

Marijuana use among college students on rise following Oregon legalization, study finds

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College students attending an Oregon university are using more marijuana now that the drug is legal for recreational use, but the increase is largely among students who also report recent heavy use of alcohol, a new study has found.

Oregon State University researchers compared marijuana usage among college students before and after legalization and found that usage increased at several colleges and universities across the nation but it increased more at the Oregon university. None of the universities were identified in the study.

"It does appear that legalization is having an effect on usage, but there is some nuance to the findings that warrant further investigation," said the study's lead author, David Kerr, an associate professor in the School of Psychological Science in OSU's College of Liberal Arts.

"We found that overall, at schools in different parts of the country, there's been an increase in marijuana use among college students, so we can't attribute that increase to legalization alone."

The results were published today in the journal *Addiction*. Co-authors are Harold Bae and Sandi Phibbs of OSU's College of Public Health and Human Sciences and Adam Kern of the University of Michigan.

The study is believed to be the first to examine marijuana usage patterns following legalization of recreational marijuana in Oregon and the first to examine the effects of any state's legalization on college students. Voters in Oregon approved legalization in 2014 and the law took effect in 2015.

Oregon's legalization of marijuana is part of a larger trend among U.S. states, but little research has been done so far to understand the impact. In their study, Kerr and his colleagues set out to begin addressing some of those questions.

"It's an important current issue and even the most basic effects have not been studied yet, especially in Oregon," he said. "There are a lot of open questions about how legalization might affect new users, existing users and use of other substances."

Researchers used information collected in the Healthy Minds Study, a national survey of college students' mental health and well-being -- including substance use -- conducted by the University of Michigan. The study is designed to give colleges and universities information to help them understand the needs of their student populations.

As part of the survey, participants are asked about marijuana and cigarette use in the previous 30 days, as well as frequency of heavy alcohol use within the previous two weeks.

Using data from a large public university in Oregon and six other four-year universities around the country where recreational marijuana is not legal, researchers compared rates of marijuana use before and after the drug was legalized in Oregon. They also examined frequency of heavy alcohol use and cigarette use at those points.

The researchers found that the overall rates of marijuana use rose across the seven schools. Rates of binge drinking -- where a person consumes four to five or more drinks in a period of about two hours -- stayed the same and cigarette use declined in that period.

"It's likely that the rise in marijuana use across the country is tied in part to liberalization of attitudes about the drug as more states legalize it, for recreational or medical purposes or both," Kerr said. "So legalization both reflects changing attitudes and may influence them even outside of states where the drug is legal."

Researchers also found that marijuana use rates were generally higher, overall, among male students; those living in Greek or off-campus housing; those not identifying as heterosexual; and those attending smaller, private institutions.

One area where legalization had a marked impact was among college students who indicated recent binge drinking; students at the Oregon university who reported binge drinking were 73 percent more likely to also report marijuana use compared to similar peers at schools in states where marijuana remains illegal.

"We think this tells us more about the people who binge drink than about the effects of alcohol itself," Kerr said. "Those who binge drink may be more open to marijuana use if it is easy to access, whereas those who avoid alcohol for cultural or lifestyle reasons might avoid marijuana regardless of its legal status."

The researchers also found that Oregon students under age 21 -- the minimum legal age for purchasing and using marijuana -- showed higher rates of marijuana use than those over 21.

"This was a big surprise to us, because legalization of use is actually having an impact on illegal use," said Bae, the study's primary statistician.

These initial findings about marijuana use among college students help form a picture of how legalization may be affecting people, Kerr said, but more study is needed before researchers can quantify the harms or net benefits of legalization for young people.

"Americans are conducting a big experiment with marijuana," Kerr said. "We need science to tell us what the results of it are."