Adverse Childhood Experiences and Insufficient Sleep: Persistent Association Through Life
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Objective: To assess the association of adverse childhood experiences (ACEs) and subsequent insufficient sleep among adults.

Background: Stressful and traumatic events during childhood have been shown to increase the risk of a multitude of chronic diseases across the lifespan.

Design/Methods: This cross-sectional examination used data from the 2011 Behavioral Risk Factor Surveillance System (BRFSS), a nation-wide survey. Participants completed standardized questionnaires to report childhood experiences of abuse, neglect, household challenges and sleep time. Linear and logistic regression analyses included survey weighting procedures and adjusted for age, race, education, income and sex; associations were also examined by age strata.

Results: Complete data were available for 22,403 adults (mean age = 46.66 years) including 14,587 (65%) with optimum sleep duration (7-9 hours/night); 2,069 (9%) with insufficient sleep duration (<6 hours/night); and 216 (1%) with sleep durations of 10+ hours. Compared to adults with normal sleep duration, total number of ACEs was associated with the odds of insufficient sleep, with each ACE increasing the odds by over 20% (OR=1.22, 95% CI 1.16 – 1.27). The association held for each decade of age through the 60s, although the magnitude attenuated with age. Adults with three or more ACEs were over twice as likely to report insufficient vs normal sleep duration (OR=2.36, 95% CI 1.89 – 2.95) as were those with five or more ACEs (OR=2.72, 95% CI 2.03 – 3.66). Long sleep duration was not associated with total ACEs (OR=1.11, 95% CI 0.98 – 1.26).

Conclusions: Adverse childhood experiences increased the odds of chronic insufficient sleep, but not excessive sleep, during adulthood, and showed both a time-dependent and dose-response association. This emphasizes the importance of child health and identifying underlying psychological challenges in adults with sleep difficulties, particularly given the established importance of sleep dysregulation for cognitive and physical health.