

Stimulant Abuse on Campus

by **Partnership Editorial Staff**

With additional reporting by Jenna Schnuer.

The requests for pills kick in about a week before mid-terms. And again right before finals.

I got asked a lot during exams — every time I was at the library and saw one of my friends," says the freshman at a highly-competitive liberal arts college in the Midwest. "If it's my friends, I feel bad saying no."

A high-achieving senior at a small northeastern university uses them "whenever I had to study for exams or do other time-consuming homework... I feel very awake and motivated and I'm able to get through schoolwork and studying much more productively."

The medications at hand — prescription stimulants like Adderall and Ritalin — are legal when taken as directed by the first student, who has a medical diagnosis of Attention Deficit Hyperactivity Disorder (ADHD). The second student, however, is just one of many pushing the need for an academic edge beyond the boundaries of law — and safety.

There's mounting evidence that classic cram sessions fueled by No-Doz and strong coffee have been replaced with all-nighters courtesy of prescription stimulant drugs. Used to sharpen focus, aid studying and enhance concentration, these medications are readily accessible on many college campuses and, much to the chagrin of substance abuse experts and healthcare professionals, seemingly widely accepted among the student body.

While not the most common substance of abuse among college students — alcohol still tops that list — the abuse of prescription stimulants may be as prevalent as 15 to 20 percent of students, according to Amelia Arria, Ph.D., Senior Scientist at the Treatment Research Institute.

Arria says that for some students, stimulant use is "sporadic," but a 2005 study in the *American Journal of College Health* found that even relatively infrequent illicit use of prescription stimulants is associated with increased likelihood of other substance abuse.

Notably, the study showed that teens who reported illicit prescription stimulant use had significantly higher rates of alcohol and other drug use, including cocaine. A 2007 study of undergraduate students published in the journal *Pharmacotherapy* found that those students who began illicit prescription stimulant use in college were four times more likely to report three or more positive indicators on a standard drug abuse screening test than their peers who did not use stimulants.

The straight-A student interviewed who admitted to prescription stimulant use as a study aid also acknowledges, "I drink alcohol and smoke marijuana in social situations almost every weekend. I also smoke a couple of cigarettes each day."

Underreported and Underestimated

Kim Ann Oliver, Ph.D., a Westport, Connecticut-based psychotherapist who also teaches university classes, believes the problem is far more pervasive than is being reported. "The studies that have been done are saying 6 [or] 7 percent...and it could be as high as 25 percent. I have a sense that the higher percentage is probably more like it...that kids are underreporting," she says.

Oliver may be onto something. Of the ten students interviewed for this article, most commented on the normalization of prescription stimulant use as an accepted part of the competitive academic landscape of college life, one that seemed far safer and distinctly separate from street drug use.

Says one sophomore at a competitive west coast college:

Honestly, it doesn't phase me all that much [when it was offered to me]. I don't have trouble focusing so it's not something I need, but it's not like if it was a street drug deal, hard drugs like cocaine or heroin...It's like this guy is offering drugs to help kids study. Maybe even because of the context, it seems less intimidating."

When asked if she was aware of the health risks or legal issues associated with illicit use of prescription stimulants, one freshman replied, "I am aware. I even researched it beforehand and decided that it was worth the risks." Only one student interviewed expressed any concern about the dangers of using.

And the dangers do abound. In 2006, following reports that these medications may have caused cardiac arrest, toxic reactions or sudden death among dozens of patients taking them for ADHD, a debate ignited in the medical community over whether the FDA should issue black box warnings on Ritalin, Adderall and other medications in the same class.

Ultimately, the FDA withheld its strongest advisory, but the national headlines sent a definitive message that these medications must be handled with care, even by physicians, who are responsible for performing thorough exams to rule out underlying conditions before prescribing stimulants.

When used to treat ADHD, "the benefits of medications like Ritalin or Adderall outweigh the risks, and can help bring someone who is completely unfocused and disorganized to a place where they're level with those who don't have this condition," explains Dr. Sam Glazer, an addiction psychiatrist in New York City and associate clinical professor at New York University. "But if they are used for performance enhancement...no one has asked about your family history, examined your health, and you could be prone to a heart arrhythmia or other serious conditions," he adds.

Mixing stimulants with other substances is also cause for concern. The half-life (the time it takes for half of a medication to be absorbed) of common ADHD medications ranges from 3-5 hours to 12-15 hours for extended-release formulations, making an interaction between a stimulant and another substance, like alcohol, not unlikely.

The potential for problems is enhanced, and the risk for seizure or a cardiac event is heightened when these medications are combined with other stimulants, like cocaine, or when they interact with alcohol," said Glazer." "A stimulant may counter the depressive effect of alcohol, and students may drink more."

Cognitive Enhancement or Cheating?

The concept of physical performance enhancement has riled significant backlash in sports, where use of many substances is not only considered cheating, but is also illegal. The role of *cognitive* performance enhancement in academia came to a head following several commentaries published in 2008 issues of the journal *Nature*.

The first, authored by two Cambridge University researchers, reported the admission of prescription stimulant use by at least a dozen of their colleagues to improve academic performance. The commentary threw wide the doors for debate and provoked strong response from scientists and academics.

While some argued that cognitive enhancement was simply a way to remove distractions and increase productivity, others stated, as Dr. Nora Volkow, Director of the National Institute on Drug Abuse, did in a letter to *Nature*, that, "even though stimulants and other cognitive enhancers are intended for legitimate clinical use, history predicts that greater availability will lead to an increase in diversion, misuse and abuse."

The debate continues, and odds are that only time will tell how the experiences of today's college students, educated in an environment where concerns about the safety and implications of cognitive enhancement are less acute, will impact the outcome.

The Myth of "Smart Drugs"

By the time some teens get to college, they have already been exposed to pill sharing and swapping. The 2008 Partnership Attitude Tracking Study, a national survey of more than 6,500 teens ages 12-17, shows that 1 in 5 teens has abused a prescription drug, and nearly 30 percent say they have a close friend who uses prescription stimulants. More than half say they got their pills from their family's medicine cabinet or from friends.

On campus, about a third of the supply of these drugs comes from students who have been prescribed it for ADHD. Dr. Arria says one-third of people with ADHD are giving their medications away.

There are two groups that I see [using]," says Oliver. "It's those kids I see who are very success-oriented and in competitive schools. But also [those] who aren't as good students and don't have good study habits and [need] to cram."

"What a lot of people don't realize is that they're better off just [studying without it]," says a freshman at a competitive liberal arts college who takes Adderall, by prescription, for ADHD. "Quite frankly, if you don't have ADHD it's not going to do anything for you except make you be able to study longer. I take it but if I miss class, I still get screwed over. It doesn't make up for lectures."

Scientist Arria echoed the student's words. "What's happening is that some kids are doing poorly because they're drinking...and skipping class, and when they skip class they fall behind on their school work so they have to turn to a prescription stimulant to [stay up and study]. But doing that doesn't improve their grades over time. There is no such thing as a smart drug."

The Partnership for a Drug-Free America will continue to monitor the issue of non-medical use of prescription stimulants on college campuses.