Student's Journal of Health Research Africa
Vol. 4 No. 9 (2023): September 2023 Issue
https://doi.org/10.51168/sjhrafrica.v4i9.606
Original article

FACTORS INFLUENCING UTILISATION OF PRE-EXPOSURE PROPHYLAXIS AGAINST HIV/AIDS AMONG FEMALE SEX WORKERS. A CASE STUDY OF KOOME ISLANDS MUKONO DISTRICT. A DESCRIPTIVE STUDY DESIGN.

John James Naluwogo*, David Kansiime

Medicare Health Professionals College, P.O Box 16476, Kampala, Uganda.

Abstract

Background:

Objectives:

This study, therefore, sought to find out factors influencing the utilization of oral HIV Pre-Exposure prophylaxis among Female Sex Workers in Koome Islands.

Methodology:

Results were obtained using a convenience sampling technique. A target population of 124 respondents was included in the study. A researcher-based questionnaire was designed with relevant questions in line with the study objectives. Data were collected, entered, and analyzed critically using SPSS software.

Results:

PrEP use among FSWs was at 61.3%, and the level of self-perception as being at risk of contracting HIV infection among FSWs was at 96%. The majority of the FSWs were aware of HIV prevention with oral HIV PrEP.

Conclusions:

The study shows high self-perception as being at risk of contracting HIV infection among FSWs causing a high need for utilization of PrEP medicines. There is low utilization of PrEP among FSWs with lower levels of education despite their awareness of PrEP medicines. The findings from the study also show that a high proportion of FSWs would not afford PrEP medicines if they were not freely provided by the government and support organizations. The study findings show that the majority of FSWs did not access PrEP medicines because they were out of stock.

Recommendations:

The government should not only maintain the free provision of oral HIV PrEP medicines but also increase the amount of the medicines supplied to Koome Health Centre III to ensure easy access to and reduces shortages of PrEP medicines. The government should as well ensure a timely supply of PrEP medicines to Koome Health Center III.

Healthcare providers should increase the counseling of FSWs before and after initiating them on PrEP medicines.

Keywords: Prophylaxis, Transgender, Adolescent, Stigma, High Risk, submitted: 2023-04-13
accepted: 2023-07-29

Student's Journal of Health Research Africa
Vol. 4 No. 9 (2023): September 2023 Issue
https://doi.org/10.51168/sjhrafrica.v4i9.606
Original article

1. BACKGROUND OF THE STUDY.

Pre-exposure Prophylaxis (PrEP) is defined as the use of Anti-Retroviral drugs (ARV) by HIV-negative persons to prevent the acquisition of HIV before exposure to HIV infection. (World Health Organization, 2022).

Pre-exposure prophylaxis with tenofovir disoproxil fumarate/emtricitabine (TDF/FTC) is highly effective and is recommended in global guidelines for preventing HIV acquisition. Pre-exposure prophylaxis programs are now rapidly expanding in Eastern and Southern Africa, with a particular emphasis on groups among the most vulnerable to HIV acquisition in the region, including Adolescent Girls and Young Women (AGYW), Female Sex Workers, and sero-diferent couples. (Catherine A. Koss et al, 2022).

For one to qualify for the use of pre-exposure prophylaxis, he/she must satisfy the eligibility criteria set by the World Health Organization, which include; being HIV-negative, having no suspicion of acute HIV infection, individuals with a substantial risk of HIV infection, having no contraindications to Pre-exposure prophylaxis medicines (e.g. TDF/FTC), willingness to use Pre-exposure prophylaxis as prescribed, including periodic HIV testing (WHO,2017).

Among key populations, Female Sex Workers have 30 times the risk of acquiring HIV compared to the general population globally, people who inject drugs 29 times, Men who Have Sex with Men (MSM) 26 times, and transgender people 13 times the risk of AMFAR,2021. Data compiled by the Global Pre-exposure Prophylaxis Network shown in the Global State of Pre-exposure Prophylaxis shows that Pre-exposure prophylaxis use has been increasing globally and over 600 000 people across 76 countries received Pre-exposure prophylaxis at least once in 2019 – a 70% increase from 2018 and this is according to the Global PrEP Network, 2021

According to WHO, There were about 1.6 million people across the world who received oral PrEP at least once in 2021. Nearly 1 million of these were in eastern and southern Africa.

According to the HIVR4P,2018, A further 103,000 are in sub-Saharan Africa (27% of the total), but this number falls short of the ambitious target of 142,000 that was set. (HIVR4P.,2018) The use of PrEP is overwhelmingly concentrated in a handful of countries: Kenya, South Africa, Uganda, Zimbabwe, and Lesotho.

More recently in 2022, PrEP is said to be available in 260 facilities in Uganda and more than 175,000 people have started using PrEP. (Kayesu, I., Mayanja, Y., Nakirijja, C. *et al.* ,2022)

In the Partners Pre-Exposure Prophylaxis study, there was a highly significant protective effect of PrEP among female participants. Among uninfected controls, drug-level analyses revealed adherence rates of 81%, and 83% in the TDF–FTC and in the TDF group respectively (Nalukwago GK et al, 2021).

In 2017, the Uganda Ministry of Health adopted the use of Pre-exposure prophylaxis with Tenofovir disoproxil fumarate/ emtricitabine (TDF/FTC) for individuals most at risk of acquiring HIV, including sex workers and people who inject drugs, as well as other priority populations including pregnant and lactating women, and adolescent girls and young women.

Pre-exposure prophylaxis is highly effective at preventing HIV when used as directed. In 2021, WHO recommended that the dapivirine ring might be offered as an additional prevention choice for women at substantial risk of HIV and, in 2022, that long-acting injectable cabotegravir (CAB-LA) may be offered as an additional prevention choice for people at substantial risk of HIV. Other products (e.g., multipurpose prevention products that combine antiretroviral drugs with contraception) are currently studied as additional Pre-exposure prophylaxis options.

Daily use of Pre-exposure prophylaxis is reported to reduce the risk of HIV transmission through sex by 75 to 99 %,(World Health Organization, 2022). Based on this evidence, the Ministry of Health rolled out Pre-exposure prophylaxis (300mg of Tenofovir daily or 300mg of Lamivudine daily) to key populations in Uganda.

* Corresponding author.
Email address: johnnaluwogo@gmail.com (John James Naluwogo)

Pre-exposure prophylaxis is one of the biomedical interventions available to AGYW who account for 25% of new HIV diagnoses in Sub-Saharan Africa. (Y Mayanja,2022) AGYW are vulnerable biologically due to an immature cervix, genital mucosal disintegration due to Sexually Transmitted Infections (STIs), intravaginal practices, and forced sex. Further vulnerabilities are posed by inadequate schooling, food insecurity, discriminatory cultural norms, intimate partner violence (IPV), and age-disparate and/or transaction relationships. Pre-exposure prophylaxis, therefore, provides a user-controlled method, where condom negotiation is limited. Pre-exposure prophylaxis implementation projects funded through the US President's Emergency Plan for AIDS Relief (PEPFAR) indicate that uptake has been low and slow. Reports from family planning clinics in Kenya and the Sustainable East Africa Research for Community Health (SEARCH) study showed low uptake among individuals <25 years. Conversely, the Prevention Options for Women Evaluation Research (POWER) project among AGYW in Kenya and South Africa reported high uptake (90%) associated with behavioral risk, IPV, depression, and STIs, but also early discontinuation due to side effects, challenges with access and daily dosing. Y Mayanja,2022

Pre-exposure Prophylaxis using Tenofovir (TDF) and Emtricitabine (FTC) co-formulated as a once-daily pill has demonstrated effectiveness against the acquisition of HIV infection, and is recommended for HIV-negative persons at high risk of infection. Although Pre-exposure prophylaxis is being scaled up globally, uptake in some settings is sub-optimal, partly due to gaps in public health messaging and low awareness among healthcare workers (HCWs) B Ssuna,2022. In Uganda, Pre-exposure prophylaxis has been rolled out in a phased manner, first among HIV sero-different couples and later expanded to other key populations that include Men who have Sex with Men (MSM), Female Sex Workers, people who inject drugs, fisher folks, transgender populations, adolescent girls and young women, barmaids, discordant couples, and truck drivers. (Timothy R.Muwonge et al, 2022)

According to B Ssuna et al,2022, To date, an estimated 21,000–22,000 members of key populations in Uganda have accessed oral PrEP. However, according to B Ssuna et al, 2022, studies show that poor user knowledge, negative community perceptions toward the drug, stigma, cultural beliefs, and low perceived risk of HIV transmission continue to dampen the acceptability of Pre-exposure prophylaxis leading to poor adherence and reduced effectiveness.

According to Jayakumaran et al,2016, Studies outside Uganda in low and high-income countries have found levels of awareness of Pre-exposure prophylaxis as low as 29.7% among HIV key populations, and acceptability ranging from 35.4 to 64.4 % B Ssuna et al, 2022.

According to Kwagonza, 2020, Though fishing communities are among the key populations targeted for Pre-exposure prophylaxis, to date, the majority of these communities have lacked comprehensive knowledge on HIV prevention, have misconceptions about HIV transmission and about 35% use the common HIV preventive strategies like condoms.

1.1. General objectives.

To determine the factors influencing the utilization of pre-exposure Prophylaxis against HIV among Female Sex Workers in Koome Islands, Mukono district.

1.2. Specific objectives.

- To determine the demographic factors influencing the utilization of Pre-exposure prophylaxis against HIV among Female Sex Workers in Koome islands.
- To determine the individual factors influencing utilization of Pre-exposure prophylaxis against HIV among Female Sex Workers in Koome islands, Mukono district.
- To determine the social-economic factors influencing the utilization of Pre-exposure prophylaxis against HIV among Female Sex Workers in Koome islands, Mukono district.

2. METHODOLOGY.

2.1. Study design.

A descriptive study design was used in this study. This involved direct interaction with the participants such that direct responses for appropriate problem-solving could be got.

2.2. Study area.

The study was carried out from Koome Islands at Koome Health Centre III located in Mukono District in northwestern Lake Victoria, in Uganda. The study was conducted for four months from December 2022 to March 2023.

2.3. Study population.

The study was carried out on the Female Sex Workers residing in Koome islands in Mukono district. Only HIV-negative Female Sex Workers were considered for the study. Male participants were not included in the study since the study was focused on Female Sex Workers only.

2.4. Sample size determination.

The sample size for this study was determined using the Kish Leslie method (1965):

$N = \frac{p(1-p)Z^2}{d^2}$

Where, N = Number of respondents needed, p = Prevalence of HIV among Female Sex Workers which is 8%, (UNAIDS, 2020), Z =1.96 (the Z score corresponding to 95% confidence interval), d = Maximum error the researcher was willing to allow = 0.05. An inflation factor of 10% was considered to cater for non-response.

$N = \frac{1.96^2 (1-0.08) 0.08}{0.05^2}$

$= 1134.09$

$= \frac{10}{100} \times 113.09 + 113$

$= 124$ respondents

2.5. Sampling technique.

A convenience sampling technique was used for the study. Only participants willing to participate were included in the study. This was used since it creates limited bias and gives equal opportunity for participants to be selected for the study.

2.6. Sampling procedure.

Female Sex Workers in the different hot spots were selected based on the convenience sampling technique for the study, and they were numbered from 1 to N (where N is the number of Female Sex Workers). They were provided with research-administered questionnaires to respond to the set questions.

2.7. Data collection method.

Data from the study was collected by use of research-administered questionnaires that were given to all participants at the selected hot spots, and they were given equal opportunity to respond to the set questions.

2.8. Data collection tools.

Research-administered questionnaires were used as data collection tools where the researcher asked respondents questions as per the set study objectives. Direct responses from eligible respondents were obtained and included in the research study findings.

2.9. Data collection procedure.

The study employed a self-administration approach to data collection to ensure that the unintended respondents are not interviewed.

After data collection, it was edited to check for any double entries, and any missing information. Data coding was done, data entry in Microsoft Excel, and data cleaning was as well done. The data was then exported to a computer program SPSS for analysis. Data were analyzed by grouping the ideas as per the objectives of the study.

2.10. Study variables.

2.10.1. Dependent variable.

The dependent variable for the study is the factors influencing the utilization of Pre-exposure prophylaxis among Female Sex Workers at Koome Islands.

2.10.2. Independent variables.

These were the individual factors, social factors, and structural factors that influence Pre-exposure prophylaxis use among Female Sex Workers.

2.11. Quality control.

A pilot study was conducted a week before the actual data collection procedure and this was done on 10 Female Sex Workers who were given researcher-administered questionnaires. Rectification of any errors was done before the actual process of determining the factors influencing the utilization of Pre-exposure prophylaxis in Koome islands.

The quality of the data was guaranteed by putting into consideration the following: Standard operating procedures, and pretest visits that were conducted with the appropriate authority.

The researcher collected using all research tools that were available such as questionnaires. The collected data was crosschecked for any errors to ensure completeness and accuracy.

2.12. Inclusion criteria.

The study included all HIV-negative Female Sex Workers who were willing to participate in the activity.

2.13. Exclusion criteria.

No HIV-positive individuals were selected for the study. Not all of those who declined to participate willingly were considered for the study as well.

2.14. Data analysis.

Participants were approached for in-depth interviews (IDIs) at the selected hot spots and the collection of data was by face-to-face interaction during their study visits. An IDI topic guide was used to cover demographic characteristics, knowledge and awareness about Pre-exposure prophylaxis, HIV risk perception, experiences with Pre-exposure prophylaxis, and facilitators and barriers to Pre-exposure prophylaxis uptake. Interviews lasted about 30–45 minutes. Tables, bar graphs, and pie charts have been used to categorize and analyze data according to the research objectives and identify patterns.

2.15. Ethical considerations.

I was given to the researcher from Medicare Health Professional's College to introduce me to the District Health Officer (DHO) of Mukono District. Through the office of the DHO, I was introduced to the In charge of Koome Health Center III, and the LCIII Chairman of Koome Sub County from where the research was carried out. I was fully responsible for keeping the details and particulars of every respondent to the maximum expected confidentiality. There was no tolerance for any form of discrimination based on race, sex, ethnicity and tribe during the research study.

3. PRESENTATION OF RESULTS.

3.1. Demographic characteristics of the FSWs.

Table 1: Table of Demographic characteristics of the FSWs

Variable	Frequency(n=124)	Percentage (%)
Age		
18 – 25	33	26.6
26 -33	67	54.0
34 – 41	15	12.1
42 -49	9	7.3
Marital status		
Single	55	44.4
Married	29	23.4
Divorced/Separated	40	32.3
Number of children		
No child	07	5.6
1 -2	75	60.5
3-5	33	26.6
More than 5	09	7.3
Level of education		
None	40	32.3
Primary	54	43.5
Secondary	28	22.6
Tertiary level	02	1.6

Table 1 shows that 24FSWs were included in the study. 33(26.6%) were aged between 18 to 25 years, 67(54.05) were aged between 26 to 33 years, 15(12.1%) were aged between 34 to 41 years, and 9(7.3%) were aged between 42 to 49 years.

Table 1 also shows that 55(44.4%) were single, 29(23.4%) were married and 40(32.3%) were either divorced or separated from their spouses.

Vol. 4 No. 9 (2023): September 2023 Issue
https://doi.org/10.51168/sjhrafrica.v4i9.606
Original article

Table 1 shows that 7(5.6%) had no children, 75(60.5%) had between 1 to 2 children, 33(5.6) had between 3 to 5 children, and 9(7.3%) had more than 5 children.

Table 1 shows that 40(32.3%) had not attained any levels of education, 54(43.5%) had attained primary level of education, 28(22.6%) had attained secondary level of education and 2(1.6%) had attained tertiary level of education.

Figure 1 shows that 76(61.3%) were currently using PrEP medicines, and 48(38.7%) were not using PrEP medicines.

Table 2: Demographic characteristics of the FSWs in relation with PrEP use (n=124)

Variable	Frequency (n=124)	
Age	**Currently use PrEP Prevalence of PrEP use is 61.3%**	**Not using PrEP**
18 – 25	21 (63.6%)	12(36.4%)
26 -33	36 (53.7%)	31 (46.3%)
34 – 41	11(73.3%)	4 (26.7%)
42 -49	8 (88.9%)	1(11.1%)
Marital status		
Single	30 (54.5%)	25 (45.5%)
Married	26 (89.7%)	03 (10.3%)
Divorced/Separated	20 (50.0%)	20 (50.0%)
Level of education		
None	19 (47.5%)	21 (52.5%)
Primary	29 (53.7%)	25 (46.3%)
Secondary	26 (92.9%)	02 (7.1%)
Tertiary level	02 (100%)	00 (0.00%)
Number of children		
No child	05 (71.4%)	02 (28.6%)
1 -2	45 (57.7%)	30 (42.3%)
3-5	18 (54.5%)	15 (45.5%)
More than 5	08 (88.9%)	01 (11.1%)

Table 2 shows that 76/124(61.3%) respondents were currently using PrEP of whom 36(47.4%) were between the ages of 26 to 33 years. This was followed by 21(27.6%) aged between 18 to 25 years. 11(14.5%) who were between 34 to 41 years, and 8(10.5%) aged between 42 to 49 years. 48/124(38.7%) of the FSWs were not using PrEP of whom 31(64.6%) were between 26 to 33 years, 12 (25.0%) were between 18 to 25 years, 4(8.3%) were between 34 to 41 years and 1(2.1) was between 42 to 49 years. Of the 76 respondents using PrEP, 30 were single, 26 were married, and 20 had separated from their partners. Of the respondents not using PrEP, 43.8% had not completed any level of education, 52.1% had completed the primary level of education, and 4.2% had completed high school. No respondent who completed a tertiary level of education was not using PrEP.

3.2. Individual factors characteristics of the Female Sex Workers (n=124).

Table 3: Economic characteristics of the FSWs (n=124 respondents)

Variable	Frequency	
Duration in sex business	**Currently use PrEP**	**Not using PrEP**
Less than 1 year	12 (15.8%)	05 (10.4%)
1-3 years	24 (31.6%)	35 (72.9%)
4-5 years	16 (21.6%)	16 (12.5%)
More than 5 years	24 (31.6%)	24 (31.6%)
Selling sex as main source of income		
Yes	65 (85.5%)	23 (47.9%)
No	11 (14.5%)	25 (52.1%)
Daily income from selling sex		
Less than UGX 10,000	02 (2.6%)	11 (22.9%)
UGX 10,000 to 50,000	42 (55.3%)	34 (70.8%)
UGX 50,000 to 100,000	23 (30.3%)	03 (6.3%)
More than UGX 100,000	09 (11.8%)	00 (0.00%)
Able to afford PrEP if it wasn't free		
Yes	13 (17.1%)	03 (6.3%)
No	48 (63.2%)	36 (75.0%)
I don't know	15 (19.7%)	09 (18.8%)

Table 3 shows that 65(85.5%) of the current users of PrEP said that selling sex had become their main source of income. The majority 25(52.1%) of those not using PrEP said selling sex was not their main source of income. The majority of the respondent using PrEP 42/76(55.3%) were earning a daily income ranging between UGX 10,000 to 50,000, 23/76(30.3%) were earning between UGX 50,000 to 100,000, 9/76(11.8%) were earning more than UGX 100,000 and a minority of the respondents using PrEP 2(2.6%) were earning less than UGX10,000.

Table 3 shows that the majority of the respondents using PrEP 48(63.2%) said that they could not afford PrEP medicines if they were not being provided freely.15/76(19.7%) didn't know if they could afford PrEP medicines, and only 13/76(17.1%) said they could afford PrEP medicines even if they were not being provided freely.

From figure 2, the majority of the respondents 46.1% spend between UGX 15,000 to 25,000 to access PrEP medicines. This money is inclusive

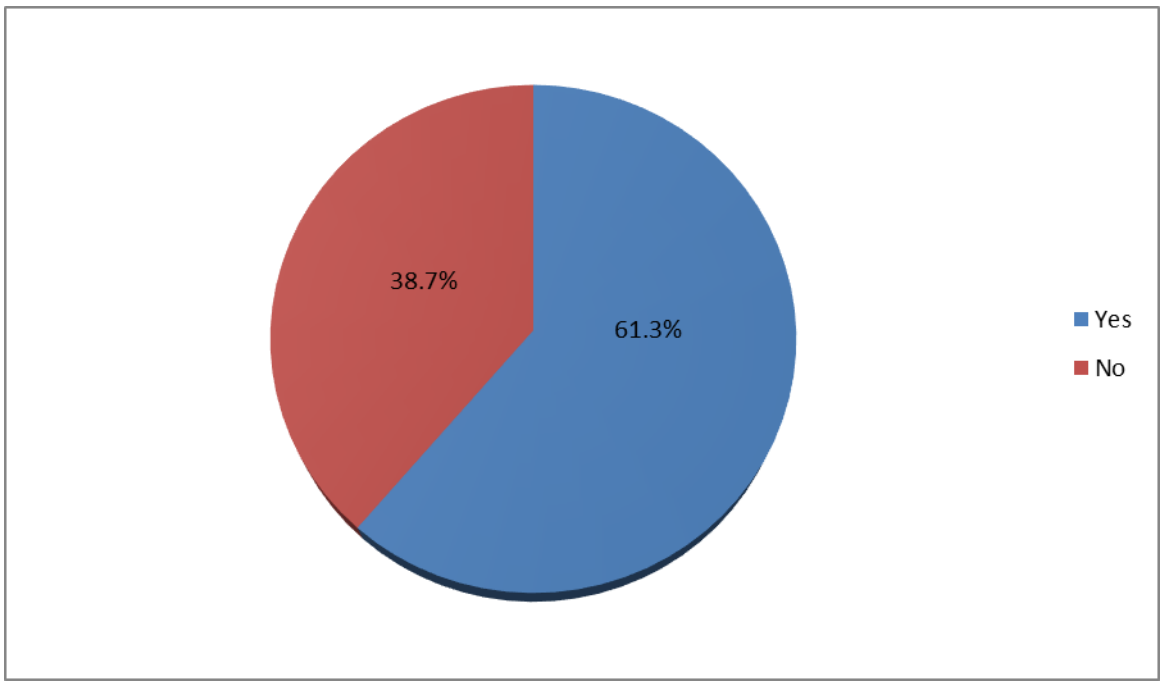

Figure 1: **PrEP use among Female Sex Workers (n=124)**

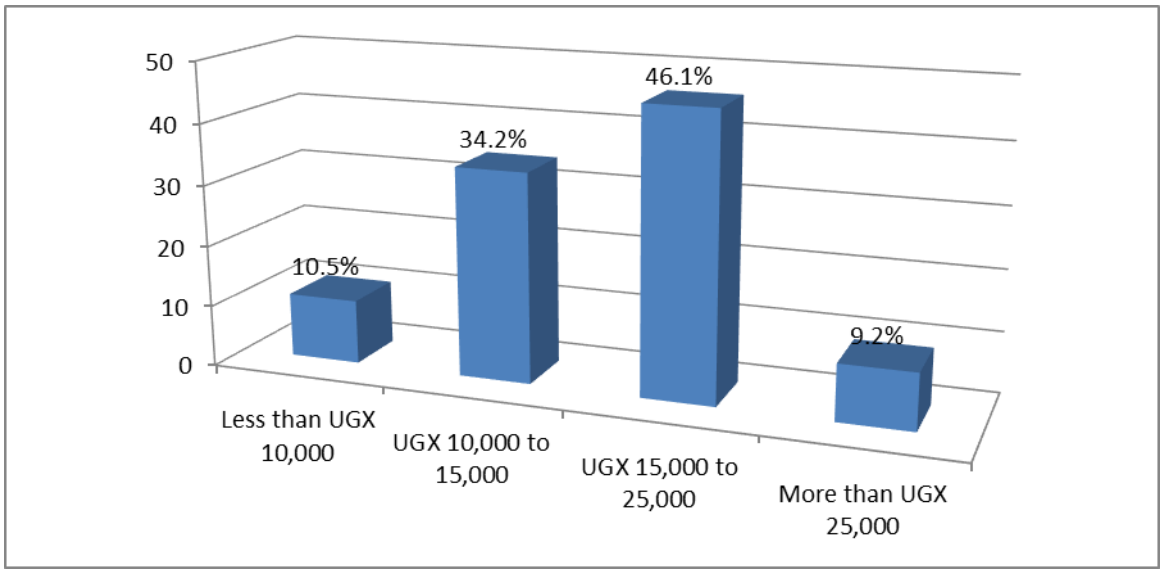

Figure 2: **Percentage distribution of the female sex workers based on amount of money they spent to access PrEP medicines; (n=76)**

of their transport and/or money they use to feed themselves on the day they go to pick up the medicines. Minority 9.2% spend more than UGX 25,000 to get access to medicines and 10.5% spend less than UGX 10,000.

Figure 3 shows that the majority 54.2% of the respondents reported that they discontinued using PrEP due to side effects, 20.8% discontinued PrEP because they were always defaulting (forgetting) to take the medicines. 12.5% said that the health facility was far away from them. As well, 12.5% reported that they discontinued due to stigma.

Student's Journal of Health Research Africa
Vol. 4 No. 9 (2023): September 2023 Issue
https://doi.org/10.51168/sjhrafrica.v4i9.606
Original article

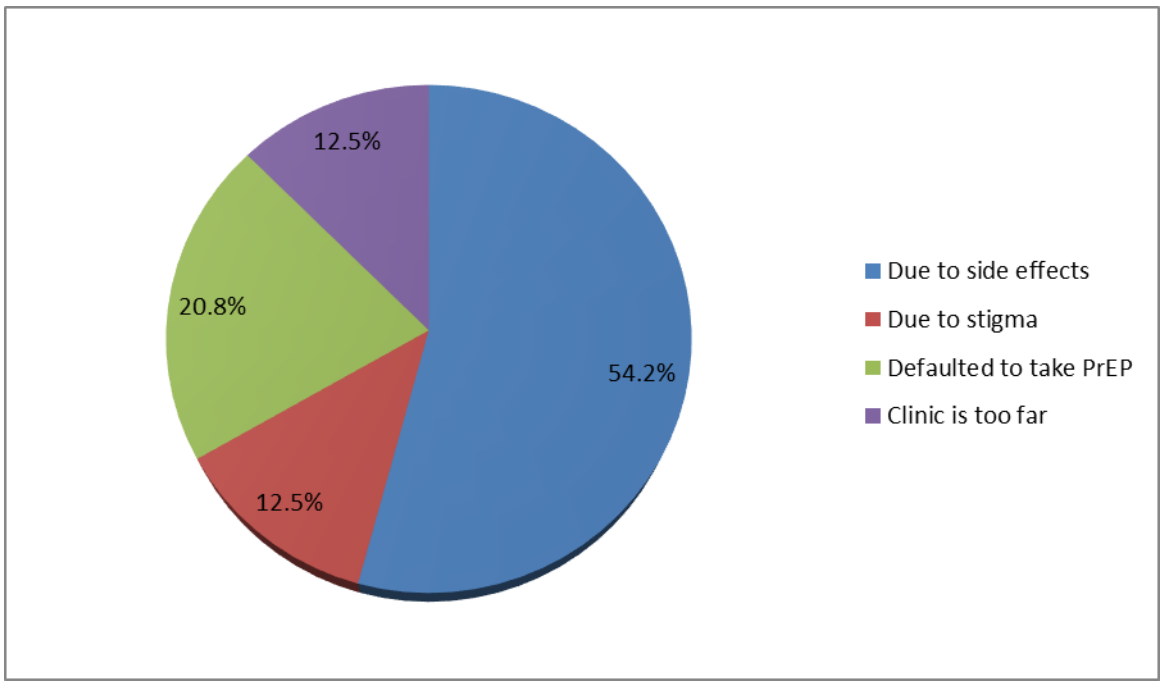

Figure 3: **Percentagedistribution of the female sex workers based on the reason as to why theydiscontinued PrEP (n=24 respondents).**

Table 4: Distribution of the female sex workers based counseling and PrEP use (n=124).

Counseling			Currently using PREP		Total
			Yes	No	
Properly Counseled before being initiated on PrEP	Yes	Count	64	17	81
		% within Currently using PREP	84.2%	35.4%	65.3%
	No	Count	12	31	43
		% within Currently using PREP	15.8%	64.6%	34.7%
Total		Count	76	48	124
		% within Currently using PREP	100.0 %	100.0 %	100.0 %

According to Table 4, a total of 81(65.3%) respondents believed that they received proper counseling before initiation of PrEP medicines of whom 35.4% were currently not using PrEP 43(34.7%) respondents believed that they didn't receive proper counseling before being initiated on PrEP medicines of whom 64.6% were currently not using PrEP medicines.

From figure 4, 53.2% of the respondents reported that they were not free to use condoms during sex while 46.8% reported that they could freely use condoms whenever they had sex

4. DISCUSSION.

4.1. Demographic factors influencing utilization of oral HIV Pre-Exposure prophylaxis among Female Sex Workers in Koome Islands, Mukono District.

The majority of the married FSW 26(89.7%) were currently using PrEP medicines. This was probably due to the high need to protect their children and husbands against HIV infection. This finding is in agreement with a study by Nhamo D et al, 2022 conducted in Zimbabwe, which states that most FSWs who participated in the study who had children said they were motivated to initiate PrEP so that they can take care of their children. In Zimbabwe, more than 1.3 million children are orphaned by HIV including many of the sex workers themselves. These FSWs do not wish the same fate for their children thus a high need for PrEP. (Nhamo D et al, 2022).

The study further revealed that 21/48(52.5%) of the Female Sex Workers not using PrEP had not attained any level of education. This showed a low willingness to use PrEP than those who had attained secondary and tertiary levels of education. This is in line with Ssuna et al.2022, which

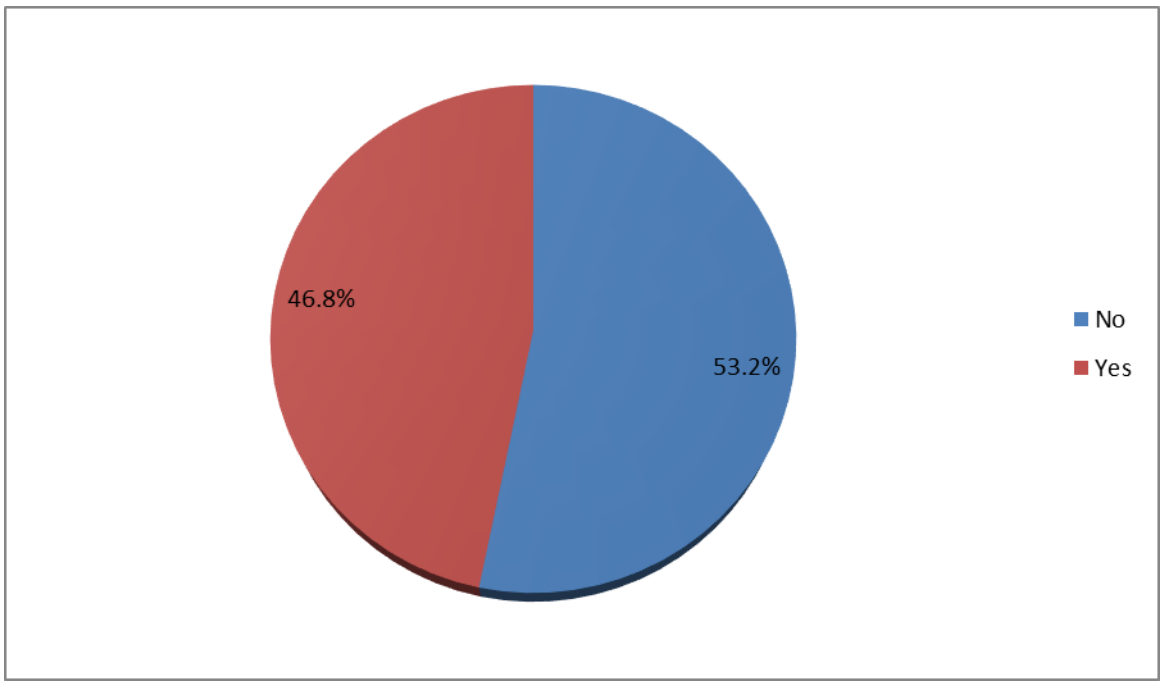

Figure 4: **Percentage distribution of the female sex workers based on whether they are free to use condoms during sex (n=124).**

shows that respondents who had completed primary education were 61% more likely to express willingness to use PrEP compared to those with no formal education.

Individual factors influence the utilization of oral HIV Pre-Exposure prophylaxis among Female Sex Workers in Koome Islands, Mukono District.

The study revealed that 88.2% of the Female Sex Workers currently using PrEP suffered challenges while taking oral HIV Pre-Exposure prophylaxis medicines with the commonest challenge reported being side effects from the drugs. This is in agreement with the study by, Koppe, U., et al 2022 showed that 24.1% stopped using PrEP due to fear of long-term side effects from Pre-Exposure prophylaxis medicines.

The study also revealed that Female Sex Workers' self-perception as being at high risk of contracting HIV infection was at 96%. This was due to the kind of work they do to earn a living. This finding is in agreement with a study by Ssuna et al, 2022, which revealed that Pre-exposure prophylaxis was most likely to be acceptable among those who perceived themselves as being at high risk of exposure to HIV.

The study further showed that 52.3% of the target population was not free to use condoms during sexual intercourse with their male customers. This was due to the need for higher pay for unprotected sex. This increased their self-perception of being at great risk of contracting HIV infection whilst motivating them to use PrEP medicines as protection against HIV. This contradicts a study by Nalukwago GK et al, 2021, which that PrEP adherence was low (48.2%) among FSWs who did not use condoms with their male customers.

The study findings show that 20.8% of respondents who discontinued PrEP reported that they always defaulted on taking the medicines and 12.5% had faced stigma to use the medicines in the belief that other people would think that they are HIV positive. This study finding is in agreement with a study by Diantha Pillay, et al 2020, which shows that 18.8% of the respondents cited that they discontinued oral PrEP due to feeling stigma.

4.2. Social-economic factors that influence utilization of oral HIV Pre-Exposure prophylaxis among Female Sex Workers in Koome Islands, Mukono District.

According to the study, 81 (65.3%) respondents believed that they received proper counseling before initiation of PrEP medicines. Of these, 76 respondents were currently using PrEP medicines. This is attributed to a better understanding of PrEP, how the medicines work to offer protection against HIV, the side effects of the medicines, and how to deal with side effects. The findings of this study are in agreement with a study by Nalukwago GK, et al 2021, which showed that 93.9% of the participants received proper counseling about PrEP medicines before they were initiated into them. This was possible because of the very good attitude they gave towards the health care providers.

The study also showed that the majority 121 (97.6%) of the Female Sex Workers had ever heard of HIV infection prevention through the use of oral HIV Pre-Exposure prophylaxis medicines, with 61% reporting that they heard about this method through their healthcare providers. Those who heard about the method through a friend and media were 31% and 7% respectively. This study's findings disagree with a study by Sarah Mona Przybyla, et al 2021, which showed that the majority of the sample was unaware of PrEP (71%).

The study showed that the majority, (11/21) of respondents who could not access PrEP medicines reported that they were told that the medicines were out of stock. 7/21 reported that the health facility was very far away from them, 2/21 reported that they feared picking the medicines due to stigma, and only 1/21 reported that there was no one to attend to them. These created challenges in adherence to the medications and the participants thought of themselves as being higher at risk of contracting HIV infection. This study finding is however contradictory to a study by Kennethea Wilson et al, 2021 carried out in the New York-United States of America, which showed that participants commonly stated their decision to initiate Pre-exposure prophylaxis was based on availability. Participants talked about the importance of obtaining the medication due to its convenient access and straightforward initiation process. Participants described a simple course of action to start Pre-exposure prophylaxis, including calling a doctor's office to set up medical appointments as well as the clinic's flexible hours.

The study findings revealed that the majority of the participants 84(67.7%) could not afford oral HIV Pre-Exposure prophylaxis medicines if the government was not providing them freely, and 24(19.4%) reported that they didn't know if they could afford PrEP medicines. This was attributed to the low-income status of the Female Sex Workers to which the majority 76(61.3%) earned between UGX 10,000 and UGX 50,000 daily. This still contradicts a study by Sarah Mona Przybyla et al, 2021 carried out in New York which showed that most participants had private health insurance and were able to obtain Pre-exposure prophylaxis at no or low cost. On the other hand, some participants shared they were either uninsured or underinsured yet were able to afford Pre-exposure prophylaxis through programs such as the Pre-exposure Prophylaxis Patient Assistance Program via the state health department, Gilead co-pay program, or other funding sources.

The study further revealed that 85.5% of the FSWs who reported that selling sex had become their main source of income were using PrEP medicines. This could be attributed to the increased need for protection against the disease for them to compete and remain more productive in their activities. This study's finding agrees with a study by Nalukwago GK et al, 2021 which showed that 72% of the participants reported sex being their main source of income as well using PrEP medicines.

5. CONCLUSIONS.

From the study findings, 97.6% of FSWs are aware of PrEP medicines as a preventive measure against HIV infection. The majority 76/124(61.3%) of the female sex workers were

currently using PrEP. However, 87% of those using PrEP were suffering challenges while taking the PrEP medicines, and side effects from the medicines were reported to be the biggest challenge.

Self-perception as being at risk of contracting HIV infection is high among FSWs thus causing a high need for utilization of PrEP medicines. The study findings show low utilization of PrEP among FSWs with lower levels of education despite their awareness of PrEP medicines. The findings from the study show a high proportion of FSWs would not afford PrEP medicines if they were not freely being provided by the government and support organizations. The study findings show that the majority of FSWs did not access PrEP medicines because they were out of stock.

6. RECOMMENDATIONS.

The government should not only maintain the provision of PrEP medicines but also increase the amount of PrEP medicines supplied to Koome Health Centre III to ensure easy access to the medicines and reduces shortages of PrEP medicines. This would increase FSWs' adherence to PrEP medicines and reduce HIV infection transmission.

There should always be a timely supply of PrEP medicines to Koome Health Center III to curb issues of PrEP being out of stock most of the time.

Healthcare providers should increase the counseling of FSWs before and after initiating them on PrEP medicines. This ensures the psychological stability of FSWs who suffer challenges such as side effects associated with PrEP medicines.

7. ACKNOWLEDGEMENTS.

I wish to extremely acknowledge Vision For Africa International (sponsorship office), who has unarguably given in all that it takes to have me educated up to this level.

I thank Ms. Kerstin Bawmfalk for giving me an upper hand in financially funding my research.

I thank Ms. Bangi Justine who has unceasingly given me motherly strength and courage to adhere to education as the backbone of my life.

I thank my brother, Mr. Kajyaku Joshua for grooming me into the person I am today.

I also thank the entire staff of Koome Health Centre III under the leadership of Mr. Kanakulya Edward for providing a conducive environment for me to carry out my research.

8. LIST OF ABBREVIATIONS.

AGYW: Adolescent Girls and Young Women
AIDS: Acquired Immunodeficiency Syndrome
ARV: Antiretroviral
CAB-LA: Cabotegravir
FSWs: Female Sex Workers
FTC: Emtricitabine
HCWs: Health Care Workers
IPV: Intimate Partner Violence
HIV: Human Immunodeficiency Virus
MSM: Men who have Sex with Men
PrEP: Pre-Exposure Prophylaxis
SEARCH: Sustainable East Africa Research for Community Health
STIs: Sexually Transmitted Infections
TDF: Tenofovir
USAID: United States Agency on International Development
WESW: Women Engaged in Sex Work
WHO: World Health Organization

9. Publisher details:

Publisher: Student's Journal of Health Research (SJHR)
(ISSN 2709-9997) Online
Category: Non-Governmental & Non-profit Organization
Email: studentsjournal2020@gmail.com
WhatsApp: +256775434261
Location: Wisdom Centre, P.O.BOX. 148, Uganda, East Africa.

10. REFERENCES.

1. Catherine A. Koss, Carol S. Camlin, Monica Getahun, Laurence Owino, 2022. *Providers' Attitudes and Experiences with Pre-Exposure Prophylaxis Implementation in a Population*-Based Study in Kenya and Uganda.
2. Diantha Pillay ,Kayla Stankevitz ,Michele Lanham , Kathleen Ridgeway ,Mercy Murire , Elmari Briedenhann, Sarah Jenkins ,Hasina Subedar, Theresa Hoke, Saiqa Mullick ,2020 :*Factors influencing uptake, continuation, and discontinuation of Pre-exposure prophylaxis among clients at sex worker and MSM facilities in South Africa.*
3. Global Pre-exposure prophylaxis Network, 2021: Global State Of Pre-exposure prophylaxis.
4. Kayesu, I., Mayanja, Y., Nakirijja, C. *et al.* ,2022:*Uptake of and adherence to oral pre-exposure prophylaxis among adolescent girls and young women at high risk of HIV-infection in Kampala, Uganda:* A qualitative study of experiences, facilitators and barriers.
5. Kennethea Wilson,Sarahmona Przybyla,Jacob Bleasdale,Steven Gabriel, Natalie Leblanc &Noelle, 2021 St. Vil.*Factors correlated with pre-exposure prophylaxis awareness and use among black adults in the United States: implications for improving HIV prevention*
6. Koppe, U., Marcus, U., Albrecht, S. *et al.* Barriers to using HIV pre-exposure prophylaxis (PrEP) and sexual behaviour after stopping PrEP: a cross-sectional study in Germany. *BMC Public Health* 21, 159 (2021)
7. Nalukwago GK et al, 2021*: Adherence to oral HIV pre-exposure prophylaxis among female sex workers in Kampala, Uganda*. African Health Sciences.
8. Nhamo D, Duma SE, Ojewole EB, Chibanda D, Cowan FM (2022) *Factors motivating female sex workers to initiate pre- exposure prophylaxis for HIV prevention in Zimbabwe*
9. Przybyla S, Fillo J, Kamper-DeMarco K, Bleasdale J, Parks K, Klasko-Foster L, Morse D. 2021. *HIV* pre-exposure prophylaxis k*nowledge, familiarity, and attitudes among United States healthcare professional students*: A cross-sectional study. Journal
10. Ssuna, B., Katahoire, A., Armstrong-Hough.*Factors associated with willingness to use oral pre- exposure prophylaxis in a fisher-folk community in peri-urban Kampala, Uganda*. *BMC Public Health 22.*
11. Timothy R. Muwonge , Rogers Nsubuga, Charles Brown, Agnes Nakyanzi, Monica Bagaya, Felix Bambia, Elly Katabira, Peter Kyambadde, Jared M. Baeten, Renee Heffron, Connie Celum, Andrew Mujugira, Jessica E. Habert Published: October 28, 2022.*Knowledge and barriers of Pre-exposure prophylaxis delivery among diverse groups of potential Pre- exposure prophylaxis users in Central Uganda.*
12. World Health Organisation,2022. Differentiated and simplified pre-exposure prophylaxis for HIV prevention. Update to WHO implementation guidance TECHNICAL BRIEF.
13. Mayanja, Y., Kamacooko, O., Lunkuse, J. F., Muturi-Kioi, V., Buzibye, A., Omali, D., Chinyenze, K., Kuteesa, M., Kaleebu, P., & Price, M. A. (2022). Oral pre-exposure prophylaxis preference, uptake, adherence and continuation among adolescent girls and young women in Kampala, Uganda: a prospective cohort study. *Journal of the International AIDS Society*, *25* (5), e25909. ht tps://doi.org/10.1002/jia2.25909
14. AmFAR, 2021 Getting PrEP to Key Populations Is Critical to Global Fight Against HIV.
15. HIV Research For Prevention Conference (HIVR4P,2018)
16. Ssuna, B., Katahoire, A., Armstrong-Hough, M., Kalibbala, D., Kalyango, J. N., & Kiweewa, F. M. (2022). Factors associated with willingness to use oral pre-exposure prophylaxis (PrEP) in a fisher-folk community in peri-urban Kampala, Uganda. *BMC public health*, *22* (1), 468. https://doi.org/10.1186/s12889-022-12859-w

17. Kwagonza, Leocadia & Bulage, Lilian & Okello, Paul & Kusiima, Joy & Kadobera, Daniel & Ario, Alex. (2020). Comprehensive knowledge of HIV prevention among fishing communities of Lake Kyoga, Uganda, 2013. BMC Public Health. 20. 10.1186/s12889-020-8146-6
18. Jayakumaran, Jenani & Aaron, Erika & Gracely, Ed & Schriver, Emily & Szep, Zsofia. (2016). Knowledge, Attitudes, and Acceptability of Pre-Exposure Prophylaxis among Individuals Living with HIV in an Urban HIV Clinic. PloS one. 11. e0145670. 10.1371/journal.pone.0145670.
19. World Health Organization 2017, WHO Implementation tool for pre-exposure prophylaxis (PrEP) of HIV infection. Module 1: Clinical. Geneva: