

Popping One “Study Drug” At A Time

Sharon Dassouli

Loyola University Chicago

ABSTRACT

According to the website, Addiction Center, “...a study found that full-time college students, between the ages 18 and 22, were twice as likely to abuse Adderall than those of the same age not in college” (2017, 1). Abuse of “smart or study drugs,” as many call them, has become a rising and prevalent issue on college campuses. In today’s society, people without medical prescriptions are usually the ones to blame for the overuse of ADHD medications, such as Adderall. Looking deeper into the matter, the factors that lead to this stimulant abuse can find their origins in stress and pressure from society, forcing students to turn to imprudent choices, ones that could potentially lead them to becoming addicted to stimulants and using them only to boost their neurotransmitter levels in the brain, so they could feel an immediate release for a few hours. Regardless of the reasons for taking these stimulants, it is irresponsible for people to use them without a medical prescription because they do so only for personal reasons, such as for something as trivial as taking an exam. Surely, doing something purely for academic enhancement should be considered unethical and unsafe towards one’s health. It is unethical because it is unfair to people with ADHD diagnoses when classmates without ADHD use stimulants to improve their already functioning brains. While students without ADHD can use the stimulants to boost academic performance, the boost seems like cheating to many. In a 2012 study involving 616 Ivy League college students who did not have ADHD, 41% of the students thought taking stimulants was a form of cheating, while 25% said they were unsure (Glatter 2014, 3). Certain people with ADHD, by contrast, need the drugs to function and to get through their everyday lives, so it is not “cheating” for them. More people need to become educated on this topic, understanding the consequences and side effects that could lie behind popping Adderall into their mouths for the first time without a proper medical prescription.

KEYWORDS

ADHD, Adderall, Study Drugs, Irresponsible, Unethical, Unfair, Unsafe

POPPING ONE "STUDY DRUG" AT A TIME

Adderall is a Scheduled II controlled substance because of its high addiction level, ranking at the same position as cocaine (Addiction Center 2017, 1). Abuse of this stimulant is one of the worst addictions anyone can face. According to the website, Addiction Center, "...a study found that full-time college students, between the ages 18 and 22, were twice as likely to abuse Adderall than those of the same age not in college" (2017, 1). Abuse of "smart or study drugs," as many call them, has become a rising and prevalent issue on college campuses. Additionally, those students without medical prescriptions for the drugs are the ones to blame for the misuse. They are illegally obtaining these stimulants, not knowing the side effects or how their bodies could react once taking them. Due to the easy access of these study drugs, especially from friends with ADHD, "...misuse and emergency room visits related to the drug is the result of diversion, people taking medication that is legitimately prescribed to someone else... non-medical use of Adderall (that is, taking the drug without it being prescribed) rose 67 percent and emergency room visits went up 156 percent" (John Hopkins Bloomberg School of Public Health 2016, 1-2). Getting their hands on these study drugs is becoming second nature to many, simply because no consequences are faced by either party, those giving out their prescriptions nor those taking illegal advantage of them. This issue is becoming problematic because students without ADHD are using the stimulants to boost their academic performances when they are left with no other choice to achieve that "perfect" exam grade and need an alternative focus method. While students without ADHD can use the stimulants to boost cognitive results, the boost seems like cheating to many. Looking deeper into the matter, the factors that lead to this stimulant abuse can find their origins in stress and pressure from society, forcing students to turn to something imprudent, like becoming reliant and addicted to these drugs. In a 2012 study involving 616 Ivy League college students who did not have ADHD, 41% of the students thought taking stimulants was a form of cheating, while 25% said they were unsure (Glatter 2014, 3). In my opinion, I find that it is cheating because it falls under the category of doing an assignment or taking an exam with "help," even if it is not aid from another human being. Regardless of the reasons for taking these stimulants, it is irresponsible for people to take them without a medical prescription because they do so only for personal reasons, such as for something as trivial as taking an exam, whereas certain people with ADHD need them to function and to get through

their everyday lives. Surely, doing something purely for academic enhancement should be considered unethical and unsafe towards one's health. It is unethical because it is unfair to people with ADHD diagnoses when classmates without ADHD use stimulants to improve their already functioning brains.

STRESS: THE FIRST KILLER

Finals week in college can be stressful, cramming four months of material into two weeks of studying. Nevertheless, it has been proven a college student's stress levels are reduced during this chaotic week with assistance from study drugs. "...Google searches for "Adderall" in college towns spike during exam months...200,000 tweets mentioning Adderall...peak during exam periods" (Pierson 2015, 5). Final exams force college students to do anything for a perfect grade with as little stress as possible, even if it means putting their health at risk. According to USA Today College, Dr. Ritchey accurately describes the storm of stress that college students face when taking exams. "...we have come to a place in our culture where students will do anything to get the grade. Where students get in the mindset 'I need to get to the end, I need to pass this, I need this to get through this week,' and these drugs provide a means to that end" (Brennan 2015,1). Stress is a major factor that influences students to find an alternative way to get an A plus on an exam, if simply studying for a few hours is not making the cut anymore. For many, these drugs are the "new" solution. They are supposed to increase performance on exams by allowing students to study more efficiently because "...ADHD stimulants increase the amount of certain neurotransmitters, like dopamine, epinephrine, and norepinephrine" (Yanes 2014, 2). When the drugs are in the system, stress leaves the body and instead, one is put in a completely separate world, a world without any distractions from reality. For those without ADHD, this "fantasy place" is where their brain goes to for immediate release for a few short hours, a release that empowers them to think they can take on any task.

THE WORLD FOR ADHD PATIENTS

In the article, "Popping Pills: Examining the Use of 'Study Drugs' During Finals," author, Collin Brennan, interviews Sam Dillistin, a college senior with ADHD at Christopher Newport University, and he asks the student to describe how he feels under the influence of his prescribed medication. "...I immediately feel

the benefits of the stimulant and begin to notice how the drug gives me “tunnel vision” while working on any given assignment...whatever you are doing at the time it really helps you focus on that one thing...you almost become cynical with the outside world. You are in the zone, completely zoned out. It is not a natural feeling you can come up with yourself” (2015, 2). To contemplate on his words, I find it ethically responsible and safe for students, like Dillistin, to take ADHD pills because the stimulants assist them not only for school related assignments, but also simple everyday tasks, such as sitting in class or keeping a conversation going with someone. For patients like Dillistin, the neurotransmitters in their brain are not fully functioning. The medications increase these neurotransmitter levels while calming their hyperactive behavior, allowing them to focus better. Additionally, their health is not put on the line when taking these stimulants because they do not use them as “study drugs,” but rather, as medications that benefit them in a positive manner. The stimulants are not posing harm on their brain, but instead, are numbing their hyperactive behavior, “stepping in” to adjust their neurotransmitter levels.

On the other hand, students unlike Dillistin have brain regions with neurotransmitters that are in no need of extra help the stimulants provide, which is why they should not be overdosing their brain with higher than normal neurotransmitter levels. Alongside discussing the reaction the stimulants have on his cognitive abilities, Dillistin also mentions the amount of times he has been asked by his peers to share his medications. “On several occasions in college I have been asked by friends if they could use my prescription. I know people that give it and sell it to their friends. It feels like it is everywhere, it is really easy to get on a college campus,” Dillistin reported. Unlike the college senior, some ADHD patients find it is the “right choice” to naturally share their medications with their peers. “Obtaining stimulants from friends with prescriptions, as the vast majority of college students do, seems less dangerous and illegal than buying drugs off the street” (Yanes 2014, 3). Students feel more at ease getting these drugs from people they know and trust rather than from strangers. In Brennan’s article, a physician that was interviewed, Dr. Ritchey, states, “..it would almost seem cruel not to help that friend out...if I see a friend that needs something that works for me why would I be hesitant to help them out” (2015, 5).

Pressure to help a friend is a heavy burden put on the ADHD student, whose friend is begging him or her to share their “magical pills,” ignoring the

consequences that could lie behind both of their actions. These magical pills may be life savers for students like Dillistin, but they are not always be as beneficial for those who use them purely to experiment how much better they can do in school. Little do those, who take the stimulants without a medical prescription, know that their brains and bodies may not react as naturally as Dillistin's does to the medications, so they could potentially cause more harm than good to themselves. Even though the stimulants may give them a release from reality by causing fewer outside distractions, there are many consequences that can come into play after the drug wears off in the system. The short-term effects of Adderall include headaches, sleep deprivation, appetite loss, and even mood swings. Additionally, students may become obsessed with this stimulant, since it is an addictive substance, which simply proves that taking it is definitely an unsafe and impractical decision towards one's health.

NEAR DEATH EXPERIENCES

In her article, "Generation Adderall," author, Casey Schwartz, reflects upon her past college experiences using study drugs, while not having have ADHD. These pills led to the detrimental decline of her health; they almost caused her death. She was a sophomore at Brown University, a college environment that pressured and likely led to her stimulant addiction. Schwartz's case is eye opening because she tells readers a truth that is a challenge to admit: how hard it is to break an addiction like the one she faced. It took her years of therapy, hospital and psychiatrist visits, and support from family and friends in order to one day completely rid her body of this dreadful habit. "No one intends on becoming addicted to Adderall. Usually, the problem starts as a way of increasing productivity on a stressful day at work or to study for an important test" (Addiction Center 2017, 2). Similarly, Schwartz did not predict that her first time taking the stimulant would lead to her downfall and eventual addiction. It was her daily struggle to stop taking these ADHD medications because she would feel empty and lost without them, constantly craving being in the "exclusive world" that the pills put her in. Like Schwartz, people do not realize that these pills also have more side effects than just becoming part of a "fantasy world." "I was anxious, terrified I had done something irreversible to my brain, terrified that I was going to discover that I couldn't write at all without my special pills" (Schwartz 2016, 12). These drugs

cause temporary pros, like better focus, at the moment of their use, but these effects do not last for longer than a few hours.

To her surprise, Schwartz felt so out of control of her body while taking these study drugs that she did not even realize her health and brain function were at risk, until after she landed in the hospital. Nevertheless, even after her first near death experience, she did not and could not stop her habit. Taking the stimulants became second nature to her, something she needed and would do no matter the consequences, such as her weight loss, constant mood swings, headaches, or even skewed sleep schedules. To compensate for these side effects, she came to the conclusion that she had to keep taking more pills, thinking they would miraculously “fix” her whole self. It was not until years after that Schwartz convinced herself she needed to learn how to function without help from her “special pills,” pills that to this day, still have detrimental long-term effects on her health. Study drug use by people without ADHD, like Schwartz, can be genuinely harmful. Therefore, one reason to think that they are morally impermissible is that they lead to harm of the users.

PRESSURE: THE SECOND KILLER

Pressure can be a strong motivator when doing something imprudent. Some people without ADHD turn to study drugs because they impulsively conclude stimulants are acceptable since their friends and everyone around them are making a similar decision. Looking back upon Schwartz’s college career, she definitely faced much anxiety and stress put on her because of the high-ranked school she attended, where study drug abuse was high, which could have been a major contributor to her personal decision to take ADHD medications to improve her academic performance. High-ranked universities tend to have the best statistics in the country; so naturally, their students need to and are expected to have top tests scores when performing on standardized exams, such as the DAT or the MCAT. At Ivy League schools, you see many over-achievers, or students who would do anything and everything to be first in their class, which is why you might predict a higher stimulant usage in these types of school environments. “... Adderall is more popular at colleges with competitive admissions standards, you might also expect it to be used more by high-achievers” (Pierson 2015, 4). Like Schwartz, many of these “high-achievers” at these Ivy League schools are not always capable of taking on the type of pressure they have to endure being part

of such a competitive school, which is why they may eventually turn to study drugs to lessen their pain along their strenuous educational journey. However, many do not consider the consequences of their actions, especially how hard it is to quit an addiction. "Stimulant misuse can lead to medical complications including resulting anxiety and withdrawal in those who do not have ADHD after they stop using the medications..." (Glatter 2014, 1). Schwartz, like many stimulant abusers, did not pause to think about the consequences that came with addiction. If she could go back in time, would she choose to once again start taking ADHD medications simply to excel on a few papers and exams? Would she have wanted someone to educate her on why the cons of taking these study drugs actually outweigh the temporary pros they provided her with? Was it the responsible choice for her to keep taking these stimulants after her near death experience? Study drugs should never be the answer, especially not to pressure from school related classes and activities. They pose too great of risks to those who take them if no doctor gives them proper approval to. For Schwartz and those without ADHD, stimulants can alter their normal cognitive and functional brain levels, leading to more downsides than perks. Many people do not realize that these stimulants are definitely not worth the risk of jeopardizing their health, which proves that they are not only reaching for an impractical solution to achieve academic enhancement, but also underdoing an unsafe choice.

ONE PILL LEADS TO AN ADDICTION

On a more personal note, there is one experience that stands out to me most when I reflect on my most recent finals week, since I encountered someone who took Adderall right in front of me. It was the last day of exams. Before we could enter the room to get to our desks to face our catastrophic organic chemistry exams, I remember seeing a classmate in the distance of the long hallway. He was mysteriously turned around, face towards the wall, with his back to all of us. Curiously, I decided to walk down the hallway to "fill up my water bottle," but really, I was playing Sherlock Holmes and trying to solve the mystery of this classmate's sketchy actions. As I approached him, he put his hand towards his mouth. Just like that, I instantly knew I solved the case. He took a study drug, probably Adderall. In his defense, I thought that maybe he had a prescribed bottle in his palm, but right after he popped the pill, the little baggy he held onto, filled with at least ten more of those "magical pills," said otherwise. At that

moment, all I could think about was how he felt after taking that drug. Did he do it because he actually needed it to “focus better”? Or did he pop a pill because he did not have the strength to sit through and battle the E1 and SN1 mechanisms awaiting us? What I did know was that a sense of anger and irritation rose through my body. I had five finals that week and I was not taking any stimulants to improve my scores. I felt as if my classmate had an advantage over me because these pills gave him a little extra “push” that I did not have, which is why I would consider this cheating. He made an irresponsible choice, a choice that was not only unsafe towards his health, but also one that benefitted *only* him and no one else in the class. It is not only risky to take study drugs, but it is also unfair since it gives you an extra “push” from an outside source.

Similarly, I would compare my classmate’s actions to that of a competitive athlete taking steroids. Steroids help build more muscle in shorter periods of time, just as this ADHD medication helped my classmate’s neurotransmitter activities in the brain to be twice as stimulated as everyone else’s in the classroom, which is why he cheated. His actions should not be justified. Instead, they should open the eyes of college students who take Adderall and those who find it an “acceptable” practice. If one takes an exam or writes a paper with the help of stimulants, could they have not done the same without the drugs in his or her system? The drugs do not add more knowledge to the brain of someone without ADHD, but instead, they simply help with them focus with fewer distractions. Therefore, I think it was ethically wrong for my classmate to take Adderall because the medication would not help him learn last minute material, especially if he did not study, and the only thing the stimulant could have assisted him with would have been calming his mind down and putting him in this own world. My irritation comes when college students degrade their intellectual levels, thinking they cannot sit through an exam or write a paper without study drugs. That is how an addiction starts. Addictions come about when people least expect them too, when they keep telling themselves, “ just one more time or one more pill.” That one more time turns into a daily and unfair habit, a habit that is twice as hard to break than it is to start, and one that also takes advantage of those with ADHD and need these stimulants for daily functioning. Finally, it is also irresponsible and wrong to use stimulants solely for personal reasons, like exceling in school, since that is not their purpose to begin with.

PLACEBO EFFECTS: IS BRAIN ACTIVITY REALLY "FIXED?"

Nowadays, society can definitely pressure us into trying to be our most perfect selves. From school to extra-curricular activities, we are supposed to have that outstanding GPA, hundreds of shadowing and work experiences with the best doctors, research at the top laboratories, and anything else that makes us "stand out" as applicants for jobs or graduate schools. However, is it morally ethical to reach our best selves with the extra help of ADHD drugs like Adderall? Individuals today are not educated enough on the side effects these drugs enforce on the body. "Short-term adverse consequences include sleep difficulties, restlessness, headaches, irritability and depressed feelings...loss of appetite, nervousness and changes in sex drive" (Yanes 2014, 2). People use these drugs to "improve" their so-called attention levels and performances while studying, but evidently, there is not too much physical improvement on their overall health. On the contrary, one could also argue, with the studies done, that stimulants cause nothing more than placebo effects. "Research has shown that the placebo effect of ADHD drugs is quite large, so you feel focused because you tell yourself that's supposed to be the effect...a review of 40 studies found that in more than half of the research, adults without ADHD who took stimulants didn't see any cognitive improvements" (Puniewska 2016, 2). Therefore, these study drugs may not have the effects non-ADHD patients tell themselves they do, which is another reason they should not take them. If we program our brains to do something or feel a certain way, naturally, we fall into this trap and what we want to happen usually does happen. By knowing the effects stimulants should have on our cognitive abilities, we expect our brains and bodies to act this way, telling ourselves that the medications are working, when really, as this study proved, our brains are not altered and instead, our sense of thinking is. Therefore, if our brains are not always changed to improve our academic performances, why do we need stimulants to have the same results in the end?

I find that only those who, unlike my classmate, need ADHD medications to function on a daily basis should be the *only* ones to truly feel the real side effects on their behavior and brain due to the stimulants. "Someone with ADHD tends to have a very inactive prefrontal cortex, the area of the brain that controls things like attention span. "Give them a stimulant and they're relatively back to 'normal' because these drugs hike up the neurotransmitter dopamine in the brain's reward center, which helps people feel more alert and attentive and has a calming effect"

(Puniewska 2016, 3). My best friend, who is diagnosed with ADHD, once told me, "I use my medication, not only for focusing purposes, but also for my everyday life, to help my body function properly. I feel that if you need ADHD medication, then definitely take it. However, using it for social or "educational" reasons is quite unnecessary." Living a "normal" life for my best friend is different than the "normal" life I live. Her brain works in another way, and I know she tries twice as hard as her peers to finish her school assignments because she cannot focus for long periods of time. ADHD causes her to be distracted easily, and these stimulants allow her brain to be brought up to the normal functioning level of those students without ADHD that she is competing with in classes for that top grade. For patients with ADHD, they lack what individuals with normal brain activity levels possess. For them, it is the safest, an ethical, and a responsible choice to take their medication, since they would not function through their everyday tasks without this extra stimulant help. However, for those without the diagnosis, these study drugs might not actually assist them. It is unfair patients without ADHD to take these stimulants if they are not even demonstrating the proper effects that they should be having, which is another reason why those with ADHD should be the only ones taking the drugs.

MORE EDUCATION IS NEEDED

In conclusion, I believe that more students need to be educated on the topic of "Generation Adderall," as Casey Schwartz has named the epidemic that has been contagious for years. Our generation should hear more stories like Schwartz's in order to become more aware of the consequences that smart pills have on those people who do not suffer from ADHD, as well as why it is an irresponsible choice that leads to unsafe health risks. ADHD patients need their medications in order to survive. For those unlike Schwartz, Adderall is the answer to their stress, their pressure from society to "fit in" and to be more "normal," as well as their lack of proper neurotransmitter activity in the brain. For people like my best friend, it is the responsible and proper choice to take stimulants to live a normal life. However, for those around my friend that do not suffer from ADHD, it is irresponsible and wrong that they take these medications to improve their already functioning brains. Their decision to take stimulants to *only* better their cognitive results is where they are imprudent and lack proper education on this topic, the effects overdosing on these drugs could have on their health, and why

it is ethically wrong to take stimulants like Adderall, which is a highly addictive narcotic. College students need to be informed and taught that the downsides that come with making a choice that could change their whole lives, as it did for Schwartz when she took Adderall for her first time, has more cons than pros in the long run. Then, maybe then, students might think twice the next time they have to write a paper and are about to pop a pill into their mouths without even realizing the negative impact this one decision could have on their future.

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