



The utilization of contraceptives among HIV positive women aged 18–45 years attending the ART clinic at Buwama Health Center III, Mpigi district. A cross-sectional study.

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ABSTRACT

Background

In Uganda, the contraceptive use rate (CPR) among HIV-positive women of reproductive age is estimated at 39%. The purpose of the study was to assess the factors influencing the utilization of contraceptives among HIV-positive women aged 18-45 years attending the ART clinic at Buwama Health Center III, Mpigi District.

Methods

A descriptive cross-sectional study design employing quantitative methods of data collection was conducted in Buwama Health Center III. In a duration of 5 days, 52 HIV-positive women aged 18-45 years were selected using a simple random sampling method. A structured questionnaire was used to collect data, and it involved closed-ended questions. The data collected was analyzed manually, and findings were entered into a Microsoft Excel 2013, which was then presented in the form of tables, pie-charts, and graphs.

Results

18(35%) were 34-41 years, 20(39%) were married, 16(31%), had attained a secondary level of education. In line with individual-related factors: the majority 65% feared health complications, over half 58% made independent decisions on contraceptive use, almost half 46% reported that stress or anxiety hindered usage, and 33% could not afford contraceptive costs. On health facility-related factors, 71% reported frequent stock-outs, the majority 61% noted long distances to the facility, 60% were concerned about lack of privacy, and 46% felt healthcare providers were judgmental.

Conclusion

While knowledge of modern contraceptives among HIV-positive women was high, individual fears, emotional stress, financial constraints, and health facility-related barriers like long distances and frequent stock-outs significantly hindered their consistent utilization.

Recommendation

It is recommended that health facilities strengthen contraceptive service delivery by addressing individual concerns, ensuring consistent availability, improving provider attitudes, and integrating services with HIV care to enhance utilization among HIV-positive women.

Keywords: Factors influencing the utilization of contraceptives, HIV-positive women aged 18-45 years, ART clinic at Buwama Health Center III.

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Background of the Study

Contraceptive use is essential for preventing unintended pregnancies, improving maternal health, and reducing the transmission of sexually transmitted infections, including HIV (Shegog et al., 2021). The utilization of contraceptive

methods among HIV-positive women is particularly crucial as it helps in preventing mother-to-child transmission (MTCT) of HIV and supports reproductive health planning (Sherwood et al., 2021). Contraceptive methods include hormonal methods (such as oral pills, injectable, and



implants), barrier methods (such as condoms), intrauterine devices (IUDs), and permanent methods like sterilization (Margaritis et al., 2023).

Globally, contraceptive prevalence has increased significantly over the years, with approximately 63% of women of reproductive age using some form of contraception in 2021 (Haakenstad et al., 2022). However, disparities remain, particularly among vulnerable populations such as HIV-positive women who often face unique barriers to accessing and using contraceptives (de Oliveira et al., 2024). In low-income countries, in line with UNFPA 2021, its results showed that only 36% of married or in-union women use modern contraceptive methods compared to 66% in high-income countries. Studies indicate that HIV-positive women are less likely to use long-term contraceptive methods due to misinformation, stigma, and inadequate counseling from healthcare providers (Cooke, 2019).

In sub-Saharan Africa, contraceptive use among HIV-positive women remains relatively low due to factors such as lack of access, stigma, and inadequate integration of family planning services within HIV care settings (Grant-Maidment et al., 2022). Reports indicate that 24% of HIV-positive married women in Africa have an unmet need for contraception, with only 17% using modern contraceptive methods (Abubeker et al., 2019). Despite efforts to improve accessibility, many HIV-positive women in African countries continue to experience challenges in utilizing contraceptive services (Pleaner et al., 2021).

In East Africa, contraceptive prevalence rates vary across different countries, with Kenya and Rwanda having relatively higher rates compared to other nations in the region (Demeke et al., 2024). In Kenya, the contraceptive prevalence rate (CPR) among women of reproductive age is approximately 58%, while in Rwanda, the CPR of 53% (Orwa et al., 2022).

In Uganda, the contraceptive use rate (CPR) among HIV-positive women of reproductive age is estimated at 39% (Mbabazi et al., 2022). Studies indicate that approximately 18% of HIV-positive women use injectable contraceptives, while many rely on less effective or inconsistent methods (Brown et al., 2019). Factors influencing contraceptive use among HIV-positive women include limited knowledge, stigma, fear of side effects, lack of partner support, and healthcare system-related barriers (Simegn et al., 2024).

In Mpigi District, despite the availability of family planning services, the utilization of contraceptives among these women remains low. Therefore, this study seeks to assess

the factors influencing the utilization of contraceptives among HIV-positive women aged 18–45 years attending the ART clinic at Buwama Health Center III, Mpigi District.

METHODOLOGY

Study Design and Rationale

A descriptive cross-sectional study design employing a quantitative research method was used to obtain data. The study was descriptive because the researcher assessed the factors of the topic and analyzed the data using descriptive statistics. Quantitative methods involved the use of structured tools such as questionnaires to gather numerical data. The design was chosen because it was cost-saving, easier to carry out, and could be completed in a short period.

Study Setting and Rationale

The study was conducted at Buwama Health Center III, located in Mpigi District, Central Uganda. It is approximately 82 kilometers southwest of Kampala, Uganda's capital city, and lies along the Kampala–Masaka highway, which facilitates easy access to healthcare services for the surrounding communities. The geographical coordinates of Buwama Health Center III are approximately 0°07'20.0"N, 32°02'40.0"E (Latitude: 0.122222; Longitude: 32.044444).

Buwama Health Center III is a government-run facility that provides a wide range of healthcare services, including maternal and child health, HIV/AIDS care, and reproductive health services. The health center has an active Antiretroviral Therapy (ART) clinic that serves a significant number of HIV-positive women aged 18–45 years. These women frequently visit the center for ART medication, counselling, and reproductive health services, including contraceptive methods. Given the high number of HIV-positive women attending the ART clinic, Buwama Health Center III provided a strategic setting for studying the factors influencing the utilization of contraceptives among this population.

Study Population and Rationale

The study targeted HIV-positive women aged 18–45 years attending the ART clinic at Buwama Health Centre III in Mpigi District. This population was selected due to the unique reproductive health needs and challenges faced by HIV-positive women, particularly concerning the utilization of contraceptives. Women in this age range were often in a critical stage of family planning, sexual health, and HIV management.



Sample Size Determination

The sample size determination followed the guidelines provided by Krejcie and Morgan's table of 1970. The Buwama Health Centre III ART Register had a population of approximately 500 HIV-positive patients, of which 60 were women aged between 18 and 45 years. Based on Krejcie and Morgan's table of 1970, a population size of 60 gave a sample size of 52, and therefore, $N=60$ and $S=52$ respondents as shown below.

Therefore, a sample size of 52 respondents was obtained for this study.

Sampling Procedure

The researcher used a simple random sampling technique. This technique was chosen for the study because it ensured that the sample was representative of the study population and helped reduce bias in the population sample. To obtain the required number of participants, HIV-positive women aged 18–45 were selected from the ART Clinic. The researcher prepared 60 papers, 52 of which were marked with "YES," and the remaining 8 were left blank. All the papers were mixed in the same box, and respondents were asked to pick one paper. Those who picked the 52 papers marked with "YES" were selected to participate in the study. This sampling process continued for three days, as these were the days scheduled for ART services each week, with 18 respondents being interviewed daily to reach the required number of 52 participants.

Inclusion Criteria

All HIV-positive women aged between 18 and 45 years who consented to participate in the study were included, and those in a healthy situation who could afford to respond.

Exclusion Criteria

HIV-positive women aged between 18 and 45 years who had consented but failed to participate in the study. Those who were critically ill and unable to give responses

Dependent Variables

The dependent variables are characteristics under study that cannot be manipulated by the researcher, and in this case, it was the utilization of contraceptives.

Independent Variables

The independent variables were factors under the study that the researcher could control to observe an outcome. These included individual-related factors such as personal beliefs, limited decision-making autonomy, attitudes towards contraceptives, educational level, and health facility-related factors like health providers' attitudes, counselling provided by health workers, perceived confidentiality, and insufficient health education.

Research Instruments

The researcher used a structured questionnaire written in English containing closed-ended questions related to the study objectives. However, illiterate respondents were also considered, as the questions were verbally read to them by the researcher with the help of research assistants who filled in their responses. The questionnaire consisted of three sections: Section A focused on socio-demographic characteristics, Section B focused on individual-related factors, and Section C focused on health facility-related factors.

Data Collection Procedure

Upon approval of the proposal by the research supervisor and the institution's research ethics committee (IRC), an introductory letter from the Dean of the School of Nursing at Mildmay Uganda School of Nursing and Midwifery was granted to the researcher. This letter helped the researcher seek permission from the person in charge of Buwama Health Centre III. The researcher explained the purpose of the study and was then allowed to meet HIV-positive women at the ART clinic. Data collection involved training research assistants to help translate English questions into the local language for illiterate respondents during the administration of the structured questionnaires, as many respondents were sampled over three days. Verbal permission and informed consent were sought from respondents who were also reminded of their right to withdraw from the study at any time.

Data Management and Analysis

Data Management

On each day of collecting data, every questionnaire was checked for completeness and accuracy. The data collected was then coded and cleaned before analysis. All accurate and filled questionnaires were kept safely and could only be



accessed by the researcher to ensure maximum safety and confidentiality.

Data Analysis

Data was analyzed manually by the researcher, and the findings were then entered into Microsoft Excel and Word (version 2013). The data was presented in the form of frequency tables, graphs, and pie charts.

Quality Control

Validity

This was done by setting questions according to the research objectives and ensuring they aligned with the intentions of the research topic under the guidance of the research supervisor. Validity helped in measuring the accuracy of results within the study, facilitating the formulation of proper interventions to address the identified research problem.

Reliability

Reliability of this study was assured by the researcher pre-testing the questionnaires at Mpigi Health Centre IV on 12

HIV-positive women aged 18-45 before using the data collection tool in the formal study to ensure consistency and dependability of the research instruments. The questionnaire was re-pretested on 6 respondents to rectify any further mistakes within the questionnaire, and any issues were edited before losing contact with respondents.

Ethical Considerations

After the approval of the proposal by my research supervisor and the institution's research and ethics committee, an introductory letter from the Dean of the School of Nursing, Midmay Uganda School of Nursing and Midwifery was given to the researcher which was presented to the in-charge who granted permission for the researcher to carry out the study among HIV-positive women aged 18-45 years. All respondents were provided with a written informed consent after receiving a detailed description of the study. Eligible participants consented in privacy, and no incentives were given. Anonymity of the respondents was ensured at all stages of data collection and analysis.

RESULTS

Socio-demographic characteristics

Table 1 shows the socio-demographic characteristics of the respondents. n=52

Variable	Category	Frequency(f)	Percentage (%)
Age	18-25 years	9	17
	26-33 years	15	29
	34-41 years	18	35
	42 years and above	10	19
Marital status	Married	20	39
	Unmarried	10	19
	Single	8	15
	Cohabiting	14	27
Education level	No formal education	11	21
	Primary education	13	25
	Secondary education	16	31
	Diploma	12	23
Religion	Protestant	15	29
	Catholic	16	31
	Muslim	7	13
	Born Again	14	27

From table 1, less than half of the respondents, 18(35%) were 34-41 years, 15(29%) were 26-33 years, 10(19%) were 42 years and above, while the minority, 9(17%) were 18-25 years.

Less than half of the respondents, 20(39%) were married, 14(27%) were cohabiting, 10(19%) were unmarried while the least 8(15%) were single. Less than half of the

respondents, 16(31%), had attained a secondary level of education, 13(25%) were of primary education level, 12(23%) were of diploma level, and the least 11(21%) had no formal education. Less than half of respondents, 16(31%) were Catholic, 15(29%) were Protestant, 14(27%) were Born Again, while a minority, 7 (13%) were Muslim.

Individual-related factors influencing the utilization of contraceptives among HIV-positive women aged 18-45 years attending the ART clinic at Buwama Health Center III, Mpigi District.

Figure 1 shows whether respondents had ever heard about modern contraceptive methods
n=52

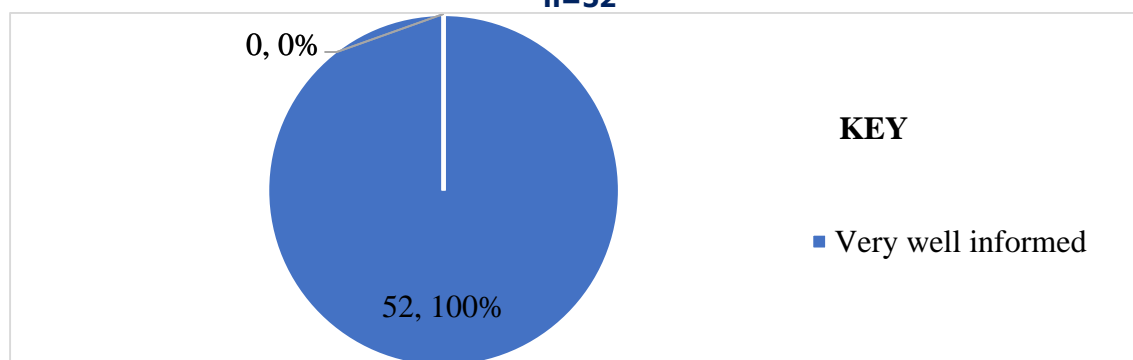


Figure 1 showed that all the respondents, 52(100%), were very well informed about modern contraceptive methods.

Table 2 shows the concerns respondents had about the use of contraceptives

Variable	Frequency (n=52)	Percentage (%)
Fear of infertility	18	35
Health complications	34	65
No concerns	0	0
Who made the final decision on respondents' contraceptive use?		
Myself	30	58
My partner	15	29
Both	7	13
How respondents' financial status affected their ability to use contraceptives		
I can afford them easily	10	19
Sometimes difficult to afford	25	48
I cannot afford them	17	33

From table 2, the majority of the respondents, 34(65%), feared health complications as a concern for the use of contraceptives, while the minority, 18(35%), feared

infertility. More than half of respondents, 30(58%), made the decision themselves regarding contraceptive use, 15(29%), their partners made the decision, while a minority,

7(13%), both participated in decision making regarding contraceptive use. Less than half of the respondents, 25(35%), sometimes found it difficult to afford

contraceptives, 17(33%) could not afford contraceptives, while the minority, 10(19%), could afford contraceptives easily.

Figure 2 shows how often stress or anxiety hindered respondents from using contraceptives. n=52

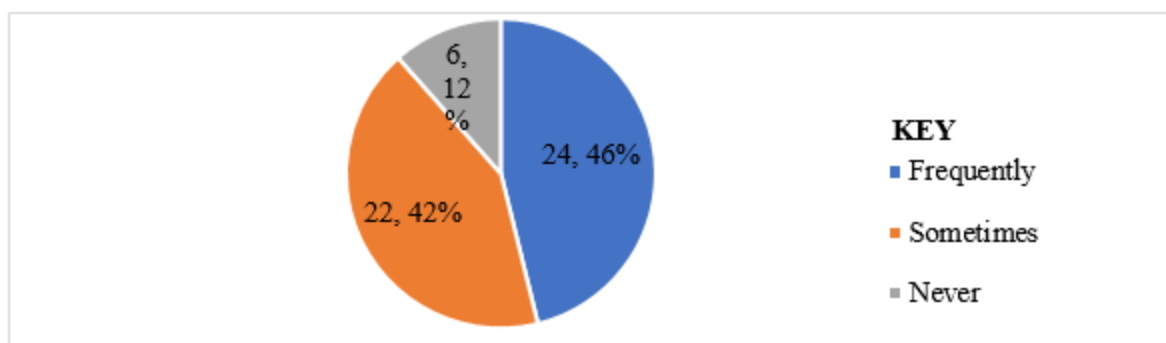


Figure 2 shows that the majority of the respondents, 24(46%), anxiety or stress frequently hindered them from using contraceptives, 22(42%) were sometimes hindered, while a minority, 6(12%), were never hindered by anxiety or stress from using contraceptives.

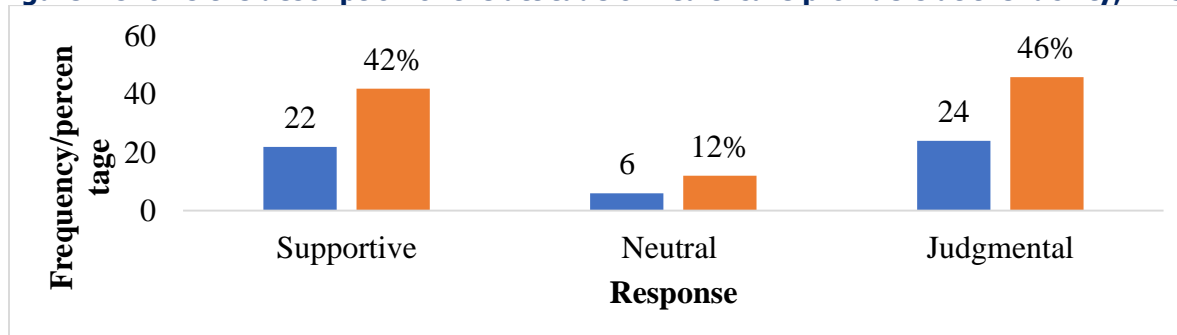
Health facility-related factors influencing the utilization of contraceptives among HIV-positive women aged 18-45 years attending the ART clinic at Buwama Health Center III, Mpigi District.

Table 3 shows how often respondents found contraceptives unavailable at the health facility.

Variable	Frequency(n=52)	Percentage (%)
Never	5	10
Rarely	10	19
Often	37	71

From table 3, most of the respondents, 37(71%), often found contraceptives unavailable at the facility, 10(19%) rarely found contraceptives unavailable, while a minority, 5(10%), never found contraceptives unavailable at the facility.

Figure 2 shows the description of the attitude of healthcare providers at the facility, n=52



From figure 3, the majority of the respondents, 24(46%), reported that healthcare providers were judgmental, 22(42%) mentioned that they were supportive, while a minority, 6(12%), were neutral.

Distance of respondents to the nearest health facility

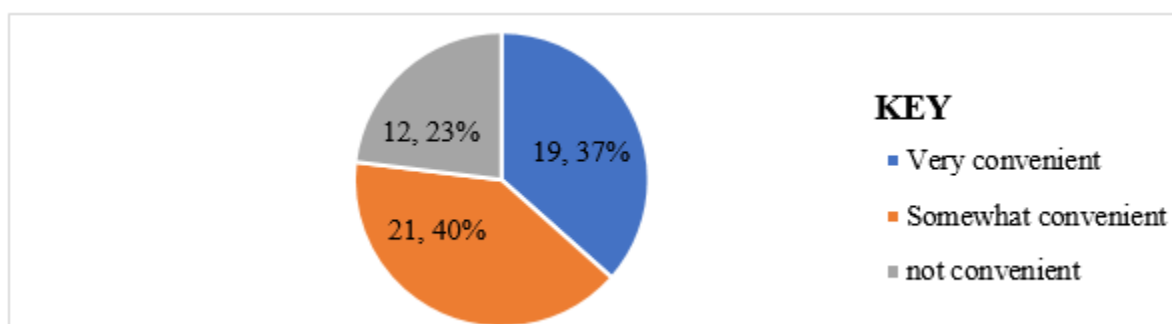
The majority of respondents, 32(61%), mentioned that the nearest facility was far, 18(35%) mentioned that the distance was manageable, while a minority, 2(4%), mentioned that it was very near.

Table 4 shows how comfortable respondents were with their privacy at the facility.

Variable	Frequency(n=52)	Percentage (%)
Very comfortable	6	11
Somewhat comfortable	15	29
Not comfortable	31	60

From table 4, the majority of the respondent, 31(60%), were not comfortable with their privacy at their health facility, 15(29%) were somewhat comfortable, while a minority, 6(11%) were very comfortable.

Figure 3 Shows whether it was convenient to access contraceptive services alongside HIV care, n=52





Most of the respondents, 21(40%), said it was somehow convenient for them to access contraceptive services alongside HIV care, 19(37%) said it was very convenient, while the least, 12(23%), mentioned that it was not convenient.

DISCUSSION

Individual-related factors influencing the utilization of contraceptives among HIV-positive women aged 18-45 years attending the ART clinic at Buwama Health Center III, Mpigi District.

Regarding modern contraception, all the respondents (100%) were very well informed about modern contraceptive methods. This could be because modern contraceptive methods have gained popularity, which might have influenced respondents to utilize the services. The findings of the study contradict the findings of the study done in India by Sagar et al. (2021), where findings showed that HIV-positive women lacked comprehensive knowledge about modern contraceptive methods.

The majority of the respondents (65%) feared health complications as a concern about the use of contraceptives. This might have hindered respondents from utilizing modern contraception, since respondents believed that it might harm them in the future. The findings of the study are in alignment with the study done in Kenya by Gichangi et al. (2022), where findings showed that participants believed that contraceptives caused infertility and were also associated with severe health complications. Concerning decision-making, the majority of respondents (58%) made the decision themselves regarding contraceptive use. There could be higher chances that respondents that believed not believe in contraception often hinder respondents from utilizing modern contraceptive methods. The findings of the study agree with the study done in Ethiopia by Ahmed & Seid (2020), where findings showed that participants needed their partner's approval before using contraceptives.

Further findings revealed that less than half of the respondents (35%) sometimes found it difficult to afford contraceptives, and 17(33%) could not afford contraceptives. This might have created room for respondents to be off contraception, creating room for unwanted pregnancies. The findings of the study are in alignment with the study done in Ghana by Ahuja et al. (2020), where findings showed that women from lower-

income households found it hard to access modern contraceptive services.

About stress and anxiety, the majority of the respondents (46%) anxiety or stress frequently hindered them from using contraceptives. This might have given room to respondents being vulnerable to unwanted pregnancies since they were off contraception for a while. The findings of the study align with the study done in Ethiopia by Feyissa et al. (2020), where findings showed that participants feared being judged and women refrained from using contraceptives due to stigma-related concerns.

Health facility-related factors influencing the utilization of contraceptives among HIV-positive women aged 18-45 years attending the ART clinic at Buwama Health Center III, Mpigi District.

Study findings demonstrated that more than half of the respondents (71%) often found contraceptives unavailable at the facility. This might have increased the chances of respondents not using modern contraception, especially those who could not afford leading to unwanted pregnancies. The findings of the study agree with the study done in South Africa by Cartwright et al. (2023), where findings showed that respondents reported stock-outs of contraceptives at public health facilities.

Furthermore, over half of the respondents (46%) reported that healthcare providers were judgmental. This might have hindered respondents from seeking modern contraception from the health facility. The findings of the study are in alignment with the study done in Ethiopia by Tewabe et al. (2020), where findings showed that participants avoided seeking contraceptive services due to fear of judgment and discrimination from healthcare workers.

Pertaining to distance, the majority of respondents (61%) mentioned that the nearest facility was far. This could have hindered respondents from easily accessing reproductive health services, including modern contraception, leading to unwanted pregnancies. The findings of the study are in agreement with the study done in Sierra Leone by Fornah et al. (2025), where findings revealed that participants in rural areas reported that long distances to health facilities hindered their ability to access contraceptive services.

Further findings revealed that the majority of the respondent (60%) were not comfortable with their privacy at their health facility. This might have discouraged respondents from seeking reproductive health services, including modern



contraception. The findings of the study are in alignment with the study done in Iran by Jaafari et al. (2022), where findings revealed that participants avoided public health facilities due to concerns about privacy and disclosure of their HIV status.

Less than half of the respondents (40%) said it was somehow convenient for them to access contraceptive services alongside HIV care. This might have enabled respondents to take up modern contraception with ease. The findings of the study agree with the study done in Oromia regional state, Ethiopia, by Demissie & Mmusi-Phetoe (2021), where findings showed that participants who received contraceptive services integrated with HIV care were more likely to use modern contraceptive methods.

Conclusion

Regarding individual-related factors, findings showed that although all respondents were aware of modern contraceptive methods, fears of health complications and infertility discouraged them. While a majority made independent decisions regarding contraceptive use, some were influenced by their partners. Financial constraints and emotional challenges like stress and anxiety also emerged as barriers to consistent contraceptive use.

Regarding health facility-related factors, the study found that frequent stock-outs of contraceptives, judgmental attitudes of healthcare providers, long distances to the facility, and lack of privacy negatively impacted the uptake of modern contraceptive services. However, some women found it convenient to access contraceptives integrated with HIV care, which supported their continued use of contraception.

Limitations of the study

The study was conducted in a limited setting, and its findings would not be generalized to other regions of the country due to differences in societal contexts.

Also, the information was obtained through self-reporting, which is susceptible to bias.

Recommendations

To Health Workers: Health workers should provide non-judgmental, confidential, and client-friendly services to encourage contraceptive use among HIV-positive women. They should offer continuous education and counseling to address myths and fears associated with modern contraceptive methods.

To Health Facility Administrators: Health facility administrators should ensure consistent availability of a wide range of contraceptives to prevent service interruptions. They should strengthen privacy measures within the facility to protect clients' confidentiality and encourage service uptake.

To Government and Policy Makers: The Government should increase funding and supply chain support to reduce stock-outs of contraceptive commodities in public facilities. Policies should promote comprehensive sexual and reproductive health education targeting HIV-positive individuals.

To HIV-Positive Women: HIV-positive women should seek accurate information about modern contraceptives and engage in open dialogue with health workers. They are encouraged to make informed decisions and seek support when experiencing emotional or financial barriers.

Nursing Implications

Nurses should provide tailored health education to HIV-positive women to address misconceptions and promote informed contraceptive choices.

They need to foster a non-judgmental and supportive environment to encourage open discussions on reproductive health needs.

Nurses should integrate contraceptive counseling into routine HIV care to increase accessibility and continuity of care.

They should assess individual emotional and psychological challenges that may hinder contraceptive use and offer appropriate support.

Nurses should advocate for consistent contraceptive supply and collaborate with facility management to address stock-out issues.

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May God richly bless them all.

LIST OF ABBREVIATIONS

MTCT: Mother-To-Child Transmission

IUDs: Intrauterine Devices

UNFPA: United Nations Population Fund

CPR: Contraceptive Prevalence Rate

HIV: Human Immunodeficiency Virus

ART: Antiretroviral Therapy

Source of funding

The study was not funded

Conflict of interest

The author did not declare any conflict of interest

Data availability

Data is available upon request

Author contribution

Nalubowa Anick collected data and drafted the manuscript of the study

M. Pamize Habert supervised the study

Hasifa Nansereko supervised the study

Jane Frank Nalubega supervised the study

Immaculate Naggulu Prosperia supervised the study

Edith Akankwasa supervised the study

Elizabeth Okello supervised the study

David Kavuma supervised the study

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REFERENCES

1. Abubeker, F. A., Fanta, M. B., & Dalton, V. K. (2019). Unmet Need for Contraception among HIV-Positive Women Attending HIV Care and Treatment Service at Saint Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia. *International Journal of Reproductive Medicine*, 2019(1), 3276780. <https://doi.org/10.1155/2019/3276780>
2. Ahmed, M., & Seid, A. (2020). Does women's autonomy matter in attitude towards condom use in reducing risk for HIV infection among married women in Ethiopia? *HIV/AIDS-Research and Palliative Care*, 489-496. <https://doi.org/10.2147/HIV.S279609>
3. Ahuja, M., Frimpong, E., Okoro, J., Wani, R., & Armel, S. (2020). Risk and protective factors for intention of contraception use among women in Ghana. *Health Psychology Open*, 7(2), 2055102920975975. <https://doi.org/10.1177/2055102920975975>
4. Brown, J. L., Haddad, L. B., Gause, N. K., Cordes, S., Bess, C., King, C. C., Hatfield-Timajchy, K., Chakraborty, R., & Kourtis, A. P. (2019). Examining the contraceptive decisions of young, HIV-infected women: a qualitative study. *Women & Health*, 59(3), 305-317. <https://doi.org/10.1080/03630242.2018.1452836>
5. Cartwright, A. F., Callahan, R. L., Beksinska, M., Kasaro, M. P., Tang, J. H., Milford, C., Wong, C., Velarde, M., Maphumulo, V., & Fawzy, M. (2023). Contraceptive continuation and experiences obtaining implant and IUD removal among women randomized to use injectable contraception, levonorgestrel implant, and copper IUD in South Africa and Zambia. *Studies in Family Planning*, 54(2), 379-401. <https://doi.org/10.1111/sifp.12222>
6. Cooke, A. (2019). A Systematic Review of Physician-Patient Interactions and the Effect of Health Care Provider Bias and Knowledge on Adolescent Contraception Counseling in Developing Countries and a Comprehensive Review: Contraceptive Use and Impact of Physician Counseling.
7. de Oliveira, R. A., Cardoso, T. M. P. B., Maciel, R. R. B. T., de Oliveira Araújo, M., do Nascimento



- Paixão, G. P., Rosa, N. S. F., Leal, J. A. L., da Silva, A. B. B. F., Souza, J. N., & de Souza, M. C. (2024). Intersectionality of gender, race, social vulnerability, and barriers to healthcare access: a study on the lives of people with HIV/AIDS. *Revista de Gestão e Secretariado*, 15(3), e3559-e3559. <https://doi.org/10.7769/gesec.v15i3.3559>
8. Demissie, D. B., & Mmusi-Phetoe, R. (2021). Integration of family planning services with HIV treatment for women of reproductive age attending the ART clinic in Oromia regional state, Ethiopia. *Reproductive Health*, 18(1), 102. <https://doi.org/10.1186/s12978-021-01157-0>
 9. Feyissa, T. R., Harris, M. L., Forder, P. M., & Loxton, D. (2020). Contraceptive use among sexually active women living with HIV in western Ethiopia. *Plos One*, 15(8), e0237212. <https://doi.org/10.1371/journal.pone.0237212>
 10. Fornah, L., Shimbire, M. S., Osborne, A., Tommy, A., Ayalew, A. F., & Ma, W. (2025). Geographic variations and determinants of ever-tested for HIV among women aged 15-49 in Sierra Leone: a spatial and multi-level analysis. *BMC Public Health*, 25, 961. <https://doi.org/10.1186/s12889-025-22079-7>
 11. Gichangi, P., Gonsalves, L., Mwaisaka, J., Thiongo, M., Habib, N., Waithaka, M., Tamrat, T., Agwanda, A., Sidha, H., & Temmerman, M. (2022). Busting contraception myths and misconceptions among youth in Kwale County, Kenya: results of a digital health randomised control trial. *BMJ Open*, 12(1), e047426. <https://doi.org/10.1136/bmjopen-2020-047426>
 12. Grant-Maidment, T., Kranzer, K., & Ferrand, R. A. (2022). The effect of integration of family planning into HIV services on contraceptive use among women accessing HIV services in low and middle-income countries: a systematic review. *Frontiers in Global Women's Health*, 3, 837358. <https://doi.org/10.3389/fgwh.2022.837358>
 13. Haakenstad, A., Angelino, O., Irvine, C. M. S., Bhutta, Z. A., Bienhoff, K., Bintz, C., Causey, K., Dirac, M. A., Fullman, N., & Gakidou, E. (2022). Measuring contraceptive method mix, prevalence, and demand satisfied by age and marital status in 204 countries and territories, 1970-2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 400(10348), 295-327. [https://doi.org/10.1016/S0140-6736\(22\)00936-9](https://doi.org/10.1016/S0140-6736(22)00936-9)
 14. Jaafari, Z., McFarland, W., Eyboosh, S., Tabatabaei, S. V. A., Bafti, M. S., Ranjbar, E., & Sharifi, H. (2022). Barriers and facilitators of access to HIV prevention, care, and treatment services among people living with HIV in Kerman, Iran: a qualitative study. *BMC Health Services Research*, 22(1), 1097. <https://doi.org/10.1186/s12913-022-08483-4>
 15. Margaritis, K., Margioulas-Siarkou, G., Margioulas-Siarkou, C., Petousis, S., & Galli-Tsinopoulou, A. (2023). Contraceptive methods in adolescence: a narrative review of guidelines. *The European Journal of Contraception & Reproductive Health Care*, 28(1), 51-57. <https://doi.org/10.1080/13625187.2022.2162336>
 16. Mbabazi, L., Nabaggala, M. S., Kiwanuka, S., Kiguli, J., Laker, E., Kiconco, A., Okoboi, S., Lamorde, M., & Castelnovo, B. (2022). Factors associated with uptake of contraceptives among HIV positive women on dolutegravir-based antiretroviral treatment: a cross-sectional survey in urban Uganda. *BMC Women's Health*, 22(1), 262. <https://doi.org/10.1186/s12905-022-01842-7>
 17. Okoli, M. L., Alao, S., Ojukwu, S., Emechebe, N. C., Ikhuoria, A., & Kip, K. E. (2019). Predictive and spatial analysis for estimating the impact of sociodemographic factors on contraceptive use among women living with HIV/AIDS (WLWHA) in Kenya: Implications for policies and practice. *BMJ Open*, 9(1), e022221. <https://doi.org/10.1136/bmjopen-2018-022221>
 18. Pleaner, M., Fipaza, Z., Mabetha, K., Greener, L., Ncube, S., Butler, V., Beksinska, M., & Mullick, S. (2021). Uptake of contraception among adolescent girls and young women PrEP clients: leveraging the opportunity to strengthen HIV and sexual and reproductive health integration. *Frontiers in Reproductive Health*, 3, 684114. <https://doi.org/10.3389/frph.2021.684114>
 19. Sagar, S., Bashir, A., Pal, B., Dar, M. A., Pandey, K., & Murti, K. (2021). Assessment of contraceptive utilization and associated factors among sexually active HIV-positive Indian women: A cross-sectional study from an antiretroviral therapy center. *Clinical*



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- Epidemiology and Global Health, 10, 100682. <https://doi.org/10.1016/j.cegh.2020.100682>
20. Shegog, R., Armistead, L., Markham, C., Dube, S., Song, H.-Y., Chaudhary, P., Spencer, A., Peskin, M., Santa Maria, D., & Wilkerson, J. M. (2021). A web-based game for young adolescents to improve parental communication and prevent unintended pregnancy and sexually transmitted infections (the Secret of Seven Stones): Development and feasibility study. *JMIR Serious Games*, 9(1), e23088. <https://doi.org/10.2196/23088>
21. Sherwood, J., Lankiewicz, E., Roose-Snyder, B., Cooper, B., Jones, A., & Honermann, B. (2021). The role of contraception in preventing HIV-positive births: global estimates and projections. *BMC Public Health*, 21, 1-10. <https://doi.org/10.1186/s12889-021-10570-w>
22. Simegn, W., Hussen, E., Maru, Y., Seid, A. M., Limenh, L. W., Ayenew, W., Melese, M., & Atsbeha, B. W. (2024). Knowledge, attitude, practices, and associated factors of family planning among women living with hiv at the University of Gondar specialized hospital: a cross-sectional study. *BMC Women's Health*, 24(1), 232. <https://doi.org/10.1186/s12905-024-03036-9>
23. Tewabe, T., Ayalew, T., Abdanur, A., Jenbere, D., Ayehu, M., Talema, G., & Asmare, E. (2020). Contraceptive use and associated factors among sexually active reproductive age HIV positive women attending ART clinic at Felege Hiwot Referral Hospital, Northwest Ethiopia: A cross-sectional study. *Heliyon*, 6(12). <https://doi.org/10.1016/j.heliyon.2020.e05653>

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