

Peer Education and the Uptake of Pre-Exposure Prophylaxis among Female Sex Workers in South Africa



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ABSTRACT

The distribution of oral pre-exposure prophylaxis (PrEP) in South Africa was instituted in 2016. Female sex workers (FSWs) were targeted as a priority group to curb the rise in new HIV infections. Certain organizations working with FSWs were tasked to distribute PrEP. Some used a peer-education approach to initiate FSWs on PrEP. This study aimed to understand the role of peer support in encouraging the uptake of PrEP among FSWs. Key informant interviews were conducted with thirteen (13) participants, eleven (11) peer educators, and two (2) healthcare workers from a research and sex work organization. Consent was obtained from all participants. Data were thematically analyzed. During the outreach, peer educators gave information on PrEP to FSWs; however, most felt that more efforts are needed to create greater awareness and knowledge dissemination of PrEP. FSWs willing to test for HIV were tested on-site in a mobile facility. Once PrEP was initiated, support was provided through telephone calls, and reminders for treatment top-ups were sent via text messages. Medication was delivered to those who missed their site visit. Each peer provided FSWs with practical suggestions for managing side effects. FSWs traveling periodically were given an extra supply of PrEP or linked to another distribution site. Some FSWs suggested the need for long-acting PrEP to foster retention. Reaching FSWs with PrEP through peers has ensured ongoing use of PrEP, which is further sustained through follow-ups and efficient side-effect management.

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INTRODUCTION

Research has demonstrated that key populations, such as men who have sex with men, female sex workers (FSWs), and people who inject drugs, engage in high-risk behaviours which expose them to increased chances of contracting HIV.¹ Statistically, in 2017, the Joint United Nations Programme on HIV/AIDS reported that key populations and their partners accounted for 47% of new HIV infections worldwide.² South Africa is a country in Southern Africa with high reported rates of HIV. In 2022, an estimated 8.45

¹ Jiayu He et al., “Peer Education for HIV Prevention among High-Risk Groups: A Systematic Review and Meta-Analysis,” *BMC Infectious Diseases* 20, no. 1 (2020): 338.

² UN AIDS, “UNAIDS DATA,” 2018, https://www.unaids.org/sites/default/files/media_asset/unaid-data-2018_en.pdf; Sunil S Solomon et al., “Integrated HIV Testing, Prevention, and Treatment Intervention for Key Populations in India: A Cluster-Randomised Trial,” *The Lancet HIV* 6, no. 5 (May 2019): e283–96, [https://doi.org/10.1016/S2352-3018\(19\)30034-7](https://doi.org/10.1016/S2352-3018(19)30034-7).

million people lived with HIV, and 19,6% of those infected were young adults between 15-49 years.³ A majority of FSWs in South Africa fall within this age range, and statistics further confirm that HIV prevalence amongst FSWs is estimated to range between 39-72% as recorded in three of South Africa's major cities.⁴ In response to this alarming HIV prevalence amongst FSWs, the South African national government formulated the first 2016-2019 national sex worker HIV, TB, and STI plan, which is now followed up by the second plan of 2019-2022 to show how the South African health system can respond in providing complex targeted medical and non-medical health care services to FSWs.⁵ These plans draw on the WHO's 2015 PrEP guidelines, which emphasize a combination prevention approach to HIV prevention, integrating biomedical, behavioral, social, and structural interventions that are contextually relevant. To respond to this high HIV prevalence, particularly amongst high-risk groups, the South African government adopted a combination prevention approach as proposed by the World Health Organization.⁶ Peer education plays a crucial role in this comprehensive prevention approach.

LITERATURE REVIEW

Peer education has become a popular strategy for health education and prevention. This strategy has been used by health and prevention programs in various countries among diverse populations and ages, such as youth, sex workers, and injecting drug users.⁷ Peer education can be defined as the teaching or sharing of health information, values, and behaviours by members of a similar age or status.⁸ The use of peer educators in healthcare programs is common, as it is considered that peers have a powerful influence over one another's perceptions and behavior. The credibility of peer influence is attributed to factors such as shared background and interests, which render peer educators relatable and foster a sense of trust and understanding.⁹ Through educating others, peer educators gain a sense of empowerment and become role models for positive behavioural change, without assuming a position of authority.¹⁰

Peer education has been widely used in HIV prevention programs among sex workers in various contexts.¹¹ The underlying assumption in using peer educators in programs targeting sex workers is that the participation of sex workers in project implementation serves to empower sex workers by entrusting them with health-related knowledge and an opportunity for them to educate others. This contributes to an enhanced perceived self-efficacy and a willingness to engage in HIV prevention behaviours. Peer

³ South African government (2024). <https://www.gov.za/about-sa/people-south-africa-0#:~:text=The%20estimated%20overall%20HIV%20prevalence,the%20population%20is%20HIV%20positive>. Accessed on the 10/10/2024

⁴ Grasso, Michael A, Albert E Manyuchi, Maria Sibanyoni, Alex Marr, Tom Osmand, Zachary Isdahl, Helen Struthers, et al. 2018. "Estimating the Population Size of Female Sex Workers in Three South African Cities: Results and Recommendations From the 2013-2014 South Africa Health Monitoring Survey and Stakeholder Consensus." *JMIR Public Health and Surveillance* 4 (3): e10188. <https://doi.org/10.2196/10188>.

⁵ Michael A Grasso et al., "Estimating the Population Size of Female Sex Workers in Three South African Cities: Results and Recommendations From the 2013-2014 South Africa Health Monitoring Survey and Stakeholder Consensus," *JMIR Public Health and Surveillance* 4, no. 3 (August 7, 2018): e10188, <https://doi.org/10.2196/10188>; Republic of South Africa, *South Africa's National Sex Worker HIV, TB and STI Plan 2019-2022*, ed. South African National AIDS Council (Pretoria: South Africa, 2021).

⁶ World Health Organization, "Policy Brief: Pre-Exposure Prophylaxis (PrEP): WHO Expands Recommendation on Oral Pre-Exposure Prophylaxis of HIV Infection (PrEP)," World Health Organization, Geneva, Switzerland, 2015, https://iris.who.int/bitstream/handle/10665/197906/WHO_HIV_2015.48_eng.pdf.

⁷ Sohail Agha and Ronan Van Rossem, "Impact of a School-Based Peer Sexual Health Intervention on Normative Beliefs, Risk Perceptions, and Sexual Behavior of Zambian Adolescents," *Journal of Adolescent Health* 34, no. 5 (May 2004): 441-52, <https://doi.org/10.1016/j.jadohealth.2003.07.016>; Ishika Basu et al., "HIV Prevention Among Sex Workers in India," *JAIDS Journal of Acquired Immune Deficiency Syndromes* 36, no. 3 (July 2004): 845-52, <https://doi.org/10.1097/00126334-200407010-00012>.

⁸ Marina V Tolli, "Effectiveness of Peer Education Interventions for HIV Prevention, Adolescent Pregnancy Prevention and Sexual Health Promotion for Young People: A Systematic Review of European Studies," *Health Education Research* 27, no. 5 (2012): 904-13.

⁹ Jane M Simoni et al., "Are Peer Interventions for HIV Efficacious? A Systematic Review," *AIDS and Behavior* 15, no.8 (2011): 1589-95.

¹⁰ Allison R. Webel, "Testing a Peer-Based Symptom Management Intervention for Women Living with HIV/AIDS," *AIDS Care* 22, no. 9 (September 8, 2010): 1029-40, <https://doi.org/10.1080/09540120903214389>.

¹¹ Flora Cornish and Catherine Campbell, "The Social Conditions for Successful Peer Education: A Comparison of Two HIV Prevention Programs Run by Sex Workers in India and South Africa," *American Journal of Community Psychology* 44, no. 1-2 (September 12, 2009): 123-35, <https://doi.org/10.1007/s10464-009-9254-8>; K Ford et al., "Evaluation of a Peer Education Programme for Female Sex Workers in Bali, Indonesia," *International Journal of STD & AIDS* 11, no. 11 (November 1, 2000): 731-33, <https://doi.org/10.1258/0956462001915156>; Lori Leonard et al., "HIV Prevention among Male Clients of Female Sex Workers in Kaolack, Senegal: Results of a Peer Education Program," *AIDS Education and Prevention* 12, no. 1 (2000): 21; Isabelle Sarafian, "Process Assessment of a Peer Education Programme for HIV Prevention among Sex Workers in Dhaka, Bangladesh: A Social Support Framework," *Social Science & Medicine* 75, no. 4 (August 2012): 668-75, <https://doi.org/10.1016/j.socscimed.2011.09.003>.

education creates an environment of prevention that goes beyond individual responsibility as it is linked to social groups or collective norms and characteristics, which can encourage healthy behaviours.¹²

There are currently several donor-funded health programs in South Africa that target sex workers. These programs utilise the peer education approach as their core service delivery component. Statistically, between 2012 and 2015, there were 2,240 peer educators employed as part of the National Department of Health's high transmission areas program, 560 sex worker peer educators through the Global Fund-supported Red Umbrella program, and 122 through PEPFAR-supported programs.¹³ The purpose of this peer education approach, implemented in 14 districts in eight of the nine provinces, was to engage peer educators in supporting male and female sex workers with their healthcare needs and human rights education. Peer educators mobilise, inform, and provide services to sex workers through outreach activities, risk reduction workshops, support groups, and condom distribution. They also ensure that sex workers have access to health care services such as HIV testing, sexual and reproductive health services, antiretroviral treatment, post-exposure prophylaxis (PEP), and pre-exposure prophylaxis (PrEP), as well as screening and referrals. Peer educators are also involved in community sensitization of sex work through dialogues, as well as advocating for the decriminalisation of sex work.¹⁴

The launch of PrEP distribution in South Africa was through health research organisations targeting sex workers. These organisations are currently utilising the peer education approach to promote PrEP among the sex worker communities. Since the launch of PrEP, research shows that FSWs are willing to take up PrEP; however, some challenges affect uptake and adherence, such as knowledge and belief in the efficacy of PrEP, forgetting to take PrEP, stigma, side effects, mobility, and missing clinic appointments.¹⁵ To mitigate these challenges, Ortblad and Oldenburg recommend that combination prevention should factor in long-term peer support and community-based empowerment activities to encourage PrEP use.¹⁶ The purpose of this study is to highlight the role of peer education in encouraging PrEP uptake among FSWs.

METHODOLOGY

Study Setting and Background

This study was conducted in the coastal city of Durban in KwaZulu-Natal (KZN), one of the nine provinces in South Africa. A respondent-driven sampling revealed a 53.7% HIV prevalence among FSWs in Durban.¹⁷ This highlights the significance of the PrEP study conducted among FSWs in this region. This formative study was conducted to understand FSWs' experiences with PrEP and capture the experiences of PrEP service providers concerning how FSWs were responding to PrEP as an additional HIV prevention method. The researcher, counsellor, and peer educators interviewed were from two organizations: Sisonke and TB HIV Care. Both these organizations serve the healthcare needs of FSWs. Sisonke is an organization led by sex workers that advocates for the decriminalization of sex work. Furthermore, the Sisonke peer educators distribute condoms and lubricants to FSWs and refer them to organizations such as TB HIV Care for other health care services. TB HIV Care provides sexual reproductive health care in the form of family planning, HIV screening and testing, sexually transmitted infection screening, antiretroviral treatment initiation, PrEP initiation, and tuberculosis screening. The TB HIV Care peer educators, who are also sex workers, are the ones who reach out to other sex workers with health information, encourage HIV testing as well as the initiation of antiretroviral treatment for those who are positive, and PrEP for those who are negative.

¹² Allison R. Weibel et al., "A Systematic Review of the Effectiveness of Peer-Based Interventions on Health-Related Behaviors in Adults," *American Journal of Public Health* 100, no. 2 (February 2010): 247–53, <https://doi.org/10.2105/AJPH.2008.149419>.

¹³ Andrew Scheibe, Marlise Richter, and Jo Vearey, "Sex Work and South Africa's Health System: Addressing the Needs of the Underserved," *South African Health Review* 2016, no. 1 (2016): 165–78.

¹⁴ Rangasami J, T. Konstant, and M. Stacey, "Evaluation of Peer Education in the Global Fund Sex Work Programme April 2016 to March 2019." 2019.

¹⁵ Robyn Eakle et al., "'I Am Still Negative': Female Sex Workers' Perspectives on Uptake and Use of Daily Pre-Exposure Prophylaxis for HIV Prevention in South Africa," *PLOS ONE* 14, no. 4 (April 9, 2019): e0212271, <https://doi.org/10.1371/journal.pone.0212271>.

¹⁶ Ortblad, Katrina F., and Catherine E. Oldenburg. "Tailoring combination HIV prevention for female sex workers." *The Lancet HIV* 5, no. 8 (2018): e406-e407.

¹⁷ Grasso et al., "Estimating the Population Size of Female Sex Workers in Three South African Cities: Results and Recommendations From the 2013-2014 South Africa Health Monitoring Survey and Stakeholder Consensus."

Research Design and Sampling Strategy

This qualitative study used the snowball sampling method to find study participants. Snowball sampling is a chain-referral method where one participant refers others to the study. This chain referral begins with a purposive sample of initial participants who then refer other population members to the study.¹⁸ The study relied on two groups of peer educators, as outlined above, who had access to various networks of FSWs because of their outreach work. One peer educator from Sisonke was purposively sampled, and after interviewing this peer educator, other peer educators from Sisonke snowballed into the study. Concerning sampling participants from the TB HIV Care group, the peer educator from Sisonke introduced the researcher to the site research coordinator of the PrEP program at TB HIV Care, who agreed to participate in the study. Who then referred peer educators to the study.

Data Collection Tool, Processes, and Procedures

Key informant interviews were conducted with 11 peer educators, one site research coordinator, and one counsellor (thus, a total of 13 participants). Interviews were conducted in English and isiZulu. Through the semi-structured interview guide, the researchers were able to gather the sociodemographic information of participants and understand the process of PrEP outreach, education, initiation, and efforts to encourage retention among FSWs. Individual interviews were approximately 40 minutes long.

Data Analysis

All audiotaped data were transcribed and translated verbatim by a research assistant with an honors degree in psychology, proficient in English and isiZulu. The transcripts were generated after each interview, and the researcher went through the transcripts for quality checks and to identify patterns or possible inconsistencies in the data. The data were analyzed thematically, which involved the steps outlined by Braun and Clarke, namely sorting and coding the data into themes and categories by identifying and analyzing repeating patterns that exist in the data.¹⁹ Microsoft Excel was used for the data analysis. Themes and related subthemes were put into Excel, and these were populated with various relevant quotes as communicated by the participants from the key informant interviews. Each quote was marked with an interview number, and each participant was given a unique identifier. This enabled the researcher to see what the participants said concerning a particular theme.

Ethical Considerations

Ethical clearance was obtained from the Humanities and Social Sciences Research Ethics Committee at the University of KwaZulu-Natal (UKZN; IRB number HSS/0203/018D). Participation was voluntary. The participants signed an informed consent for participation and provided permission for the recording of the data. The participants were encouraged to use pseudonyms.

¹⁸ John Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, SAGE, Ca; Ofprnia (California: Sage Publications, 2013).

¹⁹ Virginia Braun and Victoria Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (January 21, 2006): 77–101, <https://doi.org/10.1191/1478088706qp063oa>.

PRESENTATION OF RESULTS /FINDINGS

The results of this study were divided into three themes and six subthemes (Figure 1) that have been identified from the data of the peer educators providing care and support to encourage PrEP uptake among FSWs.

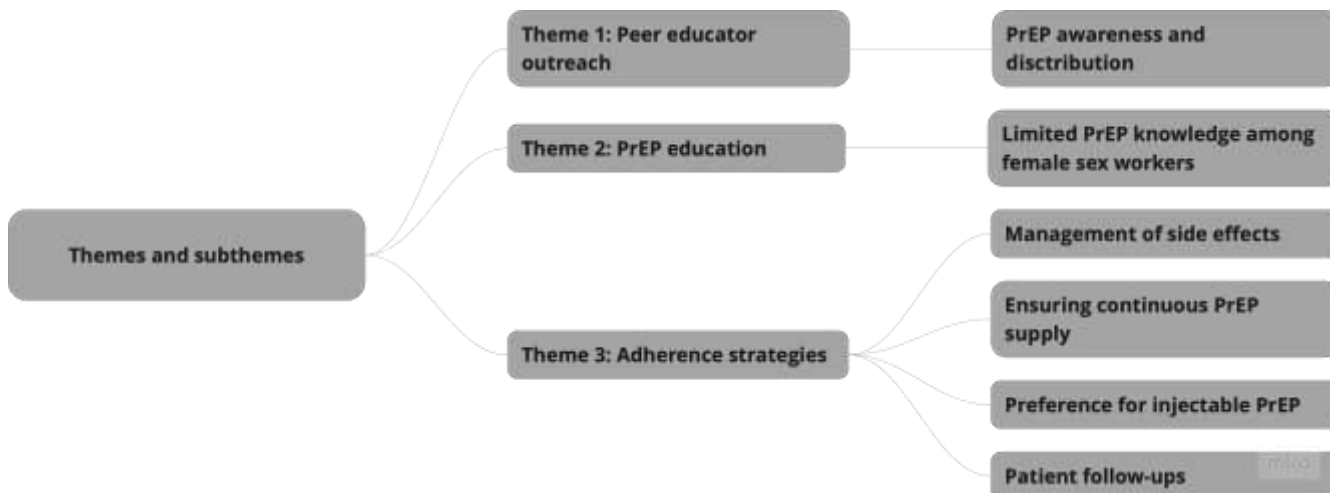


Figure 1: Themes and subthemes

Peer Educator Outreach

This theme focuses on the mode of outreach utilized by peer educators to provide PrEP awareness and education to FSWs.

PrEP awareness and distribution

Awareness campaigns on PrEP use for FSWs are mainly conducted by peer educators from TB HIV Care. Peer educators conduct outreach activities to educate FSWs about PrEP and mobilize FSWs to attend community advisory board meetings where they are taught about PrEP as an additional HIV prevention strategy. The response to these meetings has somewhat yielded mixed results, with some FSWs showing a willingness to attend the meetings and others preferring to approach the mobile facility to learn about PrEP from peer educators during outreach conducted in the streets, as well as at indoor sex work establishments, such as brothels, hotels and private houses:

For TB HIV Care it was so easy, there were no challenges, because that time PrEP was launched, each and every month, there was something called community advisory board meeting, where the Durban sex workers were being educated about PrEP (TB HIV Care PrEP counsellor, age 37).

We go out for an outreach, and we get to the outreach, which is where we tell them about PrEP. Then, we explain to them that here we are testing for HIV, if you have tested positive you can start taking the ARV treatment. However, if you have tested negative, we also explain to them that there is a pill that is called PrEP and we explain how it works, some get excited to take it, some say I am still going to think about it and then we give pamphlets and our contact details to those who have not decided so that when they have decided they can read about it and contact us (TB HIV Care peer educator, age 44).

On the contrary, some of the Sisonke peer educators felt that the community advisory board meeting approach used by TB HIV Care was limited since the meetings were only attended by sex workers who were invited.

TB HIV Care used to have community advisory board meetings where sex workers are invited so other people end up not getting the information discussed in those meetings because they do not attend meetings (Sisonke peer educator, age 25).

When asked whether they mentioned PrEP as one of the prevention methods during their outreach, the Sisonke peer educators expressed that they still needed a deeper understanding of PrEP and did not have the confidence to spread awareness about it. They instead referred those who enquired about PrEP to TB HIV Care.

Okay, from my own knowledge PrEP is a ... I do not know whether I can say it is a pill or a drug that is being used by people who are HIV-negative to prevent risk, because I cannot say that if you are using PrEP you cannot be infected by HIV, but yes, it is just to prevent risks. I do not have all the information, but rumor has it that it takes 28 days for it to start working in the body, but I don't know what happens thereafter. I still need to acquire more knowledge for me to provide others with adequate information. Therefore, we just refer those who ask us about it to TB HIV Care (Sisonke peer educator, age 25).

The Sisonke peer educators felt that there were conflicting messages about HIV prevention methods, which created confusion; thus, they needed more knowledge and clarification between PrEP and Post-exposure prophylaxis (PEP):

Firstly we are confused about PrEP because we can't differentiate them, it seems like there are two [PrEP and PEP], so maybe we are supposed to be taught about PrEP so that we can know the difference at how each work because you end up confused since they both work in different ways ... there is nothing much I know, so I think I need to know what PrEP really is, how does it work (Sisonke peer educator, age 27).

Guys, because you come with different stories and different studies. I just know that PrEP is for prevention for those who are HIV-negative to stay negative, that is what I can say about it (Sisonke peer educator, age 40).

PrEP Education

This theme explores the perceptions of peer educators about the levels of PrEP knowledge among FSWs and the implications of this knowledge on the use or non-use of PrEP.

Limited PrEP knowledge among female sex workers

Most peer educators expressed that since the launch of PrEP in 2016, there are still knowledge gaps about how PrEP works as an additional HIV prevention technology. They felt that more awareness about PrEP was needed among FSWs, as well as how it can be used alongside other prevention methods such as condoms:

Some [sex workers] understand, and some still do not understand, we tell them but still, they have not understood it [PrEP] (TB HIV Care peer educator, age 47).

Additionally, some FSWs questioned the notion of daily pill intake, which they associated with being HIV positive. They would have preferred PrEP to be administered as a once-off dose, which they felt would be easier.

Some FSWs still do not agree to take a pill every day; they ask a lot of questions that they are negative, so why must they take a pill every day at the same time? Why is it not a once-a-week pill or why is it not a pill you take before you practice unsafe sex? (TB HIV Care peer educator, age 40).

An additional challenge to the idea of daily pill taking amongst FSWs was attributed to the unpredictability of their lives, which involves spending the night with clients and, in those instances, may not have the pills with them. Some also felt that the pills were an inconvenience to carry around because the pills may be identified as antiretrovirals, which is stigmatizing:

Some of them like partying, some like going out and they leave their PrEP and tell themselves that they will come back, and then you get a client that will book them for the whole day, which is why they do not start taking PrEP. They also say they do not like carrying pills because they make a noise when going out it has to be pressed with a tissue or a sponge to avoid making noise because

we do not urge them to take pills out of their container or expose them to air, so they say they cannot go and party with this as it will keep on making some noise (TB HIV Care peer educator, age 40).

Another concern for peer educators was that it was difficult to reach all the sex workers with knowledge about PrEP because there were new sex workers every month; thus, a larger medium was needed to create awareness and educate FSWs regarding PrEP:

The problem is that every year, or I can say each and every month, there is a new sex worker joining all those old sex workers; for sure, there is not enough education on PrEP, so that is our challenge (TB HIV Care Peer educator, age 28).

Adherence Strategies

Under this theme, various strategies used by peer educators to encourage PrEP adherence are discussed, including the management of side effects, ensuring continuous supply of PrEP medication, the preference of PrEP as an injectable, and patient follow-ups.

Management of Side Effects

It is expected that when people take oral PrEP as prevention, they will experience side effects. Peer educators take it upon themselves to maintain contact with PrEP patients beyond the initial consultation period. They take the time to explain the possible side effects that may arise when a person takes PrEP, particularly during the first couple of weeks. They also advise on how patients can manage those side effects:

We then explain to her how PrEP works and ask for her contact details so that we can call and check if she has experienced any side effects. At times, we call her aside and explain that people experience different side effects; it does not treat everyone the same, some can take it and experience nothing. Therefore, it is important that she takes it [PrEP] to stay negative at all times, so some do not take it because of those challenges (TB HIV Care peer educator, age 40).

Peer educators also advise every patient on managing side effects based on their individual needs. They explain to the patient that side effects are short-lived; however, there have been instances where some FSWs stopped taking PrEP due to the side effects, and this has created a situation where those FSWs discouraged other FSWs who were willing to start PrEP:

We usually explain to them as peer educators that if a person tells us that she is vomiting or experiencing a rash, we encourage her to come back to us and the doctor gives them a treatment to apply on their skin, and we explain to her that this is just a phase, and she may even come and tell us that it has gone. However, others end up wanting nothing to do with the treatment at all, they say they do not want to take it and end up influencing others not to take it, because of what it has done to them, some even say they experienced some bleeding, some have gained weight, lost appetite, it makes some of them eat a lot, the side effects vary (TB HIV Care peer educator, age 44).

Ensuring Continuous PrEP Supply

To encourage adherence to PrEP, Peer educators deliver PrEP to FSWs who miss their pick-up appointments. Medication top-ups are most likely to occur towards the end of every month at a time when FSWs have an influx of clients. Thus, some get preoccupied with work, and they miss their appointments:

We try to deliver PrEP to them on-site because if a person misses her appointment, she will tell you that time is money because they become busy at the end of the month, so that is why at times they lack a little bit, but they are willing (TB HIV Care peer educator, age 28)

Preference for Injectable PrEP

According to peer educators, some FSWs have suggested that PrEP be administered as an injection like the Depo-Provera contraceptive, which is known to last in the body for three months. They felt that injectables would be much easier because they would relieve the stress of the daily intake of pills:

They do not understand; some come up with ideas/questions asking why it is not an injection (TB HIV Care peer educator, age 40).

They say they wish PrEP could be given as an injection or as a contraceptive, maybe an injection of two to three months, then it could be better for them (TB HIV Care peer educator, age 40).

Patient Follow-ups

Another technique used to encourage adherence to PrEP is through a dedicated team of peer educators who follow up with PrEP users. Initially, TB HIV Care was used to create awareness of PrEP, and once an FSW was initiated, they were expected to adhere to and pick up treatment. However, this led to a decrease in adherence numbers. The follow-up system is personal. Peer educators call on PrEP users to check on their progress and the challenges they may be experiencing. They are sent text message reminders for treatment top-ups:

In January and February 2018, we started changing the messaging and we saw the numbers going up, but because we did not maintain the same system and in March and April 2018, it ended up giving us very low numbers. We ended up pulling up again in May, June and July, which gave us very high numbers. What we did was we created a team on its own that actually follows up on PrEP patients by calling them on the phone, and sending them sms reminders to pick up medication. Because you need time to explain to a person about PrEP, 20 minutes or 30 minutes is not enough. You need to be patient, meaning you can talk to a person about PrEP today but still need to really keep on communicating until you win that person. It is not really something where I sit with you for 30 minutes and I am like you can start using it. That is why we ended up with 74% initiation, but 20% retention. So, we did not want to make the same mistake again this year, thus even though we have fluctuating numbers, but at least our retention remains high (TB HIV Care health researcher, age 35).

DISCUSSION

The nature of peer education is that it requires commitment and persistence. The peer educators in this context are instrumental in providing FSWs with PrEP awareness and education. Results from this study have shown that outreach efforts that start with the process of creating general awareness, coupled with persuasion, have resulted in some FSWs taking up PrEP and accepting to use it as an additional HIV prevention method. Furthermore, in this study, peer educators initiated face-to-face and telephone follow-ups and individualized advice for managing side effects. They also sent text message reminders and deliveries for treatment top-ups. There was a suggestion from some users for an injectable form of PrEP to curb the challenges that come with taking a pill daily.

The utilization of peer-led HIV interventions for FSWs in South Africa was to provide friendly, non-stigmatizing healthcare services to FSWs because of human rights violations that FSWs experience at public healthcare facilities, especially when they disclose being sex workers.²⁰ Because FSWs have multiple partners, some public health care staff pass moral judgments on FSWs, instead of treating them as clients accessing a service, and it would therefore be suggested that FSWs bring their partners to the clinic, particularly when repeatedly presenting with sexually transmitted infections. This has resulted in FSWs facing challenges in accessing sexual and reproductive health care. The presence of donor-funded healthcare services for FSWs became a necessity, and their mandate was to fill the healthcare gap and provide tailored healthcare services that suit the needs of FSWs.²¹

It is important to create a healthcare environment that is safe, effective, and non-judgmental for sex workers.²² Interventions that are peer-led have been deemed as best practices for sex work programming and are associated with improved uptake of HIV services.²³ As evidence for the

²⁰ Marlise Richter, "Sex Work, Reform Initiatives and HIV/AIDS in Inner-City Johannesburg," *African Journal of AIDS Research* 7, no. 3 (November 2008): 323–33, <https://doi.org/10.2989/AJAR.2008.7.3.9.656>.

²¹ Parthasarathy Krishnamurthy et al., "Assessing the Impact of Peer Educator Outreach on the Likelihood and Acceleration of Clinic Utilization among Sex Workers," *PLOS ONE* 11, no. 7 (July 28, 2016): e0159656, <https://doi.org/10.1371/journal.pone.0159656>.

²² Scheibe, Richter, and Vearey, "Sex Work and South Africa's Health System: Addressing the Needs of the Underserved."

²³ Oldenburg, Catherine E., Katie B. Biello, Donn Colby, Elizabeth F. Closson, Thi Nguyen, Nguyen N.N. Trang, Hang X. Lan, Kenneth H. Mayer, and MatEngagement with Peer Health Educators Is Associated with Willingness to Use Pre-Exposure Prophylaxis. 2014.

effectiveness of peer-delivered services, a behavioural and psychosocial survey conducted in Vietnam among 300 male sex workers regarding experiences with HIV prevention and interest in PrEP, found that the participants who had contact with a peer educator indicated an increased willingness to use PrEP, then those who had not. This study concluded that peer educators play a significant role in recruiting and educating potential PrEP users and assisting them in adhering to and managing side effects.²⁴

A systematic review of studies on adherence interventions found that a significant number of studies reported the effective use of long-term complex multimodal interventions, which included counselling, incentives, peer education, short messaging, and telephone-based interventions.²⁵ To provide recommendations for PrEP-specific interventions, it was asserted that PrEP researchers should consider testing multimodal intervention approaches with a tool to evaluate the effectiveness of each approach. Components of this multimodal approach to encourage PrEP uptake and adherence could include PrEP education, counselling to improve adherence skills, such as suggestions on how patients can incorporate pill-taking into their daily routines, as well as having the ability to handle disruptions, such as traveling and still being able to adhere to their daily doses.²⁶ The peer educators in this study were also using various strategies to encourage PrEP uptake and adherence amongst FSWs, with one of these methods being the use of text messages to send reminders for treatment top-ups. Another study that used a similar method found that FSWs responded positively to SMS messages that encouraged them to continue taking PrEP. However, in the same study, they found that supportive text messages no longer had any effect after 4 months of persistence.²⁷

The peer educators in this study expressed concerns regarding the low knowledge of PrEP among FSWs. Research suggests that education-based interventions for PrEP users should focus not only on providing printed materials on PrEP but should aim to improve users' understanding and self-perception of HIV risk infection, as well as provide information about the actual drug and its components and potential side effects.²⁸ As seen in this study, FSWs responded more positively to PrEP when they were adequately informed about potential side effects and were better prepared to manage them.

A study investigated adherence support approaches in biomedical HIV prevention trials and recommended a need to shift from a biomedical to a biobehavioural or biopsychosocial framework that will help build the evidence base for effective PrEP adherence interventions.²⁹ A suggestion from participants in this study was for PrEP to be an injectable, like the Depo-Provera contraceptive, to limit the frequency of clinic visits. Since the completion of this study, there have been PrEP advancements, such as the availability of long-acting Cabotegravir (CAB LA), which is an eight-week injection approved in 2022. Pilot studies to ascertain acceptance of this PrEP injection will be implemented. Further research is also considering PrEP in the form of biodegradable long-acting implants.³⁰

RECOMMENDATIONS

HIV prevention interventions for FSWs need to be flexible and adapt to the changing needs of the sex work population. Furthermore, these interventions require rigorous monitoring and evaluation of their approaches to identify the gaps and to be modified and improved. More feasibility studies are needed to

"ure Prophylaxis Among Male Sex Workers in Ho Chi Minh City, Vietnam." *AIDS Patient Care and STDs* 28 (3): 109–12. <https://doi.org/10.1089/apc.2013.0372>.

²⁴ Catherine E. Oldenburg et al., "Engagement with Peer Health Educators Is Associated with Willingness to Use Pre-Exposure Prophylaxis Among Male Sex Workers in Ho Chi Minh City, Vietnam," *AIDS Patient Care and STDs* 28, no. 3 (March 2014): 109–12, <https://doi.org/10.1089/apc.2013.0372>.

²⁵ Julia L. Marcus et al., "Helping Our Patients Take HIV Pre-exposure Prophylaxis PrEP: A Systematic Review of Adherence Interventions," *HIV Medicine* 15, no. 7 (August 24, 2014): 385–95, <https://doi.org/10.1111/hiv.12132>.

²⁶ Marcus et al., "Helping Our Patients Take HIV Pre-exposure Prophylaxis PrEP: A Systematic Review of Adherence Interventions."

²⁷ Amrita Rao et al., "Effect of Implementation Strategies on Pre-Exposure Prophylaxis Persistence among Female Sex Workers in South Africa: An Interrupted Time Series Study," *The Lancet HIV* 10, no. 12 (December 2023): e807–15, [https://doi.org/10.1016/S2352-3018\(23\)00262-X](https://doi.org/10.1016/S2352-3018(23)00262-X).

²⁸ Oldenburg et al., "Engagement with Peer Health Educators Is Associated with Willingness to Use Pre-Exposure Prophylaxis Among Male Sex Workers in Ho Chi Minh City, Vietnam."

²⁹ Marcus et al., "Helping Our Patients Take HIV Pre-exposure Prophylaxis PrEP: A Systematic Review of Adherence Interventions."

³⁰ Little, Kristen M., Lola Flomen, Homaira Hanif, Sharon M. Anderson, Andrea R. Thurman, Meredith R. Clark, and Gustavo F. Doncel. 2022. "HIV Pre-exposure Prophylaxis Implant Stated Preferences and Priorities: Results of a Discrete Choice Experiment Among Women and Adolescent Girls in Gauteng Province, South Africa." *AIDS and Behavior* 26 (9): 3099–3109. <https://doi.org/10.1007/s10461-022-03658-w>.

ascertain the acceptability of injectable PrEP and how FSWs respond to it to pave the way for the future implementation of the PrEP implant. Health care providers and peer educators need to keep abreast with the advancing knowledge of HIV prevention technologies to provide accurate information, which is crucial to encouraging early adoption of innovative strategies and facilitating a change in behavior among the populations they serve.

CONCLUSION

This paper explored the engagement of peer education in PrEP promotion and HIV prevention among FSWs. Various studies showed that the peer education approach has been effectively used, particularly among high-risk and vulnerable populations, to reach these groups with the necessary healthcare services. This was done to respond to the healthcare gap because these groups experience stigma and discrimination in mainstream healthcare facilities. The relatable nature of peer education results in a supportive environment, which makes engaging with healthcare services possible and non-threatening.

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