

2022 College Prescription Drug Study Research Protocol

I. Objectives

This study is designed to assess the non-medical use of prescription and non-prescription medications among college and graduate/professional students at the Ohio State University and up to 50 additional colleges and universities. Information will be collected on the extent to which students take prescription and non-prescription drugs for nonmedical purposes, methods used to obtain them, reasons for using these drugs, and consequences of their use via an online survey. The main purpose of this study is to better inform the policy and practices of the Office of Student Life at Ohio State and similar offices at other colleges and universities. Since 2010, the College of Pharmacy, in partnership with the Center for the Study of Student Life (formerly Research & Assessment), Student Wellness Center, and Counseling & Consultation Services, have been developing and refining educational initiatives relating to medication safety and the consequences of misusing prescription and non-prescription drugs. The goal of the study is to better inform these efforts and allow administrators to have a better understanding of student behavior as it pertains to the misuse of these medications.

II. Background and Rationale

“The nonmedical use or abuse of prescription drugs is a serious and growing public health problem in this country.” This quote by Nora Volkow, Director of the National Institute on Drug Abuse (NIDA) as an introduction to their Research Report on “Prescription Drugs: Abuse and Addiction”¹ lays the groundwork for understanding the pervasive abuse of prescription and non-prescription medications. This report cited data from the Substance Abuse and Mental Health Services Administration’s (SAMHSA) National Survey on Drug Use and Health (NSDUH)² which estimated that 4.7 million Americans reported the use of prescription pain relievers, 1.9 million reported the use of prescription sedatives and tranquilizers, and 1.2 million reported the use of prescription stimulants for nonmedical purposes in 2003. One of the recommendations provided in this report was that prevention must occur, but it has to address each drug individually. Students are entering college already having abused prescription drugs. A recent study reports that 15% of 12th graders have misused some type of prescription drug, which is a statistic that has held steady since 2008.³

This phenomenon raises myriad concerns relating to academic, social, legal and health-related consequences. For example, SAMHSA’s Drug Abuse Warning Network (DAWN) estimated that more than 12,000 emergency department visits in 2004 involved pharmaceuticals containing dextromethorphan (a common ingredient in non-prescription cough and cold preparations).⁴ In 2005, they reported more than 590,000 emergency department visits involved the nonmedical use of prescription medications, non-prescription medications, or dietary supplements.⁵

The alarming trend in the misuse and abuse of prescription and non-prescription medications continues to escalate. The 2006 NSDUH⁶ revealed that seven million Americans (age 12 and older) reported the past month non-medical use of “psychotherapeutics” (prescription pain relievers, sedative/tranquilizers or stimulants), and they defined the mean age at first use of these medications as reflective of the traditional college cohort (21.9 for the first use of prescription pain relievers for nonmedical purposes, 23.0 for the first abuse of prescription stimulants). Furthermore, for the first time, new past-year initiates for the non-medical use of prescription pain relievers surpassed those for marijuana. These data have led the Office of National Drug Control Policy to conclude that, “Next to

marijuana, the most common illegal drugs teens are using to get high are prescription medications. Teens are turning away from street drugs and using prescription drugs to get high. Indeed, new users of prescription drugs have caught up with new users of marijuana.”⁷

These compelling data suggest that prescription and non-prescription medications have become the drugs of choice for abuse among our nation’s youth. This provides an impetus for us to better understand the behaviors and attitudes of students at Ohio State and other campuses in this regard in order to guide educational efforts to combat these alarming trends.

The rising misuse of prescription and non-prescription medications among our country’s youth is partly accredited to their misperceptions relating to the safety of abusing these substances. In 2005, the Partnership Attitude Tracking Study (PATS) reported that 40% of teens in grades 7 through 12 agreed strongly or somewhat that prescription drugs, even if they are not prescribed by a doctor, are much safer than illegal drugs. And 29% agreed strongly or somewhat that prescription pain relievers, even if they are not prescribed by a doctor, are not addictive.⁸ Indeed, according to NIDA, “It seems likely that young people are less concerned about the dangers of using these drugs outside of medical regimen than they are about the dangers of using illegal drugs, quite likely because the former are widely used for legitimate medical purposes.”⁹ Clearly, these assumptions are not true. For, in addition to the data presented above relating to emergency department visits, the Office of National Drug Control Policy reported that drug treatment admissions for prescription pain medications increased more than 300% between 1995 and 2005, and there was a seven-fold increase in cases related to the abuse of dextromethorphan (non-prescription cough medications) reported to poison control centers between 1999 and 2004.¹⁰

Perceptions of safety and the lack of addictive potential when abusing prescription and non-prescription medications demand a response in order to inform students that these medications can indeed be dangerous and sometimes addictive when misused. Local social norms data¹¹ from students at Ohio State would strengthen these efforts.

While the general misuse of prescription and non-prescription medications demands attention on college campuses, a specific contemporary concern relates to the abuse of prescription stimulants (e.g., Ritalin and Adderall). Teter *et al*, based on data from a survey of students at a large midwestern university,¹² reported 8.3% lifetime and past-year prevalence rates for illicit use of prescription stimulants. Locally, *The Lantern* (Ohio State’s student newspaper) published two front-page stories during the 2007-2008 school year relating to this problem:

“Popping Pills: Some Students Rely on Drugs to Get Through School Load”
(By Lindsay Betz, November 7, 2007)

“Some Students Abuse ADHD Medication to Cope with School”
(By Everdeen Mason, January 4, 2008)

This phenomenon is reminiscent of Greg Critser’s description of “a growing campus culture of self-diagnosis and self-medication,” which he called “pharmaceutical populism.”¹³

The culture of “pharmaceutical populism” on college campuses in general, and the growing reliance on prescription stimulants in particular, exemplify the need for enhanced awareness about medication safety issues among college students. Again, better data from students at Ohio State is essential to targeting and informing these efforts. In addition, Ohio State is part of a state-wide prevention

coalition (the Ohio College Initiative within the Drug-Free Action Alliance) with whom these data may be shared as well.

III. Procedures

A. Research Design

Data collection for this study will be accomplished via an anonymous online survey. The researchers are cognizant of the inherent risks associated with the types of questions we will ask and have designed the study to account for these risks. Since survey items will include questions relating to behaviors which are illegal (i.e., the use of controlled substances without a prescription), personal identifiers will not be collected. Other questions will ask about consequences experienced due to taking prescription medications for non-medical purposes, which may cause personal discomfort. Students who choose to participate will be asked to complete an online questionnaire. While completing the instrument, students may exit the survey at any time or skip questions if desired. In addition, sensitive questions will contain the option “I’d rather not say” to allow students to decide what information they would like to provide as they progress through the online instrument. The questions were developed subsequent to a review of a similar survey instrument developed by Kaloyanides, *et al.*¹⁴ and in consideration of statistics in the literature and as promulgated by national organizations (e.g., NIDA, SAMHSA, Office of National Drug Control Policy).

B. Sample

For the Ohio State survey, undergraduate, professional and graduate students at the Ohio State University who are at least 18 years old will constitute the study population. A randomly-selected sample of 5000 students will be pulled within the Center for the Study of Student Life using Ohio State’s SIS database. The students in this sample will be invited to complete the online survey. We expect a 25% to 30% response rate. Invitations for students to participate and three follow-up reminders will be delivered through campus e-mail by XXXX, TITLE. The list of students in the sample will be destroyed subsequent to a drawing for the incentive winners. For the multi-institutional study, undergraduate, professional and graduate students at up to 50 participating colleges and universities who are at least 18 years old will constitute the study population. A randomly-selected sample of up to 5000 students will be pulled from each institution from the appropriate contact person at their institution. We will amend our application to provide the additional research sites and procedures.

C. Measurement / Instrumentation

Please see the attached document for the survey instrument.

All data will be provided through self-disclosure on the part of the respondents. Data collected will also include student demographic information including enrollment status (undergraduate/professional/ graduate), rank, cumulative grade-point average, gender, age, ethnicity, marital status, sexual orientation, membership in a fraternity or sorority, and participation in intramural sports. Since we seek a better understanding of student behaviors, attitudes and beliefs relating to the nonmedical use of prescription and non-prescription medications, the use of a survey questionnaire to collect self-reported data is deemed appropriate. Validity of the survey instrument was established based on investigators’ review of research literature and a designated instrument review committee, as well as existing survey instruments measuring college student behaviors relating to the non-medical use of prescription and non-prescription medications.

D. Detailed study procedures

The study consists of an online survey which will take approximately 15-25 minutes. Consenting students will be given a link to the online survey; personal identifiers will not be collected, so it will not be possible to connect their personal identity with their survey responses in any way. Therefore, anonymity of student survey responses is assured. Since it will not be possible to determine who has responded, reminder e-mails will be sent to all students in the study sample approximately four days and two weeks subsequent to the initial communication. Ohio State students who complete the survey can choose to link to an additional survey where they will enter their contact information that will be used to raffle off the following incentives: 3-5 Apple Watch Series 6 and 5-6 BuckID \$50 deposits. These incentives will be offered, but the amount of lottery incentives offered is dependent on pending institutional funding.

E. Internal Validity

The questions used in this study were developed based on a review of research literature relating to the misuse of prescription and non-prescription medications among our nation's youth in general, and among college students in particular. The survey instrument was constructed and reviewed by faculty, staff and students from Ohio State's Center for the Study of Student Life, the College of Pharmacy, the Student Wellness Center, and Counseling & Consultation Services prior to the 2010, 2015, and 2018 administration. The survey has been revised based upon the results of previous studies and more recent research literature. Additionally, the 2018 survey was updated for clarity and cultural competence based on the feedback received an Instrument Review Committee consisting of 6-8 experts in the field of college drug use.

F. Data Analysis

Data from the participating respondents will be collected by Qualtrics survey software and read into SPSS (Statistical Package for the Social Sciences) or STATA, data management and analysis software packages. Once collected, data will be used and reported in the following manners: (1) Response frequencies will be determined for each item in the questionnaire. (2) The data will be sorted to identify response patterns based upon enrollment status (undergraduate/professional/graduate), rank, cumulative grade-point average, gender, age, ethnicity, marital status, sexual orientation, membership in a fraternity or sorority, and participation in intramural sports.¹⁵ (3) Statistical analyses will be conducted to detect statistical differences, if any, between groups.

A summary report of the survey's findings will be produced and made available to other divisions of the University (e.g., Offices of First-Year Experience, Counseling & Consultation Services, Student Wellness, Undergraduate Studies, Student Life). For the multi-institutional study, an institution-specific report will be submitted to participating schools as will an aggregate report on all the participating institutions. Results will also be submitted for presentations at professional conferences or professional journals.

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- ¹ National Institute on Drug Abuse (2005). Prescription Drugs: Abuse and Addiction. *Research Report Series*. NIH Pub. No. 05-4881. Bethesda, MD.
- ² Substance Abuse and Mental Health Services Administration, Office of Applied Studies (2004). *Results from the 2003 National Survey on Drug Use and Health: National Findings*. DHHS Publication No. (SMA) 04-3964. Rockville, MD.
- ³ Johnston, L.D., O'Malley, P.M., Miech, R.A., Bachman, J.G., & Schulenberg, J.E. (2014). *Monitoring the future national results on drug use: 1975-2013: Overview, key findings on adolescent drug use*. Ann Arbor, MI: Institute for Social Research, The University of Michigan.
- ⁴ Substance Abuse and Mental Health Services Administration, Office of Applied Studies (2006). Emergency department visits involving dextromethorphan. *The New DAWN Report*, Issue 32.
- ⁵ Substance Abuse and Mental Health Services Administration, Office of Applied Studies (2007). *Drug Abuse Warning Network 2005: National Estimates of Drug-Related Emergency Department Visits*. DAWN Series D-29, DHHS Publication No. (SMA) 07-0256. Rockville, MD.
- ⁶ Substance Abuse and Mental Health Services Administration, Office of Applied Studies (2007). *Results from the 2006 National Survey on Drug Use and Health: National Findings*. DHHS Publication No. (SMA) 07-4293. Rockville, MD.
- ⁷ Office of National Drug Control Policy, Executive Office of the President (2007). *Teens and Prescription Drugs: An Analysis of Recent Trends on the Emerging Drug Threat*. (Page 2).
- ⁸ The Partnership for a Drug-Free America (2006). *The Partnership Attitude Tracking Study (PATS): Teens in Grades 7 through 12, 2005*.
- ⁹ National Institute on Drug Abuse (2008). *Monitoring the Future: National Results on Adolescent Drug Abuse, Overview of Key Findings 2007*. NIH Publication No. 08-6418. (Page 8).
- ¹⁰ Office of National Drug Control Policy, Executive Office of the President (2008). *Prescription for Danger: A Report on the Troubling Trend of Prescription and Over-the-Counter Drug Abuse Among the Nation's Teens*.
- ¹¹ Perkins, H. W. (Ed.). (2003). *The Social Norms Approach to Preventing School and College Age Substance Abuse*. San Francisco: Jossey-Bass.
- ¹² Teter, C. J., McCabe, S. E., LaGrange, K., Cranford, J. A., & Boyd, C. J. (2006). Illicit use of specific prescription stimulants among college students: Prevalence, motives, and routes of administration. *Pharmacotherapy*, 26(10), 1501-1510.
- ¹³ Critser, G. (2005). *Generation Rx: How Prescription Drugs are Altering American Lives, Minds, and Bodies*. New York: Houghton Mifflin Co. (Page 149).
- ¹⁴ Kaloyanides, K. B., McCabe, S. E., Cranford, J. A., & Teter, C. J. (2007). Prevalence of illicit use and abuse of prescription stimulants, alcohol, and other drugs among college students: Relationship with age at initiation of prescription stimulants. *Pharmacotherapy*, 27(5), 666-674.
- ¹⁵ To avoid group harms, the only group-specific data to be publically disseminated will be those sorted according to age, gender and enrollment status. Other group-specific data will only be used in targeting educational programming.