Staying up an hour or two past bedtime makes it far harder for kids to learn, say scientists who deprived youngsters of sleep and tested whether their teachers could tell the difference. They could.

If parents want their children to thrive academically, "Getting them to sleep on time is as important as getting them to school on time," said psychologist Gahan Fallone, who conducted the research at Brown Medical School.

The study, unveiled Thursday at an American Medical Association science writers meeting, was conducted on healthy children who had no evidence of sleep- or learning-related disorders.

Difficulty paying attention was among the problems the sleepy youngsters faced — raising the question of whether sleep deprivation could prove even worse for people with attention deficit hyperactivity disorder, or ADHD.

Fallone now is studying that question, and suspects that sleep problems "could hit children with ADHD as a double whammy."

Sleep experts have long warned that Americans of all ages don't get enough shuteye. Sleep is important for health, bringing a range of benefits that, as Shakespeare put it, "knits up the raveled sleave of care." Not getting enough is linked to a host of problems, from car crashes as drivers doze off to crippled memory and inhibited creativity.

But exactly how much sleep correlates with school performance is hard to prove.

So Brown researchers set out to test whether teachers could detect problems with attention and learning when children stayed up late — even if the teachers had no idea how much sleep their students actually got.

They recruited 74 6- to 12-year-olds from Rhode Island and southern Massachusetts for the three-week study.

For one week, the youngsters went to bed and woke up at their usual times. They already were fairly good sleepers, getting nine to 9.5 hours of sleep a night.

Another week, they were assigned to spend no fewer than 10 hours in bed a night. And another week, they were kept up later than usual: First- and
second-graders were in bed no more than eight hours and the older children no more than 6.5 hours.

In addition to parents' reports, the youngsters wore motion-detecting wrist monitors to ensure compliance.

Teachers weren't told how much the children slept or which week they stayed up late, but rated the students on a variety of performance measures each week.

The teachers reported significantly more academic problems during the week of sleep deprivation, the study, which will be published in the journal Sleep in December, concluded.

Students who got eight hours of sleep or less a night were more forgetful, had the most trouble learning new lessons, and had the most problems paying attention, reported Fallone, now at the Forest Institute of Professional Psychology in Springfield, Mo.

Sleep has long been a concern of educators.

Consider: Potter-Burns Elementary School in Pawtucket, R.I., sends notes to parents reminding them to make sure students get enough sleep prior to the school's yearly achievement testing. Principal John Haidemenos considers it important enough to include in the school's monthly newsletters, too.

"Definitely there is an impact on students' performance if they come to school tired," he said.

But the findings may change physician practice, said Dr. Regina Benjamin, a family physician in Bayou La Batre, Ala., who reviewed the data at the Thursday's AMA meeting.

"I don't ask about sleep" when evaluating academically struggling students, she noted. "I'm going to start."

So how much sleep do kids need? Recommended amounts range from about 10 to 11 hours a night for young elementary students to 8.5 hours for teens.

Fallone insists that his own second-grader get 10 hours a night, even when it meant dropping soccer the season that practice didn't start until 7:30 — too late for her to fit in dinner and time to wind down before she needed to be snoozing.

"It's tough," he acknowledged. But "parents must believe in the importance of sleep."
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Associated Press writer Juan-Carlos Rodriguez contributed to this report.

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