ADHD and Sleep Quality: Longitudinal Analyses From Childhood to Early Adulthood in a Twin Cohort.

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Abstract

Attention-deficit/hyperactivity disorder (ADHD) is associated with poor sleep quality, but there is more to learn about the longitudinal association and aetiology of this association. We investigated the following: (a) Is there an association between childhood ADHD and poor sleep quality in young adulthood? (b) Is this driven by the long-term effects of childhood ADHD or concurrent associations with ADHD in young adulthood? (c) To what extent do genetic and environmental influences explain the overlap between symptoms of ADHD and poor sleep quality? Participants were from the Environmental Risk Longitudinal Twin Study of 2,232 twin children born in the United Kingdom in 1994-1995. We ascertained ADHD diagnoses at ages 5, 7, 10, 12, and 18. We assessed sleep quality using the Pittsburgh Sleep Quality Index at age 18. We used regression models to examine longitudinal associations and bivariate twin modelling to test genetic and environmental influences. Children with ADHD had poorer sleep quality in young adulthood, but only if their ADHD persisted. Adults with ADHD had more sleep problems than those without ADHD, over and above psychiatric comorbidity and maternal insomnia. ADHD and sleep problems in young adulthood were associated because of genetic (55%) and nonshared environmental influences (45%). Should ADHD remit, children with ADHD do not appear to have an increased risk of later sleep problems. Good quality sleep is important for multiple areas of functioning, and a better understanding of why adults with ADHD have poorer sleep quality will further the goal of improving treatments.