More Data Back Value of Later School Start Times

BY MARY ANN MOON

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Delaying the start of school for as little as 30 minutes not only improved several measures of sleep in adolescents at a boarding school, it also improved depressive symptoms, the motivation and alertness to learn, and even some dietary habits, a study shows.

"The results of this study add to the growing literature supporting the potential benefits of adjusting school schedules to adolescents' sleep needs, circadian rhythm, and developmental stage and of optimizing sleep and alertness in the learning environment," said Dr. Judith A. Owens of Hasbro Children's Hospital, Providence, R.I., and her associates.

They assessed the impact of delaying the school start time from 8:00 a.m. to 8:30 a.m. at a college-prep boarding and day school in southern New England for 357 students in grades 9-12. Participating students anonymously completed the 8-page Sleep Habits Survey before (225 students) and after (201 students) a 2-month trial period in which the daily class schedule was delayed for 30 minutes (Arch. Ped. Adolesc. Med. 2010;164:608-14).

The Sleep Habits Survey covers typical sleep and wake behaviors during the preceding week, sleep- and wake-behavior problems such as difficulty falling asleep and difficulty awakening, depressed mood, and daytime sleepiness under varying conditions.

After the change in school start time, students showed a significant 45-minute increase in sleep duration on school nights.

This was attributable to both waking later on school mornings and going to bed earlier on school nights.

Anecdotal comments indicated that once the adolescents perceived the benefits of getting more sleep in the mornings, they elected to go to bed earlier as well.

The proportion of students who reported that they rarely or never got enough sleep declined significantly from 69% to 34%, as did the proportion who reported that they "never" got a good night's sleep, which dropped from 29% to 12%.

The percentage of students who got fewer than 7 hours of sleep on school nights decreased markedly, from 34% to 7%. The percentage who got at least 8 hours of sleep on school nights rose substantially, from 16% to 55%.

Similarly, the study subjects' perception of their daytime sleepiness and related impairments showed highly significant improvements. The percentage of students who reported being bothered by feeling "too tired and unmotivated" to do schoolwork, socialize, or participate in sports much of the time decreased significantly.

Data from the school's health center supported the students' perception that they were less fatigued after school start time was delayed. Significantly more students visited the health center for fatigue-related symptoms before the intervention than afterward, while visits for other medical concerns showed no change.

Scores on a measure of depressed mood were significantly negatively correlated with sleep duration on both surveys. After school start time was delayed, the percentage of students who rated themselves as at least somewhat unhappy or depressed decreased significantly from 66% to 45%,as did the percentage who reported feeling irritated or annoyed much of the time (from 84% to 63%).

This benefit in depressive symptoms is particularly noteworthy, "given the recent concerns raised regarding the relationship between insufficient sleep and both depressive symptoms and suicidal ideation in adolescents," Dr. Owens and her colleagues said.

The researchers cautioned that this study was limited in that it did not include a control group and relied on retrospective subjective self-reports rather than on objective measures of sleep variables. ■

Disclosures: The study was sponsored by Lifespan Hospitals of Rhode Island, a not-for-profit hospital network.