；②实验组健康教育各项评分结果获值优于参照组，差异具有统计学意义（p<0.05）；③实验组生活质量测评值所获值更高，优于参照组，组间对比（P<0.05）；④实验组总满意率更高，均优于参照组，组间对比（p<0.05）。

结论 临床上针对收治的非自杀性自伤患者开展全程健康教育模式，有助于心理状态的调整，患者能够主动的倾述，自伤行为减少，提升生活质量和自我概念，进而提升了患者满意率，值得普及和应用。

结论 临床上针对收治的非自杀性自伤患者开展全程健康教育模式，有助于心理状态的调整，患者能够主动的倾述，自伤行为减少，提升生活质量和自我概念，进而提升了患者满意率，值得普及和应用。

关键字：全程健康教育模式；非自杀性自伤；心理弹性

优化心理危机干预在青少年抑郁障碍伴非自杀性自伤行为中的应用效果

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目的 探讨优化心理危机干预在抑郁障碍伴非自杀性自伤行为青少年中的应用效果。

方法 选取 2019 年 2 月~2021 年 2 月我院精神心理科收治的 82 例抑郁障碍伴非自杀性自伤行为青少年患者为研究对象,采用随机双盲对照法将其分为对照组与研究组,各 41 例;对照组开展常规护理干预，研究组则在对照组的基础上增用优化心理危机干预，干预 3 个月后，分析两组干预前后汉密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD）评分变化情况，护理满意度及护理依从度变化。

结果 ①两组 HAMA、HAMD 评分对比：干预后研究组汉密尔顿焦虑量表（HAMA）、汉密尔顿抑郁量表（HAMD）评分均低于对照组（均 P＜0.05）.②两组护理满意度方面，研究组高于对照组（P＜0.05）.③两组护理依从率对比，研究组高于对照组（P＜0.05）。

结论 优化心理危机干预可有效缓解青少年抑郁障碍伴非自杀性自伤行为患者的焦虑、抑郁程度，减轻自我伤害行为,提升情绪控制能力，提高护理满意度和依从度，改善生活质量。

结论 优化心理危机干预可有效缓解青少年抑郁障碍伴非自杀性自伤行为患者的焦虑、抑郁程度，减轻自我伤害行为,提升情绪控制能力，提高护理满意度和依从度，改善生活质量。

关键字：优化心理危机干预 青少年 抑郁障碍 非自杀性自伤

分析青少年非自杀性自伤患者的心理护理效果评价

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目的 青少年非自杀性自伤行为是一个日益严重的健康问题，而且 NSSI 患者的护理方法正在发生变化，因此有必要对心理健康护士 (MHN) 照顾此类患者的经历进行定性研究。基于此，我们通过对非自杀性自伤的青少年患者进行心理护理，以评估其有效性和临床价值，明确心理护理在治疗 NSSI 方面的潜力。

方法 纳入 2021 年 3 月-2022 年 12 月至我院就诊的非自杀性自伤患者 80 例，将研究对象随机等比例分入研究组（常规护理+心理护理）或对照组（常规护理）。2 周后综合比较分析两组患者的自伤情况和心理症状。

结果 针对 NSSI 患者焦虑、抑郁的易感因素及相关因素，对研究组进行系统的心理护理。干预 2 周后，研究组患者的自伤情况明显优于对照组，两组间差异有统计学意义（P<0.05），同时，干预后，研究组患者的心理症明显轻于对照组，两组间差异有统计学意义（P <0.05）。

结论 通过专业的心理干预，护士能够给予患者更多的照顾，并通过护患有针对性的沟通，使患者得到缓解。同时，集体心理治疗使兴趣爱好不多的非自杀性自伤患者在同伴的影响下重新找到了自己的兴趣爱好。综上所诉，给予青少年非自杀自伤患者心理护理，可有效降低患者焦虑和抑郁的负面情绪，减少自伤频率和

程度，值得临床推广。

关键字：青少年；非自杀性自伤；心理护理；自残；负面情绪

接纳与承诺疗法对广泛性焦虑症患者的心理灵活性、负性情绪与睡眠质量的影响

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目的 探讨接纳与承诺疗法对广泛性焦虑症患者的心理灵活性、负性情绪与睡眠质量的干预效果。

方法 选取2022年1月至2022年12月在本院收治的符合纳入标准的广泛性焦虑症患者，按照组间资料均衡可比的原则分为观察组和对照组，每组 42 例。对照组采用精神科常规护理，观察组在对照组基础上行接纳与承诺疗法干预，3 周后比较两组患者在干预前后其心理灵活性、负性情绪及睡眠质量方面的差异。

结果 两组干预后心理灵活性得分低于干预前，且观察组低于对照组，差异有统计学意义（P＜0.05）；焦虑自评量表（Self-Rating Anxiety Scale，SAS）与抑郁自评量表(Self-Rating Depression Scale，SDS）得分、匹兹堡睡眠质量指数量表总分及各维度（除睡眠障碍、催眠药物维度外）得分观察组低于对照组得分，差异有统计学意义（均 P＜0.05）。

结论 通过对广泛性焦虑症患者实施接纳与承诺疗法，有利于提高广泛性焦虑症患者的心理灵活性水平，改善负性情绪，提升睡眠质量，对促进患者恢复身心健康有重要意义。但本研究观察时间较短，日后有待进一步延长观察周期进行深入研究。 目的 探讨接纳与承诺疗法对广泛性焦虑症患者的心理灵活性、负性情绪与睡眠质量的干预效果。

方法 选取2022年1月至2022年12月在本院收治的符合纳入标准的广泛性焦虑症患者，按照组间资料均衡可比的原则分为观察组和对照组，每组 42 例。对照组采用精神科常规护理，观察组在对照组基础上行接纳与承诺疗法干预，3 周后比较两组患者在干预前后其心理灵活性、负性情绪及睡眠质量方面的差异。

结果 两组干预后心理灵活性得分低于干预前，且观察组低于对照组，差异有统计学意义（P＜0.05）；焦虑自评量表（Self-Rating Anxiety Scale，SAS）与抑郁自评量表(Self-Rating Depression Scale，SDS）得分、匹兹堡睡眠质量指数量表总分及各维度（除睡眠障碍、催眠药物维度外）得分观察组低于对照组得分，差异有统计学意义（均 P＜0.05）。

结论 通过对广泛性焦虑症患者实施接纳与承诺疗法，有利于提高广泛性焦虑症患者的心理灵活性水平，改善负性情绪，提升睡眠质量，对促进患者恢复身心健康有重要意义。但本研究观察时间较短，日后有待进一步延长观察周期进行深入研究。

关键字：接纳与承诺疗法；广泛性焦虑症；心理灵活性；睡眠质量；

叙事护理对恢复期精神分裂症患者的影响

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目的 精神分裂症是一种慢性疾病，病因不明,临床表现各异，受疾病的影响患者与他人共情能力丧失，本研究对恢复期精神分裂症患者施以叙事护理，旨在观察对患者精神症状、情绪状态的影响。

方法 选取 2022 年 1 月—2023 年 1 月本院收治的 90 例精神分裂症患者作为研究对象，根据随机数字表法将其分为试验组和对照组，每组各 45 例，对照组：采用常规护理，给予患者抗精神病药物治疗的同时辅以功能治疗，同时做好生活护理、安全护理、健康教育、康复指导等；观察组：在常规护理的基础上，采用叙事护理模式对患者进行指导，比较两组在情绪状态方面及精神症状方面的评分结果差异。

结果 两组护理后 HAMA、HAMA 评分较护理前均有降低，观察组降低幅度大于对照组，两组护理后 PANSS 阳性、阴性症状评分较护理前均有降低，观察组降低幅度大于对照组。

结论 精神分裂症病程迁延，进展缓慢，其病因尚不明确，多数学者认为，社会心理因素可能影响疾病发生、发展。精神分裂症患者由于长时间居处于密闭、狭小的空间，日常接触仅限于护理人员，社交范围小，使得患者性格极易发生转变，逐渐孤僻、自闭，自尊心逐渐降低，共情能力缺陷，社会功能越来越差。目前临床主要以药物治疗为主，能改善患者精神症状，但无法改善患者的适应力。叙事护理是当前全新的护理干预理念之一，主要通过采取叙事手段，引导患者自我倾诉、谈论自身经历、情感、生活等方面的问题，护理人员做到倾听、理解，产生情感共鸣，在充分尊重患者的前提下，引导患者走出原有不良状态，重新帮助其建立优良价值观的护理过程。有研究报告，针对恢复期精神分裂症患者施以叙事护理，有利于提升患者主观能动性，对患者恢复社会生活具有重要意义。本研究将其应用于恢复期精神分裂症患者，结果显示：观察组焦虑及抑郁评分、精神症状评分改善程度优于对照组，能够有效改善患者情绪状态及精神症状，最终改善患者共情能力，提高患者生活质量，有很好的临床意义及社会效益，值得推广。

关键字：叙事护理，恢复期，精神分裂症

家庭干预对社区精神分裂症患者康复的疗效

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目的 探讨家庭干预对社区精神分裂症患者康复的疗效及影响。

方法 本研究共纳入上海市虹口区 132 名门诊就诊社区康复的精神分裂症患者，采用随机数字表法，随机分配为干预组与对照组，对照组给与常规治疗及一般社区随访，干预组在此基础上实施 1 年的家庭干预治疗，使用阳性与阴性症状量表（PANSS）、社会支持评定量表（SSRS）、药物依从性量表（MARS）、社交回避及苦恼量表（SAD）和疾病家庭负担量表（FBS）分别评估其精神症状、社会支持情况、药物依从、社交能力及疾病家庭负担。

结果 两组治疗前各量表评分差异无统计学意义（P 均大于 0.05）。两组治疗后阳性症状、阴性症状、一般精神病理症状的得分均较治疗前有下降，且两组间差异有统计学意义（P<0.05）。社会支持评定量表在 3 个月后干预组较对照组分数明显上升，两组间差异有统计学意义（P<0.05）。治疗后 MARS 评分升高，两组间差异无统计学意义（P 大于 0.05）。SAD 和 FBS 评分降低，两组间差异无统计学意义（P 大于 0.05）。

结论 家庭干预能够有效改善社区精神分裂症患者的精神症状与社会支持状况，对服药依从性、社交能力及疾病家庭负担无明显影响。

关键字：社区； 精神分裂症；家庭干预；康复

探索虚拟现实在精神创伤康复中的新领域

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目的 虚拟现实技术在精神创伤康复中有多种应用方法，包括虚拟现实暴露疗法、虚拟现实认知行为疗法、虚拟现实情感调节训练等。这些方法可以根据患者的需求和症状进行选择和组合，实现更全面和个性化的康复效果。进一步的研究和实践将有助于揭示虚拟现实技术在精神创伤康复中的潜力，并为患者提供更好的康复支持和疗效，

方法 虚拟现实在精神创伤康复中的应用方法（虚拟现实暴露疗法、虚拟现实认知行为疗法、虚拟现实情感调节训练、其他虚拟现实应用方法）

结果 虚拟现实技术在精神创伤康复中展现出了巨大的潜力。通过模拟真实环境、个性化的康复体验以及提供安全和控制的治疗环境，虚拟现实技术可以帮助患者重新体验和处理创伤经历，减少创伤后的症状和困扰，提升康复效果。先前的研究和实践案例分析表明，虚拟现实在精神创伤康复中的应用已经取得了一些积极的结果；此外，虚拟现实在社交技能训练、认知训练和认知康复等领域也展现了一定的效果。然而，尽管取得了一些有希望的结果，虚拟现实技术在精神创伤康复中仍面临一些挑战和限制。还需要进一步的研究来探索虚拟现实技术的最佳应用方式、有效性和安全性。

结论 虚拟现实技术作为一种新兴的康复工具，在精神创伤康复中展现出了巨大的潜力。通过模拟真实环境、个性化的康复体验和提供安全的治疗环境，虚拟现实技术可以帮助患者重新体验和处理创伤经历，减少症状和困扰，并提升康复效果。先前的研究和实践案例分析表明，虚拟现实暴露疗法、虚拟现实认知行为疗法和虚拟现实情感调节训练等方法已被证明在精神创伤康复中具有积极的效果。然而，仍需要进一步的研究来深入探索虚拟现实技术的最佳应用方式、有效性和长期效果。对未来研究和实践的建议包括深入研究、考虑个体差异、关注长期效果和促进多学科合作。通过不断地探索和创新，虚拟现实技术将为精神创伤康复领域提供更多个性化、创新和有效的治疗选择，改善患者的康复和生活质量。

关键字：虚拟现实、精神创伤、康复

童年创伤对强迫症患者自我报告的认知灵活性的影响

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目的 认知缺陷可能在强迫症的发展和维持中发挥关键作用。强迫症所表现出的思维和行为的重复、不灵活，表明其缺乏认知灵活性。童年创伤对认知灵活性存在影响，但缺乏针对强迫症的研究。本研究旨在探讨童年创伤对强迫症患者自我报告的认知灵活性的影响。

方法 本研究采用横断面设计，共招募了 64 名符合 DSM-5 诊断标准的 OCD 患者和 64 名健康被试。使用自编的问卷收集每位被试的人口统计学资料和临床数据。应用 Yale-Brown 强迫量表（Y-BOCS）评估强迫症状的严重程度，贝克焦虑量表（BAI）评估焦虑水平，贝克抑郁量表-II（BDI-II）评估抑郁水平，认知灵活性量表（CFI）评估认知灵活性，童年创伤问卷（CTQ）评估童年创伤。

结果 OCD 组和对照组被试年龄（t=-5.882，p<0.001）、性别（$\chi2$=5.442，p<0.05）、婚姻（$\chi2$=8.127，p<0.001）存在显著性差异，教育程度无显著性差异（p>0.05）。OCD 组情感虐待（t=7.090，p<0.001）、躯体虐待（t=6.083，p<0.001）、性虐待（t=5.115，p<0.001）、情感忽视（t=5.328，p<0.001）、躯体忽视（t=5.789，p<0.001）各因子得分均显著高于对照组。OCD 组可选择性（t=-6.350，p<0.001）与可控性（t=-5.931，p<0.001）两个认知灵活性因子得分均显著低于对照组。控制年龄、性别、教育程度、婚姻、发病年龄、病程、焦虑情绪、抑郁情绪、药物治疗、心理治疗等变量后，OCD 组情感虐待、躯体虐待、性虐待、躯体忽视与可选择性因子呈显著负相关（均 p<0.05）；情感虐待、躯体虐待、性虐待、情感忽视、躯体忽视与可控性因子呈显著正相关（均 p<0.05）。

结论 我们的研究结果支持强迫症患者存在认知灵活性缺陷及更多的童年创伤。童年创伤对强迫症患者认知灵活性的不同维度均存在影响，但影响方式不一，存在分离现象。高水平的童年创伤使得强迫症患者更倾向于将困难情景看作是可控的，但又难以应用多种方式应对困难。

关键字：强迫症，认知灵活性，童年创伤

童年创伤经历对不同精神疾病患者精神症状的影响研究

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目的 探讨童年创伤经历对于不同精神疾病患者精神症状的影响

方法 采用童年创伤经历问卷、PANSS 量表、HAMD 量表、HAMA 量表、YMRS 量表，对不同精神疾病（包括精神分裂症、抑郁障碍、双相情感障碍）患者共计 149 人进行评估，其中包括精神分裂症患者 49 人，双相情感障碍患者 39 人，抑郁障碍患者 61 人，探讨童年创伤经历对不同精神疾病患者精神症状的影响。

结果 对于不同精神疾病患者构成的共同样本进行评估，研究结果显示：（1）对于以抑郁症状为主的个体，具有童年创伤经历的个体较无童年创伤经历的个体HAMD得分之间存在显著差异（t=2.074，P=0.042），进一步分析，结果发现，具有情感虐待的个体较无情感虐待的个体 HAMD 得分存在显著差异（t=2.189，P=0.032）；具有情感忽视的个体较无情感忽视的个体 HAMD 得分之间存在显著差异（t=2.159，P=0.034）。（2）对于以焦虑症状为主的个体，具有情感虐待的个体较无情感虐待的个体 HAMA 得分之间存在显著差异（t=-2.714，P=0.009）。（3）对于以躁狂症状为主的个体，具有情感虐待的个体较无情感虐待的个体 HAMA 得分之间存在显著差异（t=2.079，P=0.047）。（4）对于以阳性症状为主的个体，具有情感虐待的个体较无情感虐待的个体PANSS得分之间存在显著差异（t=2.871，P=0.006）；具有性虐待的个体较无性虐待的个体PANSS得分之间存在显著差异（t=2.255，P=0.029）。

结论 由精神分裂症患者、双相情感障碍患者、抑郁障碍患者构成的共同样本中，具有童年创伤经历和无童年创伤经历的个体，不同精神症状之间存在显著差异。

关键字：不同精神障碍；童年创伤经历；精神症状

童年创伤经历对不同精神疾病患者人格特质的影响研究

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目的 探讨童年创伤经历对于不同精神疾病患者人格特质的影响

方法 采用童年创伤经历问卷、大五人格特质问卷，对不同精神疾病（包括精神分裂症、抑郁障碍、双相情感障碍）患者共计 149 人进行评估，其中包括精神分裂症患者 49 人，双相情感障碍患者 39 人，抑郁障碍患者 61 人，探讨童年创伤经历对不同精神疾病患者人格特质的影响。

结果 （1）三种精神疾病患者在人格特质方面存在差异，主要表现在外向性方面，方差分析结果显示其 F 值分别为 4.046，P 值为 0.019，精神分裂症患者外向性得分高于其他疾病患者；（2）将不同精神疾病患者构建的共同样本进行评估，结果显示具有童年创伤经历的个体与无童年创伤经历的个体相比，人格特质方面存在显著差异，主要表现在：神经质、外向性、开放性、宜人性和责任心方面（t=-2.63、2.10、2.47、2.71、2.74；P=0.010、0.038、0.015、0.008、0.007）；进一步研究结果显示：具有情感虐待的个体较无情感虐待的个体人格特质在神经质、外向性、开放性、宜人性和责任心方面存在显著差异（t=-5.179、3.034、2.489、4.725、3.474，P=0.000、0.003、0.014、0.000、0.001）；具有情感忽视的个体和无情感忽视的个体在宜人性方面存在显著差异（t=2.356，P=0.020）；具有躯体虐待的个体较无躯体虐待的个体在宜人性方面存在显著差异（t=2.313，P=0.022）；具有躯体忽视的个体较无躯体忽视的个体在宜人性方面存在差异（t=2.591，P=0.011）；具有性虐待的个体较无性虐待的个体在外向性和宜人性方面存在显著差异（t=2.127、3.207，P=0.035、0.002）。

结论 （1）不同精神疾病患者人格特质之间存在差异，精神分裂症患者外向性得分高于双相情感障碍患者和抑郁障碍患者；（2）由精神分裂症患者、双相情感障碍患者、抑郁障碍患者构成的共同样本中，具有童年创伤经历和无童年创伤经历的个体，人格特质之间存在显著差异。

关键字：不同精神障碍；童年创伤经历；人格特质

青少年精神障碍患者噩梦困扰的多因素分析

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目的 探究与青少年精神障碍患者噩梦困扰相关的因素，并进行多因素分析。

方法 在山东省精神卫生中心门诊上选取 536 例 10-19 岁患有精神障碍的青少年填写噩梦困扰及其有关因素的问卷。用 t 检验或者卡方检验判断各个连续变量或者分类变量在有频繁噩梦和没有频繁噩梦的青少年精神障碍患者中有无显著差异。采用 spearman 相关性分析和线性回归对青少年患者的噩梦困扰分别进行单因素分析和多因素分析。

结果 t 检验和卡方检验的结果示有频繁噩梦和没有频繁噩梦的青少年患者之间年龄、性别、受教育程度、父母婚姻状况、抗焦虑药物服用、失眠症状、日间嗜睡、抑郁症状和噩梦困扰均有显著差异。单因素分析示噩梦困扰与有无频繁噩梦（r=0.638）、性别（r=0.286）、年龄（r=-0.092）、受教育程度（r=-0.106）、父母婚姻状

况（r=0.289）、抗焦虑药物的服用（r=0.130）、工作日的睡眠时间（r=-0.114）、失眠症状（r=0.572）、日间嗜睡（r=0.397）、抑郁症状（r=0.611）显著相关。线性回归分析示性别（β=4.416，p＜0.001）、有无频繁噩梦（β=10.954，p＜0.001）、失眠症状（β=0.356，p＜0.001）、抑郁症状（β=0.221，p＜0.001）与青少年患者噩梦困扰显著相关。

结论 主要与青少年精神障碍患者噩梦困扰相关的因素有性别、频繁噩梦、失眠和抑郁症状，临床工作中需要多关注有频繁噩梦、存在失眠和抑郁症状的患者以及女性青少年患者的噩梦困扰情况。

关键字：噩梦困扰；青少年；因素分析；频繁噩梦；失眠；抑郁

Symptom Networks of Posttraumatic Stress Symptoms During The COVID-19 First and Second Wave in Gansu, China

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Objective The COVID-19 pandemic-related stressors have induced posttraumatic stress symptoms (PTSD) among healthcare workers (HCWs) and general population. The purpose of this study was to investigate the network structure among the COVID-19-related PTSD symptoms in HCWs and community residents.

Methods Social demographic data and PTSD symptoms were collected from HCWs and community controls via the online survey. Wave 1 survey was conducted in 597 HCWs and 469 community controls from February 13th to 19th, 2020. And wave 2 survey was conducted in 428 HCWs from October 1st to 4th, 2021. Symptom networks were estimated using Gaussian graphical model (GGM), followed by power analysis and stability analysis. Network comparison was conducted to examine the difference in network properties between groups.

Results We found that the emotional response, including upset, irritability, and startle response played a central role during the first wave in both HCWs and community groups. The PTSD symptoms formed a denser network in HCWs compared with community controls. In addition, results indicated an increased role of the arousal symptoms during the second wave.

Conclusion The results provide further evidence on the impact of the COVID-19 pandemic on psychological stress among HCWs and community residents in Gansu province, and provide a basis for future targeted mental health interventions.

关键字：coronavirus disease 2019 (COVID-19); posttraumatic stress disorder (PTSD); symptom network; healthcare workers (HCWs).

精神心理从业者自我关怀教育研究

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目的 精神心理从业者的工作是帮助来访者化解压力源，在这个过程中很容易经历“二次创伤压力”，特别是疫情这几年来访者人数激增，因此自我关怀需要成为精神心理从业者关注的一个领域。我们针对精神心理从业者开设了一次自我关怀课程讲座，并探究讲座对该群体自我关怀能力提升的影响及相关影响因素，了解今后该如何完善课程，并关更好的提升从业者自我关怀能力。

方法 招募了 334 名各行业精神心理从业者，在课程开始前收集了参与者的人口统计学信息，在课程开始前后使用自我关怀量表（ESCA）对其进行评估，评价该课程对这一群体自我关怀能力提升的影响，分析提升差异的相关因素。课程结束一年后，为他们发放了一份关于课程效果的调查问卷，以此来评估本次自我关怀教育的长期效果。

结果 课程结束后，从业者自我关怀得分增加，增加程度在性别与工作年限维度上有显著性差异性差异（p＜0.05），具体表现为：女性和工作年限较长的治疗师的 ESCA 得分提高更显著。一年后的调查显示，本次自我关怀教育的长期效果较好。

结论 研究结果表示，自我关怀教育可以显著提高精神心理从业者的自我关怀能力，其提高程度与性别和工作年限有关。在未来为从业者规划自我关怀或其他干预手段时应考虑到这些因素。同时，自我关怀教育的长期效果也是显著的，即使在一年后，它对大多数参与者仍有积极影响。

关键字：精神心理从业者；自我关怀；二次创伤压力

童年期累积创伤对抑郁症患者功能失调性态度的影响

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目的 探讨童年期累积创伤对抑郁症患者功能失调性态度的影响。

方法 采用简单随机抽样在河北省精神卫生中心门诊及住院患者中选取抑郁症患者 53 名，采用童年期创伤问卷（CTQ-SF），功能失调性态度量表（DAS），汉密尔顿抑郁量表（HAMD-17）对抑郁症患者进行测评，根据童年创伤问卷将抑郁症患者分为三组，其中无童年创伤抑郁症患者 16 名，单一童年创伤抑郁症患者 18 名，累积童年创伤抑郁症患者 19 名。采用 SPSS26.0 对结果进行分析，采用方差分析比较三组患者的功能失调型态度总分及各维度得分的差异，采用 LSD 检验进行事后检验。

结果 方差分析显示，三组患者的功能失调性态度总分差异显著（F＝5.961，P＜0.05），除强制性和依

赖性维度外，在其他维度脆弱性、吸引和排斥、完美化、寻求赞许均显示差异显著（F＝3.802，5.539，6.571，3.534，4.418，3.049，P＜0.05）。事后检验分析，累积创伤抑郁症患者在功能失调性态度总分、完美化维度、自主性态度维度和认知哲学维度的得分显著高于无童年创伤抑郁症患者和单一童年创伤抑郁症，在脆弱性维度、吸引和排斥维度和寻求赞许维度上累积创伤抑郁症患者的得分显著高于无童年创伤抑郁症患者，单一童年创伤抑郁症患者与其他两组患者无显著差异。

结论 童年期累积创伤的抑郁症患者功能失调性态度总分及完美化、自主性态度和认知哲学维度的得分显著高于无童年创伤和单一创伤抑郁症患者，童年期累积创伤抑郁症患者的认知歪曲更严重。

关键字：童年期累积创伤；功能失调性态度；抑郁症

The Prevalence and Correlated Factors of Suicidal Ideation Among 1289 Chinese Detainees

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Objective Suicidal ideation is a predictor of suicidal behavior and is a serious concern among prisoners, with suicide being the most frequent unintentional cause of death. However, there is limited research on suicidal ideation among Chinese detainees.?This study aimed to determine the prevalence of suicidal ideation and associated risk factors among Chinese detainees.

Methods A cross-sectional investigation was conducted in a Shandong Province detention center from January 1 to January 15, 2020. A total of 1,289 participants completed questionnaires assessing demographic characteristics, criminal justice variables, health history, family context, social support, and personality traits.?The Childhood Trauma Questionnaire (CTQ) was used to assess childhood trauma. Using the Self-rating Idea of Suicide Scale (SIOSS) to screen for suicidal ideation. Stepwise logistic regression was conducted for multivariate analysis. The analysis was conducted using the statistical software SPSS 23.0 version.

Results 31% of all participants reported suicidal ideation. Suicide attempts (OR = 3.79, 95% CI: 2.51 ~ 5.72), psychological stress (OR = 3.31, 95% CI: 2.13 ~ 5.14), irritability (OR = 2.25, 95% CI:1.09 ~ 4.67), physical neglect (OR = 2.05, 95% CI:1.39 ~ 3.01), family relationship (OR = 1.60, 95% CI: 1.05 ~ 2.45), and help-seeking (OR = 0.64, 95% CI: 0.43 ~ 0.94) were associated with the suicidal ideation in detainees.

Conclusion The prevalence of suicidal ideation was high in detainees. We need to make early identification tools and screening strategies to prevent suicidal ideation and even behaviors in detainees.

关键字：Suicidal ideation; Detainees; Correlated factors

心理护理对肿瘤内科患者癌痛程度与生存质量的影响

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目的 研究分析心理护理干预对肿瘤内科患者癌痛程度和生存质量的相关影响。

方法 选取 2021 年 9 月至 2022 年 9 月，入住本院肿瘤内科的癌痛患者 60 例为研究对象，通过随机数字表法进行分组，分为对照组和试验组，每组各 30 例。对照组采取常规护理干预，内容包括：护理人员每日三次评估患者疼痛及病情变化，同时给予患者必要的生活、饮食及活动指导，并为患者提供用药指导，告知患者以及家属在治疗中以及生活中的相关事宜等。试验组在常规护理干预的基础上加入心理护理干预，具体护理内容包括：①构建良好护患关系：患者入院后，护理人员对患者开展必要的健康宣教，交流语气和蔼亲切，让患者保持舒适、轻松的状态，进一步消除护患间的距离感，提升患者信任度。②树立患者治疗信心：护理人员需要向患者讲解主要治疗方式，使患者意识到坚持治疗的有效性和必要性，增强患者信心。③心理调适：根据患者的兴趣和爱好，指导患者通过听音乐、看视频、玩游戏等方式放松心情，转移注意力。指导患者进行针对性放松训练。 干预前、干预后 1 月评估两组患者的疼痛程度、心理情绪评分和生存质量。

结果 试验组患者的重度癌痛发生率显著低于对照组；焦虑（SAS）以及抑郁（SDS）评分均低于对照组；生存质量评分高于对照组，有显著统计学意义（P＜0.05）。

结论 对于肿瘤内科癌痛患者采取心理护理十分重要，对患者的负面情绪进行调节和疏导，使患者保持良好的心态，积极进行治疗，同时能够缓解患者的癌性疼痛，对于提升患者的生存质量具有积极意义，在临床中具有推广应用价值。

关键字：心理护理；肿瘤内科；癌痛程度；生存质量

Prevalence of Severe Anxiety and Related Factors Among Chinese Medical Students During The COVID-19 Epidemic

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Objective Medical students were the student population closest to the COVID-19 outbreak. The outbreak caused great psychological stress to medical students, which might increase their anxiety rates. Therefore, the aim of this study was to investigate the prevalence of anxiety and related factors among Chinese medical students during the epidemic.

Methods This cross-sectional survey involved 538 medical students from different provinces in China. Participants answered a questionnaire package that included the Self-Rating Anxiety Scale (SAS) as well as a questionnaire asking for basic information. Binary logistic regression was used to identify factors associated with severe anxiety in participants.

Results We received a total of 538 responses from medical students from different provinces in China. The mean total SAS score was 60.65, indicating that the overall sample in this study was at a moderate level of anxiety. Further statistics revealed that the prevalence of severe anxiety, moderate anxiety, and mild anxiety among the participants in this study was 29.7% (n=160), 19.0% (n=102), and 28.8% (n=209), respectively. In addition, regression analysis revealed that introversion (OR = 0.422, 95% CI = 0.277 - 0.642) and being in love (OR = 2.497, 95% CI = 1.574 - 3.959) were risk factors for increasing severe anxiety in medical students. After calculating the area under the receiver operating characteristic (ROC) curve, we found that the area under the ROC curve for the combination of personality and being in love or not was 0.656 (P<0.001, 95% CI:0.606 - 0.706).

Conclusion Chinese medical students were experiencing severe anxiety during the COVID-19 outbreak. Introversion and being in love were risk factors for severe anxiety during the epidemic among Chinese medical students. It is suggested that medical schools should pay attention to introverted medical students who are in love and provide mental health support when necessary.

关键字：Anxiety; Medical students; COVID-19

A Study on Perimenopausal Symptoms and Relevant Factors

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Objective This study aimed to explore the relevant factors of perimenopausal symptoms.

Methods Participants were volunteers from a community. The modified Kupperman Index was used to evaluate perimenopausal symptoms, Zung Self-Rating Depression Scale (SDS) for depressive symptoms, and Zung Self-Rating Anxiety Scale (SAS) for anxiety symptoms. Eysenck Personality Questionnaire (EPQ) was used to evaluate personality characteristics, and Metacognition Questionnaire-30 was used to assess metacognition. Meanwhile, plasma gonadal hormones, such as estradiol, testosterone, and progesterone, were determined.

Results Among 66 perimenopausal female participants, 60.4% had perimenopausal symptoms. Neuroticism score (EPQ-N) (β'=0.419, P<0.001), SDS anxiety factor score (SDS-A) (β'=0.363, P<0.001), and Age (β'=0.211, P=0.029) were correlated with the total KI score. Age (β'=0.482, P<0.001), SDS-A (β'=0.276, P=0.006), SDS core factor score (β'=0.208, P=0.026) and EPQ-N (β'=0.226, P=0.025) were associated with the genitourinary symptoms. EPQ-N (β'=0.247, P=0.048), Lie score (β'=-0.272, P=0.024), and SDS-A (β'=0.287, P=0.010) were associated with mental symptoms. SAS total score (β'=0.277, P=0.029) and SDS-A (β'=0.254, P=0.045) were correlated with somatic symptoms.

Conclusion Perimenopausal women with higher anxiety, neuroticism personalities, and older age easily suffer from perimenopausal symptoms.

关键字：Perimenopause; Anxiety disorder; Personality; Metacognition

绘画心理治疗应用于心境障碍患者 1 例

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目的 探讨绘画心理学在心境障碍患者中的应用价值和意义。

方法 本案例先采用"房树人"绘画特征评估患者的压力源、人格特征及社会支持背景，然后再采用"雨中人"绘画特征进行压力筛查，最后根据雨中人的绘画内容，采用绘画心理学的增减技术进行干预。

结果 通过该患者"房树人"绘画内容整体：大小、位置、线条、色彩；绘画过程：绘画时间、先后顺序、有无涂抹；房子、树木、人物以及所有附属物，可以分析出患者个性强、独立、担当、有能力，不善于交际；压力来源于家庭及工作的时间分配不均，而且管理不当，同时家庭给予支持不足，导致情绪失控；"雨中人"压力筛查中，通过"雨本身、人本身、人的感受、遮雨物本身、遮雨物有效度、绘画先后顺序"6 个方面进行细节分析，内容暗示着该患者目前压力大，但有方法解决，而且方法有效，然后通过增减技术的正向、积极强化等，提炼出绘画内容的象征意义，帮助患者找到现实当中的解决方法。

结论 绘画心理学通过潜意识的外显化，探索内心深层次的资源。通过"房树人"、"雨中人"的绘画心理分析和治疗，可以帮助心境障碍的患者宣泄压力和情绪，找到压力源，并且可以找到实际解决压力的具体方法，从而促进病情的恢复，可以在临床工作中推广。

关键字：绘画心理 心境障碍 房树人 雨中人 压力

非侵入神经调控治疗创伤后应激障碍研究进展

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目的 创伤后应激障碍（PTSD）会损害患者注意力、记忆力和执行等功能，引起异常的脑活动及脑区间功能连接. 虽然目前的药物治疗和心理干预可以达到一定的治疗效果，但存在药物副作用和延迟起效等问题。因此，需要结合非侵入性脑刺激技术进行综合治疗以期达到更好的治疗效果。

方法 非侵入性脑刺激技术(NIBS)是一种新型的治疗技术，安全性高，疗效好，副作用少，在 PTSD 治疗上有很好的应用前景，其包括经颅磁刺激、经颅电刺激、光照治疗、脑电图神经反馈等技术。本文通过对主要在线数据库的文献检索，从最初的研究到近期的非侵入性脑刺激技术对 PTSD 的治疗情况进行广泛的、综合的、系统的描述。

结果 在众多的非侵入性脑刺激技术中，重复经颅磁刺激（rTMS）治疗和经颅直流电（tDCS)治疗对PTSD的治疗疗效较为不错。对于常规rTMS治疗PTSD目前研究较多，有效性明显，主要治疗部位为背外侧前额叶，且高频、低频均有一定的疗效，但需注意可结合新的TBS模式进行治疗。关于经颅电刺激治疗PTSD，研究表明 tDCS 治疗 PTSD 也有一定的疗效。

结论 对于 PTSD 的治疗，目前有效的方式并不多，药物治疗及心理治疗均有一定的局限性，因此对于精神科医生而言，关于 PTSD 的患者的治疗，不论门诊或住院患者，及时结合上述非侵入性神经调控技术对患者进行综合治疗显得尤为重要。而且非侵入性神经调控技术正在大力发展中，目前我们有更为先进的经颅磁刺激技术，比如深部经颅磁及导航经颅磁治疗，但目前深部经颅磁及导航经颅磁治疗 PTSD 尚处于起步阶段，未来可深入研究。对于经颅磁刺激结合 PTSD 脑网络变化进行治疗效果预估会更佳。

关键字：创伤后应激障碍；非侵入性神经调控技术；经颅磁刺激；经颅直流电；治疗

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