Understanding the Reasons for Sharing Syringes or Needles to Inject Drugs: Conventional Content Analysis

Monireh Faghir-Gangi¹, Hadith Rastad², Saharnaz Nejat¹, Afarin Rahimi-Movaghar³, <u>Kamran Yazdani</u>¹, Ali Mirzazadeh⁴

Original Article

Abstract

Background: This qualitative study was undertaken with the aim to identify the reasons for sharing syringes or needles among people who inject drugs (PWID) in Iran.

Methods: We used purposive sampling to recruit 4 groups of participants, male PWID (n = 14), female PWID (n = 6), service providers (n = 8), and human immunodeficiency virus (HIV)/addiction experts (n = 9). Data were collected through 2 focus group discussions (FGDs) among male PWID, and semi-structured interviews with female PWID, service providers, and HIV/addiction experts. Using conventional content analysis, themes were extracted for reasons for sharing needles to inject drugs.

Findings: We found 13 themes for barriers such as low perceived risk of HIV, high stigma around drug injection and use, low access to harm reduction education and prevention services due to their limited working hours as a well as uneven geographical distribution of services, some structural barriers like incarceration, poverty, and homelessness, and several competing survival needs beyond the injection-related safe behaviors.

Conclusion: Our study was able to provide the perspectives of both PWID and health care authorities and providers towards several barriers to accessing HIV prevention services that lead to needle sharing among PWID in Iran. These barriers need to be addressed to achieve the target of HIV epidemic control.

Keyword: Drug users; Needle sharing; Qualitative research

Citation: Faghir-Gangi M, Rastad H, Nejat S, Rahimi-Movaghar A, Yazdani K, Mirzazadeh A. Understanding the Reasons for Sharing Syringes or Needles to Inject Drugs: Conventional Content Analysis. Addict Health 2020: 12(2): 98-108.

Received: 20.11.2019 **Accepted:** 25.01.2020

¹⁻ Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran

²⁻ Non-communicable Diseases Research Center, Alborz University of Medical Sciences, Karaj, Iran

³⁻ Iranian National Center for Addiction Studies, Tehran University of Medical Sciences, Tehran, Iran

⁴⁻ Department of Epidemiology and Biostatistics, Institute for Global Health Sciences, University of California San Francisco, San Francisco, CA, USA

Correspondence to: Kamran Yazdani; Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran; Email: kyazdani@tums.ac.ir

Introduction

It is estimated that over 15.6 million individuals are injecting drugs,¹ of whom 8.2 million (52.3%) are exposed to the risk of hepatitis C virus (HCV) and 2.8 million (17.8%) are already infected with human immunodeficiency virus (HIV) infection.² On average, 1 in 10 HIV-positive individuals is infected with the virus through syringe or needle sharing.³

In Iran, the number of people who inject drugs (PWID) was estimated at 170000 to 208000 in 2013.⁴ A systematic review study (2013) among PWID reported a high prevalence of HIV among PWID versus those with no drug injection history (18.4% vs. 5.4%).⁵ Esmaeili et al. also reported that the majority (67.2%) of HIV cases among PWID are the result of unsafe injections.⁶

Needle and syringe programs (NSPs) that provide access to sterile needles and syringes free of cost to the majority of PWID have been implemented in Iran through harm reduction centers (HRCs) since 2011. However, many PWID share needles and syringes for drug injection as reported in the 2015 bio-behavioral surveillance survey (BSS).⁷ About 19% reported sharing syringes and another 28% reported sharing injection equipment on their last injection. This unsafe injection was reported while nearly 94% were well aware of the HIV transmission risk posed by needle sharing.⁷

The few qualitative studies that have assessed the reasons why PWID share syringes and needles have mostly been conducted in Iran and only among people who use drugs;⁸⁻¹² none has collected the service providers point of view. Hence, this qualitative research explored PWID and stakeholders' perspective on reasons for inadequate access to harm reduction services and sharing needles to inject drugs.

Methods

The present qualitative study was conducted with a maximum variation sampling approach to recruit PWID from multiple drop-in centers (DICs) and camps as well as HIV/addiction experts and health providers who serve PWID communities in Tehran, Iran.

We recruited male PWID from 2 DICs selected by random from the complete list of DICs supervised by the Tehran University of Medical Sciences, Tehran. As we found no female PWID in DICs, recruited them from drug we treatment/rehabilitation camps supervised by the Tehran Province Welfare Organization. Eligible participants were men aged 18 years or older, who had reported injecting drug in the past 3 months, and had an Iranian nationality and the ability to understand and speak Farsi. Service providers who participated in our study were the staff and directors of the DICs, communityoutreach mobile health clinics, and drug treatment/rehabilitation camps. HIV/addiction experts were those working in the Ministry of Health with more than five years of expertise in designing, monitoring and evaluating programs targeted toward PWID.

Data were collected in 2 focus group discussions (FGDs) among 14 male PWID, and through semi-structured interviews with 6 female PWID, 8 service providers, and 9 HIV/addiction experts. The current study is a part of an M.Sc. dissertation in epidemiology. The Graduate Council and the Ethics Committee of the School of Public Health at Tehran University of Medical Sciences approved the study (Ethical Code: IR.TUMS.SPH.REC.1396.3547). Informed consents were collected from all study participants before the data collection started.

Using a FGD and interview guide, we sought the views and opinions of the study participants by posing a series of open-ended questions, 1 at a time. The interviewer was free to ask relevant probing questions for clarification and to get an in-depth understanding of participants' views and opinions on the topic under study. In our study, women who injected drugs were more willing to participate in in-depth, one-on-one interviews than in FGDs.

All FGDs and interviews were recorded by an audio recorder, transcribed verbatim, and then, analyzed by experienced investigators using conventional content analysis approach. In the first step, we extracted the main sentences and concepts using conventional content analysis and assigned a specific code to each one. Subsequently, we reviewed similar concepts once more to crosscheck the codes to reconsolidate or separate any conflicts that may exist in the concept of one code or any possible similarities in the concept of several codes. The data were analyzed using MAXQDA software, version 2018 (VERBI GmbH, Berlin, Germany).¹³

Table 1. The number of participants and the location, duration, and method of interviews

Interview method/interviewee	Location	No. (person)	Duration (minute)
FGD with the male PWID	First FGD: DIC No. 1	10	54
	Second FGD: DIC No. 2	4	47
In-depth, one-on-one interview	Female Camp No. 1	6	Average: 39
with the female PWID	Female Camp No. 2		Min: 11, Max: 95
In-depth, one-on-one interview	DIC and camps	8	Average: 30
with service providers			Min: 12, Max: 53
In-depth, one-on-one interview	Ministry of Health, Treatment &	9	Average: 75
with HIV/Addiction experts	Medical Training		Min: 30, Max: 98

FGD: Focus group discussion; PWID: People who inject drugs; DIC: Drop-in center

Results

The participants' characteristics

The participants consisted of 20 PWID (6 women and 14 men), 8 service providers, and 9 HIV/addiction experts who participated in FGDs or interviews in various locations (Table 1).

Among the 20 PWID, 8 were divorced and only 7 had elementary-level education. A total of 4 (1 women and 3 men) had HCV and 3 (all men) had HIV infection. The median age for women was 37.5 years and for men was 39.0 years (Table 2).

Conventional content analysis

All themes for reasons of syringe and needle sharing were categorized into 3 main classes including knowledge, accessibility, and barriers (Table 3). **Knowledge**

The low level of perceived risk: According to the participants, low perceived risk is one of the effective factors in syringe and needle sharing by PWID.

An addiction expert commented: "Training by itself is not sufficient; they need to understand the true risk that they are taking by injection, and particularly by shared injection".

Likewise, a female PWID said about her and her addicted parents: "We were simply so strung up the whole time that no one could muster up enough strength to go and get fresh syringes. So, we would just say 'forget it' and rinse the one we had and pass it others."

Table 2. Characteristics of people who inject drugs (PWID)

Variable		Gender group	
		Female	Male
Total number		6	14
Age	$(Median \pm IQR)$	37.5 ± 14.0	39.0 ± 15.0
	Min	31	30
	Max	76	47
Had access to a free sterile syringe	Yes	3	13
	No	3	1
Hepatitis C infection status	Positive	1	3
•	Unknown	0	1
HIV status	Positive	0	3
	Unknown	0	1
Education	Illiterate	0	1
	Primary school	1	4
	Middle and high school	3	4
	Diploma	1	0
	University	1	2
Current marital status	Single	1	5
	Married	2	2 5 3
	Divorced	3	5
	Widowed	0	1
Place of residence	Private house	1	4
	Paternity house	2	0
	Camp	3	0
	Shelter	0	7
	Homeless	0	3

IQR: Interquartile ranges; HIV: Human immunodeficiency virus

Table 3. The classifications and themes associated with syringe and needle sharing among people who inject drugs (PWID)

inject drugs (PWID)				
Classifications	Themes			
Knowledge	Low level of perceived risk			
	Low quality and quantity of			
	effective training			
	Lack of experience of new injectors			
	Higher rate of sharing between			
	partners and those in close			
	relationships			
Accessibility	Pharmacy-associated factors			
	Prison-associated factors			
	DIC associated factors			
Barriers	Poverty			
	Homelessness			
	Getting high as quickly as possible			
	Depression and low self-esteem			
	Fear of being arrested			
	Stigma			

Low quality and quantity of effective training: All the participants agreed that PWID do not receive the necessary training, and most of what is being provided are basic and do not necessarily lead to safer drug use practices.

"A woman told me that when she ran out of drugs, she would draw some blood from her boyfriend and inject herself. This is truly a catastrophe! She has no clue what HIV is. If she did, she would never have injected herself with someone else's blood," said a 30-year-old female nurse, who used to be an injecting drug user.

"It is a common belief among the PWID that HIV is only transmitted via a syringe. I did not know either. I actually found out that I had contracted HIV infection when I went to the hospital for an eye infection. The doctor told me that even the bed linen, which we use to make drugs, is contaminated," a male HIV-positive PWID said in a group discussion.

A HIV/addiction expert said: "It is hard to find anyone who has not referred to DICs or rehabilitation camps, but unfortunately none of the care providers has provided much quality training."

Based on what some of the interviewed experts told us, the issue of poor-quality training provided at non-governmental organization (NGO) centers is due to the absence of adequate supervision and high number of unwilling decision-makers.

One of these experts described the training services at addiction treatment camps this way:

"Goods that have become a source of making a lot of money for some. NGOs and recovery camps are constantly trying to cut down on costs and expenses in order to generate higher revenues. To make the matter worse, there is no proper supervision, monitoring, or assessment and too many decision-makers are complicating the matter even more."

The new injectors are inexperienced: With the exception of the female PWID, the general consensus among the other participants was that new injectors are more likely to share needles because of their infrequent visits to the DICs and their lack of acquaintance with PWID who have contracted HIV through needle sharing.

A well-informed authority on the matter emphasizing on the target group of the knowledge campaigns said: "Those who have been injecting for a longer period and have had long-term contact with DICs are more aware of the imminent dangers, and thus, the public knowledge campaigns and training programs have to target new injectors. But, unfortunately, new users are hard to find because they are often unaware of the existence of such services."

"The person who is injecting for the first time has no idea what HIV is and has probably never met anyone who is HIV positive," a 40-year-old male PWID explained.

A service provider, who used to be a PWID for a long time and quit some years ago said: "Long-term users always warn the new ones and say be careful about sharing needles with others, or you will get sick."

Partners and those in close relationships share more: The majority of participants reported that having close social relationships has a direct effect on syringe sharing. A 30-year-old female user in one of the drug rehabilitation camps said: "Though we were pretty well-off financially, my father insisted on sharing a needle because he did not think there was anything wrong with us and we had no need for 2 or 3 extra syringes."

"In many cases, PWID have the money, but they share needles because they see it as a sign of friendship and camaraderie," remarked a divorced 30-year-old female user in a drug recovery camp.

Another service provider who injected drugs for many years said: "A large number of PWID play a 'blood game,' which they play by sitting

around sharing the same needle." *Accessibility*

This category includes the 3 following themes.

Pharmacy-associated factors: The scarcity of pharmacies in the neighborhoods where PWID live, the inappropriate behavior of pharmacy personnel, and their refusal to sell syringes to PWID have been frequently reported as barriers to access to needle and syringes from pharmacies.

"I was told by a pharmacy employee once that I had to be ashamed of myself and that I was a stupid fool for injecting drugs," a male PWID explained.

Commenting on the same subject, a service provider, who was an ex-PWID, said: "Most PWID do not have a nice appearance, and as a result, many pharmacies do not want them to enter their stores and makeup excuses like not having the exact change to sell syringes."

An HIV-positive PWID added, "I have the money to buy sterile syringes and needles, but there are no pharmacies in this area."

"Pharmacies refusal to sell syringes. They say that it is not their job and the business conditions do not allow them to do anything else," an HIV/addiction expert commented.

Another HIV/addiction expert said: "The pharmacies in our country have turned into luxury goods sale centers, and they have no tolerance for PWID as their regular customers will stop coming there."

Prison-associated factors: During the interviews, many of the participants noted that ever since the policy change concerning the DICs and the shift of focus to methadone maintenance therapy (MMT), sterile syringes and needles are no longer distributed in prisons leading in turn to increased needle sharing among the incarcerated PWID. Experts believe this policy is in need of serious reconsideration and overhaul, and corrective measures have to be taken to distribute clean syringes and needles in prisons.

One of the HIV/addiction experts said: "The prison system used to distribute sterile syringes and needles, but has stopped doing so for several years now. Therefore, syringes within the prison walls are too expensive and hard to find. This increases the frequency of risk-taking behavior among the prisoners who inject drugs."

An HIV-positive PWID also said: "A prisoner has to claim to have an ear infection in order to get an ear drop, and then, have the dropper fitted

with a watch hand or a needle that is later used by 500 people!"

The DIC associated factors: Many participants reported DIC associated factors, which directly impact the use of sterile syringes and needles, such as the inadequate number of DICs to the number of addicts, the relatively short work shifts at the centers, shortage of manpower to collect used syringes, budget allocation, centers' long distance from the place residence of PWID, and lack of outreach services in certain locations.

Moreover, many PWID have no knowledge of the location and type of existing harm reduction services available to them.

According to a HIV/addiction expert, "The biggest weakness undermining all efforts in providing healthcare is the Ministry of Health's failure to pursue serious public awareness campaigns."

A 32-year-old woman at a camp also said: "A lot of people don't know about the DICs. In fact, I didn't know either. Most of my peers did not know where DICs located and what services they offer."

Another 30-year-old injecting drug user diagnosed with HIV had this to say about the short work shifts at the DIC: "I always get my syringes from the pharmacies and DIC, but there have been times that I could not get any since they were closed."

Meanwhile, a woman suffering from hepatitis, with drug injection history of over 23 years made this comment regarding the lack of an adequate system to collect used syringes and her awful experience: "The needle that went into my foot and infected me with hepatitis virus was discarded by another user. What is shocking is that many PWID would not hesitate to pick up and use the same syringe if they had to."

In respect to the insufficient budget allocation to DICs, a senior authority, while emphasizing on this point, remarked: "More funds have to be allocated to the centers, especially when the results of relevant studies indicate that the government can get back 10 dollars for every dollar it spends on a syringe."

Furthermore, a service provider working at one of the centers in the lower part of the city had this thought on the absence of drug assistance mobile patrol units: "Some of the centers don't have a mobile unit, whereas, in my opinion, all the centers have to have them since the unit members know first-hand who the local drug users are."

Barriers

This category includes 6 themes including poverty, homelessness, drug-induced hangover, depression and low self-esteem, fear of arrest, and stigma.

Poverty: The majority of participants reported poverty as one of the major reasons for syringe and needle sharing.

A 35-year-old female PWID explained: "Once they have bought their fix, many addicts start searching around to find a needle and do not hesitate to pick up the first one they lay their eyes on, and then, you are talking about AIDS!"

An HIV/addiction expert, who has had years of experience working with these individuals also said: "Back when methadone was free for the HIV-positive individuals, people would share a needle with someone with HIV, so that they could test positive for the virus and get free methadone."

Homelessness: According to service providers and other experts, lack of a fixed place to reside makes it impossible for drug addicts to keep a supply of sterile syringes and needles.

"Homelessness is considered an emergency in medical health, but drug addiction is not a health emergency. We work in reverse and treat the addict, but fail to do anything for the issue of their homelessness," an expert with years of drug addiction work-related experience remarked.

"Even if a drug addict, who is homeless, gets some sterile syringes, he would not have anywhere to keep them anyhow," a service provider added.

Get high as quickly as possible: Most of the study's participants believed that PWID do not really think about the consequences of their actions, they only want to get high as quickly as possible.

One of the HIV-positive male PWID said: "A friend asked for my used syringe, and when I told him that I had HIV, he did not care, he just wanted to get high."

An ex-PWID who is now a service provider also said: "PWID know that they had better not share needles, yet the withdrawal phases force them to just think about finding a syringe ... any syringe to inject as quickly as possible!"

"When these people need a fix, they do whatever it takes to find it, regardless of how much training they may have received about the risks of shared needles," an addiction expert and policymaker explained.

Depression and low self-esteem: The majority of

participants agreed that most often PWID do not do anything to take care of their health because they are experiencing extreme depression and possess low self-esteem.

A 30-year-old female PWID said: "I always wish to get either blood cancer or AIDS, so that I die sooner. What do you think is waiting for me at the end? The sooner I die, the better off me and everyone else will be!"

Moreover, the participants in the expert and service providers groups also said that drug addicts' life expectancy is low and that stops them from looking after themselves. An expert, who has dedicated many years to studying drug addicts, said: "They are so deeply drowned in their problems that they do not give a damn about HIV. They really do not expect to live very long. I have heard them say many times 'who is going to be around in ten years!"

The lack of attention and indifference of those who are closest to the drug addict, in addition to the disregard that the rest of the society has for them, were noted by the participants in the PWID group as another reasons why drug addicts feel detached and unwanted, and thus, have no hope of a better future.

A male PWID in a FGD said: "People look upon us as something evil and immediately start to walk away wherever they happen to see us."

An HIV/addiction expert also added: "Most of these individuals have shunned life altogether. Some actually hurt themselves intentionally and do not care if they are dead or alive. They have reached the end of the line, or so they believe. Thus, a sterile syringe is not their only issue since individuals, who do not care about their appearance, how they look, and what they eat, etc., are not going to care about using a clean needle either."

He also added: "We have to do something that will help these individuals feel like a human being once again and care about how they look and the things they eat. Of course, this is a very complicated and time-consuming process, which requires the provision of the right type of facilities as well, but we have got no other choice, and we have to start helping these people with the cooperation and assistance of psychologists and return them back to normal life one step at a time. We have to change the mental image they have of themselves and promote and boost their self-esteem."

Fear of being arrested: Pursuant to the views and opinions of the participants in different groups, the fear of being arrested by the police is another reason why PWID often refuse to go to the DICs to ask for sterile syringes and needles.

An expert explained: "Unfortunately, the police, based on the communicated plans and directives that lack any specific definition of a 'known addict,' proceed to arrest anyone who refers to a DIC."

A 40-year-old street vendor with a long history of drug addiction said: "The police station scares me. I am even afraid to have a cigarette lighter in my pocket out of the fear of being arrested."

"Most of these individuals have either been apprehended previously or there is a warrant for their arrest, so they avoid being seen by the police. That is why they stay clear of the DICs," an addiction expert explained.

Stigma: The female PWID mentioned stigma as one of the reasons why women refuse to go to DICs. A female PWID, who has been injecting for over 23 years, said: "Some people are afraid of damaging their name and reputation because almost no one around them knows that they are addicted to drugs, so if I ask them to come along with me to a DICs to get sterile syringes and needles, they refuse because they do not want to be seen walking into such a place."

Discussion

We found several themes such as low perceived risk of HIV, high stigma around drug injection and use, low access to harm reduction education and prevention services for PWID populations, and some structural barriers like incarceration, poverty, and homelessness, and several priority needs beyond the health needs that PWID are facing during their daily lives.

Similar to the findings of Golub et al.¹⁴ and Saelim et al.,¹⁵ we also found that low perceived risk of HIV was associated with a higher likelihood of sharing syringes. Improving prevention messaging and emphasizing the establishing of awareness regarding the risk of contracting blood-borne transmittable infections is critical to prevent HIV and other infections.¹⁶ Working with PWID and their partners and meeting their actual training needs showed to be effective when offered as part of a prevention and health package.¹⁷ We need to change the attitudes

and beliefs of PWID, and only having good knowledge of the risks is not adequate.⁷

We found that a lower number of new drug injectors have access to NSPs than those who have injected for a longer time, this finding was in line with that of previous studies among PWID.^{18,19} We also found that more new injectors shared needles than long-term injectors (Adj. OR: 2.1); this was in agreement with the results of Bazrafshan et al.²⁰ It is clear that prevention and care programs have to place greater emphasis on targeting and reaching those who have recently started injection.²¹

We found that PWID who inject with families or are in relationships (inject with their partners) are sharing needles more than those injecting on their own. Other studies also reported that close-relationships may lead to higher injection. 22-25 PWID in these close-relationship networks may also share a common source of income that will be used to buy a limited number of injection kits, which will be shared by all in their closed networks. 24 Sero-sorting, disclosing HIV status between partners, and working with the members of these close-relationship networks are the key to preventing HIV transmission among them.

Despite the intentional guidelines and recommendations for providing prisoners with sterile needles and syringes due to its effectiveness on preventing HIV and HCV transmission and other risks,²⁶ we found that NSPs have been discontinued in prisons and jails in Iran. This NSP strategy within Iranian prisons needs to be reconsidered as it has been very effective in reducing the prevalence of HIV among prisoners.

Currently, Iran has over 475 DICs including outreach teams that distribute something between 30 to 73 syringes per drug user annually, which is far less than the target aim of 200 syringes per drug user annually. The barriers to using free harm reduction programs in Iran are the lack of awareness of the existence of such services, uneven geographical distribution of services and far distances, and short working hours of these services (the majority are open in the morning until noon). These structural barriers need to be addressed by changing guidelines and by providing human and other resources needed to make services more accessible to PWID. These structural outputs.

We found that stigma towards PWID and

injection still exists in pharmacies, one of the major sources of sterile needles and syringes. This was also reported for pharmacies in other countries.³¹ A study in the United States showed that most pharmacists prefer to sell sterile syringes to someone who needs medical assistance rather than to those who inject drugs.³² A qualitative study on this issue indicated that the refusal to sell sterile syringes to PWID by pharmacies resulted from the stigma towards these individuals and is a major barrier for some PWID to have access to sterile syringes and needles.^{9,33}

Marginal housing or homelessness were shown to have huge impacts on health and health outcomes particularly among PWID.³⁴ Public sharing of needles among homeless PWID have contributed significantly to HIV epidemics in Vancouver, Canada.³⁵ To be effective and sustainable, HIV and other harm reduction programs need to address the basic needs of PWID like housing and food security.

A study in Thailand showed that the fear of being arrested for carrying a syringe is the number one reason why these individuals refuse to carry sterile syringes on them.²⁶ Another study among drug users who were clients of a MMT program showed that 38% of the participants had been stopped by the police on the streets and arrested, and about 70% had witnessed someone being questioned and apprehended by the police because they were carrying injection kits.36 Police arrest and incarceration have been associated with a higher rate of risky behaviors like needle sharing.^{26,37} These also increased the level of stigma toward PWID, in particular, female PWID. Most women who inject drugs do not want to disclose their addiction status to their families and partners, and thus, they do not use harm reduction services, which may put them at risk. Perceived stigma and abandonment by the family and community have been reported as the main barriers to accessing and using services among women who use drugs.11

Our study had 3 major limitations. We recruited the PWID through purposeful sampling from several health centers in Tehran, and so, the generalizability of our study results is limited. We were able to recruit a few women who inject

drugs and so we were not able to fully study this group and their barriers to accessing harm reduction services. Although we have assured the PWID participants of confidentiality and have provided them with a space to speak truthfully about their life, needs, and experiences with services, it is likely that, due to social desirability biases, they might have underreported their risk behaviors and barrier to practice safe injection.

A strength of the study was that able to provide the perspectives of both PWID and health care authorities and providers towards several barriers to accessing HIV prevention services and NSPs in Iran. Individual-level barriers like low self-esteem, lack of knowledge of available services, and structural barriers like stigma and uneven geographical distribution of services were frequently reported by both PWID and health care authorities/providers. These barriers need to be addressed to achieve the target of HIV epidemic control in Iran.

Conclusion

Despite the study limitations, we were able to conduct a thorough evaluation of the perspectives of both PWID and health care officials and providers towards several barriers to accessing HIV prevention services and reasons for needle sharing by PWID in Iran. These barriers need to be addressed to achieve the target of HIV epidemic control.

Conflict of Interests

The authors have no conflict of interest.

Acknowledgements

We would like to thank all the study participants for their time and valuable inputs. This article is a part of the dissertation registered under the Ethics Code No. IR.TUMS.SPH.REC.1396.3547.

Authors' Contribution

MFG, AM, SN, ARM, and KY designed the study; HR, MFG, and KY analysed data; KY, HR, and MFG drafted the article. All have reviewed the manuscript critically; and all authors finally approved the manuscript.

References

1. Degenhardt L, Peacock A, Colledge S, Leung J,

Grebely J, Vickerman P, et al. Global prevalence of

- injecting drug use and sociodemographic characteristics and prevalence of HIV, HBV, and HCV in people who inject drugs: A multistage systematic review. Lancet Glob Health 2017; 5(12): 1192-207.
- 2. Murdock RM, Brizzi MB, Perez O, Badowski ME. Public health considerations among people who inject drugs with HIV/HCV Co-infection: A review. Infect Dis Ther 2019; 8(1): 23-32.
- **3.** Mumtaz GR, Awad SF, Feizzadeh A, Weiss HA, Abu-Raddad LJ. HIV incidence among people who inject drugs in the Middle East and North Africa: Mathematical modelling analysis. J Int AIDS Soc 2018; 21(3): e25102.
- **4.** Nikfarjam A, Shokoohi M, Shahesmaeili A, Haghdoost AA, Baneshi MR, Haji-Maghsoudi S, et al. National population size estimation of illicit drug users through the network scale-up method in 2013 in Iran. Int J Drug Policy 2016; 31: 147-52.
- 5. Amin-Esmaeili M, Rahimi-Movaghar A, Haghdoost AA, Mohraz M. Evidence of HIV epidemics among non-injecting drug users in Iran: A systematic review. Addiction 2012; 107(11): 1929-38.
- **6.** Esmaeili A, Shokoohi M, Danesh A, Sharifi H, Karamouzian M, Haghdoost A, et al. Dual unsafe injection and sexual behaviors for HIV infection among people who inject drugs in Iran. AIDS Behav 2019; 23(6): 1594-603.
- 7. Haghdoost AA, Danesh A, Sharifi H, Shokoohi M, Khajehkazemi R, Mirzazadeh A, et al. Bio-Behavioral Surveillance Survey (BSS) Regional Knowledge Hub, and Who Collaborating Center for HIV Surveillance. Kerman, Iran: Kerman University of Medical Sciences; 2014.
- **8.** Li J, Mo PK, Wu AM, Lau JT. Roles of self-stigma, social support, and positive and negative affects as determinants of depressive symptoms among HIV infected men who have sex with men in China. AIDS Behav 2017; 21(1): 261-73.
- 9. Nowotny KM, Perdue T, Cepeda A, Valdez A. Mental health of heroin users with differing injection drug use histories: A non-treatment sample of Mexican American young adult men. Drug Alcohol Depend 2017; 181: 124-31.
- **10.** Goodhew M, Salmon AM, Marel C, Mills KL, Jauncey M. Mental health among clients of the Sydney Medically Supervised Injecting Centre (MSIC). Harm Reduct J 2016; 13(1): 29.
- 11. Rahimi Movaghar A, Malayerikhah Langroodi Z, Delbarpour Ahmadi S, Amin Esmaeili M. A qualitative study of specific needs of women for treatment of addiction. Iran J Psychiatry Clin Psychol 2011; 17(2): 116-25. [In Persian].
- 12. Himmich H, Madani N. The state of harm reduction

- in the Middle East and North Africa: A focus on Iran and Morocco. Int J Drug Policy 2016; 31: 184-9.
- **13.** Alavi SS, Mohammadi MR, Souri H, Mohammadi KS, Jannatifard F, Sepahbodi G. Personality, driving behavior and mental disorders factors as predictors of road traffic accidents based on logistic regression. Iran J Med Sci 2017; 42(1): 24-31.
- **14.** Golub ET, Strathdee SA, Bailey SL, Hagan H, Latka MH, Hudson SM, et al. Distributive syringe sharing among young adult injection drug users in five U.S. cities. Drug Alcohol Depend 2007; 91(Suppl 1): 30-8.
- **15.** Saelim A, Geater A, Chongsuvivatwong V, Rodkla A, Bechtel GA. Needle sharing and high-risk sexual behaviors among IV drug users in Southern Thailand. AIDS Patient Care STDS 1998; 12(9): 707-13.
- **16.** Camacho LM, Brown BS, Simpson DD. Psychological dysfunction and HIV/AIDS risk behavior. J Acquir Immune Defic Syndr Hum Retrovirol 1996; 11(2): 198-202.
- **17.** Aggleton P, Jenkins P, Malcolm A. HIV/AIDS and injecting drug use: Information, education and communication. Int J Drug Policy 2005; 16: 21-30.
- **18.** Becker BM, Vlahov D, Strathdee SA, Des Jarlais DC, Morse EV, Ouellet L, et al. Association between injection practices and duration of injection among recently initiated injection drug users. Drug Alcohol Depend 2004; 75(2): 177-83.
- 19. Hacker MA, Friedman SR, Telles PR, Teixeira SL, Bongertz V, Morgado MG, et al. The role of "long-term" and "new" injectors in a declining HIV/AIDS epidemic in Rio de Janeiro, Brazil. Subst Use Misuse 2005; 40(1): 99-123.
- **20.** Bazrafshan MR, Noroozi M, Ghisvand H, Noroozi A, Alibeigi N, Abbasi M, et al. Comparing injecting risk behaviors of long-term injectors with new injectors in Tehran, Iran. Subst Use Misuse 2019; 54(2): 185-90.
- **21.** Montain J, Ti L, Hayashi K, Nguyen P, Wood E, Kerr T. Impact of length of injecting career on HIV incidence among people who inject drugs. Addict Behav 2016; 58: 90-4.
- **22.** Grund JP, Friedman SR, Stern LS, Jose B, Neaigus A, Curtis R, et al. Syringe-mediated drug sharing among injecting drug users: Patterns, social context and implications for transmission of blood-borne pathogens. Soc Sci Med 1996; 42(5): 691-703.
- **23.** Koester S, Glanz J, Baron A. Drug sharing among heroin networks: implications for HIV and hepatitis B and C prevention. AIDS Behav 2005; 9(1): 27-39.
- **24.** Shaw SY, Shah L, Jolly AM, Wylie JL. Determinants of injection drug user (IDU) syringe sharing: The relationship between availability of syringes and risk network member characteristics in Winnipeg, Canada. Addiction 2007; 102(10): 1626-35.

- **25.** Williams ML, Zhuo Z, Siegal HA, Robles RR, Trotter RT, Jones A. A comparison of drug use networks across three cities. NIDA Res Monogr 1995; 151: 109-30.
- 26. Csete J, Kamarulzaman A, Kazatchkine M, Altice F, Balicki M, Buxton J, et al. Public health and international drug policy. Lancet 2016; 387(10026): 1427-80.
- **27.** Beletsky L, Heller D, Jenness SM, Neaigus A, Gelpi-Acosta C, Hagan H. Syringe access, syringe sharing, and police encounters among people who inject drugs in New York City: a community-level perspective. Int J Drug Policy 2014; 25(1): 105-11.
- **28.** Carlberg-Racich S. Harm reduction interventions in HIV care: A qualitative exploration of patient and provider perspectives. PeerJ 2016; 4: e1932.
- **29.** Marlatt GA, Latimer ME, Witkiewitz K. Harm reduction: Pragmatic strategies for managing high-risk behaviors. New York, NY: Guilford Press; 2011.
- **30.** Wilson DP, Donald B, Shattock AJ, Wilson D, Fraser-Hurt N. The cost-effectiveness of harm reduction. Int J Drug Policy 2015; 26: S5-S11.
- **31.** Ibragimov U, Cooper HL, Haardorfer R, Dunkle KL, Zule WA, Wong FY. Stigmatization of people who inject drugs (PWID) by pharmacists in Tajikistan: Sociocultural context and implications for a pharmacy-based prevention approach. Harm Reduct J 2017; 14(1): 64.

- **32.** Pollini RA. Self-reported participation in voluntary nonprescription syringe sales in California's Central Valley. J Am Pharm Assoc (2003) 2017; 57(6): 677-85.
- **33.** Paquette CE, Syvertsen JL, Pollini RA. Stigma at every turn: Health services experiences among people who inject drugs. Int J Drug Policy 2018; 57: 104-10.
- **34.** Bourgois P. The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments. Subst Use Misuse 1998; 33(11): 2323-51.
- **35.** Corneil TA, Kuyper LM, Shoveller J, Hogg RS, Li K, Spittal PM, et al. Unstable housing, associated risk behaviour, and increased risk for HIV infection among injection drug users. Health Place 2006; 12(1): 79-85.
- **36.** Vocal NY. Beyond Methadone Improving Health and Empowering Patients in Opioid Treatment Programs [Online]. [cited 2011 Oct 6]; Available from: URL: http://www.vocal-ny.org/beyond-methadone-improving-health-and-empowering-patients-in-opioid-treatment-programs/
- 37. McNeil R, Small W. 'Safer environment interventions': A qualitative synthesis of the experiences and perceptions of people who inject drugs. Soc Sci Med 2014; 106: 151-8.

شناسایی دلایل استفاده از سرنگ یا سرسوزن مشترک برای تزریق مواد: تجزیه و تحلیل محتوایی

منیره فقیر گنجی 🕪، حدیث رستاد۲، سحرناز نجات ٔ، آفرین رحیمی موقر۲، کامران یزدانی 🕪، علی میرزازاده ٔٔ

مقاله پژوهشي

چکیده

مقدمه: مطالعه کیفی حاضر با هدف شناسایی دلایل به اشتراکگذاری سرنگ و سوزن در بین مصرفکنندگان تزریقی مواد (PWID یا (People who inject drugs) انجام شد.

روشها: با استفاده از نمونه گیری هدفمند، مشارکت کنندگان از چهار گروه مختلف شامل PWIDهای مرد و زن، ارایه دهندگان خدمت به این افراد و متخصصان در زمینه HIV بستفاده از دو بحث متمرکز گروهی و با اعتیاد انتخاب شدند. دادهها با استفاده از دو بحث متمرکز گروهی در بین PWID ۱۴ مرد و مصاحبه عمیق فردی با PWID ۶ زن و ۸ ارایه دهنده خدمت و ۹ متخصص در زمینه HIV و یا اعتیاد جمع آوری گردید. با استفاده از تجزیه و تحلیل محتوایی، درون مایههای مربوط به اشتراک گذاری سرنگ و سوزن در بین PWID ها استخراج شد.

یافتهها: در مجموع، ۱۳ درون مایه شامل سطح خطر درک شده در زمینه HIV، استیگمای تزریق و استفاده از مواد مخدر، کیفیت و کمیت پایین آموزش ارایه شده و در زمینه دسترسی، ساعت کاری محدود و توزیع جغرافیایی ناموزون خدمات و همچنین، موانع ساختاری مانند فقر معتادان، بیخانمانی، خماری، افسردگی و عزت نفس، ترس از بازداشت استخراج گردید.

نتیجه گیری: تحقیق حاضر توانست دیدگاههای PWID، ارایه دهندگان خدمت و متخصصان در زمینه HIV و یا اعتیاد و همچنین، دلایل به اشتراکگذاری سرنگ و سوزن در ایران را ارایه نماید که باید این موانع به منظور دستیابی به هدف کنترل همه گیری HIV برطرف گردد.

واژگان کلیدی: مصرف کنندگان مواد؛ سوزن مشترک؛ تحقیق کیفی

ارجاع: فقیر گنجی منیره، رستاد حدیث، نجات سحرناز، رحیمی موقر آفرین، یزدانی کامران، میرزازاده علی. شناسایی دلایل استفاده از سرنگ یا سرسوزن مشترک برای تزریق مواد: تجزیه و تحلیل محتوایی. مجله اعتیاد و سلامت ۱۳۹۹؛ ۱۲ (۲): ۱۰۸–۹۸.

تاریخ دریافت: ۱۳۹۸/۸/۲۹ تاریخ پذیرش: ۱۳۹۸/۱۱/۵

۱- گروه اپیدمیولوژی و اَمار زیستی، دانشکده بهداشت، دانشگاه علوم پزشکی تهران، تهران، ایران

۲- مرکز تحقیقات بیماریهای غیر واگیر، دانشگاه علوم پزشکی البرز، کرج، ایران

۳- مرکز ملی مطالعات اعتیاد، دانشگاه علوم پزشکی تهران، تهران، ایران

۴– گروه اپیدمیولوژی و اَمار زیستی، مؤسسه علوم بهداشت جهانی، دانشگاه کالیفرنیا، سانفرانسیسکو، ایالات متحده اَمریکا

نویسنده مسؤول: کامران یزدانی؛ گروه اپیدمیولوژی و آمار زیستی، دانشکده بهداشت، دانشگاه علوم پزشکی تهران، تهران، ایران