

**AN INTEGRATED SUPERVISED INJECTING PROGRAM  
WITHIN A CARE FACILITY FOR HIV-POSITIVE  
INDIVIDUALS:**

**A QUALITATIVE EVALUATION**

by

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THE REQUIREMENTS FOR THE DEGREE OF  
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## **ABSTRACT**

To date, little attention has been given to the potential role supervised injecting programs could play in the care for HIV-positive injection drug users (IDU). We analyzed semi-structured interviews with HIV-positive IDU and healthcare staff regarding a supervised injection program integrated in an HIV focused care facility. Participant and staff reports indicated that the integrated supervised injection program promoted safer injection practices and influenced access to care by fostering more open relationships, facilitating engagement in safer injection education and improving the management of infections. Participants and staff viewed the program as facilitating the delivery of care through mediating overdose risks and reducing the need to punitively manage drug use onsite. For some participants, however, feelings of shame regarding their substance use complicated uptake of the program. Despite these concerns, our findings highlight the benefits of addressing HIV-positive IDUs' drug use in the context of comprehensive models of healthcare.

**Keywords:** supervised injection facility; safer injection site; HIV-positive injection drug users; HIV care; qualitative methods

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## INTRODUCTION<sup>1</sup>

The past two decades have given rise to remarkable advances in HIV/AIDS treatment and care. For example, the advent of highly active antiretroviral therapy (HAART) in the mid 1990's contributed significantly to the reduction of mortality, morbidity and hospitalization rates for individuals living with HIV/AIDS.<sup>1-4</sup> However, reflected in higher HIV related mortality and morbidity, HIV-positive injection drug users (IDU) have derived less benefit than other HIV-positive individuals from recent advances in HIV treatment and care.<sup>5, 6</sup>

In addition to substantial barriers to accessing and adhering to HAART regimes,<sup>6, 7</sup> the elevated rates of HIV-related morbidity and mortality among IDU are also mediated by substantial barriers associated with access to basic care and support, including primary care services,<sup>8</sup> addiction treatment,<sup>9</sup> and adequate housing and social assistance.<sup>10, 11</sup> As a result of barriers to accessing care, IDU often delay seeking medical treatment until conditions have reached advanced stages requiring emergency or acute care,<sup>12</sup> which in turn increases the severity of health problems among IDU.<sup>13</sup>

Relationships between IDU and healthcare providers are often marked by a degree of mutual suspicion.<sup>14</sup> Evidence suggests that healthcare providers may harbour stereotyped views of IDU as manipulative and unmotivated clients, seeking pain medication,<sup>15</sup> while IDU on the basis of previous negative experiences with the healthcare system often expect punitive treatment and

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<sup>1</sup> Will Small, Dr. Evan Wood and Dr. Thomas Kerr contributed to the design and analysis of this study as well as to the revision of previous versions of this manuscript.



frequently hide their continued substance use out of fear of judgement or rejection.<sup>6</sup>

Infections resulting from unsafe injections constitute a particularly significant health issue among HIV-positive IDU and contribute to the poorer health status of HIV-positive IDU.<sup>6, 16</sup> Injection-related infections include abscesses and cellulitis, which can lead to serious complications such as osteomyelitis, septicemia, and amputation if not properly treated.<sup>17</sup> While infections are preventable and treatable, they constitute the most common reason for IDU to visit emergency rooms in many settings.<sup>18</sup> Despite the elevated levels of emergency room use and hospitalization associated with injection-related infections in HIV-positive IDU, few interventions specifically target the adverse sequelae associated with unsafe injecting.

One form of intervention to reduce the harms stemming from injection drug use are supervised injection facilities (SIFs).<sup>19</sup> SIFs have been implemented in a growing number of settings in recent years and typically provide a sanctioned and hygienic environment where IDU can inject pre-obtained illicit substances using sterile injection equipment, under the supervision of trained staff.<sup>20</sup> Evaluations of SIFs have revealed a number of benefits, including increasing access to addiction treatment,<sup>21, 22</sup> and improving public order.<sup>23</sup> However, we know of no studies that have investigated the impact of an integrated supervised injection program within an HIV care facility. Therefore, we sought to examine the perspectives of HIV-positive IDU and healthcare staff regarding a supervised injection program integrated within an HIV focused care

facility, with the aim of evaluating the program's influence on access and delivery of care for HIV-positive IDU.

### **The Dr. Peter Centre Harm Reduction Room**

The first government-sanctioned SIF in North America opened its doors in Vancouver's Downtown Eastside in September 2003.<sup>24</sup> However, more than one and a half years before the opening of this purpose-built facility, a number of nurses at Vancouver's Dr. Peter Centre (DPC) implemented a supervised injection program.<sup>25</sup> The supervised injecting program, referred to as the *Harm Reduction Room* (HRR), involves nurses supervising the injection of street drugs by HIV-positive program participants in a designated space.

The DPC opened in April 1997 in an unused wing of St. Paul's Hospital in Vancouver with the mandate of providing care and support to people living with HIV/AIDS. Since September 2003, the DPC has operated in a purpose-built building in Vancouver's West End. The Centre was the initiative of Dr. Peter Jepson-Young, a local physician, who documented his battle with HIV on CBC television. He died of AIDS in November 1992.

The DPC offers a day health program for approximately 150 adults and a 24-bed assisted-living residential program. Approximately 70 percent of the day program participants are poly-substance users who.<sup>25</sup> Many day-program participants live in substandard, unsanitary, single room occupancy housing. The DPC offers both basic supports such as hot nutritious meals, showers and laundry facilities, as well as nursing, and social support including adherence support to HAART, methadone maintenance treatment, counselling and

psychotherapy and various complementary therapies including expressive art and music therapy, acupuncture, chiropractic massage, reiki, meditation and shiatsu.

The care model at the DPC embraces harm reduction practices across the full spectrum of care with the aim of accepting participants where they are at and by promoting the autonomy and self-care of participants. As such the integrated supervised injection program is well integrated with the numerous programs offered at the Centre.<sup>25</sup>

Prior the implementation of the supervised injection program, the nurses and staff at the DPC consulted with legal experts concerning the legality of supervising the injection of illicit substances. The Centre also sought advice from the Registered Nurses Association of British Columbia and from the Canadian Nurses Association for Registered Nurses. Both of these professional bodies supported the Centres proposition and assured that the proposed supervised injection program was within the scope of nursing practice.<sup>26</sup> As such the HRR at the DPC, unlike the larger SIF downtown, operates outside the Health Canada exemption of Section 56 of the Controlled Drugs and Substances Act. Accordingly, the DPC is not expecting to close down its supervised injection program in the event the Federal government decides against the renewal of the exemption of Section 56 at the end of June 2008. Herein we report on the experiences and perspectives of DPC participants who have used the program and staff who work in the HRR.

## **METHODS**

We conducted 22 in-depth qualitative interviews with DPC participants to discuss their experiences using the HRR. Potential participants were informed about our study during a weekly DPC community meeting, as well as through information sheets that were posted within the facility. All DPC participants who were willing to participate and met the minimum criterion of having used the HRR at least once were interviewed. In addition we conducted 7 qualitative interviews with staff members who regularly supervise injections within the HRR. The staff sample was recruited using a purposive sampling strategy to ensure adequate representation of staff with various professional backgrounds (e.g. nurses, counsellors) involved in supervising injections at the HRR. We also sought long-time staff members who had worked at the DPC before and during the time the HRR was implemented in order to capture their perspectives regarding the impact of the HRR on the DPC.

All interviews were conducted in a private room at the DPC and lasted between 30 and 90 minutes. The interview team consisted of two interviewers (one male and one female) who had previous training and experience interviewing IDU. The participant interviews were facilitated using a topic guide encouraging discussion of experiences with the HRR, perceived benefits and barriers to using the program. The staff interviews were also conducted using a semi-structured topic guide consisting of questions concerning the operation and integration of the HRR into the existing services, as well as the perceived health impact of the HRR.

The research team discussed the content of the interviews throughout the data collection process in order to inform the direction and focus of subsequent interviews. All interviews were audio-recorded and transcribed verbatim. A member of the research team checked the content of all transcriptions to ensure the accuracy of textual data. Field notes reflecting on key points and interview dynamics were also kept.

The coding framework was developed collaboratively with all research team members and drew both on *a priori* themes that were reflected in the interview topic guide as well as more inductive categories that emerged from participant's accounts. Care was taken to ensure that each thematic category was well defined and that the boundaries of the various categories were clear. The thematic categorization of the interview transcripts was facilitated by the use of ATLAS.TI Version 5.2, a computer program designed to assist in the management of non-numerical data.

All participants provided written informed consent for participation in the interviews. DPC participants were reimbursed for their time with a stipend of Can\$ 20 whereas the staff were interviewed during their regular work hours and hence did not receive any monetary compensation for participation. The study was conducted with the appropriate approval of the Providence Healthcare/University of British Columbia Research Ethics Board and the Simon Fraser University Office of Research Ethics.

## **RESULTS**

### **Sample Characteristics**

The interviewees drawn from among the DPC participant population included 15 male and 7 female participants. 6 of the 22 interviewed DPC participants self-identified as being of Aboriginal ancestry. All interview participants are HIV-positive IDU and had used the HRR at least once. Six of the interviewees are residents at the DPC, and the remaining 16 individuals are day-program participants. The mean age among the sample was 43.8 (range 28-54), and the average number of years living with HIV was 12.

Staff members who participated in the interview process included four nurses, two counsellors and one recreation therapist<sup>2</sup>. Five staff interviewees had experience of working at the DPC before the implementation of the HRR.

### **Acceptability**

Participants' perspectives on the acceptability of using the HRR were strongly influenced by the perceived benefits of injecting under supervision. Frequently, participants talked about the perceived benefits of the HRR with regard to hygiene. Hygiene was discussed both with respect to the provision of a sterile injection space and clean injection equipment, as well as in terms of having enough time to employ all the steps involved in injecting in the safest manner. The physical and social context of the HRR was described as enabling proper injection hygiene, such as cleaning the bodily injection site with an alcohol swab as well as cooking and filtering the substance. In highlighting the

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<sup>2</sup> According to the HRR protocol counsellors and other non-nursing staff can supervise the injection preparation; however during the actual act of injecting and immediately afterwards the presence of a qualified nurse is required.

advantages of a sanctioned supervised injection setting, many participants contrasted their injection practice at the HRR to their practices in other settings

*I usually got it down to a plan where I'm walking, open my spit ball [small package of drugs], and pull the stuff out as I am walking...pour my dope, put my plunger in. I look behind me, put my water in my hand...I don't have the best, what do they call it, hygiene out there. But I put the water [in my hand] and suck it up, and the next thing you shake...look around...boom. You can see it doesn't take me long to fix, eh? But I pay consequences because I have my arms that are scarred...Here [in the HRR] I'll cook it, or I'll take more precautions...Because I can feel more relaxed around here, there [public settings] it feels like I'm more pressured. (Male Participant #1)*

In addition to hygiene the most common motivations for injecting in the HRR were safety from the risks associated with overdoses, and physical safety from the police as well as street predators. While both male and female participants talked about the dangers of being robbed while injecting in public venues, reference to safety from physical violence was particularly common in female participants' narratives about the benefits of the HRR.

*I got a safe place to use, and all my new syringes are there. It's safe in case I overdose, or someone is going to rob me or anything like that. I'd feel safer in the room there...I've been robbed like three times on East Hastings. Beaten up and robbed. (Female participant #14)*

*If there's somewhere to go inside, legally, well almost legally, why mess around outside? Or hoping your buddy's crack shack is not going to get kicked in or in your shooting gallery the door is gonna come in. The boys in blue [police] ain't going to come visit you [at the HRR]. (Male Participant #3)*

### **Access to Care**

Participants' and staff' perspectives indicated that the HRR influenced participants' access to care by facilitating engagement in a broader array of support services including safer injection education, treatment for injection-related infections and following a nutritious diet.

*I think it's excellent down here. I don't think they should use it for the point of, you know not spreading it, that's a good reason. But, I think the main thing is we're taking care of ourselves better because we can put in that effort. (Male Participant #1)*

*Oh well it's helps take care of your priorities, like for eating and stuff cause...you're eating balanced meals...Some of the people are homeless too right, so they'd be they'd be using on the street and then not looking after themselves and stuff... (Female Participant #5)*

The view that the HRR facilitates the use of other services at the facility was particularly common in staff accounts, numerous staff highlighted the value of offering supervised injecting as part of a continuum of services for HIV-positive IDU.



*Usually people are like “well what’s the use I’m already [HIV] positive, so what does it matter?”. But at the same time, our kind of role is to help them understand that, yeah, you’re positive but you know you can stay healthier longer by taking care of yourself across the board, even including safe injection or supervised injection. With safer equipment and stuff like that, as well as the other healthcare needs too. As well as eating well and taking your medication as it’s prescribed as best you can. Those things can help you stay healthier longer. (Non-nursing staff #2)*

### **Safer Injection Education**

A number of participants described the HRR as constituting a unique setting for accessing education around safer injection practices that they would not otherwise be able to obtain. Many participants pointed out that the guidance they received in the HRR impacted their injection practice and reduced the occurrence of injection-related infections.

*They offer cleanliness and hygiene, its real good. Now I use an alcohol swab more, I didn’t use them before. And that’s why...I never had them, but that’s why a lot of people get abscesses, because of the hygiene. And, plus after 27 years of using, I wasn’t doing it right...So, you know, it’s definitely wise that they help you do it. (Male Participant #6)*

Many participants emphasised the benefits of reinforcing safer injection techniques during their actual injection process and stated that the HRR provided unique opportunities for guidance and continued discussion of injection practices.

*They just taught me once, but I had to be reminded, you know, so yeah in the first little while, you know, you just keep slipping back and not being as cautious, you know, you just keep slipping back to my old habits, so. You know you just kind of like, "don't do that". Really like quite adamant about having to do it properly.*  
(Male Participant #4)

Additionally, several participants emphasized the influence of environmental and situational factors in shaping their injection practices and stressed that awareness of safer injection techniques alone was insufficient in bringing about enduring changes in practice.

R: *It [the Harm Reduction Room] reinforced good practice. I already knew what they were, but I was pretty careless, pretty sloppy a lot of the time. Because you're in a pressurized situation, say you're under scrutiny, you go in the hospital, you think, I'll go in the washroom and use up [cocaine]. And all of a sudden, your anxiety level jumps. So you're doing things quicker, you are not safe...that kind of stuff.*

I: *So you might skip some of those steps that you know you should do?*

R: *Absolutely, I wouldn't even cook the heroin, or use tap water, and I had abscesses all the time, it was ridiculous. Same thing downtown, before they put the Insite [SIF] in, it was absolutely insane. You'd just buy the stuff, go in the back alley, bang it up [inject], using rain water...crazy. And I know for a fact I've shared water, which I've shouldn't have done...I'm sure that's where I got Hep [hepatitis C] from.* (Male participant #11)

Staff attributed a perceived reduction in abscesses and injection-related infections to the increased opportunities to engage participants with *in situ*

education regarding injection techniques. Examples cited included opportunities to draw attention to the possibility of utilizing different veins in order to avoid repeated puncturing of damaged and scarred veins.

*Initially, probably, when people start to use the room, there's the little things about teaching people how to inject safely. Amazingly sometimes it's teaching people that have been injecting for years that they're still sort of just jabbing. There's that, but I think that, more consistently, it's helping people find a vein, and it's helping people slow down, and learn what to look for, and learn to feel, and learn how to do all of those things without jabbing and jabbing. (Nurse #1)*

Staff also commented on the impact of the HRR in terms of allowing participants to be more open about their drug use and hence facilitating participants' early presentation of injection-related infections, which aids access to treatment and helps prevent complications.

*I mean definitely less [abscesses]. We used to do so much more wound care...we just don't do a lot of wound care any more. We used to have a lot more injecting-related abscesses. And I don't see them now...So I've seen a reduction possibly teaching, through vein maintenance, rotating sites that kind of thing, we see far fewer abscesses...So it's definitely that we've seen less wounds and if there are abscesses we just intervene sooner. They're willing to tell us about it sooner. They're not hiding it now. Whereas before it was, "no I'm not using". "I don't use, I don't use, I don't use, by the way I've got this huge thing [infection]". Then why are you leaving it so long? So, that doesn't happen so much any more. (Nurse #3 )*

## ***Relationships***

Numerous participants commented on how the supervised injection program facilitated more trusting relationships with staff. Some participants felt that being able to sit together with a nurse while injecting helped create a better understanding of their drug use and the effects it has on them.

*I think, I think it made, made our relationship stronger...Like they know where I'm coming from. (Male Participant #13)*

*Yah, I think it's actually a good thing. Because you [the staff] get to know what drug addicts are as individuals. And without making an 8 act play about your life, they just got to get to know you...It builds a relationship, so that they know when you come in the door, they can pretty much dial you in. (Male participant #11)*

The view that the HRR positively impacts participants' relationships to staff was echoed in staff comments emphasizing that the supervision of injections allowed them to connect with participants in a manner that would not be possible without the program.

*Just your presence there and support, I think is something they don't get other places with staff at other organizations. So I think that there's something that is built there that you don't you really can't do any other place. (Non-nursing staff #2)*

Staff viewed the relationships built in the context of the HRR as enhancing participants' access to care, attributing participants' increased trust and openness concerning their drug use and health issues to the supervision of injections.

*It's amazing what you'll find out about, like in terms of you know, I mean health, it covers everything. In the injection room you cover so much ground in there, really get a sense of, where they're at, what's going on with their health. Their numbers [blood counts], their docs, you know their concerns, their stuff. That wouldn't, happen with, "can I have an ibuprofen cause I've got a headache?" You're not gonna get anything out of them, right? (Nurse #3)*

## **Delivery of Care**

### ***Overdose Prevention***

The most prominent issue in relation to the delivery of care for participants and staff alike was the benefits of the HRR in terms of mediating the risks associated with drug overdoses. A number of participants and staff described how prior to the implementation of the HRR, numerous overdoses had occurred in secluded private locations at the Centre, complicating detection and timely response to overdoses. Participants and staff reported that since the establishment of the HRR, the negative impacts of overdoses have been reduced as injecting behaviour no longer has to be concealed.

*I used to be here before they had that room, over in the old Peter Centre on Comox. I went to the washroom a couple of times. I wasn't supposed to but I did [inject], a couple of times. It wasn't comfortable, this is much better. There was one person that was found, they OD'd on the floor, and it wasn't very good. They rushed in, it was a good thing anybody noticed, it was just somebody going to the washroom, and they opened the door that he'd left unlocked. It was a good thing he did. He would have just been left there. Somebody called 911, and they took*

*care of him. He lived but...he was pretty lucky. If he'd locked the door, somebody would have thought someone was in there [in the washroom] and walked away. That would have probably happened for an hour, a couple of hours before somebody would have got the door open. He would have been dead by then...We haven't found anyone nodding out in bathrooms, or OD'ing anymore which is all really good. (Male Participant #22)*

As such the HRR was seen to provide an environment at the DPC that reduces the risks associated with drug-related overdoses by addressing conditions which fostered injecting alone and in hidden spaces.

### ***Legitimate Space***

Many participants also commented on the impact of the HRR on the atmosphere at the Centre. Providing a legitimate space for injecting has alleviated the burden of finding used needles around the Centre, and has decreased the risks of needle stick injuries for DPC participants and staff.

*You'd find them [used syringes] in the laundry room, in the bedrooms where you sleep...people were doing it everywhere...It bothered me, because a lot of people didn't put caps on their needles, you'd step on them. In fact, I did step on it once...I haven't seen a needle in any bedrooms, any bathrooms, any laundry rooms. So, the people that do use, they use the harm reduction room, so there's no need for them to go in the bathrooms. (Male Participant #6)*

Many staff reported that before the implementation of the HRR it was difficult to adequately address and respond to participants' drug use at the Centre. Staff viewed the provision of supervised injecting onsite as facilitating the

delivery of care by reducing the need to punitively regulate drug use within the Centre.

*We would hand out rigs [syringes], and swabs, and water, and then the nurses in particular would deal with the abscesses and cellulitis after. There was the general notion of what they do in-between is their problem. We can't deal with that. It wasn't okay to use on-site, of course they would try it anyway, like in the back rooms of the Centre. And it was becoming a really unsafe situation...It was like, doing the front and the back of the process, but not really dealing with the middle part. (Non-Nursing staff #6)*

*What should we do? [prior to the implementation of the HRR] We knew they just injected in the bathroom, we knew it. And we were gonna go in and we were gonna find something...and put them on a month's suspension - that sort of thing. I think now it's much better...We're dealing with people that have legitimate health needs, this is just part of their life. Like we cannot, provide healthcare services, but continue to deal with, particular aspects of their life, which have direct impact on their health, in a purely punitive manner. (Nurse #7)*

### **Barriers to Using the Harm Reduction Room**

While many participants viewed the HRR as enhancing the support and care at the DPC some participants were more sceptical concerning the acceptability of an integrated supervised injection program.

#### ***Type of Substance***

Participants' narratives demonstrated that the acceptability of the HRR was shaped not only by the perceived safety benefits but also by their expectations regarding how injecting in the HRR was going to influence the effect

of the injected substance. Participants' reports reflected a greater willingness to inject opiates in the HRR compared to stimulants. Many participants expressed that the use of cocaine often gives rise to a sense of restlessness and leaves them feeling somewhat suspicious and distrustful. Under those circumstances many participants felt that the HRR was not the most suitable injection venue.

*Cocaine is a different thing. I hate being, trapped in one spot, when I'm doing cocaine...I like to wander, you know and just, you get so hyped up, you know, you go back and forth like a ping pong ball. I can't do that [in the HRR], so. (Male Participant #4)*

*It [the HRR] affects your high if you were doing cocaine because on cocaine you get kind of paranoid. (Female Participant #5)*

*I only use heroin in here [in the HRR]...The drugs are expensive and if I don't fully enjoy that high more than 90%, it's not good. I want to enjoy it. Cocaine is a different high than heroin. A lot of people have some weird tweaks [mannerisms when intoxicated]. And if you know it's a weird tweak, they won't tweak in front of a normal person. Other addicts, you don't care. With heroin, I consider it a medication - more of a medication than an illegal drug. (Male Participant #16)*



### ***Shame and Fear of Judgement***

Many participants and staff commented on how the HRR facilitated access to supervised injecting and enhanced therapeutic relationships, however others reported that existing relationships may complicate access to the program. Some participants described how a fear of judgement, shame, and embarrassment around injecting may mediate their access to the HRR.

*[If I had injected outside the HRR] it wouldn't have been embarrassing I wouldn't watch me in the mirror I mean and, and whenever [I inject] I don't feel anything...Whereas when another person is there I feel there's a judgment aspect to it there's all kinds of other aspects. (Male Participant #10)*

*I feel kind of embarrassed sticking a needle in my arm and stuff... Because I feel like, well I wouldn't feel good about them seeing me injecting and stuff...It's the confidentiality thing, and I think they'd have a lower opinion of me possibly when I fix in front of them. (Female Participant #14)*

*You become close to staff and, and it's like a family kind of thing and you don't wanna disappoint them and let them know that you're doin' it you know. I just don't like to...I think that they look down on you more if they know you're using. I just feel like I'm a lower person than the staff when they know I'm doing something. And then you get you can't enjoy your high because you're so concerned about them judging you and...I think cause the staff know that you've just done something. That anything you do after that is going to be, oh it's the drug that's making her do that. (Female Participant #12)*

## DISCUSSION

Consistent with previous work highlighting the value of integrating HIV care with addiction treatment such as methadone maintenance therapy,<sup>27</sup> our findings further demonstrate the potential benefits of integrating harm reduction interventions within HIV care settings. Participants' perspectives suggest that supervised injecting programs have the potential, through modification of the physical and social setting surrounding the injection process, to reduce the harms associated with unsafe injecting and can positively influence access to care for HIV-positive IDU who continue to actively inject illegal drugs. The present findings indicate that the integrated supervised injection program influenced IDUs' access to care by facilitating engagement in safer injection education, improving the management of injection-related infections and building more open and trusting relationships with staff. Study participants reported that the program helped to reduce overdose risks and the need to punitively manage drug use onsite. The program also contributed to a reduction of improperly discharged syringes on the premises. While most participants rated the acceptability of the *Harm Reduction Room* (HRR) as high, for some participants, feelings of shame and fear of judgment in relation to their substance use complicated the uptake of the program.

Due to heightened susceptibility, injection-related infections constitute a major health risk for HIV-positive IDU,<sup>6, 16</sup> and represent a key concern in care. The HRR appears to positively influence injection practices through providing a physical and social setting that is conducive of safer injection practices and

facilitates participants' access to practical *in situ* injection education. Our findings regarding the influence of the HRR on safer injecting are consistent with previous work which reported that a significant proportion of SIF users also obtain safer injection education.<sup>28</sup> The presence of healthcare staff during the injection process gives rise to unique opportunities for practical *in situ* injection education. Participants' comments indicate that the collaborative injection education taking place in the HRR offers benefits above and beyond the conventional educational approaches that typically take the form of pamphlets and posters promoting safer injecting.<sup>29</sup>

While, as reflected in participants' accounts, awareness of safer injection techniques and overdose prevention strategies are important factors in reducing the harms associated with injection drug use, purely educational interventions are insufficient due to their limited consideration of contextual forces which can constrain the ability of IDU to adopt risk reduction strategies.<sup>30</sup> Consistent with previous studies exploring how the physical and social context of injection settings influences risk behaviours,<sup>22, 29, 31</sup> participants in the present study, repeatedly emphasized the influence of contextual features in shaping their injection practices. Participants viewed the HRR as an 'enabling environment' that facilitates the adoption of safer injection practices<sup>30, 32</sup> and associated injecting within the HRR with a reduction in injection-related infections. Again, many participants in this study explicitly commented on the limitations of purely knowledge-based approaches to altering injection practices and emphasized the

significance of being able to inject in an environment that offsets the need to inject expediently.

Despite the well-documented limitations of purely education based behavioural interventions,<sup>33</sup> the current political climate is more conducive to the implementation of individually focused behavioural programs, as opposed to environmental and structural interventions that aim to create an atmosphere that is conducive to risk reduction.<sup>34</sup> An integrated SIF within an HIV-focused care facility is one form of micro environmental intervention which addresses the risks associated with injection drug use by providing a sanctioned and hygienic injection environment for consumption of illicit substances.<sup>20</sup>

In addition to providing a micro environment which is conducive to employing safer injection practices, the HRR also increased some HIV-positive program participants' access to care by fostering more trusting relationships with staff. Lack of trust and poor relationships with healthcare providers have been identified as important components of IDUs' avoidance of healthcare facilities and delays in seeking care.<sup>8, 35</sup> Failure to acknowledge and include clients' drug use in their care can compromise the relationship between client and healthcare provider and results in the exclusion of a central determinant of clients' health.<sup>6</sup> Our findings highlight the potential of an integrated supervised injection program in facilitating more open relationships between IDU and staff and, as such, creating an environment that is accepting of clients' current situation regarding substance use. Participants' and staff perspectives suggest that the HRR has improved mutual trust and facilitated disclosure of injection-related infections and

other health issues, which in turn increased opportunities for staff to provide adequate care and support.

The HRR facilitated the delivery of care at the DPC by creating a legitimate physical space for injecting illicit substances. By incorporating participants' drug use within the care setting, staff were able to reduce the harms associated with active injecting.<sup>36-38</sup> As observed in other settings,<sup>10, 22</sup> prior to the implementation of the HRR, overdose incidents in secluded areas and behind locked doors within the DPC constituted a major concern and policing onsite injections consumed substantial staff time. Consistent with previous work documenting a reduction of improperly discharged syringes after the implementation of a SIF,<sup>23</sup> the HRR reduced the risk of needle stick injuries occurring at the DPC, as improperly discharged syringes no longer pose a major issue at the Centre. Additionally, the commonly used strategy of banning IDU from shelters and services as a way of sanctioning drug use within service facilities,<sup>10</sup> was no longer necessary after the implementation of the HRR and, as such, substantially increased individual participants' access to continuous comprehensive care and support at the DPC.

Participants' perspectives on the barriers to injecting at the HRR demonstrate a careful weighing of the advantages and disadvantages of using the program<sup>22</sup> and bring to light some of the limitations of an integrated SIF. In line with previous studies, participants' reports reflect considerations regarding the effect of injecting under supervision on their intoxication,<sup>22</sup> as well as concerns regarding the interference of existing relationships with using the HRR.

Consistent with previous work, a number of participants in this study expressed feelings of shame about disclosing their injection behaviour<sup>39, 40</sup> to staff. While SIFs, as reflected in the findings of the present study, can contribute to a micro environment that is conducive to accessing care for HIV-positive IDU, their acceptability is also shaped by wider societal forces.<sup>30</sup> The relative success of harm reduction interventions is shaped by the social environments in which they occur and, as such, they are also dependent on wider societal forces such as persistent discrimination and stigmatisation of IDU.<sup>30, 31</sup> Reflected in media reports and the continued prioritization of law enforcement interventions, substance users continue to face considerable social disapproval.<sup>41</sup> In order to achieve maximum effectiveness, harm reduction interventions need to be supplemented by sustained efforts in changing the macro social environment that influence how responsibility for the harms of substance use is construed.<sup>30</sup> Supervised injection programs and harm reduction measures in general need to be complemented with policy measures that more fully address the structural issues affecting the health of HIV-positive IDU including homelessness, substandard accommodations, inadequate social assistance, social inequality, stigmatization and marginalization.

The present study has a number of limitations that should be acknowledged. There is a possibility that the views represented in our sample are not entirely representative of the views of all DPC participants who have made use of the supervised injection service, as some participants with deviating views may have chosen not to participate. This study focused exclusively on the

views of IDU who have used the HRR at least once. Therefore, the views of IDU who attend the DPC but do not use the service are not represented in this study. Likewise, the perspectives of non-IDU DPC participants regarding the integrated SIF have not been explored as part of the present study. Lastly, although we investigated the impact of the HRR on access to care, we did not obtain data specific to the impact of the HRR on access and adherence to antiretroviral therapy. Future studies should seek to investigate this matter further.

The findings of the present study highlight the value of integrating a supervised injection program within a comprehensive care facility for HIV-positive IDU. Despite some participants' reservations concerning shame and fear of judgement, our data indicates that integrating supervised injection programs into HIV/AIDS care programs for IDU may contribute to the reduction of harms associated with unsafe injection practices and help overcome some of the significant barriers to care and support among this population.

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