

Opioid Use and Overdose Risk Factors in University Students

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Introduction

- Young Canadians (15 to 24 years old) are the fastest-growing population requiring hospitalization due to overdose as Canada faces an opioid and mental health crisis¹. Opioid use in those who have an early onset before 25 years-old frequently persists into adulthood, having long-lasting health, social and economic impacts².
- Given the disproportionate impact of the current opioid crisis on young people, it is not only important to better understand their opioid use, but also to identify potentially associated opioid overdose risk factors.
- Several studies have found various risk factors that can substantially increase one's risk of opioid overdose such as alcohol use, substance use, mental health disorders, suicide ideation and childhood trauma³⁻⁵.

Objectives

1. Analyze the prevalence of non-medical and medical opioid use among university students by estimating the prevalence of lifetime use of street opioids, prescription opioid not-as prescribed and as prescribed.
2. Examine the prevalence of important overdose risk factors in the subset of the student population who initiated opioid use for non-medical reasons in comparison with those who initiated use for medical reasons.

Methods

- This study investigates data from an ongoing, weekly cross-sectional student mental health and substance use survey at the University of British Columbia, which was weekly-administered since 2020 under the WHO World Mental Health College Student (WMH-ICS) Initiative.
- A preliminary chi-squared analysis was conducted using SPSS on the first 110 weeks of data extracted in March 2022 (N=12454).

Results

LIFETIME USE OF OPIOIDS

11.8%

PRESCRIPTION OPIOID USE AS PRESCRIBED

3.9%

PRESCRIPTION OPIOID USE NOT AS PRESCRIBED

1.1%

STREET OPIOID USE (e.g., fentanyl, heroin)

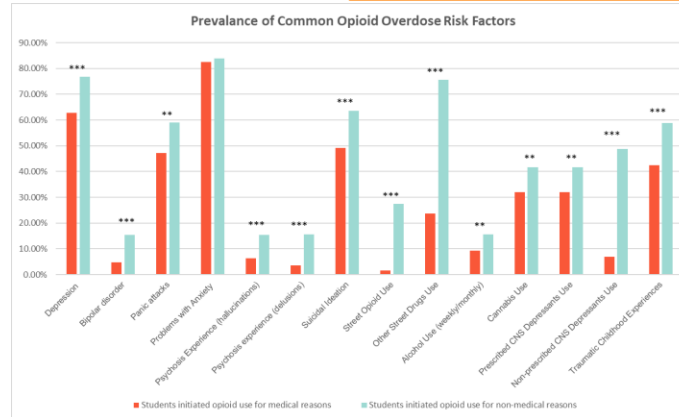
In which circumstance did you first use opioids? (N=1313)

MEDICAL REASONS (87.20%)

Student was prescribed for cancer-related pain and non-cancer pain (e.g., a sports lesion, back pain, etc.)

NON-MEDICAL REASONS (12.80%)

Student was offered opioids by someone who was prescribed them or used for a non-medically indicated reason, took them from someone without their knowledge, or bought them on the street.



Discussion

- Among students who have used opioids, most initiated use through medical use. Although opioid prescriptions can lead to future misuse, a previous analysis of this survey data observed that most people who received prescribed opioid are no longer using them⁶.
- Compared to students who reported opioid use initiated by medical reasons, our findings suggest that students who began to use opioid without prescription have a significantly higher prevalence of several overdose risk factors. Biopsychosocial factors contributing to mental health issues may initiate and/or perpetuate opioid misuse^{3,5}, and concomitant use of opioid with alcohol, cannabis or pharmaceutical CNS depressants can cause CNS depression, thus, increasing the risk of opioid overdose.
- In summary, our findings highlight that students who began opioid use without prescription should be at particular concern for health care providers and public health policy makers to address the opioid crisis. Additionally, these factors can be used to identify students at higher risk of overdose.

Future Directions

- Healthcare workers, future studies and initiatives targeting opioid overdose in young Canadian student should be aware of correlated psychiatric disorder, substance use and childhood trauma history.

References

1. Health Canada. (2022). *Canada's Opioid Crisis*. www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/canada-opioid-crisis.pdf
2. Malla, A., Shah, J., Iyer, S., Boksa, P., Joobar, R., Andersson, N., Lal, S., & Fuhrer, R. (2018). Youth Mental Health Should Be a Top Priority for Health Care in Canada. *Canadian journal of psychiatry*, 63(4), 216-222.
3. Webster LR. Risk Factors for Opioid-Use Disorder and Overdose. *Anesthesia and analgesia*. 2017;125(5):1741-8.
4. Kerr T, Fairbairn N, Tyndall M, Marsh D, Li K, Montaner J, et al. Predictors of non-fatal overdose among a cohort of polysubstance-using injection drug users. *Drug and alcohol dependence*. 2006 2007;87(1):39-45.
5. Park TW, Lin LA, Hosanagar A, Kogowski A, Paige K, Bohnert ASB. Understanding Risk Factors for Opioid Overdose in Clinical Populations to Inform Treatment and Policy. *Journal of addiction medicine*. 2016;10(6):69-81.
6. Vereschagin M, Wang A, Pei J, Vigo D. Prevalence and Common Reasons for Opioid Use in University Students. *Let's Talk Overdose*. June 23, 2021