

# Study: Substance use in high schoolers linked to insufficient sleep

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University at Buffalo School of Nursing researchers have found a "significant association" between alcohol or marijuana use and insufficient sleep among high school students.

The study, published earlier this year in the Journal of School Nursing, tested a nationally represented sample of [high school students](#) and found a close association between using [substances](#) including cigarettes, electronic vapor, alcohol and marijuana, and experiencing insufficient sleep.

"Substance use, especially alcohol and [marijuana use](#), may increase the risk of having insufficient sleep on school nights," says Misol Kwon, a Ph.D. [student](#) who was lead researcher for the study, "Association Between Substance Use and Insufficient Sleep in U.S. High School Students."

The association between marijuana use and insufficient sleep is especially strong for male and younger students, according to Kwon.

"Younger students suffer more from insufficient sleep when using marijuana," she says.

The study has important implications for school nurses and [health care professionals](#) who work with young patients.

"School nurses and [health](#) care professionals who work for [adolescent mental health](#), such as counselors, clinicians, therapists and social workers in schools and community settings, should assess students who are substance users for the presence of sleep disturbances," according to the study's conclusions.

These implications are especially important for nurses, Kwon notes.

"Nurses play an important role in recognizing, preventing, intervening and addressing youths' health risk-taking behaviors, such as [substance use](#) and unhealthy sleep duration and patterns which lead to consequences thereafter," she says.

"For adolescents, [health consequences](#) from substance use can be difficult to understand and recognize as the short-term side effects fade or seem minimal," she says. "This increases the importance to screen for any health complaints, including sleep problems, in the early stage of adolescents' substance use detection."

Holding information sessions on the importance of sleep hygiene and consequences of sleep deprivation could be valuable during school sessions and substance abuse prevention programs, Kwon says.

Adequate sleep is particularly important for adolescents because it allows them to "restore and rejuvenate, retain information, solve problems, make decisions and learn new skills," the study says. Despite these healing effects, 70% of high school students do not obtain enough sleep on school nights.

"This is a major public health concern, as having insufficient sleep is associated with negative physical and mental health outcomes, increased risk of injuries and behavioral problems, including substance use and abuse," the study says.

Researchers also believe the relationship between substance abuse and insufficient sleep can be "bi-directional," meaning those with sleep disturbances also have higher risks of substance abuse.

"This can lead to a vicious cycle of increased risk of the worsening of health outcomes in adolescents," says Kwon.

Researchers stressed the importance of screening for insufficient sleep among adolescents who report marijuana and alcohol use, especially for boys and adolescents entering high school. They suggested individual sleep assessments, such as one- or two-week sleep diaries.

Health and education officials also need to address sleep hygiene and the consequences of sleep deprivation during school-based cessation and substance abuse prevention programs.

"Moreover, school administrators may need to provide support for the offering of wellness programs that integrate sleep health education and substance use prevention," according to the study.

While substance use and sleep behaviors have been studied extensively in adults, the researchers say, these associations have not been explored much in adolescents.

"Continued research is warranted to monitor patterns of sleep among varied youth substance users," the researchers say.

More evaluation of the mechanisms for these associations and development of effective interventions aimed at adolescents in a school setting could reduce substance use and improve sleep.

"This would reduce long-term sleep deprivation and consequences that result from it, as well as improve overall [school](#) and public health," according to the study's results.

**More information:** Misol Kwon et al. Association Between Substance Use and Insufficient Sleep in U.S. High School Students, *The Journal of School Nursing* (2020). [DOI: 10.1177/1059840519901161](https://doi.org/10.1177/1059840519901161)

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