RESEARCH BRIEF

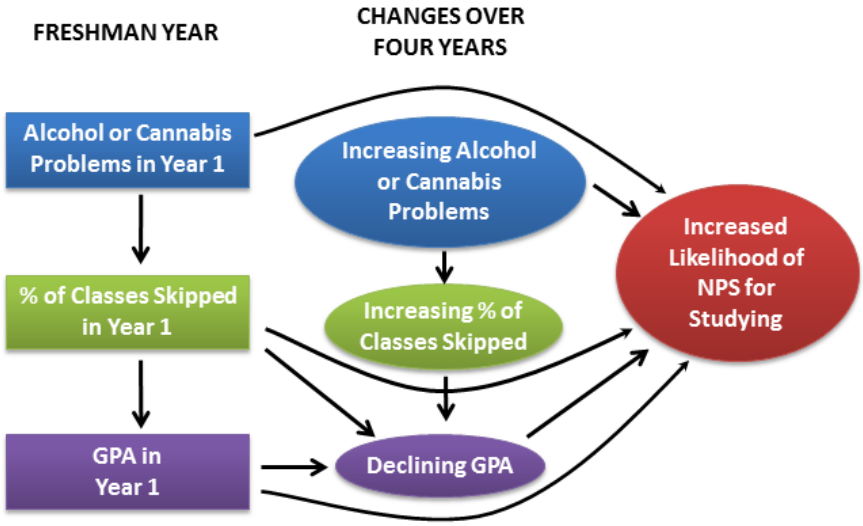
Dispelling the myth of "smart drugs": Cannabis and alcohol use problems predict nonmedical use of prescription stimulants for studying

MAJOR FINDINGS:

This study challenges the popular perception that nonmedical prescription stimulant use occurs primarily among students who are high achievers. Students sometimes use these drugs nonmedically because they believe it will boost their studying efforts and therefore lead to better grades. In contrast to this popular notion, researchers hypothesized that nonmedical use of prescription stimulants (NPS) for study purposes is associated with academic difficulties resulting from other drug use and drinking problems. To test this hypothesis, researchers followed 984 college students over the course of four years and examined whether substance use problems predicted NPS for studying both directly and indirectly via increases in skipping classes and decreases in grade point average (GPA).

Results confirmed these relationships between substance use problems and NPS for studying. Students with more cannabis problems during their first year of college—and those whose cannabis problems increased more rapidly over time—were more likely to engage in NPS for studying at some point during college. Results also showed that increasing cannabis use problems predicted increases in skipping class (or, decreases in class attendance), which in turn predicted lower GPAs over time. Furthermore, this chain of events was linked to NPS for studying. Alcohol problems similarly predicted NPS for studying, both directly and through skipping more classes and declining GPA. The figure below summarizes the relationships between alcohol and cannabis use problems, academic problems, and NPS for studying.

Because the study only investigated NPS for studying cumulatively at any point in time during college, causal inferences cannot be made between substance use, academic delinquency, and NPS for studying. However, this is the first study to show the relationships between substance use, skipping classes, and subsequent changes in the GPA.



Note. Cannabis and alcohol problems were measured and analyzed separately.

Of major interest to:

- ☑ **College Administrators**
- ☑ **Parents**
- ☑ **Educators**
- ☑ **Health Professionals**
- ☑ **Students**
- ☐ **Law and Policy Makers**

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Practice and Policy Suggestions: **College administrators** are urged to consider how student involvement in drugs and alcohol might affect overall academic achievement. Given that college students who experience academic difficulty are more likely to engage in NPS *and* use other drugs, academic advising programs might be a good place for screening for substance use problems. For example, an abrupt decrease in GPA could signal the need for a student to be assessed for substance use problems. If a problem is identified, the student could then be given a brief intervention or referred for a more comprehensive evaluation and treatment. Based on results from this study, efforts to reduce substance use might also result in improved academic performance. Additionally, students with declining grades who are caught using prescriptions stimulants nonmedically might benefit from a comprehensive evaluation of reasons underlying their academic difficulties, including possible problems with alcohol and drug use.

Parents of college students should not condone or facilitate NPS for studying. Rather, parents should regard it as a red flag for possible underlying problems with alcohol and other drugs. If they identify or suspect their child is using prescription stimulants in this way, parents should seek out a comprehensive evaluation of substance use and mental health problems.

Students should be reminded that there are few shortcuts to success. Prescription stimulants are not a "quick fix" for poor academic performance. Good grades are usually the result of working hard, having good study habits, getting enough sleep, and attending class regularly. Substance use is likely to interfere with both short-term academic goals and long-term career success.

The complete publication referenced in this research brief can be found here: Arria, A.M., Wilcox, H.C., Caldeira, K.M., Vincent, K.B., Garnier-Dykstra, L.M., O'Grady, K.E. (2013). Dispelling the myth of "smart drugs": Cannabis and alcohol use problems predict nonmedical use of prescription stimulants for studying. *Addictive Behaviors*. 38(3), 1643–1650. doi:10.1016/j.addbeh.2012.10.002

About the College Life Study (CLS)

The CLS is a longitudinal study of 1,253 college students at a large, public, mid-Atlantic university. This study is one of the first large-scale scientific investigations that aims to discover the impact of health-related behaviors during the college experience. Any first-time, first-year student between 17 and 19 years old at the university in the fall of 2004 was eligible to participate in a screening survey. The researchers then selected students to participate in the longitudinal study, which consisted of two-hour personal interviews administered annually, beginning with their first year of college. A full description of the methods used is available.[1,2] Inherent to all self-reporting research methods is the possibility for response bias. Because the sample is from one large university, the ability to generalize the findings elsewhere is uncertain. However, response rates have been excellent and attrition bias has been minimal.

For more information about the study, please visit www.cls.umd.edu or contact Amelia M. Arria at the University of Maryland School of Public Health at aarria@umd.edu.

[1] Arria, A.M., Caldeira, K.M., O'Grady, K.E., Vincent, K.B., Fitzelle, D.B., Johnson, E.P., Wish, E.D. (2008). Drug exposure opportunities and use patterns among college students: Results of a longitudinal prospective cohort study. *Substance Abuse*. 29(4), 19-38.

[2] Vincent, K.B., Kasperski, S.J., Caldeira, K.M., Garnier-Dykstra, L.M., Pinchevsky, G.M., O'Grady, K.E., Arria, A.M. (2012). Maintaining superior follow-up rates in a longitudinal study: Experiences from the College Life Study. *International Journal of Multiple Research Approaches.* 6(1), 56-72.

This research brief was prepared by Olga Moshkovich.

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