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Identifying the impacts of the COVID-19 pandemic on service access for people who use drugs (PWUD): A national qualitative study[☆]

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ABSTRACT

Introduction: Closures and reductions in capacity of select health and social services in response to the COVID-19 pandemic may have placed people who use drugs (PWUD) at a disproportionately increased risk for experiencing harms, and resulted in critical treatment disruptions. We conducted the current national study among a cohort of PWUD to understand how COVID-19 has affected service access, including any significant impacts PWUD may have experienced. Results will contribute to the evidence base for informing future pandemic and public health policy planning for vulnerable populations.

Methods: The project involved qualitative telephone-based interviews with 196 adult (aged 18+) PWUD from across Canada. Eligibility criteria included daily or weekly use of psychoactive substance(s), and/or current enrollment in opioid agonist treatment (OAT). Data collection took place between May and July 2020. Data underwent thematic analyses, and common themes informed the results.

Results: Most participants experienced detrimental service access issues and treatment disruptions during COVID-19, including reduced access to harm reduction services, OAT, withdrawal management and treatment services, medical professionals (e.g., addictions and mental health counseling), shelters/housing, and food banks. Positive impacts included greater access to OAT take-home 'carries' and prescription deliveries. Decreases in service capacity resulted in increased health issues and risky substance use behaviors among PWUD, such as unaccompanied substance use, sharing/re-use of supplies, and overdose events.

Conclusions: Reductions in the accessibility of critical services PWUD rely on during COVID-19 has increased existent substance use and health issues among PWUD, while decreasing their ability to mitigate risks related to substance use. Thus, the expansion of the depth and breadth of support options is crucial. Services must remain open and flexible to the unique needs of PWUD during COVID-19, while novel and effective adaptations and interventions should remain available and accessible post-COVID-19.

[☆] In collaboration with the Canadian Research Initiative in Substance Misuse (CRISM) National Research Team.

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1. Introduction

The COVID-19 global pandemic and resulting public health measures have disrupted the daily lives of people all over the globe, including in Canada (Best et al., 2020; Dawel et al., 2020; Tull et al., 2020). Comparatively, Canada has experienced a fraction of the average daily COVID-19 cases compared to the United States, however, it has ranked among the countries with some of the strictest COVID-19 government responses (Ritchie et al., 2021). Some of the major public health measures implemented during the pandemic have included school and workplace closures, cancellations of public events, restrictions on public and social gatherings and travel, physical distancing requirements, recommendations to stay home and self-isolate, and, in some instances, closures of non-essential businesses including select healthcare and social services (Ritchie et al., 2021; Watts et al., 2020). While these restrictions have undoubtedly impacted the majority of the general population, they may have disproportionately affected vulnerable populations, such as people who use drugs (PWUD), many of whom rely heavily on health and social services. For instance, PWUD often utilize harm reduction services in order to obtain new and sterile harm reduction equipment and receive critical healthcare assessments, support and attention (Abdul-Quader et al., 2013; Logan & Marlatt, 2010). Additionally, many PWUD are engaged in treatment such as opioid agonist treatment (OAT), which may require them to visit an OAT clinic or pharmacy frequently to pick up their medication, placing them at an increased risk of exposure to the virus (Dunlop et al., 2020). Closures, a reduction in capacity, and inflexibility of these services could therefore have long-lasting and negative impacts (Vasyleva et al., 2020).

Moreover, many PWUD also suffer from a higher prevalence of mental health issues compared to the general population (Schutt & Goldfinger, 2011), which may be further compounded by the self-isolation that COVID-19 has necessitated and the inability of critical services to address PWUD's needs during the pandemic. For instance, early reports have shown negative social and psychological effects from COVID-19, which have been associated with increased risk of relapse and drug consumption among PWUD (Canadian Centre on Substance Use and Addiction (CCSA), 2020b; Ornell et al., 2020; Public Health Ontario (PHO), 2020; Statistics Canada, 2020; Volkow, 2020).

Furthermore, the ongoing opioid crisis is likely exacerbating many of these potential challenges, which has claimed a record number of PWUD's lives over the past few years. For instance, there have been nearly 18,000 recorded opioid deaths in Canada since 2016 (Government of Canada, 2020b), and current modelling suggests that opioid-related overdose deaths in Canada are projected to be considerably higher than they were pre-COVID-19 (Government of Canada, 2020a). These findings are substantiated by data that show that many communities have experienced the highest rates of overdose deaths to-date since the pandemic began, potentially linked to an increasingly toxic illicit substance supply (CCSA, 2020a, 2020c; Government of British Columbia & Ministry of Public Safety & Solicitor General, 2020; Ontario Drug Policy Research Network (ODPRN), 2020; Public Health Agency of Canada, 2020; Toronto Paramedic Services and Toronto Public Health, 2020). Importantly, COVID-19 requirements to close essential services PWUD rely on, coupled by demands to self-isolate and socially distance from others, may have specifically contributed to an increase in overdose deaths since using substances alone is one of the greatest risk factors for overdose mortality (CCSA, 2020a, 2020c; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2019).

In addition to the abovementioned factors, many PWUD experience homelessness, reside in sub-standard housing such as single-room occupancy hotels (SROs), and/or live in environments such as shelters or encampments where they must congregate in tight spaces and often share facilities where social distancing is not an option (Beletsky & Johnson, 2020; Tsai & Wilson, 2020). Historically, these environmental factors have created additional health and drug risks for PWUD (Bardwell et al., 2019; Knight et al., 2014; Rhodes, 2002), and literature

increasingly points to the linkages between housing and health and the ways in which housing as a social determinant of health can produce or mitigate drug-related outcomes (Bowen & Mitchell, 2016; Collins et al., 2019). In this sense, many PWUD who do not have access to adequate housing are at an increased risk of COVID-19 and related complications (Tsai & Wilson, 2020), while those that reside in SROs, shelters, or similar isolated locations may be at an increased risk of using drugs alone and experiencing adverse effects, such as an overdose.

Closures or reductions in the capacity of critical services to address PWUD's needs during COVID-19 may therefore place PWUD at an increased risk of experiencing negative impacts, such as increases in mental and physical health problems, risky substance use behaviors, and unsupported withdrawal and/or unattended overdose events. While select literature exists on the impacts of COVID-19 on PWUD (CCSA, 2020c; European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), 2020a), there is a paucity of knowledge gleaned from PWUD themselves regarding the ways in which the services they rely on have changed during COVID-19 due to the imposition of public health measures, and whether and/or how these changes have impacted them. Our research team conducted the present national Canadian qualitative study in order to understand how service disruptions during COVID-19 may have affected PWUD.

2. Methodology

2.1. Study design

The study utilized a thematic qualitative approach to explore the impact of COVID-19 on issues related to accessibility and availability of services, including any changes to service design and delivery which may have impacted the health and well-being of PWUD. The study consisted of individuals participating in one-on-one, semi-structured telephone interviews with questions focusing on service access and availability for both *substance use-* and *non-substance use-*related services, followed by subsequent probes. (See Supplemental Table for interview guide.)

The study was approved by the Centre for Addiction and Mental Health Research Ethics Board (#049/2020), and the Centre Hospitalier de l'Université de Montréal (CHUM) Research Ethics Board (#20.053).

2.2. Participant recruitment and eligibility

Our research team recruited participants using a purposive sampling method by circulating a digital recruitment poster (in the form of a one-page infographic) via email through the Canadian Research Initiative in Substance Misuse (CRISM) network contacts, peer advisors, partner organizations, and services used by PWUD. The infographic provided information on the study and contact information for interested participants to reach the study team. Additionally, CRISM network contacts from select organizations (i.e., harm reduction and outreach services, addiction services, etc.) printed and posted the recruitment poster and/or informed potential participants about the study by word-of-mouth. Interested individuals called or emailed the study line/email address and connected with a member of the research team who screened them for eligibility. Inclusion criteria included a) adults aged 18+; b) current residents of Canada; c) fluent in English or French; and d) current (either daily or weekly) use of a licit or illicit psychoactive substance (including opiates, central nervous system stimulants or depressants) and/or currently receiving opioid agonist therapy (OAT) treatment. Exclusion criteria included PWUD who were using only alcohol or cannabis. Eligible participants subsequently partook in the interview after a member of the research team obtained informed consent. Participants were provided with a \$30 honorarium at the end of the interview as compensation for their time and expertise.

Recruitment processes for Francophone participants involved the utilization of a pre-existing study cohort of injection drug users residing

in the greater Montreal area (CRISM Quebec Atlantic Node, 2020). Two trained researchers from the Quebec-Atlantic CRISM team - based out of the Centre Hospitalier de l'Université de Montréal (CHUM) - conducted all Francophone interviews; four trained researchers from the Ontario CRISM team - based out of the Centre for Addiction and Mental Health (CAMH) in Toronto - conducted all English interviews.

2.3. Data collection and analysis

Data collection took place between May 4, 2020 and July 27, 2020. Interviews took approximately 30 min to 1 h in length and were audio recorded and transcribed verbatim for data analysis. All Francophone interviews were transcribed and subsequently translated into English for synchronous data analysis. Transcripts were anonymized to ensure confidentiality and audio recordings were deleted upon transcription. All interview transcripts were imported into qualitative data management software (NVivo, version 12).

The thematic analytic approach included both deductive and inductive reasoning where it was hypothesized that COVID-19 would likely impact participant's access to services they critically rely on, and as such, overarching questions and themes were formed around this hypothesis. However, inductive analyses were also used and informed by the nuances and specifics of which services were most affected, as well as the ways in which they were impacted. Results were informed by common experiences and sentiments towards each service (as indicated by multiple respondents), including both positive and negative impacts. Specifically, the research team developed a preliminary codebook based on the interview guide and incorporated major themes - primarily the specific services impacted and various impacts experienced - that emerged during the interviews. Subsequent codes were added as they arose. All members of the research team finalized and approved the codebook. A single member of the research team (CR) independently reviewed and coded all interview transcripts. In order to ensure transparency and accuracy in data analysis (O'Connor & Joffe, 2020), the research team relied on inter-coder reliability whereby an independent coder (FA) coded a randomly selected sub-sample (20%) of the transcripts, and an average Kappa score of 0.75 and an inter-coder percent agreement of 99.3% was achieved. Any coding discrepancies were discussed and agreed upon. Results are presented by the most commonly reported services both used and impacted by COVID-19, as well as the specific impacts experienced for each service identified. Results are substantiated by select quotes, which were chosen based on relevance.

3. Results

3.1. Sample characteristics

A total of $n = 196$ PWUD from across Canada participated in this study. The sample was comprised of 56% males, with a mean age of 41.1, and 59% identified their ethno-racial background as White. The majority (75%) of participants indicated they were currently housed (i.e., specified they had stable housing). See Table 1 for participant demographics.

Most participants ($n = 192$) identified their current (i.e., at time of the interview) substances of use. Of those, three quarters (77%) reported 'polysubstance use' (i.e., concomitant use of more than one category of substances). See Table 2 for individual substance categories.

3.2. Qualitative results

Participants indicated a variety of services utilized and impacted, as well as particular impacts experienced when accessing each specific service during COVID-19. These experiences included both positive and negative sentiments. The services most impacted included harm reduction services, opioid agonist treatment services, addictions counseling/self-help groups/drop-in services, withdrawal management and

Table 1
Demographic characteristics of study participants.

Demographic characteristics	Total sample (N = 196) n (%)
Age (year, mean \pm SD)	41.1 \pm 10.9
Age groups	
18–30	37 (18.9)
31–45	89 (45.4)
46–64	68 (34.7)
≥ 65	2 (1.0)
Gender	
Male	109 (55.6)
Female	80 (40.8)
Other ^a	7 (3.6)
Ethnicity	
White	116 (59.2)
Indigenous	58 (29.6)
Other	22 (11.2)
Opioid agonist treatment	
No	124 (63.3)
Yes	72 (36.7)
Methadone	49 (68.1)
Suboxone	12 (16.7)
Other (intravenous OAT)	11 (15.3)
Living situation	
Housed	146 (74.5)
Transient	18 (9.2)
Shelter	13 (6.6)
Homeless/street	19 (9.7)
Geographic location	
Ontario	65 (33.2)
British Columbia	32 (16.3)
Quebec	31 (15.8)
Nova Scotia	29 (14.8)
Alberta	22 (11.2)
Manitoba	12 (6.1)
Saskatchewan	3 (1.5)
New Brunswick	2 (1.0)

^a Transgender/non-binary.

Table 2
Current substances used among study participants.

Substances used ^a	Participants (N = 192) n (%)
Polysubstance	147 (76.6%)
Stimulants	145 (75.5%)
Opiates	117 (60.9%)
Cannabis	78 (40.6%)
Alcohol	38 (19.8%)
Benzodiazepines	31 (16.2%)
Hallucinogens	9 (4.7%)

^a Substances used were not mutually exclusive and percentages for each substance category were calculated out of the total number of participants who provided the type of substance(s) they were currently using ($n = 192$). 'Stimulants' primarily included uppers such as cocaine, crack-cocaine and amphetamines including methamphetamine/crystal meth; 'Opiates' primarily included downers including both illicit and pharmaceutical opiates such as hydromorphone, heroin and fentanyl, but excluded references to OAT such as Suboxone or methadone; 'Benzodiazepines' primarily included Xanax and Valium, as well as other anti-anxiety and anti-depressants; 'Hallucinogens' primarily included party drugs such as MDMA, LSD, Ecstasy, mushrooms and GHB. 'Polysubstance' use included reference to using two or more categories of substances, as well as using speedballs (typically a combination of stimulants and opiates).

treatment services, medical professionals, pharmacies and medications, shelters and housing services, and food banks and food services.

3.2.1. Harm reduction services

The most commonly used services were harm reduction services (e.

g., supervised consumption services [SCS] and/or overdose prevention services [OPS], safer supply, needle exchange programs and mobile outreach services), with more than three-quarters (78%) of participants referencing their utilization during COVID-19. Among those, a small percentage (7%) identified positive changes, which largely revolved around select organizations offering additional services including greater access to sterile supplies for substance use.

However, more than half (53%) of participants who used harm reduction services identified negative changes in service delivery amid COVID-19. These negative changes included a major reduction in capacity and significant decreases in hours of operation:

“The hours have been reduced. It [a SCS] used to be open from 12 to 11 every day, and then the other site I use is open from 9:30 am till 8:00 at night, and now my site’s only open from 12 to 5 and the other site’s only open from 10 till 4. So like, you’ve only got a short window of time to use now.”

(Ontario Participant; Male, Age 34)

Most harm reduction programs had also reduced physical capacity in terms of the number of people allowed inside at any given time, which, coupled with additional screening requirements, subsequently increased the waiting period for participants to utilize these services:

“The problem is that all the overdose prevention sites that I go to, there are wait lists now for the service. So accessing actual OPS and SCS actual full injection rooms, the access is decreased because they have shut down a number of their booths for social distancing.”

(British Columbia Participant; Female, Age 36)

Also acknowledged were changes such as no physical contact between the participants and service providers, including the prohibition of assisted-injections. Some participants expressed that these changes were challenging, especially those who indicated they did not feel comfortable using alone and relied on these services to feel safe while using:

“And they’ve [SCS/OPS] stopped things like assisted-injections. So like sometimes if I can’t hit something [a vein], I’ll get like a friend to help me out, but they’ve stopped that. If I can’t get it myself, I’m out of luck.”

(Ontario Participant; Female, Age 23)

Additionally, participants described a lack of resources encountered at some harm reduction services. An increase in demand for sterile substance use equipment (e.g., syringes, etc.) during COVID-19 resulted in many services running out and/or placing a daily limit on the amount they could provide, rendering these important supplies hard to acquire and/or entirely inaccessible at times:

“No one came and brought new needles, and like it took about two to three weeks by the time someone came with the actual needles that I use ... and a lot of people in my area wanted them and then there was none available. And that’s never happened. COVID is the first time anything like this has ever happened.”

(Ontario Participant; Female, Age 23)

Some participants indicated that they commonly had to re-use and/or share their equipment due to the lack of supplies, which occasionally resulted in negative outcomes such as health complications (e.g., abscesses, infections, disease transmission, etc.):

“Yes, I’ve had to reuse needles way too many times. To the point where I bruised my skin, and I think I came close to getting an infection a couple of times...the places where I go to get paraphernalia are closed...there is some [mobile outreach services], but they are heavily reduced.”

(British Columbia Participant; Male, Age 43)

Lastly, participants described that the outright closures of some harm reduction services was detrimental to their health and well-being and had resulted in an inability to reduce their risk for experiencing harms, such as an overdose:

“A lot more overdoses started happening when they closed those places [SCS].”

(Ontario Participant; Male, Age 24)

3.2.2. Opioid agonist treatment (OAT) services

OAT services were another critical substance use-related service impacted by COVID-19, where 39% of participants referenced using OAT at some point during the pandemic. Nearly a third (30%) of OAT users expressed positive changes to the accessibility of OAT programs, including an ease in access to OAT prescriptions such as weekly dispensing in lieu of daily dispensing. Other beneficial changes included adaptations to the delivery of services, such as over-the-phone prescription renewals (via tele-medicine) and refills instead of daily in-person pickups, as well as a relaxation in requirements to receive extended take-home doses of OAT medication (i.e., ‘carries’), which are often contingent on clinic-based urinalysis screens. The switch from in-person to virtual OAT prescription renewals was more convenient for many participants since it obviated the need to commute to the clinic:

“My appointments are by phone now. It’s easier to adjust my dose... I just do it over the phone and they send a fax to my pharmacy... before, I’d have to go to the clinic, they’d have to do some tests, and then after that, like, they’d decide whether or not to increase it. And now, it’s really easier.”

(Quebec Participant; Male, Age 29)

A number of participants indicated that increased access to OAT ‘carries’ was advantageous, and such adaptations had been desired for a long time. Participants were therefore pleased that COVID-19 had been a catalyst for these important changes, particularly as they provided them with the stability they often desired:

“With regards to my methadone, I’m now allowed to get full weight carries, which has been really helpful. I have been actually able to reduce [my substance use], because I have actual control over it, having to take what I need, which has been really good.”

(Ontario Participant; Male, Age 49)

While these changes were perceived as positive, participants indicated that there was a lack of standardization across clinics, where many had not adapted their services to allow for ease of accessibility. As such, a large proportion (41%) of OAT users indicated negative changes to OAT provision during the pandemic, including the impression that virtual appointments resulted in a reduction in the frequency of communication and overall quality of service:

“Any interaction that I’ve been having with my substance doctor has been over the phone, and very rarely, so it’s definitely hard.”

(British Columbia Participant; Male, Age 43)

This lapse in communication was especially difficult for some participants who utilized their OAT physician as their primary doctor and relied on them for all health-related concerns and inquires such as referrals, signatures, or to examine any medical issues they were experiencing. Additionally, some participants disliked that they no longer had to provide urinalysis tests since they perceived that these tests provided necessary accountability. For some, the inability to provide urinalyses to hold them accountable therefore resulted in unintended consequences, such as an increase in substance use:

“With the fact that not seeing your doctor you didn’t have to do your pee test right? The thing I found that it was something that you sort of seem to take for granted a little bit, because I found myself using more often than I usually was. And so it just sort of shows that it really helps being able to have that, knowing that you’ve got to go and do a urine sample and stuff right?”

(British Columbia Participant; Male, Age 46)

A reduction in the hours of operation at many OAT clinics made it difficult to access treatment, and, at times, would result in participants’ inability to receive medication. Not receiving OAT for multiple days was therefore common, and missing three days or more of methadone was identified by participants as particularly problematic since it resulted in an automatic discontinuation of treatment, where participants would be required to re-start the induction process (i.e., redo bloodwork, urine tests, and have the doctor re-write prescriptions, often at a significantly reduced dosage). For some participants, discontinuing and/or starting the OAT induction process over again was voiced as frustrating as it affected tolerance levels and impeded any progress they had made towards reducing their substance use:

“I feel really shitty about it. I worked really hard to get my life back in order and now I feel like it’s slowly slipping back into shit.”

(Nova Scotia Participant; Female, Age 27)

3.2.3. Addictions counseling/self-help groups/drop-in services

Addictions counseling, drop-in programs and/or self-help groups such as ‘Smart Recovery’ or ‘Alcoholics Anonymous’ (AA) were other crucial services impacted, as discussed by 45% of participants. Nearly 10% of participants whom used these services noted positive changes, including an increase in service capacity and quality due to services adapting from in-person to online platforms.

However, the majority (66%) of participants who used addictions counseling, self-help groups and drop-in services indicated issues, such as being unable to access the internet and/or being unfamiliar with how to navigate virtual platforms. Some participants explained that these services were therefore inaccessible and they were not able to participate in them:

“So it’s just really frustrating because all of these groups have relocated online. Everything is online and the population that I work with doesn’t have access to any of that stuff... it’s just not accessible.”

(Ontario Participant; Female, Age 34)

Others explained that they felt uncomfortable participating in online group-based counseling and self-help groups, and expressed overall discomfort with this format, yet face-to-face meetings were mostly put on hold during COVID-19. Participants described that not being able to attend face-to-face counseling and self-help meetings was problematic since they considered these programs integral for reaching their substance use goals:

“Well I was attending a group like AA, a self-help group, and we’re not meeting anymore. And that was kind of helping me keeping my substance use either to the same, or trying to reduce it a little. I’m not really doing anything to make efforts to reduce my substance use... and I feel down, more depressed or whatever, because I’m not making any progress.”

(Ontario Participant; Male, Age 47)

Participants also detailed a reduction in access to addiction counselors and social workers, including a decrease in the frequency of meetings or issues contacting them. Some participants expressed that their counselors had been unresponsive since the pandemic started, which, for

some, had resulted in negative effects such as an increase in mental health issues, substance use, and even relapse:

“I’ve been trying to get a hold of my psychiatrist and I haven’t been able to. That’s part of the reason why I started using too, is because I could not, cannot, get a hold of my [addiction and mental health] counselor.”

(Ontario Participant; Female, Age 34)

Cutbacks to hours of operation and closures of drop-in programs resulted in accessibility issues for key resources and programming often provided within these services such as meals, showers, washrooms, clothing and food donations. Additionally, participants expressed that they could not exercise usual overdose prevention strategies since they no longer had anywhere to congregate after they had used substances (particularly around people they knew and where they felt safe). As such, the limited capacity of critical drop-in programs resulted in an increase in substance use and negative feelings, such as depression and isolation, as well as unaccompanied substance use due to an inability to practice risk mitigation behaviors.

3.2.4. Withdrawal management and treatment services

Approximately 16% of participants referenced the use of withdrawal management services (WMS or detoxification) and residential treatment services during COVID-19, none of whom mentioned any positive changes to accessibility. The majority (65%) of those using WMS or detoxification services described major accessibility issues. Many WMS had adapted to meet physical distancing requirements that obligated them to reduce the amount of beds available, as well as the number of clients allowed inside at any given time. These changes resulted in long wait-lists and many participants indicated they were unable to secure a bed since COVID-19:

“I usually don’t have any issues getting in [to a detox]. Usually I get in, like, within one or two days, but with this COVID, I put my name in a month ago and still waiting. They can only take so many people in now.”

(New Brunswick Participant; Female, Age 42)

Additionally, a few participants explained that they had been unable to access residential/inpatient treatment programs (e.g., rehabilitation) since the pandemic started. Inaccessibility to residential treatment was largely due to programs no longer accepting new patients. Some participants were placed on indefinite wait-lists and did not know if or when they would be accepted into treatment:

“I was hoping to go treatment this year, but because of COVID, everything’s cancelled. I can’t go. I was all set up to go to a 30 day program, and then a 6 month program, and now I can’t do anything... they emailed me and said everything’s cancelled because of COVID.”

(Ontario Participant; Male, Age 47)

3.2.5. Medical professionals

Over half (58%) of participants had utilized medical professionals and related services during COVID-19 (e.g., physicians, walk-in clinics, mental health doctors, etc.). Of those, a small percentage (9%) reported positive changes, mostly related to adaptations to the format of appointments (i.e., from in-person to remote) where some participants preferred these types of appointments and indicated they increased service availability and accessibility, and decreased wait times.

However, more than half (52%) of participants who accessed medical professionals reported difficulties doing so. Many participants expressed a reduction in the quality of care, including an inability to contact or see their doctor and/or difficulties receiving necessary

healthcare and/or prescriptions due to service fragmentation or miscommunication issues:

“I waited three hours to see my psychiatrist yesterday. And yet again, despite the three-hour wait, I was declined access to my meds one more time because you know somebody in [province name] support didn’t fax over the emergency approval.”

(Alberta Participant; gender non-binary, Age 38)

Many participants further cited closures of walk-in clinics and doctors’ offices, which resulted in negative outcomes such as increases in unattended mental and physical health concerns, as well as in substance use:

“I’m also diagnosed with ADHD too, so I also get prescription amphetamines as well through a psychiatrist and I haven’t even been able to get those renewed or whatnot through my psychiatrist because I can’t even get an appointment. So therefore, it’s forcing me now to use more street drugs, you know what I mean?”

(Ontario Participant; Male, Age 43)

3.2.6. Pharmacies and medications

Many (63%) participants indicated they had accessed a pharmacy for medications during COVID-19. Of those, a select few (13%) reported positive changes, mostly related to the provision of extended prescriptions (i.e., multiple refills at a time, or an ‘emergency’ supply) and/or the implementation of home delivery options in order to mitigate the risk of virus exposure. Immunocompromised participants considered these changes especially beneficial:

“They [the pharmacy] do home deliveries and that now. Which is convenient. As long as I can tuck away and hide from people. I have COPD and asthma. So I’m definitely one of the most vulnerable part of the population, so I avoid people at all costs. I don’t want to die.”

(Alberta Participant; Female, Age 55)

However, not all pharmacies offered these services, and a quarter (25%) of participants who accessed pharmacies indicated negative changes such as a significant reduction in hours of operation and in medication supply (including instances where pharmacies ran out of essential medications entirely). Reductions in pharmacy accessibility and medication availability resulted in participants having to visit their pharmacy more frequently, placing them at a higher risk for COVID-19 exposure:

“I have to attend the pharmacy every day and I get enough for that day only, and then I have to attend again the following day, seven days a week. So I feel that puts me more at risk.”

(Ontario Participant; Male, Age 47)

3.2.7. Shelters and housing services

Over one-fifth (21%) of participants mentioned the utilization of shelters and housing services during COVID-19. Among those, just over a quarter (27%) expressed positive changes, primarily related to the implementation of temporary ‘pop-up’ shelters and alternative housing supports (e.g., within hotels, etc.). These temporary housing solutions had become available in many jurisdictions to accommodate homeless and street-entrenched people so that they could self-isolate and physically distance:

“Pop up shelters started happening around the city. Which were able to take in other people that were being shifted out from the other shelters, so I was a lucky customer of one of the shelters that been funded by the government...Right now, we’re being put up in a hotel.”

(Nova Scotia Participant; Male, Age 35)

Nonetheless, not every jurisdiction or city provided temporary shelters, and many permanent shelters either closed or underwent significant operational changes such as limits on capacity, resources, and programs offered which negatively impacted participants’ ability to self-isolate. Most (66%) participants who had accessed shelters and housing services detailed that these operational changes had resulted in a decrease in accessibility, acknowledging that certain programs had stopped running. Physical distancing requirements meant that many participants were unable to access a shelter during the pandemic, or were forced to self-isolate alone in their rooms, leaving them vulnerable to substance use risks:

“They only have so many rooms and they’ll only allow one person per room right now. So like yeah, and they don’t do emergency beds anymore or anything, so there’s just no getting in really.”

(British Columbia Participant; Female, Age 45)

3.2.8. Food banks and food Services

Lastly, nearly half (49%) of participants reported accessing food banks and food services (e.g., soup kitchens, etc.) during COVID-19. One-fifth (20%) of whom detailed positive changes, such as food services no longer requiring identification, utilizing ‘walk-up windows’ or other modalities which decreased wait times (e.g., mobile outreach), providing more food at a time, and/or establishing home delivery options; all of which increased access to food.

However, quite a few (40%) participants who used food services detailed accessibility issues, such as the addition of screening and physical distancing measures, or requirements to make appointments prior to picking up food:

“Food banks are hard to do too because you have to call it in, and you can be waiting hours on the phone to speak to someone. I’ve tried that already and I couldn’t even get through and I gave up.”

(Ontario Participant; Female, Age 40)

Other capacity issues such as a significant reduction in the amount of food provided at a given time, or limitations on the frequency within which participants could acquire food, were also noted. These issues resulted in a decrease in food availability:

“Well we used to occasionally go to the [food service name] for breakfast, lunch and supper. And so, they no longer serve the three community meals... it used to be three meals a day, and now they have one meal.”

(Ontario Participant; Male, Age 52)

Importantly, participants commonly cited complete closures of food banks and food services such as community meal programs. Participants explained that these closures were extremely problematic since many relied on food services as their primary source of food. As a result, many participants discussed experiencing food insecurity during COVID-19, acknowledging that they had resorted to stealing food, or money to buy food, as well as stating that they had gone days without food. For some, not being able to access food resulted in an increase in substance use to suppress their appetite:

“Because there’s no places to go and no food. There’s nowhere to go and get warm, like you can’t go and have a coffee somewhere and you’re constantly hungry. So, it’s the drugs take care of that, right? I’m fucking starving, I have been ever since it started. I lost like, fuck, another 20 pounds on top of the 50 that I lost from being homeless. It’s a suppressive, right, takes all the pain away.”

(British Columbia Participant; Male, Age 49)

4. Discussion

This study critically examined service changes and subsequent effects on PWUD's accessibility in light of the COVID-19 pandemic. Most participants detailed detrimental accessibility issues and treatment disruptions, which placed them at an increased risk to experience negative health effects. For instance, the implementation of public health guidelines to close non-essential services and/or require adaptations for physical distancing led to significant reductions in capacity, hours of operation, and outright closures of harm reduction services. These outcomes resulted in an inability for PWUD to receive resources and supports they needed and rely on such as sterile equipment and/or somewhere to safely use their substances (e.g., SCS/OPS, drop-in programs, etc.) which would mitigate risks related to using alone (including fatal overdoses). The inability of PWUD to access necessary harm reduction services has therefore led to concerns about the collision of both the COVID-19 pandemic and the opioid overdose epidemic (Becker & Fiellin, 2020). Additionally, PWUD may have difficulties abiding by conflicting requirements to self-isolate and/or physically distance from others, while at the same time avoid using substances alone as an overdose prevention strategy. Preliminary studies (globally and within Canada) revealed that PWUD have been experiencing worse outcomes since COVID-19, including overdoses and an increased risk for substance use disorders, compounded by a high burden of multi-morbidity (Dubey et al., 2020; EMCDDA, 2020a, 2020b, 2020c; Mallet et al., 2020). As such, programs that support safer substance use among PWUD, such as harm reduction services, are integral during COVID-19 and must remain operational as a reduction in the capacity of these programs may exacerbate existing issues PWUD are facing (Becker & Fiellin, 2020; Moe & Buxton, 2020).

As our results highlighted, many PWUD experienced treatment and medication disruptions and discontinuations – including the inaccessibility of medical professionals and addiction specialists – which contributed to problems receiving necessary support and prescriptions (psychiatric, OAT, etc.). Recognizing this, studies have called for the continuity of treatment for PWUD during the pandemic, particularly for those engaged in OAT (Alexander et al., 2020; Crowley & Delargy, 2020; Sun et al., 2020; Wilson et al., 2020). For instance, Health Canada provided 'temporary exemptions' to the *Controlled Drugs and Substances Act* which allowed pharmacists to deliver OAT to patients during COVID-19 (Institute for Safe Medication Practices Canada (ISMP), 2020). Additionally, in order to decrease the number of pharmacy visits, organizations proposed significant changes to prescribing practices for OAT to allow eligible participants (i.e., those at high risk for COVID-19) to receive unwitnessed 'take-home' doses ('carries') of pharmaceutical opioids. The justification for loosening OAT prescription guidelines was to provide an alternative to care provision which would balance the needs of the patient against requirements to self-isolate (British Columbia Centre on Substance Use (BCCSU), 2020; Lam et al., 2020). These changes included a de-emphasis on the need for urinalysis tests as a contingency management practice and the allowance of remote patient assessments (either online or over the phone). Many PWUD perceived these adaptations as positive since it allowed them to stabilize their routines (including no longer needing to travel as frequently to pick up their OAT medication), self-isolate/socially distance, and subsequently decrease their substance use. Studies have therefore argued that these critical changes remain not just during the duration of the pandemic, but in perpetuity (Davis & Samuels, 2020; Green et al., 2020; Samuels et al., 2020).

In order to attain optimal treatment success – particularly during a global pandemic – it is imperative that services are tailored to meet the diverse needs and preferences of PWUD, which is why both in-person appointments as well as low-barrier options that reduce the need for daily clinic or pharmacy visits remain available. Potential suggestions for low-barrier and/or tailored OAT options include shortening prescription refill windows (Alexander et al., 2020), providing mobile OAT

delivery to hard-to-reach (including rural) or immunocompromised patients (Wenzel & Fishman, 2021), utilizing longer-acting and alternative OAT formulations (such as extended-release injectable buprenorphine) (Alexander et al., 2020; Mallet et al., 2020), as well as remote management of OAT inductions and treatment (Bruneau et al., 2020; Knopf, 2020). Relying on addiction telemedicine and leveraging technology to optimize OAT provision has shown success outside pandemic contexts (Harris et al., 2020; Leppla & Gross, 2020; Lin et al., 2019; Samuels et al., 2020).

While continued access to substance use support and treatment is crucial, COVID-19 has also highlighted the importance of the social determinants of health, including the need for PWUD to have seamless and consistent access to necessities such as clothing, shelter/housing and food services. While inadequate access to housing and food are issues historically faced by PWUD (Fleming et al., 2019; Miewald et al., 2019; Wusinich et al., 2019), changes to these services in light of COVID-19 have aggravated related risk factors as well as longstanding access barriers, such as capacity problems. These issues have ultimately led to an increase in food insecurity and difficulties self-isolating (CCSA, 2020d). Emergent literature has highlighted how COVID-19 has further exposed socioeconomic disparities including access to food and ability to afford and secure housing, with studies suggesting more people have experienced difficulties meeting basic needs than ever before (Leddy et al., 2020; Nicola et al., 2020; Tucker et al., 2020). As such, approaches to providing food and shelter to those in need should be re-evaluated in light of COVID-19 with a focus on increasing availability, accessibility and appropriateness (Perri et al., 2020). Recommendations that should be considered include the provision of nutritionally adequate and safe foods via food delivery services, or offering food at harm reduction services and other places PWUD frequently access (e.g., drop-in programs) (Chang et al., 2020; Doran et al., 2020; McLinden et al., 2020; Nicola et al., 2020). In terms of housing, PWUD indicated that temporary pop-up shelters were integral for self-isolation and receiving the support needed to manage their substance use. Recognizing these challenges, some jurisdictions converted empty hotels into temporary pop-up shelters, complete with wrap-around services and COVID-19 testing and mitigation strategies, in order for vulnerable PWUD to have the ability to reduce their risk for health and drug use harms during COVID-19 (Koziel et al., 2020; Jozaghi et al., 2020). However, these adaptations were not standardly implemented in every jurisdiction, and many PWUD experienced aggravated access issues (Hyshka et al., 2020). As such, greater and sustained access to housing options are required, particularly as it has been associated with stability and positive outcomes for PWUD (Fitzpatrick-Lewis et al., 2011). Increasing the capacity of the housing system to allow for safe physical distancing, such as enlarging shelter spaces and creating multiple temporary housing and isolation sites are all suggestions that should be examined (Perri et al., 2020).

The unprecedented disruptions in treatment and significant access issues for critical substance use, mental health, and social support services have left PWUD vulnerable to experiencing unintended negative effects such as fluctuations in tolerance levels and substance use behaviors, increased withdrawal symptoms and overdose events, worse physical and mental health outcomes, and greater risk for virus exposure. These issues underscore the need for uninterrupted access to treatment and support services, and serve as a clear indication that a reduction in capacity of these services is not adequate to address PWUD's needs. Not only must these services remain open, but they must scale-up their resources and provide ongoing access through novel approaches such as support from other PWUD and mobile outreach/delivery options. These approaches would work towards mitigating both virus exposure as well as adverse effects related to insufficient service access (Broad et al., 2020; Karamouzian et al., 2020; Wagner et al., 2020). Additionally, telemedicine and other remote technology options should be bolstered and utilized where appropriate in order to connect PWUD to physicians and addiction/mental health clinicians and

counselors. In order to enhance and broaden social supports, these specialists should also attempt to engage PWUD's family, friends, and peers (Bruneau et al., 2020; Galea et al., 2020; Kopelovich et al., 2020; Moreno et al., 2020). With this in mind, CRISM recently produced a number of guidance documents to ensure that services PWUD utilize (such as harm reduction, shelters, OAT, acute care settings, and residential treatment programs) can continue to operate while protecting both service providers and clients (Brar et al., 2020; Bruneau et al., 2020; Cooksey et al., 2020; Dong et al., 2020; Elton-Marshall et al., 2020; Hyshka et al., 2020). It is therefore crucial that the depth and breadth of service support options are expanded, and that services PWUD utilize remain flexible to their unique needs while providing innovative responses which aim to address the barriers to service access experienced during COVID-19.

4.1. Strengths and limitations

The data gleaned from this study was based on a national sample of PWUD, and undoubtedly contributes to the literature on the impacts of COVID-19, particularly as it relates to vulnerable populations. However, limitations should be noted. Sample sizes within some of the provinces (Manitoba, Saskatchewan, New Brunswick and Newfoundland/Labrador) were particularly small, prohibiting an examination of provincial differences. However, the study did include respondents across most of the provinces. Data was informed by semi-structured interviews and self-reported responses, and was based on a cross-sectional design. Thus, not every question was relevant for every participant, and responses may be subject to recall and social desirability biases. Additionally, responses were provided over a number of months, which may reflect time-specific changes and experiences. The concerns and issues expressed by participants may also differ from the larger PWUD community. As such, our results may not offer a comprehensive account of experiences and concerns of the impacts of COVID-19 among PWUD.

4.2. Conclusions

COVID-19 has disproportionately affected PWUD who are currently experiencing the brunt of dual epidemics, and the combined risk these may pose to their wellbeing. Exacerbating these issues, services that PWUD rely on for support and to mitigate risks related to substance use have reduced their capacity and/or outright closed during this time. Accessibility issues have aggravated existent challenges, and ultimately increased PWUD's risk for experiencing adverse effects related to substance use. However, the pandemic has created a window of opportunity to meaningfully work with PWUD to reassess their needs and prioritize accordingly, including weighing the public health-related harms and benefits of reducing access to critical programs that PWUD rely on (Schlosser & Harris, 2020). During this unprecedented time, it is imperative that PWUD's diverse needs remain in consideration and are effectively addressed.

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Availability of data and materials

The datasets generated and/or analysed during the current study are not publicly available due to the inclusion of personal identifying information, but a de-identified dataset can be made available from the corresponding author on reasonable request.

CRedit authorship contribution statement

CR Conceptualization; Methodology; Resources; Project Administration; Investigation; Data Curation; Formal Analysis; Visualization; Writing – Original Draft; Writing – Review and Editing.

FA Conceptualization; Methodology; Resources; Project Administration; Investigation; Data Curation; Formal Analysis; Visualization; Writing – Original Draft; Writing – Review and Editing.

FN Data curation; Formal Analysis; Visualization; Writing – Review and Editing.

JR Conceptualization; Funding Acquisition; Resources; Supervision; Visualization; Writing – review and editing.

SL Methodology; Resources; Visualization; Writing – Review and Editing.

TEM Conceptualization; Funding Acquisition; Resources; Supervision; Visualization; Writing – review and editing.

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Declaration of competing interest

None.

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