

Lucke J. C., Hall W. Is the non-medical use of prescription stimulants a problem in Australia?
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TO THE EDITOR: There have been claims that the non-medical use of prescription stimulants is widespread and increasing in the United States and other developed countries, particularly among university students.¹ In the context of rising education and general living costs, economic uncertainty and high rates of anxiety and depression among young people,² it is plausible that some students may cope with study demands by using prescription stimulants such as methylphenidate.

There are good reasons to be concerned about non-medical use of prescription stimulants because regular users often develop acute tolerance to the subjective effects of stimulants, and often increase their dose, thereby increasing toxic side effects and the risks of misuse and dependence.³ We have found surprisingly little empirical data on the extent of non-medical use of prescription stimulants in Australia. Central nervous system stimulants such as methylphenidate and dexamphetamine are available on the Pharmaceutical Benefits Scheme as first-line pharmacological treatment for attention deficit hyperactivity disorder (ADHD). An analysis of prescribing data showed there was an 87% increase in stimulant dispensing from 2002 to 2009.⁴

Stimulant drugs are controlled substances because of their potential for misuse and diversion for nonmedical use. Non-medical use of stimulants may include: (i) recreational use to experience subjective effects such as euphoria; (ii) self-medication for perceived symptoms of a disorder, perhaps below the diagnostic threshold for a diagnosis of ADHD; or (iii) performance enhancement (eg, to increase alertness while studying). Nationally representative US surveys suggest that somewhere in the range of 3%–6% of US college students have used prescription stimulants for non-medical purposes in the past year,⁵ and that regular users are more likely to also use illicit drugs, and most get their stimulants from a friend with a prescription.⁶ Similar data about diversion of prescription stimulants are very limited for Australia, but the increase in prescribing in Australia indicates that we would be wise to investigate the issue.

We need to know how extensive non-medical use of prescription stimulants is in Australia at present, and how likely it is to increase in the future. We also need to know more about the attitudes of young people toward the non-medical use of stimulants, and the prevalence of and motivations for such use in susceptible populations. We should collect empirical evidence on nonmedical use of prescription stimulants in school and household surveys of drug use. Australia needs this information to assess current policies in three key areas: (i) the regulation of prescription stimulant drugs to reduce nonmedical use; (ii) the most effective way to promote quality use of these medicines in the face of possibly expanding non-medical use; and (iii) the best ways to reduce potential adverse health effects from nonmedical use of prescription stimulant drugs.

1 Greely H, Sahakian B, Harris J, et al. Towards responsible use of cognitive-enhancing drugs by the healthy. *Nature* 2008; 456: 702-705.

2 Mathews RRS, Hall WD, Vos T, et al. What are the major drivers of prevalent disability burden in young Australians? *Med J Aust* 2011; 194: 232-235.

3 Kroutil LA, Van Brunt DL, Herman-Stahl MA, et al. Nonmedical use of prescription stimulants in the United States. *Drug Alcohol Depend* 2006; 84: 135-143.

4 Hollingworth SA, Nissen LM, Stathis SS, et al. Australian national trends in stimulant dispensing: 2002–2009. *Aust N Z J Psychiatry* 2011; 45: 332-336.

5 Bogle KE, Smith BH. Illicit methylphenidate use: a review of prevalence, availability, pharmacology, and consequences. *Curr Drug Abuse Rev* 2009; 2: 157-176.

6 McCabe SE, Teter CJ, Boyd CJ. Medical use, illicit use, and diversion of abusable prescription drugs. *J Am Coll Health* 2006; 54: 269-278.