Stimulant Misuse among College Students— Meeting the Challenge



By the time they graduated, approximately two-thirds of college students were offered prescription stimulants, and approximately one-third of them used prescription simulants nonmedically (Garnier-Dykstra et al., 2012).



While alcohol abuse and binge drinking top the list of substance abuse issues on today's college campuses, misuse of prescription drugs has become a significant public health concern. Stimulants belong to the classification called amphetamines. They are prescribed for attention deficit hyperactivity disorder (ADHD) and narcolepsy, a sleep disorder.^a Rates of prescription stimulant abuse have soared (Johnston et al., 2007, 2013). In 2012, Adderall[®] was the most frequently misused prescription drug among college students.

Stimulant Misuse and Abuse

Students have many reasons for using stimulants without a prescription (see call-out box "College Students' Reasons for Using Prescription Stimulants") (Arria & DuPont, 2010; Colaneri, John, & Adesman, 2014; Garnier-Dykstra et al., 2012; McCabe, Boyd, & Teter, 2009; Teter et al., 2010). Sharing of drugs is common; college students most often obtain stimulants from friends and peers (McCabe, Teter, & Boyd, 2006). Stimulant misuse has been linked to heart and blood vessel problems, drug abuse and dependence, and other high-risk behaviors, such as unsafe sex and alcohol-related injuries (Egan et al., 2013; Lakhan & Kirchgessner, 2012; SAMHSA, 2009). More than half of college students who reported recent misuse of Adderall® were heavy alcohol users (Egan et al., 2013). The number of people ages 18-29 seeking emergency care because of prescription stimulant misuse rose from 3,758 in 2004 to 20,532 in 2011 (DAWN, 2011).

College Students' Reasons for Using Prescription Stimulants:

- Increase academic success by improving concentration, alertness, memory, and cognition (widely believed but not true)
- Control weight
- Reduce stress
- "Get high," enhance the party experience
- Self-medicate for anxiety or depression problems
- Enhance athletic performance (Judson & Langdon, 2009)



^a Stimulants include dextroamphetamine (e.g., Dexedrine®), methylphenidate (Ritalin®, Concerta®), amphetamine-dextroamphetamine (Adderall®), lisdexamfetamine dimesylate (Vyvanse®), and dexmethylphenidate (Focalin®).

Addressing the Problem

Responding to the huge increase in stimulant abuse, many colleges are changing their procedures on how their student health offices handle ADHD, including the diagnosis of ADHD and filling prescriptions of amphetamine-based medications like Vyvanse® and Adderall® (Colaneri, John, & Adesman, 2014; Schwarz, 2013; Vimont, 2014). Students, parents, health care providers, college advisors and counselors, and college administrators all can play a role in discouraging misuse of prescription drugs. Strategies to reduce stimulant drug misuse among college students include the following:

- Assessing the prevalence of stimulant abuse
- Offering education and training
- Employing diversion prevention and enforcement, including always checking the state's Prescription Monitoring Program database before writing, renewing, or dispensing any prescription for amphetamines or other Schedule II drugs
- Providing access to diagnostic and treatment services



Problem Assessment

An important first step is to determine the prevalence of prescription drug diversion on campus (Garnier et al., 2010; CARS, 2014). Campus-wide surveys collect information regarding the reasons for misuse, misconceptions about health effects, and social norms around prescription drug use and misuse. For example, the University of Michigan Substance Abuse Research Center conducts a biannual survey of students, the Student Life Survey, to assess alcohol and other drug use on campus and evaluate prevention and intervention programs.

In addition to assessment, screening programs can be set up as part of usual care in health services clinics (CARS, 2014). Administrators can work with local hospitals and urgent care clinics to initiate routine

screening for alcohol and drugs. Brief questionnaires (see the "Screening for Prescription Drug Use Problems" Issue Brief) are useful for identifying students at risk for abuse or dependence and can serve as a starting point for further assessment or referral to treatment. The University of California, Los Angeles, *Access to Care* program, for instance, uses the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) to assess the severity of substance use and identify appropriate treatment (WHO ASSIST Working Group, 2002).

Education and Training

Despite common beliefs, the use of stimulants by students who do not have ADHD does *not* improve school performance (Advokat & Scheithauer, 2013). Parents, community organizations, federal and state governments, and colleges and universities can help dispel the myth that stimulants help students succeed. In addition, colleges and universities can inform students about the school's substance use policies and enforcement procedures, the signs and symptoms of stimulant abuse, the importance of taking medications only as prescribed, and where to go for help for themselves or others. Vanderbilt University, for example, includes prevention messages regarding stimulant misuse in its new student orientation (DAWN, 2011).

Faculty, staff, faculty advisors, health services staff, coaches, residence hall advisors, and others all need to know about the warning signs and symptoms of prescription drug abuse and misuse and how to respond. Training for health services staff who prescribe stimulants or assist in patient care includes (1) reminders to be aware of the high prevalence of drug diversion; (2) giving patients explicit instructions regarding the ways in which these medications should—and should not—be used; (3) providing clear warnings to students against sharing and selling medications (e.g., this is drug dealing and grounds for both expulsion and prosecution); and (4) including specific instructions on how to dispose of unused medication (Arria, 2010).

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Diversion Prevention and Enforcement

Colleges and universities may inadvertently contribute to student prescription drug misuse through lax enforcement of the schools' substance use control policies, permitting easy access to prescription drugs, or offering limited prevention and intervention services. It is not enough that schools have policies in place regarding substance use; these policies must also be diligently enforced, with consequences for violations consistently applied (CASAColumbia, 2007).

Duke University includes "the unauthorized use of prescription medication to enhance academic performance" as a category of cheating. Other schools call for drug testing if students are suspected of taking stimulants without a prescription (Schwarz, 2013). The University of Alabama and Marist College, along with others, now require students to sign contracts stating they will not misuse pills or share them with classmates (Schwarz, 2013). Miami University's student counseling service requires students to participate in a workshop about time management and medication safety before starting an ADHD medication. Later, students report on how well they have adopted the skills and behaviors they learned. Those who still want to be evaluated for ADHD must attend another hour-long workshop that teaches them how to safeguard their medications in a college setting and to avoid misusing or diverting them (Vimont, 2014). Students diagnosed with ADHD and prescribed stimulants are monitored frequently for signs of misuse or diversion.

Staff of college health plans should always check the state's Prescription Monitoring Program (PMP) database before writing, renewing, or dispensing any prescription for amphetamines or other Schedule II drugs. The PMP is a first line of defense against abuse. Using it is also critical from a legal liability perspective. If an issue is raised regarding prescription drug abuse, the PMP record will show that a college staff person notified the PMP of the prescription and checked the database



for similar prescriptions from other providers. This is strong evidence that the college is acting diligently and complying with best practices.

Some student health centers offer programs for the safe disposal of expired or unused prescription drugs. Students prescribed these controlled substances need a secure way to store them, such as a medicine cabinet lockbox, so they will not be stolen.

Access to Diagnostic and Treatment Services

A number of schools, citing the rigor required to make a proper ADHD diagnosis, forbid their clinicians to make that diagnosis or to prescribe stimulants and instead refer students to off-campus providers (Schwarz, 2013). Marguette University requires students to sign releases allowing clinicians to phone their parents for full medical histories and to confirm the truth of reported ADHD symptoms. California State University, Fresno, students with an ADHD diagnosis made from an outside provider can fill prescriptions at the Student Health Center only after providing documentation of a thorough evaluation, including neuropsychological testing by a qualified mental health provider. Some colleges require urine drug tests if a university clinician suspects a student is not taking pills as prescribed. North Carolina State University, Georgia Institute of Technology, and Pennsylvania State University no longer handle most requests to make ADHD diagnoses (Schwarz, 2013).

Student health providers, physicians, paraprofessionals, and pharmacists are well situated to provide education. brief intervention, and referral to treatment, as they interact directly with students when providing health services or filling prescriptions (CARS, 2014; CASAColumbia, 2007). For those identified as misusing prescription drugs, it is important for colleges and universities to be prepared either to provide treatment services on campus or to refer students to appropriate treatment off campus (CASAColumbia, 2007). Brief interventions can yield results in as little as one session, are cost-effective, and can be delivered by a variety of trained professionals (Cooper & Archer, 1999; Tevyaw & Monti, 2004). Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a promising approach for delivering early intervention and treatment services for substance use disorders (SAMHSA, 2007). The key to brief interventions is to change attitudes, beliefs, and expectations regarding prescription drug misuse. Effective interventions typically use cognitive behavioral skills training and motivational interviewing (Larimer & Cronce, 2007).

Working together, communities can make great progress toward combating the growing problem of stimulant abuse on college campuses.

Websites Providing More Information

Screening and Signs of Abuse

National Institute on Drug Abuse (NIDA) website, http://www.drugabuse.gov/nidamed-medical-healthprofessionals

Substance Abuse and Mental Health Services, Health Resources and Services Administration (SAMHSA-HRSA) Integrated Health Solutions, http://www.integration.samhsa.gov/clinical-practice/SBIRT

Substance Abuse and Mental Health Services, Preventing Prescription Drug Abuse in the Workplace, Screening for Prescription Drug Use Problems, http://publichealth.hsc.wvu.edu/media/3333/screener_ pire 6 print no-samhsa-logo.pdf

Education Programs

National Council on Patient Information and Education, Prescription (Rx) Abuse Prevention Programs > College Resource Kit, http://www.talkaboutrx.org/college resource kit.jsp

Ohio State University, School of Pharmacy, College Toolkit Generation Rx University, https://pharmacy.osu.edu/outreach/generation-rx-university

National Social Norms Institute at the University of Virginia, www.socialnorm.org

Disposal and Diversion Control

U.S. Food and Drug Administration, Disposal of Unused Medicines: What You Should Know, http://www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/ensuringsafeuseofmedicine/safedisposalofmedicines/ucm186187.htm

U.S. Drug Enforcement Agency, Drug Disposal Information, http://www.deadiversion.usdoj.gov/drug_disposal/index.html



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