

Nonmedical use of prescription stimulants among college students: Associations with attention-deficit-hyperactivity disorder and polydrug use

MAJOR FINDINGS:

The researchers interviewed 1,253 first-year college students about their nonmedical use of prescription stimulants (NPS); 233 of those individuals had used prescription stimulants nonmedically at least once in their lives. Because some of the students had been diagnosed with ADHD and were being treated with a prescription stimulant, the researchers devised a system of categorizing medical use and overuse of prescription stimulants:

- No ADHD, meaning medical use and over use were not possible (ADHD-);
- Medical use but no reported overuse (ADHD+, Overuse-); and
- Overuse of a medically prescribed stimulant for ADHD (ADHD+, Overuse+).

This allowed the researchers to simultaneously examine NPS (the use of someone else's prescription), overuse of prescribed ADHD medications, and the legitimate medical use of a prescription stimulant. In the ADHD- group, 18.0% had nonmedically used someone else's prescription stimulant at least once in their lifetime, and the ADHD+ group was comparable at 15.6%. However, taking into account the 26.7% of ADHD+ students who overused their own medication at least once, the total prevalence of NPS in the ADHD+ group was substantially higher (33.3%).

Students' reasons varied for using stimulants nonmedically, but by far, the most frequent reason was to help them focus or concentrate so they could study or do schoolwork (73.3%). More than half (58.2%) reported studying as their only reason for using stimulants nonmedically. Curiosity was the second most reported reason for use (17.8%). The researchers found that 15.6% of students had used prescription stimulants nonmedically for recreational purposes, meaning, wanting to get high, feel good, or have fun (6.7%) and wanting to enhance wakefulness while partying, drinking, and going out with friends (8.9%). It is important to note that 4.9% mentioned peer pressure as a reason for using stimulants nonmedically, including use just because people around them were using them.

Most students obtained the drugs from friends, most of whom had a prescription (78.7%), and some from a friend who did not have a prescription (15.6%), and some students obtained the drug from a friend whose prescription status was unknown (6.7%). If a student paid for the drugs, the cost generally ranged from \$1-10/pill, although most students received the pills for free (72.4%).

In statistical analyses comparing the 233 NPS sample with the 1,020 other students who never used prescription stimulants nonmedically, the NPS sample had significantly higher levels of past-year use illicit drug use, alcohol dependence, and marijuana dependence, even controlling for demographics, ADHD, and other factors. Furthermore, the ADHD+ Overuse+ group was also at increased risk for these drug use outcomes, but the ADHD+ Overuse- group was not.

Practice and Policy Suggestions: Clinicians should be aware that their ADHD patients might overuse or divert their prescription medications, and age-appropriate educational material about not diverting or overusing a prescription medication should be given to patients. In light of these results, physicians should caution patients against diverting ADHD medications, using a friend's ADHD medications, and about the health risk associated with coingesting these medications with alcohol and other drugs, especially considering the recent evidence of the potential for serious adverse effects.

Of major interest to:

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



(Practice and Policy Suggestions cont.): Parents of students with ADHD need information about the possibility of overuse and misuse. This is especially important when their child is beginning college and having to face the new challenges inherent to college life. Parents should also learn how to recognize when their child is using someone else's prescription stimulants and how to respond appropriately. Most importantly, under no circumstances should parents encourage or ignore this behavior.

College administrators and campus health professionals should implement prevention programs that stress both the legal and health risks of misuse of prescription stimulants. Comparing this kind of drug use to illicit drug use may serve as a way to discourage students who have not yet started using prescription stimulants nonmedically but have had the opportunity. This comparison is valid given the strong association between the two behaviors. Another fact that should be stressed in these programs is that less than 20% of students are using prescription stimulants nonmedically in their first year of college. This will counter the belief that this kind of behavior is normal.

The complete publication referenced in this research brief can be found here: Arria, A.M., Caldeira, K.M., O'Grady, K.E., Vincent, K.B., Johnson, E.P., Wish, E.D. (2008). Nonmedical use of prescription stimulants among college students: Associations with attention-deficit-hyperactivity disorder and polydrug use. *Pharmacotherapy*. 28(2), 156-169.



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 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, College Park, 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.

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