

KNOWLEDGE AND ATTITUDE TOWARDS PEOPLE LIVING WITH HIV/AIDS AMONG IN-SCHOOL ADOLESCENTS IN NSUKKA LOCAL GOVERNMENT AREA, ENUGU STATE: IMPLICATION FOR INCLUSION INTO ACADEMIC CURRICULUM

Jacinta E. Ugbelu, Ngozika K. Enemuo & Ogechi G. Ikenga

Department of Human Kinetics and Health Education

Faculty of Education, University of Nigeria, Nsukka

Correspondence: email-ngoziika.enemuo@uu.edu.ng

Abstract

The study determined the knowledge and attitude towards people living with HIV/AIDS among in-school adolescents in Nsukka Local Government Area, Enugu State. Four research questions and two null hypothesis guided the study. A cross-sectional survey design was adopted for the study. Population comprised of 15,017 in-school adolescents in Nsukka LGA. Sample size was 384 respondents sampled through multistage sample procedure. A researcher designed instrument was used for data collection. The instrument was face validated by three experts from Department of Human Kinetics and Health Education, University of Nigeria, Nsukka. Data collected from pilot study was subjected to reliability test and reliability index of .76 and .78 were obtained. Frequency count, percentage, Mean, standard deviation, chi-square and t-test analysis were used for data analysis. Result of the study indicated that in-school adolescents had moderate (59.7%) knowledge of Human Immune-deficiency Virus and Acquired Immune Deficiency Syndrome (HIV/AIDS) and positive ($\bar{x}$ = 2.92, SD = .526) attitude towards people living with HIV/AIDS. The result also showed that high proportion of in-school adolescents aged 10-15 had low knowledge (66.7%), greater percentage of those in senior secondary school had high knowledge (46.7%) of HIV/AIDS; greater proportion of male in-school adolescents had high knowledge (35.2%) while greater proportion of female had low knowledge (36.0%) of HIV/AIDS. Result of the study indicated that in-school adolescents irrespective of age, class level and gender had positive attitude towards people living with HIV/AIDS. Findings on hypotheses showed that there is no significant difference in the knowledge of HIV/AIDS based on age, class level, and gender ($p > .05$); there is a significant difference in the attitude based on age and class level ($p < .05$) but that there is no significant difference in the attitude towards people living with HIV/AIDS based on gender ($p > .05$). It was recommended that health educators should embark on sensitization campaign through mass media, community leaders, community healthcare workers and other stakeholders to increase knowledge of HIV/AIDS and encourage positive attitude towards people living with HIV/AIDS among the adolescents.

Keywords: Knowledge, attitude, human immunodeficiency virus, acquired immune deficiency syndrome

Introduction

Human immunodeficiency virus (HIV) infection and Acquired immune deficiency syndrome (AIDS) remain a major public health problem and has become one of the most devastating disease humanity has ever faced. Globally, 39 million people were living with HIV/AIDS (PLWHA), and 630,000 people died due to HIV/AIDS-related illnesses at the end of 2022 (Joint United Nations Programme on HIV/AIDS [UNAIDS] 2022; World Health Organization, [WHO] (2023). Almost 860,000 out of the global 1.5 million new HIV infections were reported from the WHO African Region (WHO, 2022). Young

people, particularly adolescents, are at great risk of contracting the virus through unsafe sexual activity as well as sexual exploitation and abuse. According to the current estimate from UNAIDS, globally about 3.5 million young people between the ages of 15–24 years are living with HIV/AIDS, with a prevalence of 0.3% (WHO, 2021). About 1.75 million adolescents are living with HIV by end of 2020, 150,000 adolescents newly acquired HIV and 32,000 adolescents died due to HIV throughout the world in 2020 (United Nation International Children Emergency Fund [UNICEF], 2021). This might be because youths are becoming sexually active at an earlier age. The WHO African Region is the most affected region, with 25.6 million PLWHA in 2022 (WHO, 2023). Furthermore, an estimated 420,000 people died in the African Region from HIV-related causes in 2021, which accounted for 64.6% of the global burden (WHO, 2022). This portrays that HIV/AIDS is a serious health problem globally affecting the developed and developing countries including sub-Saharan Africa.

Sub-Saharan Africa (SSA) seems to be worst hit by HIV/AIDS. In SSA, about six out of seven new HIV infection cases occur among adolescents aged 15–19 years, and young women aged 15–24 years (UNAIDS, 2021). The majority (71%) of PLWHA, newly infected (70%), as well as AIDS related deaths (74%), are found in SSA. (UNAIDS, 2019). HIV/AIDS has rapidly spread to many African countries including Nigeria. Nigeria remains a public health concern in terms of spread of disease and infection. Nigeria has 190,950 HIV/AIDS infections per year, the second highest rate in the world (UNICEF, 2018). Nigeria rank 4th in global HIV burden with approximately 1.8 million people living with HIV as of 2019 (UNAIDS, 2019). United Nation Children Fund (UNICEF, 2019) indicated that approximately 700 adolescent aged 10-19 years in Nigeria are infected with HIV every day.

Adolescence refers to a transitional phase between childhood and adulthood characterized by physiological, cognitive, and emotional changes. These changes include the development of sexual characteristics, abstract thought, fantasizing about roles in different situations, increased sexual interests, and highlighted peer influences (Mekonnen et al. 2018). Adolescents are those aged between 10 to 19 who are enrolled into secondary schools for their academic carrier, and they referred to as in-school adolescents. Those in junior classes (1-3) are referred to as Junior Secondary Students (JSS) while those in senior classes (4-6) are referred to Senior Secondary Students (SSS). Gender as used in this study refer to males or females and that can be used interchangeably with boys or girls. Age is categorized into 10-15 years; and 16 years and above. The students in this adolescence stage are in exploring stage who may like to engage in certain risky behaviours such as use of hard drugs, smoking, unprotected sexual intercourse, sharing of syringes and needles and other sharp piercing instruments.

HIV infection can affect any adolescent irrespective of age, gender or class level. Different studies reported varied results regarding HIV infection among the adolescent. In the worst affected nations, girls account for 80 percent of HIV infections among adolescents and they are significantly more likely than boys to be infected (USAIDS, 2029). About 0.41 million young people between the ages of 10 and 24 were newly infected with HIV in 2021, of whom 0.16 million were adolescents between the ages of 10 and 19 (UNICEF, 2022b). Another study indicated that young female participants are twice as likely to be infected with HIV/AIDS compared to young male participants (Dwyer-Lindgre et al. 2017). The students may not have knowledge of prevention of HIV/AIDS. The lack of knowledge and the risky behaviours made the adolescents vulnerable to HIV/AIDS. Habib et al. (2024) and Obarisiagbon et al. (2019) indicated that

age, sex and class grade/level are significantly associated with knowledge and attitude towards HIV/AIDS.

HIV has been referred to as a medical condition caused by the Human Immunodeficiency Virus (HIV). HIV/AIDS was described as a serious medical condition that weakens the immune system, making it harder for the body to fight off infections and certain cancers (Center for Disease Control and Prevention [CDC], 2021). Acquired immune deficiency syndrome (AIDS) is the last stage of HIV infections that occurs when the body's immune system is badly damaged. HIV can be transmitted through several routes such as unprotected sexual contact, sharing injection needles and other sharps, from Mother to Child, blood transfusions and blood products, needle-stick injuries, and occupational transmission (Alemeyahu, et al. 2026; Li, et al. 2024; Rukundo, et al. 2016 & Mohammed et al. 2015). Centers for Disease Control and Prevention's (CDC, 2021) have identified use of alcohol or drugs before sex, multiple sexual partners, unprotected sexual intercourse as the leading risk factors that can increase adolescents' exposure to HIV/AIDS. Infected persons may experience symptoms such as fever, rashes, red lips, cough, weight loss (Rukundo et al. 2016). However, these first few months are when the virus is most infectious. As the disease progresses, HIV weakens the immune system which may lead to opportunistic infections and without treatment people will become more susceptible to other severe illnesses such as tuberculosis, cryptococcal meningitis, bacterial infections and some cancers including lymphomas and Kaposi's sarcoma (World health organization, 2023). However, HIV/AIDS can be prevented by adopting safe sex practices and other healthy lifestyles. Condom use, abstinence, faithfulness, avoiding blood transfusion and not sharing sharp instruments with infected persons are various ways to prevent HIV/AIDS (Alemayehu, et al. 2026; Befekadu, 2019; Birhanu, et al. 2020). The ability to know the routes of transmission, clinical manifestations, preventive practices and seriousness of HIV/AIDS depends on the level of knowledge of HIV/AIDS. This knowledge can assist individuals to adopt safer sex practices to prevent being infected.

Knowledge facilitates familiarity with and awareness of HIV/AIDS, which influences attitude as well as safer sex practices. Previous researchers reported varied results regarding knowledge of HIV/AIDS among different respondents. Moderate to high level of knowledge of HIV/AIDS was reported by (Idoko, 2021; Obarisiagbon, et al. 2019; Mahat, 2019). Another study reported low knowledge of HIV/AIDS (Shamu et al. 2020) which resulted to high prevalence of HIV/AIDS. The 15–24-year-old age group was at a higher risk of acquiring HIV infection due to a lack of knowledge about HIV/AIDS (Anwuri et al. 2017; Yonge et al. 2018; UNAIDS, 2021 & Risher et al. 2021). Comprehensive knowledge about HIV/AIDS is necessary to assist individuals to adopt positive attitudes towards people living with HIV/AIDS (PLWHAS). Other studies indicated positive attitude towards PLWHDS (Khamisa et al. 2020; Mahat, 2019, Li et al. 2024). Knowledge of HIV/AIDS will encourage healthy sexual behavior among the adolescent by improving their ability to practice safe sex to reduce high prevalence of HIV/AIDS in vulnerable individuals as well as improve the attitude towards people living with HIV/AIDS among the students and general population.

Generally, increasing knowledge on HIV/AIDS through awareness campaign and sensitization programmes can be a powerful means of promoting positive attitudes towards people living with HIV/AIDS. Thus, the study of adolescents' knowledge and attitude towards people living with HIV/AIDS is necessary to understand the gaps and develop appropriate HIV/AIDS prevention control programs to reduce the incidence and burden of

HIV/AIDS in the general population. In-school adolescents are the most vulnerable group, and assessing this active segment and future leaders is important to determine their level of knowledge to help reduce the prevalence of HIV/AIDS. Thus, this study determined the knowledge and attitude towards people living with HIV/AIDS among in-school adolescents in Nsukka LGA of Enugu State, Nigeria.

Purpose of the Study:

The purpose of the study is to determine the knowledge and attitude towards people living with HIV/AIDS, among in-school adolescents in Nsukka local government area (LGA), Enugu state, Nigeria. The study was guided by four specific objectives, four research questions and two hypotheses. Specifically, the study determined the:

1. level of knowledge of HIV/AIDS, among in-school adolescents in Nsukka local government area (LGA), Enugu state;
2. level of knowledge of HIV/AIDS, among in -school adolescents in Nsukka LGA, Enugu state based on age, class level and gender;
3. attitude towards people living with HIV/AIDS among in-school adolescents in Nsukka LGA, Enugu state;
4. the attitude towards people living with HIV/AIDS, among in-school adolescents in Nsukka LGA, Enugu state based on age, class level and gender.

Research Questions

The following research questions guide the study

1. What is the level of knowledge of HIV/AIDS, among in-school adolescents in Nsukka local government area (LGA), Enugu state?
2. What is the level of knowledge of HIV/AIDS, among in-school adolescents in Nsukka local government area (LGA), Enugu state?
3. What is the attitude towards people living with HIV/AIDS among in-school adolescents in Nsukka LGA, Enugu state?
4. What is the attitude towards people living with HIV/AIDS, among in-school adolescents in Nsukka LGA, Enugu state based on age, class level and gender?

Hypotheses

1. There is no significant difference in the level of knowledge of HIV/AIDS among in-school adolescents in Nsukka LGA Enugu state based on age, class level and gender.
2. There is no significance difference in the attitude towards people living HIV/AIDS among in-school adolescents in Nsukka LGA Enugu state based on age, class level and gender.

Methods

The study adopted descriptive cross-sectional survey research design. This study was conducted in Nsukka Local Government Area of Enugu state (LGA). The LGA has 15 towns and each town has public secondary schools where the adolescents are enrolled for their academic activities. The adolescents may engage in unsafe and risky sexual practices which makes them vulnerable to HIV/AIDS. Their vulnerability may be attributed to lack of comprehensive sex education, inadequate or limited access to accurate information about safe sex practices, HIV/AIDS prevention and the risk of transmission among adolescents. The population for the study consisted of 15,017 in-school adolescents in all public secondary schools in Nsukka LGA of Enugu State. (Post Primary Schools Management Board, 2024). The population of the 32 public secondary schools in the Nsukka LGA of four girls only, four girls only and twenty-six co-educational public

secondary schools. The sample size for this study comprised of three hundred and eighty-four (384) in-school adolescents. The sample size is in line with the guideline of Cohen et al. (2018) that when a population is 10,000 and above at 95 percent confidence level (5% interval), the sample size should be 370 and above. Multistage sampling technique was used to draw the sample. The first stage is the stratification of 32 secondary schools in Nsukka LGA into boys only, girls only and co-educational secondary schools. The second stage involved the use of random sampling techniques to draw 16 (2 boys only, 2 girls only and 12 co-educational secondary schools out of the 32 secondary schools in Nsukka L.G.A of Enugu state. The third stage will involve the use of random sampling techniques to draw 24 in school adolescent from each of the 8 selected schools. The fourth stage involved systematic random sampling to select 96 students from JS1 and JS2, SS1 and SS2. Students in JSS3 and SSS3 did not participate in the study as they are exam classes busy taking their junior and senior certificate examinations.

The instrument for data collection was a questionnaire designed by the researcher after extensive literature review. The instrument on knowledge had response options of “Yes or No” while the instrument on attitude had 4-point Likert type response options of Strongly agree (SA), Agree (A), Disagree (D) and strongly disagree (SD). The instrument was validated by three experts from the Department of Human Kinetics and Health Education, University of Nigeria, Nsukka. Twenty copies instrument were administered to 20 in-school adolescents in Udenu LGA outside the study area. The reliability of the data collected was established using Spearman Brown correlation coefficient for knowledge and Cronbach for attitude. A coefficient reliability index of .76 and .78 was obtained. A total of 384 copies of the questionnaire were administered to the in-school adolescents by the researcher with the help of research assistants who were briefed on the modalities for the data collection. Out of the 384 copies administered, 365 were properly completed giving a return rate of 95.1 percent and were used for data analysis. Data from research questions were analyzed using frequencies, percentages, mean, standard deviation, while hypotheses were tested using Chi-square and t-test at 0.05 level of significance. Percentage scores below 39 were interpreted as low, 40-59 as moderate, 60- 79 as high, and above 80 as very high. Mean score less than 2.50 was interpreted as negative/unfavorable attitude while mean that is greater than 2.50 is interpreted as positive or favourable attitude. The null hypothesis one was tested using Pearson’s Chi-square statistics while null hypotheses two was tested using t-test at 0.05 level of significance.

Results

Research Question One: What is the level of knowledge of HIV/AIDS, among in-school adolescents in Nsukka local government area (LGA), Enugu state?

Table 1: Percentages Responses on the level of knowledge of HIV and AIDS among in-school adolescents in Nsukka Local Government Area, Enugu State.

S/N	Knowledge items	Correct responses f(%)	Incorrect responses f(%)
Knowledge of concepts HIV/AIDS			
1.	Have you ever heard of HIV/AIDS?	298(81.6)	67(18.4)
2.	HIV means human immune-deficiency virus.	301(82.5)	64(17.5)
3.	AIDs means acquired immune deficiency syndrome	191(52.3)	174(47.7)
4.	HIV/AIDS is curable	194(53.2)	171(46.8)
Knowledge of routes of transmission Ways of			

getting HIV/AIDS, tick as many as possible			
5.	By sharing instruments (injection needles, shaving clippers and knives, razor blades) with infected persons.	133(36.4)	232(63.6)
6.	Having sex with multiple partners (more than one person) without wearing condom.	286(78.4)	79(21.6)
7.	Receiving blood transfusion from an HIV infected persons.	217(59.5)	148(40.5)
8.	Hugging and playing with infected patients.	110(30.1)	255(69.9)
9.	A pregnant woman can transfer HIV to her unborn child during birth.	155(42.5)	210(57.5)
10.	Through sex intercourse.	263(72.1)	102(27.9)
11.	Eating and drinking with HIV/AIDS patients.	215(58.9)	150(41.1)
Knowledge of signs and symptoms of HIV/AIDS. Tick as many as possible.			
12.	Skin rashes all over the body is a clinical sign of HIV/AIDS.	252(69.0)	113(31.0)
13.	Persistent diarrhea is one of signs and symptoms.	114(31.2)	251(68.8)
14.	Continuous loss of body weight.	277(75.9)	88(24.1)
15.	Sore throat and persistent cough.	233(63.8)	132(36.2)
Knowledge of preventive measures. Tick as many as possible.			
16.	Avoid having sex before (abstinence).	289(79.2)	76(20.8)
17.	Avoid having sex with many people.	206(56.4)	159(43.6)
18.	Correct and consistent use of condom before sex.	268(73.4)	79(21.6)
19.	Not sharing injection needles, shaving clippers, razor blades with other persons.	137(37.5)	228(62.5)
Overall%		59.7	40.3

Key: below 20% = Very low knowledge, 20-39% = low knowledge, 40-59% = average/moderate knowledge, 60-80% = high knowledge, 80% and above = very high knowledge

Result in Table 1 showed that in- school adolescents had moderate (59.7%) level of knowledge of HIV/AIDS. Also, the students had high knowledge (72.1% and 78.4%) sex intercourse and having multiple sexual partners without wearing condom but had moderate knowledge (59.5% and 42.5%) that HIV can be acquired through blood transfusion and mother to child during birth.

Research Question Two: What is the level of knowledge of HIV/AIDS, among in-school adolescents in Nsukka local government area (LGA), Enugu state?

Table 2: Level of Knowledge of HIV/AIDS among In -school Adolescents in Nsukka LGA, Enugu State Based on Age, class level and gender.

Variables	N	Low knowledge f(%)	Moderate knowledge f(%)	High knowledge f(%)
Age(years)				
10-15	267	178(66.7)	54(20.2)	35(13.1)
16 and	98	25(25.5)	30(30.6)	43(43.9)

above

Class level

JSS	185	63(34.1)	72(38.9)	50(27.0)
SSS	180	40(22.2)	56(31.1)	84(46.7)

Gender

Male	176	55(31.3)	59(33.5)	62(35.2)
Female	189	68(36.0)	60(31.7)	61(32.3)

Result in table 2 shows that high proportion of in-school adolescents aged 10-15 had low knowledge (66.7%) while high proportion of those aged 16 and above had high knowledge (43.9%) of HIV/AIDS. The result also indicates that greater percentage of in-school adolescent in JSS had moderate knowledge (38.9%) while greater percentage of those in SSS had high knowledge (46.7%) of HIV/AIDS. Also, the result shows that greater proportion of male in-school adolescents had high knowledge (35.2%) while greater proportion of female had low knowledge (36.0%) of HIV/AIDS.

Research Question Three: What is the attitude towards people living with HIV/AIDS among in-school adolescents in Nsukka LGA, Enugu state?

Table 3. Attitude towards People Living with HIV/AIDS among In-school Adolescents in Nsukka LGA, Enugu State (n=365)

S/N	Attitude statement	$\bar{x}$	SD
1	Willing to socialize or associated with HIV-positive people.	3.38	.972
2	People living with HIV/AIDS are promiscuous.	1.91	1.078
3	People living with HIV/AIDS should not be isolated.	2.97	.995
4	Children with HIV/AIDS should attend the same school with non-infected students.	3.09	.853
5	Willing to care for a person with HIV/AIDS.	2.89	.996
6	People living with HIV/AIDS can live in the same house with non-infected persons.	2.60	.963
7	Feeling uncomfortable shaking hands with HIV infected person.	3.25	.881
8	Feeling uncomfortable eating in the same table with people living with HIV/AIDS.	3.08	.908
9	HIV/AIDS is a punishment for bad behaviour.	3.08	.967
	Cluster mean	2.92	.526

Key: Positive attitude, $\bar{x} \geq 2.50$; Negative attitude, $\bar{x} \leq 2.50$

Result in Table 3 shows that In-school adolescents had positive attitude ($\bar{x} = 2.92$, SD = .526) towards people living with HIV/AIDS. The students also had positive attitude in all the items ($\bar{x} > 2.50$) except for item 2 where the students agreed that people living with HIV/AIDS are promiscuous ($\bar{x} < 2.50$)

Research Question Four: What is the attitude towards people living with HIV/AIDS, among in-school adolescents in Nsukka LGA, Enugu state based on age, class level and gender?

Table 4: Attitude Towards People Living with HIV/AIDS among In-school Adolescents in Nsukka LGA, Enugu State Based on Age, class level and gender (n=365).

Variables	Mean	Standard Deviation
Age(years)		
10-15	2.86	.568
16 and above	3.06	.358
Class level		
JSS	2.82	.603
SSS	3.01	.411
Gender		
Male	2.88	.525
Female	2.95	.423

Result in Table 4 shows that in-school adolescents irrespective of age had positive attitude towards people living with HIV/AIDS (10-15 years $\bar{x}$ = 2.86, SD = .568; 16 years and above $\bar{x}$ = 3.06, SD = .358). Also, the results show that in-school adolescents irrespective of their class level had positive attitude towards people living with HIV/AIDS (JSS $\bar{x}$ = 2.82, SD=.603 SSS $\bar{x}$ = 3.01 SD=.411). In addition, the results in Table 4 show that in-school adolescents irrespective of gender had positive attitude towards people living with HIV/AIDS (Male, $\bar{x}$ = 2.88; SD=.525; Female ($\bar{x}$ = 2.95, SD =.425).

Hypothesis One: There is no significant difference in the level of knowledge of HIV/AIDS among in-school adolescents in Nsukka LGA Enugu state based on age, class level and gender.

Table 5: Summary of Chi-Square Analysis of No Significant Difference in the Level of Knowledge of HIV/AIDS among In -School Adolescent in Nsukka LGA, Enugu State Based on Age, class level and gender.

Variables	N	Correct O(E)	Incorrect O(E)	χ^2	Df	p-value	Decision
Age(years)							
10-15	267	221(225.3)	46(41.7)				
16 and above	98	87(82.7)	11(15.3)	1.961	1	.161	NS
Class level							
JSS	185	150(156.1)	35(28.9)				
SSS	180	158(151.9)	22(24.1)	3.105	1	.078	NS
Gender							
Male	176	152(148.5)	24(27.5)	1.011	1	.315	NS
Female	189	156(159.5)	33(29.5)				

Key: O = Observed frequencies; E = Expected frequencies, S =Significant, NS = Not significant Results in Table 5 shows that there is no significant difference in the knowledge of HIV and AIDS based on age (χ^2 = 1.961 p= .161 >.05), class level (χ^2 = 3.105 p= .078 >.05) and gender (χ^2 = 1. 011, P-value = .315 > .05) since the p-values are greater than .05 level of significance.

Hypothesis Two: There is no significant difference in the attitude towards people living with HIV/AIDS among in-school adolescents in Nsukka LGA Enugu state based on age, class level and gender.

Table 6: Summary of the t-test Analysis of Difference in the Attitude towards People Living with HIV/AIDS among in school adolescent in Nsukka LGA, Enugu state Based on Age, class level and gender.

Variables	N	$\bar{x}$	SD	T	Df	p-value	Decision
Age(years)							
10-15	267	2.86	.557	-3.179	363	.002	S
16 and above	98	3.05	.358				
Class level							
JSS	185	2.82	.603	-3.565	363	.000	S
SSS	180	3.01	.411				
Gender							
Male	176	2.88	.525				
Female	189	2.95	.425	-3.360	363	.175	NS

Result in Table 6 shows that there is a significant difference in the attitude towards people living with HIV/AIDS based on Age ($t=-3.179$, $P=.002<.05$) and class level ($t=-3.565$, $P=.000<0.5$), but that there is no significant difference in the attitude towards people living with HIV/AID based on gender ($t=-1.360$, $p=.175>0.5$).

Discussion

The findings in Table 1 showed that in-school adolescents had moderate (59.7%) level of knowledge of HIV/AIDS. This is because In-school adolescents may have been taught from their homes, primary school and even in their present classes about HIV/AIDS. The result of the study concurs with the finding of Idoko (2021), Mahat (2019) and Obarisiagbon et al. (2019) Tarkang, et al. (2019) which indicated moderate and good knowledge of HIV/AIDS among young adolescents. The result of the study contradicts with the finding of Shamu et al. (2020) which reported low knowledge (44.7%) among the respondents. The findings of the study suggest that there is a need for increased attention towards young adolescents particularly in the provision of comprehensive, functional sexuality education, including HIV at the family- and school-levels. Result in Table 1 indicated that only (53.2%) knew students knew that HIV/AIDS is not curable. This calls for concern as the adolescents may be careless with their sexual hoping for cure. This is inconsistent with the findings of Khamisa et al. (2020) and Haroun et al. (2016) which reported that only (12.1% and 20%) knew that HIV/AIDS is not curable. Result in Table 1 also revealed that in-school adolescents had high knowledge (78.4% and 72.1%) that HIV can be transmitted through having sex intercourse and having multiple sexual partners without wearing condom but moderate knowledge (59.5% and 42.5%) that HIV can be acquired through blood transfusion and mother to child during birth. The results are at variance with the findings of Alemeyahu et al (2026) which reported high knowledge (97%, 85%, and 74%) respectively for sexual intercourse, blood transfusion and mother to child. Results in Table 1 also indicated that students had high knowledge (79.2% and 73.4%) that HIV can be prevented through abstinence and condom use. This is in contrast with findings of (Befekadu et al. 2019; Birhanu et al. 2020) which reported very high knowledge (87%) and moderate knowledge (63%) that HIV can be prevented through condom use. The findings of the study contradict with the results of Alemeyahu et al. (2026) and Befakadu et al. which reported knowledge (85%, & 87%) respectively on abstinence as way to prevent HIV transmission. The different levels of knowledge on the HIV/AIDS is a dangerous sign indicating that students are not well

educated on HIV/AIDS and calls for comprehensive health education and classroom instructions regarding HIV/AIDS.

The findings in Table 2 showed that high proportion of in-school adolescents aged 10-15 had low knowledge (66.7%) while high proportion of students aged 16 and above had high knowledge (43.9%), greater percentage of those in SSS had moderate knowledge (38.9%) and greater proportion of males had high knowledge (36.0%) of HIV/AIDS. Surprisingly, result in Table 5 showed that there is no significant difference in the knowledge of HIV/AIDS among in school adolescents based on age, class level and gender. The findings might be attributed that in-school adolescents of different age groups, class level and gender are exposed equally to HIV/AIDS knowledge in schools. Also, the students may have acquired the knowledge through social media. This is dissimilar with the findings of Mahat (2019) and Fana (2021) which revealed that age and gender, class level are significantly associated with knowledge of HIV/AIDS among the respondents. The result of the study is also at variance with the findings of Zhang et al. (2021) which reported that only class level is significantly associated with knowledge of HIV/AIDS among the adolescents. This might be attributed that older adolescents, senior secondary school students acquired more knowledge of HIV/AIDS as their age increases and as they progress in their academic studies. Also, female students also may have gained more knowledge through their mothers who may have the privileged information regarding HIV/AIDS in antenatal and postnatal services.

The findings in Table 3 indicated that in-school adolescents had positive attitude ($\bar{x} = 2.92$, $SD = .526$) towards people living with HIV/AIDS. The finding concurs with Alemayeha et al. (2026), Li et al. (2024) and Ma et al. (2023) which reported that respondents demonstrated a positive attitude towards people living with HIV/AIDS (PLWHAS). The finding might be attributed that in-school adolescents have access to media and information channels, exposure to accurate and positive information about HIV/AIDS in media and online platforms which can contribute to shaping attitude. The finding of the study contradicts with the study of Haroun et al. (2016) which reported negative attitude towards PLWHAS. The findings of the study showed the students had positive attitude willing to socialize or associate with PLWHAS ($\bar{x} = 3.38$), attending the same school with PLWHAS ($\bar{x} = 3.09$), willing to care for PLWHAS ($\bar{x} = 2.89$) which corroborates with the findings of Li et al. (2024) and Khamisa et al. (2020) which revealed that the respondents had positive attitude for the same items. This might be that students always have sympathy for their fellow students and may like to discriminate them.

Results in Table 4 showed that in-school adolescents irrespective of age, class level and gender had positive attitude ($\bar{x} > 2.50$) towards PLWHAS. This result can be linked that the in-school adolescents may have had several exposures to educational resources, school programs, and public health campaigns about HIV/IDs regardless of age, class level and gender. Secondly, the in-school adolescents of different age groups, class level and gender have access to social media, internet sources, equal sensitization programmes which can empower individuals to make informed decisions about their sexual health and develop positive attitude towards PLWHAS. However, results in Table 6 indicated that there was significant difference based on age and class level ($p < .05$) but there was no significant difference based on gender ($p > .05$) in the attitude towards PLWHAS. The finding agrees with the study of Fana (2021) and Obarisiagbon et al. (2019) which reported that there was significant difference in the attitude towards PLWHAS based on age and class level. The result of study disagrees with the results of Li et al. (2024), Khamisa et al. (2020) Nwimo et al (2020) that reported no significant difference in the

attitude towards PLWHAS based on gender and class level. This may be that the older in-school adolescents have more knowledge of HIV/AIDS. Age-appropriate interventions are needed to address attitude towards HIV/AIDS by school administrators and health educators to prevent discrimination and stigmatization against people living with HIV/AIDS. Classroom instructions and other educational programmes and campaigns regarding HIV/AIDS can motivate the adolescent to adopt positive attitude towards PLWHAS.

Conclusion

In-school adolescents had moderate knowledge about HIV/AIDS indicating need for educating students on HIV/AIDS. However, this level of knowledge is not encouraging as the in-school adolescents are not well grounded on the scourge of HIV/AIDS, and may be indulging in unsafe sex practices. The study recommended that government, Ministries of Information, Education and Health should embark on effective sensitization of the students and general public to raise awareness on HIV/AIDS to increase knowledge about HIV/AIDS which may motivate people develop positive attitude towards people living with HIV/AIDS.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Health educators should embark on awareness sensitization campaigns through mass media, community leaders, community healthcare workers and other stakeholders to increase knowledge of HIV/AIDS and encourage positive attitude towards PLWHAS among in-school adolescents.
2. Government and education authority should include HIV/AIDS education in the school curriculum at all level of education using appropriate age techniques. This is because school based education programmes could be more beneficial for the adolescents to adopt safer sex practices as well as educate their siblings and the general on HIV/AIDS.
3. Teachers and other stakeholders should develop and implement extensive HIV/AIDS health education programs targeting vulnerable populations including school adolescents.

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