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Everyday Life Information Behavior, Health Information Seeking, and HIV and STI Awareness among People Who Inject Drugs (PWID)

Comportement informationnel de la vie quotidienne, recherche d'informations sur la santé et sensibilisation au VIH et aux IST chez les personnes qui s'injectent des drogues (PID)

Nafiz Zaman Shuva, Radia Taisir and Parvez Sazzad Mallick

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Article abstract

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Research article

Everyday Life Information Behavior, Health Information Seeking, and HIV and STI Awareness among People Who Inject Drugs (PWID)

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This study aims to explore the everyday life and health information behavior of people who inject drugs (PWID) in Bangladesh, as well as the effectiveness of HIV and STI informational programs in promoting safe injecting and sexual behavior. The study received 97 completed survey responses and conducted two focus group discussions (FGDs) with 13 PWID. Using de Certeau's everyday life practices framework, the study aims to understand the tactical information strategies of PWID in the context of a developing country where access to government services and trust in authorities may be significantly limited among marginalized populations. PWID's information needs focused primarily on drug-related information, personal safety, and health-related information. They consult mainly other PWID and NGO workers to meet their information needs. However, the findings also suggest that PWID are experiencing significant unmet information needs. For their health information/services, they reported mainly using local pharmacies and NGO clinics. Although PWID claimed to participate in HIV and STI prevention programs and events, their needle/syringe use and sexual practices suggest that current informational programs may be less effective than intended in promoting safe injecting and sexual behavior. The findings of this study contribute to the understanding of the vulnerability of PWID in accessing information and the limitations of informational programs in specific contexts, with implications for interdisciplinary researchers and agencies working to address the rapid spread of HIV and other infections among PWID in developing countries. Further research is warranted to examine the underlying motivational factors that contribute to the practice of unsafe needle and syringe sharing, as well as risky sexual behaviors, among vulnerable populations such as PWID, despite their awareness of the associated risks.

Keywords: people who inject drugs; HIV and STI awareness; health information seeking; information behavior; sexual risk behaviors; HIV prevention programs; information programs

Introduction

People who inject drugs (PWID) are one of the most vulnerable populations in Bangladesh. Oppression and violence against these communities are well evident in research studies (e.g., Khan et al., 2021; Irfan et al., 2021). PWID are very vulnerable to various diseases, including human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV). Although Bangladesh is still considered a low HIV prevalence country (less than 0.01% among the general population), HIV prevalence among PWID is about 4.1% (AIDS/STD Programme (ASP), 2022). The most recent Integrated Biological and Behavioral Survey (IBBS) carried out in 2020 revealed that the rate of HIV infection among PWID in the districts of Dhaka and Narayanganj has reached a concentrated epidemic level, exceeding 5% (ASP, 2022). In 2023, Bangladesh recorded 266 deaths and 1,276 new cases of Acquired Immunodeficiency Syndrome (AIDS), marking the highest recorded fatalities since the identification of the first AIDS patient in 1989 (Sarker, 2023). In 2024, there were 195 deaths and 1,438 new cases of AIDS and estimated number of people living with HIV was 16,069 (Sarker, 2024). PWID is one of the key populations who are at increased risk of HIV and is considered one of the major groups responsible for increasing HIV infections in Bangladesh (Reza et al., 2023).

Several studies have been conducted on PWID: injection behavior (e.g., Colledge et al. 2020), the prevalence of HIV, HBV, and HCV in PWID (e.g., Degenhardt et al. 2017; Rahimi et al., 2020), and interventions to prevent and manage HIV and other diseases (e.g., Larney et al. 2017). There has been minimal academic research in information science focusing on the information behavior of PWID (Sullivan & Shaw, 2023). Although research on various areas of marginal-

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ized populations, such as refugees (e.g., Grossman et al., 2021; Johnston et al., 2024; Oduntan & Ruthven, 2021) and women (e.g., Loudon et al., 2016; Ruthven et al., 2018), has increased, there remains a significant gap in understanding the information behavior of PWID, a particularly vulnerable group. Moreover, very little is known about how the information gathered from information programs is actually applied by PWID for safe injecting and sexual practices. This study uses a mixed method approach to explore the information behavior of PWID, including their health-related information seeking, HIV and STI knowledge and awareness, and the effectiveness of HIV and STI educational and informational programs in their lives. The findings of this study are useful for interdisciplinary researchers in sociology, psychology, public health, and related disciplines to understand the vulnerability of PWID to information access and recognize contexts when informational programs are ineffective. The findings of this study may also be useful for agencies seeking to understand why and how HIV and other infections are spreading rapidly among PWID in Bangladesh despite various initiatives and programming.

Research Questions

1. What are PWID's everyday life information behaviors?
2. What are the health information behaviors of PWID?
3. Do informational programs on HIV and STIs help PWID practice safe injecting and sexual behaviors to protect them and their partners?

Theoretical Framework

In Bangladesh, PWID face significant stigma and exclusion from both society and government due to their socioeconomic status and public appearance. This marginalized group struggles with severe issues such as homelessness, poverty, illiteracy, and a lack of political power, and often abandoned by their families (see for example, Azim et al. 2008; Hemel et al., 2021; Koehlmoos, et al. 2009; Pasa et al. 2016. Furthermore, PWID are frequently subjected to harassment and abuse by law enforcement (see for example, Khan et al. 2021; Pasa et al. 2016), making their situation markedly different from PWIDs in developed countries like Canada and the U.S. As a result, they are among the most vulnerable communities in the country. Accessing government services in Bangladesh can be particularly challenging due to bureaucratic hurdles, unwelcoming, unsupportive service culture, and corruption (Lord & Baset, 2024; Transparency International Bangladesh, 2024). A very recent study by Transparency International Bangladesh (2024) found that a staggering 70.9% of households in Bangladesh encountered corruption when trying to access services.

Michel de Certeau's framework for everyday life practices (1984) provides a lens through which to understand the complex relationship between power, information, and agency for marginalized populations. By applying his concepts of "tactics" and "strategies," researchers can gain insights into how these groups navigate their information needs and seeking in the face of systemic obstacles and inequality in information services provisions, in particular in the contexts of developing countries. A prominent information science scholar, Rothbauer (2005, 2010), applied de Certeau's ideas about everyday life to the information practices we engage in daily. She noted that "De Certeau's analytical lens, therefore, focuses on 'ways of operating' or on what he described as the clandestine forms taken by the dispersed, tactical, and makeshift creativity of groups or individuals already caught in the nets of discipline" (de Certeau 1984, XIV-XV cited in Rothbauer 2005: 284). De Certeau believed that everyday life is not just about following rules, but also about finding creative ways to bend those rules or work around them. In the context of marginalized populations in developing countries, de Certeau's concepts help us gain valuable insights into the culturally situated and complex information behavior among marginalized populations, their resilience, creativity, and capacity for navigating the unwelcoming, unsupportive, unequal, and corrupt information and service environment of strategic institutions.

Using de Certeau's concepts, previous research in Bangladesh, has shown that marginalized populations, such as female sex workers (FSWs) and fisherfolks (see Shuva et al., 2023; Shuva, 2017) often resort to informal networks rather than formal government agencies, viewing the latter as unwelcoming, unhelpful, and challenging to access. FSWs in Bangladesh, for instance, experience significant barriers to accessing government information due to harassment and social stigma, use tactical information strategies to meet their day-to-day information needs. Because of the unwelcoming and unsupportive information and service environment in government institutions for marginalized populations, FSWs significantly rely on informal information networks including other sex workers for information. Similarly, fisherfolks reported barriers accessing sectioned government services and demonstrated a lack of trust in government institutions. They also employ tactical information strategies to gather information from informal information networks.

Overall, these findings reveal that many marginalized groups in developing countries like Bangladesh may operate within an environment characterized by power imbalances and systemic inequalities. They may use "tactics" to navigate through the complicated, culturally situated, unequal, corrupt, and unwelcoming strategic institutions and their policies to meet their information needs.

Literature Review

Carrying out research involving people who inject drugs (PWID) can present significant challenges (e.g., gaining trust and obtaining permission from law enforcement authorities),

especially in the context of developing countries. Although there has been an increase in information behavior research on marginalized populations in recent years (e.g., refugees and older adults), there are limited studies on PWID's information needs and seeking behavior. For this study, the authors reviewed interdisciplinary research on PWID's information behavior, including health information behavior, knowledge and awareness of HIV and STI diseases, and their sexual and needle/syringe sharing practices. The review is divided into two main categories: I) Everyday life information behavior and health information seeking among PWID and II) HIV and STI knowledge/awareness and safe injecting and sexual behavior.

Everyday Life Information Behavior and Health Information Seeking Among PWID

Although historically, information behavior research in information science has predominantly focused on mainstream groups such as scientists, engineers, and other professionals (Given et al., 2023; Harris & Dewdney, 1994), there has been an increase in information behavior research on marginalized populations to better understand their informational needs and serve them better. However, there is still a lack of comprehensive understanding of how various vulnerable communities, such as PWID and truck drivers, seek information in their everyday lives and how they meet their information needs. There is also a lack of academic research on culturally situated everyday life information-seeking behavior of many vulnerable groups, such as vulnerable women in a conservative society.

Interdisciplinary research in various areas has shed light on people who inject/use drugs and their everyday life concerns. For example, people who use drugs worry about contracting infectious diseases, primarily HIV, and fear incarceration and harassment by law enforcement authorities (see, for example, Harris et al. 2021). Studies such as Hayashi et al. (2013) report fear of arrest a common concern among people who inject/use drugs. Participants in Hayashi et al.'s study (2013) also reported regular harassment by law enforcement authorities as they adopted various strategies to avoid the police (e.g., staying indoors) or changing their drug-using behavior. Some other studies, such as Davis et al. (2019), Lawson and Walthall (2023), and Meyerson et al. (2019), show that fear of arrest and harassment by law enforcement authorities is a major everyday life concern among PWID.

Some recent studies based on content analysis of social media tools, such as Reddit, report that PWID have various general and health-related information needs. For example, by analyzing the messages of people who use substances obtained from the dark web, Haasio et al. (2020) found information needs related to drug usage, availability, and price. Based on the content analysis of 2,748 health-related posts, Sullivan et al. (2024) found that harm reduction strategies and methods to reduce or quit opioid use were most asked by the contributors of the Reddit posts.

Studies in information science report the health information-seeking behavior among PWID drugs. Although there has been significant research on PWID and their health-related experiences, discrimination, and challenges in accessing health services (e.g., Biancarelli et al., 2019; e Cruz et al., 2018; Muncan et al., 2020; Paquette et al., 2018), information science researchers have yet to adequately address the information needs of this vulnerable user group. A recent scoping review by Sullivan and Shaw (2023) identified only seven relevant articles across disciplines on the health information behavior of PWID. Furthermore, the studies primarily focused on researchers' perspectives rather than those of PWID themselves.

Regarding the use of the Internet as an information source, a recent study by Lewis et al. (2022) found high Internet use and uptake of a web-based prevention and risk reduction intervention among persons who use drugs in New York City. Ozga et al.'s study (2022) found high usage of mobile phones and the Internet among PWID in California. This study's participants reported looking for various health-related information on the Internet, including drugs, drug treatment services, treatment for injection-related problems, physical health problems, and mental health problems; safer injection methods; and HIV and STI testing-related information. A study by Ranjit et al. (2020) found the use of the Internet among people who use drugs in the U.S. The participants reported searching the Internet for general information and for health information online, including HIV-related information.

Although not purely focused on health information behavior, Krieger et al.'s (2018) study reported that young adults who use drugs in Rhode Island wanted to know if there was fentanyl in their drug supply prior to their use. While PWID in developing countries like Bangladesh may face challenges in accessing the Internet and smartphones due to struggles with meeting basic needs, research shows that various marginalized groups, including those with opioid use disorders in developed countries, use the Internet for health-related information (e.g., Lewis et al., 2022; Ozga et al. 2022). Because of the increasing use of smartphones and the Internet among PWID in countries such as the U.S., there has been an increase in research that highlights the value of mobile health interventions for people who use/inject drugs (see for example, Ozga et al. 2022; Shelby et al., 2021; Shrestha et al., 2017)

Existing research also gives evidence of the challenges PWID face in accessing health services in many countries. For example, using qualitative interviews, the study by Paquette et al. (2018) found PWID in California's Central Valley encountering stigma in various health service contexts, which discouraged them from accessing care. PWID also reported delayed and substandard medical care for overdoses

and injection-related infections (such as abscesses). A study by Muncan et al. (2020) involving 32 self-identified PWID in New York City found that stigmatizing experiences of PWID in healthcare settings contribute to their distrust and avoidance of formal medical care. A very recent study by Broady et al. (2024) also confirms that PWID frequently experience stigma and negative treatment from health workers, with disparities based on gender, homelessness, and other factors. A study in a Canadian setting by Wang et al. (2016) reported a majority of PWID experienced an inability to access care in Vancouver, Canada. The study found mental health conditions were associated with the increased inability to access health and social services among PWID in Canada. Milford et al.'s (2024) recent study in South Africa found that stigma and discrimination from healthcare workers are major barriers to accessing essential health services among PWID. PWID develop strategies to avoid stigma when accessing healthcare services, which limits their utilization of these services. In Biancarelli et al.'s study (2019), PWID also reported experiencing stigma in healthcare settings and modifying their behavior to avoid stigma. They prefer community-based organizations over large healthcare settings. Studies (e.g., Hammett et al., 2014; Watson & Hughes, 2012) show that although PWID are underserved by health providers, pharmacies may be their most accessible care settings. Watson and Hughes (2012) found that pharmacists generally have a positive attitude toward providing health promotion and harm reduction programs for PWID.

Overall, there is limited understanding of the everyday information behavior of PWID, especially, in the context of developing countries. While some research highlights the daily concerns of PWID, it does not clearly specify the information they regularly need or the sources they turn to in order to fulfill those needs. Research indicates that PWID face significant challenges accessing healthcare services globally. While there is increased exploration of mobile health interventions for PWID, such approaches may not be applicable in Bangladesh, where PWID struggle to meet basic needs like food and housing. Studies show that PWID often prefer pharmacies and community-based organizations over larger healthcare facilities. This study aims to address gaps in understanding the everyday information needs and health-related information sources utilized by PWID in a developing country context, which may differ substantially from those in developed countries like Canada and the U.S. Although the study does not fully capture the health information seeking among PWID, the findings suggest directions for future research.

HIV and STI Knowledge/Awareness and Safe Injecting and Sexual Behavior

PWID are at higher risk of HIV and other diseases, including HBV and HCV. The United Nations Office on Drugs and Crime (UNODC) World Drug Report (2020) suggests that around 11 million people are injecting drugs globally, and of these, about 1.4 million PWID live with HIV. Research across the globe shows many PWID do not use condoms during sex and share needles/syringes despite the risk of infecting with HIV and STI due to unsafe sex and needle/syringe sharing practices. For example, an empirical study by Edeza et al. (2020) revealed that participants who inject drugs had multiple sex partners and engaged in risky sexual behavior by having sex without condoms. The participants also reported sharing contaminated needles, increasing their risk of HIV and STI transmission. The authors suggested increased sexual health screening and risk reduction services (e.g., pre-exposure prophylaxis (PrEP)) for PWID to reduce transmission of HIV and STI. A study in Nigeria by Ochonye et al. (2019) also found men who have sex with men (MSM) and PWID were significantly less likely than FSWs to have used condoms during sex, increasing the risk of HIV infection. A recent report by UNAIDS (2020) revealed a global decline in condom use and listed several reasons for this including the defunding of condom social marketing programs.

Needle/syringe sharing among PWID remains a significant risk factor for HIV and other disease transmission. Studies conducted in Bangladesh, Canada, and Iran, have identified various factors associated with this behavior. These include intimacy and instrumental support within injecting dyads (Shahesmaeili et al., 2018), homelessness, frequent injection, and risky sexual behaviors (Hemel et al., 2021). Social and cultural factors also play a role, with sharing behaviors integrated into PWID social organization and reciprocal relationships (Pasa et al., 2016). Barriers to accessing clean needles/syringes, such as inconvenient distribution schedules, contribute to sharing practices (Pasa et al., 2016).

Research indicates a significant lack of knowledge about HIV, HCV, and other STIs among PWID. This lack of awareness is concerning given the high prevalence of risky injection practices, such as needle sharing, observed in various PWID populations. Misconceptions regarding HIV/HCV have been reported among PWID communities in Bangladesh. An important study by Pasa et al. (2016) reported that PWID, including those who were part of harm reduction programs, had misconceptions about HIV/HCV, including the notion that HIV could be transmitted by breathing near an infected person. They also incorrectly thought that rinsing a used needle or syringe with water or blowing on it would eliminate germs. Additionally, there was a misconception that people who appeared healthy, attractive, or familiar could not be carriers of sexually transmitted infections, such as HIV. Participants also believed that individuals with HIV would always exhibit physical signs and symptoms of the disease. A very recent study in the U.S. by De La Hoz et al. (2024) found misinformation among people who use drugs about HIV and HCV transmission, treatment, and natural history that may contribute to rising infection rates and suboptimal clinical

outcomes. To address these issues, researchers have suggested implementing comprehensive approaches that combine harm reduction measures with information campaigns, emphasizing the role of civil society organizations in promoting awareness and screening (Walsh & Maher, 2013; Prouté et al., 2020).

Interestingly, improved HIV knowledge does not always translate to safer practices, as evidenced by the continued high-risk injection behaviors among knowledgeable PWID in Russia (Demianenko et al., 2013). In Kenya, married men who recognized that HIV-positive individuals might appear healthy but simultaneously perceived themselves as low-risk were less likely to use condoms (Dodoo & Ampofo, 2001). Findings on HIV knowledge, awareness, and actual practices suggest that HIV prevention efforts must go beyond simply providing information and addressing the complex factors influencing sexual decision-making across different populations (see for example, Shuva et al., 2023).

Overall, studies on PWID and their sexual and injecting behavior indicate that PWID do not always practice safe injecting and sexual behavior. Despite the knowledge and awareness about HIV and STI disease, PWID may not always avoid risky behaviors. Through the lens of information science, this study offers insights into the complex information behavior of PWID, their health information seeking, and the effectiveness of informational programs alone in influencing safe injecting and sexual behavior.

Research Methods

This study used a mixed method approach. Part of a broader study on information behavior, health information seeking, and HIV and STI awareness and knowledge of marginalized populations in Bangladeshi people, the study used face-to-face surveys and focus group discussions (FGDs). Surveys are among the primary methods of data collection in information behavior research (Given et al., 2023). Studies in various disciplines on PWID (e.g., Mirzazadeh, et al., 2020; Stringer, et al., 2019) employed surveys and FGDs to gather data from PWID. In this study, surveys were conducted with 98 PWID (one left without completing the survey) from nine sites including shopping malls, footpaths, rail stations/bridges, and hotels in Old Dhaka in July and August 2016. Two FGDs were conducted in July 2016 with 13 PWID at a local NGO meeting room.

The authors recruited one paid research associate with several years of experience in conducting surveys and FGDs with PWID and other vulnerable groups (e.g., sex workers, heroin smokers, and truck drivers) for many local, national, and international research and development organizations in Bangladesh. The research associate had already established networks with PWID communities and the NGOs working with PWID in Dhaka, Bangladesh. As PWID are victims of frequent harassment and abuse by local people and law enforcement authorities, conducting research with them may have been risky without informing the local law enforcement authorities. In order to avoid the risk of harassment by local pseudo-political leaders and law enforcement authorities in conducting face-to-face surveys with PWID, the authors informed the local police stations about the research. After the survey, each study participant received standard compensation of Bangladeshi Taka BDT 100 (approximately $1 USD) for their valuable time and participation in the study. The compensation was determined in consultation with the research associate who worked with diverse marginalized populations previously including PWID on diverse research projects. At the time of data collection in 2016, participants were able to purchase 2-3 regular meals with this amount.

To ensure the reliability and validity of the survey, several strategies (e.g., pilot testing of the questionnaire) were employed by the authors. The face validity of the survey questionnaire was established through pilot testing and by seeking input from experts who work with marginalized populations (e.g., PWID, heroin smokers, sex workers, and truck drivers). This process helped to ensure the appropriateness and relevance of the questionnaire to the target population. After the pilot testing and feedback received from the experts, the authors made some revisions to the questionnaire (e.g., minor language changes and adding skip options). The reliability and clarity of the survey questionnaire were also established through pilot testing and feedback from the research communities, which helped ensure that the survey questionnaire had internal consistency and that the questions were clear, easy to understand for PWID, and elicited consistent responses.

For this large-scale study, a 17-page survey questionnaire (128 questions) was prepared in Bengali. The questionnaire was divided into seven sections.

1. Demographics
2. Media exposure
3. Internet use and social networking
4. Rights
5. Health information needs
6. HIV knowledge
7. Information needs

For this paper, we present the results from Sections 1, 6, and 7, citing relevant data from other sections as needed.

Two FGDs were conducted with 13 PWIDs from old Dhaka city in a local NGO meeting room. The FGDs were recorded using a Sony audio recorder. The participants received about $2 USD for their valuable time. They were also provided with lunches after the FGDs.

This study used a mixture of convenience and snowball sampling approaches to recruit PWID for surveys and FGDs from Dhaka City. They were mainly recruited through the established networks of the research associate and local NGOs working with PWID. Ethical issues were duly considered dur-

ing the survey and FGDs. The authors prepared a two-page printed letter of information in Bengali outlining various ethical aspects of the study, including the study purpose, potential outcomes, and the risk involved. Due to the low education level of most participants, the research associate verbally explained the study's purpose, risks, data de-identification, and outcomes before conducting the surveys. During the FGDs, the corresponding author and the research associate explained various aspects of ethics, including the study purpose, risks, and outcomes of the study in plain language. The participants were also informed that the FGDs would be audio recorded, but no personally identifiable information would be collected during the FGDs. FGDs questions consisted of 11 questions on various aspects, including education, rights, information needs, and life satisfaction. Similar to the study on FSWs (Shuva et al., 2023), FGD recordings were selectively transcribed in Bengali and translated by the corresponding author and checked by other authors.

Participation in the survey and FGD was completely voluntary. PWID were allowed to refuse to participate at any point or answer any questions of the study. Similar to the study on FSWs in Bangladesh (Shuva et al., 2023), the authors did not ask participants of surveys/FGDs to sign or thumbprint the informed consent form, as this could raise suspicions among PWID. Requesting vulnerable individuals, such as PWID, with limited education to sign an informed consent form may lead to stress and anxiety, as they may not be able to comprehend the content of the informed consent form, and the risks involved in signing the document. Therefore, PWID gave verbal agreement to participate in the study. Obtaining verbal consent is an ethical practice that safeguards the anonymity of participants, particularly those belonging to marginalized communities, and verbal consent is widely accepted in research studies with marginalized populations (Castañeda & Smith, 2023). Prior information behavior research with marginalized populations in Bangladesh (e.g., Shuva, 2017; 2021) also relied on obtaining verbal informed consent.

This study has some limitations. Because of the use of the non-probability sampling approaches (e.g., convenience sampling), the findings of this study are not generalizable. Since the focus group discussions (FGDs) took place while the survey was ongoing, the authors were unable to fully understand certain aspects highlighted in the surveys, such as the types of information needs that PWID struggled to meet and the barriers they faced in accessing information. Furthermore, since the data for this research was gathered in July 2016, it is possible that certain aspects, such as income levels and substance use patterns, may have changed among PWID included in this study. However, to ensure the findings of the study are still valid, the authors, after completing the draft in October 2024, consulted the research associate and some subject experts regarding the validity and reliability of the findings of this study. They all confirmed that the results on the information behavior aspects are still valid (such as their information needs and sources and access to government services), and PWID are still vulnerable in terms of their access to information.

While the data for this study was collected in 2016, the authors believe it offers a valuable historical perspective that remains highly relevant to contemporary scholars. This particular population has been understudied, and there is a scarcity of research examining their information needs and seeking behavior. By providing a detailed analysis of PWID's information behavior, health information seeking, HIV and STI awareness, the study contributes to a deeper understanding of complex and culturally situated information behavior of PWID. The insights gained from this historical dataset can inform current research, policy discussions, and future investigations. The authors believe that this work fills a critical gap in the literature and offers a valuable resource for researchers interested in the information behavior of marginalized populations such as PWID.

Despite its limitations, this study is one of the few studies in information science that reports everyday life information behavior, health information seeking, and HIV and STI awareness among a very vulnerable population in a developing country context. The findings of this study have the potential to contribute to existing research on the information behavior of marginalized populations. The study findings may also be useful for researchers working with PWID to explore what motivates PWID to take the risky needle/syringe sharing and sexual behavior despite being aware of the consequences of their risky behavior.

Results

Demographics

Surveys

Most participants of this study were between the ages of 25 and 44 (73, 75.2%) (see Table A1 in appendix 1). Regarding education, the majority of them did not have any education or completed primary education (60, 61.9%). A significant number of PWID reported having been married at some point (68, 70.1%) and earning between $42 and $125 (78, 80.3%) per month. The majority of PWID lived on the street (72, 74%) and reported various sources of income, including ragpickers (25, 25.8%), thief/snatching (19, 19.6%), and petty business (24, 24.7%). All participants reported injecting buprenorphine (the brand name as "tidijesic") in the last 30 days of the survey, and most of them were introduced to drugs by their friends (87, 89.7%). At the time of the survey, the majority of PWID claimed that their health conditions were average or poor (65, 67%). Of the 97 participants, 77 (80.2%) reported no access to cell phones. Although not

surprising given their socioeconomic status, all PWID in this study indicated no access to the Internet.

Focus group discussions (FGDs)

Most of the FGD participants were below 50 years of age (see Table A2 in appendix 1). Similar to the surveys, most participants reported having no education or not completing elementary education (Grade 5).

Everyday Life Information Needs and Sources

The PWID in this study were asked to report the information they needed every day. Although they were presented with a list of information needs (e.g., information about country affairs and entertainment information), they reported requiring four information needs only (see Fig. 1), and a majority of the participants reported requiring drug-related information (e.g., where to find the drug and how much money they need to buy drugs). More than one-third of the participants reported requiring information related to their personal safety (40, 40.8%) and health-related information (38, 38.8%). Only a very few PWID reported looking for information to get rid of drug use. When asked about the information sources they regularly used, NGOs (90, 91.8%) and other PWID (38, 38.8%) were the two primary everyday life information sources (see Fig. 2). Options were read out with other information sources such as government information sources, none of the PWID mentioned consulting them, which was not surprising given their status in the society and how they are treated by government agencies locally. Survey participants were also asked to report whether they go to relevant government agencies when they need information, and most of them reported "No" (92, 94.8%), while when asked whether they go to an NGO office when they need information, most of them reported "Yes" (95, 97.9%).

FGD participants also reported requiring information related to drug-related information and personal safety regularly. Some participants reported requiring health-related information. A few FGD participants expressed that they were looking for information related to how to get a job and return to normal life. When it comes to sources of information, similar to the survey findings, they reported consulting other PWID and NGO staff. For example:

> If I need something [information], I consult other people who inject drugs and DIC [NGO workers]. This is our information world. (FGD 1, Participant 1)

In response to the question, "What information sources do you consult when you need information regularly?" one FGD participant expressed his anger and dissatisfaction with his life due to the harassment and abuse he faced regularly.

> I do not contact [consult] anyone. I am alone. If I die, I will die alone. If I survive, I will survive alone. I have no love for [my life.] I have left love for my life. I did not have any affection from my parents. Is there any benefit to saving my life? They [local people] kick me out if I go to sleep there [on the street]. If I go to sleep on launch [boat], they unnecessarily beat me. Where will I go? We have no places to go. (FGD 2, Participant 1)

Figure 1

Everyday life information needs (participants were allowed to select multiple options; n=97)

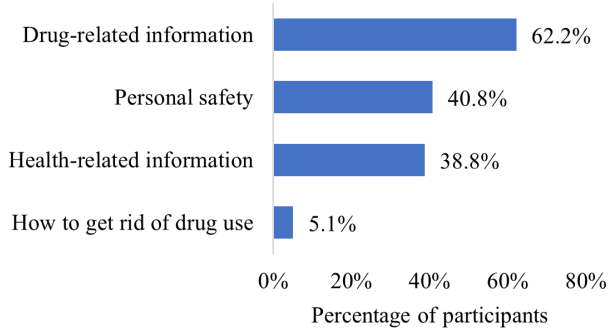
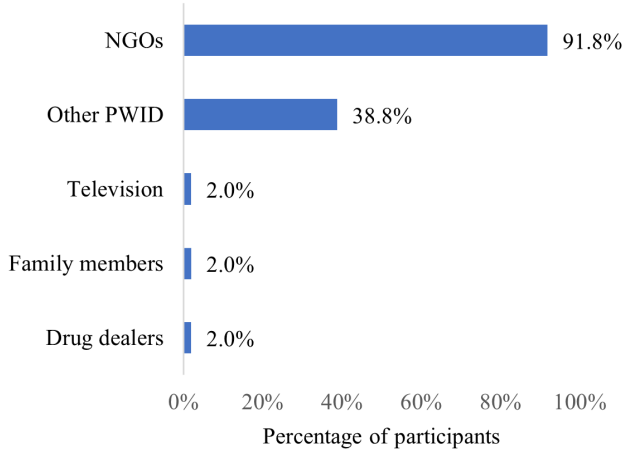


Figure 2

Information sources (participants were allowed to select multiple options; n=97)



Health Information Sources and Preferences

Participants were asked to report the sources they consulted when they needed health-related information. They

mentioned consulting NGO clinics (96, 99%) and receiving medication from a local pharmacy (43, 44.3%) only. It is worth sharing here that pharmacies in Bangladesh do not run like pharmacies in countries like Canada and the U.S., where people cannot get many medications such as antibiotics, without doctors' prescriptions. In Bangladesh, it is easy to buy medications, including antibiotics, and self-medicated antibiotics are a common phenomenon (Biswas et al., 2014; Kalam et al., 2022).

Focus group participants also reported consulting NGO clinics and pharmacies when they needed health-related support/information. Some mentioned regularly receiving medications from local pharmacies on gas, bloating, and pain medications, including for abdominal pain. Some participants also mentioned receiving medications from the pharmacy when the medications were not available at the drop-in centers (DICs).[1] One FGD participant reported buying gas relief powder and regularly drinking it to reduce the symptoms of gas and bloating of the stomach. Another FGD participant who was not aware of the NGO clinic at the time of the FGD reported visiting a government medical hospital looking for wound dressing and denied services for not having money for dressing. The researcher connected him with the NGO staff to obtain a dressing for the wound.

In response to the survey question, "What are your preferred sources for health information?" where the participants were allowed to choose more than one option, unsurprisingly, everyone mentioned NGOs (including DIC staff) as their preferred sources for health-related information. Of 97 participants, 25 participants (25.8%) mentioned pharmacist and only two people mentioned consulting private doctors for health-related information. Most FGD participants reported NGOs (including DICs) and pharmacies as their preferred sources of medical information, while only a few reported private doctors.

Unmet Information Needs and Barriers to Information Access

PWID were asked to report whether they received the information when needed, and most of the PWID reported rarely receiving the information they needed (89, 91.8%, see Fig. 3). Some FGD participants reported looking for rehabilitation information, expressed their desire to look for ways to lead a normal life, and were looking for job-related information to improve their financial conditions but were not able to meet that information from their existing information sources.

The survey participants were also asked to indicate the barriers to their information access, and the top two barriers, as reported by the majority of PWID, were illiteracy (83, 85.6%) and socio-cultural stigma associated with drug addiction (74, 76.3%) (see Fig. 4). Five PWID reported others that included a lack of information technology skills, lack of time, and health effects of the drugs hindering information access.

Figure 3

Do you get the information when you need it? (n=97)

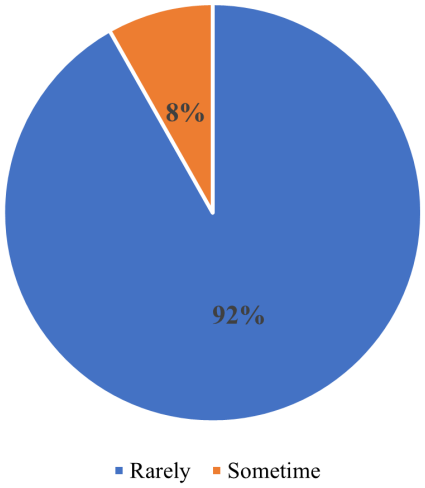
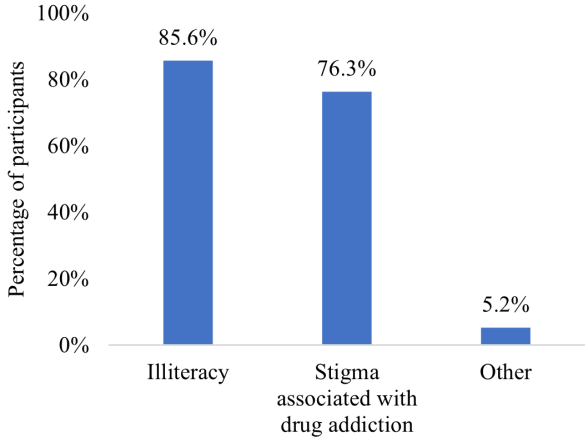


Figure 4

Barriers to information access (participants were allowed to select multiple options; n=97)



[1]The Drop-In Center is a safe space where people who inject drugs (PWIDs) can socialize and access general health services. These services include information on health and HIV prevention, care, treatment, and counseling. The center also provides access to needle and syringe exchange, condoms, and some medications such as vitamins and paracetamol. Additionally, it offers services like abscess management and referrals to other healthcare facilities. The Drop-In Center is equipped with bathing and resting facilities, and it has areas for watching TV and playing indoor games.

Information about HIV and STIs and Safe Injecting and Sexual Behavior

When asked whether PWID had received any HIV and STI-related awareness information, everyone claimed that they had received HIV and STI-related awareness information. Everyone also claimed that they had received HIV and STI-related awareness information from NGOs, and two participants reported receiving information from television, in addition to NGOs. PWID in this study also reported attending various HIV and STI prevention programs organized by NGOs last year. Most reported attending needle/syringe exchange-related educational programs (94, 95.9%). Thirty-five (35.7%) participants reported participating in educational programs on the prevention of HIV/AIDS while twenty-three (23.5%) of PWID attended condom distribution-related events. Six participants (6.1%) reported attending STI medical events.

Despite claiming to attend various HIV and STI programming, survey participants' risky behavior is also evident in their injecting behavior. In response to the question (n=94), "the last time you injected, did you use a needle or syringe after someone else had used it before?" the majority of the participants said "yes" (65, 69.1%). When asked, "the last time you injected, did you share your used needle or syringe with someone else?," of 94 participants who responded to this question, most of the participants mentioned "Yes (81, 86.2%). In response to the survey question "Can a person get infected with HIV by taking injections with a needle/syringe that was already used by someone else?" fifty-six (57.7%) participants reported "Do not know" and over one-fourth participants (28, 28.9%) indicated "No". Of 97 PWID, only 13 (13.4%) PWID reported "Yes" to the question. The findings related to safe injecting/needle use and knowledge and awareness of HIV and STI cast doubt on the effectiveness of the informational programs alone in motivating all PWID to practice safe injecting behavior. These findings also highlight the need for further research in information science in exploring the factors that influence PWID not to act on the information on safe injections/needle use.

FGD participants also reported obtaining HIV and STI-related information from NGOs working with them. Despite attending the informational programs, FGD participants also reported sharing needles/syringes with others. One of the main reasons for sharing needles/syringes was the lack of money to obtain the required amount of drug by themselves. When asked whether they were aware of the risk of sharing needles/syringes with others, they indicated that they were aware of it. They mentioned taking some strategies (e.g., sharing with only friends) to protect them from being infected with HIV and STIs. However, their statements indicated an over-reliance on knowledge of their friends' health, which may pose significant health risk for them and their families. For example:

> Whoever I know does not have HIV, I share it with them. Whoever I do not know, I will first inject myself. (FGD 1, Participant 2)

> I share with my friends. For example, [name of the friend] does not have any disease, and I do not have any disease. We will share. He does not have any disease. I will use his, and he will use my [syringe]. (FGD1, Participant 3)

> I share [needle/syringe] on trust. . . During restless times, sharing occurs [among PWID] frequently. (FGD 1, Participant 6)

In response to the survey question, "Do you know there is a risk of HIV and STI due to sex without a condom?" everyone responded, "Yes." However, despite participating in the prevention of HIV and STI educational programs and needle-exchange-related education programs, when asked about whether they used condoms during sex, most claimed not always using condoms during sex (91, 94.8%) (see Fig. 5). The top reason for not using condoms was that they do not like condoms during sex (63, 70%). Those who mentioned "Other" reported that "if they [sex workers] do not have condoms during sex, do not use them," "do not have sex outside of spouses," "do not have sex regularly," "do not always have condoms," "lost interest in sex," "if sex workers have condoms, then use that otherwise do not use them", and "spouses do not like condoms."

FGD participants were also asked whether they were aware of the risk of having sex without condoms; they all mentioned that they were aware of this risk. However, when asked whether they use condoms during sex, most said they did not always use condoms during sex. They offered several reasons for not always using condoms during sex, including "not having condoms for them and sex workers," "not liking condoms during sex," and "having sex with only spouses; therefore, condoms are not needed" and "ejaculate outside, not in the vagina."

> Sometimes, I had sex when the store [pharmacy] was closed, there was no way to come to CARE [name of the NGO] to get condoms, and then I had sex without condoms. (FGD 1, Participant 1)

> I do not use condoms. (FGD 1, Participant 4)

> Do not always use condoms. When girls [sex workers] have condoms, then I use condoms; when they do not have condoms, I do not use them. (FGD 2, Participant 1)

> Let me say something, Sir! Even, if I have money, I do not buy condoms; I have sex without condoms. I do not like [having sex with

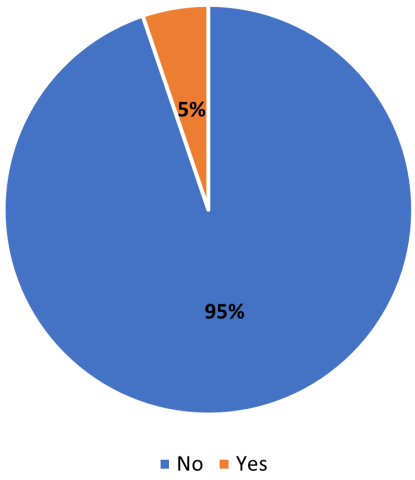
condoms] [. . .] I knew someone had a disease. Someone said, "I got infected with AIDS [HIV]." I would still do sex [without condoms]. I told her if I was supposed to get it, I would get it [HIV; without or with condoms]. I did it knowingly. I will die. What will I do being alive? (FGD 2, Participant 4)

I enjoy [having sex] only with my family [spouse]. Do not have sex with anyone on the street [female sex workers]. (FGD 2, Participant 3)

Sometimes, when I go to a sex worker to enjoy [having sex] with her if the condom is not available [at that time] when it is time to ejaculate, I will ejaculate outside [not inside the vagina]. (FGD 2, Participant 6)

Figure 5

Do you always use condoms during sex? (n=96)



Discussion

Everyday Life Information Behavior

This study on PWID highlights the tactical information strategies of PWID, a very vulnerable population in Bangladesh. PWID reported requiring minimal information in everyday life contexts and consulting other PWID and NGO staff in meeting their information needs. Unsurprisingly, they reported avoiding government sources and services and mainly relied on whatever they get from local NGOs working with them.

Compared to FSWs (see Shuva et al., 2023), another vulnerable group in Bangladesh, PWID reported requiring very few information needs and having access to very limited information sources. PWID in this study were mainly looking for drug-related information, information about their safety, and regular health-related information in everyday life contexts. Previous studies on PWID also confirm PWID regularly look for drug and health-related information (see, for example, Ranjit et al. 2020; Ozga et al. 2022). Some studies, such as those by Davis et al. (2019) and, Hayashi et al. (2013), Lawson and Walthall (2023), Meyerson et al. (2019), although not purely information behavior studies, reported worrying about arrest, harassment, and torture by law enforcement authorities is a common concern among PWID. The need for or daily concern about their safety may be present among PWID communities in societies where they are not treated equally, where stigma is associated with their drug use behavior, and when PWID faces frequent harassment and abuse by local law enforcement agencies such as police. Although the previous study conducted by the authors (Shuva et al., 2023) on FSWs found FSWs having access to multiple informal information sources such as friends and family networks, hotel staff, and clients, compared to FSWs, PWID reported only having access to other PWID and NGO workers for their information. Their very limited access to information sources makes PWID one of the most vulnerable communities with limited or no access to information in their everyday life context. The authors believe part of the reason PWID have limited access to other informal sources is that it is easy to identify PWID from their appearance and behavior compared to sex workers. Thus, people would generally avoid interacting with PWID. Moreover, quite a few PWID survive on snatching, stealing, and other activities, creating a significant distrust among Bangladeshi society when it comes to welcoming them and helping them meet their day-to-day needs.

PWID in this study are "information poor" (Chatman, 1996). As their family members abandoned them and government agencies were not welcoming, they had nowhere to go to meet their information needs except for other PWID and NGO workers. They also reported significant unmet information needs. Core barriers to PWID's access to information, as reported, are illiteracy and the stigma associated with their drug use. While PWID in many countries such as Canada and the U.S. may have access to the Internet and smartphones (see, for example, Lewis et al., 2022; Ozga et al., 2022; Ranjit et al., 2020), all PWID in this study reported not having access to the Internet. A significant number of them even did not have access to mobile phones. Illiteracy, limited information sources, and lack of access to phones and the Internet resulted in a limited "information horizon" (Sonnenwald, 1999) and "information resource base" (Yu, 2010) for PWID. Although in academic literature, little is known about PWID's access to information, their unmet information needs, and the barriers they face, previous studies on marginalized communities such as rural women (e.g., Patrick and Ferdinand, 2016) and

fisherfolks (e.g., Shuva, 2017) also report illiteracy or limited education as one of the barriers to accessing information.

Based on this study, the study on FSWs (Shuva et al., 2023), and other studies on marginalized populations (e.g., Shuva, 2017), it is evident that many vulnerable communities in developing countries use "tactics" to navigate through unsupportive, unequal, corrupt, and unwelcoming strategic institutions and their policies to meet their information and service needs. By doing so, they may significantly depend on their limited, informal information networks, which in turn may make them vulnerable in terms of access to timely, reliable, and useful information.

Many vulnerable communities, such as PWID and street-based female sex workers may face additional challenges in accessing information and services outside of their trusted networks due to the stigma associated with their professions and/or behaviors. In a developing country like Bangladesh, where it is difficult for most of the population to obtain proper government information and services without paying "bribes" (as highlighted by Transparency International Bangladesh, 2024), individuals often have to find alternative ways to meet their information and service needs. For marginalized groups such as PWID, truck drivers, and rickshaw pullers, navigating government service and information agencies can be particularly challenging as these agencies are often unsupportive, unwelcoming, and corrupt. When individuals from these groups are primarily focused on meeting their basic needs (e.g., food, housing), obtaining necessary information and services can become a low priority. Despite having significant information needs, the unsupportive and unwelcoming culture of government information services can lead these groups to either find creative ways to access information and services or abandon their efforts altogether. While it may take time for Bangladeshi government agencies to evolve and provide seamless information services regardless of an individual's background, local NGOs that work with diverse marginalized groups can play a crucial role in meeting marginalized populations' information needs. These organizations often have frequent communication with marginalized populations such as PWID. In this study, although most PWID reported significant unmet information needs, the authors were unable to comprehensively explore these needs. Key questions arise: What specific information needs do they struggle to meet? What role do local NGOs play in addressing these needs? How can NGOs serve as information support institutions for marginalized populations? Answering these questions may enhance our understanding of the everyday information challenges faced by marginalized groups and ways to improve information access among these groups.

The findings suggest several opportunities for local public libraries to collaborate with agencies, such as NGOs, that work with PWID. These collaborations can help PWID acquire informal education, information skills, ICT literacy, and overall assistance in addressing their information needs. Public libraries might also consider offering programs that connect PWID with relevant information and service agencies, including mental health programs. As libraries in Bangladesh face ongoing challenges in providing basic services, and the number of government public libraries is limited compared to the population, support from international agencies (e.g., UNAIDS) could enable local public libraries to offer services to vulnerable populations like PWID. However, introducing services for PWID within library premises may prove difficult due to potential resistance from the community. Therefore, local public librarians might consider providing these services at local NGO facilities. Since PWID often rely on NGO workers for assistance and as our findings suggest, PWID were unable to meet their information needs through NGO workers, it is essential to also provide support for these workers. Programs aimed at enhancing NGO workers' information skills to better serve vulnerable communities would be beneficial. Future research should explore the informational skills of NGO workers and the challenges they encounter in meeting the information needs of PWID and other vulnerable groups.

PWID expressed significant dependence and preferences for NGO workers to meet their information needs, a finding that corroborates with previous research such as Biancarelli et al. (2019) and Di Ciaccio et al. (2023). There is limited research on the information experiences of PWID while seeking information from NGO workers. Research is needed to explore how comfortable PWID are in expressing all types of information needs (e.g., job) to community organizations' staff working with them and what informational competencies community workers have in meeting the diverse information needs of PWID communities. Future studies should explore what information PWID look for from NGOs and other community organizations as well as other PWID, how comfortable PWID are asking for all types of information from NGO workers, and what competencies NGO workers possess to understand and meet the information needs of these communities. Addressing these questions will help us better understand the information experiences of PWID consulting NGOs and help us work towards connecting PWID with appropriate information sources and organizations (e.g., public libraries).

Informational Programs and Safe Injection and Sexual Practices

The findings of this study indicate that although PWID reported participating in HIV and STI informational and prevention programs, many were not acting on the information they received from these programs. A significant number of survey participants admitted to sharing needles and syringes, frequently using others' used needles and syringes, and often not using condoms during sex with sex workers and their

partners. This lack of safe practices was also confirmed in the focus group discussions (FGDs).

The results from both surveys and FGDs demonstrated that a significant majority of PWID in this study were not engaging in safe injecting and sexual practices, putting themselves and their families at risk. Some participants in the FGDs expressed feelings of hopelessness about life, indicating that they do not wish to live longer and prefer to enjoy their lives for as long as they can. Many participants also reported a lack of love for life and a loss of interest in various activities. Previous studies, such as those by Harris et al. (2021) and Mimiaga et al. (2010), have indicated that individuals who inject drugs may struggle with appreciating their lives, experience feelings of hopelessness, and face mental health challenges. When PWID do not value their lives and grapple with these issues, concerns about contracting HIV may not take precedence. Consequently, they may neglect safe injecting and sexual behaviors, despite attending informational and educational programs. The mental health challenges faced by PWID may undermine the effectiveness of these programs, as individuals may not apply the knowledge gained. Future research could explore the impact of mental health on the risky drug use and sexual behaviors of PWID.

The study on information behavior of PWID indicates that in many situations, despite knowing the risk of HIV and STI, PWID may take risky needle/syringe use and sexual behavior. Previous research, such as Demianenko et al. (2013) and Dodoo and Ampofo (2001), suggest that improved HIV knowledge does not always translate to safer practices. Moreover, studies such as De La Hoz et al. (2024) and Pasa et al. (2016) show the existence of misconceptions and misinformation among people who inject/use drugs, even in situations where they were part of the harm reduction programs. Although findings related to informational programs not always empowering PWID to employ safe injecting and sexual behavior raises the question of the effectiveness of informational programs, this also gives us an opportunity to review the existing informational programs and identify factors that motivate people not to practice safe injecting and sexual practices, including psychological factors. Similar to the other study on FSWs (Shuva et al. 2023), this study also confirms that "information" alone may not always be sufficient to motivate vulnerable communities such as PWID to perform safe injecting and sexual behavior. This study's findings do not necessarily claim that informational programs do not work. However, it does emphasize the need to explore in what conditions informational programs work effectively and when they do not.

As government and other agencies in Bangladesh are working on identifying the issues behind the significant increase of HIV and other diseases in PWID and other vulnerable communities, it would be important to comprehensively identify the reasons behind their choices of risky needle/syringe sharing and sexual behavior. It would also be important to assess how much information PWID retain after attending various informational programs. A previous study on FSWs by the authors reported sex workers unable to negotiate condoms with some of their clients because of the risk of harassment and violence (Shuva et al., 2023). PWID are among the clients of sex workers. The findings of this study suggest that PWID are doubly vulnerable as they share needles/syringes and participate in unprotected sex compared to other vulnerable communities, such as street-based sex workers. Therefore, if the system fails to take initiatives to reduce HIV prevalence among the PWID community, this would significantly affect other vulnerable communities, such as spouses of PWID and street-based sex workers.

Health Information Behavior

PWID's informational vulnerability was also evident in their health-related information seeking, where they mentioned mainly relying on local pharmacies and NGOs only over medical doctors and government medical hospitals to meet their health-related information needs and services. Some participants even complained about challenges they faced accessing services offered by government medical hospitals, partly because of a lack of money and the stigma associated with drug use. In several cases, FGD participants reported they were treating themselves with medications brought from the local pharmacies over visiting local government medical facilities.

As PWID expressed significant dependence on NGOs and pharmacies, it is important to investigate whether their needs are adequately met. It was beyond the scope of the study to explore whether local NGOs and pharmacies were meeting the health information and services needs of these communities. Agencies working with this community could explore PWID's health information seeking and satisfaction with the services NGOs and local pharmacies offer. PWID in this study indicated a significant self-reported decline in their health status. However, they did not mention consulting government hospitals and medical doctors for their health services. Some participants even complained about not getting the services of local government medical hospitals as they were told to pay high fees before they could get services. Interdisciplinary studies, e.g., Biancarelli et al. (2019), Broady et al. (2024), Milford et al. (2024), Muncan et al. (2020), and Paquette et al. (2018) report various challenges people who inject/use drugs face in accessing healthcare services. Research (e.g., Hammett et al. 2014; Watson & Hughes, 2012) also suggests while PWID receive inadequate healthcare services, pharmacies may serve as their most readily available healthcare facilities. Comprehensive interdisciplinary research is needed to better understand PWID's health information needs and seeking and their experiences and satisfaction using pharmacies and community organiza-

tions as health information sources. It is important to ensure PWID have hassle-free access to health services. Identifying and addressing PWID's health concern promptly will protect not only the PWID communities but also their families and extended networks.

Conclusion

In this study, PWID reported significant unmet information needs and worrying about gathering information to protect themselves from law enforcement agencies over their other information needs. While, in general, they were supposed to be protected by law enforcement authorities, they were more worried about harassment by local law enforcement authorities over meeting their informational needs. They highlighted avoiding relevant government agencies even if they need information from these agencies and their information world consisted of mainly NGO workers and other PWID, making them one of the most vulnerable communities in the world in terms of their information access. It is important information science researchers explore the extent of their unmet information needs and why despite their regular communications with local NGOs, they were facing challenges meeting their information needs.

The study also highlighted that existing informational programs for vulnerable communities alone may not always be effective in significantly reducing HIV and STI prevalence as many other factors come into play (e.g., immediate pleasure, not appreciating life) when it comes to safe injecting and sexual practices. The study also indicates PWID may be unable to retain the information they gather from informational programs and events. The authors call for future research on exploring PWID's information retention capability and how that effect their safe injection and sextual practices. It is important that information science researchers also investigate what factors motivates PWID and other vulnerable groups to act against the information they receive to protect themselves, their family, and extended networks. As many agencies in Bangladesh grapple with identifying factors behind the increase in HIV prevalence among PWID, comprehensive interdisciplinary research (e.g. research in sociology, psychology, and public health) on PWID's everyday life information behavior and their health information needs and seeking may offer some valuable insights into better understanding their everyday life concern and challenges including informational and mental health challenges along with factors motivating PWID to take risky injection use and sexual behavior.

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Declaration of Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Considerations

Informed consent was obtained from all participants prior to their involvement in the study.

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Author Contribution Statement

All co-authors worked on conceptualizing the study, drafting the questionnaire, and conducting the study. Nafiz Shuva drafted the paper, which was reviewed and edited by RT and PSM.

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Appendix A. Tables

Table A1. Survey demographics

	n=97 (%)
Age	
18-24	8 (8.2%)
25-29	16 (16.5%)
30-34	21 (21.6%)
35-39	15 (15.5%)
40-44	21 (21.6%)
>45	16 (16.5%)
Total	97 (100%)
Education	
Informal education (including can read and write)	20 (20.6%)
No education	26 (26.8%)
Grades 1 to 5	34 (35.1%)
Grades 6 to 10	15 (15.5%)
Grades 11 to 12	2 (2.1%)
Total	97 (100%)
Marital status	
Unmarried	29 (29.9%)
Married	15 (15.5%)
Divorced/separated	51 (52.5%)
Widow	2 (2.1%)
Total	97(100%)
Monthly Income (in BDT)*	
<5,000 (Less than $42)	8 (8.2%)
5,000 to 10,000 ($42 to $84)	40 (41.2%)
11,000 to 15,000 ($91 to $125)	38 (39.1%)
16,000 to 20,000 ($134 to $167)	10 (10.3%)
21,000 and over ($176)	1 (1.0%)
Total	97 (100%)
Currently, live	
On the street	72 (74%)
With friends and relatives	25 (26%)
Total	97 (100%)
Source of income	
Rickshaw Pulling	7 (7.2%)
Peddler	5 (5.2%)
Service	4 (4.1%)
Ragpickers	25 (25.8%)
Thief or Snatcher	19 (19.6%)
Business (e.g., tea stall owner)	24 (24.7%)
Other (including helper, general labor)	13 (13.4%)
Total	97 (100%)

Table A1. Survey demographics (continued)

	n=97 (%)
Last month, drug use	
Cocktail**	12 (12.4%)
Heroin	7 (7.2%)
Yaba (a combination of methamphetamine and caffeine)	35 (36.1%)
Buprenorphine (Tidijesic)	97 (100%)
Other (including cannabis)	6 (6.2%)
Who first introduced you to drugs?	
Friends	87 (89.7%)
From curiosity	9 (9.3%)
Others	1 (1%)
Total	97 (100%)
How is your health condition?	
Very good	2 (2.1%)
Good	30 (30.9%)
Average	28 (28.9%)
Bad	37 (38.1%)
Total	97 (100%)
Access to cellphone	
Yes	19 (19.8%)
No	77 (80.2%)
Total	96 (100%)
Access to the Internet	
No	97 (100%)

* Calculated using Xe currency converter at https://www.xe.com/currencyconverter/ on September 17, 2024

**The cocktail is a mixture of different pharmaceutical drugs consisting of buprenorphine, antihistamines, and sometimes diazepam.

Table A2. FGD demographics

	n=13
18-29	3
30-39	1
40-49	6
50 and over	2
Not mentioned	1
Total	13
Education	
No education	4
Grade 1-5	7
Grade 6-10	2
Total	13