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## CRANKED UP

### Do “study drugs” offer an unfair performance enhancement?

by Janice Neumann

That cup of java offers just the right buzz to stay awake for studying or patient rounds. But what about making that buzz a little stronger with a study drug?

Drugs like Adderall and Ritalin are becoming increasingly common on medical school campuses, according to doctors and several studies. The verdict is still out on the actual effectiveness of the drugs as study aids, though there are plenty of opinions both pro and con.

While studies have shown the drugs help students focus better, grades don't tend to improve, according to Dr. Andrew Adesman, who has studied the use of the medications in college students.

“The medications we know have the potential to improve attention and focus and that potential benefit is not limited to students with Attention Deficit Hyperactivity Disorder,” says Adesman, chief of Developmental and Behavioral Pediatrics at Steven & Alexandra Children's Medical Center in New York. “There's this perception they function better but the scores are not improved.”

Adesman says the problem isn't new and remembers a former acquaintance saying he took Dexadrine during medical school.

“I think the difference is the prevalence,” says Adesman. “What's changed is how widely prescribed these medications

are and probably the perceptions of safety.”

Studies have reported up to 15 percent of medical students using the drugs mainly to boost academic performance, though some doctors believe the numbers could be much higher. College students are using the drugs at a rate of 20 to 30 percent, according to several studies.

So what's the harm in taking the pills if they do help students remain alert?

Adesman says students might not be self-medicating at a safe rate or health problems could be aggravated by side effects. Students might not realize that selling the drugs to fellow students is also illegal, he says. The risk of addiction for students who use the drugs occasionally is likely small, according to Adesman.

But when taken at higher dosages than prescribed the drugs can increase dopamine and the risk of addiction, according to the National Institute on Drug Abuse. Side effects can include increased blood pressure, heart rate, body temperature and decreased sleep and appetite, according to the institute.

Dr. Robert Watson, professor of Clinical Sciences, Florida State University College of Medicine, says he thought medical students were using the drugs at an alarmingly high rate and that the drugs are highly addictive.

“When these [students] finally get into medical school, where the work is harder...it doesn't take a neuropharmacologist to know that the likelihood is that those who have used psychostimulants will continue to use them,” says Watson, who is also a behavioral neurologist. “I think it's an enormous problem and if it's not addressed, it will become a bigger problem.”

Watson says he heard from one resident who began taking Adderall in medical school and couldn't stop. He said he thought medical schools should teach more about substance abuse and pain management.

“It sped me up and made me

### So what's the harm in taking the pills if they do help students remain alert?

perform better,” Watson recalls the resident saying, continuing, “I became so self-absorbed at trying to perform better that I lost the reason I went to medical school in the first place.”

Watson says he thinks study drugs were part of a larger drug and alcohol abuse problem in medical school. The professional health monitoring system for Florida, Professional Resource Network Inc. (PRN), recently distributed 5,000 surveys to the state's medical students to gauge their physical and mental health, stress levels and use of alcohol, tobacco, prescription and illicit drugs.

“It's one piece of a really ongoing national public health epidemic,” says Watson, who is



on the PRN board.

Lisa Merlo Greene, assistant professor of psychiatry at the University of Florida College of Medicine, who directs research for PRN, says she thought a "significant minority" of students were using the drug and the survey hoped to uncover some answers.

"In my work with this population, I noticed that many of the professionals reported substance use and/or psychological concerns dating back to medical school or earlier," says Greene, who holds a Ph.D. in clinical psychology.

Several students said while they wouldn't condone the use of the drugs, they weren't wor-

ried about any unfair advantage provided by the medications.

"We want a level playing field for all students, but, let's face it, there wasn't a level playing field to begin with," says Ajay Major, a third-year at Albany Medical College in New York. "People come to medical school with an incredible range of socioeconomic backgrounds and social supports."

Dr. Shara Yurkiewicz, who recently graduated from Harvard Medical School, says when she was nervous about giving presentations during rounds in her third and fourth years, a doctor she was working with suggested she ask a psychiatrist for a prescription for Labetalol.

"I think that is a dangerous thing...rather than changing the culture and saying, maybe, do things have to be this anxiety provoking to begin with," says Yurkiewicz, now a reporter for MedPage Today as she applies for residency.

Major agreed, adding, "We need to look at the root of the problem: an educational system which rewards the dedicated, single-minded crunching and regurgitation of information, rather than compassionate, patient-centered care." •

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**Janice Neumann** is a health writer based in Chicago.

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