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"Adderall is Definitely Not a Drug": Justifications for the Illegal Use of ADHD Stimulants

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In-depth interviews were conducted in 2007 with 175 undergraduate students (94 males, 81 females, 13 non-Caucasian) at a large, public southeastern research university located in an urban area in the United States. Our primary goal was to identify how these students conceive of Attention Deficit Hyperactivity Disorder (ADHD) stimulants and their illegal use. We discovered that these students frame stimulant use as both physically harmless and morally acceptable. Specifically, these students justify their drug use through the use of four recurring prostimulant arguments: 1) comparison-and-contrast, 2) all-things-in-moderation, 3) self-medicating, and 4) minimization arguments. We discuss limitations to the study and conclude by suggesting five strategies for prevention researchers that would directly target these four arguments.

Keywords ADHD; Adderall; drug abuse; college students

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) was originally believed to be primarily a pediatric condition (McCabe, Teter, and Boyd, 2004; Olfson, Marcus, Druss, and Pincus, 2002; Robinson, Sclar, Skaer, and Galin, 1999; Rushton and Whitmire, 2001; Safer, Zito, and Fine, 1996).[1] Recent data suggests, however, that 30%-70% of children with ADHD continue to have symptoms in adulthood (Cantwell, 1985; Mannuzza et al., 1991; Vollmer, 1998; Wender, 1995). This population is increasingly seeking treatment. The number of

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'The rise in the diagnosis and treatment of American children with ADHD has been well documented since the mid-1990s (McCabe et al., 2004; Olfson et al., 2002; Robinson et al., 1999; Rushton and Whitmire, 2001; Safer et al., 1996). According to the Centers for Disease Control (2005), there are over 4.4 million children between the ages of 4 and 17, or a national prevalence rate of 7.8%, that have been diagnosed with ADHD. Of these, 2.5 million children have been prescribed stimulants to treat the disorder.

American adults who are prescribed medication to treat the disorder has increased by 90% from 2002 to 2005, with adults receiving one third of all prescriptions (Okie, 2006).

Adderall (mixed salts amphetamine) is the most widely prescribed medicine for children and adults with ADHD, with Ritalin (Methylphenidate) and Dexedrine (dextroamphetamine) also being considered first-line pharmacotherapy. Because of the potential for abuse and psychological and physical dependency, the U.S. Drug Enforcement Administration (DEA) classifies these stimulants as Schedule II substances (Woodworth, 2000). Consequently, Adderall, Ritalin, and Dexedrine are legally available only through prescription, with a limit of 30 days' worth of doses, and no refills. Additionally, Schedule II drugs are subject to production quotas set by the DEA.[2]

Despite these Schedule II restrictions, the illegal use of ADHD stimulants has become increasingly popular during the late 1990s on American college campuses (Babcock and Byrne, 2000; Hall, Irwin, Bowman, Frakenberger, and Jewett, 2005; Low and Gendaszek, 2002; McCabe, Knight, Teter, and Weschsler, 2005; McCabe, Teter, and Boyd, 2006; Shillington, Reed, Lange, Clapp, and Henry, 2006; Teter, McCabe, Cranford, Boyd, and Guthrie, 2005; Teter, McCabe, LaGrange, Cranford, and Boyd, 2006; White, Becker-Blease, and Grace-Bishop, 2006). Specifically, Babcock and Byrne found that 16% of the 283 students sampled used Ritalin recreationally. Hall et al. (2005) reported that 17% of the 179 males and 11% of the 202 females surveyed illicitly used stimulant medication. This number was more than doubled in Low and Gendaszek's investigation of a small New England college with 35.5% of the 150 students sampled reporting illicit use of legal amphetamines.

Expanding the scope to multiple sites, McCabe et al. (2005) surveyed 10,904 students at 119 nationally representative 4-years colleges in the United States. They found that 6.9% of the students surveyed had used an illegal prescription stimulant in their life, with 4.1% using in the past year. Furthermore, they reported that illicit use was highest among 1) white fraternity members; 2) students from the northeastern region of the United States; 3) students from colleges with more competitive admission standards. They also found that nonmedical prescription stimulant users were "more likely to report use of alcohol, cigarettes, marijuana, ecstasy, cocaine, and other risky behaviors" (p. 96).[3]

Of particular interest to this current line of investigation is DeSantis, Webb, and Noar's (2008) survey research of 1,811 students at a large public institution in the American South East. They discovered that while only 4% of their participants reported having a prescription for an ADHD medication, 34% claimed to have used ADHD medication illegally.[4]

[2]Other often-discussed Schedule II drugs include cocaine (used as a topical anesthetic), Morphine, Phencyclidine (PCP), short-acting barbiturates, injectable methamphetamine, and most pure opioid agonists such as opium and OxyContin, (USDOJ DEA).

[3]Exploring the issues of ethnicity and motivation, Teter, McCabe, LaGrange, Cranford, and Boyd (2006) asserted that Caucasians and Hispanics were more likely to illegally use prescription stimulants than African Americans and Asians. They also found that the majority of students who used illegal prescription stimulants, regardless of ethnicity, did so to enhance their academic performances. Sixty-five percent reported using to aid concentration, 59.8% to "help study," and 47.5% to "increase alertness" (p. 1501). Other motives not associated with academic performance included getting high (31.0%) and experimentation (29.9%)," (p. 1501).

[4]Of these 574 illegal users, 49% (n = 260) were males, 51 % (n = 273) were females. Forty-one participants did not report a sex. Whites comprised 94% (n = 536) of illegal users; the remaining 6% of the participants consisted of 14 African Americans, 4 Asian/Pacific Islanders, 5 Hispanic/Latinos, and 10 other or mixed raced. Five participants reported no ethnic affiliation. Of the illegal users, 22% (n = 112) were freshman, 25% (n = 123) were sophomores, 28% (n = 140), and 25% (n = 128) were seniors. Seventy-one of our reported users did not report a class rank. Finally, 27% (n = 155) of these illegal users were in fraternities, while 31% (n = 178) were members of a sorority.

When the students in DeSantis et al.'s (2008) study were asked whether their use of these Schedule II amphetamines posed a health risk, only 2% thought they were "very dangerous." Eighty-one percent thought that the illicit use of ADHD medication was either "not dangerous at all" or only "slightly dangerous." Additionally, many of these same students had little or no moral apprehension about the illegal acquisition or use of these amphetamines.

It was the disturbing nature of these later two findings that engendered this current line of investigation. For, while DeSantis et al.'s (2008) survey data answered some intriguing questions about illicit stimulant use, it stopped short of supplying a complex and contextually grounded qualitative description of students' views and beliefs about their use.

Consequently, we conducted 175 in-depth interviews with participants from DeSantis et al.'s (2008) survey cohort for the purpose of understanding student conceptions of illegal ADHD stimulant use.

We discovered that because of, and aided by, the exceedingly high rate of illegal stimulant use on campus, a popular, socially constructed storyline has been created and internalized by many of these at-risk students. In general terms, this narrative rhetorically frames stimulant use as both physically harmless and morally acceptable and takes the form of four recurring prostimulant arguments. Furthermore, there is strong discursive evidence to suggest that many of these arguments were not created in isolation by individual students, but have been collectively crafted and shared on a campus where illegal stimulant use is often discussed as a stigma-free part of the culture.

Throughout the remainder of this paper, we will 1) discuss the methodology of our research; 2) detail the four recurring justifications used by our participants; and 3) discuss some implications of our findings with an eye toward health-prevention efforts.

Method

A convenience sample of 175 full-time undergraduates at the university was interviewed, using hand-held audio tape recorders, during Spring and Summer of 2006. Table 1 reports the interviewee demographic categories, including gender, race, year in school, and Greek status. Along with the primary author of this study, six paid undergraduate students also conducted interviews. The undergraduate interviewers had all completed an upper-division research methods class and were certified by the university's Institutional Review Board. Additionally, the interviewers were trained and supervised by the researchers in interviewing procedures, ethical guidelines, and transcription protocol. Each of the undergraduate interviewers were given a detailed interviewing script to follow and obtained written consent before each interview. The interview script comprised 15 questions. The questions addressed four basic issues, including demographics, Adderall usage patterns, ethical/legal implications, and physical side effects. The interviews lasted 20-30 min on average.[5]

Undergraduate interviewers were strategically selected to facilitate the comfort and trust levels of the undergraduate subjects being interviewed. Interviewers were assigned specific demographic segments of the campus population to interview based on comfort and fit with these groups. For instance, females interviewed female students, males interviewed

[5]Finding interviewees to discuss their illegal stimulant use was far easier than we had anticipated. In fact, only 2 students declined our request to be interviewed. The 175 students that volunteered their time and insight were forthcoming and seemed to enjoy the interviews. The quality and quantity of these interviews underscores the general lack of stigma attached to the use of ADHD medications by the subjects in our study.

Table 1
Interviewee demographic information

Demographic category	N
Gender	
Male	94
Female	81
Race	
White/Caucasian	162
Other race/ethnicity	13
Year in school	
Freshman	33
Sophomore	41
Junior	49
Senior	52
Greek affiliation	
Fraternity (male)	63
Sorority (female)	48

male students, male Greeks interviewed male Greeks, and female Greeks interviewed female Greeks.

During the transcription stage of this project, all names were changed and replaced with arbitrary pseudonyms to protect the anonymity of the participants. Furthermore, any identifying markers and/or references to people, organizations, or events that could jeopardize subject anonymity were either changed or deleted from the transcription record.

After all the interviews were transcribed, statements that addressed the moral, legal, or health implications surrounding the illicit use of Adderall were organized by their dominant themes. The overwhelming majority of these statements took the form of arguments aimed at justifying illegal stimulant use. Using DeSantis (2002) and DeSantis and Morgan (2003) work on justifications and rationalities as a starting point, these arguments were clustered around four dominant arguments.[6]

Results

Before conducting our interviews, DeSantis et al.'s (2008) survey research supplied us with statistical data of how prevalent was the illegal stimulant use on this campus. As previously mentioned, they found that of the 1,811 students that completed the surveys, 34% (n = 585) had used ADHD medications illegally. And if students were members of social Greek organizations (48%), juniors (49%), or seniors (55%), these numbers were significantly higher.

If health prevention researchers are going to persuade users from illegally procuring and taking these ADHD stimulants, they will need to know more than just prevalence rates.

[6]DeSantis (2002) and DeSantis and Morgan (2003) examined the types of prosmoking arguments used by cigar smokers to justify cigar use. Both works argued that by using such arguments, smokers are able to reduce the cognitive dissonance and anxiety usually associated with tobacco use. These basic justifications were used in this current study as an initial template for understanding similar arguments produced by illegal stimulant users.

They will have to understand how these students conceive of the drug and justify its use. Toward this end, we asked 175 illegal stimulant using students to explain 1) their conception of the ethical and legal implications of illicit Adderall use; and 2) any concerns they had regarding the physical side-effects from this Schedule II amphetamine.

While the reasons they gave to these questions were often customized by participants to fit their individual lives and circumstances (major, year, family situation, projected grades, need for a specific job, etc.), the basic arguments that comprised these justifications remained strikingly similar from interview to interview. The four most recurring justifications were: 1) comparison-and-contrast, 2) all-things-in-moderation, 3) self-medicating, and 4) minimization arguments.

Comparison and Contrast

Of the many justifications that were recorded, transcribed, and coded, none was used more often than comparing and contrasting ADHD stimulants with "party drugs." In general terms, this argument created a dichotomy between good prescription stimulants and bad street narcotics, e.g., cocaine, marijuana, methamphetamines, etc. This basic dualism, however, manifested itself in four different subarguments.

I'm-doing-it-for-the-right-reasons argument. Of all the comparison and contrast justifications used, none was used more often or with more certainty than the, I'm-doing-it-for-the-right-reasons argument. This justification asserts that since the stimulants are being taken to promote a positive outcome, i.e., to get better grades, and not negative outcomes, i.e., getting high, then their use is morally justifiable.

We see this line of reasoning with Lisa, for example, a third-year business major, who told us that "Adderall is definitely not a drug. No way. It is a study tool. You don't get high or anything like that. I take it to do good in school. How can that be bad? So it's all good." Similarly John, a second-year biology major, viewed stimulants as "OK as long as it is for studying. You see, I think that is the key, you know? You are doing it to make something out of yourself."

Some, like Janet, found utility in specifically naming the "bad" drugs for their comparisons. "It is like this," she discussed, "marijuana and coke, you know, is something much different." "I just really don't feel like Adderall is like those because it helps me do things, and pot and stuff don't. I don't take it to get high or drunk, so yes, it is different. Much."

John also defined "bad" drugs as "something you take to get high." To help contrast this difference, he additionally framed the users of these undesirable narcotics as "druggies and abusers who go to jail." "Adderall," in contrast, "is kinda the opposite. People that take it are trying to get their work done so they can get through college." In his moral dichotomy, therefore, " . . . crack is kinda like the drug for losers and Adderall is for winners. They're two very different kind of things."

For Stacy, a junior pre-med major, however, the moral distinction between good and bad is not based on the type of drug taken, but why it is taken. "You know," she explained, "some kids take it [ADHD stimulants] to party longer or like coke [cocaine], but that is wrong." "I don't use drugs," she continued, "You can't have a major like mine and use drugs ... But if you take Adderall for school and to be a success, then it is a different thing. I have no problem with that type of thing."

Regardless of whether the "bad" drugs were named or simply implied in this dichotomy, at its core, this strategy relied on the ends to justify the means. These students did not attempt to argue that the drugs were not harmful or even illegal. Instead, they asserted that since

taking this illegal substance helped advance them toward their academic and professional goals, its use was a morally justifiable decision. As Ken summarized it, “It is all why you are doing it, period.”

It-comes-from-the-medical-establishment argument. The second most used comparison-and-contrast strategy found in the interviews framed ADHD stimulants as “good” legal pharmaceuticals in contrast to “bad” illegal street drugs. For some, like Amber, a third-year education major, it was the control and regulation of pharmaceutical stimulants that relieved anxiety. She claimed, for instance, to not “worry about it [dangers] cause it is really looked at by drug officials and the government.” “I mean, you hear the news, they are always testing and making sure that everything is safe.” Robert also thought that “it could not be sold to the public if it wasn’t safe. I think it is the FDA, right?, that does all that. So [long pause], no, I mean who looks to see if coke or meth is clean? Nobody.”

Others in the study punctuated the idea that ADHD stimulants were made by pharmacists in laboratories. Mark told us, for example, that “It’s not like it’s cooked up in a basement; it is made by pharmacists so you know what you are getting.” Following a similar script, Caroline believes that “Adderall is safe because how it’s made. When you get it, you know that it is not made in a bathtub by a bunch of dirty druggies. You get it at Krogers [a grocery store].” After all, she concluded, “It comes in a capsule and it has a stamp on it and everything like that.”

Most in our study also found comfort in knowing that ADHD medications are prescription drugs. “How many people do you know that have scrips for coke?” asked Jarrod. “None, nobody has a prescription for coke. Doctors don’t prescribe shit like that cause it’s bad.” Lauren also puts faith in the wisdom of doctors: “If it was bad, then why do they [medical doctors] give it to everybody. So it can’t really be that bad otherwise they couldn’t sell it.” Finally, when Martin was asked whether he felt guilty about taking stimulants, he responded, without hesitation, with an emphatic “No!” “I never really looked at it like that because you are taking a prescribed drug. It just seems like ‘a crime’ would be like taking an illegal drug.”

Perhaps the most interesting aspect of this justification was not that students put such absolute faith in the medical establishment, but how strategically selective they were about what they trusted. Without equivocation, for example, our participants believed that the FDA, medical doctors, pharmaceutical companies, and health experts would not lie, cheat, or deceive them about the quality of ADHD stimulants. These same participants, however, also thought that the potential dangers of these drugs detailed by these same health experts were exaggerations at best, if not conspiratorial lies.

There ’s-no-high argument. Another popular comparison and contrast strategy defined “bad drugs” as substances that impair cognition or motor skills in opposition to ADHD stimulants that were perceived to have no impact on such functions. After all, as Martin, a second year history major, explained, “If you are not getting high or buzzed than it is really not bad. It’s like Tylenol or aspirin. No one takes aspirin to party. What’s the point?”

Rod also viewed cognition as key: “I think if it doesn’t alter your mind, it is OK . . . If you can still go to class and think and talk to people and not be ‘out there,’ it’s OK, especially if it helps you in school.” When asked how it helps in school, Rod, like 56% of the 1,600 other participants surveyed on his campus, claimed that ADHD stimulants make him a smarter, more attentive student (DeSantis, Webb, and Noar, in press). “I can think better. And I can focus without being distracted ... I remember more too.” Far from

being “out there” on stimulants, therefore, ADHD drugs are believed by many to improve cognition.

Finally, many in this study contrasted stimulant use with the “sloppy” feeling induced by alcohol. As Robert explained, “Adderall is nothing like alcohol. It is actually like a good drug as far as that goes. You never see anybody fall down or throw up.” Nancy also viewed stimulants as “no real big deal.” “It is nothing like being sloppy drunk or anything. That is when I think drugs become really dangerous. When you can’t stand up and anyone can take advantage of you and you would never know it.” For Josh, “Since you can function on Adderall—you can go to work or drive—and not even know it, it really isn’t like a real drug. Like alcohol, you could never really function if you are really drunk. You’d be slurring and running into things. That’s when it gets dangerous too.”

It is worth noting that while alcohol was used by many in our study as a negative touchstone in comparing and contrasting ADHD stimulants, 167 of the 175 participants interviewed, including Robert, Nancy, and Josh, admitted to drinking “regularly” for the purpose of getting drunk.

No-internal/physical-side-effects argument. Our participants also contrasted the well-publicized negative side effects of street narcotics (brain damage, addiction, death, crime, etc.) to the benignity of ADHD medications. This perception of innocuousness was so prevalent, in fact, that none of our 175 participants would admit that stimulants posed a “significant” health risk, certainly not enough to warrant concern or abstention.

When asked whether he was worried about taking ADHD medication, for instance, Stephen, a junior marketing major, responded that “there was nothing to worry about. It’s nothing like coke [cocaine] or anything like that. Stuff like that can really screw you up, like all those people in the movies. Here you spend five dollars, study for like eight hours, and then all the effects go away.” Rachel similarly felt that, “Since it is not dangerous, it’s really no big deal... It doesn’t wreck your body like hardcore drugs. Like acid, that stuff will really mess you up.” According to John, the worst thing that can happen to you is that “it messes with your sleep.” “There really is no side effects, really. You just crash pretty hard if you take it and pull an all nighter. But you’re gonna’ crash anyway after you stay up all night anyway and don’t take it, so it’s not a big deal.”

Some in our study claimed to have actually done some research on this question. Mark, for example, talked to “a lot of his friends” about it: “They all say that there is nothing long term to worry about. Other illegal drugs kill your brain cells and hurt you and that’s when drugs become dangerous.” Cyril has also “looked into it.” He has “read” and “talked to a lot of people.” “It is really one of those drugs that is really safe. You don’t see that with coke or even alcoholics. You don’t see anybody that is taking Adderall that completely looks tore up or trashed.” For George, personal observation and “studying people” has also convinced him that “it’s cool.” “I have seen a lot of people, especially during finals. And no one has gone crazy or dropped out of school. Everyone is just cool, you don’t turn into a meth junkie or anything.”

Most who relied on the no-side-effect argument, however, focused on the issue of drug addition. “I don’t think it is bad for you at all,” asserted Jeffery, a junior finance major. “It is not addicting like a lot of those bad drugs. You just take it and that’s it.” Alice similarly believes that since “you can’t get addicted to it,” stimulant use is safe and acceptable. “I know a lot of people who take it and it is not addictive. It doesn’t ruin your life like coke or, you know, other drugs like it.” When asked about the FDA’s warning of addiction, Alice, an undeclared freshman, responded that “It is just hype . . . They just say that stuff so that people will be scared.”

This type of observational and experiential evidence was also extensively used when addressing the ultimate side effect—death. “No one has ever died from it,” explained Candice. “It just seems to me like a much less serious drug.” Kathy, a merchandising major, also sees the lack of fatalities as proof of stimulant safety. “It doesn’t have the stereotype that people die like other hard drugs. No one has died on campus, and it is used a lot. So I think it is true.”

But Mark, Cyril, Kathy, and the others are not alone in their reasoning. Such responses based on first-hand observation were commonplace among interviewees. With one out of three students on this campus using stimulants (DeSantis, Webb, and Noar, in press), most students do not need to speculate about effects and addiction, they have watched friends and acquaintances on multiple occasions take stimulants without any negative repercussions. “All the statistics in the world,” Beth told us, “are not going to convince me that it is bad. We all do it. We know.”

No-external/societal-side-effects argument. This lack of perceived internal (physical) side effects was not the only argument focusing on consequences. Many in our study also found solace in the belief that using illicit stimulants has no external (legal or societal) side effects. Some, for instance, focused on the lack of concern displayed by law enforcement as evidence of stimulant’s safety and morality. When asked to explain why stimulants are different from “drugs,” Nathanial, a junior psychology major, said that “Other drugs have jail sentences that people get for using them and distributing them. With Adderall it is done all over, without people getting in trouble.” When Rod was asked whether his marijuana and stimulant use were similar, he also saw the lack of legal concern significant: “No, I do both, but they really aren’t the same. Adderall is not as controlled by the police. Obviously lots of people are taking it without prescriptions and nothing seems to be done. If they don’t think its bad, why should I?”

Following a similar vein of thinking, participants in our study asserted that, unlike street narcotics, stimulants caused no societal harm. “Ah, come on, really?” laughed Marcus when asked whether he feels guilty about using illegal stimulants. “Hell no. It helps me and it hurts no one. People aren’t being shot or kingpins aren’t killing people, you know? When was the last time you saw junkies laying in the streets because of Adderall?” We see this rationalization again when John was asked whether he ever felt “bad” taking stimulants: “I don’t think there is anything to feel bad about. It doesn’t hurt or kill you like other drugs do. It doesn’t really hurt anybody. There’re no victims.” For Brett, this victimless argument even warrants a redefinition of “crime.” When asked whether stimulant use should be illegal, he, unapologetically, asserted, “No. I think a crime should be defined as an action that hurts somebody. When I take it, I am hurting no one. Now other drugs may. Are there pushers and guns? But not this. It hurts no one.”

Moderation

With the strategic and sporadic patterns of stimulant use discovered by researchers in recent years, the “Moderation Argument” is an ideally suited justification for these at-risk students. Specifically, researchers have found that unlike alcohol that is used, and abused, by many on a weekly basis, students that take ADHD stimulants are far more strategic about when and why they use it (Babcock and Byrne, 2000; Hall et al., 2005; Low and Gendaszek, 2002; McCabe et al., 2005; McCabe et al., 2006; Shillington et al., 2006; Teter et al., 2005; Teter et al., 2006; White et al., 2006). Most users, including the 175 participants we interviewed, claim to take stimulants primarily during periods of high academic stress,

such as midterm exams and finals week. Consequently, participants viewed their stimulant use as "occasional" and "moderate," and as such, claim to feel little, if any, anxiety over the use of these amphetamines.

Patrick, a third-year math major, for example, "never feels guilty" because he "only takes it during finals." "I never abuse it. If I abused it, then I would be worried. But maybe once or twice a semester during finals or sometimes midterms." Lauren, a junior Spanish major, also claimed to only take stimulants during finals: "No I don't feel bad because I only take it when I really need to take it. Finals is just too crazy not to. But as long as I don't abuse it like everyday, I think it's fine." Finally, Frank, a senior agricultural economics major, similarly claimed to restrict his stimulant use to midterms and finals. "I can handle everything most of the time, but if I only use it for midterm exams and finals, then it is not hurting me. As long as I don't abuse it."

Others in the study, however, were strategically ambiguous about defining moderation. Unlike Patrick, Lauren, and Frank who confined their use to formal exam periods, Katherine simply claimed to avoid "excess." "I don't stress about it [stimulant use] because I am not excessive. I take it only when I need it, in moderation. If you are not excessive, then there is no problem." For Aaron, an undeclared freshman, it is the belief that he does not "abuse" stimulants that gives him consolation: "Abusing anything is bad. I just make sure that I don't abuse it." The ambiguous but versatile, "abuse" was also used by sorority sisters Abby, Becky, and Rachel when they reported feeling no guilt because they "never abuse it," "avoid abuse," and are "always careful not to abuse anything, but especially things like Adderall," respectively.

There were also those that defined "moderation" by comparing their use to more excessive users. Mia, an undeclared sophomore, for example, believes that since she only uses stimulants to study and not to suppress her appetite, 'There's no problem: I think you need to regulate when you use it. Like I know some girls in my [sorority] house who will take it to lose weight and stuff like that. I think that is just too much. That's dangerous." Adopting a similar strategy, James contrasted his perceived constraint with his roommate's immoderation: "I know people that take it for everything. My roommate takes it for every little thing or test. He's ridiculous. How can you do that? I only take it on special occasions. All the time is stupid." Finally, incorporating elements from both examples, Rachel spoke in general terms of "students" and "people" who "take it for every test and every quiz and every reading assignment" and of those who "take it so they won't eat, not because they need it." 'That's crazy," she concludes. "You have to be smart and use it only when it is important."

Finally, while most of our participants relied on the frequency of stimulant use to define moderate behavior, a few of the more well-informed users found utility in dosage size. "There are some guys I know that will take like 30 milligrams of the stuff," explained Dave. "That's way too much. I mean you just shake and sweat on that much. I only take 10 or 15, period." Dorothy similarly detailed how she takes "no more than 10 milligrams most of the time, unless there is like two or more tests coming up. You have to be careful with that." Others, like Michael and Lauren, simply told us that they did not "take large amounts of the stuff" or that they "just don't abuse the milligrams" without ever quantifying dosage size. The fact that specific dosage size was only discussed by a minority of participants, however, did not come as a surprise. The overwhelming majority of illicit users we interviewed openly confessed to having little or no health information about ADHD stimulants. "I take what anybody has, what ever that is," explained Mary. "I think it's all about the same, isn't it?" "I don't really worry about that [dosage] too much," expanded Alice, "I just take what everyone else is taking. It's always fine."

It was Brandon, however, that best summarized the majority of our participants' nonchalant ignorance: "The stuff comes right from a doctor. So I don't really stress over knowing a lot about it. It's obviously not going to hurt you . . . They couldn't give it to 50 millions kids if it did." For many, therefore, the problem is not only that they do not know, but that they are content with not knowing.

Self-Medicating Argument

The third most often used justification by our participants is the self-medicating argument. Within this argument, students claim that they probably suffer from ADHD themselves; so taking stimulants becomes both physiologically and morally justifiable. This argument was typically built on three interrelated assertions. First, students identified some of their behaviors as undiagnosed symptoms of ADHD, e.g., difficulty focusing, day dreaming, poor reading comprehension, boredom. Second, they discussed how their previous use of illegal stimulants corrected those problems. Third, they conclude that, given their symptoms and/or their previous stimulant success rate, they must be ADHD. Consequently, their self-medicating is in fact the right thing to do. They have simply cut out the "middle man"—in this case, the medical doctor.

Within the structure of this argument, however, students prioritize different aspects of the narrative. Some, like Travis, underscore their ADHD symptoms: "I have always thought I was ADD. I have always had problems concentrating. Really, I would lose concentration with everything. I can't even watch a movie without getting bored." Christina also thinks that she has "a mild case of ADD." She tells us that she "can't focus and pay attention and so forth." "I have friends with it and they are just like me. They can't focus and get things done." For Amber, "It's textbook funny." "I am terrible," she explained. "I think I may also have a learning disability and I think, I think I kind of have dyslexia and ADD in a form, but I was never tested." For Travis, Christina, and Amber, therefore, taking stimulants is a logical and justifiable solution to their medial condition. "I would be crazy not too," Christina claimed. "I really need it. I don't do it because I'm lazy or anything."

Others in the study privileged the positive effects of stimulants as proof of their correct diagnosis. "Without it," explained Rachel, "I am really bad. I really do think I have it. So it makes me study a lot better when I take it. I couldn't study as much as when I'm on it. I'm not a doctor or anything, but [sentence ends]." From Michael's perspective, there is no way that he "can't have it." "It works for me every time. I know I should be on it full time. Me on it and not on it is two different worlds. It works, that's a pretty good sign that I need it." Finally, there was Megan who explained that she is "just making a self-diagnosis and kind of medicating" herself. But, "there is not doubt that it works. So I guess I am right cause it works."

The final group of students that relied on the self-medicating argument put the burden of their situation on the "middle man"—the medical establishment. "It's too expensive to actually get tested, and I do think I have it, so I kind of don't care because if they make it cheaper, maybe I could actually get tested," explained Danielle. "I don't think it's like taking illegal drugs ... If the government doesn't feel guilty making it too expensive, and my insurance doesn't cover it, then I don't feel guilty about taking something that I need to concentrate and get good grades." For Jason, it was not expense, but time. "I just don't have time. It is such an ordeal. You have to make an appointment. Then you have to take the test. And wait for the test. Then meet with your doctor again where he is just going to tell me what I already know." For Benjamin, however, it came down to the simple fact that he does not like, or trust, doctors: "I know how my brain works so much better then they do and how I get things done. I just never went to get a doctor to solve my problem."

Minimization Argument

The final rationalization used by participants was “minimization.” In this narrative, users minimize the serious nature of amphetamines by framing them as a harmless, benign, and socially acceptable antifatigue aid. Most commonly, these stimulants were transformed into nothing more than a stiff cup of coffee, an iconic staple in the life of mainstream America for generations.

When asked, for example, whether there is any guilt or fear associated with his Adderall use, Brandon, a third-year business major, responded, “No. It is the same as taking a bunch of coffee. It’s the same as if someone just drank several cups of coffee before class. Is that bad?” When asked the same question, April similarly responded: “No. It’s like saying it’s illegal to take coffee. I mean it still is a stimulant. Caffeine is a drug and everyone uses that, and so I don’t feel like it’s bad.” For Jeremy, dealing with the anxiety of his stimulant use is a little easier since he “gave up coffee last year.” He recalls how he “drank coffee all the time and it was really getting to” him. Now, “every once in a while,” he will “take some Adderall to help.” “I really think it is a lot better for me than all that caffeine I use to drink. I mean, I don’t wake up in the mornings anymore needing caffeine. I only use it when I want to.”

But coffee was not the only caffeine drink used in this minimization process. Carbonated soft drinks were also highlighted. “It is really not different than Cokes that everyone drinks,” explained Rachel, a senior music major. “I mean, drinking a Diet Coke, it increases your heart rate and makes you more dehydrated . . . decreases your appetite. You know, there are a lot of things out there that do the same thing.” Similarly for Vanessa, a junior education major, the only difference is that “You just don’t need a prescription for a Red Bull [advertised as an “energy drink”], but it’s the same thing, really. I mean, think about it.”

Along with coffee and soft drinks, ADHD stimulants were also equated with over-the-counter caffeine pills. These antisleep aids can be purchased at most grocery stores or gas stations and generally contain 200 mg of caffeine per tablet. “I don’t feel like there is any difference in me taking it [Adderall] and me taking a caffeine pill,” explained Jason. “What’s the difference. Basically, it is just a way to stay awake. There’re both pills.” John believes that if you are going to “get mad” at him for taking illegal ADHD stimulants, then you “ ... should be getting mad at people for overdosing on NoDoz.” Finally, Katie told us that “During finals, it was either NoDoz, you know, or Adderall and it is just easier for me to take Adderall. I would’ve had to drive to the store ... It was easy, a girl in my [sorority] house had some, so. But I really think it is all the same.”

When evaluating the minimization arguments used by our participants, it becomes clear that the keystone holding this rationalization together is the equating of socially acceptable caffeine, in all its forms (coffee, soft drinks, pills), with ADHD amphetamines. This linguistic slight of hand is accomplished by users underscoring each substance’s similar ability to fight fatigue, while strategically ignoring the myriad of significant legal, social, and pharmacological differences. Consequently, ADHD stimulants are reduced to nothing more than harmless, acceptable, and legal caffeine.

Conclusion and Discussion

Throughout the course of this paper, we identified the ways in which at-risk students socially constructed a justification scheme for their illegal stimulant use. First, students justified their at-risk behavior by arguing that they are (a) using “good prescription stimulants” while their peers are using “bad street narcotics” and that they are doing so, (b) for the right reasons (i.e., to increase academic performance), and (c) in moderation (and thus, safely).

Second, the students' collective narrative minimized the serious nature of amphetamines by framing them as (a) having no harmful internal or physical side effects, (b) not producing the same type of high as other drugs, and (c) nothing more than other commonly used antifatigue aids. Finally, students constructed the use of stimulants to treat ADHD as socially acceptable, noting that the stimulants are (a) produced, regulated, and prescribed by the medical establishment and (b) are not targeted by law enforcement.

Identifying these arguments not only gives prevention researchers a better understanding of why these stimulants are so freely and openly abused on college campuses, but it also informs the development of antistimulant health campaigns. We recommend, therefore, that attempts at reducing illegal stimulant abuse consider the following five suggestions[7]:

- Attack the illusion that the use of prescription medications is safe because they are produced, regulated, and prescribed by the medical establishment. Users must understand that the chemicals used in pharmaceutical stimulants are as potentially dangerous and addictive as uncontrolled substances sold on the streets.
- Address the erroneous belief that ADHD stimulants have no harmful physical side effects. Detail the FDA's own warning about Adderall's potential dangers. These include a risk of sudden death, serious cardiovascular adverse events, worsening mental illness, possible decreased growth, increased tics, headaches, and mood changes. This danger is exponentially increased if users have undiagnosed heart defects, high blood pressure, heart or blood vessel disease, and an overactive thyroid.
- Target the misconception that illegally using or distributing a Schedule II amphetamine in moderation is safe. One time or sporadic use of ADHD stimulants is sufficient to rupture a compromised heart. The first-time distribution of these stimulants also carries with it a mandatory five-year federal sentence. The concept of "moderation" is irrelevant in both cases.
- Educate illegal users as to what ADHD actually is. Far too many of our participants trivialized this developmental disorder as nothing more than the periodic inability to concentrate. Consequently, many of these users have diagnosed themselves as "disordered," and as such, believe they are morally deserving of stimulants.
- Dispel the belief that ADHD medications are nothing more than a stiff cup of caffeinated coffee or a can of Diet Coke. Such minimization discourse masks the seriousness of its composites and the impact they have on the brain's neurotransmitters. Adderall, for example, is composed of dextroamphetamine saccharate, dextroamphetamine sulfate, aspartate, and sulfate that increase extracellular levels of the biogenic amines dopamine, norepinephrine, and serotonin (Drug Information, 2008). These are not the ingredients of a Starbucks's latte.

There are limitations of this study that should be taken into account when interpreting our results. Most notably, the participants interviewed in this study were all students from a large, public research university located in the southeastern region of the United States. There is evidence that stimulant use varies according to factors such as region of the

[7]Our suggestions come from an "abstinence" orientation. There are, however, other perspectives that could be considered. The newer "harm-reduction" model would advocate strategies such as reducing the frequency of use or targeting only "social motivations" for illegal ADHD stimulant use. Since most users in our study, however, primarily use Adderall during "rare" academically stressful situations, this approach is less appropriate. There is also the "quality-of-life" model that considers both the physical and the psychological well-being of the user. It is compellingly argued from both a psychological and physiological perspective, however, that unprescribed amphetamine use is not beneficial to a user's psychological state or his/her physical well-being.

country and school competitiveness (McCabe et al., 2005). Thus, the rates of stimulant use found here may be different than at other universities, and the reasons for use and issues related to access of stimulants may also differ. It is suggested, therefore, that similar lines of research investigate universities from other regions of the country and students representing smaller colleges, commuter colleges (where many have part or full-time jobs), private colleges, and historically black colleges to determine similarities and differences in drug-use justifications.

It is also suggested that the sharing and dissemination of these arguments be investigated. While not a factor being formally studied in this project, we were fascinated by the similarities found in many of these narratives. Not only did we consistently find the same basic arguments throughout our interviews, we also found identical examples, metaphors, and lines of reasoning. Consequently, we strongly suspect that many of these justifications were not created in isolation, but were shared with, and collectively constructed between, students. Understanding this phenomena, what Bormann (1983) termed "the chaining out process," could supply prevention researchers with a richer understanding of how these mass rationalizations are created and disseminated on college campuses.[8]

While the lack of well-researched and funded prevention campaigns is unquestionably problematic, perhaps the biggest barrier to prevention efforts is the professed effectiveness of the drug itself. Nearly every one of our participants claimed that ADHD medications were highly effective in increasing their attention span, making work more interesting, improving their cognitive abilities, and fighting fatigue. With the multifaceted demands placed on college students (e.g., grades, social life, finance, etc.) and the increasingly competitive work force that awaits them after graduation, these students believe they have found the "magic bullet." "It works!" explained Lisa, a senior pre-med major. "Why wouldn't you use it if it works? The stuff is great. Great!" We are the first to acknowledge, therefore, the challenges associated with how to persuade students not to take stimulants that are so soundly praised for their effectiveness in a culture whose populace is constantly seeking a competitive advantage.

RÉSUMÉ

"Definitivamente Adderall no es droga": Explicaciones para el uso ilegal de los estimulantes TDAH

Se realizaron unas entrevistas extensivas en 2007 con 175 estudiantes de pre-grado de una universidad grande, pública y dedicada a la investigatión, ubicada en una zona urbana en el suroeste de los EEUU. Nuestro objetivo primario fue de identificar cómo estos estudiantes perciben los estimulantes TDAH y su uso ilegal. Descubrimos que estos estudiantes se consideran los estimulantes ambos ffsicamente inocuos y moralmente aceptables. Especfficamente, estos estudiantes justifican su uso de drogas por cuatro argumentos pro-estimulantes que se repiten: 1) la comparación y el contraste, 2) el todo-con-moderación 3) el auto-medicamento, y 4) la minimización. Exploramos las limitaciones del estudio y concluimos por sugerir para los investigadores de prevention el uso de cinco estrategias que enfrentan estos cuatro argumentos.

[8] According to Bormann (1983), the "chaining out process" occurs when a group of people, who share a similar experience and who have regular discursive interactions with each other, socially construct a collective reality. In this process, a group member is simultaneously persuaded and persuader, sender and receiver. Most of the time, members remain unaware that they are cooperating in the creation of this collective message.

RESUMEN

“Adderall n’est définitivement pas une drogue”: Les justifications pour la consummation illégale des stimulants ADHD

En 2007 on a effectué des interviews détaillées avec 175 étudiants préparant une licence auprès d’une grande université de recherches située dans un périmètre urbain au sud-est des Etats-Unis. Notre objectif principal était d’identifier comment ces étudiants concoivent des stimulants du syndrome d’hyperactivité et de manque d’attention (ADHD) et leur consommation illégale. Nous avons découvert que ces étudiants définissent la consommation des stimulants non seulement physiquement inoffensive mais encore acceptable moralement. Ces étudiants justifient leur consommation de drogues parmi quatre argumentations pro-stimulants répétitives: 1) comparaison-et-contraste, 2) toutes-choses-en-modération, 3) automédication, et 4) argumentations minimisantes. Nous discutons des limitations de l’enquête et nous concluons en suggérant aux chercheurs cinq stratégies en prévention qui visent ces quatre argumentations directement.

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