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The perceived consequences of safer injection: An exploration of qualitative findings and gender differences

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Abstract

Injection drug users (IDUs) are at risk for HIV and other bloodborne pathogens via syringe and paraphernalia sharing, and women are at elevated risk. Consequences of injection risk behavior such as the risk of becoming infected with HIV have been relatively well studied, though less is known about the consequences of refusing to share injection equipment. We conducted in-depth qualitative interviews with 26 IDUs recruited from a syringe exchange program in Los Angeles, California, USA to understand the consequences that IDUs associate with refusing to share injection equipment and to determine whether these perceived consequences differ by gender. Perceived consequences were organized into four domains using a Social Ecological framework: microsystem (perceived risk of HIV, drug withdrawal or forgoing drug use), exosystem (trust and social norms), mesosystem (precarious housing and shelter policies), and macrosystem (syringe access/inconvenience, economic and legal consequences). Gender differences were identified in some, but not all areas. Effective public health interventions among IDUs will benefit from a holistic perspective that considers the environmental and social rationality (Kowalewski *et al.*, 1997) of decisions regarding injection risk behavior, and assists individuals in addressing the consequences that they perceive to be most salient.

Keywords

HIV; injection drug use; gender; qualitative methods; perceived consequences; behavioral theory

Introduction

Since the beginning of the AIDS epidemic, dramatic decreases in HIV-risk behavior have been observed among injection drug users (IDUs; Des Jarlais & Semaan, 2008; Santibanez *et al.*, 2006), particularly among those who access syringe exchange programs (SEPs; Ksobiech, 2003). Despite these advances, many IDUs continue to engage in risky injection behavior (Des Jarlais *et al.*, 2007b; van Ameijden *et al.*, 1999); up to one-third of IDUs in a recent US surveillance survey report recent syringe and/or paraphernalia sharing (Centers for Disease Control and Prevention, 2009). Consequently, IDUs continue to be at risk for both HIV and other blood-borne pathogens such as hepatitis C virus (HCV), and research is needed to understand factors contributing to continued risk behavior.

Theories of health behavior propose that attitudes influence health behaviors (Fishbein, 1967). Attitudes, in turn, are influenced by several factors, including the perceived risk, or consequences, of the behavior. The perceived consequences of sharing injection supplies have been well studied in terms of the risk of HIV infection, though findings about the direction of influence have been mixed (e.g., Bailey *et al.*, 2007; Racz *et al.*, 2007; Robles *et al.*, 1995). Less well studied are the other risks or consequences that may influence injection risk behavior. These factors may form a “risk hierarchy,” in which IDUs consider a host of environmentally- and socially-contextualized risks *in addition* to the risk associated with syringe sharing (Kowalewski *et al.*, 1997); reducing the risk of HIV from syringe sharing often results in increasing risk in other areas such as legal sanctions, death from overdose, or rejection by peers (Connors, 1992). Despite this understanding, few studies have examined the perceived consequences or risks associated with adhering to the recommendation that IDUs use new, sterile injection supplies for each injection and refuse to share equipment with others.

Among IDUs, certain subgroups may be particularly vulnerable; studies have found women to be at elevated risk for HIV infection via injection drug use (Fennema *et al.*, 1997; Garfein *et al.*, 1996). The social environment in which women use drugs has been identified as an important risk factor (Miller & Neaigus, 2001). Women's drug-using network are frequently composed of friends or sexual partners (Barnard, 1993; Cruz *et al.*, 2006), and their drug and sexual networks often overlap (Latkin *et al.*, 1998). Women's access to drugs, injection paraphernalia, and other resources is often controlled or determined by others (Barnard, 1993; Bourgois *et al.*, 2004; Epele, 2002). These findings suggest that there could be serious consequences associated with violating social norms or expectations regarding syringe or paraphernalia sharing – namely the withholding of drugs and/or supplies by partners – and that women may be more vulnerable to these consequences.

To more fully understand the risks or consequences associated with refusing to share injection equipment, we conducted in-depth qualitative interviews with IDUs recruited from a large SEP who reported recent equipment sharing. We asked them to describe the circumstances surrounding their most recent risky injection event and to identify the perceived consequences of refusing to share injection equipment in that instance. We used a Social Ecological framework (Bronfenbrenner, 1979; Latkin & Knowlton, 2005) as a heuristic for understanding and organizing the socially- and environmentally-situated nature of these risky injection events. Social Ecological models describe multiple levels of influence that interact to affect individual health and behavior, including microsystem factors (e.g., individual perceptions), mesosystem factors (e.g., interactions with institutional/organizational forces), exosystem factors (e.g., community norms/standards), and macrosystem factors (e.g., physical setting, culture, policy). Since epidemiological and behavioral research has found women to be at elevated risk for HIV via injection drug use when compared to men, and since it is likely that these differences are due at least in part to higher-level social and environmental factors, we examined whether the accounts differed by gender.

Methods

Setting and participants

Participants were recruited from an SEP in Los Angeles, California USA in July 2008. A maximum variation sampling strategy (Patton, 2002) was employed to capture diversity of opinions and experiences. Eligible participants were adults (≥ 18 years old) who had injected drugs in the past 30 days and reported any risky injection in the past 30 days. Risky injection was defined as: using a previously used syringe, cooker, cotton filter, or rinse water; or syringe-mediated drug splitting (i.e., backloading or piggybacking) with previously used equipment. The eligibility criteria were embedded in a longer screening interview that contained additional questions to mask the true criteria, similar to others (Garfein *et al.*, 2007b). Eligible individuals

provided written informed consent. To allow for gender comparisons, we strove to enroll 50% women. Interview participants received \$25 for participating. The University of Southern California Health Sciences Institutional Review Board approved all study procedures.

Measures

A short questionnaire was used to assess demographic characteristics, including: age, age at initiation of injection drug use, sex, race/ethnicity, housing status, education, HIV/HCV testing history and serostatus (self-report), and drug use behavior. Next, the interviewer conducted a semi-structured qualitative interview. The qualitative interview guide was based on a “last event” methodology (see Tortu *et al.*, 2003), which asked the participant to describe the most recent injection episode in which he/she shared injection equipment. Participants described the circumstances surrounding the event, including the people present, the location, time, day, and other environmental factors. Next, participants described the process leading to the risky injection event. Finally, participants discussed the consequences or problems that might have arisen if they had refused to engage in the risky behavior and about the kinds of responses that such a refusal might generate from others.

Analysis

Quantitative data were analyzed using SAS 9.1.3. Descriptive statistics were generated for all variables of interest. Qualitative interviews were digitally recorded, transcribed, and imported into the ATLAS.ti software program for analysis. First, transcripts were read in their entirety and a series of “memos” was developed, which documented initial impressions (Miles & Huberman, 1994). Second, a list of codes was developed, based on *a priori* categories from the literature and emergent themes from the interviews (also known as “open coding”; Strauss & Corbin, 1997). These codes were applied to segments of text and organized into a series of hierarchical “trees”, with higher- and lower-order codes within each “tree”. When new codes emerged from the transcripts during the coding process, the emergent codes were added to the existing list, and all transcripts were reviewed again to ensure the coding of relevant passages. Third, a summary of each “case” was created. Fourth, thematic reports, which contain blocks of coded text from all the interview transcripts, were generated through use of the method of constant comparison (Glaser & Strauss, 1967) to identify common themes and to allow for comparison of findings by gender. All names used in this report are pseudonyms.

Results

Forty-three individuals were screened for eligibility. Of those, 26 met the eligibility criteria and provided informed consent. Demographic characteristics of the sample are presented in the Table. Participants had a mean age of 43 years (SD 9.2, range 22–60) and initiated injection drug use approximately 20 years prior. The sample was ethnically diverse and by design just over half of the sample was female. Over three-fourths reported being currently homeless, with almost half reporting that they lived most frequently in a shelter during the past month. Eight reported having at least a high school diploma. Twenty-five had ever received an HIV test, and three (12%) reported being HIV positive. Twenty-four had ever received an HCV test, and 16 (67%) reported being HCV positive. Heroin was the most frequently used drug in the past 30 days. Participants reported injecting an average of 4.2 times per day (SD = 2.1), 6.4 days per week (SD = 1.5). All had used an SEP prior to the day they were interviewed; the mean duration of SEP use was 5.8 years (SD = 4.7), and nearly three-quarters accessed the SEP once a week or less.

Microsystem factors: Perceived risk and drug withdrawal

Perceived risk of HIV—Consistent with previous research, the perceived risk or consequence of becoming infected with HIV via shared injection equipment emerged as a

theme in this study. However, participants' perceptions of HIV risk were complicated. When speaking generally about the reuse of injection supplies, participants said they “never” shared syringes and alluded to syringe sharing as being especially risky for HIV. However, about half said that their most recent risky injection episode involved using a syringe previously used by someone else. When asked whether they trusted the individual with whom they shared injection equipment, most emphatically replied “no.” However, few explicitly discussed the individuals' HIV status before using the donated equipment; moreover, despite saying that they do not generally trust their injection partners, many believed their friends or partners would tell them if they had HIV. Furthermore, few reported having a recent HIV test, and among the three HIV-positive individuals, two said that they had passed on their used injection equipment to others.

Drug withdrawal versus forgoing drug use—The risky injection events described by participants were overwhelmingly characterized by the desire to avoid the consequence of severe withdrawal symptoms associated with delayed use of heroin (e.g., nausea, vomiting, runny noses, aches/pains). For example, Sarah, a 48-year old Latina, described sharing a single syringe and cooker with her injection partner for the entire day, since they had missed coming to the SEP that day. When asked what the consequence would have been if she had refused to use the previously used syringe and cooker, she said:

We would have stayed sick. So there's no way in the world. I'm sorry, if there's an outfit on the ground that I find, and I don't have money for a needle... and I'm sick, I'm gonna use that damn outfit! And I'm not gonna sit there trying to sterilize it.

While some, like Sarah, expressed defiance or resignation in their account of sharing equipment in order to prevent withdrawal symptoms, several others expressed a sense of regret or heightened vulnerability after the fact, stating that they “knew better,” but could not act on that knowledge in the moment. For example Chloe, a 47-year-old Latina said:

I got up that morning, and I was sick. And after [my injecting partners] had used it, I asked them if I could – God – I asked them if I could use theirs... And that's sad. I just went ahead and used it and didn't think about it. Not even twice. And then it didn't dawn on me until after – “What the hell am I doing?” I know better. And it's just...I was sick.

Importantly, in Chloe's case, the environmental context in which her dopesickness occurred was also critical to the event – she had been roused at 5:30am and was rushing to perform the injection before the police arrived to clear out the area where she and her partners had been sleeping. Delaying the injection could have resulted in being observed and possibly arrested by the police.

For some, rather than becoming dopesick, the consequence of refusing to share injection equipment was forgoing drug use altogether. Men were more likely than women to describe scenarios in which they were already high at the time of the event they described, and were therefore using to “get high” rather than to “get well” (i.e., to alleviate withdrawal symptoms). For these men, rather than becoming dopesick, a refusal to engage in the risky injection event would have meant they would not have used at all. For example Carlos, a 34-year-old Latino man, said, “Probably nothing [would have happened if I didn't share that cooker]. But my dumb ass wanted to get more high, so...that's all the brain was thinking. Get loaded. Get loaded.” Only two women described such scenarios, a contrast that is suggestive of men's greater control over and access to drugs, which could provide more security in terms of avoiding withdrawal symptoms.

Exosystem factors: Trust and social norms

Some individuals said that refusing to share injection equipment, particularly with someone whom they had shared before, would result in hurt feelings. These types of social consequences were rarely volunteered and were usually discussed only after an explicit probe by the interviewer. Often, respondents said that a refusal to share injection equipment would be tantamount to an accusation that the individual was HIV-positive. However, in most cases respondents said that the social consequences carried very little severity; although respondents did identify the hurt feelings of their partner as a consequence, most said that it would not have had much significance in determining their behavior.

Descriptions of the social consequences of refusing to share injection equipment were relatively consistent between men and women. Differences emerged, however, in the types of relationships that participants described. Men were more likely to report sharing equipment with a stranger, while women were more likely to describe events that involved sex partners. Men and women were about equal in the frequency with which they described events involving friends and acquaintances, but women were much more likely to report that these friends or acquaintances were of the opposite sex, while men generally reported same-sex friends.

For some, the social consequence of carrying syringes or injection supplies had to do with a concern about violating the social norms of non-IDUs, or having to conceal drug use from non-drug using friends or family. Sometimes, these relationships with non-IDUs were valued due to their ability to provide resources. For example, women who engaged in sex work said they do not carry syringes so that their clients do not discover their IDU status, a discovery that could compromise their income. IDUs who did not carry syringes in order to avoid violating social norms of their non-IDU peers frequently found themselves in situations in which they were forced to borrow used equipment in order to inject.

Mesosystem factors: Precarious housing and shelter policies

Most of the individuals in this sample were homeless and many reported spending at least some nights in a drug-free shelter or other transitional housing. For some, then, the physical condition of homelessness interacted with institutional policies to generate the consequences of refusing to share; maintaining a supply of sterile injection supplies in the shelter carried the consequence of losing their bed in the shelter if they were caught. As a result, several individuals described hiding their syringes outside the shelter such as in the bed of a truck, behind trashcans, or in the bushes.

Particularly among women, addiction, homelessness or precarious housing situations, and social consequences interacted to contribute to risky injection behavior. For example Beth, a 42-year-old Latina, described how after her husband went to jail, the landlord of her SRO where she lived started making sexual advances towards her. After refusing him, he kicked her out of her apartment. She felt vulnerable on the street without her husband to protect her, and appealed to her dealer for a place to stay until her husband was released. She describes negotiating the use of the dealer's syringe the first day that she stayed with him:

He goes, "You haven't fixed [injected heroin] yet, huh?" I go, "No." He goes, "OK, where's your syringe?" I go, "I don't have a syringe, you know that. I already tell you, I never carry nothing. You know that." He usually has new ones for me when I go down there...he says, "Well, I don't have a new one today. What do you want to do? You want to snort it? Or you want to use my needle?" I go, "Do you have anything? Are you sick? You don't look it, but are you?" He goes, "No. C'mon, man. If I was sick, I would tell you. We've known each other too long." I go, "Yeah, that's what they all say. But just do what you got to do. I'll rinse it out. Give me some bleach."

If she had refused to use his syringe, she risked offending him by implying she did not trust him or that he was “sick.” Because she was depending on him for a safe place to sleep until her husband was released, the consequence to her housing situation and safety could have been dire. This *quid pro quo* of borrowing and lending injection supplies in return for a safe place to live was unique among women in this sample – no men described such arrangements.

Macrosystem factors: Syringe access/inconvenience, economic and legal consequences

Syringe access/inconvenience—Even among IDUs who have fairly regular and reliable access to injection supplies via the SEP and over-the-counter pharmacy sales, the inconvenience of accessing sterile injection supplies was a common theme. For some, the time or difficulties involved with procuring sterile supplies were too great when presented with the opportunity of injecting immediately with used equipment. Jose, a 47-year-old Latino man, described both inconvenience and a threat of police attention that could result from accessing his own injection equipment, which he had hidden in the park where he sleeps:

Oh, wow...[it] takes 10 minutes to walk waaaay to the other side of the park. Then, you got to look around, see if it's safe. Because they have those, ah, like some type of cops patrol the area. And then you've got to walk all the way back to the other side, and it's hot and I'm sick. And you know, all the shit that you're supposed to look at that you don't want to look at. That you don't want to focus on.

Others described potentially having to wait hours until they would have been able to travel to the SEP, or to their home or camp, usually walking or via public transportation.

Economic consequences—Respondents discussed two related forms of economic consequences: the expense related to purchasing injection supplies and the expense of the drugs. Several individuals said that if they had not used the shared injection supplies they would have had to spend money (which they often did not have) to buy new ones. Frequently, respondents who did not have injection supplies with them and who did not have money to purchase new supplies would “borrow” a syringe or cooker, and return it to the donor after using it. Similarly, some respondents described “kicking down” the cotton filter or cooker, both of which contain drug residue, to another IDU in exchange for use of the equipment. There was generally an assumption of reciprocity – people expected that if they helped a friend, it would come back to them when they were in need. In this way, the interaction of two types of consequences – economic and social – led to informal barter and exchange of drugs and injection supplies in a network of distributive and receptive sharing that was rarely acknowledged as a risky activity by respondents. The consequences of violating such arrangements involved having to procure additional funds and the risk of offending injection partners.

Others said that they had contributed money to the purchase of shared drugs, and needed to share the communal drug preparation equipment to make good on their investment. The consequence of refusing to use the shared equipment was the loss of the investment in the shared drug purchase. In other cases, purchasing drugs or facilitating a purchase for others resulted in receiving drugs in the form of a “kick down” from others, often using shared equipment. Refusing to take one's “kick down” in return for facilitating such a purchase would carry the consequence of violating social norms of exchange and forgoing payment for one's work.

Legal consequences—For some, injecting with shared equipment avoided the need to commit crimes to earn money to purchase sterile injection supplies, with the potential consequence of being arrested for that crime. Others reported preparing and injecting the drugs with the available (used) equipment in order to minimize their risk of being cited or arrested

for possession of syringes or drugs. Lamar, a 49-year-old African American man, described his fear of being arrested for the heroin he had in his possession when he was in a group that had been stopped by police. While the police did not detain him, they did question one of his peers. He explained, "I felt that [the police] saw our faces, and if they saw us again they may stop us. And I didn't want to go through the same thing [my friend] just went through." He slipped away to the portapottie around the corner, where he and two of his friends prepared the drugs with a previously used cooker and cotton, and he injected with his own, previously used syringe. He subsequently used that syringe to backload additional drug solution into his friend's syringe.

Several individuals were concerned about violating the stipulations of their parole or probation if they were to be caught with injection equipment, and said that as a rule they do not carry injection supplies with them. Rather, they obtain supplies immediately before they plan to inject. For many, this policy of not carrying injection supplies created scenarios in which spontaneous drug injection often required borrowing previously used equipment from other IDUs.

Discussion

We asked IDUs to describe the circumstances surrounding their most recent risky injection episode and to identify the perceived consequences of refusing to share injection equipment. We used domains suggested by the Social Ecological frameworks to organize the consequences, and to understand how the threat of these consequences contributed to injection risk behavior. Microsystem-level consequences included: the perceived risk of HIV, the risk of withdrawal symptoms, or forgoing drug use. Exosystem-level consequences included: violating the trust of an IDU partner, accusing an IDU partner of having HIV, and violating social norms against drug use held by non-IDU peers. Mesosystem-level consequences included the threat to housing resulting from drug-free shelter policies. Macrosystem-level consequences included difficulties accessing sterile injection supplies, the risk of being arrested or cited for drug or paraphernalia possession, violating the stipulations of probation/parole, the expense of buying new supplies, and losing ones investment in a shared drug purchase. Importantly, in keeping with the interactive nature of Social Ecological Models, few individuals in this study reported consequences that existed in a single domain. More frequently, individuals described interactions between multiple levels, or between several different consequences.

For many, the immediate concern of avoiding withdrawal symptoms trumped other concerns. Given the long injection careers and high frequency of injection reported by this heroin-using sample, the avoidance of withdrawal symptoms is an everyday challenge and a very serious consequence to be avoided (Bourgois & Schonberg, 2009; Connors, 1992). Several individuals described being unable to act on their knowledge or intentions regarding safer injection when faced with the more immediate or more severe consequence of experiencing withdrawal symptoms. This consequence appeared to more severely affect women, who may have fewer resources and/or fewer connections from whom to obtain drugs and/or injection supplies. In fact, other studies have found that women's access to drugs, injection supplies, and other resources is often controlled or determined by their sex partners and/or other social network members (Barnard, 1993; Bourgois et al., 2004; Epele, 2002; Simmons & Singer, 2006). Our findings support the idea that drug treatment, even if resulting in only temporary reductions in use, may be an important risk reduction intervention (Sorensen & Copeland, 2000), particularly for individuals who articulate their inability to act on behavioral intentions due to the overwhelming influence of the effects of drug addiction.

Social norms that favor risky injection practices have been associated with injection risk behavior (Bailey et al., 2007; Hawkins *et al.*, 1999; Latkin *et al.*, 2003), and there is some indication that the influence of social norms differs by gender (Davey-Rothwell & Latkin, 2007; Latkin *et al.*, 2009). We found that the violation of social norms for syringe or paraphernalia sharing had the potential to alienate individuals from their social network, create conflict, or interact with economic dependence to create scenarios in which individuals risk losing access to other resources provided through the social network (e.g., a safe place to sleep). In networks of IDUs that rely heavily on trust, reciprocity, and mutual caretaking, the isolation that could result from violating social norms can be devastating (Bourgois & Schonberg, 2009). We observed gender differences in the types of relationships that women and men reported, which is consistent with the social network literature – female IDUs tend to report greater overlap between their social, sexual, and drug-using network contacts (Evans *et al.*, 2003; Miller & Neaigus, 2001; Sherman *et al.*, 2001).

Homeless individuals who utilized shelters reported that they frequently hid or disposed of their injection supplies to comply with the drug-free policies of the shelters. This interaction between precarious housing and institutional policies resulted in several respondents descriptions of hiding their equipment in public areas, which has been reported by others (Dickson-Gomez *et al.*, 2009). In other studies, unstable housing has been associated with an elevated risk of syringe sharing (Des Jarlais *et al.*, 2007a), and improvement in housing status has been associated with decreases in risk behavior (Dickson-Gomez *et al.*, 2009). Interventions that address unstable housing situations may serve as a structural intervention to prevent new HIV infections (Aidala *et al.*, 2005; Dickson-Gomez *et al.*, 2009), particularly if they are not contingent on abstinence.

Participants identified real and serious consequences to carrying syringes that may make it difficult or nearly impossible to return used syringes to the SEP. These include not only jeopardizing housing arrangements in shelters or other drug-free housing arrangements, but also risking citation or arrest for drug paraphernalia or violating conditions of probation or parole. Several studies have documented that IDUs who are concerned about arrest due to possession of drug paraphernalia are more likely to report syringe sharing (Bluthenthal *et al.*, 1999a; Bluthenthal *et al.*, 1999b). Policies that emphasize syringe exchange, rather than distribution, may further penalize IDUs who do not bring in used syringes by reducing the number of new sterile syringes they can pick up. A move towards distribution-based policies at SEPs, coupled with education about safer disposal options and community-based programs that provide such options, may help mitigate some of the consequences surrounding syringe possession and disposal without penalizing IDUs who face significant barriers to returning used syringes to SEPs.

Women's risky injection episodes were almost always characterized by dependence on another individual for the provision and preparation of the drugs, and most frequently involved opposite-sex individuals. Women in this sample weighed many different consequences of a refusal to share injection equipment, including not only the violation of social norms, but also consequences related to safety, housing, and access to drugs. Skills related to negotiating safer behavior with injection partners have been targeted by some theoretically-based interventions (Garfein *et al.*, 2007a; Sorensen *et al.*, 1994). Our findings suggest that such negotiation skills do not operate in a vacuum; women's risky injection events are situated in a broader social, economic, physical, and legal context. Interventions addressing the contextualized nature of women's HIV risk may be successful in reducing both sexual and drug-related HIV risk. For example, one study attempted to alleviate structural barriers to HIV prevention among drug-using women involved in the sex trade by training them in alternative economic activities (Sherman *et al.*, 2006). This type of innovative intervention strategy, which targets the

environmental context rather than individual behavior, may serve as a blueprint for future intervention research for female IDUs.

Limitations

Qualitative methods are valued more for their ability to provide rich narrative description and an “insider's view” into the lives of research participants (Singer *et al.*, 2000) than for their generalizability. Thus, due to the small sample size and sampling strategy that included only one SEP in one U.S. city, the generalizability of our findings is limited. It is possible that the consequences associated with refusing to share are different among IDUs with more limited access to sterile syringes, or in municipalities that are less tolerant of SEPs. Even within the same city, IDUs who access syringes via SEPs may differ from those who do not (Grau *et al.*, 2005). Participants in our study were older and overwhelmingly reported heroin as their drug of choice; our findings related to the influence of social consequences and the consequence of heroin withdrawal symptoms may not generalize to younger IDUs, or those who prefer other substances such as stimulants.

Our findings may also be affected by bias due to socially desirable reporting and recall. To minimize this risk, the research team was careful to assure participants that the information they provided would not be shared with SEP staff, and interviews were conducted in private offices. Further, since the primary eligibility criterion was self-reported risky injection in the past 30 days, it is unlikely that risk behavior was underreported. More likely, past risk behavior was described as having occurred more recently, or several previous risky injection events were conflated to provide details about the event described in the interview. Details about events that occurred too long ago may have attenuated, yielding a less precise description of events. And, using the “last event methodology” may have yielded descriptions of atypical injection episodes. However, given the frequency of injection and the long duration of injection careers, the narrative accounts provided by study participants are likely to be representative of their actual behavior.

Conclusions

We have described several perceived consequences of refusing to share injection equipment, many of which are amenable to structural intervention. These results should not be interpreted to mean that IDUs perceive sharing injection equipment as a desirable outcome. Instead, an understanding of the multiple challenges and risks faced by IDUs helps contextualize the risk of HIV amongst a host of other consequences, many of which are perceived as more imminent or more severe (Connors, 1992). While from an outsider's, or public health, perspective the most important outcome may be the prevention of HIV infection, from the IDU's insider perspective there may be other equally or more important outcomes to be achieved (or avoided). Rather than imposing external priorities, effective public health interventions among IDUs will benefit from a holistic perspective that considers the environmental and social rationality (Kowalewski et al., 1997) of decisions regarding injection risk behavior, and assists individuals in addressing the consequences that they perceive to be most salient.

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Table

Demographic characteristics of study sample (N=26).

	n	%
Age (mean; SD)	42.9 (9.2)	
	Range: 22–60	
Age at initiation of IDU (mean; SD)	22.3 (9.0)	
Female	14	54%
Race/Ethnicity		
Hispanic/Latino	12	46%
White	6	23%
African American	5	19%
Other	3	12%
Homeless	20	77%
Education: at least high school graduate	8	31%
HIV Positive * (n=25)	3	12%
HCV Positive * (n=24)	16	67%
Drug most frequently injected in past 30 days: Heroin	25	96%
Number of injections per day (mean; SD)	4.2 (2.1)	
Number of days per week on which drugs are injected (mean; SD)	6.4 (1.5)	
Duration of SEP use (years; mean; SD)	5.8 (4.7)	

*
self-report