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ORIGINAL ARTICLE

The Injection Support Team: A Peer-Driven Program to Address Unsafe Injecting in a Canadian Setting

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In 2005, members of the Vancouver Area Network of Drug Users (VANDU) formed the Injection Support Team (IST). A community-based research project examined this drug-user-led intervention through observation of team activities, over 30 interviews with team members, and 9 interviews with people reached by the team. The IST is composed of recognized "hit doctors," who perform outreach in the open drug scene to provide safer injecting education and instruction regarding safer assisted-injection. The IST represents a unique drug-user-led response to the gaps in local harm reduction efforts including programmatic barriers to attending the local supervised injection facility.

Keywords injection drug use, peer interventions, drug user groups, assisted injecting

INTRODUCTION

In most settings, health and harm reduction programs for people who inject drugs (PWID) primarily operate under the "provider-client" model, although the limitations of this model are becoming increasingly recognized (Broadhead et al., 1998; Broadhead, Heckathorn, Grund, Stern, & Anthony, 1995). Drug user organizations have emerged in an increasing number of settings internationally (Crofts & Herkt, 1993; Friedman et al., 1987, 2007; Grund et al., 1992), partially in response to the lack of comprehensive public health interventions for PWID and the shortcomings of conventional provider-delivered services. These organizations have developed a range of drug-user-led interventions to promote HIV prevention and risk reduction, by disseminating educational messages and attempting to modify risk practices (Latkin, 1998). These interventions represent an important, and often underutilized, strategy to extend the scope and reach of harm reduction programming among PWID. Drug-user-led interventions have a unique ability to address gaps in service delivery, by establishing innovative initiatives, as well as increasing the coverage of programs to reach marginalized drug users who are not currently engaged with existing services (Friedman, de Jong, & Wodak, 1993; Grund et al., 1992). For example, drug-user-led interventions have undertaken activities involving needle exchange, health outreach, service delivery, HIV prevention education, as well as peersupport and advocacy activities (Friedman et al., 2004, 2007; Grund et al., 1992; Kerr et al., 2006). The diversity of activities and interventional approaches, as well as the range of settings in which these programs have operated, attests to the significance of programs developed and operated by PWID (Friedman et al., 2007).

There is a long history of drug user organizing and advocacy in the city of Vancouver, Canada, stemming primarily from the activities of the Vancouver Area Network of Drug Users (VANDU). VANDU formed in 1997 in response to the emerging health crisis among PWID in the Downtown Eastside (DTES) of Vancouver, which included coinciding epidemics of HIV and drug-related overdose (Kerr et al., 2006). The organization operates a storefront office in the DTES, has over 1,000 members, and is overseen by a Board of Directors composed of current or former drug users. VANDU has previously operated a variety of drug-user-led harm-reduction programs, including needle exchange, an outreach-based alley patrol program, and an unsanctioned supervised injection facility (SIF) in Vancouver's DTES (Kerr, Oleson, Tyndall, Montaner, & Wood, 2005a; Kerr et al., 2006). Importantly, while these programs have targeted key health issues among the local community of PWID, they have often served to address the shortcomings of existing public health efforts. For example, although a local needle exchange program had operated in

Vancouver since 1986, restrictive exchange policies and difficulty in obtaining syringes during overnight hours represented crucial barriers to syringe access at the end of the 1990s (Wood, Tyndall, M., et al., 2002; Wood, Tyndall, M. W., et al., 2002). In response to the problems with syringe access, in 2001, VANDU established a needle exchange table that was characterized by more flexible exchange policies and operated in the late night hours when other syringe outlets were closed (Kerr et al., 2006). Subsequent evaluation demonstrated that this particular source of syringes was utilized by a very high-risk group of injectors, and use of the VANDU needle exchange program was associated with safer syringe disposal (Wood, Kerr, et al., 2003). In 2003, citywide policies were implemented to provide enhanced access to syringes on a needs-based distribution model (Kerr et al., 2010), building on the flexible policies pioneered by VANDU (Kerr et al., 2006).

Partly as a result of VANDU's efforts to prompt a response to the overdose and HIV epidemics that plagued Vancouver throughout the 1990s, a governmentsanctioned SIF, named Insite, opened in the DTES in September of 2003 (Wood, Kerr, Lloyd-Smith, et al., 2004). However, the opening of Vancouver's sanctioned SIF was greatly delayed after it was approved in principle, partially due to the need to navigate a complex bureaucratic system in order for the facility to operate legally. During this time, VANDU volunteers operated an unsanctioned SIF, and this action was motivated by a desire to demonstrate that operating a SIF was feasible in the local context and the objective of prompting local authorities to open the sanctioned facility immediately (Kerr et al., 2005a). A number of community and health impacts have been documented as stemming from the establishment of Insite, including reductions in public injecting (Petrar et al., 2007; Wood, Kerr, Small, et al., 2004), reductions in syringe sharing among IDUs who utilize the facility (Kerr, Tyndall, Li, Montaner, & Wood, 2005b), and increased uptake of addiction treatment programs by SIF clients (Wood et al., 2006; Wood, Tyndall, Zhang, Montaner, & Kerr, 2007). However, there are limitations on the facility's capacity to address injection-related risk in the local context, and these relate to the relatively small capacity of the pilot facility in comparison to the very large open drug scene (Small, Rhodes, Wood, & Kerr, 2007), as well as specific regulations that prohibit the sharing of drugs between clients and assisted injections within the facility (Wood, Kerr, Lloyd-Smith, et al., 2004).

In the wake of the expansion of syringe access and the implementation of the SIF, assisted injection and public injecting emerged as key consumption practices driving drug-related harm locally. Assisted injection, which refers to the manual administration of injection by another individual, is a common practice among PWID in Vancouver. Approximately 40% of local injectors sometimes require assistance with injections (O'Connell et al., 2005), due to a lack of knowledge of how to self-inject, loss of viable veins, preference for jugular injection, and inability to inject oneself due to the anxiety and shakiness that can ac-

company withdrawal or intense cocaine use (Wood, Spittal, et al., 2003). Women are more than twice as likely as men to require assistance with injections, and a lack of knowledge regarding injection techniques is a key reason for requiring assistance among female injectors (Wood, Spittal, et al., 2003). The practice of assisted injection is associated with elevated rates of syringe sharing in the local context and has emerged as one of the strongest predictors of both HIV infection (O'Connell et al., 2005) and overdose (Kerr et al., 2007). Significantly, the current SIF cannot fully address the harms stemming from assisted injection. Although nursing staff will provide safer injection education and guidance with venous access within the SIF, federal guidelines governing the facility require self-administration and assisted injections are not permitted (Pearshouse & Elliott, 2007). Due to these dynamics, assisted injections often occur within public injection settings, with "hit doctors" administering injections in exchange for a fee (Fairbairn et al., 2006). Public injection settings in the DTES are unhygienic locations, and the potential for interruption, street violence, and encounters with the police encourage the adoption of expedient injection practices and impede ability to enact safer injecting practices (Small et al., 2007). Among a communityrecruited sample of PWID in Vancouver, injecting in public venues has been associated with homelessness and omitting important steps in the preparation of drugs for injection (DeBeck et al., 2009). Although the SIF is well accepted by local injectors, the limited capacity of the facility and wait-times to access the injecting room results in ongoing participation in public injecting (Small et al., 2007).

In the context of ongoing public injecting and the increasing prominence of assisted injection within the open drug scene, as well as recognition of the harms stemming from assisted injection, members of VANDU created the Injection Support Team (IST) in 2005. The IST is an outreach-based program, which performs regular patrols of the local alleys, streets, and parks, in order to provide education and support to individuals who experience difficulty injecting or require assistance with injecting. In order to generate evidence regarding unsafe injection practices, and document the development and activities of this drug-user-led intervention, a communitybased research (CBR) project was initiated as a partnership between VANDU, the IST, and the British Columbia Centre for Excellence in HIV/AIDS. With the support of the VANDU Board of Directors, research funding from the Canadian Institutes of Health Research was obtained for the CBR partnership. This CBR project sought to describe the evolution, structure, processes, and impacts associated with this novel drug-user-led intervention.

METHODS

The Community-Based Research Project

This project utilized a CBR approach to ensure greater levels of participation of affected community members throughout the research process, including a Peer Research Team (PR Team) consisting of 10 individuals who are acting members of VANDU. The PR Team has received training and education regarding research design, research ethics, the development of data collection tools, analysis and interpretation of data, and dissemination of research (e.g., presenting skills). The PR Team was oriented to the use of qualitative methods in health research and received instruction regarding the conduct of qualitative interviews and the analysis of qualitative interview data. Members of the PR Team were paid a modest stipend for both training and research activities. Since the project began over 50 organizational meetings involving all partners have been held to discuss research plans, monitor progress, and implement research activities.

Research Activities

This study utilizes data from a number of different sources in order to document the development of the IST, describe the activities of the IST, and evaluate the impact of the program. These objectives were pursued through the following activities: observational work and in-depth qualitative interviews conducted by a trained ethnographer with experience in the local community, interviews undertaken by the peer research team with individuals who have received care and assistance from the IST, as well as review of organizational records and documents.

Interview and Observational Activities With the IST

The lead author conducted in-depth interviews with IST members to investigate the establishment and operation of the IST. A series of 11 audio-recorded qualitative interviews, lasting between 30 and 60 minutes, were conducted in 2007. These interviews were structured around a set of questions regarding the genesis and the objectives of the IST and took place in the VANDU office. IST members received a small honorarium for participating in these interviews.

In addition, the lead author began accompanying the IST on outreach activities in September 2006 to generate observational data regarding outreach activities and injecting problems encountered in the open drug scene. Over 30 trips accompanying team members as they conducted 2-3 hours of outreach took place, and fieldnotes documenting the support provided and outreach interactions in the open drug scene were written afterwards. Subsequent to each accompanied outreach trip, short qualitative interviews with team members were conducted to discuss outreach activities, injection problems encountered on outreach, and the support provided. These activities resulted in a series of 25 short qualitative interviews, lasting 10-20 minutes each, which were structured to explore and describe the processes related to the specific outreach activities that had taken place on that day. All audio-recorded interviews were subsequently transcribed verbatim.

Observation of outreach activities and in-depth interviews with team members regarding the conduct of outreach generated data regarding the IST's activities, the support provided, and the profile of individuals reached by

the team. In addition, the project ethnographer engaged in further observation of IST activities by attending IST organizational meetings, as well as CBR project meetings. Fieldnotes were taken during or following these activities.

Qualitative Interviews With Program Participants

Members of the PR Team, who had received training in qualitative interviewing, conducted a series of nine qualitative interviews with individuals who received help from the IST. Over the course of 3 weeks in 2007, IST members referred individuals who had received support from the Team to a storefront research office, where interviews were conducted. Peer researchers utilized an interview guide to elicit discussion of injecting problems experienced, the management of injecting problems, and interactions with the IST. The interviewees received a small honorarium for participating in these interviews. The interviews were audio recorded and subsequently transcribed verbatim.

Review of Organizational Documents and Records

In addition, all available historical documentation was compiled to derive information about the IST. Materials reviewed included meeting minutes, procedural manuals, educational materials, photographs, media stories, correspondence with the VANDU Board, and other written documentation.

Data Analysis

In-depth interviews with IST members regarding the origins and objectives of the IST, as well as interviews with individuals who received care and support from the IST, were analyzed in collaboration with members of the PR Team. The project ethnographer catalogued interview data regarding the origins and objectives of the IST, using a preliminary coding scheme to partition data segments related to the central study objectives. These data were subsequently presented to members of the PR Team in order to discuss the content of the different thematic areas. Interviews with recipients of the IST program were read and coded by members of the PR Team to develop the analysis regarding participants' experience receiving support and the impact of engagement with the IST.

The project ethnographer catalogued information generated through observation of outreach activities, as well as coding the content of the debriefing interviews conducted with IST members. Together with members of the PR Team, the project ethnographer developed the analysis regarding common injection problems, reasons for requiring assistance, and the operation of IST outreach.

Ethics

All interview participants provided written informed consent to participate. Verbal consent for observations occurring during outreach was obtained from individuals who were encountered in the open drug scene. The study was undertaken with appropriate ethical approval granted by the Providence Healthcare/University of British Columbia Research Ethics Board.

RESULTS

The following analysis presents data generated through the various research activities in order to detail the origins and objectives of the IST, the organization and operation of the Team, and the perspectives of the individuals who receive support from the IST.

The Origin of the IST

The IST began operating in August 2005, and its formation represents a drug-user-led response to ongoing harms associated with unsafe and assisted injecting, as well as the limitations of the recently established SIF. A primary rationale for the formation of the IST was to provide education regarding safer assisted-injection and instruction on how to self-inject to injectors who require this type of guidance due to a lack of knowledge of injection techniques. The IST Mission Statement emphasizes the basic principles of the program:

The VANDU Injection Support Team is a user-led program that provides peer-to-peer education and assistance to promote safer injecting practices. Through advocacy and outreach the IST seeks to reduce the harms resulting from unsafe injection and preserve the health of injection drug users.

Targeting the health consequences of unsafe injecting, primarily HIV infection as well as other serious complications including amputation and death, was a key motivation for forming the IST:

We saw a lot of people really harming themselves in the neighborhood. People were shooting dope, and they were missing their veins, and they were having abscesses, and the abscesses were getting really bad, and they might have to have the arm amputated or cut off. You see a lot of people with missing limbs, and that's usually what it's caused by down here. (IST member)

In order to address unsafe injection practices and the resultant health complications, the Team formed as a vehicle to provide safer injection education within the open drug scene and to target individuals who were participating in public injecting. In this regard, the IST bears some similarities to previous VANDU programs including the Alley Patrol and the unsanctioned SIF, as both of these initiatives sought to address the risks associated with public injection settings. While there is an element of continuity between the IST and these previous activities, the IST places greater emphasis upon safer injecting education and has an explicit focus on addressing the harms stemming from assisted injection.

The group of individual VANDU members that formed the IST all had previous experience providing assisted injections, as they were established "hit doctors" in the local injecting scene. The team was initially composed of 12 members who each had more than 10 years experience injecting drugs and who were regularly sought out to provide assisted injections by members of the local drug user community.

So I've been helping people for 25, 30 years—that's what all the team was. All of us had ... years of [experience] injecting ... and

were really trusted out in the community, and trusted by their peers. (IST member)

The social identity of the founding team members permitted the IST to build on the important drug scene role that "doctors" play and afforded opportunities to raise awareness of the hazards related to assisted injecting. Team members discussed the need to encourage those receiving injections to recognize that someone else's actions shape the potential for drug-related harm when individuals who receive injections relinquish control of the injection process:

We've seen people in the alley going, "Can anybody fix me?" That "anybody" doesn't really care... (IST member)

Another primary motivation leading to the formation of the IST relates to the systematic barriers to accessing the SIF stemming from the prohibition on assisted injections. Due to these regulations, individuals who require help injecting were unable to access the facility and were compelled to seek the assistance of "hit doctors" outside of the facility. The Team members recognized that a large number of assisted injections were occurring within public injecting venues. The failure of the SIF to accommodate some of the most vulnerable and marginalized injectors, those who rely on assisted injections, was another motivation for forming the IST.

People that can't fix themselves can't go to the safe site (SIF), right. You see people . . . somebody is fixing somebody right in the alley. (IST member)

A particular incident, which occurred in early 2005, was frequently discussed as being an important factor in the formation of the IST. A female VANDU member with a physical disability, who was unable to self-inject and relied on others to administer her injections, had arranged an assisted injection for a small fee when she was assaulted and robbed in the alley behind the SIF by the "doctor." For Team members, this event highlighted the hazards of assisted injection in the open drug scene and the inability of the SIF to address the risks related to this practice. The incident also served as a catalyst for particular members of VANDU to take action and develop strategies to address the problem. With regard to the limitations of the SIF, highlighting the shortcomings of current regulations and "forcing" the SIF to permit either nurse-assisted or peer-assisted injection within the facility was another goal influencing the formation of the Team.

Team Organization and Processes

The IST engages with users through outreach activities, where two Team members spend 2–3 hours in the open drug scene, 5 days a week. All IST members have received training in CPR (cardiopulmonary resuscitation), first aid, overdose recognition, and instruction regarding the delivery of safer injection education. In addition, the Team has developed a manual of operational procedures and protocols, which inform outreach activities. During outreach, the Team distributes a range of harm reduction

materials including sterile syringes, alcohol swabs, sterile water, cookers, and citric acid, as well as provides first aid if it is required. In order to specifically target individuals who require assistance with injection or who are injecting unsafely, Team members walk routes through the streets and alleys where public injecting is regularly occurring. When Team members encounter individuals who are experiencing difficulty injecting or actively seeking an assisted injection during outreach, they take the opportunity to provide education regarding injection techniques, safer injection practices, as well as instruction regarding self-administration of injections. The Team seeks to facilitate an improved response to overdoses occurring within public injection settings and always carry a mobile phone so that they can call for emergency assistance if they encounter an individual who has overdosed, but they do not carry Narcan.

As all Team members are established "hit doctors," they are recognized by large numbers of individuals during outreach, which facilitates interactions within public injection settings and creates many opportunities to deliver education and guidance. Team members discussed how many of the common injecting problems encountered during outreach are related to a lack of knowledge regarding injection techniques. For this reason, a significant proportion of outreach interactions are focused on delivering instruction regarding proper injection techniques.

First thing I ask people was "who taught them how to fix?" Most of them taught themselves and ... most of them do it wrong, and they end up messing their arms up. (IST member)

Team members identified providing basic injection education as an important strategy that also serves to convey knowledge that can help reduce multiple forms of injection-related risk:

You're teaching that person how to do a clean shot, but in the process you are also preventing that person from getting HIV, Hep C, etcetera . . . (IST member)

While many outreach interactions involve providing safer injecting education, this is seen to fit with the Team objective of addressing assisted injection. Providing education regarding proper injection technique represents an important component of instruction regarding self-injection, particularly for female injectors:

I like to help, and work with our women who have been users for awhile and their veins, because I know what happens with my veins. Women's veins are smaller, they've always been fixed by their boyfriends, and they've never been taught how to do it properly. So to be able to get somebody like that and teach them how to do it properly, and then they can learn how to do it themselves and not have to depend on somebody else. That's my goal. My target people . . . are the women. (IST member)

Additionally, Team members pointed out that problems with venous access may result from long-term injecting and repeated utilization of improper injection techniques, and that difficulty "hitting" veins is a key reason why people are unable to self-administer injections.

Sclerosed veins happen from repeated injection in one spot, which we see a lot. Y'know, people sitting there, "Oh, I can get this one." And they hit it up all the time, but they don't realize that they're causing their veins to sclerose, and it'll be harder for them in the long-run for them to shoot up later. (IST member)

People that need help injecting [...] people that have been at it a lot of years, all the nice, easy access, easy-to-see veins are now hard to find a flag on. Some women I know, always like help 'cause they have a terrible time finding a vein ... they might be digging around for a few minutes and really getting frustrated and really letting a lot of blood. (IST member)

While the IST seeks to promote safer assistedinjection, fostering competency in self-injection is seen by all Team members to be a key strategy for reducing risks related to assisted injection.

In addition to providing education, during outreach, the Team will also provide guidance with venous access by coaching people during the injection process. An important part of this guidance is identifying viable veins and encouraging people to rotate their injection sites:

We're all about trying to teach you how to do it yourself, and trying to teach you how to do it less harmfully. I've done lots of talking people through it, handing them fresh materials, saying, "Maybe don't try this one. Try this vein over here," while they're tied off and trying to shoot themselves up. I've done verbal assists. (IST member)

We try to talk people into trying a different vein. Somebody always likes to shoot up in their thigh, they're having a hard time, they can't do it, "Maybe try somewhere else." (IST member)

Providing verbal assistance rather than manual assistance with injection is often sufficient to overcome difficulty injecting. During these types of interactions, Team members draw on their knowledge of the circulatory system, as well as their own personal experience injecting, to suggest strategies that will help achieve venous access. This ability to convey educational information as well as mobilizing experiential knowledge represents one of the unique aspects of the instruction delivered by the IST.

Me and "D" were out there, and we seen some girl fixing . . . so we just kind of steered her, like directed her [in finding a vein], "like put it down a bit more." (IST member)

Through the conduct of this research, it was discovered that some members of the IST would actually provide manual assistance with injection and deliver an assisted injection, if other techniques are not sufficient to facilitate self-administration. In these instances, rubber gloves and sterile syringes were always utilized, in order to minimize potential for blood-borne virus transmission, and Team members informed those receiving injections that they would call for emergency assistance if an overdose were to occur. While this type of action was reserved for instances where all other forms of guidance and assistance proved insufficient, it appears that delivering injections was a regular part of outreach for some IST members.

The Perspectives of Individuals Who Have Been Helped by the IST

Interviewees who obtained help from the IST explained how their inability to self-inject posed a barrier to accessing the SIF. Some of the interviewees explained how they do utilize Insite, but that in some instances when they experienced difficulty injecting, guidance from the nursing staff was insufficient to enable self-administration. A common narrative within these interviews described an occasion when the individual attempted to inject within the facility and, after being unable to complete their injection, left to seek out an assisted injection in the open drug scene.

Arranging an assisted injection in the open drug scene normally involves a small fee, paid in either money or a share of drugs. However, some female interview participants recounted how they had previously been compelled to engage in sexual exchanges in order to obtain assistance with injection:

I: Before you connected with the IST, who assisted you with your injections? Did you go in the alley and try to get somebody or ...

R: Yah, usually behind Insite, somebody's helped me yah. Yah, I couldn't get anybody to help me, so I had to show my boobs, and lift up my skirt, pull my panties down. (Interview # 2)

Obtaining support from the IST was seen to offer some relief from exploitative relations with "hit doctors." Interviewees described how many "hit doctors" are unscrupulous and may seek an opportunity to "rip off" those they are assisting. In addition, those individuals who had been helped by the IST appreciated that Team members were volunteering their time. The help provided by the IST was seen to offset the costs normally associated with obtaining assistance with the injection process, and interviewees cited how they "didn't have to pay someone" in order to complete their injection. Some interviewees suggested that the actions of the IST could potentially affect the economy surrounding assisted injection and make it more difficult for other "doctors" to demand a fee in exchange for assistance with injection, although it was recognized that payment for assistance with injection remained the norm.

Individuals who had received support and guidance from the IST expressed that their interactions with the Team were beneficial.

I: How did you hear about the injection support team?

R: Actually I was doing a fix in the alleyway, and they came walking up to me and said, "Do you need help"? And I said I did. And then they . . . showed me how to clean the spot up, how to tie it up, and get the proper vein out and everything. Stuff I didn't realize . . . you had to do. (Interview # 4)

The instruction, verbal guidance, and help with venous access provided by the Team were reported to be effective in helping facilitate self-injection. For example, in some instances, Team members helped with venous access by holding a person's arm tightly, to prevent veins from moving. This is an issue that often poses difficulty in achiev-

ing venous access, as some injectors have veins that are "rollers," and this type of help prevented veins from shifting during the injection process. Individuals who had received guidance and support from the IST reported that the experiential knowledge the Team members possess and their reputation as trusted "doctors" were important attributes that facilitated engagement with injectors. Interviewees reported being referred to the Team by other drug users, as well as referring other drug users to the Team. The importance of this word of mouth referral suggests that the social identity of Team members was key to facilitating productive interactions during outreach.

A small number of the research participants who engaged with the IST reported that they had actually received manual assistance with injection from Team members. They reported that Team members competently delivered assisted injections and consistently enacted measures to reduce the risk of blood-borne virus transmission. Individuals who had received assisted injections reported that it was beneficial, and served to reduce injection-related risk in those instances, because safer injection practices were employed and they did not have to resort to being injected by an unknown individual.

Challenges Related to the Development and Delivery of the Program

While the IST chose to target unsafe injecting through outreach in the open drug scene, there was considerable debate among the members regarding the scope of the program and additional strategies that could also be employed to meet the Team's objectives. It was recognized that local single room occupancy (SRO) hotels are a setting where unsafe injecting also occurs, and many Team members advocated for the expansion of the program to include hotel "in-reach," providing education and support within SROs. Another alternative approach that was considered by the IST entailed operating an unsanctioned SIF that permitted or provided peer-assisted injection. Extensive discussion of alternate strategies to meet the objectives of the IST persisted, even after the format of the program had been determined, and it was clear that members wanted to broaden the Team's activities. For example, many Team members felt that enhancing the response to drug-related overdose in the open drug scene should be a goal for the program and argued for the expansion of the Team's overdose management component. While there was interest in incorporating Narcan provision into IST outreach, it was eventually decided that this should be a future objective for the Team. Similarly, there was a strong desire among Team members to expand the IST program by increasing the number of members, increasing the duration of outreach shifts, establishing late-night shifts, as well as operating outreach shifts 7 days a week. However, due to the limited resources available to the program, there was little opportunity to significantly expand outreach activities beyond existing levels. While there were some struggles related to establishing the boundaries of the Team's activities, it was ultimately decided that ensuring that the outreach functioned

well was more important than attempting to undertake a more ambitious approach involving multiple interventions (e.g., outreach plus hotel in-reach or a unsanctioned SIF).

The process of determining the scope of the program involved extensive debate and discussion of how best to utilize the finite financial resources available to the Team. Arriving at these decisions also entailed collective recognition of the fact that members were already dedicating significant time to the program and that many individuals had numerous commitments to other projects and organizations. While initiatives like hotel in-reach and Narcan provision were not incorporated into the IST program, a secondary objective of the program was to have the IST serve as a "blueprint" for drug user groups seeking to establish similar programs in other settings. Efforts to establish the IST as a model program have included workshop presentations where IST members have discussed the development of the program with other Canadian drug user groups interested in pursuing initiatives to target unsafe injection. In addition, the Team is sharing its protocols and procedures, so that the tools they have developed can be utilized by other drug user organizations.

While the IST seeks to ensure that outreach activities operate 5 days a week, a number of issues affect the ability of Team members to adhere to the outreach schedule. Instability stemming from ongoing active drug use, complicated health problems requiring hospitalization, incarceration, and criminal justice involvement negatively affected the ability of individual Team members to be consistently available to conduct outreach. Among Team members, there was considerable interpersonal conflict related to missed shifts and the perception that some Team members were not sufficiently committed to the program. In order to effectively manage these issues and minimize disruption of the outreach schedule, policies were developed to ensure that if one member was unavailable to conduct outreach, a substitute could be contacted to fill in when the need arose. However, debates regarding Team membership and membership criteria continued to be a topic during organizational meetings, particularly in relation to situations where an individual was temporarily suspended due to failure to adhere to the group's code of conduct. In these instances, the existence of Team policies detailing procedures for suspensions, initiating new members, and the return of suspended members facilitated the resolution of most conflicts, and illustrate the value of developing a framework of basic organizational principles to guide a program like the IST. Another key issue that was a constant point of discussion during IST organizational meetings was the relationship between the Team and the wider VANDU program and organization, as some Team members viewed the IST to be a relatively autonomous entity, while others perceived it to be subject to the governance and regulations of the parent organization.

DISCUSSION

In summary, we found that the IST represents a drug-userled response to the harms of unsafe and assisted injecting, and thereby addresses the deficiencies of existing local programs. By providing peer education and support to those who experience difficulty injecting, the IST is addressing programmatic barriers to the local SIF and reaching a vulnerable population who have not been sufficiently engaged through existing efforts to address unsafe injecting.

Although drug user organizations have long engaged in outreach in drug use settings, to provide risk-reduction materials and education (Grund et al., 1992; Latkin, 1998), this particular intervention is arguably unique due to its focus on assisted injection. The efforts of a group of experienced hit doctors to organize a response to unsafe and assisted injection led to the development of a program with specific protocols to provide safer injection education and promote safer assisted injection. There are some similarities between the IST and previous public health interventions targeting shooting gallery operators that encouraged them to promote safer injecting practices within the venues they operated (Page & Llanusa-Cestero, 2006; Page, Smith, & Kane, 1998), as both approaches focus on a key drug scene role. However, the IST has more in common with the efforts of shooting gallery operators who undertook harm reduction independently to encourage syringe decontamination and discourage syringe sharing (Ouellet, Jimenez, Johnson, & Wiebel, 1991; Page, 1990), as the program represents an example of selforganization, rather than outside-organizing of drug users (Friedman et al., 2007). The innovative nature of the IST is perhaps best illustrated by the program's focus on assisted injection and the attempt to alter the social relations that normally surround this practice. Notably, public health experts have repeatedly pointed to the need to address this practice and the potential of targeting the social role of "doctor" within interventions (Carlson, 2000; Murphy & Waldorf, 1991), but to our knowledge, this is the first harm reduction program established by individuals who fulfill this key role. Although assisted injections do occur within local SRO hotels, public injection venues are a primary setting for assisted injection in the Vancouver context (Fairbairn, Small, VanBorek, Wood, & Kerr, 2010), whereas in other locales, the activities of "doctors" are perhaps more commonly associated with drug use settings like shooting galleries and "dope houses" (Carlson, 2000; Murphy & Waldorf, 1991). Among individuals who provide assistance with injections in Vancouver, approximately half reported receiving compensation for their assistance, with drugs and money being the most common forms of payment (Fairbairn et al., 2006). The activities of the IST may have begun to affect the existing economy surrounding assisted injection, as individuals receiving support from the team avoided paying for assistance with injecting. While this aspect of the intervention represents an attempt to promote cultural change in relation to an established risk practice, hit doctors in the local context continue to charge a fee for their services (Fairbairn et al., 2010), and further initiatives are needed to alter social norms surrounding this practice.

Importantly, the IST is also unique due to the fact that it operates to target unsafe and assisted injection by providing education and guidance, during the injection process, rather than providing safer injection education where injecting is not occurring. While the benefits of providing education and guidance during the injection process within SIFs have been documented (Fast, Small, Wood, & Kerr, 2008; Krüsi, Small, Wood, & Kerr, 2009; Wood et al., 2005), the IST delivers this type of education within the public drug scene, where it is much needed. The IST specifically targets consumption practices within public injection settings, and this focus on behavior within a drug consumption environment reflects the movement toward the development of safer injection environment interventions within the field of harm reduction (Kerr, Kimber, & Rhodes, 2007; Rhodes et al., 2006). By providing education, and an alternative to reliance upon assisted injection, the IST is addressing a key risk behavior as well as targeting high-risk drug consumption venue.

Similar to other drug user organizations and druguser-led interventions (Friedman et al., 2007; Grund et al., 1992), the IST focuses upon an emerging health issue among PWID that is not adequately addressed by existing public health programs in the local setting. It also pushes the boundaries of conventional interventions and health services, which are often constrained by policies and regulations that impede the development of the most effective or accessible programs. In this regard, the IST represents a continuation of a tradition evident in harm reduction initiatives within the Vancouver setting and elsewhere, where drug-user-led efforts have preceded "official" health programs employing similar interventional approaches. Vancouver's needle exchange program was one of the first in North America, and a drug user founded this program during an era when needle exchange had not yet been incorporated into public health programming (Hankins, 1998). As described earlier, VANDU's needle exchange program played a key role in precipitating developments that led to a city-wide syringe distribution policy for outlets and clinics operated by the local health authority (Kerr et al., 2006, 2010). Similarly, the unsanctioned SIF that VANDU operated prior to the opening of Insite represents another example of a drug-user-led program that was eventually incorporated into the official public health response to drug-related harm in Vancouver.

While the challenges faced by drug user groups and user-led projects have been thoroughly discussed (Friedman et al., 2007), it is important to note that some forces in the Vancouver context serve to facilitate the successful operation of user-led projects. The local health authority recognizes the value of drug-user-led initiatives and harm reduction efforts and provides some financial support to VANDU (Kerr et al., 2006), which has contributed to the longevity of the organization. An existing tradition of political activism in the DTES area and drug user mobilization in the local context represents a cultural factor that enhances the potential for successful drug user organizing in Vancouver (Osborn & Small, 2006). A health authority that supports drug user efforts to organize and pre-

vious activist experience on the part of drug users have previously been identified as conditions that may serve to promote formal drug user organizing, as an examination of user responses in Rotterdam demonstrates (Friedman et al., 2007). While the IST is composed of a highly motivated and committed group of individuals, the Team also benefitted from the existing resources possessed by VANDU as the parent organization, which served to facilitate the successful operation of the program. VANDU provided crucial logistical and organizational support to the IST, assisting with practical aspects of the program by ordering and storing supplies, as well as providing a physical base for the operation of the program. It is also important to recognize that the IST emerged from VANDU and that all members had experience participating in userled programs and educational initiatives and were familiar with organizational processes including meeting procedures and group decision-making. It is clear that the ongoing operation of VANDU in the Vancouver context in many ways provided a platform for not only the development of the IST but also the successful operation of the program. It is recommended that efforts to implement similar programs in other settings should build on the existing resources and capacity of local drug user organizations when launching new initiatives.

There are some important limitations of the IST program that should be noted, and these issues represent directions for future action. While the IST reduces reliance upon assisted injecting and fosters safer injecting in public injection settings, the outreach program is unable to address some important contextual forces which drive injection-related risk in these venues (Dovey, Fitzgerald, & Choi, 2001; Small et al., 2007). Although the IST fosters safer assisted injection, the impact of these efforts would be maximized if assisted injections could be relocated to an off-street location. Notably, the unsanctioned SIF that operated prior to Insite did permit assisted injections. The operation of the unsanctioned facility demonstrated that when assisted injections occur within a supervised setting, this provides enhanced opportunities to mediate the risks associated with this practice (Kerr et al., 2005a). Furthermore, some drug consumption rooms in Europe are able to successfully accommodate assisted injections on-site, as these state-run facilities permit assisted injections delivered by other clients (Kimber, Dolan, & Wodak, 2005). Therefore, modifications to the current operating policies and regulations of Insite should be pursued, although permitting nurse-assisted or peer-assisted injection would require amendments to the current regulatory framework governing SIFs in Canada, as well as measures to address civil and criminal liability related to assisted injection (Pearshouse & Elliott, 2007). Finally, due to the important role that "hit doctors" play in shaping injection safety, in settings where SIFs are not feasible, social network interventions targeting individuals who regularly provide assistance with injection should be pursued in order to enhance injection safety and foster capacity for selfinjection.

Given the persistent unaddressed harms among PWID, and the ability of drug-user-led interventions to address these harms, it is clear that more formal support for drug user involvement and organizing is merited. While health authorities and health funding agencies are often supportive of drug user organizations, these entities are subject to considerable instability and often have difficulty securing financial support on an ongoing basis. VANDU has recently experienced funding cuts and its programs are constantly evolving due to changes in funding. The challenges related to financial support and organizational capacity frequently threaten the longevity of these organizations and their continued ability to represent highly marginalized drug users (Friedman et al., 2007).

In summary, we found that the IST as a drug-user-led intervention has successfully reached a vulnerable population of PWID not adequately served by existing public health programs. The IST represents a unique drug-user initiated response that seeks to target unsafe and assisted injection, as well as addressing programmatic barriers to accessing the local SIF.

Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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GLOSSARY

CBR: Community-based research. *DTES*: Downtown Eastside.

Hit doctor: An individual who provides assistance with the injection process, often manually administering the injection.

IST: Injection Support Team.

PR Team: Peer Research Team.

PWID: People who inject drugs.

Rollers: Veins that have a tendency to move or roll during the injection process, which may lead to difficulty injecting.

SIF: Supervised injection facility.

VANDU: Vancouver Area Network of Drug Users.

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