Adverse childhood experiences (ACEs) partially account for racial disparities in lifetime cocaine disorders among US adults entering midlife: A 35-year prospective study

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Overview

In response to the shifting patterns of substance use problems (SUPs) and the growing U.S. population diversity, we aimed to (a) investigate racial differences in SUPs and (b) determine the extent to which early life stressors account for these disparities.

Background

- Despite having relatively comparable substance use rates to Whites, Blacks are disproportionately burdened by deleterious consequences associated with substance use, including higher rates of drug overdose mortality, incarceration, and stigmatization (Friedman et al., 2022; Kleinman & Morris, 2021; Zapolski et al., 2014).
- More comprehensive and rigorous research is needed to advance our understanding of the multifaceted factors underlying racial disparity in SUPs.

Methods

- Data were obtained from Providence, Rhode Island, site of the National Collaborative Perinatal Project (N=720).
- Participants who were not identified as either Whites or Blacks, or had missing data across all observations were removed, resulting in a total of 696 participants.
- A structured diagnostic interview was used to assess the lifetime history of SUPs.
- Presence of abuse or dependence on cocaine, marijuana, and alcohol were determined as cocaine use disorder, marijuana use disorder, and alcohol use disorder, respectively.
- Descriptive statistics, including chi-squared analyses were performed to determine whether the prevalence of SUPs differed by race.

Results

- Relative to Whites, Blacks reported an elevated risk for lifetime cocaine abuse, dependence, and cocaine use disorder (See Fig 1).
- Black participants were of significantly lower socioeconomic status (SES); but by adulthood, no such difference was observed for educational attainment, household income, and employment status.
- After accounting for sex and childhood SES, Blacks had 1.29 times the risk of developing lifetime cocaine abuse and 1.58 times the risk of developing lifetime cocaine dependence.
- After accounting for ACEs composite score, the effect on the race risk ratio(RR) for cocaine abuse is 0.93, i.e., a 7% reduction and the race RR for cocaine dependence is 0.89 i.e., 11% reduction. The proportion of excess risk mediated through ACEs is 31% for both cocaine abuse and dependence (See Tables 2 & 3).
- In separate models, adjusting for financial hardship, in addition to race, sex, and SES, similarly reduced the effect on the race RR for lifetime cocaine abuse and dependence by 1.94% and 4.92%, respectively and accounting for transition to single parent household resulted in a 1.55% and 5.49% reduction in cocaine abuse and dependence, respectively.
- Despite these reductions, the racial differences remained significantly elevated for lifetime cocaine dependence for these separate models.

Conclusions

Our findings highlight the importance of early screening for ACEs to capitalize on critical opportunities for prevention, early detection, and empirically supported and culturally effective interventions targeting early ACEs, including financial hardship and single parent household to mitigate both the magnitude and racial disparities of cocaine use disorders.

References