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## **Symptoms of sleep-disordered breathing in 5-year-old children are associated with sleepiness and problem behaviors.**

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**OBJECTIVE:** Sleep-disordered breathing (SDB) in children is reportedly associated with problem behaviors suggestive of attention-deficit/hyperactivity disorder; however, there are few data on the relation of SDB to problem behaviors in the general pediatric population. The goal of this study was to assess the prevalence of SDB symptoms in 5-year-old children and their relation to sleepiness and problem behaviors. **METHODS:** A population-based, cross-sectional survey was conducted of a birth cohort of children who were born in eastern Massachusetts. Subjects were 3019 5-year-old children (1551 boys, 1468 girls) who were enrolled in the Infant Care Practices Study and whose mothers were contacted within 3 months of their child's fifth birthday. A parent-completed questionnaire was used to ascertain the presence and intensity of snoring and other SDB symptoms and the presence of daytime sleepiness and problem behaviors. Parent-reported hyperactivity, inattention, and aggressiveness were each assessed by a single question that was validated against the Conners' Parent Rating Scale. SDB was defined as frequent or loud snoring; trouble breathing or loud, noisy breathing during sleep; or witnessed sleep apnea. **RESULTS:** Parent-reported hyperactivity (19%) and inattention (18%) were common, with aggressiveness (12%) and daytime sleepiness (10%) reported somewhat less often. SDB symptoms were present in 744 (25%) children. Compared with children without snoring or other symptoms of SDB, children with SDB symptoms were significantly more likely to have parent-reported daytime sleepiness (odds ratio [OR]: 2.2; 95% confidence interval [CI]: 1.7-2.8) and problem behaviors, including hyperactivity (OR: 2.5; CI: 2.0-3.0), inattention (OR: 2.1; 95% CI: 1.7-2.6), and aggressiveness (OR: 2.1; 95% CI: 1.6-2.6). These associations remained significant after adjustment for sex, race/ethnicity, maternal education level, maternal marital status, household income, and respiratory health history. **CONCLUSIONS:** SDB symptoms are common in 5-year-old children and are associated with an increased risk of daytime sleepiness and with problem behaviors suggestive of attention-deficit/hyperactivity disorder.

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