

Trends in pharmaceutical stimulant use in WA EDRS samples: 2007-2014

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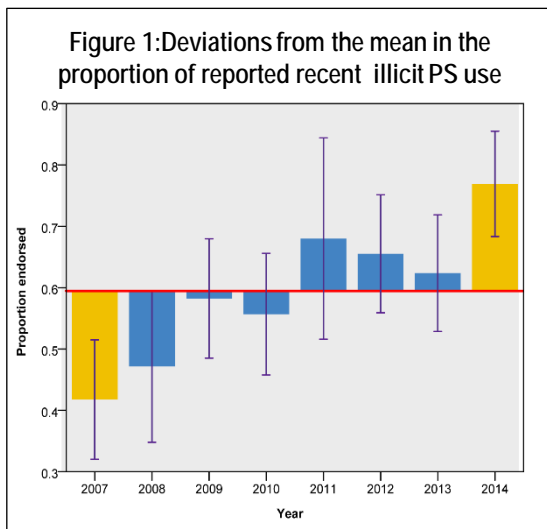
Introduction

The dispensing of pharmaceutical stimulants (PSs) by Australian physicians increased by 87% between 2002 and 2009. While dexamphetamine is the most commonly prescribed PS, this increase is attributed to methylphenidate (Ritalin)¹. In 2014, the WA EDRS data showed the highest ever proportion of participants reporting use of illicit pharmaceuticals (PSs) within the previous 6 months, at 77%. In light of this, we examined trends in recent illicit PS use across WA EDRS samples from 2007-2014.

Method and Results

The WA EDRS samples from 2007-2014 comprised 274 females and 402 males, with a mean age of 23.18 years. In 2014, the majority of participants who reported recent illicit PS use (within the last 6 months) had used dexamphetamine (88%), with only 11% reporting methylphenidate use. 75% of recent users reported the original source as 'someone else's prescription'. None of these proportions differed significantly from the 2013 sample. This data was not collected in WA EDRS samples prior to 2013.

We used a Generalised Linear Mixed Model (GLMM) to examine reported recent use of illicit PSs in WA EDRS samples over the last eight years (see Table 1 for reported use proportions). The GLMM was significant, $F(7,668) = 4.4, p < .001$, implicating significant changes in the proportion of use over time. Examination of the deviation contrasts suggested a linear upward trend over time (see Fig 1 below).



The red line in the figure above is the mean proportion of participants who endorsed recent illicit PS use across all years. The proportion of recent use for each year shown as bars: yellow bars significantly deviate from the mean while blue bars do not. Confidence intervals are shown as purple lines. The results show a significant decrease from the mean in 2007 and significant increase in 2014. Although only these two years showed significant deviations from the overall mean, the upward trend in use from 2007-2014 is clear.

Table 1: Reported recent illicit PS use

Year	Recent use (%)
2007	44
2008	50
2009	58
2010	58
2011	67.9
2012	64.4
2013	62
2014	77

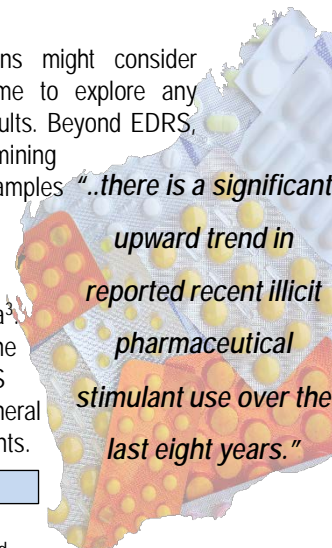
Discussion

The results indicate a significant upward trend in reported recent illicit PS use in WA EDRS samples over the last eight years. The proportion of participants recent use of PSs was particularly low in 2007 and particularly high in 2014. Contrary to prescribing trends, the results suggest that, at least for the past two years, increases in illicit PS use among WA EDRS samples is mainly attributable to dexamphetamine rather than methylphenidate. Within the previous two years it also appears that illicit PSs were largely being sourced via others' diverted prescription medication.

Important caveats exist when interpreting these results. EDRS samples are not randomly selected. The results therefore may not accurately represent

patterns of use across time in regular ecstasy and/or psycho-stimulant drug users. Further, due to the lack of data surrounding specific drugs used, motivations for use, and the original drug source prior to 2013, it is not possible to accurately gauge the reasons for the increase over time in WA EDRS samples.

Researchers in other EDRS jurisdictions might consider examining trends in PS use across time to explore any similarities or differences with the WA results. Beyond EDRS, future researchers might also consider examining trends in illicit PS use with representative samples of regular ecstasy users. It has been proposed that US university students are increasingly using illicit PSs to study², with some evidence of this trend in Australia^{3,4}. Future research might therefore explore if the increases in illicit PS use seen in WA EDRS samples across time are mirrored in the general population, or in Australian university students.



References

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Acknowledgements

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