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Strategies used by people who inject drugs to avoid stigma in healthcare settings

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ABSTRACT

Background: People who inject drugs (PWID) have limited engagement in healthcare services and report frequent experiences of stigma and mistreatment when accessing services. This paper explores the impact of stigma against injection drug use on healthcare utilization among PWID in the U.S. Northeast.

Methods: We recruited PWID through community-based organizations (CBOs; e.g., syringe service programs). Participants completed brief surveys and semi-structured interviews lasting approximately 45 min exploring HIV risk behaviors and prevention needs. Thematic analysis examined the emergent topic of stigma experiences in relation to healthcare utilization.

Results: Among 33 PWID (55% male; age range 24–62 years; 67% White; 24% Latino), most used heroin (94%) and injected at least daily (60%). Experiences of dehumanization in healthcare settings were common, with many participants perceiving that they had been treated unfairly or discriminated against due to their injection drug use. As participants anticipated this type of stigma from healthcare providers, they developed strategies to avoid it, including delaying presenting for healthcare, not disclosing drug use, downplaying pain, and seeking care elsewhere. In contrast to large institutional healthcare settings, participants described non-stigmatizing environments within CBOs, where they experienced greater acceptance, mutual respect, and stronger connections with staff.

Conclusions: Stigma against injection drug use carries important implications for PWID health. Increased provider training on addiction as a medical disorder could improve PWID healthcare experiences, and integrating health services into organizations frequented by PWID could increase utilization of health services by this population.

1. Introduction

Injection drug use increases the risk of serious health harms, including fatal and non-fatal overdose, and blood-borne and skin and soft tissue infections (Akselrod et al., 2014; CDC, 2018; Haber et al., 2009; Liebling et al., 2018; Mathers et al., 2010). As many of these health risks are due in part to injecting as route of drug administration, people who inject drugs (PWID) have important health needs and could benefit from regular access to preventive healthcare. However, PWID in the United States typically have limited healthcare utilization outside of

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emergency services (Artenie et al., 2015; Baumann et al., 2012; Drug Abuse Warning Network, 2010; Vivolo-Kantor et al., 2018). Understanding the healthcare engagement of PWID should thus be a public health priority. While addiction and other co-occurring conditions and vulnerabilities (e.g., poverty, housing instability) also complicate healthcare utilization in this population, emerging research has highlighted the potential role of stigma in adversely influencing decisions to seek care among PWID (Lang et al., 2013; Paquette et al., 2018).

Stigma, defined by Goffman as a "deeply discrediting attribute," is well researched among the larger population of people who use illicit drugs (Goffman, 1963; Kulesza et al., 2013). Due to associations with crime and violence, people who use illicit drugs are viewed as dangerous, unpredictable, and lacking self-control (Barry et al., 2014; Blendon and Young, 1998; Humphreys, 2017). Indeed, healthcare providers and staff may view people who use illicit drugs and alcohol negatively, mistrust their motives, and fear deception, in turn limiting the consistency and quality of care provided (Brener et al., 2010; Henderson et al., 2008; Merrill et al., 2002; van Boekel et al., 2013). Compared to other routes of drug administration, injection drug use may carry additional stigma because it results in distinct physical traits (e.g., track marks) that are easily identifiable, and is associated with undesirable health and social conditions such as HIV, Hepatitis C virus (HCV), transactional sex, crime, and homelessness (Ahern et al., 2007; Akselrod et al., 2014; Crawford et al., 2012; Habib and Adorjany, 2003). Despite these differences, little research on stigma against substance use in the United States has focused specifically on PWID.

Several international studies have found that stigma can adversely affect decisions to seek healthcare among PWID (Habib and Adorjany, 2003; Heath et al., 2016; Lang et al., 2013; Neale et al., 2007; Simmonds and Coomber, 2009; Treloar et al., 2016; Wilson et al., 2014). However, because societal views of substance use and related policy debates depend on socio-cultural and policy contexts, international findings may not generalize to the U.S. context (Golub et al., 2015, 2005). Two studies have documented stigma experienced by methadone patients in New Haven, CT, and PWID in California's Central Valley (Earnshaw et al., 2013; Paquette et al., 2018). However, in-depth research on the ways in which stigma may shape healthcare-related decisions and utilization behaviors among PWID is lacking. In this paper, we describe how stigma impacts PWID healthcare utilization in the United States where the prevalence of injection drug use is increasing in the context of the ongoing opioid crisis (Cicero and Ellis, 2017; Cicero et al., 2017; SAMHSA, 2016).

2. Methods

2.1. Study design and population

We drew from a qualitative study on the acceptability of various HIV prevention methods among PWID in the U.S Northeast, a region with high levels of opioid and polysubstance use and injection drug use (CDC, 2017). To recruit PWID, we partnered with community-based organizations (CBOs) including syringe service programs and drop-in HIV/HCV testing centers frequented by PWID in Boston, MA, and Providence, RI, as previously described (Bazzi et al., 2018). Eligible PWID were at least 18 years old, HIV-uninfected, and reported injecting drugs in the last month. Following referral to the study by CBO staff, trained study personnel conducted eligibility screening with interested individuals, and, if eligible, obtained verbal informed consent in private spaces within CBOs. Participants received $25 for completing interviews. The institutional review board of Boston University Medical Campus approved all study protocols.

2.2. Data collection

Between October 2016 and October 2017, trained interviewers collected data from participants in private spaces within CBOs. Brief quantitative surveys assessed socio-demographics (e.g., self-reported age, sex, gender, race) and sexual and substance use behaviors. Semi-structured interview guides explored substance use behaviors, healthcare utilization, and the acceptability of HIV prevention methods (Bazzi et al., 2018). Interviews, which lasted approximately 45 min, were audio-recorded and professionally transcribed.

2.3. Data analysis

We reviewed transcripts for quality and to identify emergent themes (DeCuir-Gunby et al., 2011). We employed a collaborative codebook development process involving six research team members (Bazzi et al., 2018). Initial codes were based on interview guide domains and other emergent topics (e.g., stigma) that we noted through early team meetings. After multiple rounds of testing and refining codes, three analysts used NVivo (QSR International Pty Ltd., version 11, 2017) to apply finalized codes to transcripts.

In ongoing team meetings to monitor the coding process, we noted that, when asked generally about healthcare utilization, stigma was repeatedly discussed and emerged as an important experience in the lives of PWID. For this analysis, we drew from the literature on stigma to developed additional deductive sub-codes codes (e.g., "internalized stigma") while also noting the need for additional inductive sub-codes (e.g., "external reactions to stigma") as they emerged (Earnshaw and Chaudoir, 2009). Two team members then used these sub-codes to re-code data initially coded generally for "stigma." Further analysis then identified and clarified key themes pertaining to individuals' experiences with and reactions to stigma in healthcare settings.

3. Results

Among 33 PWID (55% male; age range 24–62 years; 67% White; 24% Latino; 67% straight identifying); almost all had public health insurance (97%). Most injected heroin (94%), or cocaine (70%) and injected at least daily (60%; Table 1). In qualitative interviews, most participants (88%) described stigma, and we identified the following related themes: (1) previous experiences of stigma against injection drug use in healthcare settings; (2) internalizing and resisting stigma about drug use; (3) strategies to avoid anticipated stigma. We present these key themes with illustrative quotes using pseudonyms to protect participants' confidentiality (Table 2).

3.1. Previous experiences of stigma against injection drug use in healthcare settings

Participants described being treated poorly and feeling dehumanized in large healthcare facilities when interacting with staff including medical providers, nurses, and security guards. Participants often used strong, explicit language to describe their negative past experiences, as Jessica said about a large hospital, "[It] sucks. They treat us like shit!" Participants believed that mistreatment stemmed from assumptions that PWID were inappropriately seeking pain medication or purposely engaging in reckless behavior. While several participants described being directly referred to with derogatory terms such as "junkie," many participants also described experiencing more covert forms of stigma or observing subtle changes in staff behavior, such as perceiving a "bad aura" after disclosing their drug use, as Donna explained:

> "The minute they find out that you're [an] injection user, the doctors, you can see it right in their face. They change their whole attitude. They don't want to help you. It's weird. I don't like the treatment. I hate telling the doctor that I use drugs. Hate it. Their whole attitude changes…"

Participants believed that this mistreatment and assumptions about "med seeking" resulted in lower quality of care and more rushed visits. This "in-and-out" treatment left many participants believing that their

Table 1
Characteristics of people who inject drugs in study sample (n = 33).

Socio-Demographics	n (%)
City	
Boston	16 (48%)
Providence	17 (52%)
Age in years; median (interquartile range; IQR)	36 (32-48)
Race (categories are not mutually exclusive)	
American Indian or Alaska Native	3 (9%)
Black or African American	7 (21%)
White	22 (67%)
Other	5 (15%)
Ethnicity: Hispanic/Latino	8 (24%)
Gender	
Male	18 (55%)
Female	13 (39%)
Transgender	1 (3%)
Genderqueer	1 (3%)
Sexual orientation	
Heterosexual or "Straight"	21 (64%)
Bisexual	8 (24%)
Homosexual or Gay	4 (12%)
Educational attainment	
Less than high school	9 (27%)
High school or GED	13 (39%)
Some college	11 (33%)
Employment status: Unemployed	23 (70%)
Health insurance: Has public health insurance	32 (97%)
Substances used to get "high," past 3 months (not mutually exclusive)	
Alcohol	15 (45%)
Heroin	32 (97%)
Prescription opioids	11 (33%)
Street methadone	8 (24%)
Cocaine	27 (82%)
Crack	23 (70%)
Crystal methamphetamine	13 (39%)
Poppers (i.e., amyl nitrate)	2 (6%)
Marijuana	22 (67%)
Downers or sedatives (e.g., Valium, Ativan, Xanax)	14 (42%)
Other drugs not prescribed	15 (45%)
Frequency of drug injection, past 3 months	
Less Than Once a Month	2 (6%)
1 to 3 Days Month	2 (6%)
Once a Week	1 (3%)
2 to 6 Days a Week	8 (24%)
Once a Day Everyday	3 (9%)
2 to 3 Times a Day Everyday	12 (36%)
4 or More Times a Day Everyday	5 (15%)
Drugs injected, past 3 months (not mutually exclusive)	
Heroin	31 (94%)
Prescription opioids	3 (9%)
Methadone	1 (3%)
Cocaine	23 (70%)
Crack	13 (39%)
Crystal Methamphetamine	11 (33%)
Cocaine / Heroin Combination ("Speedball")	12 (36%)

concerns were not taken seriously, especially regarding pain management, as Megan reported:

> "I had an abscess on my head. My whole face was swollen. I was in a lot of pain. And they would not give me any pain medication because I have an opiate problem. Your arm has to be like ripped off before they'll give you a Tylenol."

While participants acknowledged that some individuals may seek pain medication inappropriately, they rejected this as common practice for most PWID because, as Donna explained, it was easier and less shameful to "get it on the street."

Accounts of stigma experiences focused on all levels of the healthcare system. Some participants like Skyler identified specific types of staff (e.g., nurses, security guards) as primary sources of their mistreatment: "Very rarely you find a nurse that treats you like a human."

Table 2
Participant Pseudonyms.

Pseudonym	*Demographics*	*City*
Aaron	White, 24 years old, male	Boston
Stacey	White, 36 year old, female	Boston
Roy	Black, 43 year old, male	Boston
Mateo	Hispanic, 30 year old, male	Boston
Kelly	White, 35 year old, female	Boston
Keith	White, 42 year old, male	Boston
Jessica	White, 35 year old, female	Boston
Megan	White, 35 year old, female	Boston
Max	Black, 22 year old, male	Boston
Donna	White, 43 year old, female	Providence
Richard	Native American, 49 year old, male	Providence
Michael	Black, 43 year old, male	Providence
Nancy	White, 33 year old, female	Providence
Skyler	Hispanic, 35 years old, genderqueer	Providence

Max also felt mistreated by security guards at a major hospital: "They judge everybody, and I think that's unfair…we're regular working people. I find that a lot with the security…their attitudes." Other participants like Mateo perceived stigma to be universal throughout the healthcare system: "If they know you're an addict, they're going to treat you bad."

3.2. Internalizing and resisting stigma against injection drug use

Many participants' narratives revealed experiencing shame and embarrassment about their drug use when seeking healthcare services, reflecting an internalization or endorsement of negative beliefs about PWID. Michael described feeling "kind of embarrassed" when accessing services from organizations known to serve PWID "because I don't want the wrong person walking through the door saying, 'Oh, he's here?'"

In contrast to the shame and embarrassment that accompanied internalized stigma, other internal narratives reflected resistance to stigma. For example, Aaron held steadfast to the view of addiction as a medical disease rather than a moral choice: "This isn't how we want to be. It's a disease. We want help, it's just that we don't know how to get it, we don't know how to change." Jessica described trying to convince a healthcare provider that addiction could happen to anyone: "Don't talk too quick, honey, 'cause your daughter's gonna end up on the streets with us."

PWID perceived that healthcare staff viewed them as reckless and not caring about their health. However, several participants emphasized the invalidity of what they perceived to be healthcare workers' stigmatizing beliefs by describing efforts to manage their addiction and health. Keith, who asserted that he did not deserve to be treated poorly when accessing healthcare services because he was "not a bad person for wanting to be good," described the difficult but important process of obtaining treatment for his opioid use disorder:

> "It's not like a dream to get up every morning to come down here to get Suboxone so I don't get sick. But that's my way of trying, a way to say, "Keith, at least you're trying." I wish I could do it a different way, but right now that's all I can do."

Other participants expressed "not caring" about the providers' negative views of PWID. While they may have cared initially, over time they developed strategies to defend themselves against internalizing these negative experiences and views.

3.3. Strategies to avoid anticipated stigma

Due to the pervasiveness of stigma in healthcare settings, participants described "knowing" that they would be discriminated against when seeking healthcare services and anticipated being blamed for their health problems, not having their complaints taken seriously,

receiving lower quality of care, or being denied the services they requested. As a result, participants employed the four following strategies to avoid this anticipated stigma, 1) delaying healthcare; 2) not disclosing drug use; 3) downplaying need for pain medication; 4) seeking alternative services.

Expecting mistreatment, shame, and embarrassment in healthcare settings, participants like Stacey described waiting as long as possible before seeking healthcare services:

> "When it comes down to it, a lot of the times that I need to get medical attention, I put it off and put it off and put it off, because I don't want to face the embarrassment that they make me feel, and that's not fair. It's not."

Instead of accessing needed healthcare services, Stacey and others decided to delay care as long as possible, often until they required emergency services.

Several participants like Aaron described hiding or not disclosing their drug use or related risk behaviors during healthcare encounters: "There's just some things I wouldn't tell a doctor." Similarly, Donna described "being sneaky" in an attempt to receive higher quality care: "I don't want to tell them I'm a drug user if there's something really wrong with me. You know, I need that issue taken care of…It makes me want to lie and not be honest." Richard, who had not disclosed his injection drug use to his doctor, believed that she would not take him seriously or would "lock him up" in rehab if she discovered it: "She wouldn't keep my appointments. She would care less. She wouldn't go the nine yards or go out the way for me." As a result, he did not access the sterile syringes available at his hospital pharmacy, despite the convenience it offered.

A third strategy to avoid the anticipated stigma was downplaying or denying the need for pain medication to try to establish credibility with healthcare providers and ensure adequate treatment of primary complaints. By anticipating providers' skepticism and stating up front that they were not seeking pain medication, participants hoped their reasons for seeking care would be legitimized, resulting in higher quality care. As Mateo explained, "I told them, I don't want nothing for pain, so they don't think I'm there for that…I just want to get treated right."

Many participants described seeking prevention and other, more routine health services at smaller community health centers or CBOs. Distinct from large healthcare institutions, CBOs such as syringe service programs and drop-in HIV/HCV testing centers were described as "safe havens" in which PWID were "treated as human beings." These positive experiences were attributed to CBO staff having "respect and compassion" and motivation to serve PWID. As Nancy said, "They don't look down on you. They're like, 'Do you need this? Would this help you?'" CBO staff were also described as having familiarity or lived experience with injection drug use; as a result, many participants felt a sense of belonging and "family" within CBOs and were more honest and open with CBO staff about specific aspects of their injection drug use, related risk behaviors, and health needs.

Notably, a few participants viewed addiction medicine specialists as important exceptions within large healthcare systems, describing positive interactions with specialists who were considered to be as understanding, non-judgmental, and helpful as CBO staff. Stacey contrasted her positive experience with a team trained in addiction medicine to the poor treatment she had previously received in the emergency room:

> "The team of doctors were great. They didn't look down on me [or] think I was crying because I wanted more pain meds. They treated me like I was a human…[We] just bonded while I was there, and it was really nice."

During her inpatient treatment, one of the physicians on the addiction medicine team asked Stacey if she could be Stacey's primary physician. Stacey accepted and stated that she was planning on connecting with this doctor in the near future.

4. Discussion

Participants in this qualitative study detailed prevalent negative experiences in healthcare settings that they attributed to their status as a person who injects drugs. Despite the urban setting of our study and high insurance coverage in our Northeastern sample, we found similar experiences of stigmatizing encounters as those described by Paquette et al. (2018) in the more rural Central Valley of California. This indicates that stigma towards PWID is pervasive and significant across U.S. settings. Our findings build upon research describing stigma experiences (Paquette et al., 2018) by detailing the specific reactions and strategies used by PWID to avoid stigma. Through specific knowledge of these strategies, which are discussed below, targeted interventions can be developed to improve PWID engagement in and experiences with healthcare services.

First, we found that PWID delayed accessing healthcare because they anticipated mistreatment from multiple levels of healthcare staff. Research in Thailand, Canada, Australia, and the United Kingdom has also described reluctance of PWID to seek care due to their status as a person who injects drugs (Boucher et al., 2017; Habib and Adorjany, 2003; Heath et al., 2016; Neale et al., 2007). Delayed care may result in missed opportunities to prevent and treat blood-borne infections (e.g., HIV, HCV) that are common in this population (Akselrod et al., 2014; CDC, 2017; Haber et al., 2009; Liebling et al., 2018; Mathers et al., 2010). Similarly, skin and soft tissue infections, one of the most common reasons PWID utilize emergency services, often result in inpatient admissions or death and are also extremely costly to the healthcare system (Binswanger et al., 2008; Ciccarone et al., 2016; Tookes et al., 2015). Therefore, presenting for treatment earlier and avoiding complications of skin and soft tissue infections could result in substantial healthcare savings, as demonstrated through the creation of specialty clinics serving PWID (Harris and Young, 2002; Tookes et al., 2015). Thus, increasing PWID trust and access to relevant healthcare services would not only improve health outcomes in this socially marginalized population, but could also result in substantial savings.

Second, to try to improve the quality of services received, PWID in our sample withheld important health information from healthcare providers, either by hiding their drug use or by downplaying their health needs or pain. Unfortunately, irrelevant services and poor quality care can result from providers lacking important patient health information (Lee, 1995). Indeed, providers have reported struggling to gain accurate medical histories from PWID, with one study on patient-provider communication finding that providers reacted positively when patients employed "stigma management" communication in which they downplayed their substance use (Chang et al., 2016; Henderson et al., 2008). To better assess patient health needs and treat active substance use, training in both addiction medicine and cultural competency may be needed. Unfortunately, the majority of practicing providers and medical students in the United States believe that they lack adequate training in assessing and treating people with addiction (Bäck et al., 2018; Miller et al., 2001).

While efforts to improve general training in addiction medicine are underway, an area that deserves particular attention is pain management, as patients with opioid use who downplay pain may receive lower quality of care (Paschkis and Potter, 2015; Ti et al., 2015). Given that research and consensus on inpatient opioid dosage for people who are opioid tolerant continues to evolve, addiction medicine training will need to be ongoing, and quality of care measures (e.g, regarding adequacy of pain management) will be needed to help evaluate the impact of training (Paschkis and Potter, 2015).

Beyond formal training in addiction medicine, the lack of perceived provider empathy regarding drug use that emerged in our study must also be addressed (van Boekel et al., 2013). Strategies to improve provider empathy towards PWID could be increased through direct or indirect interactions with people who use drugs, including PWID, or those in recovery. For example, live testimonials and written narratives

have been shown to provoke empathy towards other stigmatized populations (e.g., transgender individuals) and those living with mental health conditions, HIV, and HCV (Brener et al., 2013; Evans-Lacko et al., 2012; Paxton, 2002; Tompkins et al., 2015). To be well received, messaging should address the uniqueness of addiction as a disease while acknowledging that negative interactions between healthcare providers and PWID may occur (Humphreys, 2017). At minimum, cultural competency training, whether online or in-person, should address the importance of using accurate, person-first terminology when referring to PWID, as terms such as "addict" and "substance abuser" promote judgmental perceptions among healthcare providers (Kelly and Westerhoff, 2010; Goddu et al., 2018). Because a single negative interaction with any type of healthcare provider or staff could influence PWID attitudes towards entire institutions and systems, it will be critical to adapt these trainings for diverse subgroups of healthcare staff who interact with patients, including security staff. While existing interventions could help increase cultural competency and decrease stigma towards PWID at multiple levels within health organizations, such models require further research and evaluation (Brener et al., 2017; Livingston et al., 2012).

As an alternative to large institutional healthcare systems, we and others have found that PWID prefer seeking services in smaller community health centers and CBOs, such as syringe service programs, where they trust staff and feel welcomed (Ostertag et al., 2006). With many PWID already accessing CBOs regularly, the integration of preventive and specialized healthcare services into these organizations holds promise as a method for improving PWID health and wellbeing. Indeed, the integration of Hepatitis B, HCV, HIV, and wound care into syringe service programs, safe injection sites, and outpatient drug treatment programs, which often aligns with these organizations' missions, has been shown to be feasible, acceptable, and efficacious in achieving improved patient outcomes (Altice et al., 2005; Litwin et al., 2005; Small et al., 2009; Sylla et al., 2007; Sylvestre and Zweben, 2007). Integrating a broader range of healthcare services into CBOs will present challenges, including addressing space, staffing, and resource limitations, but until stigma in mainstream healthcare systems can be addressed, innovative strategies for improving PWID access to health services in more familiar, trusted venues warrant further exploration and support (Auschra, 2018; Bruggmann and Litwin, 2013; Treloar et al., 2010, 2014).

While implementing improved training of healthcare providers and integrating health services into CBOs could be resource- and time-consuming, capitalizing on PWID resilience and reactions to stigma could have more immediate impact. Internalized stigma carries harmful effects on health and wellbeing (Ahern et al., 2007; Cama et al., 2016; Hatzenbuehler et al., 2013; Kamaradova et al., 2016; Luoma et al., 2007; Rivera et al., 2014; Skeer et al., 2018; von Hippel et al., 2018). Resilience, or the ability to "bounce back" and overcome adversity, helps mitigate the harmful health effects of stigma and can be built over time (Corrigan et al., 2009; Firmin et al., 2016; Mittal et al., 2012; Rudzinski et al., 2017). Although little research has focused on building resilience among PWID, some group therapy interventions have demonstrated modest efficacy in building resilience among people living with mental illness and HIV (Corrigan et al., 2009; Mittal et al., 2012; Rao et al., 2018). Related to building resilience, altering self-stigmatizing views can increase general self-efficacy to act on personal goals and may be linked to recovery from addiction (Corrigan et al., 2009; Luoma et al., 2007; Rudzinski et al., 2017). Resilience-promoting and related interventions could thus contribute to immediate and long-term health benefits for PWID and should be explored.

There are limitations to this study. First, as the original study was designed to focus on HIV prevention and stigma was not included in our interview guide, we may have missed opportunities to more comprehensively assess stigma experiences or reactions. Second, as our recruitment and data collection were limited to CBOs in two urban centers in the U.S. Northeast, our findings may not generalize to other geographic regions where social norms surrounding substance use and access to harm reduction services differ. However, our findings were similar to those described by Paquette et al. (2018), suggesting that stigma against injection drug use may be common across settings. Third, the positive attitudes towards CBOs may reflect our recruitment strategy, which was implemented in partnership with these organizations. Nevertheless, we found that PWID in our sample had significant experiences with stigma and mistreatment in healthcare settings that carried important implications for their healthcare utilization.

5. Conclusions

In the context of the U.S. opioid crisis and increasing prevalence of injection drug use nationally, research and programmatic efforts to reduce stigma against PWID are urgently needed. Despite increasing public awareness of addiction as an illness, PWID continue to experience mistreatment that impacts their views of healthcare providers and services and results in potentially harmful strategies such as delaying healthcare utilization. Interventions at the system, provider, and patient levels may all be necessary to reduce stigma and improve healthcare engagement in this population. As a start, increasing cultural competence in working with PWID throughout the healthcare system, integrating more healthcare services into CBOs frequented and trusted by this population, and building resilience in PWID could all help to improve PWID health outcomes and wellbeing.

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Contributors

DB led the analysis and writing of manuscript. PS and AE contributed to data analysis, interpretation, and writing of results. ARB and KBB designed the study, received funding for this project, and oversaw data collection and analysis, and contributed to manuscript drafting and revisions. EC assisted with manuscript drafting and revisions. RS, MJM and MLD contributed to manuscript revisions. All authors reviewed, edited, and approved of the final version of the manuscript.

Conflict of interest

No conflict declared.

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