

Non-medical Use of Prescription Opioids and Public Health in Canada

An Urgent Call for Research and Interventions Development

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ABSTRACT

While the public health problem of psychoactive drug use is well recognized, the emerging phenomenon of non-medical use of prescription opioids has been largely ignored in Canada. Most evidence on this issue and related harms in North America to date come from the United States (US), where the prevalence of non-medical opioid use in key populations, as well as related morbidity and mortality, recently have risen substantially. Also, given the increases in the overall consumption of prescription opioids similar to those in the US, a substantial expansion of problems related to non-medical opioid use appears to be occurring in Canada. For example, recent major increases in the use of prescription opioids – rather than heroin – are documented for street drug users in Canadian cities. However, a comprehensive assessment of the problem of non-medical prescription opioid use is hindered by the spotty – or absent – nature of crucial indicators and data. We urge that the necessary efforts and resources for systematic assessment of the evolving phenomenon of non-medical opioid use and its key facets be established in Canada, and that policy-makers implement sensible intervention strategies targeting this problem within a public health framework, specifically avoiding unintended negative consequences (e.g., undermining access to pain treatment).

Key words: Opioid use; pain treatment; public health; drug diversion; prescription drugs

RÉSUMÉ

Le problème de santé publique que représente la consommation de substances psychotropes est bien connu, mais le phénomène nouveau de la consommation d'opioïdes d'ordonnance à des fins non médicales est largement négligé au Canada. Jusqu'à maintenant, la plupart des données probantes sur ce phénomène et les méfaits qu'il cause en Amérique du Nord viennent des États-Unis, où la prévalence de la consommation d'opioïdes à des fins non médicales dans certaines populations, ainsi que la morbidité et la mortalité connexes, ont beaucoup augmenté récemment. Or, on semble assister à une forte progression des problèmes liés à la consommation d'opioïdes à des fins non médicales au Canada en raison des hausses de la consommation globale d'opioïdes d'ordonnance, hausses qui sont semblables à celles des É.-U. Par exemple, de fortes hausses dans la consommation d'opioïdes d'ordonnance – plutôt que d'héroïne – ont été documentées récemment chez les utilisateurs de drogue dans les villes canadiennes. Cependant, l'évaluation approfondie du problème de la consommation d'opioïdes d'ordonnance à des fins non médicales est entravée par la rareté (ou l'absence) de données et d'indicateurs cruciaux. Nous encourageons vivement le Canada à prendre les mesures et à engager les ressources nécessaires à l'évaluation systématique du phénomène nouveau de la consommation d'opioïdes à des fins non médicales et de ses principales facettes, et nous exhortons les décideurs à mettre en œuvre des stratégies d'intervention raisonnables qui ciblent ce problème dans un contexte de santé publique, en évitant spécifiquement les conséquences non désirées (comme la restriction de l'accès au traitement de la douleur).

Mots clés : consommation d'opioïdes; traitement de la douleur; santé publique; détournement de médicaments; médicaments d'ordonnance

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The public health problem of psychoactive drug use – consisting of alcohol, tobacco and the 'illicit drugs', e.g., cannabis, cocaine, heroin – is well recognized in Canada. In 2002, 47,000 persons died, 768,000 life-years were lost, and 4.15 million hospital days were spent from related causes; the overall social cost total was \$39.8 billion, or 3.5% of Canada's Gross Domestic Product (GDP).¹ In response, intervention strategies aimed at the consequences of licit and illicit psychoactive substance use have been established at different jurisdictional levels. It appears, however, that an increasingly prevalent and harmful form of substance use may be falling through the cracks of science and policy in Canada, and requires urgent attention: the non-medical use of prescription opioids.

While the International Narcotics Control Board (INCB) most recently warned that the "abuse of prescription drugs [will] surpass illicit drug abuse globally",² the most solid indicators for the explosive proliferation of non-medical prescription opioid use and subsequent harms in North America to date have come from the United States (US). For example, between 1991 and 2001, the incidence of non-medical prescription opioid use among both adults and youth in the US (measured by National Survey of Drug Use and Health (NSDUH) data) rose by approximately 300%.^{3,4} While one needs to be aware of the NSDUH's widely inclusive definitions for such non-medical use, the incident non-medical user counts in 2001 alone represented populations multiple times larger than the estimated heroin user population in the US.⁵ Among US college students, the prevalence of non-medical opioid analgesic use has doubled over the past decade, an increase greater than for any other psychoactive drug.⁶ Examining actual harm indicators (i.e., morbidity and mortality), the prevalence of Emergency Room (ER) mentions for prescription opioids like fentanyl, oxycodone and hydromorphone formulations – as captured by the Drug Abuse Warning Network (DAWN) monitoring system – has increased 3- to 6-fold from 1997 to 2002 alone.⁷ While still fewer in number than mentions for alcohol or illicit drugs, the relative increase for prescription opioids in ER mentions has been substantially larger (130% vs. 21% for alcohol and 38%

for illicit drugs).⁷ Similarly, the number of overdose deaths related to opioid analgesics in the US almost doubled (91.2%) between 1999 and 2002, accounting in 2002 for more deaths (5,528) than either cocaine or heroin.⁸ A recent study of the social costs of opioid analgesic abuse in the US for 2001 resulted in a total cost tally of \$8.6 billion.⁹

Notably, the described pronounced increases in problem indicators related to non-medical prescription opioid use are occurring in a distinct and wider context compared to other psychoactive drugs. The primary purpose of opioid analgesics is the medical treatment of pain, such as related to cancers, Acquired Immune Deficiency Syndrome (AIDS), or post-surgical care.¹⁰ After lengthy periods of neglect and controversy and the wide-scale undertreatment of pain even in highly developed medical systems contexts like those of North America for most of the 20th century, pain medicine has recently changed its course, aiming to address pain as the “fifth vital sign” earlier and more effectively.¹¹ This change in approach has been coupled with the availability of a new generation of highly potent synthetic opioids (e.g., fentanyl, oxycodone), complementing traditional agents like morphine and codeine formulations. In this context, overall analgesic opioid consumption in the US (measured in defined daily doses [DDD] per population) has approximately doubled over the past decade.¹² With 29,500 DDD per million inhabitants/day in the period 2002–2004, the US have moved within just one decade from being the world’s fifth largest to becoming the leading consumer nation, by far, of prescription opioid analgesics.¹²

By several indicators, developments concerning non-medical prescription opioid use similar to those in the US are likely occurring in Canada, although a precise assessment is hindered by the spotty – or absent – nature of crucial indicators and data. Canada’s recorded prescription opioid consumption (in DDD) increased by about 50% between 2000 and 2004 alone.¹² The rate of increase for this period is even greater than that of the US, and Canada is currently the world’s third largest opioid analgesic consumer. This overall increase in prescription opioid availability and consumption is likely

reflected in the recent finding from a Canadian multi-site study of illicit opioid and other drug users that in the majority of local sites in 2005, the use of prescription opioids was more prevalent than that of heroin.¹³ This finding was associated with a significant reduction of heroin use in all sites compared to 2001. A study of patients presenting for Methadone Maintenance Treatment (MMT) in Toronto in 2002 found that four out of five patients reported non-medical prescription opioid use at time of admission.¹⁴ Over the past few years, several Canadian jurisdictions have reported spikes in non-medical use or deaths related to prescription opioids (e.g., fentanyl or oxycodone products^{15,16}) although most of these reports relied on unsystematically collected or locally limited data. While there is hence good reason to assume that the non-medical use of opioid analgesics and its harm consequences also are likely rising in Canada, of equal concern is the current absence of crucial data indicators to thoroughly assess and monitor the exact contours of this phenomenon. The most recent national household survey on substance use – the 2004 Canadian Addictions Survey (CAS)¹⁷ – along with other relevant population surveys, unlike their US counterparts, did not contain any items regarding non-medical prescription opioid use. Consequentially, the recent Canadian ‘social costs of substance abuse’ study was not able to consider such use in its cost estimations.¹ Concerning potential mortality or morbidity indicators, Canadian coroners’ data regarding drug-related poisonings predominantly do not separate out specific opioid analgesics from other drugs, making respective mortality analyses impossible. Finally, Canadian data on the presence of opioid analgesics in ER admissions are not available at a systematic level. Thus, empirical gaps in Canada prevail over available data.

While systematic information on the non-medical use and consequences of prescription opioids are important to assess the demand side and to guide respective interventions, empirical data on the ‘supply’ side are equally important to inform appropriate measures at this end. Again, the challenge for supply control of opioid analgesics is rather distinct from other psychoactive drugs, as the former originate

from pharmaceutical production and medical distribution, and thus take distinct paths from production to the consumer. While data from the US and elsewhere have suggested that diversion from medical sources (e.g., ‘doctor-shopping’) may be one key source for non-medical opioid use, other data underscore the highly heterogeneous and varied spectrum of sources.^{18,19} For example, the majority of youth and student non-medical opioid users in the US report that they obtained these drugs from “either family or friends”.^{20,21} Other documented sources include prescription scams, thefts or robberies, as well as the Internet and traditional ‘drug dealers’. However, the relative role of these different sources for the overall phenomenon of non-medical opioid use is far from clear.^{18,22} In the US, the recent increases in non-medical opioid use and related harms have seen a strong push recently towards interventions to counter the opioid ‘diversion problem’, most of which have focused on efforts to recognize illegitimate users of opioid analgesics in medical settings and to more strictly monitor – and, if necessary, discipline – physicians facilitating misuse or diversion.^{23,24} This presents a complex and difficult challenge: while these approaches imply a possible separation into “two distinct groups” (e.g., “legitimate patients with pain” and “abusers”) of individuals obtaining opioids from the medical system, this divide likely does not exist in reality.^{19,25} In addition, the intensified and latently punitive scrutiny of medical opioid providers misses a substantive part of relevant sources of diversion, while potentially invoking undesirable consequences against the interest of public health.^{26,27} Studies suggest that intensive prescription monitoring may make care providers more hesitant to provide specific drugs under scrutiny, and/or to increasingly rely on less effective or even more dangerous substitutes.^{23,28} Specifically for opioid analgesics, this may mean that the recent advances in pain medicine practice may again become a “casualty” in the “war against prescription opioid abuse”.²⁹

In summary, we register an increase of non-medical opioid analgesic use in North America, with their impact for burden of disease, public health and social costs mostly documented for the US, and likely proliferating similarly in Canada.

However, given that key indicators for a systematic assessment are missing in Canada, we urge that such mechanisms be expediently established in Canada (e.g., through respective items in population surveys, systematic collection of relevant morbidity and mortality data, evidence on diversion and sources, etc.). Simultaneously, we recommend that policymakers initiate the development of possible intervention strategies aiming at non-medical prescription opioid use within a public health framework, i.e., an approach which effectively focuses on reducing the harm consequences of this problem while avoiding problem displacement and/or unintended consequences. Possible interventions should include evidence-based primary and secondary prevention initiatives, state-of-the-art (e.g., electronic) prescription monitoring programs which are compatible and comparable across provinces yet do not limit access to or availability of pain treatment, and effective treatment options for individuals indicating problematic or dependent prescription opioid use.

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