University of Washington
Center for the Study of Health & Risk Behaviors
RESEARCH SUMMARY

In partnership with NASPA – Student Affairs Administrators in Higher Education and the Coalition to Prevent ADHD Medication Misuse

Updated January 13, 2017

CPAMM™

THE COALITION TO PREVENT ADHD MEDICATION MISUSE

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METHODOLOGY

- During the 2015-2016 academic year, the research team at the University of Washington's (UW) Center for the Study of Health & Risk Behaviors (CSHRB) partnered with NASPA and CPAMM to conduct a study documenting the non-medical use of prescription stimulant medication, as well as potential medical misuse, diversion, and attitudes.
- In all, 7 campuses participated in Project PHARM (Personalized Health Assessment Related to Medications).
- After the CSHRB team received a random sample of students from the Registrar at each school, an email from each campus was sent to the student body announcing the partnership between their campus and UW, and confirming the legitimacy of a potential forthcoming invitation from UW to participate in the study. Students were then emailed invitations to complete an online survey. Reminder emails were sent during the recruitment period designated by each campus.

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THE SAMPLE

A sample of **2,989 undergraduates** between the ages of 18-25 (average age = 20.34 years) was collected.

Gender identity

- 60.3% Female
- 38.2% Male
- 1.3% Gender identity not listed here
- 0.2% Transgender

Class Standing

- 20.2% Freshman
- 22.1% Sophomore
- 29.2% Junior
- 28.5% Senior

Ethnic background

- 90.1% Non-Hispanic/Non-Latino/a
- 9.9% Hispanic Latino/a

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THE SAMPLE *Continued*

A sample of **2,989 undergraduates** between the ages of 18-25 (average age = 20.34 years) was collected.

Racial background

- 65.5% White/Caucasian
- 20.3% Asian/Asian American
- 6.3% More than one race
- 4.3% Black/African American
- 2.9% Other
- 0.4% Native Hawaiian/Other Pacific Islander
- 0.3% Alaskan Native/American Indian

Cumulative GPA: 3.39

Previous quarter's/semester's GPA: 3.42

Residence

- 41.9% Apartment/house/residence hall off-campus
- 34.0% On-campus/school residence hall
- 11.6% At home, with my parents
- 9.3% Fraternity/sorority
- 2.2% Off-campus residence hall owned by the college
- 1.0% Somewhere else

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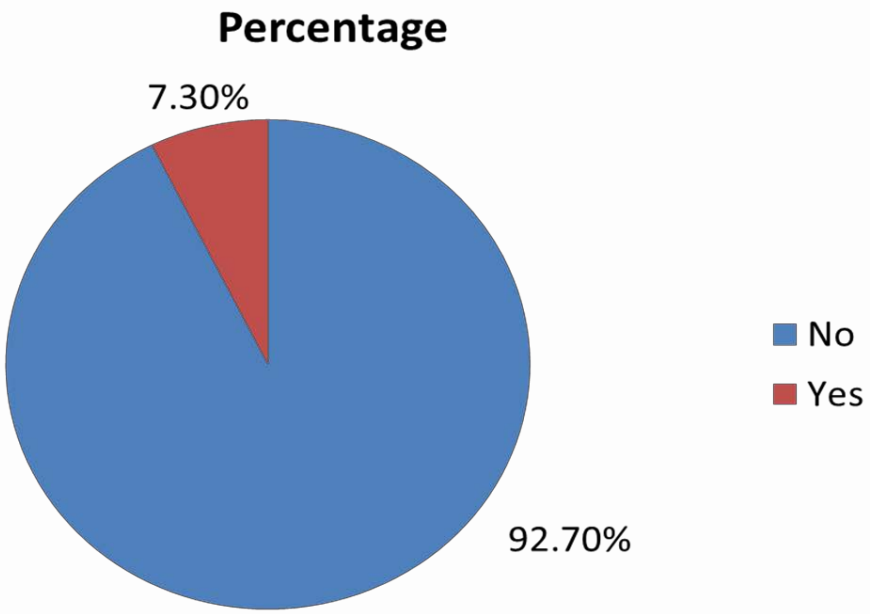
TRENDS FOR DIAGNOSIS OF ADHD AND EXPERIENCE WITH MEDICATION

- 7.3% (n=217) of the sample (n=2979 valid data…10 had missing data) had current or past diagnosis of ADHD.

"Do you currently or have you ever had a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD)?"



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TRENDS FOR DIAGNOSIS OF ADHD AND EXPERIENCE WITH MEDICATION *Continued*

- Of these 217 with a current or past ADHD diagnosis, most students with a prescription (past or present) reported taking their medication as prescribed and did not report misuse.

- Current prescription, take as prescribed 42.4% (n=92) Current prescription, don't always take as prescribed 24.4% (n=53) Past prescription, no longer take 24.0% (n=52) Past prescription, still take 2.3% (n=5) Never taken meds with or without a prescription: 6.9% (n=15)

- This means that of the 145 with a current prescription, **63.4% always take as prescribed.**

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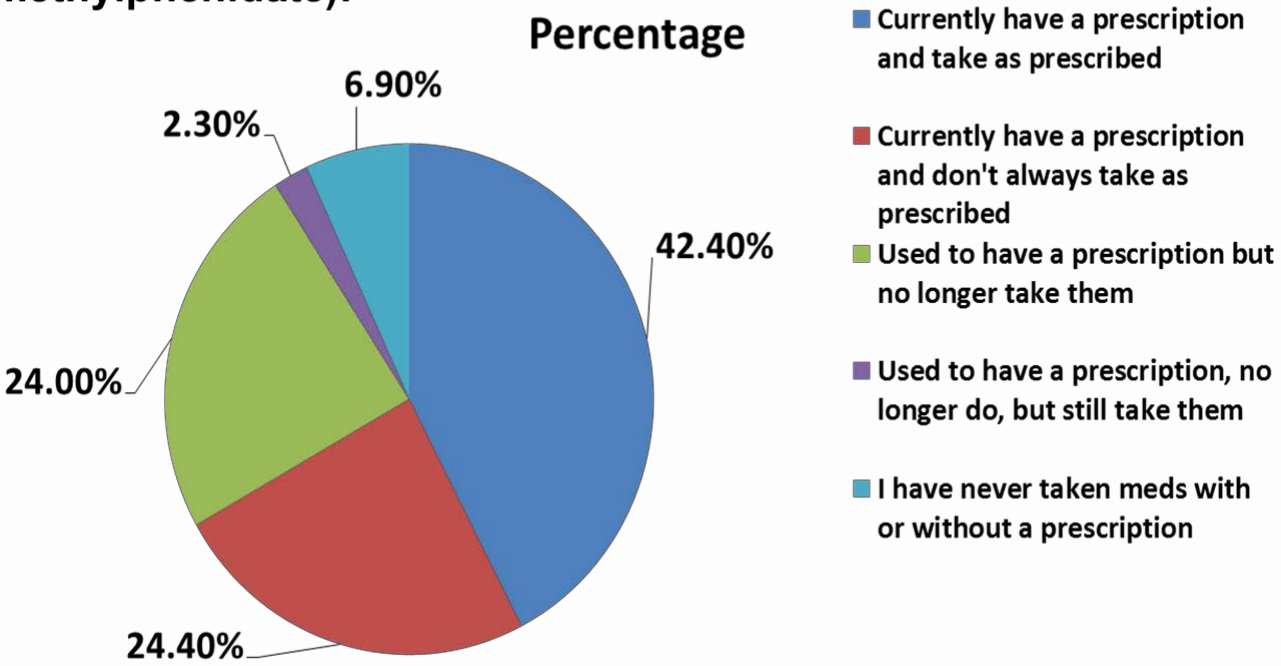
TRENDS FOR DIAGNOSIS OF ADHD AND EXPERIENCE WITH MEDICATION

Continued

"Please describe your use of ADHD prescription stimulant medications (including Ritalin, Dexedrine, Adderall, Concerta, methylphenidate):



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DIVERSION

Over half of students with a prescription at any time (n= 116 out of the 193 with valid data) have been approached by others to divert their medication. Over one-third of those with a prescription at some point who were approached felt pressured to divert (n=41 of those 116), even though they didn't want to, and approximately one-third of those who ever had a prescription (n = 62 of 192 with valid data) wanted these friends to seek help from a doctor.

"On how many occasions in the past year have you been approached by a friend or other student asking to have or buy some of your ADHD prescription stimulant medication?"
(n=193 with valid data who had ever had a prescription)

- 39.9% 0 times
- 8.3% 1 time
- 11.4% 2 times
- 7.3% 3 times
- 2.6% 4 times
- 5.7% 5 times
- 13.5% 6-10 times
- 5.2% 11-20 times
- 6.2% More than 20 times

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DIVERSION *Continued*

"Did you feel pressured to do so even though you didn't want to?"

(a) n=116 participants who (a) have had a past or current prescription and (b) were approached by someone in the past year

- 64.7% No
- 35.3% Yes

(b) n=145 participants with a current prescription, whether they've been approached in the past year or not (valid data provided by 136 participants, with 9 missing data)

- 74.3% No
- 25.7% Yes

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DIVERSION *Continued*

"Do you want these friends to get help if they need it by seeing a doctor for diagnosis and/or treatment?

(a) n=116 participants who (a) had a past or current prescription and (b) were approached by someone in the past year.

- 70.7% Yes
- 29.3% No

(b) n=145 participants with a current prescription, whether they've been approached in the past year or not (valid data provided by 136 participants, with 9 missing data)

- 73.5% Yes
- 26.5% No

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NON-MEDICAL USE OF PRESCRIPTION STIMULANTS *Continued*

In our sample of 2,989 participants, we had 2,264 with no non-medical use, 471 with non-medical use, and 254 for whom this information is missing. Considering valid percentages, this means **17.2%** of the sample reported **past year non-medical use of prescriptions stimulants.**

"In the past 12 months, on how many days have you used an ADHD prescription stimulant non-medically?"

- 82.8% 0 times
- 3.3% 1 time
- 3.1% 2 times
- 1.9% 3 times
- 1.3% 4 times
- 3.3% 5-10 times
- 2.1% 11-20 times
- 1.5% 21-40 times
- 0.8% 41-300 times

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PERCEPTIONS OF NON-MEDICAL USE OF PRESCRIPTION STIMULANTS

Although most (82.8%) students have not used stimulants for non-medical reasons in the past year, the perception is that non-medical use is much higher.

- **Actual rate**: 17.2%
- **Perceived rate**: 30.0% (range is 0% to 98%)

In fact, 21% of students think half or more of the undergrads on their campus use at least once per year. This can be an important normative misperception to correct, particularly at potentially high-risk times of year for non-medical use (e.g., midterms, finals, or when end of the quarter/semester deadlines are approaching).

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PAST 6 MONTH EXPERIENCES AMONG THOSE WITH PAST 6 MONTH NON-MEDICAL USE *Continued*

Because some of these experiences could contribute to reasons for use (e.g., reducing appetite among those hoping to lose weight), in any educational campaign we would only provide prevalence data on potentially unwanted/unintended consequences/experiences. Thus, independent of which are viewed as attractive or unwanted, the 385 students with past six- month use reported the following experiences at least 1 time in the past six months.

- 76.5% Reduced my appetite
- 66.2% Sleep difficulties
- 52.7% Increased heart rate
- 30.6% Made me irritable
- 27.1% Gave me headaches
- 24.1% Had a high body temperature/felt very hot
- 24.1% Increased respiration
- 22.0% Gave me stomachaches

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PAST 6 MONTH EXPERIENCES AMONG THOSE WITH PAST 6 MONTH NON-MEDICAL USE *Continued*

- 21.2% Made me sad
- 19.3% Made me dizzy/lightheaded
- 18.2% Irregular heartbeat
- 16.6% Elevated blood pressure
- 13.1% Feelings of hostility
- 12.9% Led to social difficulties
- 12.6% Feelings of paranoia
- 1.6% Had to see a physician
- 1.6% Cardiovascular problems (such as heart attack or stroke) or seizures
- 1.6% Had to seek treatment because I felt addicted
- 1.1% Had to seek treatment in an emergency room

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NON-MEDICAL USE OF PRESCRIPTION STIMULANTS BY GREEK LIFE STATUS

For campuses with fraternities and sororities, targeted or increased campaigns may be indicated. While the exact mechanisms surrounding higher reported use by fraternity and sorority members would need to be studied, access to stimulants could be higher in an in-tact social group in a way that would be different for those in residence halls or living independently.

- Non-fraternity and non-sorority members (n=2,135)
  - 12.9% with past year use
- Greek System fraternity and sorority members (n=598)
  - 32.4% with past year use

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NON-MEDICAL USE OF PRESCRIPTION STIMULANTS BY MAJOR

Excluding any majors with less than 75 people (i.e., only including majors with at least 2.5% of the sample or higher), the following are prevalence rates by major (with 4 majors above the overall student average – while it is still the case that most students in each of these majors do not use, it is possible campuses could consider targeted social norms efforts in departments in which use could be most prevalent).

- Communications, Advertising, & Public Relations (n= 75) 22.7%
- Business (n=328) 20.1%
- Social Sciences (n=165) 18.8%
- Psychology (n=201) 18.4%
- Computer and Information Sciences (n=157) 17.2%
- Biological and Biomedical Sciences (n=353) 17.0%
- Other (n = 288) 17.0%
- Health Professions and Related Programs (n=198) 15.7%
- Physical Sciences & Science Technologies (n=75) 14.7%
- Nursing (n=77) 13.0%
- Engineering & Engineering Technologies (n=271) 12.2%

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RISK PERCEPTION *Continued*

Most students acknowledge at least some risk to medical misuse or non-medical use of prescription stimulants. For the entire sample, students were asked about potential risk of occasional and regular medical misuse and non-medical use.

How much do you think PEOPLE RISK harming themselves *physically*, if they…	No Risk	Slight Risk	Moderate Risk	Great Risk	Don't Know
1. use ADHD prescription stimulant medication outside of how it was prescribed or without a prescription occasionally?	13.5%	47.5%	27.7%	6.5%	4.8%
2. use ADHD prescription stimulant medication outside of how it was prescribed or without a prescription regularly?	3.5%	13.5%	35.8%	42.4%	4.8%

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RISK PERCEPTION *Continued*

Most students acknowledge at least some risk to medical misuse or non-medical use of prescription stimulants. For the entire sample, students were asked about potential risk of occasional and regular medical misuse and non-medical use.

How much do you think PEOPLE RISK harming themselves *psychologically-emotionally* (e.g., mood, sense of well-being) *or cognitively* (e.g., memory, attention)-- if they…	No Risk	Slight Risk	Moderate Risk	Great Risk	Don't Know
3. use ADHD prescription stimulant medication outside of how it was prescribed or without a prescription occasionally?	9.8%	37.3%	36.5%	11.8%	4.6%
4. use ADHD prescription stimulant medication outside of how it was prescribed or without a prescription regularly?	2.6%	9.7%	28.2%	55.0%	4.5%

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MOTIVES

- We asked, "*In the past six months, please rate how often you have used ADHD prescription stimulant medications (either without a prescription or in a way not prescribed) for the following reasons,"* and presented students with 18 possible motives.

- For the purposes of these analyses, we are only including those reporting non-medical use (i.e., the small number of students reporting medical misuse limits generalizability and also involves a different practice/issue than seeking out medication without a prescription). In the sample of those with past six-month non-medical use of prescription stimulants (n=385), the top seven most frequently endorsed motives involve an academic reason for use.

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MOTIVES *Continued*

The percentages endorsing **"sometimes/half the time," "often/most of the time,"** or **"always/almost always"** as **motives for non-medical use of prescription stimulants over the past six months** (including only those with past six month non-medical use) are:

- 54.0% To concentrate better while studying
- 52.8% To be able to study longer
- 35.0% To feel less restless while studying
- 28.9% Because it helps increase my alertness
- 18.7% To concentrate better in class
- 13.9% To keep better track of assignments
- 11.2% To feel less restless in class
- 10.7% To feel better
- 9.4% To prevent others from having an academic edge
- 9.1% To get high
- 8.6% To prolong the intoxicating effects of alcohol/substances
- 8.6% Curiosity and experimentation
- 6.4% Because it is safer than street drugs
- 5.9% To lose weight
- 5.1% Other
- 4.3% To counteract the effects of other drugs
- 2.1% Because I'm addicted

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MOTIVES *Continued*

Despite the numerous academic motives, a recently published study shows no academic advantage for students who report non-medical use of prescription stimulants (*see Arria, A.M., Caldeira, K.M., Vincent, K.B., O'Grady, K.E., Cimini, M.D., Geisner, I.M., Fossos-Wong, N., Kilmer, J.R., Larimer, M.E. (2017). Do college students improve their grades by using prescription stimulants nonmedically? Addictive Behaviors. 65, 245-249.*)

In this study, students were asked to rate "the degree to which you agree/disagree that prescription stimulants will help people without a prescription get better grades." The breakdown was:

- Strongly Disagree: 14.0%
- Disagree: 21.2%
- Unsure: 35.0%
- Agree: 24.5%
- Strongly Agree: 5.3%

Thus, only 29.8% of students agreed or strongly agreed that prescription stimulants would help people without a prescription get better grades. Including the large number of students who are unsure, particularly since they do not agree, it is the case **that most (70%) students don't think non-medical use of prescription stimulants will help get better grades.**

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

- Students who did not report ADHD prescription stimulant medical misuse or non-medical use were given a list of 34 reasons why they may have chosen not to use substances in this way. These students represent an important target of prevention efforts – universal prevention efforts often focus on delaying the initiation of use (i.e., maintaining abstinence among those who currently abstain). The responses to these questions allow us to consider what factors are most compelling that could, theoretically, prompt continued abstinence if emphasized in prevention efforts.

- The same questions were posed to those reporting misuse or non-medical use, asking why they chose to abstain or limit their use on certain days. This, too, can provide important information for prevention campaigns, because these primary reasons for abstaining or limiting use could be the very factors which could prompt consideration of change among those engaging in use.

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

- We ranked each item by the degree to which the factor had at least a small influence in students' decisions to abstain or not use. Interestingly, 7 of the 10 reasons for abstainers to abstain and for those with use to abstain or limit use were commonly held reasons.

- These appear below as highlighted in yellow. Three of the reasons abstainers choose to abstain (reasons 6, 7, and 8) appeared to be more relevant to abstainers, and were reasons 13, 14, and 15 among those with misuse or non-medical use. These appear below as highlighted in green. Finally, three of the reasons for abstaining or limiting use among those with misuse or non- medical use (reasons 3, 7, and 8) were almost irrelevant to abstainers (landing in places 21, 22, and 25). These appear below as highlighted in blue.

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

FOR ABSTAINERS: You answered earlier that you have not used ADHD prescription stimulant medications outside of how they were prescribed to you and/or without a prescription. What follows is a list of 34 reasons why some people choose (as you have) not to use substances in this way. Please read each item carefully and rate the degree (from 1 to 4) that each reason has influenced you to not use ADHD prescription stimulant medications.	1= No influence at all	2= Small influence	3= Medium influence	4= Large influence
1. It could impair/damage my thinking.	19.6%	18.3%	24.5%	37.7%
2. It could damage my body.	20.9%	19.0%	24.3%	35.8%
3. It doesn't fit the image I have of myself.	21.3%	12.2%	19.9%	46.6%
4. I don't need it to have a good time.	21.8%	12.3%	18.9%	47.0%
5. It could affect my sleep.	22.4%	21.1%	28.1%	28.4%
6. I don't see any benefits of using it.	24.6%	16.8%	19.7%	39.0%
7. It is illegal.	25.0%	19.3%	19.8%	35.8%
8. I might not be in control of my behavior.	25.1%	16.9%	22.7%	35.3%
9. I might not be in control of my emotions.	26.2%	17.3%	23.0%	33.5%
10. I could become addicted.	26.5%	20.2%	21.1%	32.1%
11. I might not be in control of my thoughts.	27.1%	19.4%	21.6%	31.9%

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

FOR ABSTAINERS: You answered earlier that you have not used ADHD prescription stimulant medications outside of how they were prescribed to you and/or without a prescription. What follows is a list of 34 reasons why some people choose (as you have) not to use substances in this way. Please read each item carefully and rate the degree (from 1 to 4) that each reason has influenced you to not use ADHD prescription stimulant medications.	1= No influence at all	2= Small influence	3= Medium influence	4= Large influence
12. I don't know enough about this drug.	27.9%	18.5%	21.7%	31.8%
13. I want to be a positive role model for others.	30.8%	17.8%	21.3%	30.1%
14. I could get caught (by someone other than law enforcement).	31.2%	22.2%	21.5%	25.0%
15. It could be laced with other drugs.	35.2%	18.5%	20.1%	26.2%
16. My family would not approve.	35.9%	23.1%	19.2%	21.8%
17. It could lower my grades in school.	37.5%	17.3%	19.0%	26.2%
18. I could die of an overdose.	39.6%	22.2%	15.9%	22.3%
19. It could lead me to use other drugs.	38.5%	18.8%	18.2%	24.5%
20. It could hurt my current job performance.	44.2%	16.4%	18.2%	21.2%
21. It is too expensive.	48.1%	22.7%	15.5%	13.6%
22. No one ever offered it to me.	50.8%	19.6%	9.3%	20.2%

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

FOR ABSTAINERS: You answered earlier that you have not used ADHD prescription stimulant medications outside of how they were prescribed to you and/or without a prescription. What follows is a list of 34 reasons why some people choose (as you have) not to use substances in this way. Please read each item carefully and rate the degree (from 1 to 4) that each reason has influenced you to not use ADHD prescription stimulant medications.	1= No influence at all	2= Small influence	3= Medium influence	4= Large influence
23. I have seen the bad effects of it on others.	52.0%	20.4%	14.3%	13.3%
24. My friends would not approve.	52.4%	23.9%	14.8%	9.0%
25. It could affect my appetite.	53.1%	22.9%	12.5%	11.5%
26. It could hurt my athletic abilities.	54.2%	17.6%	13.9%	14.3%
27. I might not pass a drug test.	58.1%	17.0%	12.0%	12.9%
28. It could affect my sexual performance.	65.0%	18.4%	9.5%	7.2%
29. I don't like the way I'd look or smell after using it.	65.0%	16.5%	8.9%	9.7%
30. I have a family history of alcohol or drug problems.	66.1%	14.0%	9.2%	10.7%
31. This drug is difficult to get.	69.6%	18.0%	7.7%	4.7%
32. I don't like the way of taking the drug (e.g., smoking, swallowing, other.)	73.6%	11.6%	6.7%	8.1%
33. It is against my religion.	80.7%	8.3%	5.2%	5.8%
34. I have a medical condition that prevents me from using it.	85.9%	6.0%	3.8%	4.3%

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

FOR THOSE WHO REPORT MEDICAL MISUSE OR NON-MEDICAL USE: You answered earlier that on some days you have used ADHD prescription stimulant medications outside of how they were prescribed to you and/or without a prescription. On some days, however, you may have chosen to not use or to limit your use. What follows is a list of 34 reasons why some people may choose to limit their use or not use on any given occasion. Please read each item carefully and rate the degree (from 1 to 4) that each reason has influenced you to limit your use of ADHD prescription stimulant medications or to not use on some occasions.	1= No influence at all	2= Small influence	3= Medium influence	4= Large influence
1. It could affect my sleep.	28.6%	25.0%	24.6%	21.8%
2. I don't need it to have a good time.	56.8%	15.6%	11.5%	16.1%
3. No one ever offered it to me.	57.8%	22.3%	8.2%	11.7%
4. It could impair/damage my thinking.	59.0%	17.2%	14.4%	9.4%
5. It could damage my body.	59.6%	18.5%	12.9%	9.0%
6. It doesn't fit the image I have of myself.	61.1%	16.1%	11.0%	11.8%
7. It is too expensive.	61.1%	20.5%	11.7%	6.7%
8. It could affect my appetite.	63.6%	19.0%	11.5%	5.9%
9. I could become addicted.	65.6%	14.2%	11.7%	8.6%
10. I might not be in control of my emotions.	66.1%	14.1%	10.8%	9.0%
11. This drug is difficult to get.	67.3%	17.7%	9.9%	5.1%
12. I have seen the bad effects of it on others.	69.2%	13.0%	10.5%	7.3%

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

FOR THOSE WHO REPORT MEDICAL MISUSE OR NON-MEDICAL USE: You answered earlier that on some days you have used ADHD prescription stimulant medications outside of how they were prescribed to you and/or without a prescription. On some days, however, you may have chosen to not use or to limit your use. What follows is a list of 34 reasons why some people may choose to limit their use or not use on any given occasion. Please read each item carefully and rate the degree (from 1 to 4) that each reason has influenced you to limit your use of ADHD prescription stimulant medications or to not use on some occasions.	1= No influence at all	2= Small influence	3= Medium influence	4= Large influence
13. I might not be in control of my behavior.	69.6%	12.7%	10.%	7.1%
14. It is illegal.	69.7%	15.4%	8.9%	6.1%
15. I don't see any benefits of using it.	69.8%	14.2%	8.1%	7.9%
16. I might not be in control of my thoughts.	70.4%	14.0%	8.6%	7.0%
17. My family would not approve.	71.2%	14.9%	7.8%	6.2%
18. I don't know enough about this drug.	72.4%	14.6%	8.1%	4.8%
19. I want to be a positive role model for others.	73.7%	10.9%	8.6%	6.8%
20. It could affect my sexual performance.	74.6%	12.8%	8.7%	3.9%
21. I could get caught (by someone other than law enforcement).	74.7%	11.7%	8.2%	5.4%
22. I might not pass a drug test.	75.4%	9.9%	7.0%	7.7%
23. It could lower my grades in school.	76.6%	8.8%	7.1%	7.4%
24. I could die of an overdose.	76.9%	10.1%	6.2%	6.8%

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

FOR THOSE WHO REPORT MEDICAL MISUSE OR NON-MEDICAL USE: You answered earlier that on some days you have used ADHD prescription stimulant medications outside of how they were prescribed to you and/or without a prescription. On some days, however, you may have chosen to not use or to limit your use. What follows is a list of 34 reasons why some people may choose to limit their use or not use on any given occasion. Please read each item carefully and rate the degree (from 1 to 4) that each reason has influenced you to limit your use of ADHD prescription stimulant medications or to not use on some occasions.	1= No influence at all	2= Small influence	3= Medium influence	4= Large influence
25. It could be laced with other drugs.	77.6%	8.5%	5.6%	8.4%
26. I have a family history of alcohol or drug problems.	77.9%	9.8%	6.8%	5.4%
27. It could hurt my athletic abilities.	80.2%	9.4%	6.0%	4.3%
28. It could hurt my current job performance.	81.3%	8.4%	5.3%	5.0%
29. It could lead me to use other drugs.	81.5%	8.7%	4.7%	5.1%
30. My friends would not approve.	83.8%	9.8%	4.5%	1.9%
31. I don't like the way I'd look or smell after using it.	87.3%	5.7%	3.7%	3.3%
32. I have a medical condition that prevents me from using it.	89.6%	5.1%	2.3%	3.0%
33. It is against my religion.	89.9%	4.7%	2.6%	2.8%
34. I don't like the way of taking the drug (e.g., smoking, swallowing).	90.2%	5.1%	3.0%	1.7%

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REASONS TO AVOID MISUSE OR NON-MEDICAL USE *Continued*

- Among those reporting misuse or non-medical use, these results suggest that efforts to highlight the impact of prescription stimulants on sleep (when misused or used non-medically) could be very salient and relevant in a college setting. Because academic motives seem to be contributing to non-medical use, research elsewhere highlights the value students put on sleep as a factor associated with their academic success.

- Findings from the American College Health Association's (ACHA's) National College Health Assessment (NCHA) show that students identify sleep problems as one of the three biggest barriers to their academic success.

- Consequently, future research would need to explore the degree to which feedback about the impact of stimulant misuse (or non-medical use) on sleep could prompt change.

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OTHER PRACTICES POSSIBLY RELATED TO NON-MEDICAL USE OF PRESCRIPTION STIMULANTS

- During the 2015 CPAMM Summit, Dr. Amelia Arria presented a model that suggested non-medical use of prescription stimulants could be related to marijuana use and/or skipping class.

- On its own, marijuana use is associated with cognitive impacts among college students, and could possibly be linked. Thus, we examined rates of marijuana use and skipping class as a function of reported past-year non-medical use of prescription stimulants.

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OTHER PRACTICES POSSIBLY RELATED TO NON-MEDICAL USE OF PRESCRIPTION STIMULANTS *Continued*

MARIJUANA

Overall sample (n=2907 with valid data):

- Past year marijuana use: 45.9%
- Past 30-day marijuana use: 29.6%

Among those with ***no past year non-medical use of prescription stimulants*** *(n=2235 w/valid data)*:

- Past year marijuana use: 38.8%
- Past 30-day marijuana use: 23.0%

Among those with ***past year non-medical use of prescription stimulants*** *(n=450 w/valid data)*:

- Past year marijuana use: 86.0%
- Past 30-day marijuana use: 66.2%

Almost all students (86%) with past year non-medical use of prescription stimulants also reported past year use of marijuana. Past 30-day marijuana use among those with non-medical use of prescription stimulants is strikingly high at 66.2%

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OTHER PRACTICES POSSIBLY RELATED TO NON-MEDICAL USE OF PRESCRIPTION STIMULANTS *Continued*

SKIPPING CLASS

Among those with no past year non-medical use of prescription stimulants (*n=2252 w/valid data*):

- % skipping at least one class: 34.9%
- Of those with at least 1 skipped class, % reporting they skipped because of use of alcohol/other substances: 8.9%

Among those with past year non-medical use of prescription stimulants (*n=471 w/valid data*):

- % skipping at least one class: 54.1%
- Of those with at least 1 skipped class, % reporting they skipped because of use of alcohol/other substances: 39.6%

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OTHER PRACTICES POSSIBLY RELATED TO NON-MEDICAL USE OF PRESCRIPTION STIMULANTS *Continued*

- More students with past-year non-medical use of prescription stimulants reported skipping class than those without past-year non-medical use, and more of these students also had substance use-related reasons for skipping.

- Future research can further examine the relationship between non-medical use of prescription stimulants, marijuana use, and skipping class. Particularly in states in which the legal climate surrounding marijuana is changing, monitoring any changes in reported stimulant use is suggested.

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ALCOHOL USE

For the purposes of exploring possible relationships between non-medical use of prescription stimulants and alcohol use, we considered peak drinking occasion quantity during the past month.

"Think of the occasion you drank the most during the past month. How much did you drink?"

Number of Drinks	Women	Men
0 drinks	24.6%	23.0%
1 drink	6.3%	5.5%
2 drinks	6.9%	5.9%
3 drinks	9.1%	6.0%
4 drinks	10.1%	5.4%
5 drinks	10.6%	6.8%
6 drinks	8.8%	6.5%
7 drinks	5.9%	4.2%
8 drinks	5.5%	6.2%
9 drinks	2.5%	2.4%
10 drinks	4.1%	7.9%
11 drinks	0.7%	1.5%
12 drinks	2.0%	5.9%
13 drinks or more	3.0%	12.7%

Since the mid-90s, heavy episodic or "binge drinking" has been discussed in the college setting, with an initial definition of 5 drinks in a row for men and 4 drinks in a row for women in the past two weeks. While definitions vary (e.g., NIAAA defines "binge drinking" as exceeding a blood alcohol concentration of .08%, which for most women is 4 drinks over 2 hours and for most men is 5 drinks over 2 hours; SAMHSA defines a "binge" as 5 or more alcoholic drinks on the same occasion at least 1 day in the past 30 days), for the purposes of comparisons in this data set, we look at instances of 4 or more drinks at least once in the past month for women and 5 or more drinks at least once in the past month for men.

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ALCOHOL USE *Continued*

ANY PAST 30 DAY ALCOHOL USE

Overall sample (n=2917 with valid data):

- 0 drinks: 24.0%
- 1 or more drinks:76.0%

Among those with no past year non-medical use of prescription stimulants (n=2240 w/valid data):

- 0 drinks: 28.2%
- 1 or more drinks:72.8%

Among those with past year non-medical use of prescription stimulants (n=451 w/valid data):

- 0 drinks: 3.8%
- 1 or more drinks:96.2%

In general, it seems those with past year non-medical use of prescription stimulants are much more likely to also report past month alcohol use.

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RELATIONSHIP BETWEEN HEAVY EPISODIC DRINKING AND NON-MEDICAL STIMULANT USE

With heavy episodic drinking defined as 5 drinks or more for men and 4 drinks or more per women, findings are:

Overall sample (n=2910 with valid data)

- Women (4+ drinks at least once in past 30 days): 53.1%
- Men (5+ drinks at least once in past 30 days): 54.2%

Among those with no past year non-medical use of prescription stimulants (n=2236 with valid data)

- Women (4+ drinks at least once in past 30 days): 47.1%
- Men (5+ drinks at least once in past 30 days): 47.0%

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RELATIONSHIP BETWEEN HEAVY EPISODIC DRINKING AND NON-MEDICAL STIMULANT USE

Continued

With heavy episodic drinking defined as 5 drinks or more for men and 4 drinks or more per women, findings are:

Among those with past year non-medical use of prescription stimulants (n=450 with valid data)

- Women (4+ drinks at least once in past 30 days): 88.4%
- Men (5+ drinks at least once in past 30 days): 85.6%

Rates of heavy episodic drinking are much higher among those with past-year non-medical use of prescription stimulants. Future research can further explore and consider ways in which non-medical use of prescription stimulants relates to marijuana use, alcohol use, and other behaviors in the college setting.

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