

Do college students improve their grades by using prescription stimulants nonmedically?

MAJOR FINDINGS:

Many students believe nonmedical use of prescription stimulants (NPS) will allow them to study more effectively and improve their grades. However, research indicates that for students without ADHD, prescription stimulant use without a doctor's prescription is not associated with better grades.

Researchers analyzed NPS among 898 students without ADHD during their second and third years of college. (Individuals with an ADHD diagnosis were excluded because they might experience different effects from NPS.) Four NPS pattern groups were identified for comparison:

- **Abstainers** (68.8%) did not engage in NPS either year.
- **Persisters** (16.7%) engaged in NPS during both observed years.
- **Initiators** (8.7%) engaged in NPS in Year 3 but not in Year 2.
- **Desisters** (5.8%) engaged in NPS in Year 2 but not in Year 3.

After adjusting for sex and Year 2 GPA, there was no significant relationship between NPS pattern group and change in GPA between Years 2 and 3. Small but statistically significant improvements in GPA were seen among the Abstainers, but neither the Persisters, Initiators, nor Desisters saw any significant changes in their GPA over time.

Many students engage in NPS in response to academic difficulties, thinking these drugs will help them improve their grades, but results of this study add to the growing body of research indicating that NPS likely provides no academic benefits.

Practice and Policy Suggestions:

Prior evidence indicates that college students who engage in NPS have lower overall GPAs, skip more classes, and have higher levels of substance use than non-users.^{1,2} The present study indicates that NPS is not associated with improvement in GPA. Therefore, college administrators and advisors should be encouraged to implement interventions that challenge students' beliefs that NPS is beneficial and raise awareness about the potential risks for NPS. College faculty, staff, and

Of major interest to:

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



parents might also play an important role in disseminating such messages, and should be seen as possible intervention targets for raising awareness and understanding about NPS. NPS is also associated with other drug use and can act as a “red flag” for educators, health providers, and parents. Physicians who prescribe ADHD medications to college-attending patients can ensure that such patients understand that sharing or selling their medication is illegal, and likewise that it would be illegal for their friends to use ADHD medications that were not prescribed for them. College is an opportune time to change students’ misguided beliefs about the benefits of NPS and raise awareness about the health and legal consequences of NPS.

¹Arria, A.M., O’Grady, K.E., Caldeira, K.M., Vincent, K.B., Wish, E.D. (2008). Nonmedical use of prescription stimulants and analgesics: Associations with social and academic behaviors among college students. *Journal of Drug Issues*. 38(4), 1045-1060. doi:10.1177/002204260803800406; PMC2857807

²Arria, 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; PMC3558594

The complete publication referenced in this research brief can be found here: Arria, A.M., Caldeira, K.M., Vincent, K.B., O’Grady, K.E., Cimini, M.D., Geisner, I.M., Fossos-Wong, N., Kilmer, J.R., Larimer, M.E. (2017). Do college students improve their grades by using prescription stimulants nonmedically? *Addictive Behaviors*. 65, 245-249. doi:10.1016/j.addbeh.2016.07.016; PMC5140739



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. doi:10.1080/08897070802418451; PMC2614283

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. doi:10.5172/mra.2012.6.1.56; PMC3255097

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