

Insomnia symptoms linked with medical complaints in young school-aged children

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A study in the Dec. 15 issue of the *Journal of Clinical Sleep Medicine* indicates that significant associations exist between parent-reported insomnia symptoms and medical complaints of gastrointestinal regurgitation and headaches in young school-aged children.

Results of multivariate regression analysis show that parent-reported insomnia was 3.3 times more likely in children with gastrointestinal regurgitation and 2.3 times more likely in children with headaches. Nineteen percent of children met the criteria for insomnia, which was defined as often having trouble falling asleep and/or waking up often in the night. Gastrointestinal regurgitation was reported in 7.5 percent of children with insomnia and two percent of children who did not have [sleep disturbances](#). Headaches were reported in 24.4 percent of children with insomnia and 13.2 percent of children without disturbed sleep.

Lead author Ravi Singareddy, MD, assistant professor in the department of psychiatry at Penn State College of Medicine in Hershey, Pa., said that children who have insomnia symptoms should be screened by their physician for underlying medical conditions.

"The first and most important step in children with medical complaints and sleep disturbances would be an evaluation for underlying medical disorders and providing treatment," said Singareddy. "If the associated sleep disturbances do not improve despite improvement in medical complaints the disturbances should be further assessed and treated."

Data from 700 children between the ages of five and 12 years (mean 8.8 years) were collected from the Penn State Children's Cohort for this cross-sectional study. All children underwent a medical and psychiatric history, [physical examination](#), overnight [polysomnography](#) and neuropsychological testing. Comprehensive sleep and development questionnaires were completed by a parent. To assess gastrointestinal regurgitation the parent was asked, "Does food or liquid come back up into your child's mouth or does your child complain of tasting food or liquid back up in his mouth?"

Children with sleep disturbances had significantly more parent-reported complaints of gastrointestinal symptoms (heartburn, pain/colic and regurgitation), headaches and bedwetting. After controlling for demographic variables; apnea-hypopnea index; learning, psychiatric and behavioral disorders; and socioeconomic and minority status, only gastrointestinal regurgitation and headaches remained significantly associated with insomnia symptoms.

According to the authors, the cross-sectional nature of the study did not allow for the assessment of a cause-and-effect relationship, which could be bidirectional in nature. The insomnia symptoms may have resulted in medical complaints since it is known that the respiratory, cardiovascular and gastrointestinal systems undergo significant physiological changes during sleep. Activation of the stress response system in association with hyperarousal also could have been responsible for both the sleep disturbances and the comorbid medical complaints in these children.

The authors suggest that future studies should explore the possible underlying pathophysiological causes of such comorbidity between insomnia symptoms and medical complaints in children. These studies should explore whether treatment of sleep complaints improves the associated medical complaints and vice versa.

The AASM published "Practice parameters for behavioral treatment of bedtime problems and night wakings in infants and young children" in the journal SLEEP in 2006. About 94 percent of the studies that were reviewed reported that behavioral interventions as a whole produced clinically significant improvements in bedtime resistance and night waking.

In 2003 an AASM task force of sleep experts examined the use of medications to treat insomnia in children. A consensus meeting summary was published in 2005 in the Journal of Clinical [Sleep](#) Medicine. The task force emphasized that behavioral treatment approaches to bedtime struggles and night waking in [children](#) have a well-documented empirical basis and are the mainstay of treatment, and that pharmacologic approaches should be largely considered adjuncts in the treatment of pediatric [insomnia](#).

Provided by American Academy of Sleep Medicine

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