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PEER WORKER INVOLVEMENT IN LOW-THRESHOLD SUPERVISED CONSUMPTION FACILITIES IN THE CONTEXT OF AN OVERDOSE EPIDEMIC IN VANCOUVER, CANADA

Mary Clare Kennedy[1,2], **Jade Boyd**[1,3], **Samara Mayer**[1], **Alexandra Collins**[1,4], **Thomas Kerr**[1,3], and **Ryan McNeil**[1,3]

[1]British Columbia Centre on Substance Use, 400-1045 Howe Street, Vancouver, BC, CANADA, V6Z 2A9

[2]School of Population and Public Health, University of British Columbia, 2206 E Mall, Vancouver, BC, CANADA, V6T 1Z3

[3]Department of Medicine, University of British Columbia, St. Paul's Hospital, 400-1045 Howe Street, Vancouver, BC, CANADA, V6Z 2A9

[4]Faculty of Health Sciences, Simon Fraser University, Blusson Hall, Room 11300, 8888 University Drive, Burnaby, BC, CANADA, V5A 1S6

Abstract

Overdose prevention sites (OPS) are a form of supervised consumption facility that have been implemented in Vancouver, Canada as an innovative response to an ongoing overdose epidemic. OPS are primarily staffed by peers – people who use(d) drugs (PWUD) – trained in overdose response. We sought to characterize peer worker involvement in OPS programming, including how this shapes service dynamics and health outcomes among PWUD. Data were drawn from a rapid ethnographic study examining the implementation, operations and impacts of OPS in Vancouver from December 2016 to April 2017. We conducted approximately 185 hours of observational fieldwork at OPS and 72 in-depth qualitative interviews with PWUD. Data were analyzed thematically, with a focus on peer worker involvement at OPS and related outcomes. OPS implementation and operations depended on peer worker involvement and thus allowed for recognition of capacities developed through roles that peers were already undertaking through local programming for PWUD. Peer involvement at OPS enhanced feelings of comfort and facilitated engagement with OPS among PWUD. These dynamics and appreciation of peer worker expertise enabled communication with staff in ways that fostered harm reduction practices and

Send correspondence to: Ryan McNeil, PhD, Research Scientist, British Columbia Centre on, Substance Use, Assistant Professor, Department of Medicine, University of British Columbia, 400-1045 Howe Street, Vancouver, BC, Canada, V6Z 2A9, **Tel:** 604-354-5803, **Fax:** 604-428-5183, bccsu-rm@bccsu.ubc.ca.

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promoted health benefits. However, many peer workers received minimal financial compensation and experienced considerable grief due to the emotional toll of the epidemic and lack of supports, which contributed to staff burnout. Our findings illustrate the specific contributions of task shifting OPS service delivery to peer workers, including how this can enhance service engagement and promote the reduction of harms among PWUD. Amidst an ongoing overdose epidemic, expanding formalized peer worker involvement in supervised consumption programming may help to mitigate overdose-related harms, particularly in settings where peers are actively involved in existing programming. However, efforts are needed to ensure that peer workers receive adequate financial support and workplace benefits to promote the sustainability of this approach.

Keywords

supervised consumption facilities; supervised injection facilities; overdose prevention sites; overdose; peers; people who use drugs; rapid ethnography; Canada; task shifting

INTRODUCTION

Communities across North America are contending with ongoing epidemics of overdose death, driven largely by the adulteration of drug supplies with illicitly-manufactured fentanyl and related analogues (Health Canada, 2018a; National Institute on Drug Abuse, 2018). In 2017, there were an estimated 72,000 overdose deaths in the United States (U.S.), almost 30,000 of which involved the use of non-methadone synthetic opioids such as fentanyl and its analogues (National Institute on Drug Abuse, 2018). In Canada, there were almost 4,000 opioid-related deaths in 2017, 72% of which involved fentanyl or fentanyl analogues (Health Canada, 2018a).

In effort to address this ongoing public health crisis, a number of overdose response interventions have been implemented or scaled up in North America in recent years (Nadelmann & LaSalle, 2017; Wood, 2018). For example, cities across Canada have increasingly opened supervised consumption facilities (SCFs), where individuals can consume pre-obtained drugs under the supervision of healthcare professionals or trained staff (Health Canada, 2018b; Kerr et al., 2017). Momentum is also growing for the establishment of SCFs in several jurisdictions in the U.S., including San Francisco, Seattle, New York City, and Philadelphia (Davidson et al., 2018; Kennedy & Kerr, 2017; Winfield Cunningham, 2018), and an unsanctioned SCF is presently operating in an undisclosed urban location in the U.S. (Davidson et al., 2018).

While a large body of evidence has demonstrated the role of SCFs in reducing various drug-related risks and harms, including fatal overdose, most research in this area has focused on SCFs operated by health professionals (Kennedy et al., 2017; Kerr et al., 2017; Potier et al., 2014). Comparatively less research attention has been paid to SCF programming delivered by peers (i.e., people who use(d) drugs). This dearth of evidence is due in large part to regulations that have prohibited the legal establishment of peer-run SCFs in many settings worldwide (BC Centre on Substance Use, 2018; Belackova et al., 2017; Kennedy et al., 2017; Woods, 2014). For example, in Canada, federally-sanctioned SCFs are governed by regulations under section 56 of the Controlled Drugs and Substances Act stipulating that

only licensed healthcare professionals may supervise injections (BC Centre on Substance Use, 2018). Thus, at SCFs such as Insite, Canada's first sanctioned SCF that has been operating in Vancouver since September 2003, peer involvement has been largely limited to the role of peer support workers, who provide support counselling and information on local services (e.g., treatment and harm reduction programs) to clients in an on-site "chill out" room outside of the area where the supervision of injections occurs (BC Centre on Substance Use, 2018).

While social-structural obstacles to peer engagement in SCFs persist, numerous studies have illustrated the value of peer-based harm reduction initiatives, including syringe exchange, safer assisted injecting and overdose response interventions, in engaging and reducing harms among higher risk subpopulations of people who use drugs (PWUD) (Bardwell et al., 2018b; Greer et al., 2016; Hayashi et al., 2010; Sherman et al., 2008; Small et al., 2012; Ti et al., 2012). For example, an evaluation of a peer-based overdose response training and naloxone distribution programme in Chicago found that this was an effective strategy to reduce overdose-related harms, particularly given that this training (including naloxone administration) was subsequently utilized in response to an overdose event by the majority of those trained (Sherman et al., 2008). Similarly, an evaluation of a peer-run outreach-based syringe exchange programme in Vancouver found that this service effectively reached subgroups of PWUD who often face barriers to accessing conventional syringe exchange programmes, and that users of this service were less likely to reuse syringes compared to non-users (Hayashi et al., 2010). In addition, studies undertaken in various settings have demonstrated how peer-led outreach and support services may promote utilization of addiction treatment (Bassuk et al., 2016; Deering et al., 2011), as well as infectious disease prevention, testing and counselling services among PWUD (Broadhead et al., 2002; Deering et al., 2009; Needle et al., 2005; Ti et al., 2013).

There is also increasing evidence of the feasibility, acceptability and positive health impacts of peer-run SCFs (Bergamo et al., 2018; Boyd et al., 2018; Kerr et al., 2005; Kerr et al., 2003; McNeil et al., 2015; McNeil et al., 2014). For example, in a previous feasibility study, some subpopulations of PWUD in Vancouver indicated a strong preference for peer-run SCF models over facilities operated by health professionals (Kerr et al., 2003). Further, evaluations of unsanctioned peer-run SCFs in Vancouver have found these to be well utilized by PWUD, including structurally vulnerable drug-using populations (McNeil et al., 2015, 2014). Indeed, such unsanctioned SCFs have been found to effectively engage individuals who inhale drugs and those who require manual assistance with injections, subpopulations who often encounter barriers in accessing federally-sanctioned SCFs in Vancouver due to federal regulations that prohibit drug inhalation and staff administration of assisted injections (McNeil et al., 2015, 2014). Peer-based SCFs have also been found to play a role in mitigating drug-related risks and harms among these subpopulations of PWUD (McNeil et al., 2015, 2014). For example, a qualitative study of people who smoke crack cocaine in Vancouver illustrated how an unsanctioned peer-run safer smoking room reshaped social-environmental contexts of drug use to minimize exposure to drug scene violence and reduce potential for unsafe smoking practices (e.g., crack pipe sharing) and related harms (McNeil et al., 2015). However, little is known about peer engagement in SCF programming,

including how this may shape service dynamics and related health and social outcomes, such as overdose-related risks and harms, among PWUD.

The Canadian province of British Columbia (BC) has experienced particularly heightened rates of overdose death in recent years. Between 2014 and 2017, the annual fatal overdose rate in BC increased from 7.9 to 30.9 per 100,000 population, prompting the provincial government to declare a public health emergency in April 2016 (BC Coroners Service, 2018). In response, various harm reduction strategies have been implemented or expanded in BC, particularly in Vancouver's Downtown Eastside, a neighbourhood with a large open drug scene and high levels of poverty and homelessness, but also a history of drug user-led activism (BC Ministry of Health and Addictions, 2018; Boyd et al., 2009; Kerr et al., 2017). Much of the response to the overdose epidemic in this neighbourhood has been spearheaded by peers involved in collective action initiatives and harm reduction programming delivered as part of the public health system and established peer-based drug user organizations in the Downtown Eastside (Bardwell et al., 2018b; BC Ministry of Health and Addictions, 2018; Boyd et al., 2018; Jozaghi et al., 2018; Kerr et al., 2017). For example, peers have led the development and implementation of interventions such as naloxone training, distribution and response initiatives, as well as unsanctioned SCFs, including "pop-up" SCF tents that were erected in the Downtown Eastside beginning in September 2016 (Boyd et al., 2018; Kerr et al., 2017).

Such efforts stem from a long history of peer-led grass-roots collective action initiatives in the city (Kerr et al., 2017). For example, local activists and PWUD opened and operated an unsanctioned SCF, known as the "327 Carrall Street" SCF, for approximately six months beginning in April 2003 when delays prevented the opening of Insite (Kerr et al., 2005). Additionally, the Vancouver Area Network of Drug Users (VANDU), a peer-led organization that is internationally recognized for its advocacy efforts, public education, and implementation of novel peer-run interventions, was actively involved in efforts to sanction Insite, and has also played a critical role in innovating and extending the coverage of local supervised consumption programming since the establishment of the facility (Kerr et al., 2006, 2017; McNeil et al., 2015, 2014). Of particular importance, VANDU operated in its offices the peer-run unsanctioned SCFs described above where individuals could get manual assistance with injections and inhale drugs (McNeil et al., 2015, 2014).

In December 2016, the BC Minister of Health issued a ministerial order to support the immediate implementation of low-threshold SCFs, known as overdose prevention sites (OPS), in BC (Collins et al., 2018; Kerr et al., 2017). Of note, several unsanctioned peer-run SCFs were subsequently sanctioned as OPS upon the enactment of this provincial order (Boyd et al., 2018; Kerr et al., 2017). To date, a total of twenty-four OPS have been implemented in communities throughout the province, six of which are located in Vancouver (International Network of Drug Consumption Rooms, 2018; Pivot Legal Society, 2018; Vancouver Coastal Health, 2018). No overdose deaths have occurred in any of these facilities (BC Coroners Service, 2018).

OPS are distinct from conventional SCFs in Canada in that these are operating on a temporary basis in response to the overdose epidemic and have not received exemptions

from federal drug laws (Boyd et al., 2018; Collins et al., 2018; Kerr et al., 2017). OPS also tend to be simpler in physical design – with many integrated into existing health, housing and community organizations that serve drug-using populations – and often do not offer the same extent of services (e.g., clinical care, formal referrals to treatment) as federally-sanctioned SCFs (Boyd et al., 2018; Kerr et al., 2017). As well, OPS are considered to be lower threshold than federally-sanctioned SCFs given that these were implemented in the context of a public health emergency and sought to minimize barriers to service access, including by accommodating drug use practices (e.g., assisted injection, drug sharing) that are not permitted at federally-sanctioned SCFs under the parameters of exemptions to federal drug laws (Boyd et al., 2018; Collins et al., 2018; Kerr et al., 2017). An additional notable distinction is that, in contrast to federally-sanctioned SCFs, OPS are primarily staffed by peer workers and volunteers who manage service operations, supervise injections, and provide emergency response in the event of overdose (Boyd et al., 2018; Kerr et al., 2017). These peer workers receive training in first aid and overdose response (including naloxone administration), as needed, and typically work shifts of four to five hours in duration. Information on service-level characteristics, including staffing models, of OPS in the Downtown Eastside is shown in Table 1.

In the present study, we sought to extend existing research by drawing on rapid ethnographic fieldwork undertaken in Vancouver, Canada to characterize peer involvement in OPS programming, including how this shapes dynamics of service engagement and related health and social outcomes among PWUD in the context of an overdose epidemic. Given that SCFs and OPS are increasingly being established in communities across Canada as part of the response to the overdose epidemic (Health Canada, 2018b; Kerr et al., 2017), this study may provide important evidence to inform the ongoing development and optimization of such services.

METHODS

We draw upon data from a rapid ethnographic study examining the implementation, operations, and impacts of OPS in Vancouver's Downtown Eastside neighbourhood. Rapid ethnography harnesses researchers' familiarity with the specific context under investigation to collect data through intensive ethnographic fieldwork, including observation and interviews, conducted within a short time frame (Handwerker, 2001). This approach has previously been employed in the study of complex public health emergencies (Johnson & Vindrola-Padros, 2017).

Between December 2016 and April 2017, two members of the research team (JB, RM) conducted approximately 185 hours of observational fieldwork at four OPS in the Downtown Eastside. Fieldnotes were recorded in a research log following observation sessions and detailed the operational contexts of OPS, including peer worker interactions. In addition, in-depth qualitative interviews were conducted with 72 PWUD who were recruited from four OPS by the ethnographers or one of two peer researchers (i.e., team members with research training who currently use or formerly used drugs). Individuals who were accessing services at a local OPS were eligible to participate in an interview. We sought to recruit a heterogenous sample of participants based on socio-demographic characteristics (including

gender, age and ancestry). We also aimed to recruit a sufficient number of participants from each of the four OPS in effort to understand dynamics operating within each individual site. Eligible participants were interviewed either on-site at an OPS or at the nearby research office by one of six research team members who had prior training and experience in qualitative interviewing. An interview topic guide that included questions on a range of topics related to the overdose epidemic and OPS services, including peer involvement at OPS, was used to facilitate discussion during interviews. Interviews ranged from approximately 45 to 60 minutes in duration, were audio recorded and transcribed verbatim. An online pseudonym generator was used to assign pseudonyms to participants. All participants provided informed consent prior to their interview and received a $30 CAD honourarium upon completion of an interview. The study was approved by the Providence Health Care/University of British Columbia Research Ethics Board.

Of the 72 interviewed PWUD, 40 were women and 64 were presently unstably housed (i.e., homeless, having no fixed address or living in a single room occupancy hotel or shelter). Approximately one in six interviewed PWUD reported past or current involvement in the implementation or delivery of OPS services in Vancouver, and team members (JB, RM) spoke extensively with peer workers during ethnographic fieldwork. Characteristics of interviewed participants are presented in Table 2.

Data were analyzed thematically using deductive and inductive methods (Bradley et al., 2007). Specifically, we developed a preliminary coding framework that drew on *a priori* categories drawn from the interview topic guide and our ethnographic fieldnotes, such as perspectives on peer workers, facilitators to accessing OPS, and barriers to accessing OPS. We also included emerging themes identified by research team members at regular meetings held during our fieldwork, such as peer roles in OPS implementation and operations, and challenges for peer workers. Data were imported into NVivo qualitative data analysis software program to facilitate data management and were coded thematically by multiple team members using an inductive and iterative process. Our team met regularly during the coding process to further refine the coding framework until the final thematic categories were established, and also solicited feedback from OPS workers and community members in the Downtown Eastside during presentations.

RESULTS

OPS implementation and operations drew on existing community capacities

Our findings illustrate that peer involvement in OPS implementation and operations was in many ways an extension of the roles that peers were already undertaking in the community in response to the overdose epidemic. For example, most interviewed participants who worked at OPS and peer workers encountered during ethnographic fieldwork had previously received training in overdose response, including naloxone administration, through local organizations that serve drug-using populations. In addition, community capacity to open and operate OPS was largely developed through the active participation of peers engaged in drug user advocacy programming and collective action initiatives in the Downtown Eastside, as well as through peer-based harm reduction programs delivered as part of the public health system. Specifically, participants working at OPS commonly reported past or current

participation in interventions such as unsanctioned SCFs, overdose response alley patrols and naloxone training and distribution initiatives. As explained by Kevin, a 51 year-old white man:

> *I took the* [overdose response] *training at* [drug user organization] *and I was one – I'm one of the supervisors at* [an OPS] *now and I was* with [drug user organization] *when we were patrolling the alleys too*.

As a result of their overdose response training and active involvement within existing peer-run organizations and harm reduction programming in the Downtown Eastside, peers were equipped with the critical competencies needed to rapidly implement and operate OPS in the community. Moreover, during our ethnographic fieldwork, it was apparent that the experiences of peers within local drug user organizations and peer-based initiatives were crucial in positioning these individuals to occupy leadership roles in this critical part of the overdose response. For example, Julie, a 51-year old Indigenous woman with a longstanding history of involvement in peer-led initiatives, described her participation in the implementation of an unsanctioned SCF in the Downtown Eastside that was later sanctioned as an OPS:

> Because so many people were ODing in our markets, and in the alley behind our markets. So then we did something about it… I'm part of the beginning of that opening up.

In addition, peers, most of whom were actively engaged in leadership roles in existing local peer-based programming for PWUD, were largely tasked with the responsibility of establishing new OPS after the BC Health Minister issued the ministerial order to immediately open these services. For example, Abigail, a 60 year-old Indigenous woman, described how she and other peers involved in a local drug user organization acted quickly to fulfill the request of the local health authority to develop and open an on-site OPS with limited notice:

> It was a great big thing, so like we were talking for hours, you know…Then we had extra meetings just to see what we can do, how we're going to do it… We had 24 hours to open up the room, and that was that.

As noted above, OPS were not subject to the same structural constraints as federally-sanctioned SCFs, including federal regulations that prohibit peers from working in drug consumption rooms, and were therefore able to provide greater opportunities for the direct involvement of peers in core service operations and delivery. As Mark, a 53 year-old Black man, articulated:

> *There's no people from the community in management* [at Insite], right? There's no people from the community in there, period, like except in the chill room pouring coffee. And that alone shows me the disdain that you have towards people in this community, right? So just on that – just on that very premise, that's night and day to me, right? Where you come here [to an OPS] and it's peer-run, you have people from the community in every level of the hierarchy here.

Although women peer workers were often involved in high level operations of OPS, we observed in our ethnographic fieldwork that individuals who led the day-to-day service

operations for OPS were more often men. These circumstances increased the potential for reproducing some gender dynamics that adversely impacted women, which we have examined elsewhere (Boyd et al., 2018).

Peer workers fostering environments of comfort and safety at OPS

Involvement of people with lived experience as workers at OPS was commonly described by participants as providing a "*good sense of community*" that fostered a safe environment for PWUD characterized by comfort and inclusivity. Indeed, many OPS client participants emphasized during interviews and ethnographic fieldwork that peer workers were empathic to their life circumstances and needs due to their shared lived experience related to drug use and broader structural vulnerabilities (e.g., poverty, housing instability):

> *Because they're addicts like us, you know, from the same lifestyle, you know. And they've been in our shoes many times over and they've been walking down the road we're walking down right now.* (Jeremy, Indigenous man, age 42)

A few interviewed OPS clients reported feeling less confident in the ability of peer workers to effectively respond to overdose events at OPS in comparison to healthcare professionals given that peer workers typically had less education and training in this area:

> *A street person only knows so much. They're not very educated when it comes to, you know, bringing a person back. Like did they get the training? No. That could cost a life*. (Leslie, 56 year-old white woman)

However, it is notable that peer workers successfully responded to all overdoses observed during our fieldwork despite challenges in identifying fentanyl-related overdoses (see Mayer et al., 2018) and no fatal overdoses have occurred at OPS (BC Coroners Service, 2018). Moreover, most interviewed OPS clients emphasized that peer workers were well trained in overdose response and responded effectively to overdoses occurring at OPS:

> *Yeah, as soon as somebody* [overdoses] – *this person needs help – and they're on their feet, ready, and already beside the person, which I like. …Insite does that too but I see more reaction in the trailer* [OPS]. *These people on the street, they look after each other. They do care… It's saved a lot of lives.* (Paul, 55 year-old Indigenous man)

In addition, many participants emphasized that peer workers had unique and relevant experiential knowledge, including drug-related expertise, that was critical to providing appropriate and effective services for PWUD. Dean, a 53 year-old white man, explained:

> Because why send in people that don't – haven't been there, and don't have knowledge of it? Like if you've never done dope, how can you sit there and tell someone like me, that's been a heroin addict for 30, 40 years, what it does to me and what it doesn't?

This expertise of peer workers was often described in participant interviews as fostering feelings of safety among OPS clients, particularly in relation to overdose response: "*I feel very safe…because they're users themselves, and so they know what to do in an emergency*" (Emily, Indigenous woman, age 25).

Participant accounts indicated that the expertise and lived experience of peer workers also enhanced feelings of comfort among PWUD at OPS because "*the level of trust* [was] *already there*." Specifically, interviewed participants characterized interactions with peer workers as generally more equitable and less intimidating and stigmatizing than interactions with non-peer staff at other organizations given that peers were more understanding of their social positions and experiences. These dynamics served to promote open communication and the development of more intimate personal relationships between OPS clients with peer workers, particularly in comparison to interactions with healthcare professionals. Jacob, a 23 year-old white man, explained:

> I would open up more to the ones at the [an OPS], and more to the people that are either previous users or current users, than somebody who's like a professional doctor who maybe never has used in their life, because their opinions and just outlooks on things, in my opinion, aren't really right. Because if you haven't experienced it, you've never been a part of it, you can't – you'll never fully understand it.

Similarly, Leslie, a 56 year-old white woman who had accessed services at several OPS, noted: "*Sometimes a person's more comfortable telling a street worker, as opposed to telling a nurse, because they'll feel intimated or nervous about saying it* [to a nurse]." Moreover, client characterizations of interactions with peer workers suggested that communication was further enhanced because peer workers often contended with structural vulnerabilities, such as poverty and criminalization, experienced by many OPS clients and were therefore able to relate to common stressors and provide relevant advice and support stemming from shared lived experience:

> You know that they've been in that same position because they – when you're talking to them [peer workers] about something that's happened in your life that you're really messed up over, and they tell you exactly what they went through at times, and it's so much exactly like what you went through. Anybody that didn't go through it would never be able to say those words right at that time, you know, and be able to tell you in such detail of what they were fighting with just to keep themselves alive. (Jeremy, Indigenous man, age 42)

Peer workers enabling harm reduction practices and other positive outcomes

Our analysis highlights how peer involvement as staff at OPS facilitated engagement with OPS services and workers in several key ways that supported the adoption of harm reduction practices and promoted positive health and social outcomes among PWUD. First, many OPS clients who were interviewed and encountered during our ethnographic fieldwork linked their feelings of greater comfort and safety at OPS to being less rushed when using these services in comparison to SCFs operated by healthcare professionals:

> *Well it's more safe* [at an OPS]… *You're not rushed, you're more than welcome to chill out and hang out in the room, and do your thing, and play your music… Because the peers are there, I think people are more relaxed*. (Brad, white man, age 47)

Participant accounts also illustrated how appreciation of peer expertise fostered the enactment of harm reduction practices, including overdose prevention strategies, among OPS clients. For example, some participants discussed how they reduced their doses at the advice of peer workers:

> That guy [a peer worker] saved my life twice, or stopped me from overdosing twice like that, right? Because I had heroin, and I was going to use what I normally use, but he'd used it before, so he said, "[Matthew], don't do that," right? "Just maybe do half of that." (Matthew, Indigenous man, age 44)

Further, interviewed participants highlighted how the experiential knowledge of peer workers promoted communication concerning addiction treatment and other health needs among OPS clients:

> I'm not going to talk to some stranger about wanting to go into detox or wanting rehab or something, right? But somebody here [at an OPS], if I'm feeling like I needed rehab or detox I'm saying, "Hey, man, have you ever been through that? What's it like?" Right? You can open up, right, where you can't – you don't want to do that with strangers or other people that don't even know what you're going through, right? So I'm 100 percent, it has to be peer-run. (Matthew, Indigenous man, age 44)

In addition to supporting transitions to treatment, other participants indicated that the past experiences of peer workers provided these individuals with unique knowledge that supported reductions in drug use and facilitated engagement with other health, harm reduction, and social services among OPS clients. Thus, in some cases, peer OPS workers were observed assuming responsibilities beyond overdose response that encouraged broader-spectrum health benefits among clients.

Work-related benefits and challenges for peer workers

The structural context of OPS programming depended on peer worker involvement and thus allowed for formal recognition of the strengths and capacities of peer workers given that these individuals were critical to the work of implementing and operating these sites as part of the province-wide public health response to the overdose epidemic. This task shifting (Buchman et al., 2018), which allowed peer workers to assume roles and responsibilities within the formal health system that were previously restricted to health professionals at federally-sanctioned SCFs, was described by some interviewed participants as providing more meaningful and rewarding workforce inclusion than what is typically available to PWUD in the community. As expressed by Michael, a 52 year-old Indigenous man:

> You know, helping people helped me, right? You know, like, you know, listening to them, it opened a lot in me, for sure, and made me want to go back to work and want to not just stay on methadone. And I've never done this sort of thing in my life, like worked at a place like this.

In addition, others emphasized how working at an OPS provided unique opportunities for PWUD to expand their skillsets and increase their employability, with many discussions during ethnographic fieldwork centring around these new possibilities for employment as a

part of the overdose response. Speaking of her friend who worked at an OPS, Laura, a 52 year-old white woman, explained:

> *She started doing some volunteering* [at an OPS], *and she started to like build up a résumé so to speak… and she was saying how she actually felt that it improved her quality of life*.

These descriptions highlight how meaningfully involving peer workers in the delivery of services at OPS may have served to mitigate the tokenization that PWUD sometimes report in relation to harm reduction programming (Greer et al., 2019). However, it should be noted that, although some peer workers had salaried positions, most were hired as volunteers at OPS who were provided with small stipends amounting to less than the provincially-mandated minimum wage. Steven, a 65-year old Indigenous man, described how peer workers at OPS typically received minimal financial compensation for their work in comparison to non-peer staff engaged in similar work in Vancouver: "*It's cheaper to get people like us on the street… one person from the city that you hire, you could hire three of us per hour.*" Thus, despite the central role of peers in OPS service delivery, these inequities in compensation practices fostered perceptions that their expertise, time and efforts were not valued.

As with the broader local PWUD population, many peer workers who were interviewed and encountered during ethnographic fieldwork revealed that they had lost at least one friend or family member to overdose death, and also routinely encountered overdose events while working at OPS and in the broader community. As such, participants often experienced considerable trauma (i.e., "experiences that cause intense physical and psychological stress reactions" (Center for Substance Abuse Treatment (U.S), 2014, p.xix)) and grief due to the emotional toll of the overdose epidemic and a lack of adequate supports:

> When you see your friends go down or you come across your friends and they're dead, like it's – it really really gets to you after a while… Everybody down here is broken some sort of fuckin' scale, 1 to 10, right? … At the end of the day, we're all hurting and we all lean on each other. (Samantha, white woman, age 27)

This grief associated with high rates of overdose mortality among participants' peer groups was often described in participant interviews and during ethnographic fieldwork as compounded by structural vulnerabilities, such as poverty and criminalization, as well as other stressors, including elevated risk of overdose and pronounced withdrawal symptoms due to the proliferation of fentanyl and other powerful opioids in illicit drug supplies and lack of legal access to unadulterated drugs:

> There are a ton of stressors right. I mean people are losing their friends and there are so many, but a big one is, on top of all that, they're dope sick constantly. They're constantly dope sick because they never know when it's coming. You could never know when it's coming. So on top of having all of these horrible things happening, your friends dying, your friends going down while you have friends dying, having to worry about your own life while your friends are dying… It's just bonkers. It affects every aspect of your life, and that's just crazy, because it affects the staff [at OPS]. It affects everybody. (Amy, white woman, age 47)

Participants who worked at OPS often described how the grief and trauma they experienced as a result of routine exposure to overdose events and the significant loss to overdose death in the community contributed to burnout in regards to their roles as peer workers. Specifically, many interviewed OPS workers described how these circumstances resulted in feelings of emotional exhaustion and disconnection from their work (Ben-Porat & Itzhaky, 2015; Maslach & Leiter, 2008), and some OPS workers encountered during our fieldwork reduced their shifts or left peer positions altogether due to these challenges. Kevin, a 51 year-old white man who worked at an OPS, explained:

> *I've spent so many years sitting in rooms watching people like this… It's really hard for my post-traumatic stress, sitting there watching that go on* [at the OPS]… *so that's why I haven't been putting in as many hours there*.

However, most peer workers were not provided with employee benefits and supports (e.g., health benefits, counselling, stress leave) that are typically afforded to salaried non-peer employees in similar positions at other local organizations. As such, participant responses highlighted the need for interventions to address gaps in social and emotional supports for peer workers and other local PWUD experiencing trauma, grief and other adverse psychosocial responses elicited as a result of the overdose epidemic:

> I think that's one thing they should think about setting up, is some place to go to talk about this, right? Because a lot of people just want to, you know, explain their feelings and stuff, which is – you know, there's no better therapy than talking, right? (Michael, Indigenous man, age 52)

DISCUSSION

In summary, our findings illustrate how the structural context of OPS implementation and operations depended on peer worker involvement and thus allowed for formal recognition of peer capacities that were developed through roles that peers were already undertaking in existing programming for PWUD in the broader community. We found that peer involvement as staff at OPS enhanced feelings of comfort and safety among OPS clients, and thereby facilitated their engagement with OPS services. These dynamics and appreciation of peer worker expertise among PWUD promoted client communication with peer staff in ways that fostered the enactment of harm reduction practices and encouraged health and social benefits. Moreover, the central involvement of peer workers in the implementation and operation of OPS provided peers with rewarding workforce inclusion that allowed these individuals to expand their skillsets and increase their employability. However, peer workers typically received limited financial compensation and work-related benefits. Further, our findings revealed that many PWUD experienced considerable trauma and grief due to the emotional toll of the overdose epidemic and a lack of adequate social and emotional supports, which contributed to burnout among peer workers.

Previous research has illustrated how task shifting, the systematic redistribution of healthcare tasks from specialized health professionals to individuals with less training such as lay workers, may help to reduce health inequities by improving access to care for underserved populations (Buchman et al., 2018; Mijovic et al., 2016; Mundeva et al., 2018).

To date, this research has primarily demonstrated how task shifting may help to overcome health human resource shortages, particularly in response to HIV/AIDS epidemics in resource-limited settings (Mijovic et al., 2016; Mundeva et al., 2018). The present study builds on this work in identifying the use of task shifting to peer workers as a successful novel approach for facilitating the rapid implementation and delivery of low-threshold SCF programming in the context of an overdose epidemic, thereby strengthening emergency response capacity in a timely manner. Furthermore, similar to previous studies of other peer-run harm reduction initiatives (Bardwell et al., 2018b; Greer et al., 2016; Hayashi et al., 2010; Kerr et al., 2003; McNeil et al., 2015, 2014; Sherman et al., 2008; Small et al., 2012; Ti et al., 2012), our findings illustrate how this task shifting approach functioned to enhance the effectiveness of this form of harm reduction programming, including by improving service engagement, reducing potential for overdose-related harms, and promoting uptake of addiction treatment and other health services among PWUD.

Amidst the ongoing overdose epidemic, these findings support the expansion of formalized peer worker involvement in SCF and OPS programming as a feasible and effective public health strategy to mitigate overdose and related harms. However, given that Vancouver has a well-established system of drug user organizations and peer-based programming that was harnessed to support this response, this approach may be less feasible in settings where peers are not already actively engaged in the delivery of such services. Thus, our findings underscore the need for adequate funding to support drug user organizations and other peer-based initiatives (Bardwell et al., 2018a; Greer et al., 2018), as these appear to be critical in ensuring community capacity for successful peer-driven responses to the overdose epidemic. In addition, future research should seek to explore the role of various factors, including lack of established drug user organizations, in influencing peer worker involvement in OPS programming and related outcomes in diverse settings.

Given that the peer-run SCFs studied in the present study were sanctioned to operate under a provincial ministerial order, future studies should also continue to examine how implementing and operating peer-run SCFs with a lack of formal legal sanction may shape service dynamics and the effectiveness of this form of intervention (Davidson et al., 2018; McNeil et al., 2015, 2014). This is particularly important in light of the findings of a recent evaluation of an unsanctioned SCF operating within a community-based organization in an urban area in the United States (Davidson et al., 2018). This study found that the perceived illegality of the facility and resulting fears of potential legal repercussions among operators and staff shaped operational processes in ways that hindered client recruitment, contributed to a lack of diversity in terms of the sociodemographic characteristics of clients, and impeded the ability of SCF staff to connect clients with other health and social services (Davidson et al., 2018). Thus, further inquiry in this area, including examination of potential strategies to mitigate such issues, may provide important information to inform the optimization of unsanctioned SCFs as well as efforts to establish sanctioned SCFs.

Consistent with previous studies demonstrating the non-material benefits of peer worker positions in drug user organizations and harm reduction programming, including empowerment and enhanced authority (Bardwell et al., 2018a; Buchman et al., 2018; Greer et al., 2018; Marshall et al., 2017), our findings illustrate how involving peers as workers in

OPS programming provided formal recognition of the unique expertise of PWUD while also enabling these individuals to enhance their skillsets and employability. As such, this approach served to mitigate the tokenization that some peers have described in relation to their engagement in other harm reduction interventions (Greer et al., 2019). However, our findings revealed gaps in existing supports available to peer workers. Of note, many peers received inadequate financial compensation for their work at OPS, which has been identified in the task shifting literature as a key factor that perpetuates health workforce inequities, contributes to the stigmatization and disempowerment of workers, and increases worker attrition, thereby compromising the long-term sustainability and effectiveness of task shifting approaches (Buchman et al., 2018; Greer et al., 2018; Mijovic et al., 2016; Mundeva et al., 2018).

In addition, we found that many peers experienced trauma, grief and burnout in their roles as peer workers due to their routine exposure to overdose events and the significant losses to overdose death in the community. Concurrently, peer workers often contended with various structural vulnerabilities, including poverty and housing instability, and other stressors, including pronounced withdrawal symptoms and heightened overdose risk due to the proliferation of illicitly-manufactured fentanyl and related analogues in illicit drug supplies. Despite these issues and the central role of peers in OPS service delivery, peer workers were not provided with work-related employee benefits and supports, including health benefits, counselling and stress leave, that are typically afforded to non-peer employees engaged in similar work in this setting.

Thus, although task shifting the frontline response at OPS to peer workers appears to be a feasible and effective response to the overdose epidemic, efforts are needed to ensure that peer workers receive adequate financial, social and emotional supports in order to avoid perpetuating workforce power imbalances, imposing unfair burdens on peers, and compromising the sustainability of this approach over the long term (Buchman et al., 2018; Greer et al., 2018; Mundeva et al., 2018). In particular, strategies such as offering fair and standardized compensation to peer workers would help to address concerns about their potential devaluation and exploitation, and would also ease financial constraints among these individuals to support their sustained retention as workers in OPS programming, thereby improving the quality and sustainability of services provided (Bardwell et al., 2018a; Buchman et al., 2018; Greer et al., 2018; Mijovic et al., 2016; Mundeva et al., 2018; Shearer et al., 2018). As well, greater funding and resources should be dedicated to expanding formalized trauma- and grief-related supportive services for local PWUD, and to providing peer workers with work-related benefits to support their well-being and mitigate potential harms or burdens they may be experiencing due to their critical role in the frontline response to the overdose epidemic (Buchman et al., 2018; Greer et al., 2018; Shearer et al., 2018).

This study has several limitations. First, our findings are specific to OPS clients and workers recruited from four OPS in Vancouver's Downtown Eastside and are not representative of these sub-populations or the broader drug-using population in the Downtown Eastside. Moreover, the Downtown Eastside is distinct from other communities in many ways, including being characterized by high levels of drug use and poverty, a long history of drug user activism, and a high concentration of harm reduction programming. Thus, our findings

are not generalizable to PWUD in other settings. Finally, although our findings highlight benefits and challenges related to peer worker involvement at OPS among local PWUD, further research is needed to fully determine the medium- and long-term impact of peer-run OPS on such outcomes. In particular, future studies should be conducted to determine if the previously-observed health impacts of SCFs operated by health professionals (Kennedy et al., 2017; McNeil & Small, 2014; Potier et al., 2014) may extend to those operated by peers. This could include quantitatively assessing potential impacts on overdose-related harms, drug use practices associated with infectious disease transmission, and uptake of addiction treatment.

In conclusion, our study demonstrates that peer worker involvement in OPS facilitated the rapid implementation and effective delivery of such programming in this setting. Peer worker engagement at OPS contributed to improved engagement with OPS services, fostered the enactment of harm reduction practices, and promoted health and social benefits among PWUD. This approach also provided rewarding workforce inclusion for PWUD, although many peer workers were inadequately compensated and experienced considerable grief, trauma, and burnout in their roles as OPS workers due to the overdose epidemic and a lack of formalized supports. These findings support the expansion of peer involvement as staff in SCF programming as a strategy to reduce overdose-related morbidity and mortality and other harms among PWUD, particularly in locales with established peer-based programming for PWUD. However, further efforts are needed to ensure that peer workers receive adequate financial, social and emotional supports in order to promote the sustainability of this approach.

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Highlights:

- Unique rapid ethnographic study of low-threshold supervised consumption services
- Examines involvement of people who use drugs as staff in these services
- Describes how this approach enhanced intervention effectiveness
- Provides unique findings regarding benefits and challenges for staff
- Highlights the need for additional funding and resources to support this approach

Table 1:

Service-level characteristics of four overdose prevention sites (OPS) in Vancouver, Canada

	OPS #1	OPS #2	OPS#3	OPS#4
Location	Within a drug user organization in the Downtown Eastside	Adjacent to an alley in the Downtown Eastside	Within a nonprofit housing building in the Downtown Eastside	Within a women-only organization in the Downtown Eastside
Capacity	• ~10 clients	• ~22 clients	• 7 clients	• 15 clients
Staffing composition	• Peer site operators • Trained peer staff	• Non-peer site operators • Trained peer staff	• Non-peer site operators • Trained peer staff	• Non-peer site operators • Trained peer staff
Services offered *	• Supervision of drug consumption • Naloxone administration • Harm reduction supplies and education • Take home naloxone training	• Supervision of drug consumption • Naloxone administration • Oxygen administration • Harm reduction supplies and education	• Supervision of drug consumption • Naloxone administration • Oxygen administration • Harm reduction supplies and education	• Supervision of drug consumption • Naloxone administration • Oxygen administration • Harm reduction supplies and education • Medical care • Referrals to addiction treatment, health and community services
Typical hours of operation †	• 10 AM – 10 PM	• 10 AM – 10 PM	• 12 PM – 10 PM	• 6 AM – 12 PM; 6 PM – 12 AM

*Indicates the services that were available during the study period, but which have since been expanded in some OPS.

†indicates typical hours of operation during the study period, but which have since changed for some OPS.

Table 2:

Characteristics of participants in a rapid ethnographic study of overdose prevention site (OPS) clients in Vancouver, Canada (*n*=72)

Participant characteristics	n (%)
Age (years)	
Median (Interquartile range)	44 (34-53)
Gender	
Men	29 (40%)
Women	40 (56%)
Transgender, two-spirit, or non-binary	3 (4%)
Ancestry[a]	
White	32 (44%)
Indigenous	33 (48%)
Other	3 (7%)
Employed[c]	10 (14%)
Unstably housed[b]	64 (86%)
Homeless in the previous year	47 (65%)
Incarcerated in the previous year[c]	27 (38%)
Substance use in the previous 30 days	
Powder cocaine	8 (11%)
Crack cocaine	3 (4%)
Crystal methamphetamine	8 (11%)
Heroin	60 (69%)
Fentanyl	2 (3%)
Other opioids	2 (3%)
Other substances	8 (11%)
Overdose events in the previous year	
1 overdose	14 (20%)
2 overdoses	10 (14%)
3 or more overdoses	19 (26%)

[a]Participants could select more than one response option.

[b]Defined as currently living in single room occupancy hotel, shelter, homeless or having no fixed address.

[c]Defined as currently having full- or part-time employment.