

RUNNING HEAD: Research Project

A Study of Adderall Use Among College Students: A New and Upcoming Trend

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Abstract

The focus of this study is to look at Adderall consumption among college students, how Adderall is obtained and lastly how college students reduce the dissonance while consuming non-prescribed Adderall. Adderall is a medication often prescribed to people with ADHD. By conducting this study we will understand why college students consume non-prescribed Adderall and how students reduce the dissonance for taking Adderall illegally. The study involves 12 participants, which were asked to fill out a survey/interview including numerous questions about their Adderall use. The results indicated students use non-prescribed Adderall in order to help them do better in school, while reducing the dissonance in various ways.

## Introduction

“At 8 p.m. the night before his psychology midterm, Chris Langley found himself at a familiar crossroad. Should he open his thick textbook and start studying, knowing that his mind would soon drift elsewhere? Or should he first visit a friend who, he knew, had something that could help him meet the seemingly insurmountable task?

That night in October, Mr. Langley, a senior majoring in English at the University of Maryland at College Park, chose the latter option. He walked over to visit a friend who had been diagnosed with attention-deficit hyperactivity disorder, or ADHD, and who had a bottle full of Adderall, a prescription stimulant that can increase a person's ability to concentrate whether he has the disorder or not.

After popping one of his friend's 10-milligram pills...Mr. Langley felt ‘zoned in’. He read 100 pages of his textbook in three hours, a task that normally would have taken him much longer. And the information stuck in his head: he got a 92 on the exam” (Nichols, 2004, p. A41).

The above story is not something that is happening once or twice on just a few college campuses; rather it is a new upcoming trend among college students (Nichols, 2004). According to *Diagnostic and Statistical Manual of Mental Disorders* (2000), Adderall is a medication that excites nerve cells in the brain and it is used in people with ADHD who show signs of hyperactivity, impulsivity, and inattentiveness. So why would students want to take a drug such as this, especially if it is not prescribed to them by a health official? Well, students are using this drug in order to help them study, write papers, along with other typical college tasks. In fact, Nichols (2004) reported on a study at the University of Wisconsin in 2002, which found that 20% of the students surveyed admitted to taking an attention-deficit drug at some point, even though it was not prescribed to them. Officials believe that the reason this is becoming such a

problem is because more and more people have been diagnosed with ADHD, therefore making Adderall more readily available to people who are not prescribed it.

With many people taking this drug who are not prescribed it, it makes this issue important to health communication research. As already stated, there is an upcoming trend for college students to use this drug in order to help them achieve higher grades in their schoolwork. Along with this, there are health risks involved with consuming a non-prescribed pill. For example, according to Herman, a psychiatrist at College Park (as cited in Nichols, 2004), some side effects that could occur are paranoia, hallucinations, increased heart rate, and some instances heart attacks. In addition to this, it is dangerous for people to take these drugs when they are not prescribed to them because there is a possibility of one having an unknown mental illness, which could cause an adverse affect with the medication (Nichols, 2004). However, some believe that taking such medications will have minimal risks. Nonetheless, college students are still taking this drug with or without side effects, yet one thing remains the same, using non-prescribed Adderall or any other attention-deficit drug is illegal.

We are interested in this topic because while attending college we have become more aware of the illegal use of Adderall. The results we found can be a foundation for future research on this drug because the trend is so new. There is a lack of resources available on this topic, so by writing this paper we hope to raise awareness on the issue for not only health officials but college students as well. In order to do so, we will look at different areas surrounding this topic. First, we will examine concepts within Adderall, in addition to cognitive dissonance. Next, we will look at the Health Belief Model and how this may be applied to the concept of taking non-prescribed Adderall. From here, we will then explain our research questions and discuss the methods we used to obtain our results.

## **Review of Literature**

### *College Students Who Consume Adderall*

The independent variable discussed throughout this paper is, college students who consume Adderall. Numerous studies have explored many aspects of Adderall consumption, but few have addressed the increased consumption of college students taking non-prescribed Adderall. By defining the following principles, it will guide our research in order to answer our research questions.

There have been some studies that were conducted on Adderall consumption among college students. According to Nichols (2004),

“last year the United States Department of Health and Human Services found in an annual survey of drug use that 1.8 million Americans between the ages of 18 and 25, or 6 percent of those surveyed, admitted having taken Ritalin -- an older stimulant used to treat attention-deficit disorder -- without a prescription” (p. A41).

This study illustrates that more and more college students are consuming non-prescribed Adderall.

As stated above, there are negative side effects in consuming non-prescribed Adderall. Adderall can cause paranoia, hallucinations and delusions, increase a person's heart rate and even bring on a heart attack (Nichols, 2004). These dangerous side effects can be long-term or perhaps kill someone. It is important to consume Adderall only if it is needed and prescribed to you. Furthermore, taking non-prescribed Adderall can have negative consequences but also is illegal.

McCabe (2005) conducted a study to examine the prevalence rates and to show a relationship of non-medical use of stimulants (Ritalin, Dexedrine or Adderall) amongst United States college students. McCabe (2005) concluded that the “lifetime prevalence of non-medical prescription stimulant use was 6.9%, past year prevalence was 4.1% and past month prevalence was 2.1%” (p. 96). The data indicated that non-medical use was higher among college students who were male, white, members of fraternities and sororities and earned lower grade point averages. Accordingly, non-medical stimulant users were more likely to use alcohol, cigarettes, marijuana, ecstasy, cocaine and other dangerous behaviors. In addition, “the non-medical use of prescription stimulants represents a high-risk behavior that should be monitored further and intervention efforts are needed to curb this form of drug use” (McCabe, 2005 p. 96).

As you can see, non-prescribed Adderall consumption among college students is an upcoming issue that is affecting millions of students everyday. It is important because while attending college we have become more aware of the illegal use of Adderall. We will now look at the dependent variables in our study, which include non-prescribed medication use, drug attainment, and cognitive dissonance.

#### *Non-prescribed medication use*

A second variable that needs to be addressed for the purpose of this study is non-prescribed medication use, or in other words non-medical use of medications that are prescribed. This includes when people take medication that was not prescribed to them by a health care professional. McCabe (2005) found in one of his studies that students who used non-prescribed benzodiazepine anxiolytics were significantly more likely to use other drugs and embark in behaviors that appear to be more dangerous. In addition to this, McCabe (2005) states that, “the trend in prescription rates of medications is relevant to the discussion of prescription drug abuse

because an increase in prescription rates may increase the likelihood that these medications will be misused” (p. 53). This idea relates to the proposal that the more physicians distribute Adderall to college students, the more likely the substance will be spread throughout colleges and universities throughout the country (Nichols, 2004).

Along with this topic, one may look at the reasons for why students use prescription drugs that were not prescribed to them. One of the reasons could be that students see and read about the positive effects drugs can do for people who take them. For example, Kay (2005) reported on a study that found using Adderall helped improve young adults driving ability in a stimulated setting. It was also reported that people who have attention-deficit hyperactive disorder (ADHD) are more likely to be at fault in driving accidents, as well as receive twice the number of traffic tickets. Seeing the results in this study and the implications of the results, one may make the assumption as to why people would take non-prescribed drugs. For example, if students see that others are using this drug and not having as much trouble whether it be in school or driving, then other students may start taking it as well because they see the effects it has on those who do take it. Therefore, students may believe that if it helps one, it will help all.

#### *Drug attainment*

Accordingly, many people ask the question, how are college students obtaining Adderall? Studies show that physicians often prescribe attention-deficit drugs to patients without performing the exact assessments that physicians should perform (Nichols, 2004). Interestingly, even though many college students are consuming non-prescribed Adderall, new laws are being passed to stop the consumption of non-prescribed Adderall. For example, the federal laws require doctors to give patients prescriptions for controlled substances in person. Furthermore, patients must obtain a new prescription each time they need a refill (Nichols, 2004). These new

laws demonstrate that the government, doctors and citizens are taking a stand on combating the use of non-prescribed Adderall.

There have been several studies in the past that have looked at where people obtain their drugs. Miller et al (2004) explains how people strive to identify with certain groups, and once identified with a group, one will engage in the actions of that group. For many people, especially younger generations, one group that is identified with often is one's family; however, the process of identification changes throughout life. Miller et al (2004) continue with,

“the primary group with which we identify tends to change over the course of our lives, moving from an exclusive identification with our family members to an identity that is not only expressed through our family connection, but also through our choice of friends, romantic partners, and work environments” (p. 20).

Therefore, one's relationships with one's family, friends, significant others, and work acquaintances can influence whether one uses drugs, and if so how they obtain the drugs.

Kumpfer and Alvarado (1995) found that the family is the most important source that plays a role in a child's experience with drugs. For example, if one's family members take drugs, then other members of that family are more likely to take them as well. However, Newcomb, et al (1986) found that a parents influence on drug use is about 16% if the relationship is negative, whereas peer influences account for 41%. Douvan and Adelson (1966) explain how people, particularly adolescents, “can provide significant emotional, moral, and communicative grounding and skills” to important others in one's life (as cited in Miller, et al, 2000, p. 31).

Miller et al (2000) conducted a study in order to find how and who offers drugs. It was found that friends had the most power than any other group (relatives, acquaintances, and strangers). Along with this, people were most likely to be offered drugs and/or alcohol in a

social environment rather than a private one such as one's home. In the end, it seems as though one's peers have the most influence as to whether one will use a drug, as well as how one will obtain a drug.

### *Cognitive Dissonance*

Cognitive dissonance explains how inconsistencies arise between attitudes and behaviors, which then become a negative state of emotion (Festinger, 1957). Gass and Seiter (2003) state that cognitive dissonance occurs once one has made a decision. They continue with once a person has made a decision, he or she will debate within their head whether they made the right choice or not. However, when this happens, a person will try to create a state of balance by making their decision seem like the best possible.

One form of cognitive dissonance is the “I've gotta be me” technique as described by Gass and Seiter (2003). This method occurs when one's actions do not coincide with one's-self image. For example, one may not see themselves as a drug abuser, however their actions appear that they are because of the illegal drugs they take. The dissonance that is created in this situation could be something minor, in comparison to other wrong doings, such as taking a pill to help one study, but nonetheless by doing so one is disobeying the law and abusing a drug.

Whitley and Bernard (2001) found that this concept affects those who feel particularly important about their self-concept and image. For example, if one does not feel like an issue is important to their overall self-image, then they will have a low level of cognitive dissonance. Whereas if a person feels an issue is an important part to their self-image, then they will most likely have a high level of cognitive dissonance within them. Whitley and Bernard (2001) continue with a second concept in relation to cognitive dissonance. Students will only feel dissonance about an issue if the decision that was made was voluntary. If the student was free to make the decision,

then they will feel more dissonance because they had other choices and had to decide which was the best decision. However, if one is compelled to make a decision, then they will be less likely to feel dissonance because they had no other choice but to follow what they were told.

### *Health Belief Model*

The theory used to assist guide this research is Rosenstock's Health Belief Model (HBM). This theory states that there are five main points that one will base their behaviors on (Rosenstock, 1960). The main points that one must address are:

“they will be adversely affected if they do not change, the adverse affects will be considerable, behavior change will be effective in preventing the undesired outcome, the effort and cost of preventative behavior is worth while, and they are motivated to action by a novel or eye opening occurrence such as a brush with danger, a compelling warning message, or an alluring incentive” (Rosenstock, 1960, as cited in Du Pre 2005, p. 367).

Although this is a very dense definition, it can be clarified. The first point one bases his or her health behavior on is whether or not they believe they will be directly affected without change to the matter. Here, one may decide whether to take a drug or not based on how they think they will be affected. Next, one will base their decision on whether or not the affects that will come from the behavior will be significant enough to make it worth one's time. Along with this, one wants to prevent any negative situations that could arise. With this, one may take a pill to help them study better in order to forgo getting a bad grade, which then makes the behavior of taking the pill worth his or her time. Lastly, one's belief is further implemented by some experience that will forever change one's attitudes and behaviors on an issue. Lastly, this theory is also widely used across the health domain in order to monitor behaviors (Condelli, 1986).

Condelli (1986) continues with explaining how HBM is based off perceived threats and benefits of actions. The perceived threat looks at how severe the issue is in addition to whether or not one is susceptible to the threat. However, the perceived benefits of the actions examine how well the behaviors will actually work against the threat. During this stage, one will examine the pros and cons to the behaviors in order to make sure the pros outweigh the cons.

### **Research Questions**

The current study focuses on Adderall consumption among college students, college students who consume non-prescribed Adderall, how Adderall is obtained and how college students reduce the dissonance while consuming Adderall. The study posed three research questions:

RQ1: Why do college students consume non-prescribed Adderall?

RQ2: What is the relationship between the student and the person giving/selling the Adderall?

RQ3: How do college students reduce the dissonance for taking Adderall illegally?

### **Methods**

#### *Participants*

Twelve (12) participants from University of Kentucky and The Ohio State University participated in this study. The sample was comprised of 7 females and 5 males. The participant's ages ranged from 19-24 years of age. All the participants in the study were white and eleven out of the twelve participants reported having a GPA higher than a 3.0. Also, five participants indicated they were involved in a Greek organization.

#### *Procedures*

The variables were measured using a 19-item questionnaire that we conducted through interviews. Seven demographic questions were asked for the purpose of a statistical analysis.

Three of the questions were yes or no and nine of the questions were open response. The reason we gave open response questions is because it gave respondents a chance to openly express their thoughts and feelings on Adderall consumption. In total, twelve questions were asked in order to find the answers to our research questions. All of the questions directly pertained to the current study and for these questions we will interpret the data.

### *Instrumentation*

The methodology used for this study was an interview/survey. An interview was the best method choice due to the sample being taken. Through the interviews, we could gather the information needed to test the research questions.

In conducting our study, the independent variable is college students who are currently taking or have taken Adderall that is not prescribed to them. Additionally, our dependent variables are why college students consume non-prescribed Adderall and how they obtain it. In particular, ways in which college students communicate in order to obtain the drug as well as the positive and negative aspects towards personal relationships while taking Adderall.

### **Results**

In computing the results of our questionnaire we found many similarities among the respondents answers. First, all of the respondents reported consuming Adderall yet only one was prescribed Adderall. Accordingly, four respondents indicated that they distributed Adderall. Of these four participants, they all distributed their Adderall to their friends and/or significant others. According to the respondents, their reason for distributing Adderall is because their friends needed it. The main reason for consuming non-prescribed Adderall was school, as indicated by the participants. In addition to this, people obtained non-prescribed Adderall through people whom they were close to. The survey indicated that there was a variety of

responses for how often people consumed Adderall. College students are most likely to take Adderall when there are finals or papers due. Although people reported taking non-prescribed drugs, all of the respondents indicated that they understood this was illegal. In order to reduce the dissonance in taking an illegal substance, in this case Adderall, the participants stated various reasons. The majority of the participants stated that they do not feel guilty while consuming non-prescribed Adderall.

## **Discussion**

### *Interpret*

By analyzing our data, we will further be able to interpret our results. Along with this some of our results run parallel with previous research, whereas other results differ from previous research. Participants reported that they used Adderall in order to help them do better in school. Some of these areas included, studying for exams, presentations, writing papers, staying awake in order to do school work, and for motivation to complete school work. In response to our first research question, all of the respondents appeared to use Adderall in order to help them do better in school. This runs parallel to research by Nichols (2004) in that students use non-prescribed Adderall to help them achieve their goals in school. As stated before, all but one of the participants in the study reported having a GPA higher than a 3.0. However, this is inconsistent with previous research. McCabe (2005) reported that students who used Adderall were more likely to have a lower grade point average. This is an interesting finding because, for our participants, they used Adderall in order to help them do better in school and in this instance it has helped them.

Our second research question looked at how college students obtained non-prescribed Adderall. Many people in our survey obtain non-prescribed Adderall from people whom we

believe they have close relationships to. The participants stated that the people whom they get the medication from were friends, family members, along with one person stating they obtained it from acquaintances. Through these results, it was found that the majority of the participants said they received Adderall from their friends. This finding corresponds to research that Miller et al (2000) found. Her research explained how adolescents receive drugs from their peers and friends more than any other group. Although not all college students are considered to be adolescents, these findings are still similar because many college students are in a transition between late adolescence and early adulthood.

The majority of the students in the survey indicated that they consumed non-prescribed Adderall in order to help them do better in school. We believe one reason for using non-prescribed Adderall is to help maintain relationships with not only their peers but family as well. Miller et al (2000) argues that one reason students consume drugs is because of peer pressure. With Adderall use becoming more widespread throughout college campuses, one could assume peer pressure is a factor in using this medication in order to do better in school. Along with this, students feel the need to keep their parents happy with their grades. By students seeing other students using Adderall and doing well, this makes one feel the pressure to use it as well. This therefore reduces the amount of cognitive dissonance within the students, which answers our last research question.

Students in our surveys had a variety of ways in which they reduced the amount of dissonance for taking Adderall illegally. One student in the survey stated, "I only do it if it is necessary and there are so many other things that are illegal. It is difficult to pick or choose which one to partake in." Along with this, some students see taking non-prescribed Adderall the same way they view underage drinking. Through this, we can interpret that by college students

consuming alcohol illegally; they can validate doing other things illegally as well. This therefore causes a ripple effect within college students. Additionally, students in our interviews stated they reduce their dissonance for taking Adderall illegally by conducting a cost-benefit analysis. Through this, they see taking the drug and getting better grades as more rewarding than to not take non-prescribed Adderall and not do as well in school.

As stated before, the Health Belief Model explains the five main points that one will base their behaviors on. These behaviors once again include:

“they will be adversely affected if they do not change, the adverse affects will be considerable, behavior change will be effective in preventing the undesired outcome, the effort and cost of preventative behavior is worth while, and they are motivated to action by a novel or eye opening occurrence such as a brush with danger, a compelling warning message, or an alluring incentive” (Rosenstock, 1960, as cited in Du Pre 2005, p. 367).

For our study, we found that students base their beliefs off this model. For example, people believe they will be affected by getting bad grades if they do not take the non-prescribed Adderall. Next, these affects could be substantial in that students believe they could fail courses and or lose relationships. Therefore, students will be preventing this negative outcome by taking Adderall. They then see taking Adderall, even though it was not prescribed to them, as beneficial because it will give them the outcome they desire. Lastly, after seeing the effects of Adderall, they continue to use it throughout their schooling in order to help them maintain grades and relationships with the people they believe are important to them.

### *Limitations*

There were numerous limitations that took place during the procedures and methods of

our study. The first limitation dealt with the use of a convenience and volunteer sample. The sample taken was not random which could indicate that the sample was not reliable. We used a convenience sample in order to ensure that our participants had indeed used non-prescribed Adderall previously. Additionally, the sample size also dealt with limitations in the procedures; if the sample size was larger we could have accumulated more data, making our study stronger. Furthermore, considering the sample was taken from two large universities we should have collected more data to ensure that the sample was representative of the population; larger samples give more accurate results than do smaller samples. Lastly, we should have surveyed an equal amount of males and females to get an appropriate set of data. These limitations are threats to external validity.

In addition, the wording of the questionnaire confused several people. Also, many of the respondents did not know what the word dissonance meant. The survey should have defined dissonance in the beginning and as a result, these limitations could have lead to incorrect data gathered for the study.

Moreover, the Hawthorne Effect could have taken place. The Hawthorne Effect is the change in research participant's behavior due to the fact that they know they are being observed. Also, the Personal Attribute Effect could have occurred while collecting my research. The Personal Attribute Effect is particular characteristics of a researcher influence subject behavior. Both of these limitations could have occurred since the participants knew the researchers. These limitations are threats to internal validity. As one can see, there were several limitations to our study that could have affected the validity and reliability of our results.

### *Future Research*

As stated above, there is a lack of resources available on this topic, so by writing this

paper we hope to raise awareness on the issue for not only health officials but college students as well. This study is a step in the right direction to increase knowledge in the field of health communication for the future. There are routes people can take to learn more about Adderall usage among college students. For example, a follow-up research question could ask college students if they thought Adderall was addictive and if they incurred long-term negative affects by consuming Adderall.

To ensure the study is reliable, the methodology needs to be refined. In a future study researchers should use a random sample to get the correct representation of the population. Additionally, one should collect a larger sample size, as larger samples give more accurate data. Furthermore, in future studies, researchers should gather data from people of different ages, race, and, cultures. Also, future studies should take place around the United States and in different countries. This ensures that every culture is looked at when gathering data for the future.

### **Conclusion**

The focus of this study was to look at Adderall consumption among college students. In particular, college students who consume non-prescribed Adderall, how Adderall is obtained and how college students reduce the dissonance while consuming Adderall. Overall, college students appeared to consume non-prescribed Adderall in order to help them achieve higher grades in school. Next, the results of this study concluded that most college students obtain non-prescribed Adderall from their friends, which runs parallel to previous research. Lastly, students reduced the amount of cognitive dissonance felt when taking non-prescribed Adderall by using a cost-benefit analysis in addition to comparing Adderall with other drugs students use. As one can see, Adderall is becoming more prevalent among college students. Due to the negative consequences that can arise by using Adderall non-medically, there needs to be stricter

regulations in order for one to be prescribed Adderall. Through health communication, one can begin to raise awareness on an upcoming issue. After all, students using non-prescribed Adderall will soon be graduating and one has to wonder if they will bring these habits into the workforce.

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