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"It's not just injecting drugs": Supervised consumption sites and the social determinants of health

Nick Kerman[a,*], Stéphanie Manoni-Millar[a], Luc Cormier[b], Tali Cahill[b], John Sylvestre[c]

[a] School of Psychology, University of Ottawa, 136 Jean-Jacques Lussier, Vanier Hall, Ottawa, Ontario, K1N 6N5, Canada
[b] Oasis Program, Sandy Hill Community Health Centre, 221 Nelson Street, Ottawa, Ontario, K1N 1C7, Canada
[c] Centre for Research on Educational and Community Services, University of Ottawa, 136 Jean-Jacques Lussier, Vanier Hall, Ottawa, Ontario, K1N 6N5, Canada

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ABSTRACT

Background: People who inject drugs are highly vulnerable to social determinants of health (SDOH) inequities, such as homelessness, food insecurity, lack of social support, and poor access to healthcare. Supervised consumption sites (SCSs) have been developed to reduce harms associated with injection drug use but their social impacts remain largely unknown. This study explored service users' experiences with SCSs and how their service use affected their SDOH.

Methods: A qualitative descriptive study design was used. Participants were recruited from an SCS in Ottawa, Canada. Data were collected using in-depth interviews (n = 21). Data analysis involved two cycles of coding that were visibly presented in an analytic matrix. Member checking of the findings was then completed using two focus groups (n = 7).

Results: Five themes were identified with regard to how SCSs impacted the SDOH: (1) social connectedness and community, (2) emotional support and stress reduction, (3) safety and security, (4) current shelter statuses and search for housing, and (5) health service access and use. The perceived effects of SCSs in these domains were mostly positive, though the importance of being vigilant and cautious when using the services was also expressed by participants.

Conclusions: SCSs represent a potential downstream intervention to addressing some of the SDOH inequities experienced by people who inject drugs. In particular, the findings indicate that SCSs can be a bridge to re-building service users' connections with the healthcare system and an important service in efforts to prevent unsheltered homelessness.

1. Introduction

It is estimated that 15.6 million people globally inject drugs, with approximately 16% of them having HIV and slightly more than half having hepatitis C virus (HCV; Degenhardt et al., 2017). To mitigate the serious health risks associated with injection drug use, public health responses have included various harm reduction services, including supervised consumption sites (SCSs). These facilities, which are also referred to as drug consumption rooms and safer injection sites, provide a safe and hygienic space for people to use previously acquired drugs, access to sterile injection equipment, and medical supervision and intervention when required (European Monitoring Centre for Drugs and Drug Addiction, 2018). Although SCSs have existed since the early 1970s, very few sites were developed outside of Western Europe until recently (Kimber et al., 2003).

In response to a growing opioid-related overdose crisis, Canada has seen a rapid development of SCSs across the country within the last five years (Stone and Shirley-Beavan, 2018). However, political resistance has challenged their continued implementation, including in regions where no such services exist (Kerr et al., 2017; Kolla et al., 2019; Strike and Watson, 2019). Barriers to establishing SCSs persist despite a robust and growing evidence base that the intervention is effective in preventing overdose deaths (Kennedy et al., 2017; Potier et al., 2014), reducing public health risks associated with syringe sharing and reuse (Milloy and Wood, 2009), reducing substance use in public spaces (Kennedy et al., 2017; Potier et al., 2014), and reducing rates of unprotected sexual intercourse (Marshall et al., 2009).

The experience of care is as important as effectiveness in the delivery of quality healthcare (Berwick et al., 2008). For people who inject drugs, negative service experiences, such as stigma and

* Corresponding author at: School of Psychology, University of Ottawa, Ottawa, Ontario, K1N 6N5, Canada.
E-mail address: nkerm094@uottawa.ca (N. Kerman).

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discrimination, are common and can lead to service discontinuation and future avoidance (Biancarelli et al., 2019; Carusone et al., 2019; Paquette et al., 2018). In contrast, service users view SCSs as offering social acceptance, safety, and refuge from street-based drug scenes (Fairbairn et al., 2008; Kappel et al., 2016; McNeil and Small, 2014). However, concerns around waiting times for service access, prohibition of drug sharing and helping other service users with injections, and service bans and suspensions when non-compliant with rules have been noted (Potier et al., 2014). Moreover, people may be less likely to use SCSs that are located in areas perceived to be dangerous (McNeil et al., 2014). If SCSs are avoided, people may be left with few to no options of where they can go to safely inject drugs, putting them at greater risk of harm and other problems (e.g., police harassment and arrest, housing loss; Cooper et al., 2005; Navarro and Leonard, 2004).

The social determinants of health [SDOH] refer to a range of social and economic conditions in which people are born, live, and work that affect health and well-being (Commission of Social Determinants of Health, 2008). There is variation among SDOH models, but determinants generally include: early childhood development, education, employment and working conditions, food security, access to and quality of health services, housing, income and income distribution, social exclusion, social support, and stress (Raphael, 2006). People who inject drugs are vulnerable to a range of SDOH inequities that can have negative health impacts. For example, in an Australian study of over 900 people who inject drugs, 23% were homeless, 88% were unemployed, 54% had been in prison in their lifetime, and 18% had difficulties accessing needles and syringes in the past month (Whittaker et al., 2015). The majority of people who inject drugs also report experiencing recent violence and food insecurity (Marshall et al., 2008; Schmitz et al., 2016; Strike et al., 2012). Similar characteristics and experiences have been found among SCS service users (e.g., Wood et al., 2006). SCSs may be an example of a downstream intervention that addresses the SDOH of people who inject drugs by meeting their immediate needs and preventing further adverse health outcomes (Lucyk and McLaren, 2017). For example, SCSs are associated with improved access to healthcare (Kennedy et al., 2017; Potier et al., 2014), which is a common target of downstream SDOH interventions (Lucyk and McLaren, 2017). However, the extent to which SCSs affect other social determinants is unknown.

1.1. Study objective and setting

Given that people who inject drugs face many health and social inequities, it is important to better understand the role of SCSs in the lives of people who access these services. Using a qualitative descriptive approach, this study explored service users' experiences with SCSs in Ottawa, Canada, and how their use of SCSs affected their SDOH. Consistent with the study objective, qualitative description is a pragmatic approach to developing a rich description of individuals' experiences and perspectives, with findings staying close to the data (Neergaard et al., 2009).

Like many communities in Canada, fentanyl and its analogues have emerged in the drug supply in Ottawa in recent years and are now the largest contributor to the opioid-related mortality rate in the city, which increased 266% from 2003 to 2017 (Ontario Agency for Health Protection and Promotion, 2019). When this study was conducted, there were four SCSs in Ottawa. Three facilities were located within a 0.5-km (0.3-mile) radius in downtown Ottawa. This neighbourhood also has three emergency shelters, as well as numerous meal programs and drop-in centres. The fourth site was approximately 3.5 km (2.2 miles) away.

2. Methods

2.1. Recruitment

A convenience sample of SCS service users was recruited to participate in in-depth interviews for this study. Individuals were eligible to participate in the study if they: [a] had used an SCS in the past month, [b] were 18 years of age or older, and [c] were able to speak and understand English. Participants were recruited from one of the SCSs located in downtown Ottawa that was operated by a community health centre. Recruitment for two focus groups stratified by gender was conducted at a later phase in the study. The same recruitment approach and eligibility criteria were used. Individuals were eligible to participate in an in-depth interview and/or a focus group. Interview and focus group participants received an honourarium of $25 and $20, respectively. All participants provided written informed consent and the study was approved by the research ethics board of the lead author's institution.

Of the 22 interview participants, one was removed from data analysis due to poor quality data (i.e., nonresponsive to questions and difficulty comprehending speech). Data from all seven focus group participants were included in the analysis.

2.2. Data collection

Data were collected in two phases. In the first phase, interviews were conducted using a semi-structured guide. Interviews began by exploring participants' experiences using SCSs, including aspects that contributed to positive and negative experiences. The interview then transitioned to discussion of how SCSs affected SDOH-related outcomes. On average, the interviews lasted slightly less than 30 min. All interviews were audio-recorded and conducted over a two-week period in March 2019 by the lead author. Interviews were conducted until new data mostly replicated previously discussed perceptions and experiences, with emerging narratives being identified in multiple interviews (Saunders et al., 2018).

The second phase of data collection involved two focus groups that were held in August 2019 to member check the study findings. Focus groups were conducted for their efficiency and accessibility to people who may not have previously participated in an in-depth interview due to discomfort with the one-to-one format. A summary of the main findings from the in-depth interviews was provided to focus group participants. Using a semi-structured guide, participants were then asked if each finding fit with their experiences using SCSs and whether or not there were any differing perspectives. Of the seven focus group members, six had not previously participated in an interview. The focus groups each took approximately 40 min, were audio-recorded, and were conducted by the lead author.

Data were also collected on demographic information, health and substance use, access to healthcare services, and recent use of harm reduction services for the purpose of describing the sample.

2.3. Data analysis

Interview data from the first phase of data collection were transcribed verbatim. Data analysis was conducted using two cycles of coding informed by Miles et al. (2014). In the first cycle of coding, transcripts were reviewed line-by-line by the lead author, with descriptive and in vivo coding of data related to SCS experiences and impacts. Experiences were initially coded generally as either positive, negative, or mixed but other codes were added to reflect relevant areas of interest (e.g., rules, staff, overdoses at an SCS). Impacts of using SCSs were coded using a broad SDOH framework (health, stress, safety, legal and police, social support, sense of community and belonging, housing and shelter, income, employment, food security, access to health and social services, and service use). The coding framework for impacts

changed minimally over the first cycle of coding. Coded data were entered into an analytic matrix wherein each participant had their own row and each code its own column (i.e., data in each cell was specific to a single participant and code). Analytic matrices enable researchers to view a full set of coded data and multiple codes at once (Miles et al., 2014). Once the matrix was populated with all participants' data, a second research team member then reviewed the codes against the transcripts to ensure accuracy and completeness.

In the second cycle of coding, pattern coding was used to further condense and group the data from the analytic matrix into categories (Miles et al., 2014). This process led to the identification of more salient data, mergers of related codes, and removal of less prominent codes. Summaries were then written for each category that reflected the dominant and divergent views, including negative evidence, which were used to establish the main findings.

Focus group data from the second phase of data collection were analyzed for the purpose of member checking, which is a systematic approach to enhancing the credibility of qualitative research and reducing researcher bias by having participants review the data interpretations and conclusions for accuracy (Creswell and Miller, 2000). Participants in the two focus groups reported that their experiences fit with the findings and no further revisions to the themes were required.

3. Findings

3.1. Sample characteristics

Participants' demographics, health, substance use, and harm reduction service use are shown in Table 1. To assess representativeness, the characteristics of the sample were compared to internal data collected by the SCS where participants were recruited and a recent survey of injection drug users in Ottawa (Enns et al., 2015). Overall, the sample was similar to the population of people who used the SCS and injected drugs, though the reported rates of HCV were likely lower and daily SCS use was higher among interview participants.

3.2. Impacts of supervised consumption sites on the social determinants of health

Five themes were identified with regard to how SCSs impacted the SDOH: (1) social connectedness and community, (2) emotional support and stress reduction, (3) safety and security, (4) current shelter statuses and search for housing, and (5) health service access and use. Each of these findings are described below.

Table 1
Characteristics of the interview (n = 21) and focus group (n = 7) participants.

Characteristic	Interview		Focus group	
	n/M	% / *SD*	*n/M*	% / *SD*
Male gender	15	71.4	2	28.6
Age	39.48	9.90	47.29	8.42
Indigenous	4	19.0	4	57.1
Currently homeless	16	76.2	3	42.9
Mental illness diagnosis	14	66.7	3	42.9
One or more chronic medical conditions	15	71.4	7	100.0
HCV	6	28.6	7	100.0
HIV	4	19.0	1	14.3
Currently has a regular medical doctor	14	66.7	5	71.4
Involvement in paid work	3	14.3	1	14.3
Weekly or more frequent food insecurity[a]	9	42.9	4	57.1
Daily injection drug use[a]	19	90.5	4	57.1
Daily use of SCSs[a]	12	57.1	3	42.9
Daily use of needle/crack pipe exchange[a]	10	47.6	3	42.9
Use of opioid agonist therapy[a]	16	76.2	6	85.7
Use of a detox program[a]	3	14.3	0	0
Lifetime accidental overdose[b]	15	71.4	–	–
Currently has a take-home naloxone kit	15	71.4	7	100.0

[a] = in the past 6 months.
[b] = data were unavailable for focus group participants.

3.2.1. "It's one of the places that keeps me connected to the world": social connectedness and community

Almost all interview participants discussed the impacts of SCSs on their sense of social connectedness and community. SCSs were described as places where participants could interact with other people, including service users and staff. One interview participant who was living on the street said, "Like the life I'm living right now as far as being by myself outside a lot and so these people are the people I talk to the most pretty much in a day." Similarly, for housed participants, regular use of SCSs could prevent social isolation: "Drug use is a very, very solitary sport and it's fraught with despair, isolationism, and desolation, and real darkness. And when you're using a safe injection site, you're using in the context, in the social context, so it breaks all that." Because SCSs could be a "social hub," some participants also talked about meeting new people. However, the closeness of the relationships was mixed, with some noting that they had made friends and others describing the people that they met as acquaintances. For participants who reported that they had not made friends, there was no interest in doing so. SCSs also preserved social networks by simply keeping participants' friends alive. One participant described how her life would be different if there were not SCSs in the city: "It would be more of my friends dead."

With regard to sense of community, the perspectives of participants were varied. Several likened the SCS community to a supportive family. However, others described it more precariously: "There's a little community of drug users that we have going there but there's no honour among thieves or drug addicts, right? It's a knife in your back at any time." Further, some female and transgender participants described lacking a sense of belonging when using SCSs due to experiences of judgment and abuse from other service users.

3.2.2. "They make you feel normal": emotional support and stress reduction

Use of SCSs could affect perceptions of emotional support and reduce stress. Emotional support was primarily discussed in the context of interactions and relationships with SCS staff. Interview participants appreciated that staff typically knew their names, were welcoming, and were people who listened and cared: "All these guys know me by name, they smile when I come in … these guys actually sit and talk to you." A few participants spoke about not receiving emotional support from staff, which was primarily due to their an in-and-out pattern of SCS use (i.e., not sticking around to talk with staff after injecting drugs), not feeling the need because they had a case worker or counsellor in the community, or not perceiving staff to be able to help with their current problems.

Several participants discussed how the caring and nonjudgmental approach of SCS staff changed their perceptions of how they were seen and mitigated further harm to their self-esteem: "They make you feel normal. You know? Like I have some serious self-esteem and self-worth issues so, when I go in there, I don't feel great about it, but they don't make me feel any worse." The importance of being seen as a person who has value was underscored by several participants who contrasted their positive experiences at SCSs to past instances where they felt discriminated against and stigmatized when accessing healthcare: "Because I'm on methadone, they judge me that I'm a junkie."

The cleanliness and safety of SCSs also reduced stress and worry related to drug use. Peace of mind also came from not feeling guilty or conflicted about using drugs in public settings. One participant spoke of no longer flushing syringes down a toilet in a public bathroom, "I can get rid of my needles like correctly … I feel great. Yeah, I feel like I'm not dirtying up the unit that they have there." Some participants described intentionally using SCSs that were situated further away from the downtown emergency shelters, which could provide a sense of

respite for those who were staying there: “It’s like a little oasis.” In contrast, one participant reported feeling emotionally abused by other SCS service users, which had worsened her mental health.

3.2.3. “It’s a safety net that we need in our community”: safety and security

The impacts of SCSs on participants’ sense of safety and security was frequently discussed. Many participants experiencing homelessness discussed how SCSs protected them from criminalization of their homelessness and drug use by providing a place to use drugs safely without fear of arrest: “From a legal standpoint, I don’t feel like I’m going to get in trouble, so I’m not rushed. It allows me to make better decisions about my usage.” Several participants thought that, without SCSs, they would be back in jail.

The presence of staff and other service users, either onsite or in the vicinity of SCSs, also affected perceptions of safety. Onsite medical professionals who responded in the event of an overdose, provided information and warnings to service users about drug trends on the street, and enforced rules related to aggressive behaviour and violence contributed to a greater sense of safety when using SCSs. In contrast, thefts at sites and being hassled for drugs could undermine safety.Although rule enforcement by staff could reduce the risk of being victimized by others, participants reported that they still had to be vigilant when using SCSs, which was particularly challenging while “on the nod” (i.e., opioid intoxication). The presence of other people outside of SCSs could also lead to safety concerns. Two participants described feeling as though they had to “run the gauntlet” prior to getting to one SCS. Participants were worried about being robbed or assaulted: “Most people are jumped from behind and robbed before they even get anywhere near it. It’s just a bad scene.”

3.2.4. “The shelter’s the place you do not want to use”: current shelter statuses and search for housing

For participants experiencing homelessness, SCSs had various effects on their current shelter statuses and search for housing. This included assistance from staff with accessing an emergency shelter bed, finding housing, or passing along messages from case workers related to housing applications. By providing clean equipment and a place to use drugs, SCSs could also help to prevent people from being banned from emergency shelters that forbade drug use: “The shelter’s the place you do not want to use … you get barred and into another shelter. It’s just a lot of people there are against needles and you bring some heat to yourself.” Another participant described how an SCS nurse successfully advocated on his behalf after he was banned from an emergency shelter: “I got barred for a month from the shelter … and she called and got it turned over for me.” No housed participants reported any impacts of SCSs in this area.

3.2.5. “I had all this health care available to me and I wasn’t accessing it”: health service access and use

Many participants reported that SCSs had improved their access or engagement with healthcare. Approximately half of interview participants reported accessing health services that they were not using prior to visiting SCSs. Physician and nurse practitioner services were most frequently discussed, with SCS staff helping participants to access primary care, addictions medicine, psychiatry, and sexual health services. Several participants also noted that they had easier access to other harm reduction programs due to visiting SCSs regularly. SCS staff’s empathetic approach to broaching the subject of health was identified as contributing to improved access: “They’re always inquiring about your actual health and if there’s anything that they can assist you with, or a direction to help you go in, in order to help yourself recover, recoup, or get better.” Provision of information from staff on available health services was also noted: “There’s services I didn’t even know existed.” Further, SCS staff helped to address access barriers by connecting participants to services where they could get a health card or healthcare where a health card was not required.

SCSs could also help to improve engagement with healthcare services. One participant said, “Like this morning, I went to medical and actually followed through. And, I’m actually following through now and doing something about my health.” Although the convenience of accessing healthcare in the same location as the SCS was one contributor to improved engagement, assistance with connecting to doctors and appointment reminders also helped. In addition, participants noted that staff supported them to access healthcare services with shorter wait times: “I had a bad throat infection, they gave me a referral, got me bumped right in.” Three participants stated that SCSs had not affected their use of health services; however, two of these individuals already reportedly had access to the services that they needed.

4. Discussion

The findings from this study add to the evidence base on the perceived social impacts that SCSs have in the lives of people who inject drugs. Consistent with past research (Kappel et al., 2016; Small et al., 2008), relationships with compassionate and nonjudgmental SCS staff who provided connection and emotional support were central to the service experience. Given that social capital is associated with greater harm reduction practices and reduced risk of overdose fatalities (Kumar et al., 2016; Zoorob and Salemi, 2017), SCS staff can be an important source of support for people who inject drugs that contributes to health and well-being. Further, like previous studies (Kennedy et al., 2017; Potier et al., 2014), many participants reported improved access and engagement with healthcare from using SCSs. Taken together, the findings highlight how SCSs and the relationships they foster have a key role in helping service users to re-establish connections with the healthcare system that are frequently marred by past negative healthcare experiences (e.g., Biancarelli et al., 2019; Carusone et al., 2019; Paquette et al., 2018). Accordingly, evidence-based health policy aimed at increasing access to care for people who inject drugs should consider further development and scaling up of SCSs.

SCSs had unique benefits for people experiencing homelessness. By providing a safe place to inject drugs, SCSs were perceived to protect against drug use-related criminalization and emergency shelter bans. Given that unsheltered homelessness is associated with higher mortality rates than sheltered homelessness (Roncarati et al., 2018), SCSs not only reduce harms related to drug use but also homelessness. In addition, as emergency shelter washrooms can function as de facto sites for injection drug use (Pauly et al., 2018; Wallace et al., 2016), the health and well-being impacts of SCSs may extend beyond their service users. For example, SCSs may have a role in lessening stress associated with having to respond to accidental overdoses among emergency shelter staff and reduce tension between people staying in emergency shelters who currently inject drugs and those who are actively working toward recovery (Kerman et al., 2019; Wallace et al., 2018). Because of the interconnectedness between homelessness and substance use (Bardwell et al., 2018; Pauly et al., 2013), future research should consider examining the impacts of SCSs on other homeless sector services and the role of SCSs in efforts to reduce homelessness. Further, as permanent supportive housing environments can influence risk for substance use (Henwood et al., 2018), further study is needed to understand how SCSs can complement housing interventions to improve the health of people who inject drugs.

4.1. Implications for direct service delivery

The study findings underscore the importance of SCS practices, such as ensuring that spaces are clean, serving as a message centre (i.e., relaying messages from other service providers to service users), and identifying and quickly responding to health concerns, in service users’ experiences of care. Further, the findings highlight the need for a balance between an anti-oppressive atmosphere and the enforcement of rules, which should be an ongoing conversation among SCS staff and

the broader harm reduction community. Given that participants preferred sites that enforced rules on aggression and violence, rules related to safety may not be a barrier to accessing SCSs but instead a value-added service.

Regular feedback from service users is essential for ensuring that SCSs meet their needs, recognizing that those needs are dynamic and specific to local contexts. To that end, SCSs may benefit from engaging in sustained consultations with local, independent groups of people who use drugs to get feedback on current and future site practices. Regular focus groups or townhalls with people who use drugs can be platforms to address site issues, as well as identify unmet support needs. Further, establishing an advisory board of service users that reviews site practices and acts as a partner in further developing sites would enable formal involvement of people who use drugs in program governance (Marshall et al., 2015). Any approach to including SCS service users in program planning must also concurrently work to address stigma and discrimination that can prevent people who inject drugs from effectively engaging in such work (Ti et al., 2012).

4.2. Limitations

There were several limitations to the study. First, participants were recruited from only one of the four SCSs in Ottawa. Although almost all participants used more than one site, the findings may not generalize to the city's other SCSs and the accompanying services they provide. It is also unknown how applicable the findings would be to overdose prevention sites, which are low-threshold SCS models that can be efficiently implemented to respond to community needs (Wallace et al., 2019). Still, given that recent research has shown overdose prevention sites have positive impacts on sense of belonging and safety (Foreman-Mackey et al., 2019), these SCS models may have similar, as well as unique, social benefits to what this study found and require further examination. A second limitation is that convenience sampling was used to recruit interview participants. However, similarities between the characteristics of our sample and available data on people who inject drugs and use the SCS where recruitment occurred provides confidence that the sample was representative of the population that uses the service. Third, the study examined experiences and impacts of SCSs approximately 1.5 years after sites in the city were developed. For highly marginalized populations, such as the one in this study, SDOH changes from SCS use may occur after several years, which should be considered in future research.

5. Conclusions

This study explored service users' experiences with SCSs in Ottawa, Canada, and their perceived impacts on the SDOH. The findings highlighted the mostly positive impacts that SCSs were perceived to have on social connection, emotional support, sense of safety, shelter stability and the search for housing, and health service access and engagement. However, service users also emphasized the need to be cautious when using SCSs to prevent victimization. Overall, the findings indicate that SCSs are a potential downstream intervention to addressing the SDOH of people who inject drugs, particularly as a bridge to rebuilding connections with the healthcare system and a key service in efforts to prevent unsheltered homelessness.

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No funding was provided for the completion of this study.

Contributors

NK designed the study and led data collection, data analysis, and manuscript writing. SMM supported data analysis and manuscript writing. LC and TC supported data collection and manuscript writing. JS provided guidance on study design and data analysis, as well as supported manuscript revisions. All authors reviewed and approved of the final version of the manuscript.

Declaration of Competing Interest

No conflict declared.

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