

# Graduate degree completion: Associations with alcohol and marijuana use before and after enrollment

## MAJOR FINDINGS:

The detrimental effects of excessive drinking and marijuana use on college students' academic performance is well known.<sup>1</sup> However, few studies have examined the effect of substance use on graduate students' success and degree completion. This study used prospective data to examine the relationship between alcohol and marijuana use before and after enrollment in a graduate program and subsequent degree completion.

A sample of college students ( $n=520$ ) who eventually attended graduate school were assessed during their first year of undergraduate study (Year 1), annually thereafter (Years 2-8), and then again in Years 10 and 12. Participants were asked beginning in Year 7 if they had completed a graduate degree. Alcohol use frequency, alcohol use quantity, and marijuana use frequency were averaged separately for the time periods before and after graduate school enrollment. Logistic regression models were then used to examine the associations between these variables and graduate degree completion.

The majority of participants drank alcohol both before and after graduate school enrollment. After enrollment, about a third (31%) drank twice a week or more. Half of participants (49%) engaged in marijuana use after graduate school enrollment (compared with 72% before graduate school), but the majority (64%) used it once a month or less. Marijuana use frequency after graduate school enrollment was significantly associated with decreased odds of graduate degree completion. Among marijuana users, those who completed their graduate degree decreased their past-year frequency of marijuana use after enrollment (from 40 days/year before enrollment to 35 days/year), while those who did not complete their degree increased their past-year marijuana use (from 45 days/year before enrollment to 85 days/year after enrollment). Being female, married, and enrolling in graduate school closer to college graduation were associated with increased odds of graduate degree completion. Interestingly, pre-enrollment alcohol use frequency was associated with increased odds of completing a graduate degree. Further research is needed to understand the possible mediators between alcohol consumption and marijuana use and academic performance among graduate students.

### *Of major interest to:*

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

### Practice and Policy Suggestions:

Results suggest that marijuana use during graduate school decreases the likelihood of degree completion. Colleges should use comprehensive substance use screening and have treatment accessible to all students. Future research should examine the impact of substance use on academic engagement among graduate students.



## References:

<sup>1</sup>Schulenberg, J. E., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Miech, R. A., & Patrick, M. E. (2017). Monitoring the Future national survey results on drug use, 1975–2016: Volume II, college students and adults ages 19–55. Ann Arbor, MI: Institute for Social Research, University of Michigan.

The complete publication referenced in this research brief can be found here: Allen, H.K., Lilly, F., Beck, K.H., Vincent, K.B., Arria, A.M. (2019). Graduate degree completion: Associations with alcohol and marijuana use before and after enrollment. *Addictive Behaviors Reports*, 9, 100156. doi:10.1016/j.abrep.2018.100156



## 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.<sup>1,2</sup> 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](http://www.cls.umd.edu) or contact Amelia M. Arria at the University of Maryland School of Public Health at [aarria@umd.edu](mailto:aarria@umd.edu).

<sup>1</sup> 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. doi:10.1080/08897070802418451; PMC2614283

<sup>2</sup> 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. doi:10.5172/mra.2012.6.1.56; PMC3255097

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