

The role of health practitioners in the diversion of pharmaceutical drugs for non-medical use in Australia



Ms Shann Hulme, Dr Djordje Djordjevic, Dr Caitlin Hughes & Dr Suzanne Nielsen

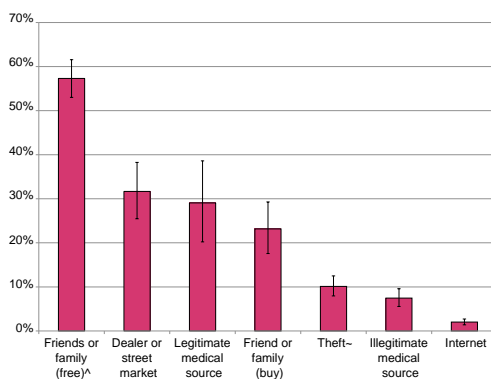
APSAD Scientific Alcohol and Drug Conference, 12 – 15 November 2017

The problem

- 1 in 20 Australians reported misusing a pharmaceutical drug in 2016 (AIHW, 2017).
- When used non-medically, pharmaceutical opioids are the second most commonly used drug, after cannabis (AIHW, 2017).
- Pharmaceutical drugs are present in the majority of drug-induced deaths in Australia (ABS, 2017).

Source of pharmaceutical drugs that are used non-medically

The medical system is a key access point



(Hulme, Bright and Nielsen, under review)

How might health practitioners contribute to non-medical use?

DELIBERATE PRACTICES

- Theft of drug supplies
- Prescription forgery
- Oversupplying
- Supplying to friends or family
- Self-prescribing
- On-supplying for profit \$

INADVERTENT PRACTICES

- Inadequately consulting patients
- Not identifying patients at-risk of diversion
- Providing lacking information about drug use, disposal and storage
- Not managing drug-seeking patients appropriately

(Cummings et al. 2011; DCPC, 2007; Inciardi et al. 2006; Merlo et al. 2014; Pilgrim et al. 2016; Rigg et al. 2010; Sheridan et al. 2011)

Research questions



Where health practitioners are involved in inappropriately supplying pharmaceutical drugs to the public or misappropriating drugs from the workplace:

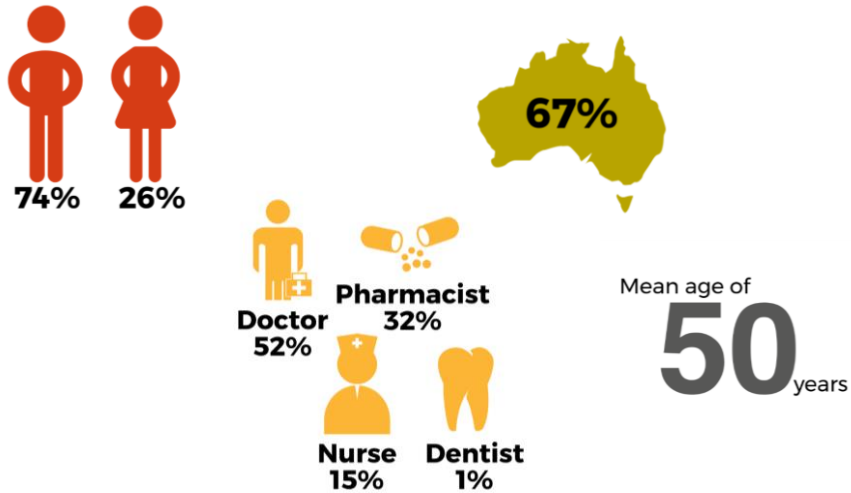
1. What are the demographic profiles of practitioners?
2. What is the nature and patterns of conduct?
3. What factors contribute to their conduct?

Method



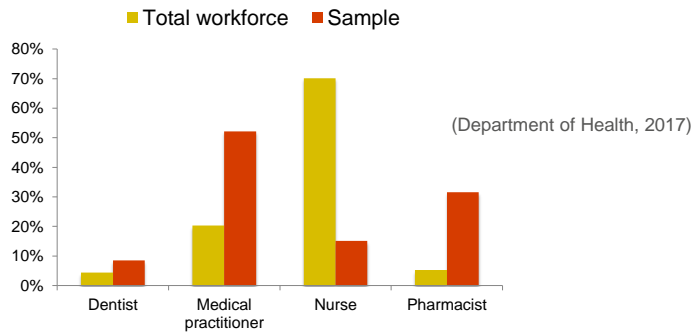
- Text mining tool developed to search AustLII for complaints against health practitioners for:
 - **inappropriate supply of drugs to the public; or**
 - **misappropriation of drugs from their workplace.**
- Scope: 1 July 2010 – 31 December 2016 (6.5 years);
Australia-wide; Proven complaints only
- Ethics approval via UNSW HREA G (#HC17122)

Sample characteristics (n=117)



Australia's health workforce (2015)

- There were 437,276 were medical or dental practitioners, nurses / midwives or pharmacists registered and employed in Australia in 2015
- We identified 117 cases = only 0.027% of all practitioners



Nature of conduct (n=117)



Inappropriate supply
73%

Misappropriate drugs from workplace
31%



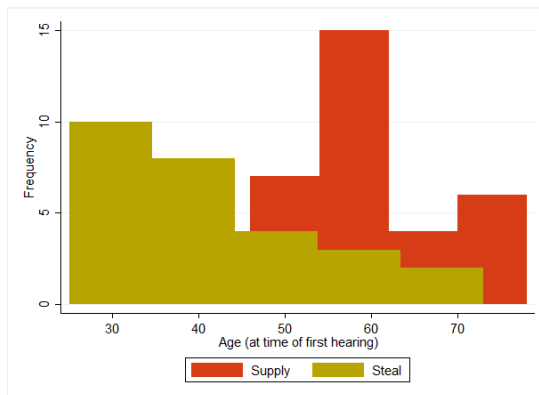
Age

Supply group:

Mean age of
56
years

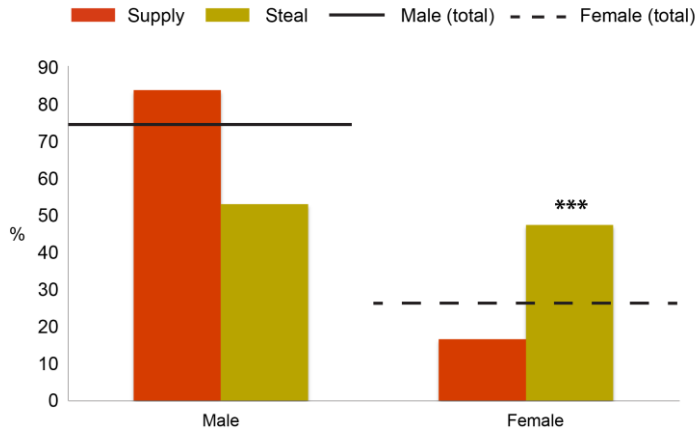
Steal group:

Mean age of
40
years



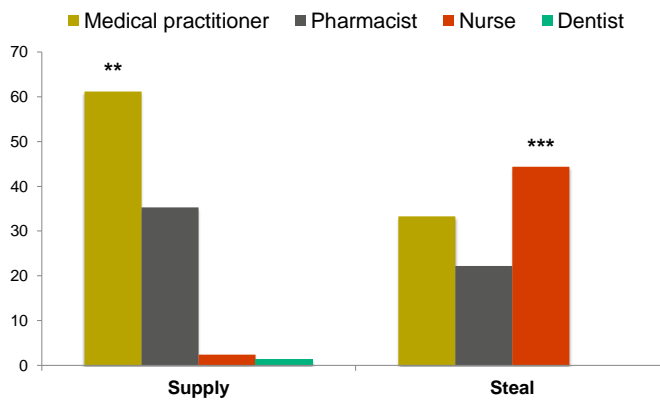
T-test, $t = -5.1090$, $p < 0.001$

Gender



Pearson's chi-square, ***p < 0.001

Practitioner type



Pearson's chi-square, **p < 0.01, ***p < 0.001

Drug type



Pearson's chi-square, *p < 0.05, PIEDs = Performance and Image Enhancing Drugs (e.g. anabolic steroids)



The Difference is Research

Contributing factors



Pearson's chi-square, ** p < 0.01, ***p < 0.001

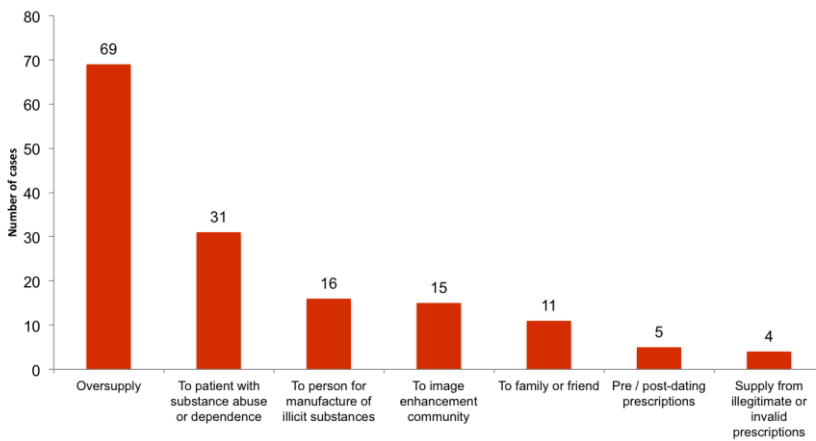


The Difference is Research



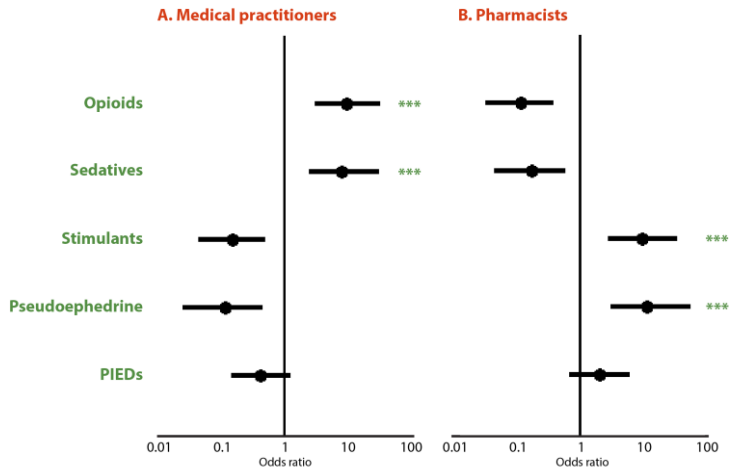
Inappropriate supply (n=85)

Nature of inappropriate supply (n=85)



Note: Categories are not mutually exclusive

Drug type

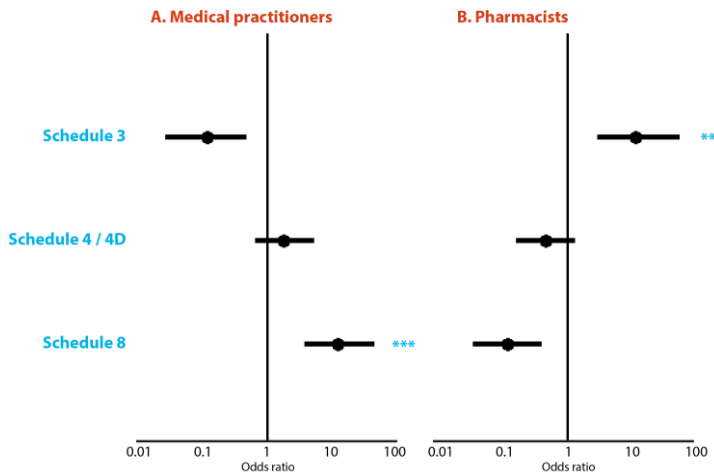


Pearson's chi-square, ***p < 0.001



The Difference is Research

Drug schedule

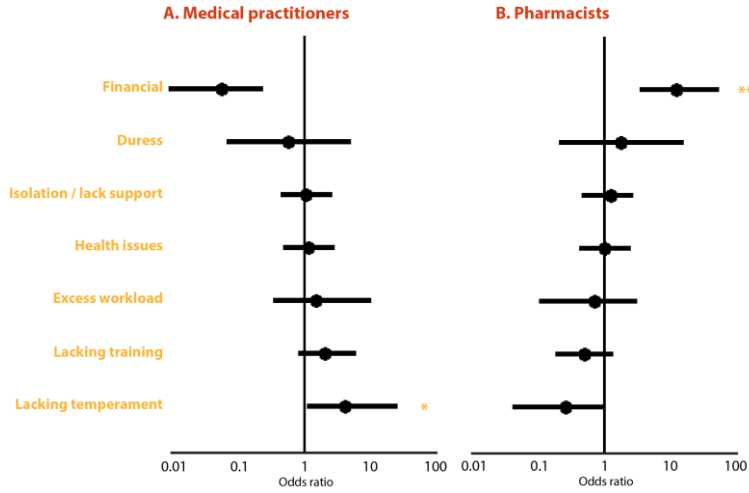


Pearson's chi-square, ***p < 0.001



The Difference is Research

Contributing factors

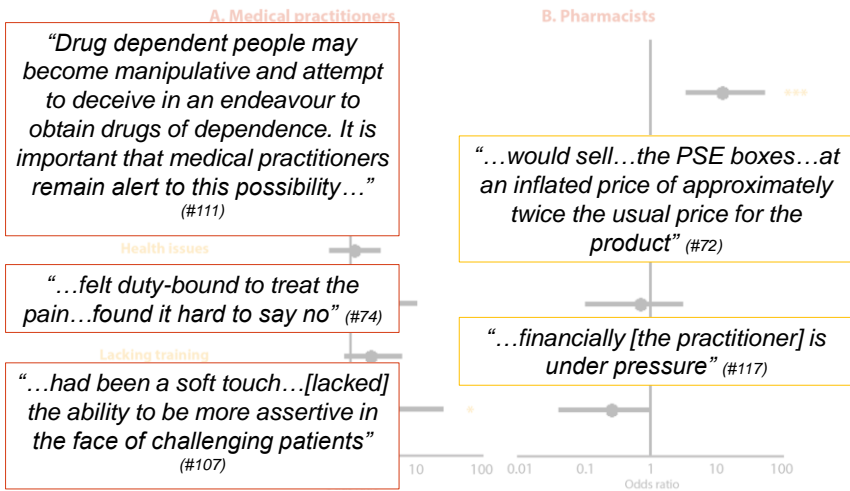


Pearson's chi-square, * p < 0.05, ***p < 0.001



The Difference is Research

Contributing factors



"Drug dependent people may become manipulative and attempt to deceive in an endeavour to obtain drugs of dependence. It is important that medical practitioners remain alert to this possibility..." (#111)

"...felt duty-bound to treat the pain...found it hard to say no" (#74)

"...had been a soft touch...[lacked] the ability to be more assertive in the face of challenging patients" (#107)

"...would sell...the PSE boxes...at an inflated price of approximately twice the usual price for the product" (#72)

"...financially [the practitioner] is under pressure" (#117)

* p < 0.05, *** p < 0.001



The Difference is Research

Key findings

- The cases represent a small minority of the Australian health workforce population
- Supply cases are more common than misappropriation cases
- Misappropriation cases manifest in the context of personal health and substance use issues of the practitioner
- Medical practitioners lacking assertiveness may be targeted for Schedule 8 opioids and sedatives
- Pharmacists may be implicated in the unlawful supply of precursor drugs for financial gain

Policy implications

1. Barriers to treatment for practitioners with health and substance use issues
 - Does mandatory reporting dissuade practitioners from seeking help?
2. Inadequate training and temperament by medical practitioners targeted
 - How can we identify and intervene early?
 - Potential value of real-time prescription monitoring in aiding decision-making and enhancing accountability
3. Project STOP is compromised when pharmacists are implicated in oversupply of precursors

References

- Australian Institute of Health and Welfare (AIHW) 2017. National Drug Strategy Household Survey 2016: detailed findings. Viewed 4 November 2017 <https://www.aihw.gov.au/reports/illegal-use-of-drugs/ndshs-2016-detailed/related-material>
- Australian Bureau of Statistics (ABS) 2017. Causes of death, Australia, 2016. Cat no. 3303.0. Canberra: Australia.
- Cummings, S.M., Merlo, L., Cottler, L., 2011. Mechanisms of prescription drug diversion among impaired physicians. *Journal of Addictive Diseases* 30(3), 195-202.
- Department of Health 2017. Health workforce data: all registered health practitioners 2015. Accessed 3 November 2017 <http://data.hwa.gov.au/summary.html#part-1>
- Drugs and Crime Prevention Committee 2007. Inquiry into the misuse/abuse of benzodiazepines and other forms of pharmaceutical drugs in Victoria—Final report. Melbourne: Drugs and Crime Prevention Committee. Viewed 10 January 2017, <<http://www.parliament.vic.gov.au/57th-parliament/dcpp/inquiries/inquiry/233>>.
- Inciardi, J.A., Surratt, H.L., Kurtz, S.P., Burke, J.J. 2006. The diversion of prescription drugs by health care workers in Cincinnati, Ohio. *Substance Use & Misuse* 41(2), 255-264.
- Merlo, L.J., Cummings, S.M., Cottler, L.B., 2014. Prescription drug diversion among substance-impaired pharmacists. *The American Journal on Addictions* 23(2), 123-128.
- Pilgrim, J. L., Downard, R., & Drummer, O. H. (2016). Drug-caused deaths in Australian medical practitioners and health-care professionals. *Addiction*, 112, 486-493.
- Rigg, K. K., March, S. J., & Inciardi, J. A. (2010). Prescription drug abuse and diversion: role of the pain clinic. *The Journal of Drug Issues*, 2010, 21.
- Sheridan, J., & Butler, R., 2011. Prescription drug misuse in New Zealand: challenges for primary health care professionals. *Research in Social and Administrative Pharmacy* (7), 281-293.

Acknowledgements

- **Co-authors:** Dr Djordje Djordjevic, Dr Caitlin Hughes, Dr Suzanne Nielsen
 - Associate Professor David Bright
- An Australian Government Research Training Program Scholarship supported this work

Disclosures of interest

- SN has been an investigator on an untied investigator-driven educational grant funded by Reckitt Benckiser and Indivior

Contact:

shann.hulme@student.unsw.edu.au