Child Abuse and Chronic Sleep Problems: Investigating the Mediating Role of Negative Affect – Findings from the Midlife in the United States (MIDUS) Longitudinal Study.

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Introduction

- An estimated 50 – 60 million Americans suffer from chronic sleep disorders which adversely affect their health.1
- Child abuse is a type of stressor associated with various aspects of sleep problems in adulthood.2
- An understanding of the mechanism by which child abuse affects sleep is necessary to provide targeted interventions.

Aims

1. To investigate if child abuse is associated with chronic sleep problems in adulthood in our sample.
2. To determine if this association is mediated by negative affect, an aversive mood state.

Study Design

- Predictor: child abuse (sexual, physical, and emotional) - measured using the the Childhood Trauma Questionnaire.
- Outcome: chronic sleep problems (measured at Wave 2).
- Mediator: negative affect (measured using the PANAS scale).
- Covariates: age, sex, race, BMI, income, education, and marital status.

Statistical Methods

1. Three regression equations were estimated to assess for mediation.
2. Imai’s causal mediation analysis was used to estimate the proportion of mediation.
3. Poisson regression estimated the risk of sleep problems as a function of abuse.

Results

Hypothesized Mediation Model with Relative Risks and Parameter Estimates.

Fig 1a. (Proportion Mediated = 14%)

Fig 1b. (Proportion Mediated = 27%)

Relative Risks and 95% CIs for Child Abuse Predicting Sleep Problems in the Presence of Negative Affect

Discussion

- The prevalence of sleep problems at Wave 2 was 11%
- Our study did not yield significant findings for sexual abuse.
- The association between emotional abuse, and physical abuse and sleep problems was mediated by negative affect.

Study Implications

- A “trauma-informed” care should be developed for child abuse survivors which should consider the role of negative affect.
- Adults with sleep problems should be assessed for child abuse, and negative affect.

Strengths and Limitations

- The outcome variable did not indicate the specific sleep pathology. Further studies should investigate individual sleep problems.
- Longitudinal data allowed us to establish temporal ordering of the exposure and the outcome.
- Our new findings have helped to advance the extant literature on adverse childhood experiences.
- Child abuse is a serious life course event with several long-lasting effects, including sleep problems.
- Negative affect is an important mediator between child abuse and sleep problems.

Conclusion

- Child abuse is a serious life course event with several long-lasting effects, including sleep problems.
- Negative affect is an important mediator between child abuse and sleep problems.

References