

Attitude and Practices towards the use of post-exposure prophylaxis amongst bar attendants aged 18-35 years in Kajjansi town council. A cross-sectional study.

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Abstract.

Background:

Post-exposure chemoprophylaxis can prevent human immunodeficiency virus (HIV) infection in at-risk healthcare workers; however, routine adoption of these practices by the workers has been limited. This study aimed at determining attitudes and Practices towards the use of post exposure prophylaxis amongst bar attendants aged 18-35 years in Kajjansi town council.

Methodology:

A descriptive cross-sectional design was used, involving a quantitative method of data collection using a snowball non-probability sampling technique to select the study sample. All persons aged 18+ years who attended bars in the town at the time of the study were included. Data was collected on a daily basis for 7 days, and this was from bar attendants in Kajjansi Town Council.

Results:

Most of the participants were Catholics, 43(43%), the majority, 39(39%), of the bar attendants had not attained any educational qualifications. Regarding the attitude, 60 (76.9%) reported that they believe PEP is safe for use, 54 (69.3%) of the participants believed that PEP can prevent HIV/AIDS, and 63 (80.8%) of participants reported willingness to use PEP. Concerning the practices, 42(53.8%) of the participants reported a history of PEP usage, and 21(50.0%) of the participants said they obtained PEP from hospitals.

Conclusion:

Participants had a summative positive attitude towards the use of PEP and would take up the idea of PEP for utilization in cases of exposure to HIV/AIDS.

An overall agreement with consent in the practice and utilization of PEP if exposed to HIV/AIDS, and would agree.

Recommendation:

The populations require more PEP awareness, and policymakers should consider the public sensitization and awareness Campaigns as a means to implement the HIV/AIDS reduction and prevention strategies.

Keywords: Bar attendants, post-exposure prophylaxis, HIV/AIDS prevention, Kajjansi Town council.

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Background.

Post-exposure chemoprophylaxis can prevent human immunodeficiency virus (HIV) infection in at-risk healthcare workers; however, routine adoption of these practices by the workers has been limited. Acquired Immune Deficiency Syndrome (AIDS) is one of the most serious public health problems, costing the lives of many people, particularly in sub-Saharan Africa, where even health care workers (HCWs) are affected and at risk.(Chauhan et al., 2019)

Globally, an estimated 37 million people are living with HIV amidst an intense and continued response to the pandemic. HIV continues to spread. According to the WHO, globally, 33.9-43.8 million people are living with HIV. An estimated 0.7% (0.6-0.8%) of the adults aged 15-49 years

worldwide are living with HIV although the burden of the epidemic continues to vary considerably between countries and regions with Eswatini having the highest HIV rate at 19.58% followed by Lesotho at 18.72% and Samoa is one of the most fortunate country with the smallest number of HIV cases reporting ONLY 12 cases, with Saudi Arabia and Afghanistan being reported to have the lowest prevalence of the disease among reported nations at approximately 0.01% of their populations respectively.

According to the WHO, the African region is the most affected region with 25.7 million people living with HIV by the year 2018. The African region also accounts for almost two-thirds of the global total of new HIV infections. African countries such as Botswana, South Africa, and Namibia have high prevalence's 15.75%, 14.75% and 8.9%,

respectively. A secondary analysis from the Rwanda AIDS Indicator & HIV Incidence Survey (2013-2015) showed that recent PEP recipients (those who received PEP in the 12 months prior to the survey) had 6.5 times higher odds of being HIV positive than non-recipients. (Report, 2012).

The prevalence of HIV among adults aged 15-64 in Uganda is 6.2%-7.6% among females and 4.7% among males. This corresponds to approximately 1.2 million people aged 15-64 living with HIV in Uganda (Bhattacharya et al, 2022). Uganda, for the period of 2010 to 2020, recorded a tremendous improvement in the fight against the HIV/AIDS epidemic. It is among the eight countries in the world that had fully achieved the 90-90-90 targets by the end of 2020, the others being Eswatini, Switzerland, Rwanda, Qatar, Botswana, and Malawi. (UNAIDS, 2021)

According to the Uganda MOH Estimates 2020, 37% of all the new HIV infections were among young people aged 15-24 years, with 79% of these new HIV infections among young women. 29% of all new infections occur among adolescent girls and young women, despite representing just 10% of the total population. Among the special interest groups, a total population of 130,000 sex workers, the prevalence of HIV is 31.3%, with a 65% ART coverage and only 69.4% condom use. (Yumbe, 2021)

Evidence from biomedical studies has revealed that there may be a window of opportunity to abort HIV infection by inhibiting viral replication following an exposure. Research has further indicated that once HIV has crossed the mucosal barrier, it takes 48-72 hours before the virus can be detected in the regional lymph nodes, and up to five days before it can be detected in the blood. Accidental exposure to HIV is predominantly via the percutaneous and mucocutaneous routes.

The risk of transmission for deep percutaneous injury has been estimated at about 0.3%, while due to the mucocutaneous route, 0.03-0.09. HIV-PEP has been used for healthcare providers accidentally exposed to HIV (Ministry of Health, 2022). In recent years, PEP has been used in many parts of the world as a potential method of preventing HIV infection. Accidental exposure to Human Immunodeficiency Virus occurs in occupational and non-occupational situations. Although unintentional exposure to HIV can occur to anyone, common among health workers, men, women, and adolescents, not limited to the bar attendants in Kajjansi Town Council. This study aimed at determining attitudes and Practices towards the use of post exposure prophylaxis amongst bar attendants aged 18-35 years in Kajjansi town council.

Methodology.

Study design

A cross-sectional descriptive study design was used. This design aimed at quantifying the distribution of certain variables that the study population had at one point in time.

A descriptive study was adopted because it allows to describe the distribution of one or more variables, without regard to any causal or other hypothesis. In addition to that, a cross-sectional descriptive study design involves the collection of information on the presence or level of one or more variables of interest

as they exist in a defined population at one particular time. With respect to this study, the health characteristics of the use of post-exposure prophylaxis amongst bar attendants.

Study area

The study was conducted in Kajjansi Town Council. The township is situated on the tarmacked, all-weather Kampala - Entebbe Road. Kajjansi Town Council is located approximately 16 kilometers (9.9 mi) by road, south of Kampala, Uganda's capital and largest city. This location is approximately 25 kilometers (16 mi), by road, north of Entebbe International Airport, Uganda's largest civilian and military airport. The coordinates of Kajjansi Town Council are: 0°12'54.0"N, 32°33'00.0"E (Latitude: 0.2150; Longitude: 32.5500). Country: Uganda.

Study population.

The population for this study was made up of 133 respondents who were bar attendants in Kajjansi Town Council, aged 18 to 35 years. This category of respondents was chosen because they are a youthful community at risk of heterosexual but not limited to occupational contraction of HIV, with a need for use of PEP. This population enabled the researcher to obtain the necessary data that was required for this particular study.

Sample Size Determination

The sample size of the study was determined using Slovin's Formula. With regard to the level of accuracy, a confidence level of 95% means that there are 95 chances in 100 (or .95 in 1) that the sample results represent the true condition of the population within a specified precision range against 5 chances in 100 (or .05 in 1) that it does not. (Res, 2018).

This formula was adopted because it is a random sampling technique to estimate the sampling size. The sample size was therefore calculated using the formula.

$$n = \frac{N}{(1 + Ne^2)} \quad (\text{Res, 2018})$$

Where;

n is the number of samples

N is the total population, e is the error of margin equivalent to 0.05

For this study, N was 133, giving us a sample size of 100 respondents.

Sampling technique

The study employed a simple random sampling technique to select the study population. Simple Random Sampling is

defined as the method of selecting a sample, in which the sample is selected unit by unit, with equal probability of selection for each unit at each draw. (Noor & Tajik, 2022). This technique was adopted because it allowed a test with a large number of participants, which eventually led to precise, generalizable results. It was preferred to other techniques because it ensured that each member of the target population had an equal and independent chance of being included.

Sampling procedure

The study employed a snowball non-probability sampling procedure to select the study sample. It was preferred to other techniques because it allowed new units to be recruited by other units to form part of the sample, since the bar attendants should, by law, be above 18 years of age; they also associate and can easily be traced from one bar to another, giving a range of views. The population was also more prone to HIV infection and may need to take up the PEP due to the modes of fast infections they are prone to.

Data collection method

The survey method was conducted on bar attendants above 18 years of age. This method was used to collect Primary Data by use of questionnaires with both closed and open-ended questions. A questionnaire was used due to its ability to collect a large amount of information in a reasonably quick span of time and in an economical manner. Closed-ended questions were part of the questionnaire to capture data in a consistent manner. This was because closed-ended questions can be more specific, thus more likely to communicate similar meanings and questions to the respondents. (Coll et al., 2013).

The questionnaire obtained information on demographics and the use of post-exposure prophylaxis amongst bar attendants in Kajjansi Town Council. The study tool was preferred because data was to be collected for a short period of time from all study participants. (Coll et al., 2013)

Data Collection Instrument

A structured questionnaire was used.

Data collection procedure

Before collecting data, all ethical and cultural issues were considered, such as freedom from harm and respect for human dignity. Firstly, permission was sought from the Mild May Institute of Health Science. Thereafter, permission was sought from the local chairperson, LC3, and the mayor. The study team introduced themselves and explained the purpose of the research to the study participants in order to ensure that they clearly understood

the purpose of the study. Each study participant was interviewed for about 20-25 minutes. The respondents were asked questions following the interview guide. Those who were not able to understand English had the questions translated into the local language.

Study variables

The study variables in this study were attitude and practices towards the use of post-exposure prophylaxis amongst bar attendants in Kajjansi Town Council.

Post-exposure prophylaxis was the dependent variable.

Quality control

Pretesting of research tools

A pilot study was carried out among a few members of the population to assess validity and reliability. The questionnaire was reviewed by colleagues and my supervisor in the town, and any adjustments were made.

Training of research assistants

Assistants were subjected to tests so that they fully understand their roles.

Giving ample time for data collection

Buffer time was included so as to cover delays that might come up during the process of data collection.

Inclusion

All persons aged 18+ years who attend bars in the town at the time of the study, and those willing to take part in the study, were included after obtaining consent.

Data analysis and presentation

Data was analyzed manually by simple tallying, addition, and later data was entered in Microsoft Excel to generate tables, pie charts, and bar graphs.

Ethical consideration

Before the collection of data for the study, written permission was obtained from the Mild May Institute of Health Sciences to Kajjansi Town Council town mayor's office. An introductory letter from the Mayor of Kajjansi Town Council was shown to the registered bars that accepted to collect data.

Study limitations

The researcher anticipated finding challenges with the language since she was required to translate and explain some of the words in the local language that the respondents would understand.

Results.

Table 1 showing participants' social demographic characteristics. N=100

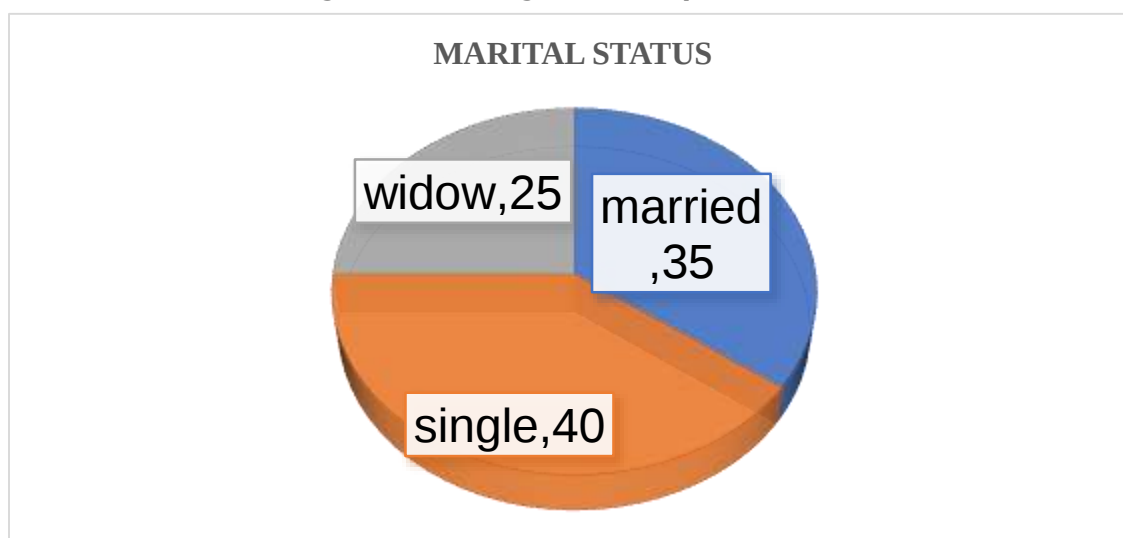
Variable	Variable options	Frequency(N100)	Percentage (%)
Sex	Male	92	92
	Female	8	8
	TOTAL	100	100
AGE	18-25	22	22
	25-31	35	35
	32-38	20	20
	39-45	23	23
	TOTAL	100	100
RELIGION	Catholic	43	43
	Protestant	20	20
	Muslim	3	3
	Others specified	34	34
	TOTAL	100	100
LEVEL OF EDUCATION	Primary	17	17
	Secondary	24	24
	Tertiary	20	20
	None	39	39
	TOTAL	100	100

Source: Primary Data (2023)

Table 1 shows that the majority of respondents were males, 92(92%). The age range (25-31) was mostly found in the bars 35(35%), and the other ranges, as statistically classified, were 18-25; 22(22%), 39-45; 23(23%), 32-38; 20(20%). Most of the participants were Catholics, 43(43%), attributed to the freedom of alcohol from the religion, and

the minority, only 3(3%), being moslems. Most of the bar attendants in Kajjansi Town Council had not attained education 39(39%), with those having up to a tertiary level of education being 20 (20%), primary level 17(17%), and secondary level only 24(24%).

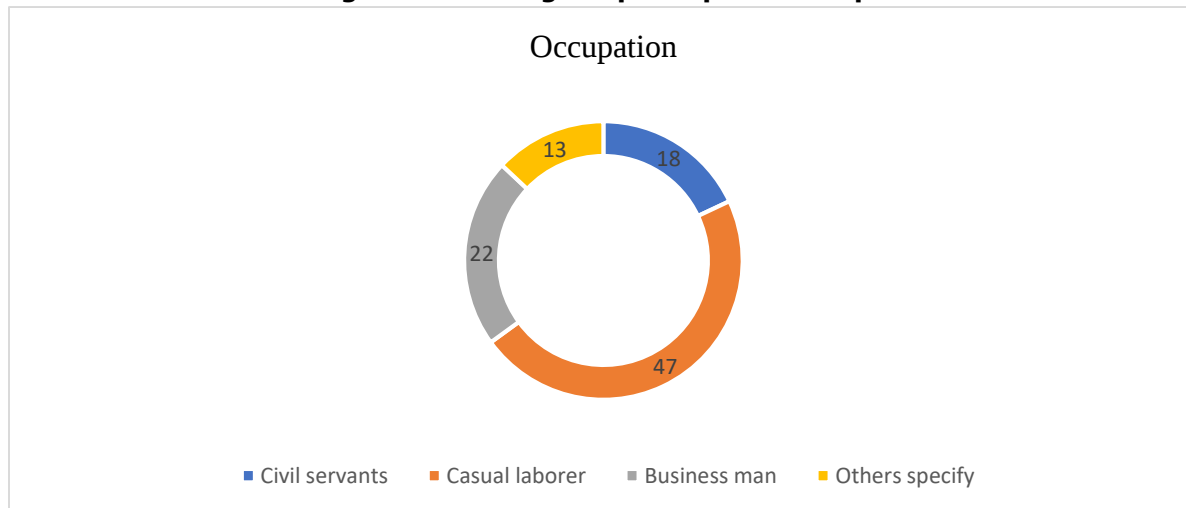
Figure 1: showing the Participants' Marital Status.



(Source: Primary Data, 2023)

Figure 1 shows that most of the men presented with a single status (40%), with the married and widowed (35%), (25%) respectively.

Figure 2: showing the participants' occupation.



Source: Primary Data, 2023)

Figure 2 shows that most of the participants were casual laborers (47 %), 22% were businessmen, 18% were civil servants, and only 13% had specific jobs that were specified to them.

Findings on the respondents' attitudes towards the use of post-exposure prophylaxis

Table 2: Frequency Table showing participants' attitudes towards the use of PEP

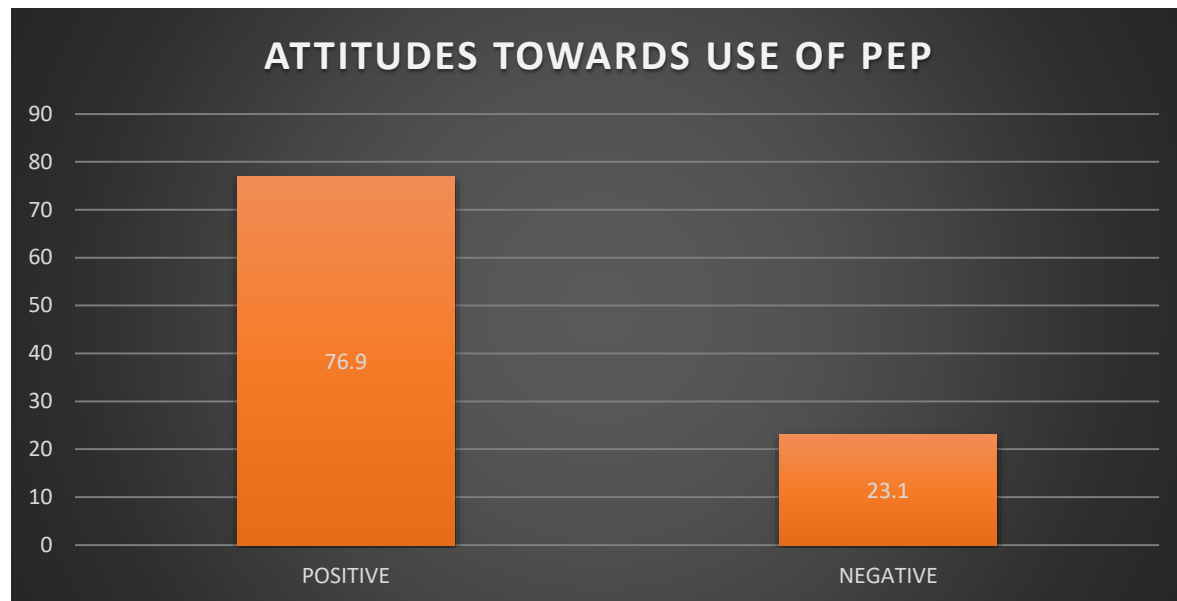
Variable	Variable options	Frequency	Percentage
Is PEP safe for use	Yes	60	76.9
	No	18	23.1
	TOTAL	78	100
Do you think post-exposure prophylaxis can prevent HIV/AIDS?	Yes	54	69.3
	No	24	30.7
	TOTAL	78	100
Would you accept the use of post-exposure prophylaxis?	Yes	63	80.8
	No	15	19.2
	TOTAL	78	100
Would you encourage anyone to use post-exposure prophylaxis?	Yes	63	80.8
	No	15	19.2
	TOTAL	78	100

Source: Primary Data (2023)

Table 2 shows that out of the 78 participants, 60 (76.9%) reported that they believe PEP is safe for use, while 18 (23.1%) did not. When asked if they believed that PEP can prevent HIV/AIDS, 54 (69.3%) participants answered yes, while 24 (30.7%) answered no.

Regarding participants' willingness to use PEP, 63 (80.8%) stated that they would accept its use, while 15 (19.2%) said they would not. Finally, participants were asked if they would encourage others to use PEP, and 63 (80.8%) responded positively, while 15 (19.2%) said they would not.

Figure 3: Shows participants' attitudes towards the use of PEP.



(Source: Primary Data, 2023)

Figure 3 shows that 76.9% of the participants had a positive attitude about it being safe for use, while the remaining (23%) didn't conform to the safety and effectiveness of PEP, therefore had a negative attitude towards the use of PEP.

Findings on the respondent's practices on the use of post-exposure prophylaxis.

Table 3: Frequency table showing participants' practices of use of PEP

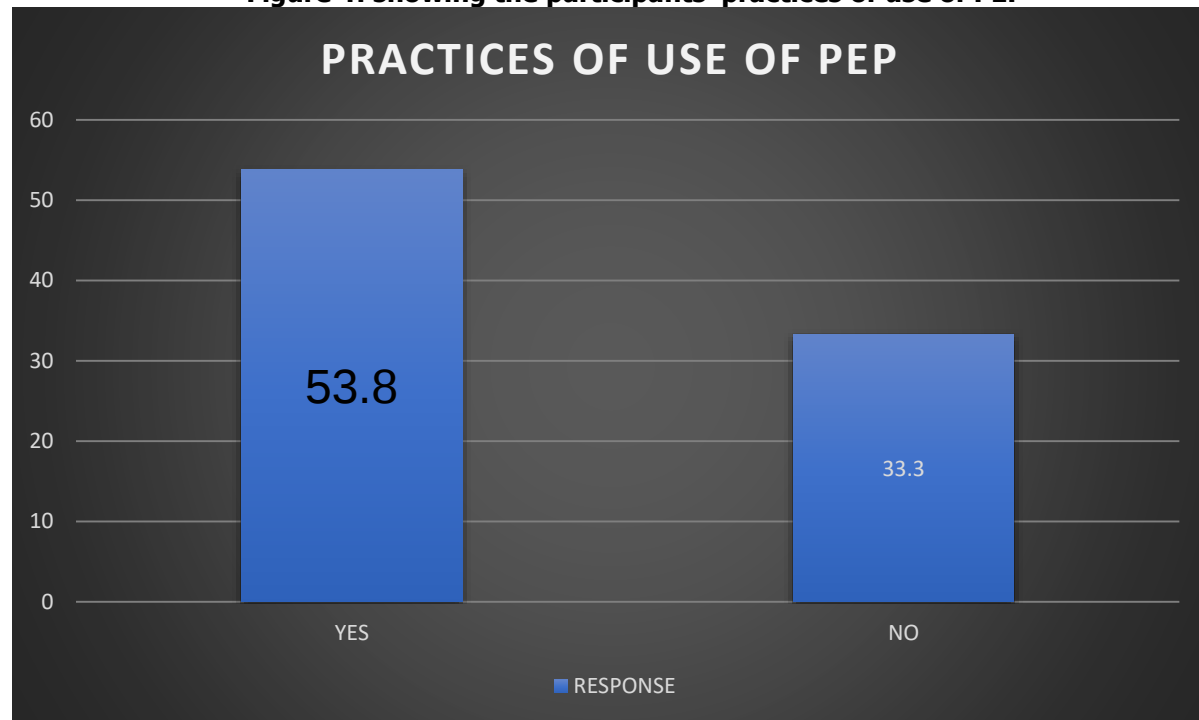
Variable	Variable options	Frequency	Percentage
Ever used PEP	Yes	42	53.8
	No	26	33.3
	TOTAL	78	100
From where?	Hospital	21	50.0
	Clinic	13	30.9
	Home/Village	2	4.8
	Outreach/camps	6	14.3
	TOTAL	42	100
What was the reason for the use of PEP?	Medical practice	8	20
	Belief in HIV prevention	1	2.5
	TOTAL	33	82.5
		42	100

Source: Primary Data (2023)

Table 3 shows that among the 78 participants, 42 individuals (53.8%) reported a history of PEP usage, while 26 participants (33.3%) had not utilized PEP. Regarding the source of PEP, 21(50.0%) obtained it from hospitals, 13 (30.9%) from clinics, 2 (4.8%) from home or village, and 6 (14.3%) from outreach programs or camps. Furthermore,

participants were questioned about their motivations for using PEP. Eight participants (20%) reported using PEP based on medical advice, 1 (2.5%) due to personal beliefs, and a majority of 33 participants (82.5%) utilized PEP primarily for the prevention of HIV.

Figure 4: showing the participants' practices of use of PEP



(Source: Primary Data, 2023)

Figure 4 indicates that 53.8% (42) of the participants have used PEP before, whereas 33.3% (26) had never used PEP.

Discussion of results.

Attitudes towards the use of PEP.

Regarding the attitudes of the participants towards the use of PEP, the majority 76.9% had a positive attitude about PEP being safe for use, and the minority 23% didn't conform to the safety and effectiveness of PEP. In addition, 54% of the participants also agreed that PEP could prevent HIV/AIDS infection. This study further showed that 80.8% of the participants would accept using PEP, and they would also encourage others to use PEP. These findings are in agreement with previous studies, such as a study conducted at the Gondar University Hospital. (Eticha & Gameda, 2019b) indicated that 98.5% agreed on the importance of PEP for HIV, which is even greater than our study findings. Our findings are probably so because the good levels of knowledge are associated with increased awareness levels in the communities.

Furthermore, on the effectiveness and the will to uptake PEP, the majority 63(80.8%) accepted to use PEP, and the minority 15(19.2%) would not accept. These findings are in agreement with a previous study conducted by Futumu, the effectiveness of PEP for HIV prophylaxis was accepted by the respondents, with 219 (73%) respondents agreeing to use

PEP if the need arises. 142 (47.3%) of the respondents have sustained a needle stick injury in their medical practice, while 158 (52.7%) have never sustained a needle stick injury. However, only 123 (87.0%) of the 142 respondents with needle stick injury reported to the appropriate

authority, while 19 (13.0%) did not report (Futumu S et al 2019). The positive response towards the uptake of PEP was because of the good knowledge and, hence, very good attitudes.

Practices towards the use of PEP among bar attendants.

From the study, the practices of use and practices of PEP utilization findings revealed that the majority, 53.8% (N42) of the participants had used PEP before, of whom 21(50%) of them had it from the hospitals. The main reason for most of them (82.5%) using PEP was for the prevention of HIV/AIDS. This gives a conclusion from the results that most of the participants used and think PEP could be used effectively for the prevention of HIV/AIDS infection. This corresponds with the previous studies conducted supporting the practice of use of PEP. Among 38 HCWs on ART for PEP, 21 (55.3%) of them were exposed to the blood of known HIV positive patients, which is comparable to a study from the Gondar University Hospital (57.1%). (Eticha & Gameda, 2019b) Even though 71.7% of the exposed

respondents took PEP for HIV in this study, only 68.4% of them were able to complete the duration of prophylaxis, which requires 28 days. The main reason for no adherence of these individuals was fear of adverse effects. This indicated that it is lower than the findings of the study conducted among HCWs of governmental health institutions in Mekelle Town, Ethiopia (80.6%) (Gebreslase & Abera, 2014). However, a study conducted in Gujarat, India (Gebreslase & Abera, 2014), showed that their respondents had better practice in this regard than our study participants, in which more than 94% were able to complete the regimen. This fact alerts that the practice of PEP for HIV in this study area needs improvement. Reasons for the observed difference in findings between different research results might be due to the difference in the level of awareness among the different populations, economic differences of the study population, and time differences of the studies.

Conclusion.

The participants had a summative positive attitude about the use of PEP and would take up the idea of PEP for utilization in cases of exposure to HIV/AIDS. An overall agreement with consent in the practice and utilization of PEP if exposed to HIV/AIDS, and would agree to it mainly for the prevention of HIV/AIDS infection, was also observed among the sampled participants, and the minority 23.1% had a negative attitude towards PEP.

An overall agreement with consent in the practice and utilization of PEP if exposed to HIV/AIDS 80.8% and would agree. The main reason for most of them using PEP was for the prevention of HIV/AIDS, and the minority would not use PEP.

Recommendations

The populations require more PEP awareness, and policymakers should consider the public sensitization and awareness Campaigns as a means to implement the HIV/AIDS reduction and prevention strategies.

I would like to acknowledge the input of my supervisor, Mr. Jimmy Okwany, towards the success of this research. Without his dedication, it would not have been possible to achieve this outcome. I further wish to thank him for the technical guidance. His critical comments provided a more valid perspective on thoughts, ideas, and arguments, and the rest of my mum, husband, and family who supported and encouraged me in spite of all the time it took me away from them.

Thanks to all my friends at Mildmay Institute of Health Sciences, the owners of bars and their respective staff and customers, who provided me with the necessary data for this research.

I am indebted to you all.

Data availability.

Data used in this study are available upon request from the corresponding author.

List of abbreviations.

AIDS	-	Acquired immunodeficiency syndrome
ART	-	Antiretroviral therapy
CDC	-	Centre for Disease Control
DHS	-	Demographic and Health Survey
HIV	-	Human Immunodeficiency Virus
KAP	-	Knowledge Attitude Practice
MOH	-	Ministry of Health
PEP	-	Post-Exposure Prophylaxis
PrEP	-	Pre-Exposure Prophylaxis
STI	-	Sexually Transmitted Infection
USAID-Development	-	United States Agency for International Development
WHO	-	World Health Organization
PMTCT	-	Prevention of mother-to-child transmission
UAHEB	-	Uganda Allied Health Examination Board

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Conflict of interest.

The author declares no conflict of interest.

Author's biography.

Shamim Nassanga is a student of a diploma in clinical medicine and community health at Mildmay Institute of Health Sciences.

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Frank Ssemuwemba is a research supervisor at Mildmay Institute of Health Sciences.

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