

EPV0364

Oxidative Stress and Cortical Thickness in the Psychosis Spectrum: Investigating Glutathione Metabolism and Antioxidant Defenses in Youth

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Introduction: Oxidative stress, particularly through disruptions in glutathione metabolism and Total Antioxidant Capacity (TAC), has been implicated in cortical thinning and other brain structural changes seen in psychosis. These changes may be more pronounced in the early psychosis spectrum, but this relationship remains underexplored.

Objectives: This study investigated the relationships between key oxidative stress markers—reduced glutathione (GSH), oxidized glutathione (GSSG), the GSH/GSSG ratio, and TAC—and cortical thickness in the cingulate, insula, and fronto-temporal brain regions.

Methods: A total of 57 youths on the early psychosis spectrum and 44 healthy controls participated, with a mean age of 15.51 years. There were no significant differences in age or sex between the groups. Cortical thickness was measured using MRI, and blood samples were analyzed for oxidative stress markers. Partial correlations were performed, controlling for total intracranial volume, age, and sex, to examine the relationships between oxidative stress markers and cortical thickness. A permutation analysis was then conducted to assess group differences in these associations.

Results: In healthy individuals, a higher GSH/GSSG ratio was significantly associated with increased cortical thickness in the right insula ($r = 0.50$, $p < 0.05$). Conversely, in the early psychosis spectrum group, there was a consistent trend of negative correlations between TAC and cortical thickness, particularly in the left frontal cortex. Permutation analysis revealed significant group differences in the association between GSH and cortical thickness in both the left insula and left temporal regions ($p < 0.05$). Additionally, TAC showed significant differences in its relationship with cortical thickness in the left and right frontal regions ($p = 0.01$ and $p < 0.05$), indicating asymmetrical oxidative stress involvement across hemispheres in the early psychosis spectrum group compared to healthy controls.

Conclusions: These findings suggest that oxidative stress markers, particularly related to glutathione metabolism and TAC, are linked to regional cortical thickness variations. The results highlight distinct oxidative stress effects in the early psychosis spectrum compared to healthy individuals, emphasizing the potential role of oxidative stress markers as early indicators of neuroanatomical changes in psychosis.

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EPV0365

A Multilevel Investigation of Conduct Problems in Adolescents: Insights from Neural, Cognitive, and Environmental Perspectives

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Introduction: Conduct problems (CP) in adolescents are associated not only with long-term personality and social development challenges, but also impose significant burdens on families, schools, and communities.

Objectives: While numerous risk factors for CP have been identified in prior research, a comprehensive understanding of the underlying deficit mechanisms remains incomplete.

Methods: Utilizing data from the Adolescent Brain Cognitive Development (ABCD) study ($N = 11,875$), the largest longitudinal investigation of brain development and child health in the United States, we conducted a systematic analysis of the neural, cognitive, and environmental features linked to CP. The findings were further tested for generalizability across diverse cross-cultural datasets.

Results: Our results propose a novel framework that accounts for cognitive deficits associated with CP, while also highlighting the interactions between biological and environmental factors in the development and potential remission of CP in adolescents.

Conclusions: These insights provide valuable directions for future research and intervention strategies targeting adolescent conduct problems.

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EPV0367

Focusing on ADHD: Analyzing Five-Year Search Trends

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Introduction: An estimated 10% of children in the United States carry a diagnosis of ADHD (Li *et al.* JAMA Netw Open 2023; 6). Parents, caregivers, and children themselves utilize search engines to better understand their diagnosis and treatment options as well as discover other resources such as finding providers or support groups. Furthermore, evaluating search trends may elucidate individual and societal barriers towards accessing treatment. (Zhao *et al.* Adm Policy Ment Health 2022; 49 357–373)

Objectives: This study examines Google search trends for the term “ADHD” from 2019 to 2023 to shed light on public interest and awareness patterns.

Methods: A Google Trends search was performed for the term “ADHD” in the global search database from 2019 to 2023. Weekly absolute search volumes were exported for each year. A one-way ANOVA calculation including Tukey HSD was conducted using Social Science Statistics’ calculator, which was cross referenced with AAT Bioquest’s calculator.

Results: The ANOVA analysis revealed significant differences in the number of searches across the five different years. The f-ratio value is 689.19733. The p-value is $< .00001$. Post hoc comparisons using the Tukey HSD test indicated that search results differed significantly from among all years except between the years 2019 and 2020. The average number of searches steadily increased from $M_{2019} = 278201.4839$, $SD_{2019} = 38184.594$ and $M_{2023} = 642020.8824$, $SD_{2023} = 33099.9021$. There is a relatively steady level of interest in the search term throughout the year with slight fluctuations. Seasonal trends were examined, showing an increased number of searches in February, October, and June, and decreased searches in December.

Conclusions: Both the overall and temporal trends described in this study have important clinical ramifications. The general increase in search trend frequency suggests increased awareness not due to a significant change in prevalence. The seasonal trends noted above suggest that the increased search frequency is related to school-related activities, particularly year-end exams in June, while the decrease in December may reflect the shift in focus from academics during the holiday break. This study highlights the importance of having evidence-based resources be accessible and understandable to the general public

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EPV0368

Language of Anxiety on Social Media: Distinguishing “Anxious” from “Nervous” in Youth Conversations

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Introduction: Social media has evolved into a primary arena for mental health discussions, with particular relevance to youth who engage extensively in online spaces. This study seeks to investigate how distinct language choices—specifically the terms “anxious” and “nervous”—influence the tone, themes, and context of discussions around anxiety.

Objectives: By examining the frequency and context of these terms in social media posts, this study aims to shed light on how language affects the portrayal of anxiety and, potentially, the associated experiences. We hypothesize that understanding these differences can provide valuable insights into public perceptions especially with younger audiences.

Methods: We conducted a targeted search of X (formerly Twitter), focusing on posts that included either the term “anxious” or “nervous,” filtered for English-language content to ensure relevance to a broader audience. The top 100 tweets containing each term were then subjected to a sentiment analysis to assess the emotional

tone of the content. Additionally, a word cloud generator was used to identify the most frequently associated terms, with connecting words excluded to maintain clarity in theme identification.

Results: Posts containing the term “anxious” often reflected intense personal distress, introspection, and struggles with internal emotions. The most commonly associated terms included “feel” (mentioned 19 times), “god” (16), “like” (15), “can” (14), “don’t” (14), and “stressed” (8), each of which underscored the personal and often existential nature of these expressions. The frequent presence of terms such as “always,” “day,” “got,” “walk,” “hate,” and “sad” further emphasized the internalized and enduring aspects of anxiety, suggesting more persistent or generalized anxiety concerns. On the other hand, posts containing the term “nervous” were more likely to relate to situational anxiety, external circumstances, or performance-based fears. The most frequently appearing words alongside “nervous” included “system” (15 mentions), “can” (13), “just” (9), “like” (8), and “people” (7), indicating that these posts often referenced responses to specific events or temporary stressors. Notably, terms like “first,” “lot,” “making,” “now,” and “video” suggest that individuals using “nervous” may be describing anxiety linked to immediate, often identifiable stressors, as opposed to the more generalized or chronic anxiety depicted in “anxious” posts.

Conclusions: This study underscores the significance of linguistic nuances in mental health conversations on social media and highlights how the choice of words—such as “anxious” versus “nervous”—can shift both the perceived and intended meaning of these discussions. By understanding these subtle differences, mental health professionals, educators, and content creators can develop resources and messaging that are more attuned to the experiences and language of youth.

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EPV0369

Emotional dysregulation in a sample of adolescent inpatients: clinical and psychopathological characterization

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Introduction: Emotional dysregulation is an unhealthy emotional response to stimuli and a common reason for adolescent hospitalization. Linked to disorders like depression, borderline personality disorder, childhood trauma, and eating disorders, understanding its underlying causes may improve outcomes and prevent relapse.

Objectives: The aim of this study is to characterize emotional dysregulation among adolescent inpatient.

Methods: Our study involves inpatients (16-24 years) hospitalized at our Transitional Psychiatric ward in Ancona (Università Politecnica delle Marche, Italy). The used rating scale were: Temperament Evaluation in Memphis, Pisa and San Diego (TEMPS-M), Difficulties in Emotion Regulation Scale (DERS), Barratt Impulsiveness Scale-11 (BIS-11), Toronto Alexithymia Scale-20 (TAS-20), Aggression Questionnaire (AQ). Descriptive analysis, simple and multivariate linear regression analysis were conducted.

Results: 97 adolescent patients were admitted from February 2022 to March 2023. The mean age of the sample is 17.3 ± 1.9 . The mean score to the BPRS is 43.9 ± 10.3 . The 70.7% (n=70) of the sample are