Prescription drug misuse: a university-led harm reduction approach.

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New Zealand Drug Foundation 4/265 Wakefield Street Te Aro, Wellington 6011 New Zealand samuel.andrews@drugfoundation.org.nz **Background**: This exploratory research was carried out to gain insights into prescription drug misuse by students at Victoria University of Wellington, New Zealand. Drug misuse within this group can be expected as they are likely to be younger, have independence, time to experiment, and access to prescription drugs. This inquiry focused on gathering data on this behaviour, establishing priority areas for a harm reduction response, and challenging the emerging moral panic around 'study drugs' being used by university students.

Method: 218 students participated in an anonymous online survey. The survey had 25 questions and focused on students' awareness of prescription drug misuse, their illicit drug use, their understanding of drug dependence and how to get help, and details of their recreational use of prescription drugs. **Results**: All participants were aware of the potential to use prescription drugs recreationally, showed a desire to have greater information around safer use, and had some awareness of how to get support. Of the 218 participants, 62 (30%) had used prescription drugs recreationally. The misuse of prescription drugs was infrequent, for a wide range of reasons, commonly occurred with friends, and covered all prescription drug types. People were often given the drugs by friends or had left over medication from a prescription. The behaviours leading to the greatest risk of harm were poly drug use (62% used alcohol or illicit drugs at the same time); people using for self-medication; and insufflation as a common method of use. Only 23 percent of those who used prescription drugs to study. Use of any illicit drug was common (65%) and in-line with national averages for all participants but much higher among those who had also misused prescription drugs (90%). Conclusion: Prescription drug misuse is occurring in this student population and is broader than students using Ritalin to study. Responding to this risk of harm cannot rely on the traditional prohibition approach as it would unethically restrict access to medical care for students. A harm reduction response is necessary and should focus on providing information and resources that enable students to make informed, safer choices about their drug use.

# Prescription drug misuse: a university-led harm reduction approach.

This exploratory research was carried out to gain insights into prescription drug misuse by students at Victoria University of Wellington. Students represent a unique group in relation to this issue as they are often young, recently independent, have flexible time, are likely to use illicit drugs and receive prescriptions. These factors are likely to increase the occurrence of prescription drug use in this group but also have an impact upon the perceived behaviours with an emerging moral panic around students becoming Ritalin-driven study zombies. In an attempt to determine the actual level of use and challenge the sensationalised headlines of students and 'study drugs', this research was undertaken as part of a social policy internship at the New Zealand Drug Foundation in 2014. These findings are used to suggest how a harm reduction approach can be used by universities to reduce the risk of harm for students.

# Prescription drug misuse

Use of prescription drugs becomes 'misuse' when these drugs are used by someone who they were not prescribed for or, in a way that was not intended. As such, the line between licit and illicit use is often blurred. For this research 'misuse' was described as intentional recreational use of prescription drugs as a demand-side focused inquiry. Like illicit drug use, recreational use of prescription drugs increases the risk of harm. These harms include dependence, overdose, injuries related to impairment, and poor decision making. There are also potential emotional, social and financial impacts associated with prescription drug misuse. The issue of prescription drug misuse is emerging in a time deemed by some as 'pharmaceuticalisation' with increasing use of all prescription drugs and the use of medical solutions for social issues. More prescription drugs could be categorised as 'lifestyle drugs', increasingly providing performance, enhancement and augmentation rather than the more traditional role of preventing or curing something – erectile dysfunction drugs being a key early example of these new forms of drugs. The potential for the misuse of prescription drugs is increasing with higher levels

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<sup>&</sup>lt;sup>1</sup> Janie Sheridan and Rachael Butler, Prescription Drug Misuse: Issues for Primary Care-Final Report of Findings, (New Zealand: Auckland University Press, 2008), 8.

<sup>&</sup>lt;sup>2</sup> Sheridan and Butler, Prescription Drug Misuse: Issues for Primary Care-Final Report of Findings, 36.

<sup>&</sup>lt;sup>3</sup> Simon Williams, Paul Martin, and Jonathan Gabe. "The pharmaceuticalisation of society? A framework for analysis." *Sociology of Health & Illness* 33, no. 5 (2011).

of prescribing and the drugs themselves being highly specific with a correspondingly specific recreational effect. The power, knowledge production, and profit drive of pharmaceutical companies are also important considerations when thinking of the increasing prevalence of prescription drugs in everyday life.

There is little detailed understanding of prescription drug misuse in New Zealand with most research focused on the supply side of prescription drug misuse: doctor shopping, over-prescribing, and primary health organisation practices. Investment in demand-side strategies that focus on the experience of people who use drugs is limited. The New Zealand Household drug use research in 2007 put lifetime prescription drug misuse at 2.3% for painkillers, 3.6% for opiates, 2.2% for sedatives and 1.7% for stimulants. More recently, the 2014 Global Drug Survey found that over the past year, 33.8% of respondents had misused Codeine, 13.6% had misused Tramadol, 5.8% had misused benzodiazepines, 5.2% had misused Zopiclone (or a variation) and 4.6% had misused Ritalin. Although this survey is self-selecting with expected higher levels of use than a population based sample, it does show this behaviour is occurring among people who use other drugs and suggests a high level of literacy as brand names were used rather than generic drug categories. Internationally there are higher reported trends rates of population-based prescription drug misuse. Household drug use surveys in Australia found rates of 'past year misuse of prescription drugs' has been increasing, rising from 3.6% in the 2007 survey, to 4.2% in the 2010 survey.

<sup>&</sup>lt;sup>4</sup> C., Gale et al. "Aggressive acts by patients against general practitioners in New Zealand: one year prevalence." (New Zealand Medical Journal: 119, 2006).

<sup>&</sup>lt;sup>5</sup> Rhiannon Braund et al. "Investigating unused medications in New Zealand." (*Pharmacy World and Science* 31, 6: 2009).

<sup>&</sup>lt;sup>6</sup> Janie Sheridan and Rachel Butler, "Prescription drug misuse in New Zealand: Challenges for primary health care professionals." Research in Social and Administrative Pharmacy. 7, 3. (2010).

<sup>&</sup>lt;sup>7</sup> Demand-side approaches are focused on the people who use drugs and developing action at a personal level, this is in comparison to the supply side approach that focuses on structural factors.

<sup>8</sup> Ministry of Health, Drug Use in New Zealand: Key Results of the 2007/08 New Zealand Alcohol and Drug Use Survey.

<sup>&</sup>lt;sup>9</sup> Adam Winstock et al., Global Drug Survey 2014: Conducted in Partnership with Global Media Partners Including Fairfax Media. (unpublished).

Australian Institute of Health and Welfare, 2007 National Drug Strategy Household Survey: first results, (Canberra: AIHW, 2008), 53. Accessed on 22 August 2014, <a href="http://www.aihw.gov.au/publication-detail/?id=6442468195&tab=2">http://www.aihw.gov.au/publication-detail/?id=6442468195&tab=2</a>.

Australian Institute of Health and Welfare, 2010 National Drug Strategy Household Survey Report, (Canberra: AIHW, 2011), 145. Accessed on 22 August 2014, <a href="http://www.aihw.gov.au/publication-detail/?id=32212254712">http://www.aihw.gov.au/publication-detail/?id=32212254712</a>.

in the 2013 survey. <sup>12</sup> These higher levels of prescription drug misuse found in Australia, even on a yearly rather than lifetime measure, do not indicate prescription drug misuse is less of an issue in New Zealand. It is more likely that the explicit attention given to prescription drug misuse by the Australian household surveys has provided more accurate results.

The United States again has notably higher rates of prescription drug misuse (5.6% had past year misuse) and it is a much more visible problem and in some states it is the leading cause of accidental death. There is a lot more research carried out around this issue in general in the United States as well as a narrower focus on prescription stimulant misuse by students. Various studies in universities in the United States have found between 8.1 percent and 34 percent of students using drugs like Adderall or Ritalin in the past year. The high levels of use show that the use of 'study drugs' is definitely an issue in this population but the focus has been around academic performance and whether it constitutes as cheating rather than looking at the risk of harm and addressing the wider problems.

# Survey design

With a lack of data in New Zealand, especially for the student population, a 25 question survey was designed to collect information around whether students are misusing prescription drugs and, if they are, to find details of this use to inform a harm reduction response. The survey received approval from the Victoria University of Wellington human ethics committee which gave strong consideration to the sensitivity of the data, as participants would potentially be admitting to illegal behaviour. To address the sensitivity and enable a sufficient pool of participants the survey was online-only and anonymous. All participants were asked questions around: their awareness of prescription drug misuse, the perceived social acceptability of using different types of drugs, their use of illicit drugs, the extent of their understanding around signs of drug dependence, and how they would seek help if it was needed.

<sup>&</sup>lt;sup>12</sup> Australian Institute of Health and Welfare, *Illicit use of drugs (NDSHS 2013 key findings)*, (Australian Institute of Health and Welfare: 2013). Accessed on 22 August 2014, <a href="http://www.aihw.gov.au/alcohol-and-other-drugs/ndshs/2013/illicit-drug-use/#pharmaceuticals">http://www.aihw.gov.au/alcohol-and-other-drugs/ndshs/2013/illicit-drug-use/#pharmaceuticals</a>.

<sup>&</sup>lt;sup>13</sup> National Institute on Drug Abuse. *Prescription Drugs & Cold Medicines: Statistics and Trends*. Accessed 7<sup>th</sup> April 2016, https://www.drugabuse.gov/drugs-abuse/prescription-drugs-cold-medicines

<sup>&</sup>lt;sup>14</sup> Kathleen Egan et al. "Simultaneous use of non-medical ADHD prescription stimulants and alcohol among undergraduate students," (*Drug and Alcohol Dependence* 131(1): 2013).

Respondents who had used prescription drugs for recreational purposes were asked additional questions around: specific prescription drug types used, frequency of use, methods of use, common source of drugs, the environment the drugs were most commonly taken in, and motivations for drug use.

The survey was hosted through Survey Monkey with question logics to ensure people were only provided with questions that were relevant to previous responses. There was a draw for a \$100 supermarket voucher, funded by the Drug Foundation, for those who did the survey and chose to provide an email address. Participants were recruited through personal social networks, posters around the Kelburn campus of Victoria University, and handing out flyers in a first year sociology course. A total of 218 participants completed the survey over a two week period. They were predominantly female identifying (70%), aged between 18 and 22 (82.1%) and of a Pākehā/New Zealand European ethnicity (91.5%). While this survey is not a representative sample of Victoria students, it was not too divergent from the overall student population, except with a greater proportion of Pākehā/New Zealand European identified respondents. The survey was kept data anonymous and was mostly quantitative. The qualitative data was primarily short answers that consistently fitted within broad categories. Due to the exploratory nature of the survey and limits on what can be discovered through a survey the results are largely descriptive and primarily provide an evidence base for recommendations and discussion.

# Awareness of prescription drug misuse

All participants of the survey were aware of the potential to use prescription drugs recreationally, showed a desire to have greater information around safer use, and had some awareness of how to get support. The majority of respondents were aware that prescription drugs could be used recreationally, with greater awareness of this possibility for opioids and painkillers (84.5%), followed by stimulants (77.7%) and the least awareness of benzodiazepine misuse (70%). For participants who had misused prescription drugs, awareness of the potential for misuse was around 10% higher for each category of drug. A total of 83 percent of respondents agreed that they would seek information if they were

<sup>&</sup>lt;sup>15</sup> Victoria University of Wellington. Annual Report 2013. (Wellington: Victoria University of Wellington. 2013), 15-18.

intending on taking prescription drugs recreationally; relying the most on medical information (79.7%), followed by friends (62.3%) as the sources of advice. Information, when outside of personal interactions, was found on the internet with the sites 'Erowid', 'medsafe' and the search engine 'google' being listed. When asked 'the most likely reason for finding out further information' if they were to research how to recreationally use prescription drugs, the most common first priority was how to take the drug in a safe manner (54%), followed by reading others' experiences (35%). Respondents were less inclined to research how to get the strongest effect from the drug or how to source the drug. When asked to describe their understanding of what dependence on prescription drugs would look like in themselves or others nearly all could identify at least one characteristic of drug dependence. The students surveyed clearly understood dependence is a risk of harm from drug use and were aware of signs of harmful use. When asked about the actions that participants would take if they were concerned about their own or a friends use, many provided answers involving 'trusted adults', 'doctors' or 'helplines'. There is some awareness of how to obtain help but this was often vague and the questions did not ask at what point they would think it was necessary to seek help. These answers showed understanding that support may be required and that there are different types of people/places to get support.

#### Recreational use of prescription drugs by students

A total of 62 (30%) of the 207 who answered the question had used prescription drugs recreationally. This misuse was infrequent, for a wide range of reasons, commonly occurred with friends, and covered all prescription drug types. This group closely resembled the wider survey sample with 64 percent identifying as female and 79 percent being in the 18-22 age bracket. However, a greater number identified with a Pākehā/New Zealand European ethnicity (96.6%).

Opioids were the most commonly misused prescription drug (67.8%), followed by stimulants (49.2%) and benzodiazepines (47.5%). Misuse of these prescription drugs was generally infrequent, with the majority having not used (39.3%) or only used once (16.4%) in the past year. A total of 23 percent of respondents had used two to four times in the past year, 14.8 percent had used five to nine times in the

past year and only four respondents (6.6%) had used 10 or more times in the past year. This data cannot be used to estimate dependence, but there is not much indication of heavy use. However, this does not indicate a lack of harm or risk of harm. Reasons for use were varied and seemed only slightly influenced by the drug of choice. Respondents were given six broad reasons for use and an 'other' category with the ability to list more than one option. Stimulants were most commonly used to get high (53%) with benzodiazepines and opioids most likely to be used to relax (53.1% and 41.5%). An interesting result was the low number of people who put study as a reason for using stimulants (8 respondents, 23.5%), as this is one of the most common media discussions of prescription drug misuse in New Zealand.

People were often given the drugs by friends or had left over medication from a prescription. Most respondents who misused prescription medication were given the drugs (58.1%), with 34.5 percent having a prescription themselves, and only 7.4 percent having bought the drugs from someone else. Of those who were given the drugs, friends were the most significant source (91.1%) aligning with previous research around peer based supply networks. <sup>16</sup> The same was also true with the purchasing of prescription drugs, with the four respondents who had bought prescription drugs all buying them from friends. Respondents who sourced prescription drugs through a personal prescription had mostly been prescribed excess medication (88.2%) and misused the surplus. Only 23 percent of those who used prescription drugs recreationally used them to study. Use of any illicit drug was common (65%) and in-line with national averages for all participants but much higher among those who had also misused prescription drugs (90%).

# Effective harm reduction

Students are using prescription drugs in ways beyond the intended medical purpose, putting them at risk of both short term and longer term harm. However a prohibitive response of restricting access to prescriptions would be highly detrimental. This is unlikely to remove the risk of harm and students may turn to other substances or illegal drugs to achieve the same effect. Additionally this could also deprive students of access to medication for legitimate reasons. A more appropriate approach is

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<sup>&</sup>lt;sup>16</sup> Sheridan and Butler, Prescription Drug Misuse: Issues for Primary Care-Final Report of Findings, 39.

through a harm reduction framework where the first priority is decreasing the negative consequences of drug use. Harm reduction is both a principle and a policy process. It accepts that drug use will occur, is non-judgmental of people who use drugs, focuses on the direct harms of drug use, and has a hierarchy of goals addressing immediate and longer term harms. <sup>17</sup> In this university setting it would be appropriate for Student Health to lead a harm reduction initiative around substance use. The health service already act within a preventative health framework, have a role in ensuring student well-being, and can act internally around prescribing practices alongside externally through health promotion.

Any harm reduction approach should engage with the target population and ideally be led by peers. Comments from participants of the survey illustrated that students are willing to become engaged with this issue stating it is "an important topic to study," "I know far too many people that abuse prescription drugs, including myself," and that prescription drug misuse is "increasing crazy amounts and needs to be addressed." These are students who could be involved in a Student Advisory Harm Reduction Group, in collaboration and partnership with Student Health. The purpose of the group would be to develop tools and resources that empower people to reduce their risk of harm from prescription drug misuse, with a paid convener to bring together the group and direct action. Students could be recruited from more detailed follow up research and provide an on-going collaboration to respond to the current issue and emerging harms. A single campaign or a one-off resource will not as be effective, especially with the changing make-up of the student population with degrees being three to five years.

# Priority areas for action

Any effort to reduce harm is primarily around decreasing the rates of use but there is also scope to address specific practices or behaviours to decrease the risk of harm. Two key areas with a high risk of harm that is clear within the data is: poly-drug use with high levels of alcohol use alongside prescription drugs, insufflation as a common method of use, and using for self-medication with drugs becoming a coping mechanism. Of the 62 participants who had misused prescription drugs, 41

<sup>&</sup>lt;sup>17</sup> Diane Riley et al., "A Brief History of Harm Reduction," In *Harm Reduction in Substance Use and High-Risk Behaviour: International Policy and Practice*, eds. Riley Pates and Diane Riley, (Oxford: Blackwell Publishing, 2012), 10.

(67.2%) had used illicit drugs or alcohol at the same time. Poly-drug use greatly increases the risk of harm and potential overdose especially, with the common combination being alcohol and opiates (often codeine). This group listed oral consumption as the most common method of misuse (83%), and 34 percent listed either 'snorting' or 'orally and snorting' as their most common method of misuse. With the fillers and inert ingredients in prescription drugs they can be harmful when not taken orally. No respondents listed intravenous use or any other method.

Both of these areas can begin to be addressed through increasing information and resources by engaging the student advisory group. General messages can be developed with a harm reduction focus, responding to the clear demand from students for information on how to use safer and hear others experiences. Any information would be based in the acknowledgement that drug use will occur, while providing advice on how it can be safer and relevant for all substance use. This information can be further supported by resources like the 'cocaine kit' developed by the youth led harm reduction group Posse Project. <sup>18</sup> These kits have two plastic straws, small plastic slides (drugs can be crushed on and then snorted off), two alcohol swaps, matches, two condoms, water-based lubricant, and drug information on harm reduction. This reduces the risk of contamination when snorting off unclean surfaces and the risk of hepatitis C transmission from sharing instruments while getting information to the key population of people who use drugs. While drug use is facilitated, it is less harmful use and the does not need to act as instruction that prescription drugs can be used recreationally. These resources can be provided in a targeted way as something that is available for people already partaking in this practice and cover a range of mediums and audience groups.

The third area with a high risk of harm was an indication of prescription drugs being misused for self-medication. Some reasons for misuse were; "to study", "to feel numb", "[to deal with a] lack of sleep and concentration" showing reasons for use. Self-medication as a reason for misuse may help to explain the notable rates of misusing prescription drugs alone (31.7%) and at home (43.3%) with this practice likely to increase the risk of dependence. Further research into reasons for use, particularly around self-medication, is needed to better understand the potential harms and how they can be

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<sup>&</sup>lt;sup>18</sup> Posse Project. Harm Reduction Kits. Accessed 21 August 2014, http://www.posseproject.ca.

minimised. Any response would primarily be through supply side measures but additionally the student group could be used to advise on how to reduce stigma and encourage help seeking.

# Conclusion

Prescription drug misuse is occurring in New Zealand universities and wider society but there has been a corresponding lack of action to reduce the risk of harm. While alcohol and illicit drug use is more common, this survey has highlighted that prescription drug misuse is also an area worthy of attention. This research has provided initial thinking on how the risk from prescription misuse can be addressed within this specific setting and not just through changing medical structures. A harm reduction framework that provides information, resources and empowers the target population is important for any steps forward. This approach can be used to reduce the risk of harm from all substance use and improve student well-being.

# References

- Australian Institute of Health and Welfare, 2007 National Drug Strategy Household Survey: first results, Canberra: AIHW, 2008. Available at <a href="http://www.aihw.gov.au/publication-detail/?id=6442468195&tab=2">http://www.aihw.gov.au/publication-detail/?id=6442468195&tab=2</a>.
- Australian Institute of Health and Welfare, 2010 National Drug Strategy Household Survey report. Canberra: AIHW, 2011. Available at <a href="http://www.aihw.gov.au/publication-detail/?id=32212254712">http://www.aihw.gov.au/publication-detail/?id=32212254712</a>.
- Australian Institute of Health and Welfare, *Illicit use of drugs (NDSHS 2013 key findings)*, Canberra: Australian Institute of Health and Welfare: 2013. Accessed on 22 August 2014, <a href="http://www.aihw.gov.au/alcohol-and-other-drugs/ndshs/2013/illicit-drug-use/#pharmaceuticals">http://www.aihw.gov.au/alcohol-and-other-drugs/ndshs/2013/illicit-drug-use/#pharmaceuticals</a>.
- Braund, Rhiannon, Gregory Gn, and Robynne Matthews, "Investigating unused medications in New Zealand." *Pharmacy World & science*: 31, 6 (2009): 664-669.
- Egan, Kathleen L., Beth A. Reboussin, Jill N. Blocker, Mark Wolfson, and Erin L. Sutfin. "Simultaneous use of non-medical ADHD prescription stimulants and alcohol among undergraduate students." *Drug and alcohol dependence* 131, no. 1 (2013): 71-77.
- Gale, C., B. Arroll, and J. Coverdale. "Aggressive acts by patients against general practitioners in New Zealand: one year prevalence." *New Zealand Medical Journal*: 119 (2006).
- Ministry of Health, *Drug Use in New Zealand: Key Results of the 2007/08 New Zealand Alcohol and Drug Use Survey*. Wellington: Ministry of Health, 2010.
- Ministry of Health. UMR research and Acqumen Quality Solutions (contracted), Research into knowledge and attitudes to illegal drugs: a study among the general public and people with experience of illegal drug use, Wellington: Ministry of Health, 2009.
- National Institute on Drug Abuse. *Prescription Drugs & Cold Medicines: Statistics and Trends*. Accessed 7<sup>th</sup> April 2016, <a href="https://www.drugabuse.gov/drugs-abuse/prescription-drugs-cold-medicines">https://www.drugabuse.gov/drugs-abuse/prescription-drugs-cold-medicines</a>
- Posse Project. "Harm reduction: Kits." *Posse Project:* Ontario, Canada. Accessed 21 August 2014. <a href="http://www.posseproject.ca/harm-reduction/kits/">http://www.posseproject.ca/harm-reduction/kits/</a>.
- Riley, D., R. Pates, G. Monaghan, and P. O'Hare, "A Brief History of Harm Reduction." In R. Pates and D. Riley (eds.) *Harm Reduction In Substance Use and High-Risk Behaviour: International Policy and Practice*, (5-16). UK: Wiley-Blackwell Publishing, 2012.
- Sheridan, Janie, and Rachael Butler. "Prescription Drug Misuse: Issues for Primary Care-Final Report of Findings." *Auckland: School of Pharmacy, University of Auckland*, 2008.
- Sheridan, Janie, and Rachael Butler. "Prescription drug misuse in New Zealand: Challenges for primary health care professionals." *Research in social & administrative* pharmacy, 7, no. 3 (2011): 281-293.
- Victoria University of Wellington. *Annual Report 2013*. Wellington: Victoria University of Wellington, 2013.
- Williams, Simon J., Paul Martin, and Jonathan Gabe. "The pharmaceuticalisation of society? A framework for analysis." *Sociology of Health & Illness* 33, no. 5 (2011): 710-725.
- Winstock, Adam, Jason Ferris and Jon Waldron. *Global Drug Survey 2014: Conducted in Partnership with Global Media Partners Including Fairfax Media*. March 2014 (unpublished).