Study: Sleepy teens struggle to manage behavior, emotions
by Melissa Jenco News Content Editor

Teens who are night owls and those who were tired during the day struggled to manage their behavior and emotions more than their peers, a new study found.

However, sleep duration alone didn’t seem to be a factor.


Inadequate sleep is known to impact physical and mental health. In this study, researchers set out to look more closely at whether sleep duration, daytime sleepiness and a preference for morning or evening (chronotype) affect teens' self-regulation.

Researchers surveyed 2,017 students in Virginia middle and high schools in 2015. Students, who had a median age of 15, answered questions about sleep duration, chronotype, daytime sleepiness, and cognitive, emotional and behavioral self-regulation.

The team found chronotype and daytime sleepiness independently predicted poor self-regulation. The same did not hold true for sleep duration.

Night owls, they said, "are forced to awaken and function at a time of day which, for them, occurs during their biological lowest level of alertness."

In addition, they said sleepiness may have been more closely linked to poor self-regulation than sleep duration because it better "reflects the individual's perception of sleep-related impairment."

The authors acknowledged they could not prove causation or determine for certain that poor self-regulation isn't actually resulting in poor sleep, though they said it is unlikely based on previous studies.

They suggested that clinicians discuss sleepiness with teens and determine the cause, especially if they seem to be getting the recommended amount of sleep. In June, the Academy endorsed American Academy of Sleep Medicine recommendations calling for teens to sleep eight to 10 hours per night.
One of the factors associated with sleepiness is early school start times. Author Judith A. Owens, M.D., M.P.H., FAAP, who also wrote the Academy's 2014 policy calling for middle and high schools to start no earlier than 8:30 a.m., reiterated that recommendation to improve adolescents’ sleep and in turn, their self-regulation.

"Self-regulation in adolescents contributes to a range of positive health and functioning outcomes that have potential long-term implications," she and her colleagues wrote. "The development of self-regulation during adolescence may be adversely affected by exposure to sleep-related stressors, such as circadian misalignment associated with evening chronotype and increased sleepiness, both of which may be related to the timing and duration of nighttime sleep."

In a related Commentary, Sujay Kansagra, M.D., FAASM, said more research is needed before saying definitively that chronotype has more of an impact on self-regulation than sleep duration. However, he added that chronotype's importance has implications for work and school.

"A deeper understanding of the circadian rhythm will help us uncover new ways to improve education, healthcare, and the workplace," Dr. Kansagra wrote. "Perhaps one day our chronotypes will be an essential element of everything from our medical records to our resumes. It's only a matter of time."