

Prescription Drug Abuse in Canada and the Diversion of Prescription Drugs into the Illicit Drug Market

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ABSTRACT

Prescription drug abuse has received considerable attention in media reports in recent years. The purpose of this article is to describe the Canadian situation and context with regards to prescription drug abuse and the diversion of psychotropic prescription drugs into the illicit drug market, with a focus on the need for more data and interventions. Canada ranks within the top 10% of countries in the use of benzodiazepines, opioid prescriptions and stimulants. There are many ways that prescription drugs are diverted into the illicit market and varied reasons for use and abuse. Prescription drug abuse is further related to a number of negative consequences, including overdose. While seniors and women have been the primary focus for research in Canada on prescription drug abuse, adolescents and young adults have received less attention. Systematic epidemiological data specifically on prescription drug abuse in the Canada context are lacking and are needed in order to more clearly understand the reasons for the phenomenon and to develop and implement appropriate interventions.

MeSH terms: Prescriptions, drug; Canada; adolescents; drugs of abuse

RÉSUMÉ

L'abus des médicaments sur ordonnance reçoit beaucoup d'attention dans les médias depuis quelques années. Cet article décrit la situation canadienne à l'égard de ce type d'abus et du détournement des médicaments sur ordonnance vers le marché clandestin, en insistant sur le besoin de données et de mesures supplémentaires. Le Canada se classe parmi les 10 % des pays qui consomment le plus de benzodiazépines, de stimulants et d'opiacés sur ordonnance. Il existe de nombreux moyens de détourner les médicaments sur ordonnance vers le marché clandestin, et la consommation et l'abus des médicaments peuvent avoir des causes diverses. De plus, l'abus des médicaments sur ordonnance entraîne plusieurs conséquences négatives, dont les surdoses. Les études canadiennes sur l'abus des médicaments sur ordonnance portent principalement sur les personnes âgées et les femmes, mais beaucoup moins sur les adolescents et les jeunes adultes. On manque de données épidémiologiques systématiques sur l'abus des médicaments sur ordonnance au Canada; de telles données permettraient de mieux comprendre les raisons de ce phénomène et d'élaborer et de mettre en œuvre des interventions appropriées.

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Examinations of 'illicit drug use' typically focus on illegally produced substances like heroin and cocaine; however, a closer look suggests that the abuse of prescribed drugs plays a major role. The existence of the problem of prescription drug abuse in Canada is not new. In 1979, Wilson and Geekie¹ called for more knowledge and better control of abuse of narcotic pharmaceuticals. Their call seems even more relevant today in light of media reports that have pointed to the continued high prevalence of the diversion and illicit use of specific prescription drugs.^{2,3} The purpose of this paper is to describe the available Canadian data, with a discussion of the implications for interventions.

Prescription drug abuse will be defined in this paper as use that occurs without a physician's prescription, in greater amounts than prescribed, more often than prescribed, and/or for other reasons than indicated by the prescribing physician.⁴ Further, this article will focus on particular groupings of psychotropic drugs: stimulants, benzodiazepines (sedative-hypnotics), and opioids (narcotics).

Epidemiology of prescription drug use

The data on the extent of psychotropic prescription drug abuse in Canada are vague at best. Thus, quite often indirect indicators are used, such as internationally comparable figures on use. In such global statistics, Canada maintains a very high position for use (and possible abuse) of the psychotropic drugs of concern discussed in this paper: it is second highest in the list of all countries in the world for benzodiazepine use, fifth highest for prescription narcotics use, and within the top 15 countries for stimulant use.^{5,6} While we acknowledge these statistics to be only indirect indicators of abuse, the consistent high ranking of Canada is reason for concern. Benzodiazepine use seems to be of particular concern in the Canadian context: the use of this group of drugs is about 4 times the use documented for Australia, and about 15 times the use documented for the United States.⁶

The lack of large-scale surveys into the abuse of prescription drugs in Canada makes it difficult to more accurately gauge rates and the extent of the behaviour. Of the many large-scale population surveys in Canada (e.g., Canada's Alcohol and Other

TABLE I
Source of Selected Prescription Drugs in OPICAN Cohort (baseline results)

Drug	Regular Dealer % (count)	Irregular Dealer % (count)	Doctor % (count)	Partner % (count)	Friend % (count)	Theft % (count)
Talwin & Ritalin	50.0 (21)	4.8 (2)	0	7.1 (3)	47.6 (20)	0
Benzodiazepines	8.8 (23)	16.5 (43)	27.6 (72)	3.5 (9)	46.0 (120)	0.4 (1)
Tylenol 3 or 4	12.5 (29)	15.5 (36)	31.9 (74)	3.5 (8)	36.9 (86)	0.4 (1)
Demerol	17.7 (6)	11.8 (4)	32.4 (11)	5.9 (2)	26.5 (9)	5.9 (2)
Dilaudid	37.3 (88)	14.0 (33)	8.1 (19)	3.8 (9)	42.0 (99)	0.9 (2)
Percocet/Percodan	40.9 (45)	19.1 (21)	36.4 (40)	4.5 (5)	56.4 (62)	1.8 (2)
OxyContin	45.0 (9)	20.0 (4)	40.0 (8)	15.0 (3)	45.0 (9)	0
Other opioid prescriptions*	42.5 (85)	20.5 (41)	26.0 (52)	5.0 (10)	53.0 (106)	1.5 (3)

* E.g., morphine, codeine other than T3/T4, etc.

Note: Percentages can add up to more than 100%, indicating multiple sources of drug access

Drugs Survey, the CAMH Monitor), some do collect information on prescription drug use, but not data on prescription drug abuse or non-medical use of prescriptions.⁷

Even documentation of specific prescription drugs in the Canadian context does not provide much information on abuse. For instance, the final report of the OxyContin Task Force in Newfoundland and Labrador⁸ documented the increases in OxyContin (an opioid narcotic) prescriptions in recent years and the trends in the related abuse consequences, including overdose deaths. Although this report indicated a rise in OxyContin prescriptions and the number of pills distributed in the region (similar to the per capita dose rates in the International Narcotics Control Board report), there is no information presented on rates of abuse.

The majority of attention in Canada with regards to prescription drug abuse has tended to be on women⁹ and elder populations;^{10,11} these populations have also been the focus in the research on medical use of prescription drugs.^{12,13} Adolescents and young adults have, conversely, received relatively little attention. The most recent Ontario Student Drug Use Survey (OSDUS)¹⁴ collected data on non-medical prescription drug use among 6,616 students in grades 7-12 in the province of Ontario. In the previous year, 5.8% of students had used stimulants and 2.2% had used tranquilizers; rates were stable during the 1990s. Data from Nova Scotia found that 4.7% of students in grades 7, 9, 10, and 12 reported non-medical use of tranquilizers in the 12 months prior to the survey.¹⁵ Poulin et al.¹⁶ found that 8.5% of New Brunswick, PEI and Newfoundland students in grades 7-12 reported non-medical stimulant use in the year prior to the survey. Ever use of prescription pills with-

out a doctor's consent in the Adolescent Health Survey III (BC students) in the year 2003 was at the rate of 9%.¹⁷

Prescription drug abuse in the illicit drug market

Drugs intended to be used by prescription only are able to make their way into the illicit drug market in a number of ways. Sajjan et al.¹⁸ conducted a study of 32 users and dealers of prescription sedative/hypnotic and narcotic drugs in Vancouver's Downtown Eastside to explore the street values of prescription drugs. The three 'index' drugs (i.e., most in demand) – Valium, Tylenol 3 and MS Contin – were sold for street prices 15 to 50 times the pharmacy prices. Prices were fluid and depended on the inexperience of the buyer, availability of illicit drugs, current street supply of prescription drugs and the time of the month (in reference to social assistance cheques). Sajjan et al.¹⁸ went on to describe the ways in which prescription drugs made their way into the illicit drug market, with their results indicating either robbery or fraudulent prescription as primary methods.

In a current cohort of illicit opioid users in five cities across Canada (OPICAN cohort), benzodiazepines were the most common prescription drugs used, with 36.2% of the sample reporting last 30 days usage (which could entail legitimate usage, but also non-prescription usage, as can be seen by drawing upon the data indicating source of drug acquisition). About a third of participants also reported Tylenol 3/4 use (32.5%) and Dilaudid (hydromorphone) use (33.1%). Percocet/Percodan (oxycodone plus acetaminophen or ASA, respectively) were used by 16.2% in the last 30 days; other opioid prescription drugs (including MS Contin, Tylenol 1,

others) were used by 28.5%. Table I provides information on the sources for selected prescription drugs in the OPICAN cohort, calling attention to the varied ways in which prescriptions may be diverted into the illicit drug market.^{18,19} Source of prescription drug acquisition may be useful as an indicator of possible medical use (i.e., prescribed by a doctor – although there could be drug abuse in this situation) as opposed to non-medical use with drugs accessed via the illicit drug market (i.e., dealers, friends).

Prescription drug use risks

The abuse of prescription drugs entails a number of risks for users, with dependence or harmful use according to ICD criteria²⁰ being one of the most important. Dependence on prescription drugs requires that the user seek ways to access and pay for drugs; if the money required exceeds the individual's income, criminal and semi-legal activities (e.g., property crimes, hustling, panhandling) may be engaged in to pay for drugs.²¹ In populations of illicit opioid users, benzodiazepine use and abuse has been evidenced as an important risk factor for overdose with morbidity and mortality consequences, particularly in conjunction with alcohol use.²²⁻²⁴

DISCUSSION

The exact extent of prescription drug abuse in the Canadian context remains elusive at present because of the lack of systematic data with regards to this phenomenon. Prescription drug abuse should be a category that is utilized in national surveys of health and drug use, similarly to information collected on illicit drug use. The reasons for the very high use of benzodiazepines, and prescription drugs in general,

in Canada need to be established and explored further.

The Canadian situation appears to be one of contradiction: on the one hand, benzodiazepines appear to be over-prescribed, thus placing Canada very high on the list of defined daily doses of these drugs.⁶ On the other hand, fears among Canadian physicians of causing addiction and attracting addicts to their practices²⁵⁻²⁸ may be involved in the underprescription of certain drugs and the undermedication of patients, particularly for those with chronic pain.

The key challenge is to identify appropriate and effective interventions to reduce abuse and its adverse consequences, targeting all involved: pharmaceutical industry, physicians, pharmacists, and patients.²⁹ Further, calls have been made to establish communication between law enforcement and the Department of Health in such a way that information on individuals suspected of engaging in criminal activities to access prescriptions would be provided to law enforcement authorities.⁸ This is particularly important given the globalization of trade with internet pharmacies offering potentially abusable prescription drugs.^{30,31} These are but a few of the suggestions for interventions to address prescription drug abuse in Canada. More information is required in order to fully detail and develop appropriate and effective interventions at all levels.

CONCLUSION

The phenomenon of prescription drug abuse needs to be addressed within the research community in order to develop appropriate, feasible and helpful interventions. Evidence-based interventions will be difficult if not impossible to establish without more precise epidemiological data on the extent of prescription drug abuse in general and for specific groups (including

adolescents and young adults) and the factors related to the diversion of prescriptions into the illicit drug market.

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