

Sleep loss in early childhood may contribute to the development of ADHD symptoms

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Short sleep duration may contribute to the development or worsening of hyperactivity and inattention during early childhood, suggests a research abstract that will be presented Tuesday, June 14, in Minneapolis, Minn., at SLEEP 2011, the 25th Anniversary Meeting of the Associated Professional Sleep Societies LLC (APSS).

Results show that less sleep in preschool-age children significantly predicted worse parent-reported [hyperactivity](#) and [inattention](#) at kindergarten. In contrast, hyperactivity and inattention at preschool did not predict sleep duration at kindergarten. The sample consisted of approximately 6,860 children, and analyses controlled for gender, ethnicity and family income.

"Children who were reported to sleep less in preschool were rated by their parents as more hyperactive and less attentive compared to their peers at kindergarten," said lead author Erika Gaylor, PhD, senior researcher for SRI International, an independent, nonprofit research institute in Menlo Park, Calif. "These findings suggest that some children who are not getting [adequate sleep](#) may be at risk for developing behavioral problems manifested by hyperactivity, impulsivity, and problems sitting still and paying attention."

According to the authors, attention-deficit/hyperactivity disorder is not generally diagnosed until the school-age years. However, the onset of developmentally inappropriate inattention, hyperactivity and impulsivity is often much younger. [Sleep problems](#), particularly difficulty falling asleep and staying asleep, are frequently reported in children and adolescents with ADHD. However, the direction of causation, if any, has been difficult to determine. Longitudinal studies may provide a window into the direction of this complex relationship.

The analyses used data from the preschool and

kindergarten waves of the Early Childhood Longitudinal Study - Birth Cohort. The dataset includes a contemporary, representative sample of children and their families living in the U.S. and followed longitudinally from birth through kindergarten entry. Total nighttime sleep duration was calculated using parent-reported bedtimes and wake times, which were obtained via interview at both time points. Parents also rated their children's behavior on brief measures of attention/task persistence and hyperactivity/impulsivity.

Last year at SLEEP 2010, Gaylor reported that having a regular bedtime was the most consistent predictor of positive developmental outcomes at 4 years of age. Having an earlier bedtime also was predictive of higher scores for most developmental measures.

Provided by American Academy of Sleep Medicine

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