Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): March 2026 Issue
https://doi.org/10.51168/sjhrafrica.v7i3.2431
Original Article

Level of HIV-related knowledge toward stigma among adolescents living with HIV attending Kitebi Health Centre III, Wakiso district. A cross-sectional study.

Joseline Namanya, Tobius Mutabazi, Franciso Ssemuwemba, Immaculate Prosperia Naggulu, Hasifa Nansereko, Jane Frank Nalubega*
Mildmay Institute of Health Sciences

Abstract

Background:

Adolescents' knowledge about HIV and related stigma is crucial for promoting adherence to treatment and reducing discrimination. This study aims to determine the level of HIV-related knowledge toward stigma among adolescents living with HIV attending Kitebi Health Centre III, Wakiso district.

Methodology:

This study employed a descriptive cross-sectional study design. It consisted of adolescents aged 10 to 19 years getting their treatment at Kitebi Health Centre III. Data was collected using a structured questionnaire and analyzed using Microsoft Excel.

Results:

The majority of adolescents in the study were aged 15–19 years, accounting for 72% (n = 20) of the participants, while the remaining 28% (n = 8) were aged 10–14 years. Females were the most represented gender, comprising 60% (n = 43) of the sample, with males making up the remainder. Most adolescents had been enrolled in HIV care for over one year, with the largest group (45.2%) having been in care for more than three years. Regarding living arrangements, the majority (68.5%, n = 50) lived with their biological parents, while a smaller proportion resided with other relatives. Concerning awareness of HIV stigma, most adolescents demonstrated good knowledge. A very high percentage (98.6%, n = 72) recognized stigma through hurtful words, and the majority (82.2%, n = 60) understood that with proper treatment, they could live healthy lives. These findings indicate a generally high level of awareness regarding both HIV and the impact of stigma among the adolescents surveyed.

Conclusion:

Adolescents showed good knowledge of HIV and stigma, but internalized stigma still affects some behaviors. Awareness alone is not enough to fully prevent negative attitudes or practices.

Recommendations:

Strengthen targeted health education and psychosocial support for adolescents living with HIV. Promote peer support and youth-friendly services to improve adherence and coping.

Keywords: *Adolescents, HIV-related stigma, Coping mechanisms, Antiretroviral therapy (ART), Peer support, Youth-friendly services.*
Submitted: *December 04, 2025* ***Accepted:*** *January 12, 2026* ***Published:*** *March 19, 2026*
Corresponding author: *Joseline Namanya*
Mildmay Institute of Health Sciences

Background of the study

Human Immunodeficiency Virus (HIV) continues to be a major public health challenge globally, particularly among adolescents and young people. According to the World Health Organization, adolescents living with HIV face multiple challenges beyond the biological impact of the virus, including stigma, discrimination, and limited access to accurate health information. HIV-related knowledge is an important determinant in shaping perceptions and reducing stigma, especially among adolescents who are still

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): March 2026 Issue
https://doi.org/10.51168/sjhrafrica.v7i3.2431
Original Article

developing socially and psychologically. Adequate knowledge about HIV transmission, prevention, treatment, and living positively with the virus helps adolescents better understand their condition and reduces internalized stigma and fear associated with the disease. Globally, approximately 39.9 million people were living with HIV in 2023, and adolescents aged 15–24 constitute a significant proportion of new infections (UNAIDS, 2024). Studies have shown that insufficient knowledge about HIV contributes to the persistence of stigma, misconceptions, and negative attitudes toward people living with HIV. Adolescents who lack accurate information about HIV often internalize negative societal beliefs, which may result in self-stigma, social withdrawal, and poor mental health outcomes (Mahamboro et al., 2020). Improving knowledge about HIV is therefore considered a key strategy in reducing stigma and improving the quality of life among adolescents living with HIV. In many low- and middle-income countries, including those in sub-Saharan Africa, knowledge gaps about HIV remain common among adolescents despite ongoing awareness campaigns. Research conducted in several African countries found that many adolescents living with HIV still have misconceptions regarding HIV transmission, treatment, and long-term disease management (Slogrove et al., 2017). Such misconceptions often contribute to stigma, both from society and internally among the adolescents themselves. Lack of knowledge may also influence how adolescents perceive their illness and their willingness to disclose their HIV status or seek support services. Furthermore, studies have shown that adolescents with higher levels of HIV-related knowledge are more likely to demonstrate positive coping behaviors and reduced stigma perception. For example, a study by Casale, Boyes, Pantelic, Toska, and Cluver (2019) reported that adolescents who understood HIV treatment and transmission were less likely to experience internalized stigma and were more confident in accessing health services. Similarly, research conducted among adolescents in East Africa revealed that educational interventions focusing on HIV knowledge significantly improved understanding and reduced stigma-related beliefs (Vreeman, McCoy, & Lee, 2017). Knowledge also plays a critical role in empowering adolescents to manage their health effectively. When adolescents understand how antiretroviral therapy works and the importance of adherence, they are more likely to engage in care and maintain viral suppression. Conversely, limited knowledge may lead to fear, misunderstanding, and increased stigma, which can negatively affect treatment adherence and health outcomes (WHO, 2024). Despite global progress in HIV education, there remains limited context-specific data on the level of HIV-related knowledge among adolescents living with HIV in Uganda, particularly in health facilities such as Kitebi Health Centre III. Understanding the level of knowledge among these adolescents is important for designing targeted health education interventions that address stigma and improve psychosocial outcomes. Therefore, this study seeks to determine the level of HIV-related knowledge toward stigma among adolescents living with HIV attending Kitebi Health Centre III.

Methodology

Study Design

This study employed a descriptive cross-sectional study design. The design was cost-effective, time-efficient, and suitable for determining the prevalence of stigma-related factors within the study population.

Study Area

The study was conducted at Kitebi Health Centre III, located in Wakiso Division, Kampala District. The facility offers outpatient HIV care and treatment, maternal and child health services, and counselling services. It has an established ART clinic that serves adolescents from both within and outside the community. This makes it an appropriate setting for studying stigma among adolescents living with HIV.

Study Population

The study population will consist of adolescents aged 10–19 years living with HIV and receiving care at the ART clinic in Kitebi Health Centre III.

Sample Size Determination

The sample size was determined using the Kish & Leslie (1965) formula for cross-sectional studies

n= $[Z^2Pq]/d2$

Where:

Z = 1.96 (standard normal value at 95% confidence)

P = estimated prevalence of stigma or good knowledge (if no prior study exists, 0.5 will be used to maximize sample size)

d = margin of error (0.05). If P = 0.5:

Therefore;

n=[1.962×0.5(1−0.5)]/ 0.052

n=385

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): March 2026 Issue
https://doi.org/10.51168/sjhrafrica.v7i3.2431
Original Article

Because the adolescent population at Kitebi HC III was smaller than 10,000, a finite population correction was applied. The final sample size was adjusted using this formula.

N=n/(1+n/p) Where;

N = the adjusted sample size of respondents

P=the number of respondents received at the facility on adolescent clinic day (90), n = calculated number of respondents (385)

hence N=73 respondents

Sampling Technique

A systematic random sampling method was used in this study. The ART clinic register was used as a sampling frame. Sampling interval (K) was determined by dividing the total number of adolescents by the sample size. Every Kth adolescent who met the eligibility criteria was selected until the sample size was achieved.

Inclusion and Exclusion Criteria Inclusion Criteria

Adolescents aged 10–19 years who were attending the ART clinic. Diagnosed with HIV and currently in care at Kitebi Health Centre III.

Those who were able and willing to provide assent/consent (with parental consent where applicable).

Exclusion Criteria

Adolescents who were severely ill and unable to participate.

Data Collection Methods and Tools: Data Collection Method

Data was collected using interviewer-administered structured questionnaires. The method was preferred because literacy levels among adolescents vary, and face-to-face administration enhances clarity and completeness.

Data Collection Tool

A structured questionnaire was used.

Data Management and Analysis

Collected data was checked for completeness and accuracy before entry. The data was then coded and entered into **Statistical Package for the Social Sciences (SPSS) / Stata / Microsoft Excel for analysis. Descriptive statistics such as frequencies, percentages, tables, and charts were used to summarize and present the findings.

Data Quality Control

The questionnaire was pretested at a nearby health Centre with similar characteristics. Necessary adjustments were made before actual data collection.

Research assistants were trained on interviewing skills and ethical considerations. A daily review of completed questionnaires was conducted to ensure accuracy and completeness.

Ethical Considerations

Permission was sought from the Kitebi Health Centre III administration. Participation was voluntary, and informed consent (and assent for minors) was obtained. Confidentiality was ensured through anonymous coding and secure storage of data. Adolescents who exhibited emotional distress during interviews were referred to the in-house counsellor.

Results

Demographic characteristics of respondents

Table 1: socio-demographic characteristics (n=73)

Variable	category	Frequency (n)	Percentage (%)
Age	10-15 years	20	27
	15-19 years	53	72
Gender	Male	30	40
	female	43	60

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): March 2026 Issue
https://doi.org/10.51168/sjhrafrica.v7i3.2431
Original Article

duration of HIV care	<1year	10	13.7
	1-3years	30	41.1
	>3years	33	45.2
	Stays the biological parents	50	68.5
	Stays with others relatives	23	31.5

Table 1, it shows that the majority of adolescents receiving HIV care at Kitebi Health Centre III were in the 15-19 years age group. Who were 72%(n=20) and the rest were 27%(n=20). 60%(N=43) were females and were the most enrolled of the males. Most of the adolescents had been on care for more than 1year, with the largest group (45.2%) having been on care for over 3years. The majority of adolescents lived with their biological parents, 68.5%(n=50), while a smaller proportion stayed with other relatives.

Knowledge of HIV-related stigma

Table 2: responses on knowledge of HIV- related stigma (n=73)

Knowledge item	Yes n (%)	False n (%)	Not sure n (%)
Have you heard about stigma?	70(95.9%)	3(4.1%)	-
HIV stigma happens when people judge others because of HIV	50(68.5%)	15(20.5%)	8(11%)
People can show stigma through hurtful words	72(98.6%)	-	1(1.4%)
A person with HIV can live a normal life with treatment	60(82.2%)	13(17.8%)	-
Stigma can stop someone from going for treatment	30(41.1%)	40(54.8%)	3(4.1%)

Table 2 revealed that most adolescents have good awareness of HIV stigma. high percentages recognized stigma through hurtful words, this was n=72(98.6%). Most adolescents n=60(82.2%) knew that with proper treatment, they could live healthy lives.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): March 2026 Issue
https://doi.org/10.51168/sjhrafrica.v7i3.2431
Original Article

Figure 1: Graph showing responses on knowledge of HIV- related stigma (n=73

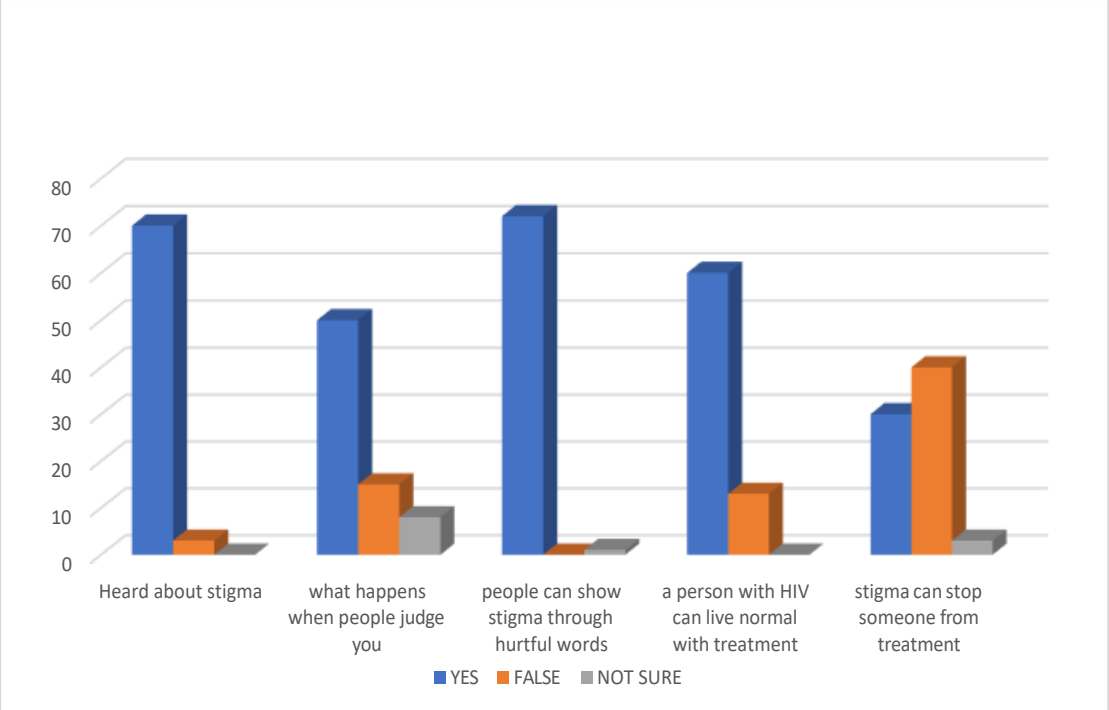

Figure 1 reveals that most adolescents have a good awareness of HIV stigma. high percentages recognized stigma through hurtful words, this was n=72(98.6%). Most adolescents n=60(82.2%) knew that with proper treatment, they could live healthy lives.

Discussion

The findings of this study indicated that most adolescents living with HIV had moderate to high knowledge about HIV transmission and the meaning of stigma. Many respondents correctly understood that stigma involves discrimination, negative attitudes, and unfair treatment toward people living with HIV. This level of awareness suggests that adolescents attending Kitebi Health Centre III are exposed to HIV education through counseling sessions, health talks, and peer support programs. Health education provided by health workers and peer support groups is known to improve adolescents' understanding of HIV and stigma, thereby helping them recognize discriminatory behaviors and their effects.

These findings are consistent with the study conducted by Adejumo Olukayode and colleagues, which reported that adolescents living with HIV who regularly attended clinic-based education programs demonstrated good knowledge of HIV transmission and stigma-related issues (Adejumo et al., 2021). The authors attributed this level of knowledge to structured counseling sessions and youth-friendly services that provide adolescents with continuous information about HIV management and stigma reduction. Similarly, studies in sub-Saharan Africa have shown that adolescents who receive regular HIV education through health facilities and support groups tend to develop better knowledge about HIV and related stigma (Vreeman, McCoy, & Lee, 2017).

However, despite the generally good level of awareness observed in this study, some adolescents remained uncertain about the effects of stigma on treatment and health outcomes. This suggests that while adolescents may understand the concept of stigma, they may not fully comprehend how stigma can influence treatment adherence, mental health, and long-term HIV management. Limited

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): March 2026 Issue
https://doi.org/10.51168/sjhrafrica.v7i3.2431
Original Article

understanding in these areas may affect how adolescents cope with stigma and could contribute to poor treatment outcomes if not addressed.

Similar findings have been reported in Uganda and other African countries, where adolescents demonstrated partial understanding of stigma and its consequences. For instance, a study by Peter Nabunya found that although adolescents living with HIV had basic knowledge about stigma, many did not fully understand how stigma could influence their psychological well-being and adherence to antiretroviral therapy (Nabunya & Namuwonge, 2019). The study highlighted that HIV education programs sometimes focus mainly on prevention and transmission while giving less attention to psychosocial aspects such as stigma and discrimination.

Furthermore, research by Alison Slogrove and colleagues also found that adolescents often possess general knowledge about HIV but still experience stigma and misconceptions, indicating that knowledge alone may not be sufficient to eliminate stigma (Slogrove, Mahy, Armstrong, & Davies, 2017). This suggests that other factors, such as cultural beliefs, community attitudes, and peer influence, may also shape adolescents' perceptions and experiences of stigma.

Overall, the results of this study indicate that knowledge alone does not completely prevent stigma among adolescents living with HIV. Although many adolescents understand the concept of stigma, some still lack deeper knowledge about its impact on treatment adherence and mental health. This highlights the need for more targeted and comprehensive HIV education programs that address myths, misconceptions, and the psychosocial effects of stigma. Strengthening counseling services, peer education, and community awareness programs could help improve adolescents' understanding and reduce stigma among young people living with HIV.

Conclusion

Adolescents living with HIV at Kitebi Health Centre III generally have good knowledge of HIV and related stigma, though gaps remain in understanding its impact on treatment and social interactions. Positive attitudes and practices exist, but internalized stigma still affects some adolescents' behaviors.

Recommendation

Targeted health education and psychosocial support programs should be strengthened to address knowledge gaps and reduce stigma. Peer support and youth-friendly services are recommended to promote adherence and healthy coping mechanisms among adolescents living with HIV.

Acknowledgement

I want to thank the following people who have been there for me in the area of research, because I certainly could not have made it on my own without their support in all kinds of ways and their encouragement. First of all, I want to thank God for helping me with most of what I needed to start and complete this field of research. I would like to appreciate my supervisor, Mr. Tobius, for guiding me through my research despite being busy. Thank you. In addition, I want to thank the staff and administration of Mildmay Institute of Health Sciences for giving me an opportunity to pursue my Diploma in Clinical Medicine. I want to thank the staff and administration of Kitebi Health Centre III for allowing me to carry out my research from their Health Centre. I want to thank my family members for the encouragement they gave me to join the medical course and for supporting me in financing the research budget. I am grateful to my classmates and friends, and I thank them for walking this journey with me. It was not an easy ride, but we persevered till the end.

List of Abbreviations

ART	Antiretroviral Therapy
AIDS	acquired immunodeficiency syndrome
HIV	Human Immunodeficiency Virus
KAP	Knowledge, Attitude, and Practices
PLHIV	People living with HIV

Source of funding

The study did not receive any external funding.

Conflict of interest

The author did not declare any conflict of interest.

Author contributions:

Joseline Namanya was the principal investigator
Tobius Mutabazi supervised the research project
Immaculate Prosperia Naggulu supervised the research project
Hasifa Nansereko supervised the research project
Jane Frank Nalubega supervised the research project
Francisco Ssemuwemba supervised the research project

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): March 2026 Issue
https://doi.org/10.51168/sjhrafrica.v7i3.2431
Original Article

Data availability
The data is available upon request.

Informed consent
All the respondents consented to this study.

Author Biography
Joseline Namanya holds a Diploma in Clinical Medicine and Community Health from Mildmay Institute of Health Sciences.
Francisco Ssemuwemba is the dean of the School of Allied Health
Hasifah Nansereko is the chairperson of the Institutional Review Council (IRC)
Tobius Mutabazi, Immaculate Prosperia Naggulu, and Jane Frank Nalubega are tutors at Mildmay Institute of Health Sciences.

References
1. Adejumo, O., Malee, K., Ryscavage, P., Hunter, S., & Taiwo, B. (2021). Contemporary issues on the epidemiology and antiretroviral adherence of HIV-infected adolescents in sub-Saharan Africa: A narrative review. Journal of the International AIDS Society, 24(1).
2. Casale, M., Boyes, M., Pantelic, M., Toska, E., & Cluver, L. (2019). Suicidal thoughts and behavior among adolescents living with HIV in sub-Saharan Africa: A longitudinal study. AIDS and Behavior, 23(Suppl 1), 131–143. https://doi.org/10.1007/s10461-018-2168-4
3. Mahamboro, D. B., Fauk, N. K., Ward, P. R., Merry, M. S., Siri, T. A., Mwanri, L., & Mwanri, L. (2020). HIV stigma and moral judgement: Qualitative exploration of the experiences of HIV stigma among people living with HIV in Indonesia. International Journal of Environmental Research and Public Health, 17(2), 1–15. https://doi.org/10.3390/ijerph17020636
4. Nabunya, P., & Namuwonge, F. (2019). HIV-related shame, stigma, and mental health functioning among adolescents living with HIV in Uganda. Journal of Adolescent Health.
5. Slogrove, A. L., Mahy, M., Armstrong, A., & Davies, M. A. (2017). Living and dying to be counted: What we know about the epidemiology of the global adolescent HIV epidemic. Journal of the International AIDS Society, 20(Suppl 3), 21520. https://doi.org/10.7448/IAS.20.4.21520
6. Vreeman, R. C., McCoy, B. M., & Lee, S. (2017). Mental health challenges among adolescents living with HIV. Journal of the International AIDS Society, 20(Suppl 3), 21497. https://doi.org/10.7448/IAS.20.4.21497
7. World Health Organization. (2024). Adolescent HIV prevention, treatment, and care. Geneva: World Health Organization.
8. UNAIDS. (2024). Global HIV & AIDS statistics — Fact sheet. Geneva: Joint United Nations Programme on HIV/AIDS.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): March 2026 Issue
https://doi.org/10.51168/sjhrafrica.v7i3.2431
Original Article

PUBLISHER DETAILS

Student's Journal of Health Research (SJHR)
(ISSN 2709-9997) Online
(ISSN 3006-1059) Print
Category: Non-Governmental & Non-profit Organization
Email: studentsjournal2020@gmail.com
WhatsApp: +256 775 434 261
Location: Scholar's Summit Nakigalala, P. O. Box 701432, Entebbe Uganda, East Africa