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Trust, Stigma and Policing in Needle and Syringe Programme Access in Tshwane, South Africa: A Qualitative Study

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Research Article

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Abstract

Needle and syringe programmes (NSPs) reduce HIV and hepatitis C transmission among people who inject drugs (PWID), but their effect depends on the urban environments in which they operate. Evidence on how PWID experience NSPs in African cities, where homelessness, informal settlements and policing shape daily life, is limited. This qualitative study explored how PWID experienced NSP access and effectiveness in Tshwane, South Africa. Four focus-group discussions were conducted in 2023 with 31 PWID (24 men, seven women) purposively recruited from four sites of a community-oriented primary care-based harm-reduction programme serving the inner city, a suburban area, a township and an informal settlement. Data were analysed using reflexive thematic analysis informed by social constructivism and the risk-environment framework. Participants valued the NSP for sterile equipment, education and linkage to opioid agonist therapy. Three processes shaped these benefits. First, consistent peer and service interactions produced trust and programme legitimacy, whereas inconsistent distribution and perceived diversion weakened both. Second, fixed allocations of 15 syringes that did not match injection frequency, combined with weekend service gaps and peer obligations, converted supply constraints into syringe reuse and sharing. Third, stigma and policing made access spatially uneven: confiscation in public space undermined the return-based exchange model, particularly for participants experiencing homelessness and those in informal settlements. NSP effectiveness was socially and spatially produced rather than determined by service availability alone. Needs-based supply, decoupling supply from return, and coordinated engagement with municipal police are required for NSPs to protect the most exposed urban PWID.

Introduction

Needle and syringe programmes (NSPs) reduce HIV, hepatitis C virus (HCV) and other injection-related harms among people who inject drugs (PWID) and are recommended by the World Health Organization as part of comprehensive HIV prevention for key populations. [1–4] Global coverage nevertheless remains low, particularly in low- and middle-income countries. [5] In South Africa, PWID carry a high burden of HIV and HCV and frequently report syringe sharing; [6] among PWID engaged with harm-reduction programmes in four provinces, HIV incidence was 12.3 per 100 person-years. [7]

Injecting drug use in South Africa is concentrated in cities, where its harms are shaped by urban conditions: homelessness in inner-city areas, overcrowded townships and informal settlements with limited municipal services, and intensive policing of public space. [8, 9] In Tshwane, the City of Tshwane metropolitan municipality, nyaope, a street mixture based primarily on low-grade heroin, is widely used. Families describe drug use with moral condemnation and calls for punitive responses, [10] and community members report distrust of local police and inadequate social services. [11] International evidence links policing practices, including syringe confiscation, to injection-related HIV risk and to avoidance of harm-reduction services. [12] Less is known about how such practices interact with programme rules and peer relationships in African cities, and how these interactions vary across neighbourhoods.

The Community Oriented Substance Use Programme (COSUP) was established in 2016 through a partnership between the City of Tshwane and an academic department of family medicine. [13] It is grounded in community-oriented primary care, which links clinic-based services with defined communities and outreach teams, [14] and provides NSPs, opioid agonist therapy (OAT), psychosocial support and referral through fixed, mobile and outreach services in which peer educators with lived experience are central. At the time of the study, equipment was distributed in standard packs of 15 syringes under a return-based exchange model. In South African usage, 'townships' are historically segregated, high-density residential areas, and 'informal settlements' are areas of self-built housing with limited municipal services.

The study was informed by social constructivism, which treats meanings of health, risk and service legitimacy as produced through social interaction and institutional context. [15] Rhodes' risk-environment framework was used as a sensitising concept to examine how physical, social, economic and policy environments shape injection-related risk, [16] complemented by the concept of structural vulnerability, which describes how housing and exposure to institutional power distribute risk unequally. [17] The aim was to explore how PWID in Tshwane experienced NSP services, and how peer relationships, stigma and policing shaped access and perceived effectiveness across contrasting urban settings.

Methods

Design and Setting

A qualitative design was used, informed by an interpretive interest in participants' first-person accounts. The study is reported according to the Consolidated Criteria for Reporting Qualitative Research (COREQ; Supplementary File). [18] It was conducted at four COSUP sites in Tshwane, Gauteng province, selected for their contrasting urban contexts: the inner city, where many clients experience homelessness; a low-density suburban residential area; a high-density township; and an informal settlement with low-income housing (Table I). Each site offered NSP services alongside access to OAT, psychosocial support and referral to HIV, primary care and specialist services.

Participants and Recruitment

Participants were PWID registered with COSUP NSP services who self-reported injecting drug use and had engaged with the NSP for at least three months, ensuring sufficient service exposure. Sampling was purposive and stratified for variation in gender, age and housing status (housed, precariously housed and homeless). COSUP peer educators facilitated recruitment between October and December 2023. Four focus groups included 31 participants: 24 men and seven women (Table I).

Data Collection

Four semi-structured focus-group discussions (FGDs) were conducted in private rooms at COSUP sites. FGDs were chosen because they generate socially negotiated accounts, consistent with the constructivist orientation. The guide, piloted with two peer educators, explored access and service use, benefits and harms, peer relationships, stigma, policing and suggestions for improvement. Discussions lasted 60–90 minutes and were audio-recorded. All FGDs were facilitated by the first author, a male social worker and peer coordinator with harm-reduction research experience and no clinical relationship with participants. Sessions moved between English, isiZulu and Setswana as participants preferred; non-English segments were transcribed verbatim and translated, and a bilingual peer educator verified transcripts against recordings. Field notes recorded group dynamics and language use. No new substantive codes arose from the fourth FGD, which was judged sufficient for the study's focused aim. [19, 20]

Analysis

Data were analysed using reflexive thematic analysis. [19, 21] Initial coding was inductive; in later phases, codes were interpreted through the conceptual framework, which reorganised descriptive codes such as 'not enough needles' and 'police take our needles' into analytical themes concerning how risk and legitimacy were produced. Members of a multidisciplinary team independently coded a purposive 20% sample of transcripts and compared interpretations, with a senior author adjudicating persistent differences. Preliminary themes were discussed with four peer educators who had supported the FGDs. The first author kept a reflexive journal; his position combined insider knowledge of harm reduction with outsider status as a person without lived experience of injecting. Because the research team was affiliated with COSUP, participants were assured that their accounts would not be shared with service staff, and critical views were actively invited. Quotations are attributed by group and sex; 'smoke' was used locally to mean injecting.

Ethics

The study was approved by the [Research Ethics Committee, blinded for review] (reference no. [BLINDED]; approved 21 May 2020), and data collection in 2023 was conducted under a protocol amendment approved on 17 August 2023. All participants provided written informed consent, which covered voluntary participation, the right to withdraw without any effect on access to COSUP services, audio-recording and the use of anonymised quotations. Identifying details were removed from transcripts, and data were stored on password-protected devices and a secure institutional server accessible only to the research team. Participants were offered refreshments but were not financially compensated.

Results

Participants valued the NSP for free sterile equipment, harm-reduction education and, for many, a route into OAT. Three themes explained how these benefits were realised or undermined, and each varied across the four urban settings according to housing stability, injection frequency and exposure to law enforcement.

Trust and Legitimacy Are Relationally Produced

Participants viewed COSUP as a legitimate health service largely because of how it was structured. Registration, entry education and exchange were encounters through which participants learned to inject and dispose of equipment more safely:

'You have to register… you have to go through this whole educational period where you learn how to use needles… and how to correctly dispose of needles.' (Group 2, female)

'There's a lot of education that comes with the NSP. They educate you on how to dispose of needles correctly, how to use the needles correctly. How to not pick up any transmitted diseases.' (Group 2, female)

The combination of material provision and information distinguished the NSP from pharmacies and informal sources of equipment. Legitimacy also rested on a sense that the service protected the wider network: *'NSP helps us with the injections so that we don't take anyone's sickness'* (Group 1, male). For several participants, NSP contact was the route to methadone, which they associated with reduced cravings and injecting frequency: *'I was using three times a day, then twice a day, now I'm down…'* (Group 1, male). Some described stepping back from the NSP once stabilised while continuing to value it:

'I'm getting methadone for the last six months. So, I don't do the needle exchange anymore. But it is beneficial doing the needle exchange for health benefits.' (Group 2, female)

Where family contact remained, engagement reassured relatives: *'If they [family] know… that you are going to COSUP and get the new syringe… you care about your body, you don't borrow'* (Group 3, male). This pathway was less evident among participants experiencing homelessness, many of whom described severed family ties.

The programme's meaning was negotiated among participants. When one participant framed the NSP as part of the drug problem, a peer corrected him: *'No, my brother here they are not talking about drugs and they don't give us drugs here, they give us syringes'* (Group 4, male). This exchange shows how understandings of harm reduction were constructed and contested among clients, and how peers acted as interpreters of the programme for one another. Some requested take-home materials to reinforce this learning: *'I think there should be like a little booklet for people that don't know how to [inject]'* (Group 2, female).

Trust in peer educators, however, depended on perceived fairness. Participants reported variation in education and distribution across sites, and one group described diversion:

'There are members that are corrupt… COSUP employees that deliver to the drug dealer and then they [the drug seller] sell to us.' (Group 4, male)

Whether or not such accounts could be verified, they show how perceived inequity weakened confidence. Some participants also sensed ambivalence beneath the provision of services: *'…Government and NSP… is not like they are happy for giving us the injections…'* (Group 1, male). Legitimacy was therefore relational and fragile, sustained by repeated experiences of fairness, reliability and respect.

Scarcity Becomes Social Risk

Participants were clear that NSP access reduced sharing, and that this depended on supply: *'The needles are too expensive to buy and if we can't get them here, then we're going to start sharing needles'* (Group 2, female). Where the fixed allocation did not match injection frequency, particularly when services were closed at weekends, reuse re-emerged. This was most evident in the inner city and informal settlement:

'We used to shoot three times a day… 4 days it's twelve, 5th day it's 15, now Saturday and Sunday we try to use the used ones.' (Group 1, male)

'…in a day I can smoke [inject] more than 5 times… which means 15 doesn't last. It doesn't last a week…' (Group 4, male)

'…plus, the weekends stress of Saturday and Sunday… cause on weekends we hustle more, you find yourself smoking [injecting] 23 packets [bags of heroin] in two days you see.' (Group 4, male)

These accounts describe an arithmetic of scarcity: participants calculated when an allocation would run out and what they would then do. Reuse was not a lapse in knowledge but a predictable consequence of a distribution rule, compounded by syringes that *'get blocked'* (Group 3, male) or were *'not strong enough'* (Group 4, male). Scarcity also became interpersonal, as lending equipment to someone in withdrawal was an obligation within peer networks: *'Someone can come asking for help… he is withdrawing… you will borrow them [a needle]'* (Group 1, male). The same networks that circulated information and solidarity could therefore facilitate sharing when formal provision was insufficient. Equipment also moved beyond PWID networks, for example to people with diabetes who lacked syringes, showing that NSP supplies circulated informally within neighbourhoods.

Adequacy varied by setting. More stably housed suburban participants found the allocation sufficient (*'… But the 15 we get is sufficient'*, Group 2, female) and focused on kit completeness (*'they should add something to tie us'*, Group 2, female). A single allocation could thus be adequate in one neighbourhood and risk-producing in another. The relevant issue was not only the number of syringes distributed but the fit between distribution rules and participants' injecting patterns, mobility and ability to return to a site.

Stigma and Policing Shape the Urban Risk Environment

Participants described stigma operating through community beliefs, institutional interactions and visible conditions in public space. Community members were seen to regard NSPs as promoting drug use: *'Because they are under a wrong perception that COSUP just gives people needles and then you go'* (Group 2, female). Others lacked understanding of dependence as a health condition, including law enforcement: *'They're not educated about it… it is a disorder'* (Group 2, female). Within families, visible injecting provoked conflict: *'…a parent when they see you using a syringe they get hurt'* (Group 1, male). Stigma was also economic; before joining COSUP, participants had paid inflated pharmacy prices: *'They were charging us 10 Rand [0.62 USD] a needle… whereas a person that is not a user would pay 2 Rand or 3 Rand… They overcharge you when they see you are a user'* (Group 2, female).

Policing made stigma materially consequential. Participants experiencing homelessness in the inner city, and those in the township and informal settlement, described confiscation, destruction of equipment and physical violence:

'…whenever they [law enforcement agents] find you with the needle, they beat you up and crush your needles.' (Group 3, male)

Because new equipment depended on returning used syringes (*'There is no way you can get new ones without bringing the old ones back'*, Group 4, male), confiscation in transit broke the exchange cycle, leaving participants unable to meet the condition for their next supply. The programme rule and police practice thus interacted to reproduce the scarcity described above. Participants also perceived a parallel between police and community hostility: *'You know, the community don't like us… like the police'* (Group 2, female). Participants whose daily lives were conducted in public space were most exposed, whereas suburban participants more often emphasised community opposition. Inadequate disposal infrastructure added a further mechanism (*'There are used injections on the floor [ground]… because no one comes to that side'*, Group 1, male), and some participants had internalised negative views: *'Some of us when injecting you would find us with blood everywhere… It looks bad in the eyes of the community, that we are dirty'* (Group 4, male).

The return requirement carried competing meanings. Suburban participants valued it for reducing discarded equipment: *'…you used to get needles lying around in the streets, everywhere. But now you don't see that'* (Group 2, female). For participants living on the street or moving through heavily policed areas, the same rule was difficult to meet, because carrying used equipment back to a site exposed them to confiscation. A single rule therefore protected programme acceptability in one neighbourhood while restricting access in another. Participants also linked visibility to coverage, noting that many PWID did not know about the service: *'not all of the junkies know about it… even behind Spar, they don't know about COSUP'* (Group 2, female).

Discussion

This study shows that NSP effectiveness in an African city was not determined by service availability alone but was produced through interactions between programme design, peer relationships and the

urban risk environment. The same intervention could be protective within the service setting and risky in the surrounding streets, and these effects were distributed unevenly across neighbourhoods. By comparing four contrasting settings within one metropolitan area, the study shows that the urban risk environment is not uniform: housing, visibility in public space and exposure to policing determined whether the same programme rules were protective or harmful.

First, trust functioned as an implementation outcome. It was not an automatic consequence of employing peers but was produced through repeated, reliable interaction and undermined by uneven education and perceived inequity. This is consistent with evidence that peer-led models depend on clearly supported roles, supervision and training, [22, 23] and with research from Nairobi showing that community-embedded peer educators face occupational risks and competing community pressures. [24] This study adds that clients read these organisational features as evidence of either programme legitimacy or institutional unreliability, and that peer networks carry programme meaning as well as equipment. The pathway from NSP contact to methadone mirrors evidence from Durban that trusting relationships support OAT retention. [25]

Second, the findings show how urban scarcity produces risk. Sharing was a calculated response to the mismatch between injection frequency and fixed supply, reinforced by peer obligations, rather than ignorance of HIV or HCV risk. This supports a risk-environment interpretation, [16] and is consistent with evidence that injecting-related harms are structured by housing instability, service access and criminalisation. [26] The contrast between suburban and inner-city accounts shows that fixed allocations place the greatest burden on the most structurally vulnerable. [17] Needs-based distribution, matched to reported use rather than returns, has been implemented elsewhere without compromising programme integrity. [27] Fixed allocations combined with return-based exchange effectively shift responsibility for programme shortfalls onto participants, who must manage scarcity through reuse, sharing or informal redistribution; in a city where weekend services are unavailable and pharmacy access is discriminatory, this burden is predictable rather than incidental.

Third, the study identifies a specific urban mechanism linking policing to programme-generated scarcity. Police harassment created a contradiction between health policy and street-level enforcement: participants were encouraged to obtain sterile equipment but punished for carrying it. International evidence links confiscation and police violence to HIV risk and avoidance of syringe services, [12] and South African analyses show that criminalisation concentrates harms among the poorest and most visible people who use drugs. [8, 9] Here, where supply was conditional on return, confiscation did not only remove equipment but also disqualified the client from the next exchange. This was most consequential for people living in public space, whose mobility exposed them to surveillance. Drug-use stigma, which is enacted, anticipated and internalised, [28] became material when attached to visible injecting and discarded equipment in unserved neighbourhoods. Family and community research in Tshwane similarly describes moral condemnation and distrust of police, [10, 11] which helps to explain why participants felt that NSPs were seen as promoting drug use. Programme rules are therefore not

neutral technical choices: they distribute benefits and burdens across urban sub-populations, protecting acceptability among more stably housed clients while restricting access for those living in public space.

These findings have implications for urban health governance. NSP distribution should be needs-based and decoupled from strict one-for-one return, with weekend and after-hours access, while disposal is supported separately through sharps containers, community collection points and outreach in hotspots. Peer-led delivery requires clear roles, supervision and transparent accountability for distribution. Because the police that confiscated equipment are municipal and national actors, protecting harm reduction requires coordination between health services, metropolitan authorities and law enforcement, building on South African Police Service guidance that members should not unnecessarily confiscate needles and syringes. [29] Engaging community pharmacies could extend access beyond programme hours, and NSPs should be integrated with HIV, HCV and primary care so that equipment provision becomes a route to wider care. [30] Community-oriented primary care offers a mechanism for this: ward-based outreach teams and community health workers can work with peer educators to extend distribution, disposal and testing into the inner city and informal settlements, and to map local hotspots. [14] Monitoring should use indicators that capture differential access across neighbourhoods and sub-groups, and future research should include peer educators, police and community members and evaluate needs-based distribution in urban African settings.

Strengths include purposive sampling across four contrasting urban settings, FGDs that captured collective meaning-making and disagreement, and rigour supported by double coding, reflexive journaling, bilingual verification and peer educator feedback. Participants had engaged with COSUP for at least three months and may have had more favourable experiences than PWID who do not use services, including those deterred by policing or return requirements. FGDs may have limited disclosure of sensitive experiences. HIV status was not collected, so links to transmission are inferred from accounts of sharing and reuse. Peer educators, police and community members were not interviewed, so reports, including diversion, could not be corroborated. A single facilitator conducted all FGDs, and the findings reflect one university-affiliated programme in one metropolitan area.

Conclusion

In Tshwane, NSPs were valued health and social resources, but their benefits depended on the relationships and urban environments surrounding service delivery. Fixed supply, stigma and policing, and the interaction between return-based exchange and confiscation, recreated the syringe sharing that NSPs are intended to prevent, most acutely for PWID living in public space. In African cities, effective harm reduction depends as much on needs-based supply, respectful peer-led services and coordinated municipal and police action as on the availability of equipment.

Declarations

Competing interests:

The authors have no relevant financial or non-financial interests to disclose.

Ethics approval:

Approved by the [Research Ethics Committee, blinded for review] (reference no. [BLINDED]; 21 May 2020; amendment 17 August 2023). The study was performed in line with the principles of the Declaration of Helsinki.

Consent to participate:

Written informed consent was obtained from all participants.

Consent to publish:

Participants consented to the publication of anonymised quotations.

Use of generative AI

The authors used Perplexity AI to improve the language and organisation of author-written text. The tool was not used to generate, analyse or interpret data. The authors reviewed all content and take full responsibility for the article.

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Author contributions:

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Data availability:

The data are not publicly available because transcripts contain sensitive information about illegal drug use and policing that could compromise participant confidentiality. De-identified excerpts may be available from the corresponding author on reasonable request, subject to ethics committee approval.

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Tables

Table I Composition of focus groups by site context, Tshwane, 2023 (*n* = 31)

Group	Participants (*n*)	Sex	Site context
1	5	Men	Inner city; participants experiencing homelessness
2	6	Women	Low-density suburban residential area
3	9	1 woman, 8 men	High-density township
4	11	Men	Informal settlement and low-income housing