

College students' use of cocaine: Results from a longitudinal study

MAJOR FINDINGS:

At one large public university, one in eight college students used cocaine sometime during their four years of college, two-thirds of whom tried cocaine for the first time after starting college. Likelihood of use, among those who were offered cocaine, increased significantly over time. By their fourth year of college, 36% of all students had been offered cocaine at least once in their lifetime. Having the opportunity to try cocaine was significantly higher for males than females during and after the second year of college. Despite having less opportunity to use cocaine, females were more likely than males to develop symptoms of cocaine dependence.

Background: Cocaine is a powerful stimulant. Past research has demonstrated that cocaine use poses a high risk for dependence and is associated with numerous psychosocial and physical consequences. In 2007, the National Survey on Drug Use and Health reported over two million U.S. individuals age 12 or older had used cocaine, and that use was most prevalent among young adults. College students comprise a large part of the young adult population, and prior research has demonstrated that their past-year cocaine use increased from 2.9% in 1996 to 5.1% in 2007. Prior research has also found that cocaine use is more prevalent among males than females, perhaps because males have more opportunities to use (although females are exposed to cocaine at a younger age). Once given the opportunity, males and females are equally likely to try cocaine and become dependent, especially in the first few years following initiation. Progression from exposure opportunity to use typically occurs within one year.

Procedures: Findings are derived from the College Life Study (CLS), a prospective, longitudinal study of health risk behaviors among a cohort of college students (n=1,253) from a large public university in the mid-Atlantic region of the U.S. Participants were assessed during the first year of college and annually thereafter, whether or not they continued to attend college. Interview questions were adapted from the National Survey on Drug Use and Health and asked about being offered cocaine, using cocaine, and symptoms of cocaine dependence. Use given opportunity was defined as past-year use among individuals who were offered cocaine in the past year.

Of major interest to:

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



Findings: By their fourth year of college, 36% of students had been offered cocaine once in their lifetime and 13% had used cocaine. Past-year cocaine use increased significantly over time (from 4% in year one to 10% in year four) and was similar across genders. Opportunities to use cocaine became significantly more prevalent for male than female students during years two (23% vs. 18%), three (28% vs. 19%) and four (31% vs. 20%), although they had been similar in year one (18% vs. 17%). Among the 243 cocaine users, females (n=113) had more serious use patterns than males, with higher average frequency of use (18.39 vs. 8.85 days used during the peak year of use) and greater likelihood of meeting DSM-IV criteria for cocaine dependence (9.3% vs. 2.5%).

Implications: A novel contribution of this study is the finding that males experience significantly greater annual increases in exposure opportunity during the college years (years one through three) compared to females. This raises possible questions about gender differences in how students experience the college environment with respect to drug use opportunities. The results are also consistent with prior research on gender differences in cocaine use, including animal studies, that indicates more frequent cocaine use among female users and greater likelihood of meeting criteria for dependence compared to males. While it is possible there are gender differences in reporting symptoms of dependence, the findings suggest that college-attending females may be more susceptible to developing serious problems with cocaine than males.

The complete publication referenced in this research brief can be found here: Kasperski, S.J., Vincent, K.B., Caldeira, K.M., Garnier-Dykstra, L.M., O'Grady, K.E., Arria, A.M. (2011). College students' use of cocaine: Results from a longitudinal study. *Addictive Behaviors*. 36(4), 408-411.



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 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.

This research brief was prepared by Bonnie Catone and disseminated by the Treatment Research Institute (TRI), a non-profit research and development group specializing in science-driven transformation of treatment and policy in substance use/abuse. Click [here](#) to learn more about TRI.

