



Letter to Editor: Integrating Biochemical Parameters into the Psychological Assessment of Alcohol Dependence

Editöre Mektup: Alkol Bağımlılığının Psikolojik Değerlendirmesine Biyokimyasal Parametrelerin Entegrasyonu

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I read with great interest the study titled “The Relationship Between Childhood Traumatic Experiences and Obsessive Beliefs in Alcohol Use Disorder” by Kiraz and Çelik, which highlights the psychological interplay between obsessive beliefs, childhood trauma, and alcohol use disorder (AUD) (1). This study makes a significant contribution to our understanding of the psychological dimensions of AUD. Although this study provides valuable insights into psychological factors such as anxiety and depressive symptoms, it also highlights the need for further research integrating psychological assessments with biochemical markers. Exploring the interplay between these domains could enrich our understanding of AUD and its underlying mechanisms. Biochemical parameters, such as cortisol, dopamine, serotonin, and inflammatory markers, offer a promising avenue for future research (2). For example:

Stress Hormones: Chronic stress stemming from childhood trauma often affects the hypothalamic-pituitary-adrenal (HPA) axis, leading to altered cortisol levels. Investigating how these hormonal changes correlate with obsessive beliefs and addictive behaviors may reveal potential biomarkers for risk or progression (3).

Neurotransmitters: Abnormal activity in dopaminergic pathways, particularly involving the nucleus accumbens, is closely tied to the reward mechanisms implicated in AUD. Future studies could explore whether this neurochemical dysregulation is also connected to obsessive-compulsive tendencies in AUD patients (4).

Inflammatory Markers: Elevated levels of CRP or IL-6, markers of systemic inflammation, are frequently linked to childhood trauma and mental health disorders. Evaluating their relationship with obsessive beliefs and addiction severity could shed light on the physiological impact of trauma (5).

Oxidative Stress: Markers of oxidative damage, such as malondialdehyde (MDA), or antioxidant enzyme levels like superoxide dismutase (SOD), might help in understanding how physiological stress interacts with psychological vulnerabilities to drive AUD pathology (6).

Integrating these biochemical parameters into future research could provide a more comprehensive perspective on AUD etiology. Such interdisciplinary

approaches would enable the development of targeted interventions that address both psychological and physiological dimensions, potentially improving therapeutic outcomes for individuals with AUD. I commend the authors for their groundbreaking work and hope these suggestions inspire future studies that expand on this valuable foundation by integrating biochemical parameters to deepen our understanding of addiction and related psychological factors.

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