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Perceptions about supervised injection facilities among people who inject drugs in Philadelphia

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ABSTRACT

Background: People who inject drugs (PWID) are at high risk for infectious diseases, skin and soft tissue infections, and overdose. However, these harms are all avoidable when sterile injection equipment, hygienic places to inject, and medical care are accessible. Unfortunately, many PWID in the U.S lack these resources. The most vulnerable are forced to inject in public spaces, where individual risks are high and communal harms are sometimes many. Supervised Injection Facilities (SIFs) are an established intervention for reducing these harms. Despite positive experiences in other countries, little research explores how PWID in the U.S. perceive the value of such facilities.

Methods: We conducted a freelisting exercise with PWID (n = 42) and healthcare providers (n = 20) at a syringe exchange program (SEP) that provides comprehensive clinical and social services in Philadelphia to inform in-depth semi-structured interviews with PWID (n = 19) at the same location.

Results: Participants expressed support for a potential SIF as a valuable public health intervention. They suggested that an SIF would improve PWID health while reducing the public disorder associated with injecting drugs in public. The latter was especially important to participants without stable housing, whose decision to inject furtively in secluded places was often motivated by desire not to upset community members, and particularly children. These participants acknowledged that such seclusion elevated the risk of fatal overdose. Despite similarly positive perceptions about an SIF, participants with stable housing reported that they would prefer to continue injecting at home.

Conclusion: Results both confirm and extend prior research about PWID and SIFs. Participants expressed support for SIFs as in prior survey research in the U.S. and in other countries. Facility location and housing status were identified as important determinants of facility use. Results extend prior research by illuminating PWID perceptions in the U.S. including motivations grounded in concern for public order.

Background

Injection drug use is a longstanding source of population harm. Despite considerable progress expanding harm reduction interventions, people who inject drugs (PWID) remain at high risk for infectious diseases such as HIV and hepatitis C (HCV) (Van Handel et al., 2016; Wejnert et al., 2016). Injection-related skin and soft tissue infections (SSTI) are common, and when medical care is delayed, costly and difficult to treat. With observed prevalence rates just over 30% among active PWID, these wounds are a primary driver of Emergency Department visits, hospitalizations, and readmissions among PWID (Binswanger et al., 2008; Palepu et al., 2001; Smith et al., 2014). Injection drug use also accounts for a substantial portion of the surging opioid overdose epidemic. In the last decade, fatal heroin overdoses have more than tripled in the U.S. (Hedegaard et al., 2015); fatal overdoses involving fentanyl have increased over 70% over one recent two year period (Rudd et al., 2016).

Many of these harms are avoidable. With sterile injection equipment and hygienic places to inject, PWID can dramatically reduce their risk of HIV, HCV, and SSTI (Bluthenthal et al., 2000; Kinnard et al., 2014; Phillips et al., 2012). When naloxone is readily available and medical care is accessible, fatal overdoses are prevented and safely managed (Kerr et al., 2008; Walley et al.,

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2013). Unfortunately, many PWID in the U.S. lack these resources (Cooper et al., 2016). The most vulnerable are forced to inject in public spaces, where individual risks are high and communal harms such as injection related litter are sometimes many (Rhodes 2002; Small et al., 2007).

Supervised Injection Facilities (SIF) are an established intervention for reducing the harms associated with injection drug use (Potier et al., 2014). These facilities provide a safe, hygienic space where individuals can inject controlled substances under clinical supervision. Most facilities also offer drug counseling and other social services (Kerr et al., 2007). Despite established benefits in other countries, there are only two studies exploring whether PWID in the U.S. would utilize such facilities. In both surveys, one in San Francisco and the other in Rhode Island, most PWID expressed support and willingness to use a SIF (Bouvier et al., 2017; Kral et al., 2010). Our study is the first, to our knowledge, to explore perceptions of SIF among PWID in the U.S. using qualitative methods. Given prior research documenting stigma and fear among PWID, we approached these inquiries through a broader investigation about where participants currently inject and the factors that motivate that decision.

Methods

Data collection began with a freelisting exercise with PWID (n = 42) and healthcare providers (n = 20), who were all recruited from a syringe exchange program (SEP) that provides clinical and social services in the Philadelphia area. Freelisting is an ethnographic tool used to explore individuals' notions of health practices or conditions, and differences between healthcare providers and lay person's perceptions. The approach identifies salient domains among people who have a shared experience, often in preparation for subsequent exploration with other qualitative methods (Brewer, 2002; Quinlan, 2005; Schrauf & Sanchez, 2008; Weller & Romney, 1988). In this instance, PWID and healthcare providers at the SEP were asked to create lists of terms associated with the causes, risks, and treatment of SSTI. Analysis of resultant lists was facilitated by Anthropac 4.98 software and revealed salient terms related to injection practices ("dirty works," "missing the shot," and "rushing"), injection risk environments ("unsanitary conditions," "abandoned houses") and injection stigma ("being treated as a junkie," "fear of law enforcement"). These findings, along with policymaker interest in SIFs, informed the development of our semi-structured interview guide which explored whether PWID believe that SIFs would improve the prevention and treatment of injection-related problems, particularly SSTI. More details about the findings relating to abscess knowledge, self-care, and barriers to healthcare for SSTI are published in a companion piece (Harris et al. 2018). Participants in the semi-structured interviews (n = 19) were approached during operating hours at the same SEP or were referred to the study by staff. Participants were compensated with $20 at the end of the interview. The interviews, which lasted between 30 and 50 min, were audio-recorded and transcribed verbatim.

Analysis of the transcripts was facilitated by NVivo11 software. First, the study team developed a code-book in two ways: a priori (informed by the literature and interview guide) and through line by line reading of a subsample of interview transcripts. Each code was given an explicit definition to ensure coding accuracy then each transcript was coded by two members of the study team. The full research team participated in resolving coding inconsistencies, and schema refinement. Resultant codes were organized into thematic categories, which were explored in the context of individual transcripts and stratified by groups (e.g., those reporting home versus public injection). Institutional review boards at the University of Pennsylvania and the SEP approved the study.

Results

Qualitative interview participants identified as male (n = 9) and female (n = 10). Fifteen (n = 15) identified as White (n = 15); the remainder identified as Latino (n = 1), and Black (n = 3). Median age was 39 years (range: 27–59 years). Median time injecting drugs was 14 years (range: 2.5–20 years). Although not systematically elicited, in unstructured discussion, access to housing emerged as an important factor in participant decision-making and perceptions, with just over half of the participants reporting access to stable housing (n = 10).

Preference for home injection

Participants with stable housing almost exclusively injected drugs in their homes. They explained this preference in terms of security and the ability to control their surroundings. Protection from the fear of assault or arrest facilitated routinized injection practices predicated on security and comfort. Being inside also afforded these participants access to adequate light and heat and running water, as well as stores of clean injection equipment and sharps containers to safely discard used paraphernalia, obtained from the SEP.

> Most of the time I try to grab my shit the night before. . You know what I'm (getting high) before I get my kids up, because I wake up an hour before I have to wake my kids up. This way, by the time they get up, I'm already up and functioning. We're not waking up at the same time and I'm hearing, "Mom, Mom," because I'm drowsy . . . They get up, brush their teeth, come downstairs, eat. I already did my bag, everything's already out. I ain't got to worry about nothing. (Participant 6)
>
> [N]umber 1 is safety. [If you are] outside injecting, and you go into your nice phase, anybody can get you. . [the next is] access of water. Um. The electricity as far as light's concerned . . . If it's in the wintertime, the heat. (Participant 13)

When asked why PWID choose to inject in abandoned houses and other secluded locations, one participant noted simply "Because they're homeless. Where else are they going to shoot up?" (Participant 20).

Most participants with housing did not think they would use a SIF, if available, still preferring to inject at home, especially if they could do so with other trusted family and friends. However, about half of the participants with stable housing (n = 5) suggested that they have or would inject away from home during severe withdrawal.

> You know some people they get so sick they just like, you know what screw it, I'm going there. (Participant 16)
>
> I had to go far to get it, the heroin, and I was so sick that I just couldn't walk back . . . so I went in an alley. (Participant 6)

Although injecting alone at home may decrease the risk of that an overdose will be reversed, access to stable housing otherwise provides a reasonably safe, sanitary, and comfortable environment in which to inject. Those lacking access to housing face a series of challenging decisions about where best to inject for the health and safety of themselves and their communities.

A dual imperative for PWID without stable housing

For participants without stable housing, the decision of where to inject was driven by two opposing imperatives. The first imperative was avoiding attention. PWID sought places to inject where they would not be observed by police, by those who mightrob or otherwise injure them, or by the community. Fear of arrest and violence are both well-established in the literature. The

concern that multiple participants expressed about public injection and intoxication on the surrounding community was more unexpected. Reflecting on times when community members would see them injecting, participants expressed shame for contributing to the public disorder in their communities. These feelings were often expressed through concern about exposing children to public injection and intoxication. For some participants, the decision to inject in abandoned houses and secluded public spaces was purposely made to avoid those interactions, and therefore perceived as a sign of respect to their community.

> If there's any kids walking around I'll never do it near the kids, ever. Um, so I'm aware of my surroundings, looking at people, see if there's people outside looking at me. I only do it when there's nobody around. If I'm going down the street and I see a little kid, I'll walk further down. Wait for the kid to go inside or I'll hide behind something. (Participant 15)
>
> [A]nd I don't want somebody's kids, or something come and pass me seeing that. I'm a mother, you know, and they're like . . . You know imagine you kid walking past and seeing somebody shooting up for the first time. They're never going to forget that. I know I never forgot when the first time I found my mom's boyfriend shot up. (Participant 8)
>
> And cops bitch and complain when you go into the abandoned houses. Or parking lots or alley ways and shit. But they have to understand, man. Like that's kind of respectful when people do that. When junkies do that. That's being respectful believe it or not. Because we're not deliberately doing it outside. Cause we know there's kids. . there's these times where a kid pops outta nowhere with a mom. And you got the needle in your arm and they're lookin', you know I don't want my kid walking down the street and somebody doin' that. So therefore maybe the fact that I have kids plays a role in me trying to be respectful. It's mainly towards the kids, for the kids, in my mind. . that [is] why I would rather do drugs in a secluded area. I'd rather be in a abando, or an ally or a lot, or abandoned car. (Participant 17)

These efforts to preserve community order came with acknowledged risks. Participants universally agreed that unsanitary conditions and concern about security in abandoned buildings and wooded areas created risk for injection-related infections through exposure to pathogens or hurried injection. Secluded places shielded participants from the community, but provided only partial protection from arrest, and in some ways increased risk of violence. As a result, our participants expressed constant fear of being physically assaulted, robbed, or arrested.

> Yeah, instead of going to those spots and that the cops frequent and then end up getting citations or, and also a lot of people, a lot of drug users who don't have. . any type of income to support their habit. They, uh, they stay in places like that, so, and they prey on people. So, when the next person comes down and they're mixing their stuff up gettin' ready to put it in their arm, they'll rush 'em and take their needle and, you know, so they'll rob 'em and steal their stuff. (Participant 15)
>
> You also run into people [in abandoned buildings] you don't know, that could be dangerous. Because, you know, there are people in places like that that are preying on the weak, or preying or just waiting on someone to come through with drugs so they can get their next fix. Rob'em for it. Hurt'em for it. It's a dangerous experience. You go into abandoned buildings you never know what you are going to run into. (Participant 2)
>
> [Inside abandoned buildings] it's . . . .disgusting. it's something, it's something a normal person wouldn't . . . it's something a normal person would avoid. Something they wouldn't want to be in. It's disgusting. Its' dangerous. They have needles laying everywhere. (Participant 2)
>
> Mmmm very cold. Very empty. Very scary. Dark, dim, and dirty. Smelly, horribly dirty. Because you know, all of us go in there and get high and then there's people that go to the bathroom and do other things in there, you know. It's, there's scary situations. So that night I was thinkin' in my head I need to get high real quick. I wasn't sick or anything like that. I was trying to rush because I really don't like being in abandos because you're trapped in there if anything happens. . whether it be the cops or somebody tryin' to rob you. (Participant 17)

The second imperative for people who inject in public places was not to escape attention but to maintain it. These participants expressed not only fear of violence in secluded places but also heightened risk of not being found and rescued in the case of an overdose.

> [I inject in alley ways or the parking lots because]. . I'm out in the open so if something happens to me, maybe somebody will find me. (Participant 17)
>
> Because I'm, I just don't like to be surrounded by like shooting galleries. Like people, like I don't like being around people and I don't like to be around places where I can get robbed, stuff like that. And if I fall out I want to make sure somebody sees me. (Participant 12)
>
> [I]t's hard to find a spot to go by yourself at night, socially, and this spot is close to a main road, right on, basically on, and so it's well lit, but it's also in the dark. It's close to- It's safe. It feels safe there. (Participant 11)

The challenge of responding to this dual imperative resulted in tremendously risky behavior. All participants described rushing injections if injecting away from home, which, for some participants, was always. Some participants who experienced housing instability were resigned to injecting hurriedly in secluded settings. These participants acknowledged that rushing was dangerous but felt that it was essential, especially during or in anticipation of withdrawal.

> Like if I'm in a spot that I think is safe so the cops don't see me, then all of the sudden I hear footsteps coming down then I'll just hurry up and push it. It's not by, you know, it's not my choice, like I didn't want to do it, but, I just did it quick just so, you know, I wouldn't have to throw it away instead of not doing it at all. You know? . . . 'Cause if I, most of the time I'm sick, you know. So, if I throw it away, then I'm not cured. (Participant 15)
>
> That's how you can get it, you can get an abscess. You rush. And then you get that abscess . . . In a hurry. So you can get out of a place so no one can take your drugs. And you hurry up and push when you're not really in the vein. What you're doing is you're rushing it and you're pushing the vein away from the needle. And then all the drug go into your flesh instead of the vein. (Participant 2)

Some participants also described attempts to satisfy both imperatives by concealing injections while walking or by hiding momentarily in otherwise open places like parking lots. This necessitated incredibly hurried injection often without checking on vein placement by pulling back on the plunger and seeing blood in the chamber and sometimes even injecting directly through clothes. These participants acknowledged that "missing the vein" increased the likelihood of injection-related abscess. Some intentionally chose to "skin pop" by injecting into fatty tissue, which they knew to be a riskier administration method, but which guaranteed they would at least get the drug, thus averting full-blown withdrawal.

> I'll do it walking down the street . . . Real quick, nobody can see me, or I'll dip in between two cars, kneel down, something real quick . . . Where I can do it real fast. (Participant 14)

I'll just mix it up right on the street and I'll just do it while I'm walking. (Participant 15)

Now I'm so good now I like to think, I'm so good now. I can shoot up walking down the street, I've done it, I've done it. (Participant 17)

As soon as I turn my back, I start walking away, that's when I get my needle out, my cooker, my water, and as I'm walking down the street I do everything to where people can't see what I'm doing. I keep like the needle all the way in my hands and they can't see . . . and I do it walking down the street. (Participant 9)

PWID perceptions of SIFs

Supervised Injection Facilities are an established intervention for resolving the tension between these dual imperatives. Overwhelmingly, participants saw the implementation of a SIF in Philadelphia as a positive intervention for not only other PWID, but for the communities affected by high rates of injection drug use. Participants generally saw the benefits of a SIF in Philadelphia as being two-fold. First, participants felt a SIF would provide a safe and private place that would allow people the time to prepare their drugs, inject, and be high without fear of assault or arrest. Having clinical supervision would also prevent overdose deaths through the administration of naloxone. Multiple participants used the phrase "safe haven" to describe what that type of security would mean to them.

I'm down under a bridge and you're talking about we can go in here and sit down and like . . . Because it would get me off the street, I wouldn't have to worry about anything, you know . . . I'm inside, I'm safe, you know. Wouldn't have to worry about the cops coming and ruining everything taking you to jail. (Participant14)

That would be the . . . that's the best thing I ever heard. Because that is one of the safest ideas that I heard. And it has to do with the addiction. Because that would prevent so much. That would prevent people from being stabbed over their drug. It would prevent more infections. It would prevent hepatitis. It would prevent abscess. Like, it would be a major factor. (Participant 2)

It'd be a good thing. There'd be a lot less needles on the ground. You know what I'm saying? People would feel more comfortable. (Participant 9)

Man, it'd be perfect. That way you won't be runnin' abandoned houses. That would be, that would be not just helpin' them out, it also be protectin' them. That would be, around this place, that would be perfect for everybody doin' dope. And smokin' crack and shootin' up the shit. They be a safe haven for 'em without them having' to go to shelter sayin oh, they done come rob me of my drugs or gonna take my shit. I've seen people shoot up so they shoot up. They be so reached up with chemicals they don't ever get the needle out of their arm. They fall all shakin' vomiting up, nobody's there to help 'em. They dead. [A SIF] would be perfect. (Participant 19)

Participants also felt that a SIF would improve their neighborhoods by lessening the community's exposure to drug use and reducing the amount of discarded needles and injection equipment on the street.

Well if you tell the people in the neighborhood you wouldn't see, you wouldn't have to worry about people . . . your kids having to see people walking down the street shootin' dope. You know, there would be a place where they can go where it wouldn't be so much out in the open. It would be better for the kids so the kids wouldn't have to . . . you know these kids out here they see this kind of stuff going on all day long. It's a shame. You know it's a shame. (Participant 12)

Well, wouldn't you rather have that, them go into the building than be out on the street corner, and kids walking by and seeing . . . You know, I'd rather have a facility where everybody can go in, do what they do, they're not in a vein there's someone on hand spot to help them if they didn't. You know what I mean? That would be a good thing. .You know, you know it would be a good thing, and it would get them off the streets from doing the drugs on the streets. You know, they're complaining, 'They sit on that step. Get off the corner.' You know, you wouldn't have to go for that. (Participant 14)

Some participants did bring up possible harms related to the existence of a SIF in Philadelphia. One barrier to potential use was the relationship between severity of withdrawal symptoms and their proximity to the SIF. Secondly, some participants were concerned that the SIF would create an insecure environment around the facility perimeter. These participants suggested that individuals entering the facility might be at heightened risk for arrest or robbery. Despite those concerns, almost every participant without stable housing said that they would use a SIF if it existed.

Discussion

Harm reduction services remain underfunded and unnecessarily impeded in many parts of the U.S. In places where syringe exchange is reasonably supported, there has been considerable progress in reducing the spread of disease. Most SEPs offer more services than just sterile syringes by providing counseling, naloxone kits and training, and a welcoming setting where PWID can connect with social and medical services. For many PWID, these services provide enough support to avoid or at least manage a substantial portion of risks associated with injection drug use. People who inject drugs with stable housing can bring clean injection equipment, sharps containers, and the knowledge obtained from SEPs back to their dwelling to reconfigure and improve their injection environment and practices. No such opportunity exists for PWID without stable housing or those suffering acute withdrawal far from home. While clean supplies and naloxone can reduce some risks, public injection will always remain a high risk activity. One obvious manifestation of this enduring risk is the high incidence of SSTIs, which are especially likely when injection is rushed, or occurs in a dirty, dark, or otherwise unsanitary setting.

We found that the harms associated with public injecting are common and that the decisions PWID make regarding the settings where they inject are influenced by an interplay of social and environmental factors that negatively affect health outcomes (Rhodes 2002). Having access to housing significantly influenced where and subsequently how participants inject, a finding consistent with previous studies (German et al., 2007). Those who did not have accessible housing were resigned to inject in public. Participants described a risk environment that produced multiple fears; fear of violence, fear of being robbed, and fear of being arrested. They also expressed concern for public order and the effect their public drug use had on the surrounding community. The combination of these factors drove participants to rush their injections and seek out even more secluded areas. Without the time to "taste", or test the potency of the drug by first injecting a smaller dose, a PWID is unable to control the dosing of the drug, leaving them vulnerable to overdose (Brugal et al., 2002; Dovey et al., 2001). Though secluded spaces provide protection from public view, participants described these public injecting settings as unhygienic and some were concerned that they would not be found in case of an overdose.

This "dilemma" – needing to avoid and maintain attention – has been observed before including in an exploration of "liminal" spaces in Melbourne (Dovey et al., 2001). Melbourne policymakers, incidentally, are currently debating opening an SIF, which is the only way to resolve the dilemma. SIFs provide sanctioned hygienic spaces where clients can inject previously-obtained illicit substances under the supervision of clinical staff (McNeil et al., 2014). Upon entering the facility, clients are given new injection equipment and are seated at a lighted kiosk. Clients then have a set amount of time to prepare their drugs and inject. The kiosks are visible to clinical staff, who are trained to administer and coordinate emergency care in the event of an overdose, including the administration of nalaxone. Primary care and addiction recovery services are often offered on site as well and similar models have been proposed recently in the United States.

Our participants believed that a SIF would satisfy a critical unmet need for an accessible, clean and secure place where PWID can inject their drugs. Although the vast majority of participants were supportive of a SIF, however, only those without housing said they would typically use a SIF to inject drugs. This is consistent with the idea that a SIF is a targeted intervention aimed at helping the most at-risk PWID. It is also supported by research about the only SIF legally operating in North America, InSite in Vancouver, Canada, whose clients are more likely than the broader PWID population in Vancouver to lack stable housing, to inject heroin daily, and to have recently experienced non-fatal overdose (Wood et al., 2005). InSite has not experienced one overdose fatality since its opening in 2002 and public injection has decreased in the Downtown Eastside area where the SIF is located (Wood et al., 2004). Though it has been estimated that InSite only captures between 5 and 10% of all injections in the area, statistical models suggest that SIFs can reduce the incidence of HIV and HCV infection through the provision of clean injection equipment (Enns et al., 2015).

SIFs are not a panacea for all the harms associated with public injection, but they are an essential component of a comprehensive strategy, which must also include collaboration between PWID, law enforcement, healthcare institutions, and community groups (DeBeck et al., 2008). These facilities address problems related not only to injection drug use but also housing instability and, more broadly, isolation from social and health services. Housing moderates the relationship between drug injection and most associated harms. PWID experiencing housing instability are at higher risk for contracting HIV, being arrested, and experiencing overdose (German, Davey et al., 2007; Kerr, Fairbairn et al., 2007; Omura, Wood et al., 2014). Public injecting spaces are often dangerous (Kennedy et al., 2017; Richardson et al., 2015), especially for women (Braitstein et al., 1982), which our participants described in stories of being personally assaulted or seeing others attacked for their drugs. People who inject drugs experiencing housing instability also have more negative experiences with law enforcement (Omura et al., 2014; Ti, et al. 2013). Additionally, injection drug use influences housing stability. Eviction among PWID is common and can lead to sustained periods of housing instability (Desmond & Gershenson 2016; Kennedy et al., 2017). Unstable housing negatively influences employment, leaving PWID more likely to participate in the drug market for income, which is itself a source of additional risk (Richardson et al., 2015). The challenges of regaining stable housing for PWID are substantial and often hinge on abstinence or participation in detoxification programs, which are hard if not impossible to achieve during or directly after a period of being without stable housing. It is ideal, in these respects, that a SIF in the U.S. also address housing.

Conclusions

This study builds off previous work focused on the risk environment as experienced by PWID. As in past studies, our participants confirmed that social and environmental factors encourage high risk injection behaviors associated with infections and overdose. Our participants described being forced to sometimes or always inject in public spaces, which exposed them to risks that they understood and acknowledged, but could not avoid. The idea of a SIF was supported by PWID as a way to escape what are otherwise difficult choices. Our participants believed that such a facility could reduce the harms associated with public injection for both PWID and the community.

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