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Childhood-Onset Attention-Deficit/Hyperactivity Disorder Exacerbates Opioid Use Disorder Consequences: Mediation by Impulsive Phenotypes

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Abstract

Background: Attention deficit hyperactivity disorder (ADHD) is highly prevalent and associated with opioid use disorder (OUD). Yet, little is known about the mechanisms by which ADHD (which is a heterogeneous construct/diagnosis) might alter the trajectory of OUD outcomes.

Aim: This cross-sectional study examines relationships between childhood ADHD (inferred as predated substance use) and the extent to which the effects of ADHD on lifetime heroin-use consequences are mediated by foreshortened time perspective and drug-use impulsivity.

Methods: Individuals who report heroin use ($N=214$) were screened using the Assessment of Hyperactivity and Attention (AHA), Impulsive Relapse Questionnaire (IRQ), Stanford Time Perception Inventory (STPI), and a comprehensive assessment of lifetime and current substance use and substance-related consequences.

Results: Relative to participants whose AHA scores did not meet criteria for lifetime ADHD diagnosis ($n=88$), those with persistent ADHD (childhood and adult, $n=62$) endorsed significantly more total lifetime heroin-use consequences despite comparable heroin-use severity. Likewise, there was a significant indirect effect of the combined ADHD subtype in childhood on lifetime heroin-use consequences. This effect was mediated by STPI scores indicating less future (and more hedonism in the present) temporal perspective and by IRQ scores indicating less capacity for delaying drug use.

Conclusion: The combined ADHD subtype in childhood is significantly associated with lifetime heroin-use consequences, and this effect is mediated through higher drug-use impulsivity (less capacity for delay) and lower future temporal perspective.

Keywords: ADHD; heroin; opioid use disorder; impulsivity; time perspective

222 words