# The University of Adderall: Investigating an Emergent Norm

Robert Wieczorek

Research Proposal

Introduction

Every fall thousands of college students return to school in pursuit of academic success. Their former success marked by a high school diploma and congratulatory remarks from their friends and family members has been eclipsed by the freedom, culture and pressures of upper education. These elements have long been the key facilitators of the norms of college life. Increased freedom has allowed students to go to sleep at whatever time they please while campus culture has provided students with a wide range of opportunities and unique experiences. In addition, the pressures of higher education have established social strains that have amplified the prevalence of illegal use of doctor-prescribed stimulants on campus as study aids. These medications are commonly referred to as "smart drugs" for their ability to increase cognitive functioning allowing students to stay awake longer and study more affectively. The most popular of these stimulants is Adderall and its rising popularity illustrates Robert Merton's strain theory concept of "anomie" as well as the concept of emergent norms developed by Ralph Turner and Lewis Killian. The pressure of succeeding in college by attaining excellent grades and exam scores has created a crisis among students that has been addressed through the development of a "smart drug" subculture in which the use of such drugs has become an emergent norm.

First I will provide background information on the so-called "smart drugs" that are commonly used on college campuses and proceed to present a literature review of major theoretical themes and previous studies. Finally I will suggest a research plan for investigating the popularity of "smart drug" use on the Pennsylvania State University at University Park campus. Information from this study would help determine the status of illegal stimulant use at Penn State and additionally highlight what factors may have contributed to the crisis that initiated this emergent norm.

Background Information

First, stimulants that affect cognitive functioning have been around since the 1960s. These medications were primarily used for treating children and adolescents diagnosed with Attention Deficit Hyperactive Disorder (ADHD). ADHD is a developmental disorder that is characterized by severe inattentiveness and impulsivity (Chau, 2007). Since ADHD is essentially a deficiency of motivation, stimulants that increase alertness and wakefulness allow a student to sustain greater attention on assignments he or she may not find very interesting.

While psycho-stimulant medications first appeared in the 1960s, Adderall was introduced to the arsenal of ADHD medications in 1994. Adderall is a chemical compound of amphetamine and dextroamphetamine (Jaffe, 2006). These chemicals increase the level of dopamine in the brain which enhances alertness and wakefulness (Nixey, 2010). The chemical compounds in Adderall have proven to be more successful in treating ADHD in comparison to other stimulants that do not contain amphetamine (e.g. Ritalin). It is also preferred over other ADHD medications because it comes in a time release capsule capable of medicating a user for an entire day (Wood, 2001). For these same reasons, Adderall has become a valuable study aid to college students without ADHD. The ability to increase focus on command has provided students with an alternative study experience that they perceive to be superior.

However, the prevalence of Adderall on college campuses has become a concern among some opponents who cite the illegality of using and distributing the drug as well as the potential health risks of abuse. It is important to note that the Drug Enforcement Administration (DEA) has labeled Adderall a schedule II stimulant and selling or distributing it is a federal crime (Jaffe, 2006). Other schedule II drugs include cocaine and methamphetamine. Selling Adderall could potentially result in a fine up to $1,000,000 and five years in prison, while using Adderall

without a prescription can result in a $10,000 fine and up to 60 days in prison (Creasey, 2010). These legal ramifications are accompanied by both short and long term implications of Adderall use. The short-term side effects of Adderall include: elevated blood pressure, restlessness, dizziness, insomnia, euphoria, dryness of the mouth, diarrhea, constipation and impotence (Jaffe, 2006). Because Adderall is relatively new, there haven't been any longitudinal or comprehensive studies regarding the long-term implications of its use. However, Barbara Sahakian, a professor of neuropsychology at Cambridge University, suggests that by evaluating the long term effects of similar drugs we may infer the possible risks of Adderall use. With this in mind it is important to understand that Adderall is an amphetamine, and the administration of amphetamines for prolonged periods of time is likely to lead to drug dependence (Jaffe, 2006).

## Literature Review

According to Robert Merton's strain theory, the appetites of individuals are not "natural" but derive from the "culture" of American society (Bernard, 2010). At the same time, the "social structure" of American society limits the ability of certain groups to satisfy these appetites. In other words, there is a gap between the emphasized goals of society and the means an individual has to achieve those goals. Merton refers to this gap as "anomie" and it applies pressure on certain persons in the society to engage in nonconformist rather than conformist conduct (Bernard 2010). College students are aware of the social expectations of achieving academic success in order to obtain a respectable achieved status. The pressures of obtaining such a status can sometimes outweigh the means students have to transcend these pressures. Instead of conforming to conventional study methods, which may not yield desired results for the time commitment, students become nonconformists and seek "smart drugs" as a means to obtain

society's emphasized goals of success. To these students their projected ends (the goals emphasized by American society) justify the means ("smart drugs" used to achieve good scores).

Similar to Merton's strain theory, Turner and Killian's emergent norm theory hypothesizes that non-traditional behavior develops as a result of new behavioral norms in response to a crisis (Ritzer, 2007). The prevalence of "smart drugs" on college campuses can be viewed through the lens of the emergent norm theory. The pressure on students to achieve academic success in college is characterized by staunch competition, stress and anxiety. This "crisis" is being addressed by students through the use of "smart drugs" like Adderall in order to meet the demands of society and transcend the aforementioned pressure. Because an increasing number of students are addressing the pressure of upper education this way, it is possible that "smart drug" use has led to the development of a new norm on college campuses where consuming controlled stimulants actually levels the playing field of academia.

In addition to Merton's "anomie," and Turner and Killian's emergent norm theory, subcultural theories of deviance are also at work in establishing the normalcy of "smart drug" use on college campuses. Subcultural theory has been the framework for examining youth drug use since the 1950s and suggests that behaviors are guided by group norms that promote socially shared expectations (Gourley, 2009). In other words, deviance is the result of a learned acquisition of deviant values and norms within a subculture (Gourely, 2009). Students have come to college, experienced "anomie" and social strain through new freedoms and pressures which has contributed to a crisis that has brought about a subculture that thrives on students teaching others about the benefits of "smart drugs" to alleviate the crisis and establish the nonconformist means to achieve academic success as an emergent norm. Becker illustrates a similar instance in *Becoming a Marihuana Smoker* where he finds that the motivation for

continued behavior evolves through the behaviors of others. In this case, students are under pressure, know how other students are dealing with that pressure, and are thus motivated to use similar methods to achieve similar success.

Vivian Chau cites a national survey of U.S. college students that analyzes the number of students that use "smart drugs" and why they choose to do so in her article in the *Stanford Journal of Neuroscience.* The 2005 study found that the usage rates of prescription stimulants like Adderall and Ritalin were higher among white, male college students who were also members of fraternities and earned lower grade point averages (Chau, 2007). The study also revealed higher rates of use at colleges in the north-eastern region of the United States and colleges with more competitive admission standards. The majority of students obtained Adderall and Ritalin from classmates who were diagnosed with ADHD and prescribed the medications (Chau, 2007). In a follow-up survey students cited "pressure from time commitments" as the main reason for using "smart drugs" (Chau, 2007). While it was noted that some respondents used the stimulants in order to get high, this was a small number compared to the majority of students who claimed academic pressures as their main purpose for using the cognitive-enhancers.

Moreover, Andrew Creasey cites a study by the University of Kentucky that examines the rising popularity of Adderall use by college students. The study revealed that 34% of college students have used Adderall recreationally and an estimated 75% of students surveyed know someone who takes Adderall without a prescription (Creasey, 2010). These statistics illustrated the findings of the survey cited by Chau in that the majority of college students are obtaining "smart drugs" from someone who may have a prescription. In addition, the University of Kentucky study also found that when surveyed over 43% of students felt that using Adderall

meant the difference between a C and an A suggesting that the "ends justify the means" (Creasey, 2010).

Furthermore, through face-to-face interviews with students at Columbia University, Andrew Jacobs of *The New York Times* gained valuable insight to the habitual state of Adderall and other stimulant use. Jacobs found that on campus, the drugs are either sold or given away by people with prescriptions, and some students even manipulate psychiatric exams offered by campus health centers in order to obtain a prescription. According to interviews, depending on the time of the semester, prices of the drugs would inflate and anyone with a prescription or access to "smart drugs" would essentially become a drug dealer. When compared to similar cognitive enhancing medications, Adderall was preferred because it comes in time-release forms that have the ability to keep a user medicated throughout the day (Jacobs, 2005). Jacobs questioned, like others, the ethical side of the drug when interviewing Columbia students. When discussing whether "smart drugs" had become like steroids in major sports, many students believed that Adderall was a legitimate means to get through the "rigors of a hectic academic and social life" while others admitted that although a large population of students use the drugs they believe it is unfair or "cheating" (Jacobs, 2005). In addition, many students explicitly claimed that the highly competitive culture of the university reinforced the use of stimulants. Some students when interviewed even stated that if you are not taking a cognitive-enhancing stimulant like Adderall you are basically putting yourself at a severe disadvantage because the environment of the university is so competitive, (Jacobs, 2005).

Like Jacobs, Harry Jaffe of the *Washingtonian* conducted interviews with students at Georgetown University and George Washington University regarding the prevalence of the illegal use of doctor-prescribed stimulants on their respected campuses. Jaffe discovered that of

those interviewed, the majority of them described Adderall as the study drug of choice because it came in time-release form and was perceived to be more widely available than beer (Jaffe, 2006). It is also crucial to note that the general sample of those interviewed were not Adderall prescription holders. Jaffe uses statistics from IMS America, which studies prescription drug use and sales, to exemplify the increased use of Adderall in the United States. According to the statistics, "11 million prescriptions were written for amphetamine products in the US in 2004; more than 7 million were for Adderall" (Jaffe, 2006). Through these face-to-face interviews, Jaffe found that some of the respondents were previewed to cognitive stimulants prior to college and used them for the sake of getting into a reputable school. These respondents typically cited pressure of doing well on the SAT in order to please parents and get into a good school. Once these students came to college, some continued to use Adderall and other stimulants regularly in order to maintain grades. Some even claimed they felt they could not study without it (Jaffe, 2006). Jaffe was also able to gain insight from students who were diagnosed with ADHD as adolescents and maintained their prescriptions through college. These students stated that friends would often attain pills from them in order to study. Pills were either sold or given away, and the price would inflate between $5 throughout the semester and $30 during finals (Jaffe, 2006). He also encountered students who formerly used Adderall and ceased to continue to do so because they experienced health problems such as a high fever and high blood pressure to the point of hospitalization. Although this was not a common occurrence among those interviewed, it may still hold some credibility to the argument regarding the unknown/un-researched health risks of excessive Adderall use.

Study Design

The goal of this study will be to determine the prevalence of "smart drug" use on the Pennsylvania State University at University Park campus. This campus offers a unique array of elements that comprise "the Penn State experience." By analyzing the popularity of cognitive stimulants as study aids we will be able to infer to what degree the use of these drugs has become normal at Penn State. Additionally, this assessment will ultimately provide insight to the strains and subculture that have contributed to the possible establishment of this emergent norm.

The first part of the study would consist of an online survey that would be accessible to a randomly selected representative group of the undergraduate population at University Park. Participants of this survey will be randomly sampled within their college (i.e. College of Liberal Arts, Smeal College of Business, etc.). This may help identify whether or not students in certain fields of study are more or less likely to use "smart drugs." The survey itself would ask respondents to specify their gender, academic year, age and race and also include questions that additionally identify demographics such as: campus involvement, off-campus resident, on-campus resident, etc. Some sample questions of the initial survey regarding "smart drug" use at University Park would include the following:

1.) Have you ever heard of consuming pills such as Adderall or Ritalin to study more effectively?
2.) Have you ever consumed a pill such as Adderall or Ritalin as a study aid?
    b.) If answered yes, do you have a prescription for the substance?
    c.) When was the first time you used the substance?
    d.) Who introduced you to the substance (e.g. friend, roommate, sibling, etc.)?
2.) Do you know anyone who has used a pill such as Adderall or Ritalin as a study aid?

b.) How did your friend/acquaintance obtain this pill?

3.) How often do you use these types of pills as study aids?

4.) Do you have any feeling of dependence on these types of pills as study aids? Do you feel like you would be able to study without it?

5.) When consuming the pill, do you experience any health side effects? For example: insomnia, increased heart rate, constipation, etc.

6.) Do you approve or disapprove of students who do use stimulants like Adderall or Ritalin as study aids?

The second part of the study would involve a face-to-face interview of randomly sampled respondents from the initial survey who replied that they have heard of using "smart drugs" as a study aid, know someone who has used "smart drugs" or admitted to using such drugs themselves as a study aid. Although a face-to-face interview will be more costly to conduct, it will successfully triangulate the data gathered through the initial survey and help to illustrate the status of "smart drug" use at University Park. The interview will consist of questions similar to part one, but will place additional focus on responses to more in-depth questions regarding:

1.) Why the respondent chose or did not choose to employ a "smart drug" as a study aid.

2.) Whether or not he/she is a member of a club, sports team or Greek life.

3.) How they would describe the pressures of upper education.

4.) Their personal perception of "smart drug" use at University Park.

5.) Ethical questions regarding "smart drugs" such as: Is the use of "smart drugs" a legitimate means to achieve academic success or is it cheating?

In order to receive a significant response rate without sacrificing any integrity of the study, I would provide a monetary incentive for both parts of the study. For the survey, students

would receive $10-$15 for completing approximately 20-25 questions regarding the prevalence of "smart drugs" at University Park. Students selected to take part in the face-to-face interview would receive $25 for their time. Depending on the rate of response in the second phase of the study, some snowball sampling may be warranted to further identify the demographics most likely to use "smart drugs." By asking the respondent in the interview phase to refer the researcher to another respondent, we may be able to analyze whether "smart drug" use is prevalent among majority groups or unique to a certain group/subculture.

In regards to the conceptualization of the term "smart drugs" on the survey or in the interview, there will be a brief definition provided. The definition will be: "Smart Drugs"- Doctor-prescribed stimulants such as Adderall and Ritalin that are used by students to increase wakefulness and sustain focus in order to study more effectively. By providing a short definition of this term, the subject matter of the survey should become clear to the respondents.

## Discussion

Based on the previous research pertaining to the prevalence of the illegal use of doctor prescribed stimulants as study aids, the growing popularity of these "smart drugs" may suggest they have become an emergent norm on college campuses. Turner and Killian claimed in their emergent norm theory that a precipitating "crisis" brings about the development of new non-traditional behaviors that become the emergent norm. This concept in conjunction with Merton's strain theory, which suggests there is a gap between society's goals and a group's means to achieve those goals ("anomie"), accurately illustrates what seems to be occurring on college campuses with "smart drugs." Students are aware of societal pressures to achieve academic success. They experience anomie when they come to college and are presented with a different

lifestyle associated with different norms. Social strains regarding these pressures and expectations facilitate competition, stress and anxiety. These strains can be equitable to the "crisis" that Turner and Killian cite as the source for an emergent norm. Students are presented with these strains, and this crisis causes them to become nonconformists in which they address the strains through adopting "smart drugs" as a necessary means to achieve the emphasized goal of society. They learn about the benefits of "smart drugs" from other students through symbolic interactions within the student subculture. Previous research provides testimony to the strain of academic pressure as well as the increasing popularity of these drugs, ultimately suggesting they are becoming, and in some cases already have become the norm.

Finally, the proposed study of "smart drug" use at the Pennsylvania State University at University Park campus would investigate the status of this new norm in our immediate academic community. The proposed two-part study would reveal valuable insight into the prevalence of the drugs on campus, how they are obtained, who is more likely to use them and why they choose to do so. Future research regarding this topic at Penn State University, or any college or university for that matter, should investigate the ethical sentiments from the administrations of schools regarding the illegal use of doctor-prescribed stimulants as an emergent norm. In other words, how do administrators feel about students using pills to achieve academic success? Is it legitimate or cheating, right or wrong, acceptable or deviant?

Works Cited and Consulted

Becker, H. (1953). Becoming a Marihuana User. *The American Journal of Sociology*, *59*(3), 235-242.

Bernard, T. J., Vold, G. B., Snipes, J. B., & Gerould, A. L. (2010). Strain Theories. *Vold's theoretical criminology* (6th ed., pp. 154-176). New York: Oxford University Press.

Chau, V. (2007). Popping Pills to Study: Neuroethics in Education. *Stanford Journal of Neuroscience*, *1*(1), 18-20.

Creasey, A. (2010, June 5). Cosmetic Neurology: The Role Of Adderall on College Campus. *a Group4 project*. Retrieved April 2, 2011, from http://thestudypill.wordpress.com/2010/06/05/cosmetic-neurology-the-role-of-adderall-on-college-campus/

Ritzer, G. (2007). Emergent Norm Theory. *Blackwell Reference Online*. Retrieved April 2, 2011, from http://www.blackwellreference.com/public/tocnode?id=g9781405124331_

Gourley, M. (2009). Recreational Ecstasy Users. *Constructions of Deviance: Social Power, Context, and Interaction* (Sixth Edition ed., pp. 387-394). Canada: Thomson Wadsworth.

Jacobs, A. (2005, July 31). Drug Abuse in College. *The New York Times*. Retrieved April 2, 2011, from http://www.nytimes.com/2005/07/31/education/edlife/jacobs31.html?_r=2

Jaffe, H. (2006, January 1). ADD & Abusing Adderall . *Washingtonian Magazine*. Retrieved April 2, 2011, from http://www.washingtonian.com/articles/education/1729.html

Nixey, C. (2010, April 6). Are 'smart drugs' safe for students?. *The Guardian* . Retrieved April 2, 2011, from http://www.guardian.co.uk/education/2010/apr/06/students-drugs-modafinil-ritalin

Ruane, J. M., & Cerulo, K. A. (2008). *Second thoughts: seeing conventional wisdom through the sociological eye* (4th ed.). Thousand Oaks, Calif.: Pine Forge Press.

Wood, J. (2001). Adderall: Special Education's New (?) Fix-It Drug?. *Beyond Behavior*, *1*, 39-41. Retrieved February 6, 2010, from http://74.125.155.132/scholar?q=cache:Jc8DJZEt-cMJ:scholar.google.com/+effects+of+adderall+on+learning&hl=en&as_sdt=800000000000