

Sexual pleasure and HIV-related worry in female sex workers on oral pre-exposure prophylaxis in south-western Uganda

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ABSTRACT

Background. Female sex workers (FSWs) contribute disproportionately to HIV transmission in Uganda, and pre-exposure prophylaxis (PrEP) is effective in preventing HIV among cisgender women. Psychological factors are important for PrEP uptake, but few studies have examined psychosocial changes due to PrEP use in Uganda. **Methods.** In 2021, we recruited 524 FSWS in three Trans-African Highway towns and four fishing communities in south-western Uganda. We conducted structured interviews among women who were attending routine PrEP follow-up visits in six health units. Bivariable and multivariable modified regression using a robust covariance matrix estimator were used to identify factors associated with experiencing increased sexual pleasure and less worry about HIV because of PrEP. **Results.** Overall, 80.9% participants reported that sex was more pleasurable because of taking PrEP. There were statistical trends for sex being more pleasurable when taking PrEP or when having condomless sex with casual paying partners (aPR = 1.19, 95% CI = 1.07–1.32, $P = 0.001$). Almost three-quarters of the participants (76.3%) were less worried about getting HIV because of PrEP. Condomless sex with casual paying partners (aPR = 1.17, 95% CI = 1.05–1.31, $P = 0.032$, $P = 0.003$) and being On PrEP for the past 1–2 years (aPR = 1.18, 95% CI = 1.00–1.38, $P = 0.032$) was significantly associated with HIV-related worry (aPR = 1.17, 95% CI = 1.05–1.31, $P = 0.032$, $P = 0.003$). **Conclusions.** We found a positive impact of PrEP in Ugandan FSWS on two key psychosocial dimensions: (1) more pleasurable sex; and (2) less worry about acquiring HIV. Interventions aiming to increase PrEP uptake may find it useful to focus on psychosocial dimensions.

Keywords: attitudes, female sex workers, HIV/AIDS, HIV-related worry, PrEP, sexual health, sexual pleasure, sexual satisfaction, Uganda.

Introduction

In Uganda, female sex workers (FSWs) are disproportionately affected by HIV with an HIV prevalence ranging between 32.4 and 52.0%.¹ This high HIV prevalence is fuelled by a range of issues including high risk sexual behaviours, poverty, stigma and discrimination, sexual violence, and criminalisation of sex work.^{2–5} In 2015, the World Health Organization (WHO) recommended oral pre-exposure prophylaxis (PrEP) for groups at substantial risk of HIV infection including FSWS⁶ and sub-Saharan African countries, including Uganda, have commenced implementation of oral PrEP in high risk groups.⁷ The Uganda Ministry of Health continues to recommend PrEP, a highly effective biomedical intervention as an option targeting FSWS,⁸ and studies have shown high uptake of PrEP among FSWS in Uganda.^{9–11}

Beyond PrEP's primary biological function of preventing HIV infection, oral PrEP has been used as a tool of both economic empowerment (condomless sex is more expensive than sex with a condom) and sexual health empowerment among sex workers in Uganda.^{2,12} Other important psychosocial dimensions such as PrEP facilitating greater sexual satisfaction, as well as trust and intimacy in primary relationships in heterosexual women have been reported elsewhere.^{12,13} These are important outcomes as they impact the sexual wellbeing of people taking PrEP.¹⁴ WHO describes sexual health/sexual wellbeing as 'a

state of physical, emotional, mental and social well-being in relation to sexuality', and not merely the absence of disease, disfunction or infirmity.¹⁵ Sexual wellbeing entails a positive and respectful approach to sexual relationships and having pleasurable, safe sexual experiences.¹⁵

Uganda has focused on acceptability and uptake, retention, and adherence of PrEP especially among high-risk groups.^{2,9-12,16} However, there is more needed in examining how PrEP affects the health and behaviour of those who have adopted it as an HIV prevention strategy including the psychological and sexual wellbeing benefits of PrEP. This analysis aimed to examine the potency of oral PrEP on sexual pleasure and HIV-related worry, and factors associated with sexual pleasure and HIV-related worry in a sample of Ugandan FSWs who were using PrEP.

Materials and methods

Participants and recruitment

This study has been described elsewhere in detail.¹⁷ FSWs participants were recruited between January and July 2021 in three Trans-African Highway towns and four fishing communities along the Lake Victoria basin in south-western Uganda. Briefly, women who were attending routine PrEP follow-up visits in six health centres were potentially eligible.

In Uganda, PrEP is being introduced in a phased-funded approach. There are two models of PrEP delivery: (1) facility-based; and (2) community-based. In the facility-based model, PrEP is integrated into the existing services such as Attendance and Utilisation of Antenatal Care (ANC) clinics, reproductive health and family planning clinics, outpatient departments, sexually transmitted infection (STI) treatment centres, adolescent/youth-friendly clinics, and post-natal clinics. In contrast, the community-based model has three approaches: (1) peer-led; (2) drop-in centres; and (3) the PrEP Hub system. In the peer-led approach, peer educators mobilise clients for PrEP services in their hotspots. Health workers will educate and screen clients for PrEP and initiate them on PrEP. Peers can provide PrEP refills where necessary. The community drop-in centres approach involves the Drop-In Centers (DIC) team (coordinator/staff/peers) mobilising clients on the DIC's scheduled PrEP days. A trained health worker from a supervising health facility or a co-located clinic will provide PrEP for the clients at the DIC. The community PrEP Hub system means that the health facility will prepare and pack the required medicines, commodities, and supplies for PrEP refills for the different communities. A health worker will make a list of expected refills, schedule days to visit communities and communicate that schedule to the focal resource of each community (e.g. Village Health Team, peers) who will organise the clients to receive PrEP. Participants in this study were recruited from both facility-based and community-based PrEP delivery models.

Further eligibility criteria included being aged ≥ 18 years; having serologically confirmed HIV-negative status on their

most recent PrEP refill; reporting trading sex or exchanging sex for money or gifts in the 3 months preceding the interview; having been dispensed PrEP at the clinic for at least 5 months; and being recorded as taking PrEP at their last clinic visit. Health workers identified potential participants from the PrEP client registers, who were then contacted by either health workers via telephone or via peer leaders prior to their next PrEP refill visit. At their refill visit, consent to participate was collected. Consenting participants were scheduled for one-to-one interviews at a location of their choice. A paper-based questionnaire (structured) was completed during an interview in Luganda or English (lasting 60–90 min).

Measures and analysis

The two outcome variables were based on responses to two statements: (1) 'Sex is more pleasurable now because of taking PrEP'; and (2) 'I am less worried about getting HIV because I am on PrEP'. We used single item measures for the two outcome variables. Responses were based on a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. These response options were then dichotomised ('strongly agree' and 'agree' were classified as agreement and all other options as non-agreement).

We collected demographic information on age, marital status, education, religion, and area of residence. Area of residence was dichotomised into two types: (1) fishing communities; and (2) Trans-African Highway towns.¹⁸ We collected data on sexual behaviours including sexual partner types, condom use, drug and alcohol use, and STIs. We classified sexual partners into husband/steady partner (a partner to whom the participant was in a close, long-term, ongoing relationship with demonstrated affection, social support, and commitment); regular paying partners (a partner with whom the participant had sex with regularly or more than once and who paid money or goods in exchange for sex), and casual paying partners (a first-time or one-time partner whom the participant received money or goods in exchange for sex). We also asked if participants had been diagnosed with an STI in the past 3 months, with responses of 'yes' or 'no'.

Analyses were conducted using Stata ver. 17 (Stata Corp, College Station, TX, USA). We performed bivariate and multivariable modified Poisson regression¹⁹⁻²¹ to identify factors that were associated with the two outcome variables using a robust covariance matrix estimator. Factors associated with the outcome variables with a P -value of <0.05 in the bivariable models were block entered into the multivariable model. We report prevalence ratios (PR), adjusted prevalence ratios (aPR), 95% confidence interval (CI) and P -values for these associations.

Ethics statement

Ethics approval was obtained from the Research and Ethics Committee of The AIDS Support Organisation (TASOREC/036/2020-UG-REC-009), the Ugandan Council of Science

and Technology (HS813ES), and the University of New South Wales Human Research Ethics Committee (HC200357).

Results

A total of 524 participants were enrolled in the study, with a median age of 29 years (IQR 23–35). Of these, over half were recruited from fishing communities ($n = 297$, 56.7%) and the

Table 1. Characteristics of female sex worker study participants ($n = 524$).

Characteristics	<i>n</i> (%)
Age (years)	
15–24	162 (30.9)
25–34	270 (51.5)
≥35	92 (17.6)
Education	
Primary or less	311 (59.4)
Secondary or more	213 (40.7)
Marital status	
Single/never married	121 (23.1)
Married	47 (9.0)
Divorced/separated/widowed	356 (68.0)
Location	
Trans-Africa Highway	227 (43.3)
Fishing community	297 (56.7)
Source of income	
Sex work only	241 (46.0)
Sex work and any other occupation	283 (54.0)
Money paid per client (UGX)	
≤5000 (US\$1.40)	14 (2.7)
5000–10 000 (US\$1.40–2.80)	296 (56.5)
≥10 000 (≥US\$2.80)	214 (40.9)
Husband/steady partner in past 3 months	
Yes	262 (50.00)
No	262 (50.00)
Regular paying partners in past 3 months	
Yes	404 (77.1)
No	120 (22.9)
Years since PrEP dispensed	
<1 year	74 (14.1)
1–2 years	395 (75.4)
2–3 years	55 (10.5)
Had STI in past 3 months	
Yes	129 (45.2)
No	98 (43.2)

remainder from Trans-African Highway towns ($n = 227$, 43.3%) (Table 1). Most identified as divorced/separated/widowed ($n = 356$, 68.0%), approximately half were aged between 25 and 34 years ($n = 270$, 51.5%) and had primary school education or less ($n = 311$, 59.4%). Over half had other sources of income apart from sex work ($n = 283$, 54.0%) and were paid between 5000 and 10 000 Ugandan Shillings (about US\$1.40–2.60) per client for their sex work ($n = 296$, 56.5%). Three-quarters had been taking PrEP for 1–2 years ($n = 395$, 75.4%).

Overall, 80.9% ($n = 424$) of the participants reported that sex was more pleasurable because of taking PrEP. FSWs who were married had slightly higher prevalence ratios (PR = 1.19, 95% CI = 1.01–1.41), compared to the divorced/separated/widowed (PR = 1.17, 95% CI = 1.28–3.39). FSWs who had regular paying partners in the past 3 months (PR = 1.16, 95% CI = 1.03–1.31), had been diagnosed with at least one STI in the past 3 months (PR = 1.09, 95% CI = 1.00–1.18), and had had condomless sex with casual paying partners in the past 3 months (PR = 1.17, 95% CI = 1.06–1.30) were more likely to report sex as more pleasurable. Women that had taken all their pills every day in the past 7 days were more likely to report pleasurable sex compared to those that did not take their pills at all (PR = 1.12, 95% CI = 1.01–1.24). Comparing adherence by pill count; women who had protective adherence (those who scored ≥85%) reported sex was more pleasurable (PR = 1.11, 95% CI = 1.00–1.21) compared to those with non-protective adherence (Table 2).

In multivariable analysis, factors associated with reporting that sex was more pleasurable when taking PrEP were; being divorced/separated/widowed (aPR = 1.31, 95% CI = 1.00–1.27, $P = 0.044$), having regular paying partners in the past 3 months (aPR = 1.14, 95% CI = 1.01–1.28, $P = 0.023$) and having condomless sex with casual paying partners in the past 3 months (aPR = 1.19, 95% CI = 1.07–1.32, $P = 0.001$).

Three-quarters of participants (76.3%, $n = 400$) reported that they were less worried about getting HIV because of PrEP. Women aged ≥35 years had slightly higher prevalence ratios (PR = 1.22, 95% CI = 0.68–2.57) compared to age 25–34 years (PR = 1.22, 95% CI = 0.68–2.20). Both groups were

Table 2. Sexual pleasure and HIV-related worry among female sex workers on oral PrEP living in south-western Uganda ($n = 524$).

	Sex is more pleasurable now I am on PrEP; <i>n</i> (%)	I am less worried about getting HIV because of PrEP; <i>n</i> (%)
Strongly agree	257 (49.1)	219 (41.8)
Agree	167 (31.9)	181 (34.5)
Neither agree nor disagree	38 (7.3)	37 (7.1)
Disagree	47 (8.97)	19 (3.6)
Strongly disagree	15 (2.9)	68 (12.9)

more likely to report being less worried about getting HIV because of PrEP compared to ages 15–24 years. For years since PrEP dispensed, those that had been on PrEP 1–2 years had higher prevalence ratios (PR = 1.23, 95% CI = 1.03–1.48) compared to those that had been on PrEP 2–3 years (PR = 1.20, 95% CI = 0.95–1.50). Both groups were more likely to report being less worried about getting HIV because of PrEP compared to those that had been on PrEP for <1 year (Table 3).

Women were more likely to report being less worried about getting HIV if they had regular paying partners in the past 3 months (PR = 1.50, 95% CI = 1.27–1.77), had been diagnosed with at least one STI in the past 3 months (PR = 1.18, 95% CI = 1.08–1.30), and had other sources of income apart from sex work (PR = 1.16, 95% CI = 1.05–1.28). In multivariable analysis, factors associated with being less worried about HIV were being dispensed PrEP for a period of 1–2 years (aPR = 1.18, 95% CI = 1.00–1.38, $P = 0.032$), had regular paying partners in the past 3 months (aPR = 1.48, 95% CI = 1.19–1.67, $P = <0.001$) and had condomless sex with casual paying partners in the past 3 months (aPR = 1.17, 95% CI = 1.05–1.31, $P = 0.032$, $P = 0.003$) (Table 4).

Discussion

Among FSWs attending PrEP clinics for refills in south-western Uganda, a majority reported that sex was more pleasurable with PrEP use, and almost three-quarters were less worried about acquiring HIV because of taking PrEP. Our findings are similar to other studies in sub-Saharan Africa of FSWs reporting that PrEP resulted in increased sexual pleasure^{22,23} and less worry about acquiring HIV.^{2,12,24} Having condomless sex with casual paying partners in the past 3 months was associated with both sexual pleasure and HIV-related worry. Other important factors including women being divorced/separated/widowed, having regular paying partners in the past 3 months and having been on PrEP for a period of 1–2 years were predictors of sexual pleasure and HIV-related worry. To our knowledge, this is the first study to quantify psychosocial changes due to PrEP use among FSWs at risk of HIV acquisition in south-western Uganda.

This study shows there is high confidence in the protective effect of PrEP among Ugandan FSWs. This could be attributed to the intense health education and follow-ups by stakeholders involved in PrEP roll out among key populations. This finding is similar to other Uganda studies among FSWs where FSWs acknowledge the protective effects of PrEP.^{2,12,25} Women have discussed the importance of PrEP as it gives them HIV protection from their clients and their partners.^{2,12} However, protective effects are only limited to preventing HIV, other

concerns about condomless sex including STI acquisition and unintended pregnancies are important among these high-risk women. This points to the need to integrate the provision of PrEP with reproductive sexual health services for high-risk women.

Most of the women agreed that PrEP use increased sexual pleasure. This may be attributed to a decrease in fear and anxiety over HIV acquisition and reduced engagement in sexual behaviours that were limited before.^{12,13,26} Studies have found individuals who desired intimacy and pleasure were more likely to adopt PrEP because it eased HIV acquisition concerns.¹³ This finding is similar to another study where Ugandan FSWs have described PrEP as providing freedom during sex, increasing intimacy and giving them more sexual options.² Improving sexual satisfaction and sexual pleasure may be an effective means of motivating PrEP uptake and adherence. However, the effectiveness of pleasure-focused PrEP messaging to improve PrEP uptake, persistence and adherence should be further evaluated.

In this study, women who had condomless sex with casual paying partners reported that sex was more pleasurable when taking PrEP. This is not surprising as condoms have been found to reduce intimacy and pleasure in other studies.²⁷ Common complaints of diminished physical sensations, reduced spontaneity and awkwardness feeling when using condoms have been reported in other studies elsewhere.^{26,28,29} However, condomless sex remains a concern in a Ugandan setting where adherence to PrEP among FSWs has been shown to be low²² and high STI rates common among PrEP users.^{30,31} PrEP only offers single protection against HIV, other concerns of STIs and unwanted pregnancies are important in sexual lives of high-risk women. It is therefore advisable to integrate PrEP with other different HIV prevention methods including STI screening and treatment.

These results should be interpreted in light of some limitations. Although our participants were similar in characteristics and risk behaviours to other samples of FSWs in Uganda,^{9–12,25} they are unlikely to be representative of all FSWs living in Uganda. Our sample mainly comprised of FSWs attached to PrEP care clinics, and who had been on PrEP for 5 months or more. We relied on self-reported measures for these findings which may be influenced by social desirability and recall bias. This study was cross-sectional and thus could not determine causal associations. We used single item ratings to measure sexual pleasure and HIV-related worry, which may not necessarily capture the construct fully; however, other studies have shown single item ratings can be reliable and can adequately represent the outcomes of multi-item assessments.³² Despite these limitations, our study is the first study to provide insights into psychosocial factors like sexual pleasure and HIV-related worry among FSWs living in south-western Uganda.

Table 3. Bivariable and multivariable factors associated with agreement with the statement ‘Sex is more pleasurable because I’m on PrEP’ among female sex workers ($n = 524$).

	Agreement (Yes); n (%)	Non-agreement (No); n (%)	PR (95% CI)	P-value	aPR (95% CI)	P-value
Age (years)						
15–24	128 (30.2)	34 (34.0)	Ref			
25–34	223 (52.6)	47 (47.0)	1.05 (0.77–2.06)	0.368		
≥35	73 (17.2)	19 (19.0)	1.00 (0.88–1.14)	0.950		
Education						
Primary or less	256 (60.4)	55 (55.0)	Ref			
Secondary or high	168 (39.6)	45 (45.0)	0.32 (0.90–1.03)	0.322		
Marital status						
Single/never married	86 (20.3)	35 (35.0)	Ref		Ref	
Married	40 (9.4)	7 (7.0)	1.19 (1.01–1.41)	0.032	1.07 (0.89–1.29)	0.426
Divorced/separated/widowed	298 (70.3)	58 (58.0)	1.17 (1.28–3.39)	0.009	1.13 (1.00–1.27)	0.044
Years since PrEP dispensed						
<1 year	62 (14.6)	12 (12.0)	Ref			
1–2 years	320 (75.5)	75 (75.0)	0.96 (0.86–1.08)	0.553		
2–3 years	42 (9.9)	13 (13.0)	0.91 (0.76–1.08)	0.308		
Husband/steady partner in past 3 months						
No	206 (48.6)	56 (56.0)	Ref			
Yes	218 (51.4)	44 (44.0)	1.05 (0.97–1.15)	0.183		
Regular paying partners in past 3 months						
No	86 (20.3)	34(34.0)	Ref		Ref	
Yes	338 (79.7)	66(66.0)	1.16 (1.03–1.31))	0.012	1.14 (1.01–1.28)	0.023
Casual paying partners in past 3 months						
No	13 (3.8)	1 (1.0)	Ref			
Yes	411 (96.9)	99 (99.0)	1.15 (0.99–1.34)	0.067		
Condomless sex with casual paying partners in past 3 months						
No	127 (30.9)	49 (49.5)	Ref		Ref	
Yes	284 (69.1)	50 (50.5)	1.17 (1.06–1.30)	0.002	1.19 (1.07 –1.32)	0.001
Had STI in past 3 months						
No	223 (52.6)	64 (64.0)	Ref		Ref	
Yes	201 (47.4)	36 (36.0)	1.09 (1.00–1.18)	0.037	1.05 (0.96–1.14)	0.262
Pills taken in past 7 days (self-reported)						
None of my pills	117 (27.6)	40 (40.0)	Ref		Ref	
All my pills everyday	307 (72.4)	60 (60.0)	1.122 (1.01–1.24)	0.02	1.07 (0.96 –1.19)	0.206
Adherence by pill count						
Non-protective	115 (27.1)	39 (39.0)	Ref		Ref	
Protective adherence	309 (72.9)	61 (61.0)	1.11 (1.00–1.23)	0.03	1.09 (0.96 –1.19)	0.110
Source of income						
Sex work only	200 (47.2)	41 (41.0)	Ref			
Sex work and any other job	224 (52.8)	59 (59.0)	0.77 (0.50–1.21)	0.267		
Location						
Trans-African Highway	201 (47.4)	38 (38.0)	Ref		Ref	
Fishing communities	223 (52.6)	64 (64.0)	0.95 (0.87–1.03)	0.227		

Table 4. Bivariable and multivariable factors associated with agreement with the statement 'I am less worried about getting HIV because of PrEP' among female sex workers ($n = 524$).

	Agree/strongly agree (Yes); n (%)	Strongly disagree/ disagree/neutral (No); n (%)	OR (95% CI)	P-value	aOR (95% CI)	P-value
Age (years)						
15–24	115 (28.8)	47 (37.9)	Ref		Ref	
25–34	216 (54.0)	54 (43.6)	1.12 (1.00–1.26)	0.042	1.09 (0.97–1.21)	0.103
≥35	69 (17.3)	23 (18.6)	1.22 (0.68–2.20)	0.484	1.03 (0.88–1.19)	0.621
Education						
Primary or less	236 (59.0)	75 (60.5)	Ref			
Secondary or high	164 (41.0)	49 (39.5)	1.10 (0.92–1.11)	0.769		
Marital status						
Single/never married	88 (22.0)	33 (26.6)	Ref			
Married	38 (9.50)	9 (7.3)	1.11 (0.93–1.32)	0.241		
Divorced/separated/widowed	274 (68.5)	82 (66.1)	1.05 (0.93–1.19)	0.367		
Years since PrEP dispensed						
<1 year	47 (11.8)	27 (21.8)	Ref		Ref	
1–2 years	311 (77.8)	84 (67.7)	1.23 (1.03–1.48)	0.020	1.18 (1.00–1.38)	0.032
2–3 years	42 (10.5)	13 (10.5)	1.20 (0.95–1.50)	0.10	1.13 (0.89–1.38)	0.248
Husband/steady partner in past 3 months						
No	187 (46.8)	75 (60.5)	Ref			
Yes	213 (53.3)	49 (39.5)	1.13 (1.03–1.25)	0.008		
Regular paying partners in past 3 months						
No	66 (16.5)	54 (43.6)	Ref		Ref	
Yes	334 (83.5)	70 (56.5)	1.50 (1.27–1.77)	<0.001	1.48 (1.19–1.67)	<0.001
Casual paying partners in past 3 months						
No	9 (2.3)	5 (4.1)	Ref			
Yes	391 (97.7)	119 (95.9)	1.19 (0.80–1.76)	0.381		
Condomless sex with regular paying partners in past 3 months						
No	82 (24.6)	25 (35.7)	Ref			
Yes	252 (75.5)	43 (64.3)	1.10 (0.98–1.24)	0.083		
Condomless sex with casual paying partners in past 3 months						
No	122 (31.2)	54 (45.4)	Ref		Ref	
Yes	269 (68.8)	65 (54.6)	1.16 (1.03–1.29)	0.008	1.17 (1.05–1.31)	0.003
Had STI in past 3 months						
No	202 (50.5)	85 (68.5)	Ref		Ref	
Yes	198 (49.5)	39 (31.5)	1.18 (1.08–1.30)	<0.001	1.13 (1.03–1.24)	0.051
Pills taken in past 7 days (self-reported)						
None of my pills	121 (30.3)	33 (26.6)	Ref			
All my pills everyday	279 (69.7)	91 (73.4)	0.00 (0.89–1.10)	0.973		
Adherence by pill count						
Non-protective	121 (30.1)	33 (26.6)	Ref			
Protective adherence	279 (69.8)	91 (73.4)	0.95 (0.86–1.06)	0.425		
Source of income						
Sex work only	169 (42.3)	72 (58.1)	Ref		Ref	
Sex work and any other job	231 (57.7)	52 (41.9)	1.16 (1.05–1.28)	0.003	1.09 (0.99–1.20)	0.081

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Table 4. (Continued).

	Agree/strongly agree (Yes); n (%)	Strongly disagree/disagree/neutral (No); n (%)	OR (95% CI)	P-value	aOR (95% CI)	P-value
Depression (Patient Health Questionnaire-9)						
Low depression (≤ 10)	230 (57.5)	66 (53.2)	Ref			
High depression (≥ 10)	170 (42.5)	58 (46.8)	0.95 (0.87–1.05)	0.406		
Location						
Trans-African Highway	177 (44.3)	50 (40.3)	Ref			
Fishing communities	223 (55.8)	74 (59.7)	0.96 (0.87–1.05)	0.438		

Conclusion

Our findings highlight the positive impact of PrEP for FSW on two key psychosocial dimensions. In this study, most FSWs experienced more pleasurable sex because of taking PrEP and were less worried about acquiring HIV. Implementation of PrEP brings other benefits other than biomedical, which may influence uptake of and adherence to the drug. Further qualitative insights on pleasure seeking and other dimensions such as HIV-related worry need to be developed because these can be important factors in the decision-making processes for HIV prevention interventions.

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Data availability. All data that supports this study has been published in the manuscript. Further details can be obtained by writing to the corresponding author.

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Author contributions. LJN, BB and AG designed the study with substantive input from IMP. LJN and JMB conducted the interviews. DS supervised the data collection and provided scientific oversight during study implementation. LJN performed initial data analysis and wrote the first draft of the manuscript. The corresponding author had the final responsibility to submit the manuscript for publication.

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