



Short communication

Non-medical use of prescription stimulants for academic purposes among college students: A test of social learning theory



Jason A. Ford*, Julianne Ong

Department of Sociology University of Central Florida, Orlando, FL 32816, United States

ARTICLE INFO

Article history:

Received 15 May 2014

Received in revised form 8 September 2014

Accepted 9 September 2014

Available online 19 September 2014

Keywords:

College

Prescription stimulants

Social learning

ABSTRACT

Objective: The current research examines whether measures associated with Akers' social learning theory are related to non-medical use of prescription stimulants for academic reasons among college students.

Methods: We examine data from a sample of 549 undergraduate students at one public university in the Southeastern United States. We estimate several logistic regression models to test our hypotheses.

Results: The findings indicated that roughly 17% of students reported non-medical use of prescription stimulants for academic reasons during the past year. In separate models, all four of the social learning measures were significantly correlated to non-medical use. In the complete model, the risk of non-medical prescription stimulant use for academic reasons was increased for respondents who reported more of their friends used and also for respondents who believed that prescription stimulants were an effective study aid.

Conclusions: The current research fills an important gap in the literature regarding theoretical explanations for non-medical prescription stimulant use. Given the high prevalence of non-medical prescription stimulant use and the known risks associated with non-medical use this research can help inform intervention strategies for college populations.

© 2014 Elsevier Ireland Ltd. All rights reserved.

1. Introduction

Research indicates that college students are at increased risk for non-medical use of prescription stimulants (NMUPS) compared to same age peers who do not attend college (Johnston et al., 2014; Substance Abuse and Mental Health Services Administration (SAMHSA), 2012). Data from the 2013 monitoring the future study estimate the annual prevalence of NMUPS among full time college students to be nearly 11%, and prevalence is up from only 6% in 2008 (Johnston et al., 2014). Most of the research on NMUPS is based on samples of students at different colleges (Rabiner, 2013) and prevalence estimates vary greatly between schools (McCabe et al., 2005), with rates as high as 43% (Advokat et al., 2008). To be clear, part of the reason why prevalence varies so much is that NMUPS is not measured consistently across studies.

The primary motivation for NMUPS is to increase concentration or alertness, to help study, and the most common source of diversion is peers or family (Garnier-Dykstra et al., 2012; Teter et al., 2005). Analyzing data from a national sample of college students, McCabe et al. (2005) identify several risk factors for NMUPS

including gender (males), race (white), Greek affiliation, low GPA, and other substance use. Research drawing samples from single universities provide support for the risk factors outlined in this study (Arria et al., 2013; DeSantis et al., 2008; Low and Gendasek, 2002; McCabe et al., 2006; Rabiner et al., 2010; Shillington et al., 2006).

Even with the increased research on NMUPS, there is a noticeable lack of research that investigates theoretical explanations. To address this important gap in the literature the current research relies on Akers social learning theory (Akers, 1985). The theory focuses on individual socialization and argues that behavior is learned through close relationships (differential association) with others. Learning occurs through exposure to deviant role models (imitation), attitudes (definitions) that justify, normalize, and reinforcement deviant behavior. The likelihood of deviance increases when the behavior is defined as desirable and is reinforced by significant others (differential reinforcement). Social learning theory is one of the most prominent theories of deviance and has been linked to NMUPS (Ford, 2008; Higgins et al., 2009; Peralta and Steele, 2010).

The current study examines key concepts of Akers' social learning theory in relation to NMUPS. We hypothesize that students who are exposed to friends who engage in NMUPS, believe that NMUPS is accepted among their peers, perceive less risk associated with

* Corresponding author. Tel.: +1 407 823 2769.
E-mail address: Jason.Ford@ucf.edu (J.A. Ford).

NMUPS, and believe prescription stimulants are an effective study aid will show an increased risk for NMUPS. We look at these concepts separately, in individual regression models, and also together in one regression model.

2. Methods

The current research was reviewed and approved by the authors' Institutional Review Board.

2.1. Data

The data for the current research was a sample of undergraduate college students at one public university in the Southeastern United States during the fall of 2011 ($N = 549$). An anonymous pen and paper survey was distributed to students during regular class meetings, participants were given no incentives to participate in the study. The researchers contacted professors teaching upper-level courses, in an attempt to avoid freshman who would not be able to report a GPA. While we only use GPA as a control in the current research, a measure of GPA was integral to another element of the original study that examined the relationship between academic strain and NMUPS. Surveys were distributed to students in a total of 13 different courses, and included courses offered in five different academic colleges at the university. The sample size for the analytical models was 521, and about 5% of the sample was missing because they did not answer items used in the current analysis.

2.2. Measures

The dependent variable was non-medical use of prescription stimulants. Respondents were asked if they had taken prescription stimulants in the past year without a prescription for academic reasons, responses were coded 0 = No and 1 = Yes. The focus of this study was to specifically look at NMUPS for academic reasons, and use for recreational or other reasons was beyond the scope of the current research. We realize that this likely produced a conservative estimate of NMUPS.

Measures were created to tap three of the main concepts in social learning theory. First, to measure *differential association* respondents were asked on a scale from 1 (none of them) to 4 (all of them), "...how many of their friends misuse prescription stimulants for academic reasons." Second, to measure *definitions* respondents were asked "...it is acceptable for college students to misuse prescription stimulants for academic purposes." Responses were based on a Likert scale measure of 1 (strongly disagree) through 5 (strongly agree). Respondents were also asked "...how much do you think a college student risks harming themselves (physically or in other ways) if they misuse prescription stimulants regularly?" Responses were based on a scale from 1 (no risk) to 4 (great risk). Finally, to measure *differential reinforcement* respondents were asked "...prescription stimulants are an effective study aid" (1 = strongly disagree to 5 = strongly agree).

We included a number of controls which prior research has shown increases risk of NMUPS in our models (Arria et al., 2013; McCabe et al., 2005; Rabiner et al., 2010). The controls included demographic characteristics such as *age*, *gender* (1 = male), and *race* (1 = white). A dummy variable was created to measure *residence* with live at home = 1. A measure was also created for membership in a *fraternity or sorority* coded 1 = member. Finally, respondents were also asked if they had a paying job where they worked more than 20 h a week (1 = yes) and to report their current *grade point average*.

Table 1
Sample characteristics ($N = 521$).

Measure	Range	Mean (proportion)	Standard deviation
NMUPS	0,1	0.17 (16.82%)	0.374
Friends NMUPS	1–4	1.67	0.670
Acceptability of NMUPS	1–5	2.27	1.096
Risk of NMUPS	1–4	2.93	0.840
Stimulants as effective study aid	1–5	2.99	1.233
Age		22.22	3.587
Gender (male)	0,1	0.49 (48.62%)	0.500
Race (white)	0,1	0.63 (63.14%)	0.483
Residence (live at home)	0,1	0.20 (19.74%)	0.398
Greek	0,1	0.13 (13.00%)	0.336
Work 20+ h per week	0,1	0.45 (45.00%)	0.498
GPA		3.28	0.403

2.3. Analytic strategy

Several logistic regression models were estimated to test hypotheses. Model 1, or the baseline model, included only the control measures. The next four models added the social learning measures to the baseline model separately: Model 2 (friends use), Model 3 (acceptability), Model 4 (risk), and Model 5 (effectiveness). Finally, Model 6, the complete model, included all social learning measures and all controls. In order to determine significance of correlates we used Wald tests.

3. Results

3.1. Sample characteristics

The demographics of the current sample closely matched those of the undergraduate student population at the university. The sample was 49% male while the total undergraduate population was 46% male. The current sample was 63% white, 15% Hispanic, 9% black and 4% Asian while the university was 61% white, 18% Hispanic, 10% black and 5% Asian. The survey also included several measures of substance use and the prevalence of substance use in our sample was similar to national estimates of substance use among college students (Johnston et al., 2014).

Sample characteristics for all variables used in the analysis are shown in Table 1. Nearly 17% of the sample reported NMUPS for academic reasons during the past year. About 57% of respondents reported NMUPS among their friends. Roughly 13% of respondents agreed or strongly agreed that it was acceptable for college students to use. Nearly 70% of the sample reported that there was a moderate or great risk associated with non-medical use. Finally, about 38% respondents agreed or strongly agreed that stimulants were an effective study aid (Table 2).

3.2. Logistic regression results

The findings in regression models 2–5 supported social learning theory. In Model 2, respondents who reported more NMUPS by friends were at increased risk for non-medical use (AOR = 6.09). In Model 3, respondents who believed that NMUPS was more acceptable were at increased risk for use (AOR = 2.13). In Model 4, respondents who felt there was more risk associated with NMUPS were at a decreased risk for non-medical use (AOR = 0.46). In Model 5, respondents who believed that stimulants were an effective study aid were at increased risk for non-medical use (AOR = 2.59). In the complete model, with all controls and all social learning measures included, only two of the social learning measures were significant. Respondents who reported more non-medical use among friends (AOR = 4.22) and that stimulants were an effective study aid (AOR = 1.93) were at increased risk for non-medical use.

Download English Version:

<https://daneshyari.com/en/article/7505751>

Download Persian Version:

<https://daneshyari.com/article/7505751>

[Daneshyari.com](https://daneshyari.com)