

Abstract

Mechanisms linking childhood adversity to alcohol or cannabis use disorder in young adulthood

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APHA's 2019 Annual Meeting and Expo (Nov. 2 - Nov. 6)

Background: Childhood adversity may increase risk for substance use disorders (SUDs) in young adulthood through a variety of mechanisms, including early initiation of harmful substance use and development of mental health problems in adolescence. However, it is unclear whether these mechanisms vary across individuals who experienced different trajectories of childhood adversity or by sex.

Methods: Using prospectively collected data from the Avon Longitudinal Study of Parents and Children, we examined the association between trajectories of childhood adversity from birth through age 11.5 and DSM-IV alcohol or cannabis use disorder at age 22. We evaluated self-reported regular alcohol use prior to age 13, use of cannabis and other “hard” drugs prior to age 15, and depressive symptoms at age 16 as potential mediators.

Results: Of 2,675 young adults, 13.2% met criteria for alcohol or cannabis use disorder at age 22 (10.6% of females, 18.2% of males). Adjusting for sex and maternal substance use during pregnancy, risk for alcohol or cannabis use disorder was elevated among participants with stable-mild adversity throughout childhood (aOR=1.35, 95% CI=1.06-1.74), decreasing adversity from moderate levels after birth to mild levels by late childhood (aOR=1.79, 95% CI=1.17-2.74), and stable-high adversity (aOR=2.26, 95% CI=1.08-4.71), all compared to those with stable-low adversity. Early-onset substance use and depressive symptoms together explained 23-33% of the relation between childhood adversity trajectories and subsequent SUD. Girls who experienced stable-high childhood adversity had particularly increased risk of early onset substance use, which explained 36% of the increased risk for SUD in this group.

Conclusions: Early initiation of substance use and depressive symptoms during adolescence mediate the relation between childhood adversity trajectories and SUD in young adulthood, especially for girls who experienced chronically high levels of childhood adversity. Early intervention among children exposed to adversity in early life is needed to prevent progression to SUD.

Epidemiology Public health or related research

