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Research Paper

The risk environments of people who use drugs accessing two harm reduction centers in Tehran, Iran: A qualitative study

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ABSTRACT

Background: Iran has developed the most robust harm reduction infrastructure in the Middle East, marked by availability of low threshold methadone maintenance treatment (MMT), needle and syringe program (NSPs), and condom distribution services. However, little is known about the socially situated risk factors that make harm reduction clients—specifically those enrolled in MMT—vulnerable to relapse or continued illicit drug use. In this study, we sought to understand the "risk environment" of clients enrolled in harm reduction services in Tehran, Iran.

Methods: Through observation and in-depth interviews with 22 drop-in-center clients and 8 staff members from July to August 2017, we explored the risk environments of clients of two drop in centers (DICs) in Tehran. All interviews were transcribed, coded and analyzed using a qualitative thematic analysis.

Results: We found that compulsory drug treatment programs, social stigma, police encounters, and difficulties in obtaining governmental identification documents, among other factors, contribute to social marginalization of DIC clients.

Conclusion: Many interviewed DIC clients continued to use illicit substances (particularly methamphetamine) despite having access to methadone treatment. This study underscores the panoply of social and structural barriers that DIC clients face while attempting to engage in treatment and harm reduction services. Following the "risk environment" framework, it is essential to identify the structural factors shaping individual behaviors that perpetuate experiences of social marginalization and poor health outcomes in this population.

Introduction

Iran is estimated to have between 170 and 230 thousand people who inject drugs (PWID) (Iran MoH, 2015; Mathers et al., 2008). A systematic review of studies conducted on HIV prevalence among PWID in Iran between 1997 and 2007 revealed a 18.4% HIV prevalence among PWID and a 5.4% HIV prevalence among people who use drugs (PWUD) without a history of injection in studies after 2005 (Amin-Esmaeili, Rahimi-Movaghar, Haghdoost, & Mohraz, 2012; Rahimi-Movaghar, Amin-Esmaeili, Haghdoost, Sadeghirad, & Mohraz, 2012). In a national bio-behavioral survey in 2010, the reported prevalence of HIV among PWID was 15.2% (Khajehkazemi et al., 2013). In response to the high burden of HIV among PWID, the Iranian government has funded harm reduction programs in both prisons and the community since early 2000s (Momtazi, Noroozi, & Rawson, 2015). Community-based harm reduction services are provided by drop-in centers (DICs), within which PWUD can obtain free sterile needles and syringes and low-threshold MMT services at highly subsidized rates (Momtazi et al., 2015). According to a MoH report in 2014, there were about 600 needle and syringe programs (NSPs) in Iran, which annually distributed more than 10 million syringes to PWID. There were also more than 6000 MMT programs delivering care to around half a million people with opioid use disorder across the country (Iran MoH, 2015).

Research in Iran has investigated the impacts of harm reduction interventions on HIV risk behaviors, specifically focusing on NSPs (Mirahmadizadeh, Majdzadeh, Mohammad, & Forouzanfar, 2009; Vazirian et al., 2005; Zamani, Farnia et al., 2010, Zamani, Vazirian et al., 2010; Noroozi et al., 2015; Nazari et al., 2016), MMT programs in prisons (Farnia, Ebrahimi, Shams, & Zamani, 2010; Zamani, Farnia et al., 2010, Zamani, Vazirian et al., 2010), and low threshold methadone programs in DICs (Dolan, Salimi, Nassirimanesh, Mohsenifar, & Mokri, 2011). However, little is known about the socially situated risk

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factors that make harm reduction clients—specifically those enrolled in low threshold methadone treatment—vulnerable to relapse or continued illicit drug usage.

In order to understand the socially situated risk factors that make harm reduction clients vulnerable to relapse or continued illicit drug usage, this project draws on theories of "risk environments" developed by Rhodes (2002). A "risk environment" approach allows for a greater understanding of the "space – whether social or physical – in which a variety of factors interact to increase the chances of harm occurring" (Rhodes, 2009). Drawing on social epidemiology, sociology, and political-economy, a risk environment framework interrogates how contexts (social, political, and economic) interact with individual behaviors to produce harm. Scholarships on "risk environments" in relation to substance abuse have focused on the local production of HIV (Bluthenthal, Kral, Erringer, & Edlin, 1999; Bourgois, 1998; Rhodes, Singer, Bourgois, Friedman, & Strathdee, 2005; Small, Kerr, Charette, Schechter, & Spittal, 2006; Strathdee et al., 2008; Waldorf, Murphy, Lauderback, Reinarman, & Marotta, 1990) and overdose risk (Green et al., 2009; McLean, 2016; Moore, 2004). These studies constitute an important critique of public health orientations that locate the burden of behavioral change on individuals rather than on larger social structures. None of these studies, however, have been conducted in the Middle East. While carrying out this research with DIC clients in Tehran, we discovered that harm reduction interventions were indeed contributing to the reduction of HIV and overdose risk among the sample population. Yet, many continued to use illicit substances despite partaking in methadone treatment at the DIC. This current study extends the risk environment framework to examine how contextual factors shape vulnerability to illicit drug use among DIC clients in Tehran.

Methods

Research site

Data collection occurred at three sampling sites. The first was a DIC in district 12 of Tehran, locally known as Shoosh. First established in 2005 across from the Tehran Train Station, the DIC moved to a new location across from Harandi Park in 2016. The Shoosh DIC is open 6 days a week (every day except Friday) from 8AM-12 PM. The second sampling site consisted of observation of Shoosh DIC outreach work in drug user "hotspots" (*patoghs*) in the parks and parking lots surrounding the DIC in District 12. The third sampling site was a DIC located in the Khavaran homeless shelter in District 15. Established in 2006, the Khavaran shelter was one of the first shelters built by the Tehran Municipal Government. It has the capacity to provide services to 400 people every evening, with such services including medical care, dormitory, hygiene facilities, and meals. In cooperation with the Ministry of Health, the Tehran Municipal Government created a DIC within the Shelter in 2016, with its hours of operation being from 7am to 1pm.

The two DICs involved in this research were all funded and run by the Tehran University of Medical Sciences. TheDICs offered several social support services free of charge, including sterile syringes, drug use paraphernalia, HIV testing and counselling, HIV treatment referral services, tea, cold water, and lunch. Additionally, the DICs provided subsidized "low threshold" MMT, a harm reduction-based program that aims to reduce the barriers of entry for treatment. These programs neither require people to stop using drugs, submit to intensive protocols (e.g., urine drug screens), or engage in counseling, which are typical of other MMT programs in other countries (Friedman & Alicea, 2001; Wasserman, Korcha, Havassy, & Hall, 1999).

Study design and sample

The first author (PB) conducted all participant recruitment, interviews, and observation. PB had significant training in ethnographic methods, including qualitative interviews and observation. All recruitment efforts of DIC clients were conducted using a convenience sample in the DIC common space where clients socialized, rested, and consumed complimentary beverages and food. No honoraria were provided for participants in the study. All DIC clients were eligible to participate in the study if they were above 18 and consented to participate in the study. In the two DICs under consideration, all clients were male (there were separate women-oriented DICs in Tehran that were not included in this study). Staff estimated that approximately 90% of their clientele were enrolled in MMT services. On the days of data collection, between 40 and 60 participants frequented the Shoosh DIC and 50 and 70 participants frequented the Khavaran DIC. Participants were selected among those clients who were sitting in the DIC common space. In total, 36 clients were approached in the DIC (31 in the Shoosh DIC and 5 in the Khavaran DIC), and 22 agreed to participate in this study (20 in the Shoosh DIC and 2 in the Khavaran DIC). Important demographic data (age, substance use history, harm reduction services received, and place of shelter) gathered during interviews was triangulated with records kept by the DIC. In addition, observational data gathered while accompanying street outreach workers was triangulated against interviews with DIC staff and clients. In addition to clients, 8 staff members were interviewed, including outreach workers (n = 2), physicians (n = 2), a psychologist (n = 1), nurses (n = 2), and an administrator (n = 1). None of the staff members were active drug users; however, 2 out of 4 outreach workers were enrolled in methadone treatment at the DIC. Staff members were both male (n = 10) and female (n = 3).

Following conventions in qualitative research, minimum sample sizes were determined prior to beginning the research (staff = 5; clients = 15) based on "expected reasonable coverage" given the time and budgetary constraints of the project (Patton, 1990: 186). Interviews were continued until data saturation was reached, or in other words, until the point in which no additional themes emerged from the collected data (Glaser & Strauss, 1967). Given numerical standards for reaching data saturation, it is reasonable that thematic saturation was achieved after conducting 8 in-depth interviews with key staff members and 22 interviews with DIC clients (Guest & Namey, 2014; Guest, Bunce, & Johnson, 2006; Padgett, 2011).

The study procedure was explained to all participants and they were enrolled in the study after providing written informed consent. In depth, semi-structured interviews were conducted with PWUD and DIC staff in private rooms in the DICs from July to August 2017. Each interview lasted between 15 min and 1 h. In general, interview questions revolved around understanding the impact of structural factors (the economy, national and local policies, and society) on individual risk behaviors of DIC clients (HIV/HCV risk, relapse, continued illicit substance use). Within the subcategory of national and local policies, questions pertaining to both harm reduction programming and policing were asked.

When interviewing staff members, questions sought to understand their assessment of the risk environment of PWUD, including substance use practices and behaviors, awareness of HIV/HCV risk, and interactions with the police. Further questions were asked to understand how staff members perceived the impact of harm reduction interventions on clients. In interviews with clients, demographic information was first collected, including age, initial age of illicit substance use, marital status, place of residence, and place of birth. Clients were asked about drug use practices, and proximal (e.g. substance use profiles, history of imprisonment, and injection practices) and distal risk factors (e.g. interactions with the police, social and economic stability, and stigma). In presenting our findings, we follow a "risk environment" approach that aims to problematize "distinctions between 'structure' and 'agency', 'distal' and 'proximal', and 'macro' and 'micro', and to question a reliance upon simple linear pathways of cause and effect" (Rhodes, 2009: 199). Thus, we aim to show how larger structural determinants can impact individual behaviors.

In addition to interviews, the first author engaged in observation of

DIC service provision in the Shoosh DIC everyday over a 24-day period, except for Fridays. Due to logistical constraints, observation was not conducted in the Khavaran DIC. Observations in the Shoosh DIC was conducted in four different locations inside and outside the DIC: 1) methadone disposal 2) intake interviews 3) safe injection and sex tutorials, and 4) street outreach in drug using "hot spots" (*patoghs)*. Methadone dispensing was observed (7 h) to understand clients' access to methadone. Intake interviews (5 h) were observed to understand why clients sought to enroll in the DIC. Safe injection and sex tutorials were observed to understand the extent to which DIC clients were aware of the risks associated with illicit drug usage (1 h). Street outreach was observed (5 h) to understand the impact of policing on drug users. The original goals of observation were to understand the HIV "risk environment" among DIC clients; however, given the prevalence and political acceptance of harm reduction interventions in Iran, the aims of observation shifted to understanding susceptibility to continued illicit drug usage among DIC clients after the research began.

In carrying out observation, the researchers did not use an observation guide. This was due to two reasons: 1) There is a dearth of qualitative research on DIC clients and drug users in Iran and 2) the short timeframe of data collection did not permit the researchers to visit the research site and gather initial data prior to the main phase of data collection. Overall, the lack of background information on the study population made clear that an unstructured approach to observation would guarantee higher quality data. This allowed the researcher to carefully attend to the emerging themes surrounding the risk environment that emerged while conducting observation.

Data analysis

Interviews were audiotaped, transcribed, and coded in the original language (Farsi) and translated into English when reproduced for quotes in this article by PB. At the request of several DIC center staff and DIC clients, some interviews were not recorded. In these cases, PB took notes verbatim throughout the interview process and later typed them. Observation notes were jotted down in a notebook while conducting research and elaborated upon and typed after leaving the field site.

A "grounded theory" approach was used during data analysis to allow the researcher to remain "constantly alert to emergent perspectives that will change and develop his [sic] theory" (Glaser & Strauss, 1967, 40). PB generated an initial set of descriptive codes after reading all typed transcripts and observation notes one time through. These codes were added to and revised upon a second and third time reviewing the data. He then used NVivo (v11) to apply final codes to the collected data. More in-depth thematic analysis was then conducted in order to synthesize coded data and clarify key themes regarding the risk environments of DIC clients. After this inductive process, several themes emerged that are elaborated upon in this paper, such as police encounters, compulsory drug treatments, stigma, precarity and joblessness, compassion and harm reduction, and "low threshold" methadone.

Study protocol and questionnaires were approved by the Ethics Committee of Tehran University of Medical Sciences (IR.TUMS.VCR.REC.1396.2181).

Results

Among the 22 qualitative interviews conducted, the median age was 42.5 years (standard deviation: 10.8), 11 were born in Tehran, and all identified as heterosexual men. The majority of the clients interviewed (n = 20) were unstably housed, and most of them (n = 19) slept in either the Khavaran or Shoosh homeless shelters run by the Tehran municipal government. The average age in which respondents began using illicit substances was 21.4 years (standard deviation: 11.4). With regards to the marital status of participants, 12 were divorcees, 6 had never been married, 2 were widowers, and 2 were married. Among the participants, 7 identified as only using methadone, 14 disclosed that they used methadone and crystal methamphetamine (locally known as *Shisheh)*, and 1 indicated that he only used crystal methamphetamine. While data was being collected, 2 of the original 7 exclusive methadone users relapsed and began using crystal methamphetamine. The high rate of methamphetamine use (through smoking) in the study sample reflects the recent growth in popularity of crystal methamphetamine variants in Iran (Noori et al., 2016; Noroozi, Malekinejad, & Rahimi-Movaghar, 2018; Shadloo et al., 2017). Among those interviewed, only 1 participant had injected heroin in the past, a finding that contrasts with earlier studies that indicated a high prevalence of injection drug use in Iran (Razzaghi, Movaghar, Green, & Khoshnood, 2006). Furthermore, DIC staff indicated that injection practices had decreased substantially in the areas surrounding the DIC over the past few years. This had occurred to such an extent that staff did not always carry sterile needle and syringes when conducting street outreach. Additionally, we noted high stigma toward PWID among DIC clients.

The respondents of this study utilized many of the services provided by DICs. Nevertheless, the DICs were fundamentally limited in their ability to alleviate the social marginalization of their clients. In the DICs, interventions focused on pharmaceutical treatment rather than on the provision of social services or psychosocial interventions. This narrow focus, however, deviates from the mandate of DICs. According to their protocol, staff have a duty to provide PWUD access to hygiene services (toilets, haircuts, showers), group therapy, family reconciliation services, medication, syringes and needles, clean clothes, and a nutritious food. While stopping short of a progressive harm reduction model that provides referral services to treatment, housing, and jobs, the protocols of Iran's harm reduction programs nevertheless had in their ambit a large array of services.

In interviews, many DIC staff felt overwhelmed by their inability to enact meaningful change in the lives of their clients. Several staff members had entered the harm reduction field in order to help unstably housed PWUD achieve long-lasting sobriety and reintegrate into society as productive citizens with jobs, families, and social credibility. Yet, inadequate resources hampered their ability to transform the lives of unstably housed PWUD. In the Shoosh DIC, it was observed that the psychologist, nurse, physician, and administrator spent most of their time dispensing methadone and attending to its requisite paperwork. Given the state's strict regulations on monitoring methadone prescriptions, filling out methadone-related paperwork was a time-consuming process that often required the full attention of several staff members. A DIC physician criticized the process as follows:

When the clients come here, they aren't given the resources to change their lives…The original idea was that the DIC would work like a car wash: drug users would enroll in our programming and then after a few months become new people. That does not happen…You can see that our psychologists are not working, we have barely any family therapy, all our energy is concentrated on giving out methadone. We aren't doing any of the things that we were supposed to be doing. If you take into consideration that mitigating the harms of addiction is a multifaceted process, simply giving out methadone is not going to rehabilitate them.

Most DIC clients were stuck in recurring cycles of chronic addiction. From their drug using histories, it became apparent that many had experienced multiple periods of sobriety from illicit substances, with some having periods lasting up to five years. Yet, without significant changes in their life conditions, they often returned to using crystal methamphetamine or heroin. Seasoned staff members understood their clients who refrained from using illicit drugs to be at perpetual risk of relapse. The psychologist lamented:

These guys get it [methadone] from us but they always start using again. If they find a job and leave this environment maybe they can make a change in their lives. But this never happens and it seems that people are just trapped in this recurring cycle of addiction.

The remainder of this paper aims to understand the risk

environment perpetuating this cycle of addiction to illicit substances for clients enrolled in methadone treatment.

Compulsory drug treatment

In 2010, the Expediency Discernment Council of the State amended Iran's anti-narcotics laws. These laws ultimately set up a tension between harm reduction interventions and law enforcement practices. Article 15 of the anti-narcotics laws officially legitimated and protected harm reduction interventions, which had been active since the early 2000s (Ghiabi, 2018). In addition, article 15 exempted addicts (*motad*) who enroll in harm reduction services and carry DIC identification cards from criminal prosecution. However, article 16 of the anti-narcotics laws stipulated that those who *appear* (*motejaher*) to be "addicts" remain subject to criminal prosecution, even if they are carrying a DIC identification card. If apprehended by the police, a judge can send DIC clients to mandatory residential treatment centers, colloquially known as "camps," for a period lasting from one to three months. During interviews with DIC staff members, it was noted that several of the clients who did not use illicit substances and were only enrolled in methadone treatment had been forced to enter a residential facility, within which they were required to detox off all substances, including methadone. One respondent, however, told us that he had been sent to prison rather than a detoxification facility for three months, within which he had access to free methadone.

During the period in which interviews were being conducted at the Shoosh DIC, the police had launched an intensive policing campaign in District 12. According to DIC staff, the aim of this campaign (*tarh*) was to remove PWUD from urban spaces. While observing street outreach activities, the researcher was told that the parks and parking lots near the DIC had been major drug using sites up until the recent police campaign, with over 200 drug users frequenting these areas. For this reason, the observer saw only 30–40 people using drugs while accompanying DIC staff on street outreach. The remainder of the PWUD had either been arrested or found refuge elsewhere in the city.

Police campaigns to remove PWUD from urban spaces happened multiple times throughout the year. Periodically, the chief of the national narcotics police publically reports the precise number of apprehended people who had been sent to compulsory facilities. For example, in an interview with Mizan Online News Agency in February of 2017, drug control officials announced that the police had apprehended 13,421 "addicts" between March 2016 and February 2017 over the course of 52 different campaigns ("The Collection" 2017). This law enforcement-heavy approach was understood to be inefficacious by nearly all harm reduction center staff and clients in this study. Among those interviewed, there were 14 DIC clients whom had been sentenced to mandatory residential treatment in the past, with 3 of them having been sent to detoxification over 6 times. According to one respondent (42-year-old methadone user) who had been released from a compulsory detoxification residential facility two months prior to his interview:

Respondent: When I was arrested, I didn't want to stop using drugs…They took all of us to one of those camps. After three months, the camp staff asked everyone: do you want to remain clean (pak)? If so, you can stay here and work… I stayed there for 8 or 9 months. They told me that you shouldn't go back to Tehran, you'll see your friends and the places you used to use drugs and then relapse…now, it is about three months since I have returned to the city, though I am still in contact with them.

Interviewer: Did most of the people choose not to stay in the camp?

Respondent: From among the 130 people who entered with me, only 4 people stayed…most of the others wanted to use again.

Other respondents corroborated that most of those whom they became acquainted with in detoxification facilities had the intention of using drugs immediately upon release.

Few respondents noted that in some Article 16 detoxification facilities illicit drugs were available. One respondent (37-year-old methadone and crystal methamphetamine user) reported that he never stopped using substances while in the compulsory facility: "*The camp was full of drugs. So long as you had the money, you could get ahold of anything you wanted: crystal meth, opium, and heroin.*"

Interestingly, not all DIC clients had been subject to the same levels of police attention. While most of those interviewed had been sent to a mandatory detoxification facility at least once in their lives, others claimed to have never been subject to article 16 of the anti-narcotics legislation. Several respondents attributed their ability to avoid police apprehension to their "clean" physical appearances and their habit of using drugs outside the gaze of the public. The protective factors that allowed certain unstably housed PWUD to avoid the police were summarized by the following respondent (51-year-old methadone):

Respondent: The police don't really care about [those among us] who take care of our appearances. But a lot of these addicts are so focused on drugs that they don't take care of themselves.

Interviewer: If a person is using drugs openly but has a good appearance, what do the police do?

Respondent: If they see someone using drugs, they will arrest him. But if someone is taking care of themselves, they would never use drugs so out in the open for everyone to see.

Accordingly, it appears that those who attended to their appearances were thought of as having a lesser chance of being sent to compulsory facilities. Yet, given that all subjects experienced homelessness, few had access to "private" spaces to engage in drug use or resources to improve their hygiene and physical appearances. Thus, they were at perpetual risk of being apprehended by the police. With little indication from the experiences of respondents that compulsory treatment programs were efficacious, these programs may interfere with both the efforts and desires of DIC clients who aim to achieve sobriety.

"Outside of the DIC people hate us:" everyday stigma and police harassment

DIC clients experienced significant amounts of stigma when utilizing public spaces during the daytime. DICs appear to be the sole places that PWUD could loiter without fear of police encounter. Earlier discussions of harm reduction interventions indicated instances during which the police prosecuted PWUD inside Tehran's DICs (Christensen, 2011). It appears that harm reduction programs had gained far more acceptance among politicians and law enforcement agencies by the time this research was conducted. DIC staff assured researchers that the police abided by national regulations that prohibited them from entering the premises of the DIC.

DIC staff sought to create a safe and respectful environment for their clients. The psychologist of the DIC explained "*given that nowhere else treats them well, we try to be respectful toward them and make this a safe environment.*" In addition to providing their clients with a warm meal, cold water, tea, and drug using implements, staff members sought to provide a reprieve from judgmental tones and gazes during interpersonal interactions.

All DIC clients told the interviewer that they felt comfortable in the DIC. Many of the clients remained in the DIC for the entirety of its operation hours (8AM-12 PM) every day of the week except for Friday when the DIC was closed. The most typical daily routine of DIC clients resembled the following: 6 A M clients left the homeless shelter; 6:30-8AM clients waited outside the DIC until it opened; 8 AM-12 PM clients remained in the DIC; 12-6 PM clients roamed the city and attempted to make money; 6 PM-6 A M clients remained in the homeless shelter. This routine was described as "boring" "repetitive" and "tiring" by many of the DIC clients. In fact, no client noted that he enjoyed his time in the DIC. Nevertheless, PWUD stayed in the DICs because they could comfortably sit and socialize without fear of harassment from the police or public. While their services were limited in scope, DICs functioned as essential spaces of refuge in the everyday lives of their clients. Several clients reported on the importance of the DIC in their lives:

No one bothers me here. We are like each other. There is no one who, for example, passes by me and starts cursing or frowning at me. I am comfortable here—there are no police to catch and send us to camps (39-year-old crystal methamphetamine user)

Why do you think all of us take refuge here? Because there are people here who look like us. Outside of the DIC people hate us—people look at us in a different way; they give us a heavy look. They don't think of us as members of Iranian society. Our clothes, our appearances, everything about us is different (37-year-old methadone and crystal methamphetamine user)

The discomfort that the latter client faced in his daily life was so severe that he wished that there were more spaces resembling DICs that PWUD could use without fear of arrest. He believed that Iranians in general understood the presence of PWUD in public spaces to be a source of social harm. In his opinion, harm reduction initiatives should extend to creating new spaces in which PWUD can live totally separate from society. He stated:

I wish somewhere could be made just for addicts. Somewhere we could go for the hours the DIC is closed. We could go to that place and not upset normal society. We could stay there until night…there we could be at peace and sit in the park…this, in my opinion, is how we could bring about harm reduction.

Harm reduction center clients were most vulnerable to police arrest during the 6 h period between the time they left the DIC and checked into the homeless shelter. These 6 h, however, were the only times in which drug users could participate in income generating activities. Some of their basic subsistence expenses, including shelter, water, and meals, were provided for by DICs and homeless shelters. However, DIC clients needed an income to pay for their other needs, including additional food, methadone, and/or other illicit substances. Most interviewed clients made money by peddling goods on the streets. These goods were often acquired through trading among former or current illicit drug users, or searching through trashcans. DIC clients reported that they faced police when trying to make money, with several describing instances in which the police threw away their wares, personal items, and money. For example, one respondent (49-year-old methadone user) stated:

"This environment will not let me remain drug-free. You go outside to sell stuff—for something as little as 2000 *Toman (less than 1 USD) a day. The police officers don't let you work, though! [Last Friday] they came up to me and threw all of my stuff away in the sewer. I had to go and get loans from a bunch of people to rebuild my stock of goods to sell. Right now, I'm going out on these streets to try to sell this new stuff. Let's see if they [the police] will let me sell it. I am so tired of all of this. If this doesn't work out, I am even willing to go out and sell drugs. A while ago, I would sell drugs around the train station. But I didn't like doing this and I put it aside. But I am thinking of starting again. The government does this to us: they tell us not to go make money in an honest way…like that day on Friday the officers told me to go steal stuff [rather than take up street space and sell things], but then, if we go steal, they will arrest us. All I want to do is make some honest money, but I can't. What is there left to live for? What hope do I have?"*

Overall, DIC clients felt socially ostracized. This was even true for clients who were not using illicit substances. Such experiences reveal that harm reduction interventions are not adequate to help clients overcome social exclusion, a reality that is experienced as a hurdle to remaining on treatment and/or not engaging in illicit activities, as indicated in the latter quote.

Undocumented: lives of continuous precarity

The data gathered from this study indicates that some DIC clients lead lives of chronic precarity. Few whom were interviewed had access to the formal labor market, wherein they could make livable wages and become stably housed. From among those interviewed, only two had jobs in the formal labor market, with both respondents working in the construction sector. However, the rest relied on unstable wages selling wares and/or recycled goods. Most of those whom we spoke with made around 6000 Toman per day (2 USD). Yet, not even this amount was guaranteed. Financial instability sometimes prevented clients from paying for their daily methadone doses. Even though methadone in the DIC was only 1.5 thousands Toman (50 US cents), the researcher observed that some clients were turned away by the nurse for their inability to present this amount.

A major reason that clients could not find stable jobs was that they lacked identification papers. Employers in Iran are required by law to verify the identity of their employees through recourse to government-issued identification papers. Thus, many of those willing to hire unskilled workers (such as construction workers, janitors, or factory workers) required identification documents during the application process. Homelessness, however, was a life state that left people vulnerable to having their documents stolen or lost. When analyzing the data, the authors discovered that 10 respondents were undocumented Iranian citizens. One DIC client shared (51-year-old methadone user):

Respondent: I lack all motivation in life. Everything I once had is gone. I don't even have my diplomas. I am even without an identity. Right now, my only claim to my identity is in my words. I have no documents. If I want to get [identification papers] I need to spend a lot of money. But I am unemployed. How am I supposed to pay for this? I need to find a job to get the money to pay for this. But without papers, how can I find a job?

Interviewer: How did you lose your documents?

Respondent: I was sleeping [outside] and someone stole them from me. Whoever it was took my passport, driver's license, birth certificate, military service completion card, and national ID card.

Interviewer: When?

Respondent: Four years ago. Right now, I am trying to get a new birth certificate. They [the government office] tell me it costs 50 Toman (17 USD). For a National ID card, it costs 20 thousands Toman (6 USD). For a passport, it costs 200 thousands Toman (57 USD).

Money was not the only obstacle in the way of acquiring identification documents. Other respondents had trouble navigating the complicated bureaucratic system. This was a difficult process, especially for DIC clients who were not literate. One respondent (48-year-old crystal methamphetamine and methadone user) told the primary author:

Interviewer: What is standing in the way of you getting new identification papers issued? Is it money?

Respondent: Screw the money. That is not even the main issue. They put so many obstacles in the way of getting these papers. I can't read or write. I have no idea how I am supposed to apply for these things. Every time I have gone to a government office, they tell me I have to go to the police station. Then I go to the police station, and they tell me I need to go somewhere else. I really have no idea what to do. This is why I spend my entire days just walking around the city. When I get to the homeless shelter at night, these legs don't feel like they are mine anymore. All I do is curse myself for becoming addicted and having to live like this.

The data indicates that being undocumented prevented people from achieving life stability. Without this, DIC clients experienced hopelessness, a feeling that may reduce motivation to pursuing and/or maintaining abstinence from illicit drug usage.

Discussion

Much discussion of "risk environments" has focused on discreet health outcomes, such as HIV infection and overdose, among those who have limited access to harm reduction resources. One of the arguments this paper seeks to advance is that the risk environment framework should be used to think through the risk factors that keep those with access to methadone treatment vulnerable to illicit drug use and

relapse. This research captures the structural forces that make low threshold MMT clients vulnerable to relapse and continued illicit drug usage, with a specific focus on the experiences of unstably housed clients. Through a detailed analysis that links together the interaction of state policies and practices with individual level experiences and behaviors, the study describes the larger risk environment that operates in the lives of people involved in harm reduction services. In contrast to stably housed PWUD, few of these clients had access to family safety nets, social support networks, or resources to assume productive and socially normative lives. Even those who were not partaking in illicit substance usage at the time of this research faced difficulties in surmounting a life of poverty, homelessness, and social exclusion.

DIC clients identified several barriers to achieving greater life stability and sobriety. First, many DIC clients were subject to ineffective treatment policies dictated by the country's anti-narcotics legislation. Recent literature has highlighted that compulsory treatment may result in greater harm in treatment outcomes (Urbanoski, 2010; Werb et al., 2016). From the perspective of DIC clients, compulsory residential programs are ineffective. Specifically, those who looked disheveled and had little access to clean clothes and hygiene resources may have been more vulnerable to cycling through the criminal justice-focused addiction treatment system. Compulsory treatments programs appear to perpetuate experiences of social exclusion, given that they force unstably housed PWUD into prison-like spaces for months at a time and provide few aftercare resources to help people maintain their abstinence after release.

Second, DIC clients face significant levels of stigma when using public spaces. This often manifested in the form of police encounters, which was inclusive of seizure of personal items and merchandise. Our respondents' inability to walk, sit in parks, or sell goods on street corners without fear of the police arrest made them feel that they did not have equal access to public spaces. In this daunting environment, DICs functioned as spaces of refuge from stigma. Yet, it is worth asking whether DICs also resemble warehousing spaces that further perpetuate social exclusion even while providing a haven from perceived harassment. As the only space that PWUD could use during the days without fear of harassment or police apprehension, DICs may act as spaces of containment in which some clients feel *forced* to spend their days in. Further research could elucidate how these spaces are experienced as both spaces of refuge and containment.

Last, DIC clients' difficulty in having re-issued their identification papers prevented them from entering the formal labor market and rebuilding their lives. High expenses and complicated bureaucratic process left them undocumented. DIC clients did not have access to social workers and/or government funds that could help facilitate this process. Without a formal identity, it was difficult for DIC clients to change their life circumstances and leave the cycle of addiction.

Following the tenets of the "risk environment" framework, it is also important to highlight how such an analysis can produce a set of actionable critiques to reduce harms experienced by PWUD. One possible avenue is to increase access to legal services, vocational training, and employment-referral programs in DICs. Legal services would help former and current homeless drug users obtain identification papers, and vocational training and employment referral programs could facilitate their connection with the formal economy. Employment beyond the informal economy may have an important effect on feelings of hopelessness, and ultimately help PWUD in their pursuit of treatment. Second, for those who are unable or do not desire to seek employment in the formal economy, it is necessary for the service providers to ensure that they can participate in the informal economy without falling subject to police scrutiny. Greater coordination between police forces and public health authorities in Iran could help mitigate such risk environments, and enable marginalized populations to live daily life with less fear and anxiety. Such services would require sustainable resources, since comprehensive harm reduction pilot programs have been defunded due to budgetary constraints (Dolan et al., 2011). Third, there needs to be more focused analysis of the efficacy of compulsory treatment programs in Iran. It is important that evidence-based treatment programs be made available for PWUD, especially those who use methamphetamine through harm reduction centers.

This study had multiple limitations. First, the primary author's lack of access to the study population following data collection and analysis limits the validity of this study. Thus, it was not possible to include comprehensive validity analysis in the form of member checking or community feedback interviews. Second, this study does not adequately capture the experiences of PWID in Iran. Among DIC clients involved in this project, it appears that there were few PWID. Yet, recent studies indicate that up to 300,000 people inject heroin in Iran (Abu-Raddad et al., 2010; Khajehkazemi et al., 2013). It was beyond the scope of this research to investigate why our respondents did not report high rates of injection. Such findings could potentially be attributed to the failure of the DICs to provide services to PWID, decreases in injecting practices among communities served by the DICs, or the hesitancy of respondents to disclose their experiences with injection due to stigma. Nevertheless, the discrepancy between our study sample and other published research indicates that there should be further investigation of current drug using practices inside Tehran. Third, the small sample size limits the generalizability of the study. This article draws on research with clients and staff from two DICs in Tehran, and these results may not be generalizable to the entire country, or even to PWUD residing in Tehran.

Despite these limitations, to our knowledge, this is the first study that uses a "risk environment" framework to analyze drug usage practices in Iran. Given the lack of qualitative research on issues related to substance abuse in Iran, this study is a significant advancement in public health research. Specifically, this study enhances knowledge about the impact of harm reduction programs in Iran, the first country in the Middle East to fund and develop harm reduction programs. Even though the Iranian state has funded harm reduction interventions since the early 2000s, the international public health community still knows little about the experiences and perspectives of harm reduction service providers and clients.

Author statement file

Parsa Bastani: Conceptualization, Methodology, Formal Analysis, Investigation, Writing – Original Draft. **Brandon Marshall**: Writing – Review & Editing. **Afarin Rahimi-Movaghar**: Writing – Review & Editing, Supervision, **Alireza Noroozi**: Methodology, Resources, Writing – Original Draft, Supervision, Project Administration

Declaration of interest

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

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