The Thin White Line: Pharmaceuticals and Illicit "Street Drugs" at UCSB

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In modern American culture, the illicit sale of drugs is generally characterized as an unscrupulous and dangerous practice that is only perpetuated by complex networks of smugglers and other career criminals. Recently, debate about how best to stem the tide of illicit drugs pouring over the Mexican border has surged through the media and has become one of the most divisive political issues in quite some time (Dimascio, 2010). However, while certain drugs of abuse are produced solely overseas, author Charles Ksir (2008) asserted that many of the substances "abused most widely in the United States during the past century have been invented, manufactured and sold domestically" (2008). Recent statistics on the abuse of pharmaceuticals corroborate Ksir's statement. According to a study conducted by the National Institute on Drug Abuse (NIDA) in 2006, an estimated 20% of Americans over the age of 12 have abused prescription drugs at some point in their lives and the recent decline in illicit drug use has been paralleled by a substantial increase in the rate of prescription pharmaceutical abuse. Yet, an even more disturbing is the fact that many people, particularly adolescents, seem to hold erroneous beliefs about the risks associated with the pharmaceuticals that they are choosing to abuse (NSDUH 2009). While it seems like a logical assertion that pharmaceuticals are less dangerous than "street drugs," many prescription drugs are in fact as dangerous or are even more dangerous than their illicit counterparts.

Methylphenidate (sold under brand names Ritalin, Concerta, and Metadate, among others) is one such drug, which has been proven to have almost identical potency and addictive potential as the infamous street drug, cocaine (Ding et. al., 1999). However, while cocaine use is

steadily declining (NSDUH, 2009), the abuse of Ritalin and other prescription stimulants has exploded on college campuses all over the country. A recent comprehensive review of numerous studies conducted at universities around the country suggests that rates of prescription stimulant abuse vary dramatically from campus to campus, with the percentage of students who have illicitly used the drug in the past month ranging from 1.5% to 16% (Krapner, 2008). Another study that was conducted in 2008 for the *Journal of American College Health* suggests that 34% of American college students have abused prescription stimulants (Desantis, 2008). The question that still begs to be explored is why so many students are shying away from cocaine while casually consuming methylphenidate. Do college students understand how similar these drugs are and, if not, what sources of drug information are most influential in forming these seemingly baseless biases? In order to find out how prevalent the abuse of methylphenidate is at the University of California Santa Barbara, how it compares to the prevalence of cocaine use, and whether or not students understand the similarity of the two drugs, a survey of undergraduate students was conducted.

Methods

Participants

All participants were students from the University of California Santa Barbara, where 94% of first-year students live in on-campus housing and 69% of all undergraduates live within walking distance in the neighboring community, Isla Vista (UCSB, 2007). Both the school and Isla Vista are situated on the Southern coast of Santa Barbara County, which saw 144 drug/alcohol-related deaths in 2009, a figure that had tripled from the previous year (Cooper, 2010). 296 students were surveyed from an "Appreciation of Music" class that is open to any

student. With a response rate of 43%, 56% of the respondents were female, 40% were male and 4% declined to answer. In addition, four students agreed to personal interviews after being asked to participate either in the library or in the "arbor," a common campus thoroughfare.

Procedure

Each of the students that participated in the survey received a paper with seven multiplechoice questions. All responses were strictly anonymous. All students were instructed to only participate if they felt comfortable doing so and were told not to answer any question that they found to be too personal. Students were asked first to identify some simple demographic information, including their class level and major. They were then asked a number of questions about their attitudes toward methylphenidate use and about where they get the majority of their information about drug use and drug safety. Students were also asked to put a list of nine commonly abused drugs in order from most dangerous to least dangerous. Drugs at the top of each student's list were counted with a numerical score of nine, followed by the second most dangerous drugs, which were given a numerical score of eight, and so on. Each drug's score was totaled, and using this score, the drugs were put into a list representative of the participants' overall belief as a group. This data was compiled into Microsoft Excel and analyzed to discern statistical trends.

Students who agreed to personal interviews were interviewed for approximately five minutes each. Three of the students were female and one was male. Each student participated anonymously and was informed that they could stop the interview at any time if they felt uncomfortable. These students were first asked to answer all of the same questions that were given on the multiple-choice survey, and then they were asked more in-depth questions about

particular experiences and beliefs. Data from the interviews was used to complement the statistical data from the survey responses.

Results

Of the 276 students asked to partake in the survey, 127 responded. While all of the participants were UCSB students, it is important to note that the survey was conducted in a lecture that is generally taken to fulfill general education requirements, hence the vast majority of those surveyed were in their first or second year at the school. Over 60% of the participants were first year students, while fourth year students were hardly represented at all. Due to the discrepancy in the class levels of the participants, the results of the study cannot be generalized to third or fourth year students.

Prevalence

When asked how many times, if any, they had used methylphenidate without a valid prescription, 39.3% of the participants indicated that they had illicitly used the drug at least once, while another 38.5% answered that they had never used it, but would be willing to in the future (see *Fig 1.2*). Only 18.2% of the responders said that they had never tried methylphenidate and would not be willing to in the future. Five of the students who were surveyed indicated that they had prescriptions for methylphenidate and therefore, they were asked to disregard this question. Figure 1.2



The interviews revealed similar sentiments amongst all students. Of the four interviewees, two said that they had tried methylphenidate in the past, and one indicated that although they had never tried the drug, they would be willing to at some point in the future. Every student interviewee said that they had been exposed to methylphenidate use while going to UCSB, and each had at least one acquaintance that regularly used the drug. This was a stark contrast to the prevalence of cocaine use.

The number of students who indicated that they had used cocaine paled in comparison to those who had used methylphenidate. 66.1% of students said that they had never tried cocaine and would not be willing to (see *Fig 1.3*). This figure is more than triple in number of students who gave the same answer in regards to methylphenidate. 22% of the students interviewed answered that they had tried cocaine at least once, while another 12.3% indicated that they had never used it, but would be willing to in the future.





The information obtained in the interviews corresponds with this data. Only one of the interviewees said that they had ever used cocaine, and the other three answered that they had not and had no interest in ever doing so. When asked how easy it would be to find methylphenidate

for illicit sale in comparison to cocaine, three of the students said that they could easily obtain methylphenidate but would have trouble trying to purchase cocaine. One remarked that "[Methylphenidate] is everywhere nowadays; all you have to do is go to the library and look for someone doing lines. People do it everywhere on campus. Coke is way shadier and it's more expensive. It's just not worth it." Only one participant indicated that they would most likely not be able to purchase either of the drugs if they had wanted to.

Perceived Danger

As a whole, the students ranked heroin to be the most dangerous drug and marijuana to be the least dangerous. Prescription stimulants were believed to be more dangerous than only alcohol and marijuana, while the incredibly similar drug cocaine was voted to be the third most dangerous drug on the list. In fact, 123 of the 127 students that were surveyed listed prescription stimulants as being less dangerous than cocaine.

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Most Dangerous Drugs, as Ranked by UCSB Students
Heroin/Other Opiates (1,074 points)
Methamphetamine (892 points)
Cocaine (843 points)
Psychedelics (LSD, Psilocybin mushrooms, etc.) (742 points)
MDMA/Ecstasy (711 points)
Tobacco (545 points)
Prescription Stimulants (Ritalin, Adderall, Stratera, etc.) (539 points)
Alcohol (196 points)
Marijuana (173 points)

Sources of Drug Information

When asked where they obtain most of their information about drugs and the dangers

involved with them, students' top three responses were from friends, from the internet, and from their doctors. Conversely, students indicated that they rarely got any of their information from the television or magazines, and almost never consulted books or UCSB's Student Health Services. 83.3% of the students who chose friends as being their primary source of drug knowledge ranked prescription stimulants to be in their list of the three safest drugs, making these students more than twice as likely to do so as the rest of the population. Similarly, of the 18 students who listed doctors as being their primary source of information, all but one ranked prescription stimulants as being their primary source.



Discussion

The survey suggests that first and second year students at UCSB are abusing methylphenidate at a rate that is higher than many other schools in the country. Even though some colleges, such as the University of Pennsylvania, have reported a rate of illicit stimulant abuse in the undergraduate population as low as 9% of students (Krapner, 2008), nearly 40% of

the participants in this survey indicated that they had specifically abused methylphenidate. Moreover, the interviews corroborate these findings: every student said that they had in some way been exposed to illicit methylphenidate use at least once since coming to UCSB. It is also worth mentioning, as one student pointed out in an interview, "[Methylphenidate] isn't very popular any more, way more people are doing Adderall now." Dextro-amphetamine (sold under the brand name Adderall) is another prescription stimulant that is abused widely on college campuses and since it was not included in this study, it is likely that the actual rate of prescription stimulant abuse at UCSB is even higher than the survey shows.

It is also clear from the survey results that freshman and sophomore UCSB students regard the use of methylphenidate in a very different light than they regard the use of cocaine. Although cocaine and methylphenidate have been proven to have very similar strength and indistinguishable potentials for addiction (Ding et al., 1999), 96.9% of the students ranked it as being safer than cocaine. This dangerous misconception could easily have disastrous consequences. The reasons for this differential treatment of the drugs appear to differ from student to student, but the interviews helped shed some light on this phenomenon.

When asked why they thought that methylphenidate was a safer drug than cocaine, one interviewee replied, "I know what's in Ritalin but someone could put anything they want in cocaine," and another asked, "Well doctors prescribe it so it can't be that bad for you, right?" While there may be some validity to the former statement, it is worth noting that counterfeit pills made to look like pharmaceuticals with a reputation for abuse are often sold in the illicit drug market (USDEA 2010). The latter quote points to a problem within the pharmaceutical industry that was also revealed in students' answers to the question asking where they obtained most of

their information about drugs.

The three main sources that the participants of the survey identified as being the basis of their beliefs about drug safety were their own friends, the internet, and their doctors. While the majority of students said that they got their information from friends, this reveals little more than the reinforcing nature regarding widespread misconceptions. In other words, this reaffirms that many students are misinformed, which had already been made clear from other questions on the survey. The number of students who identified the internet as their primary resource for information about drugs also proves the prevalence of these misconceptions, but says little about the actual *source* of this misinformation. The third most common response, on the other hand, may point to a sinister reality in America's pharmaceutical industry.

Only eighteen students chose doctors as being their authority on drug safety, but surprisingly, these students held just as many misconceptions as the rest of the sample did. All but one student ranked prescription stimulants as being safer than cocaine. It is possible, and indeed probable, that most of these students simply had never talked to their doctors specifically about stimulants. However, when one takes into account the fact that even the four students with prescriptions for methylphenidate (who all listed doctors as most influential in their beliefs) also ranked prescription stimulants as less dangerous than cocaine, then one begins to wonder whether these doctors are deceived themselves or whether they are intentionally misrepresenting drugs in order to write prescriptions. While it is illegal for doctors to directly profit from writing certain prescriptions, many contend that other non-monetary incentives, such as gifts and free vacations, are offered to doctors by lobbyists for pharmaceutical companies in exchange for writing prescriptions for their company's medications (Levin, 1994). Two different authors,

Levin (1994) and Null (2010), both, confirm that some physicians have even been accused of withholding important information about the drugs that they are prescribing from their patients in order to receive these benefits. Whether or not this is the case with methylphenidate is a question that is far outside the scope of this study, but it clearly warrants further investigation.

Though the responsibility for promoting these misconceptions about prescription stimulants may or may not lie with some of the doctors that are prescribing them, it is definitely clear who is *not* educating UCSB students about drug safety. Only two students noted the campus's Student Health Services as providing them with information about drugs. Obviously, the campus's health programs are not providing effective education about the dangers of the substances that are being abused most commonly. The findings of the current study suggest that more needs to be done to alert students about the potential consequences of prescription stimulant abuse, and as the only common denominator that all these students share is attendance at UCSB, the responsibility must fall upon the university itself.

The results of the survey and personal interviews make it obvious that a very large portion of the student body is abusing methylphenidate, and that most of these students are incredibly mistaken about its potential for adverse reactions, overdose, and addiction. All of the interviewees seemed to take it for granted that stimulant abuse is rampant at UCSB and one student went so far as to say that campus officials "must know what's going on. It is literally everywhere. You'd have to be blind to miss it." Awareness of this widespread problem is not what is lacking. The lack of realistic communication between university officials and students about drug abuse is likely to blame for the misguided beliefs that so many hold. The university must be willing to disseminate *accurate* and *informed* information that is actually relevant to the

student population, rather than relying on outdated propaganda with the lofty (and entirely unrealistic) goal of scaring students away from drug abuse altogether. The problem cannot be swept under the rug any longer. College students will always find drugs to abuse; hence, their universities must educate students about the real dangers involved with these drugs, rather than simply telling students to abstain from them. For universities to feign ignorance any longer is to literally gamble with student lives.

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