A study led by researchers from the Department of Psychiatry at the University of Pittsburgh School of Medicine and Pitt Department of Psychology has identified a possible link between adolescent sleep habits and early substance abuse. The study, published today in the journal *Drug and Alcohol Dependence*, found that both sleep duration and sleep quality during late childhood predict alcohol and cannabis use later in adolescence.

"Treating problems with drugs and alcohol once they exist and preventing them can be challenging, and we are always looking for modifiable risk factors," said Brant P. Hasler, Ph.D., assistant professor of psychiatry and psychology, and lead author of the study. "Doing what we can to ensure sufficient sleep duration and improve sleep quality during late childhood may have benefits in terms of reducing the use of these substances later in life."

Researchers analyzed 186 boys from western Pennsylvania whose mothers completed the Child Sleep Questionnaire as part of a larger longitudinal study of low-income boys examining factors associated with vulnerability and resilience. Based on questionnaire results from when the boys were 11 years old, their sleep time and sleep quality were calculated. At ages 20 and 22, the young men were interviewed about lifetime cannabis and alcohol use.

After accounting for race, socioeconomic problems, neighborhood danger, self-regulation, and internalizing and externalizing problems,
both sleep duration and sleep quality at age 11 were associated with early substance use throughout adolescence.

The study participants who slept the least, compared to the participants who slept the most, were more likely to report earlier use, intoxication and repeated use of both alcohol and cannabis. Every hour less of sleep at age 11 was associated with a 20 percent acceleration to the first use of alcohol and/or cannabis, Dr. Hasler added.

Worse sleep quality was associated with earlier alcohol use, intoxication and repeated use. Worse sleep quality was associated with earlier cannabis intoxication and repeated use, but not first use.

"After considering other possible influences, we were able to determine that sleep problems are preceding the substance use problems," Dr. Hasler added. "Addressing sleep may now be something we can add into the package of our substance abuse prevention and treatment efforts."

**More information:** Thomas B. Mike et al. The hazards of bad sleep—Sleep duration and quality as predictors of adolescent alcohol and cannabis use, *Drug and Alcohol Dependence* (2016).
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