Experiences of illicit opioid overdose survivors: From opioid epidemic to COVID-19 pandemic

This qualitative study suggests that people who use illicit opioid drugs rely on their support community to stay alive, and that the COVID-19 pandemic may have eroded that network.

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ABSTRACT

Background: British Columbia continues to experience an overwhelming burden of opioid overdose, exacerbated by the COVID-19 pandemic beginning in 2019. We aimed to determine the experiences of opioid overdose survivors and identify contributors, including the pandemic, in the increasing incidence of opioid overdoses.

Methods: We recruited opioid overdose survivors from the Fraser Health region to participate in semi-structured interviews. Interviews were recorded, transcribed, and analyzed thematically.

Results: A difficult childhood and mental illness were the two most common themes among participants. Other themes included awareness of risk, with 60% of participants having more than three overdose events and no participants overdosing alone. The most common reported impact of COVID was reduced access to support groups.

Conclusions: Opioid overdose has increased dramatically during the COVID pandemic and may be driven by increased isolation in a cohort that relies on using with others to mitigate the risks of overdose.

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The term *opioid crisis* originally referred to the overprescription of opioids in the United States beginning in the early 1990s; however, modern usage refers to the dramatic spike of opioid overdoses and opioid-related deaths beginning approximately in 2013.[1] In 2016, opioid-related deaths were highest in Canada and the United States at 85 and 131 per million inhabitants, respectively, compared with 26 per million inhabitants across all OECD countries.[2] In Canada, the opioid crisis has affected all regions nationwide, with the highest incidence of opioid-related deaths and hospitalizations occurring in Western provinces.[3,4] Increased deaths from illicit drug overdoses were paired with the appearance of fentanyl-laced drugs in illicit Canadian drug markets and the surge of Chinese-manufactured fentanyl, including the ultrapotent analog carfentanil.

Despite multipronged interventions, including public education and distribution of over 1 million take-home naloxone kits,[5] illicit drug toxicity deaths nearly doubled from 985 in 2019 to 1724 in 2020, making them more lethal than car crashes, suicide, and homicide combined.[6] This dramatic rise was likely also driven by the effects of the COVID-19 pandemic, as the average monthly illicit overdose deaths more than doubled from 82 in 2019 to 210 as of 31 January 2023.[6] A coordinated effort by the BC Centre for Disease Control and the BC Ministry of Health has led to the creation of the Provincial Overdose Cohort, which includes linked administrative data on health care use. While these robust databases delineate where and how many drug overdoses take place, not much is known about the contextual circumstances that explain why they are occurring. It is in this context that we undertook to interview survivors of opioid overdose in the Fraser Health region to record their stories, how they grew up, what led them to take illicit drugs, and their experiences of opioid overdose prior to and during the COVID pandemic. This included contextual data (whether they took drugs alone, the type of drugs taken, and the frequency and location of drug use).

Methods

Research team

The research team included an internal medicine consultant and clinical faculty member at the University of British Columbia (R.S.), an epidemiological consultant (J.C.), and an undergraduate student

(A.M.). All three participated in the interviews and performed data analysis, including interpretation and manuscript writing, and all are males. Training included completion of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans—TCPS CORE-2022 Course on Research Ethics.

Participant recruitment

Residents of the Fraser Health region who had experienced at least one overdose event since 2015 and were 18 years of age or older at the time of the overdose met the inclusion criteria and were recruited into the study between December 2020 and May 2021. Access to appropriate videoconferencing technology was also required to participate. Recruitment flyers were posted in hospitals and regional clinics. Regional community action teams were also contacted, informed of our study, and asked to share recruitment details. Participants freely contacted our team, after which we screened for the inclusion criteria and proceeded with informed consent and the goals and reasons for undergoing this research as appropriate.

Interview procedures

A semi-structured interview was performed where participants were invited to share their overdose experience. The interviewers (A.M., R.S., and J.C.) asked open-ended questions related to three broad categories: opioid and opioid overdose knowledge, medication history, and personal story. Participants were initially asked about their upbringing and exposure to drugs. Next, they were asked to share details about their overdose experience and details surrounding their knowledge of opioid use. Last, they were asked to share any experience with prescribed opioids and whether that played any role in their overdose. Participants were also asked to share their experiences on the impact that COVID has had on the opioid overdose epidemic. All 10 interviews were audio recorded and transcribed. Interviews were conducted once and ranged in length from 25 minutes to 76 minutes (with an average of 43 minutes). The interviews were conducted using Zoom software (version 5.4.6 [59296.1207]). At the end of each interview, the participant received a cash honorarium.

Data analysis

All interviews were audio recorded and transcribed verbatim by Google Recorder in offline mode without field notes. The transcripts were manually reviewed for accuracy through a line-by-line comparison with the audio recordings by at least two individuals on the research team. Transcripts were analyzed via thematic analysis in the context of interpretive description in a method outlined by Wicklow and colleagues.[7]

All research team members conducted line-by-line readings of the transcripts to identify five main themes and categorize quotes into these themes. Themes were identified via extensive discussion between research team members using the research questions and aims as a guide. Participants' quotes were selected based on details of their first-person experiences over comments about others, proximity to the overdose event, and relation to opioid drug use over other drug use.

Ethics approval

We obtained ethics approval for the study from the Fraser Health Research Ethics Board (2020-65).

Study design and theoretical framework

We employed the Consolidated Criteria for Reporting Qualitative Research (COREQ),[8] which contains a checklist for explicit and comprehensive reporting of qualitative studies, to provide a guideline for our study. Ours is mostly a descriptive study, focused on meaning and significance of experiences of our subjects; hence phenomenological research. Deep engagement with the data via reading, writing, rereading, and rewriting is foundational in both hermeneutic and transcendental phenomenologies.

We were also informed by the Dislocation Theory of Addiction posited by Bruce Alexander (2008), which sees addiction as neither a disease nor a moral failure, but as an adaptation to sustained social, familial, and personal dislocation wrought by globalized capitalism.[9] Within the general population, adverse childhood experiences, negative emotional states, and sexual abuse are all associated with higher rates of addiction.[9]

Results

Demographics and drug use history

Ten participants were recruited into the study, and none dropped out. The majority of the participants were Caucasian and self-identifying males **[Table 1]**. Participants had a mean age of 19.6 years for their first exposure to drugs. All participants were residents of the Fraser Health region due to our inclusion criteria, but many used drugs in Vancouver as well. Surrey and Vancouver were the most common sites of drug use for

Table 1. Demographics and drug-use history of participants.

Demographics and drug-use history	Mean, proportion, or range
Male	6/10
Race/ethnicity	
White	8/10
Asian	1/10
Indigenous	1/10
Immigrant	1/10
Opioid prescription for pain in lifetime	6/10
Nonopioid drug use prior to overdose	10/10
Two or more overdoses in lifetime	6/10
Age (years) at first exposure to drugs (mean)	19.6
Range	12–48
Location of drug use	
Surrey	6/10
Vancouver	5/10
Maple Ridge	2/10
Port Coquitlam	1/10
Port Moody	1/10
New Westminster	1/10
Langley	1/10
Richmond	1/10
White Rock	1/10

TABLE 2. Descriptive data of first overdose event of participants.

Descriptive at first overdose event	Mean, proportion, or range
Age (years; mean) Range	33.1 14–50
Opioid usage alone	0/10
Use of naloxone (Narcan) to revive	4/10

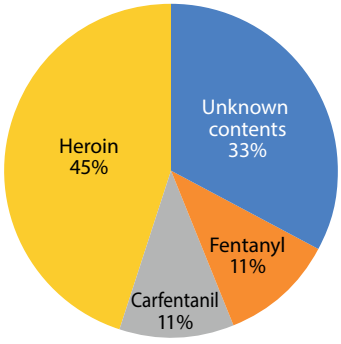

FIGURE 1. Description of opioid taken at the time of the first overdose as reported by participants.

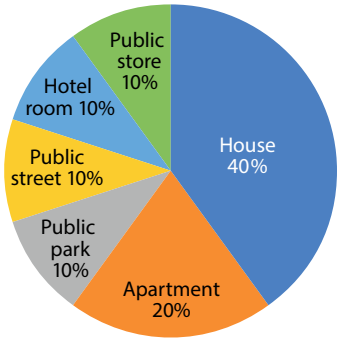

FIGURE 2. Site of first overdose as detailed by participants.

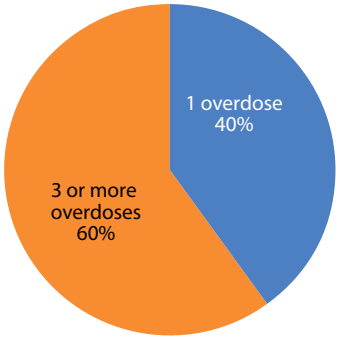

FIGURE 3. Frequency of drug use as quantified by number of overdoses experienced by participants.

our participants. Approximately half of the participants had been prescribed opioids for pain in their lifetime.

Data surrounding overdose events

Participants had a mean age of 33.1 at the time of their first overdose **[Table 2]**. However, no participants used alone and naloxone (Narcan) was used to revive approximately half of our cohort at the time of their first overdose.

The most common opioid substance taken by participants at the time of first overdose was heroin, followed by unknown contents, fentanyl, and carfentanil **[Figure 1]**. Additionally, the site of first overdose was a home for the greatest number of participants (4/10), followed by an apartment (2/10), a public park (1/10), a public street (1/10), a public store (1/10), and a hotel room (1/10) **[Figure 2]**. Frequent drug use or multiple overdoses were common in this cohort; 60% of participants experienced three or more overdoses **[Figure 3]**.

Themes from interviews

Difficult upbringing

The theme of a difficult upbringing was found in many participants' recollections of their life events leading up to their overdose. This included physical and sexual abuse, family dysfunction, and bullying.

"Yeah there was abuse in my real family before I went into custody before like I was about three. Lot of physical abuse and sexual abuse and my parents were, I think, drug abusing." (Participant 3)

"My dad . . . wanted to kill my mom so that's why we had to run away from him." (Participant 4)

"My father shortly after that, robbed a bank and was sentenced to 10 years in prison. . . . He was a heroin addict and a heroin dealer, and you know, like at first he hid the fact that he did heroin shots like two or three times a day. . . . I tried heroin for the first time when I was 14, shooting it." (Participant 7)

"I was bullied a lot in school. I was overweight. Bullied a lot and very shy. So I went to high school and then I got pregnant when I was 13 . . . I was working in the street . . . and I was only like 16." (Participant 8)

History of drug use

Many participants had an extensive history of illicit drug use leading up to their overdose event. This primarily included the use of non-opioid drugs such as LSD, MDMA, crack cocaine, and crystal methamphetamine at a very early age, later evolving into the use of opiate drugs such as fentanyl and heroin.

"I moved out to Surrey and I got into crystal meth out here and then into heroin and fentanyl a couple years after that." (Participant 3)

"I tried the meth—didn't like that, and then marijuana. But basically the crack and then of course somebody switched it for one day, it's called white China and it looked like crack. We smoked it and then I died. I had whatever was in there, the hostel did a toxicology whatever that's called and it was the fentanyl in there." (Participant 5)

"I started using LSD, I used that when I was 12 and then I think when I was 14 I started using cocaine and MDMA and then around 14, 15 I started using crystal meth." (Participant 9)

"I was such a hardcore cocaine crack addict. Opioids were never my thing for the longest time. . . . The next thing you know, you're smoking that stuff and I stayed away from heroin or on the streets, specifically called down . . . but it came to a point for me, I would get so jacked up on that stuff. I smoked a little bit of opiate or heroin or whatever it would bring me down, allow me to sleep." (Participant 10)

Mental health

Diagnoses of mental disorders were common among the interview participants. These diagnoses were often made during the period of illicit drug use but before their first overdose event.

"[I was diagnosed] with depression and ADHD." (Participant 2)

"I suffered from depression." (Participant 5)

"I had a very serious depressive episode when I was around 18. I was trying to stop

using speed. My mom took me to the doctor then and she diagnosed me with generalized anxiety disorder and gave me some Ativan and things like that and . . . from about 13 or so I was on Prozac as well." (Participant 9)

"I had a suicide attempt . . . I've finished up in a psych ward. . . . The psychiatrists figured I was bipolar depressed." (Participant 10)

Awareness of overdose risk

Participants showed that they were aware of the increased chances of overdose but decided to continue with their drug use. This was detailed implicitly or explicitly during the interviews.

"I know it's gonna happen if I do it . . . I've been dead seven times in the last I guess 17 months. I've been dead seven times and twice on purpose." (Participant 2)

"We had like a Narcan kit and it was all ready, the syringe was already filled and it was ready to go because by then we were using and avidly seeking carfentanil. Like we didn't want heroin anymore, we didn't want just fentanyl, we wanted carfentanil." (Participant 6)

"People are shocked when I say this. I've lost count of the amount of times I've overdosed, like it's well into the double digits, so there's like a few different times." (Participant 6)

"I wanted somebody to be there just in case something went wrong." (Participant 8)

"Somebody had some pink stuff that one of my colleagues, my drug checking colleagues had said was really dangerous and not to do it but I was kind of desperate and they traded me some of that for something else and so I did it and then I ended up again overdosing. . . . If I had access to safe supply that I could just go and I knew it was there." (Participant 9)

Impact of COVID-19

COVID had a multifaceted impact on participants' experiences surrounding their drug use. Some cited reduced access to treatment groups and gatherings while others cited a decline in mental health that made them more likely to use.

"Some organizations are not open to us right now after the COVID." (Participant 1)

"For a while the addicts were cut off and we were like pushed, you know quietly to the side there and it wasn't anywhere we could gather." (Participant 2)

"It's been really busy [treatment and counseling]. They used to have walk-ins so you can just walk in there and get a counselor." (Participant 8)

"Then COVID came and everything was just so incredibly stressful and so like just melt down and felt super apocalyptic and I just kind of started using every day and got off my Suboxone." (Participant 9)

Discussion

We identified and interviewed 10 residents in the Fraser Health region who had experienced opioid overdose to obtain contextual data to inform future research and community response to the opioid crisis. The life stories of these 10 overdose survivors of diverse backgrounds provide personal narratives that have been lacking in current literature. In contrast to other cohorts of drug users (Vancouver Injection Drug Users Study, AIDS Care Cohort, At-Risk Youth Study),[10] this cohort drew from outside of downtown Vancouver in the Fraser Health region, which experienced more fatal opioid overdoses than any other health region in BC.

Five themes emerged from our interviews with opioid overdose survivors: difficult childhood upbringing, history of mental illness, prevalent history of multidrug use, awareness of overdose risk, and impact of the COVID pandemic.

Notably, none of the survivors used drugs alone at the time of the overdose, regardless of the location, whether it was in a house, apartment, public park, public street, hotel room, or even public store. This differs from the data from the Provincial Overdose Cohort, in which 40% of nonfatal overdoses self-reported using alone.[11] None of the participants overdosed alone, highlighting the importance of the sense of community among survivors of opioid overdose. Participants overwhelmingly described to us how they grew up in dysfunctional households and were exposed to domestic violence, parental substance abuse, and bullying. As a result, they sought to use drugs and alcohol to escape the constant threat of physical and sexual violence, but also to join a community, albeit a community of drug users. A qualitative study done in Mexico among teenagers also revealed "family roughness" as a theme among adolescent drug users.[12]

By not using drugs alone, our participants counted on their partners and friends to rescue them with naloxone kits or call the ambulance if they suffered an overdose. Several participants suspected that their opioids were tainted, and had already had previous overdoses, but they ignored the risk because they were not alone. This finding potentially differs from a survey of drug users in Vancouver that found that most overdose participants did not suspect that the drugs were tainted prior to overdose.[10] However, this agrees with the 2022 Report to the Chief Coroner of BC, which revealed an increasingly toxic drug supply and concurrence of mental health disorders in drug toxicity deaths.[13]

Finally, our participants reported that the COVID pandemic resulted in a decrease in social services and an increase in isolation, stress, and drug use. In particular, participants noted increased use alone, such as in single-occupancy rooms, due to distancing measures. In a cohort that relies on community and taking opioids with others to mitigate risk, both the physical and mental isolation of the pandemic may partly explain the almost doubling of illicit drug toxicity deaths from 983 in 2019 to 1734 in 2020, the highest total recorded yet in British Columbia.[6]

Study strengths

This is the first study to report on contextual data from opioid overdose survivors during the COVID pandemic. This qualitative data provides lived experience and deeper insight into the issues surrounding the opioid crisis and exacerbation due to the COVID pandemic. This study highlights the need for further contextual data

to complement robust health administrative database reports. As the study describes a snapshot during the peak of the COVID pandemic (early 2021), a follow-up study as the COVID pandemic ameliorates in BC would prove valuable.

Study limitations

A lack of access to digital video conferencing technology may have excluded otherwise eligible participants from participating. While the semi-structured nature of the interview allowed for the collection of abundant data in general, some participants shared more than others, leading to variability among participants in the amount of data collected. Additionally, recall bias where participants did not accurately remember event details or left out certain details is likely, given perceived stigma related to illicit drug use and the amount of time that had passed between the events and the interview. Finally, most of the participants came from community action team or treatment group referrals, a cohort that actively seeks support, which may not be representative of the wider overdose population.

Conclusion

Opioid overdose survivors value community to mitigate the risk of frequent overdose, which has been disrupted by isolation due to the COVID pandemic. We hope our qualitative study will encourage others to involve opioid overdose survivors to tell their stories and to involve them in patient-centred interventions and policymaking to alleviate the overdose crisis. ■

Competing interests

None declared.

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References

1. Skolnick P. The opioid epidemic: Crisis and solutions. Annu Rev Pharmacol Toxicol 2018;58:143-159.
2. OECD. Addressing problematic opioid use in OECD countries. 2019. Accessed 1 October 2020. www.oecd-ilibrary.org/content/publication/a18286f0-en.
3. Belzak L, Halverson J. Evidence synthesis—The opioid crisis in Canada: A national perspective. Health Promot Chronic Dis Prev Can 2018;38:224-233.
4. Fischer B, Jones W, Vojtila L, Kurdyak P. Patterns, changes, and trends in prescription opioid dispensing in Canada, 2005–2016. Pain Physician 2018;21:219-228.
5. Tsang VWL, Buxton JA. History of naloxone kits in BC: From inception to expansion. BCMJ 2021;63:122-125.
6. BC Coroners Service. Illicit drug toxicity deaths in BC, January 1, 2012 – December 31, 2022. Accessed 6 March 2023. www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/illicit-drug.pdf.
7. Wicklow B, Dart A, McKee J, et al. Experiences of First Nations adolescents living with type 2 diabetes: A focus group study. CMAJ 2021;193:E403-E409.
8. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. Int J Qual Health Care 2007;19:349-357.
9. Alexander BK. The globalization of addiction: A study in poverty of the spirit. Oxford, UK: Oxford University Press; 2010.
10. Prangnell A, Fairgrieve C, Nosova E, et al. High prevalence of self-reported exposure to adulterated drugs among people who experienced an opioid overdose in a Canadian setting: A cohort study. Subst Use Misuse 2019;54:980-985.
11. MacDougall L, Smolina K, Otterstatter M, et al. Development and characteristics of the Provincial Overdose Cohort in British Columbia, Canada. Lima VD, editor. PLoS One 2019;14:e0210129.
12. Pérez Vázquez M de J, Díaz Oviedo A, Calixto Olalde MG. Life experience of adolescent drug users: A phenomenological approach. Rev Esc Enferm USP 2018;52:e03349.
13. BC Coroners service death review panel: A review of illicit drug toxicity deaths. Report to the Chief Coroner of British Columbia. 9 March 2022. Accessed 29 April 2022. www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/death-review-panel/review_of_illicit_drug_toxicity_deaths_2022.pdf.