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Knowledge, Attitude, And At-Risk Behaviour Towards HIV Infection Among Secondary Schools Students In Ibadan Oyo State

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ABSTRACT

Human Immunodeficiency Virus (HIV) infection remains a significant global health challenge, particularly among adolescents and young adults. An estimated 37.7 million people worldwide were living with HIV at the end of 2020, with approximately 1.5 million new infections reported in the same year. In Nigeria, HIV infection remains a significant public health concern, particularly among students. Despite progress in HIV prevention and treatment efforts, recent data underscore the continued vulnerability of Nigerian students to HIV transmission. Addressing the prevalence of HIV infection among Nigerian students requires a multifaceted approach that encompasses both prevention and treatment strategies. Biomedical interventions, such as HIV testing and counselling, as well as access to antiretroviral therapy for those living with HIV, are essential components of HIV care among students. In spite of this, there is dearth of literature on HIV infection. Hence, this study examined knowledge, attitude and at-risk behaviour towards HIV infection among secondary school students in Ona-Ara Local Government Area, Ibadan, Oyo State. Descriptive survey research design was used. Simple random sampling technique was used to select 120 respondents; while questionnaire was used for data collection. Descriptive statistics of frequency counts, percentages and inferential statistics of Pearson product moment correlation were used for the analysis. The result of the study revealed that the level of knowledge of HIV infection was high (mean=1.51), attitude (mean=1.67) was positive, while there was healthy behaviour (mean=1.97). There was a significant negative relationship between knowledge and attitude towards HIV infection ($r=-0.338$, $p<0.05$). There was no significant relationship between knowledge and at-risk behaviour of HIV infection ($r=0.130$, $p>0.05$). There was no significant relationship between attitude and at-risk behaviour of HIV infection ($r=-0.067$, $p>0.05$). The authorities of secondary schools in Ona Ara Local Government Area should organize periodic sensitization programme on HIV infection for students in the study area.

Keywords: HIV infection, Knowledge, Attitude and At-risk behaviour.

INTRODUCTION

Human Immunodeficiency Virus (HIV) infection remains a significant global health challenge, particularly among adolescents and young adults. HIV is a virus that attacks the body's immune system, specifically targeting CD4 cells, a type of white blood cell crucial for fighting off infections. Without effective treatment, HIV can progress to Acquired Immunodeficiency Syndrome (AIDS), where the immune system becomes severely compromised, leaving individuals vulnerable to opportunistic infections and cancers. (WHO, 2024).

Understanding the meaning of HIV infection extends beyond mere awareness of its biological mechanisms. It encompasses a broader socio-cultural context, including factors such as stigma, discrimination, access to healthcare, and socio-economic disparities. Campbell, (2019) emphasizes the importance of addressing these socio-cultural determinants in combating the HIV epidemic, particularly among vulnerable populations such as adolescents and young adults.

The concept of HIV (Human Immunodeficiency Virus) encompasses a multifaceted understanding of a viral infection that profoundly impacts global health. HIV is a virus that attacks the body's immune system, specifically targeting CD4 cells, a type of white blood cell crucial for fighting off infections. Without effective treatment, HIV can progress to Acquired Immunodeficiency Syndrome (AIDS), where the immune system becomes severely compromised, leaving individuals vulnerable to opportunistic infections and cancers (CDC, 2021). This conceptualization of HIV extends beyond its biological mechanisms, encompassing broader socio-cultural and public health dimensions.

Mellins,(2018), has underscored the importance of addressing HIV within a socio-cultural framework, recognizing the role of stigma, discrimination, and socio-economic disparities in shaping the HIV epidemic. Stigma and discrimination associated with HIV can act as significant barriers to testing, treatment, and prevention efforts, perpetuating the spread of the virus within communities. Understanding the socio-cultural determinants of HIV transmission and care is essential for developing effective interventions that address the root causes of the epidemic.

Furthermore, recent advancements in HIV prevention and treatment have transformed the landscape of HIV care. The introduction of pre-exposure prophylaxis (PrEP), a medication taken by HIV-negative individuals to reduce the risk of acquiring HIV, has demonstrated remarkable efficacy in preventing new infections, particularly among key populations at higher risk. (Abiodun,2021).He also stressed that, antiretroviral therapy (ART) has revolutionized HIV treatment, allowing individuals living with HIV to achieve viral suppression, leading to improved health outcomes and a significantly reduced risk of transmission.

However, despite these advancements, challenges persist in reaching key populations, including adolescents and young adults, with comprehensive HIV prevention and treatment services. Houston (2010), highlighted the need for tailored interventions that address the unique needs and vulnerabilities of these demographic groups, including access to sexual education, HIV testing, and stigma reduction initiatives. Furthermore, the past COVID-19 pandemic has posed additional challenges to HIV care delivery, disrupting healthcare services and exacerbating existing health inequities (Kipke 2019).

HIV encompasses not only the biological aspects of the virus but also the broader socio-cultural determinants shaping its transmission, prevention, and treatment. Recent research underscores the importance of addressing stigma, discrimination, and access barriers in HIV care delivery, particularly among vulnerable populations. Continued efforts are needed to expand access to comprehensive HIV prevention and treatment services, leveraging recent advancements in biomedical interventions while addressing the intersecting social determinants of health to achieve meaningful progress towards ending the HIV epidemic.

METHODOLOGY

Descriptive survey design was adopted for this study. The population of study consisted public secondary school students in Ona – Ara Local Government Area, Ibadan, Oyo State.

The researcher adopted simple random sampling technique to select the respondents randomly from secondary schools in Ibadan, Oyo State. Four (4) schools were sampled and thirty (30) students were sampled from each school. This made 120 sample students. The major instrument for this study was a structured questionnaire titled “Knowledge, attitude and at-risk behaviour towards HIV infection among secondary school students”. It was divided into two sections (A and B). Section A collects information on the bio-data of respondents while section B consists of four parts, each part aims at getting response to some questions generated for this study. Respondents are to choose one out of four stated options: Strongly Agree, Agree, Disagree and Strongly Disagree. After constructing of the questionnaire for the study, it was given to some experts who read through and offered constructive criticism for amendment of the instrument and gave suggestions that ascertain the validity of the instrument. The validated questionnaire was then pretested among 30 students in another school, other than the study school, it was subjected to Kuder-Richardson formula to determine the reliability coefficient. The instrument yielded a reliability coefficient of 0.76.

The completed copies of the questionnaires were collected, coded and analysed using descriptive statistics of frequency counts and percentages to analyzed the socio- demographic characteristics of the respondents and the research questions. Inferential statistics of person product moment correlation (PPMC) was used to analyzed hypothesis 1-3. All the hypotheses were tested at 0.05 level of significance.

RESULTS

Table 1: Distribution of the Respondents by Sex

Gender	Frequency	Percent
Male	59	49.2
Female	61	50.8
Total	120	100.0

Table 1 reveals that 59 (49.2%) respondents were male, while 61 (50.8%) were female. This means that, most of the respondents were female.

Table 2: Distribution of the Respondents by Age

Age	Frequency	Percent
10 - 14 years	51	42.5
15 - 19 years	69	57.5
Total	120	100.0

Table 2 reveals that 51 (42.5%) respondents were in the age range of 10-14 years, while 69 (57.5%) respondents were 15 - 19 years. This means that, most of the respondents were between 15 - 19 years

Table 3: Distribution of the Respondents by Class

Class	Frequency	Percent
JSS1	16	13.3
JSS 2	24	20.0
JSS 3	29	24.2
SSS 1	22	18.3
SSS 2	29	24.2
Total	120	100.0

Table 3 reveals that, 16 (13.3%) respondents were in JSS1, 24 (20.0%) were in JSS 2, while 29 (24.2%) were in JSS 3. Furthermore, 22 (18.3%) respondents were in SS1, while 29 (24.2%) were in SSS 2. This means that most of the respondents were in JSS 3 and SSS 2 respectively.

Research Question 1: *What is the level of knowledge of HIV infection among secondary school students in Ona Ara Local Government Area?*

Table 4: Summary of Result on the Knowledge of HIV infection

S/n	Statement	Yes	No	Mean	Std. Dev.
1.	A person infected with HIV does not usually show any symptoms of the disease.	14 (11.7%)	106 (88.3%)	1.88	0.32
2.	HIV can be contacted through the bite of a mosquito.	40 (33.3%)	80 (66.7%)	1.67	0.47
3.	HIV can be contacted through receiving blood from an infected person.	115 (95.8%)	5 (4.2%)	1.04	0.20
4.	There is a vaccine for HIV.	59 (49.2%)	61 (50.8%)	1.51	0.50
5.	HIV is a hereditary disease.	31 (25.8%)	89 (74.2%)	1.74	0.44
6.	Can someone contact HIV through exposure to an infected person who cough or sneeze.	51 (42.5%)	69 (57.5%)	1.58	0.50
7.	Resistance to other diseases in an individual with HIV is rather low.	89 (74.2%)	31 (25.8%)	1.26	0.44
8.	HIV is a contagious disease.	75 (62.5%)	45 (37.5%)	1.38	0.49

Weighted mean=1.51

Decision Rule: <0.49=Low; 1.50–1.99=High; 2.00=Very High

As indicated in table 4, 14 (11.7%) respondents affirmed that person infected with HIV does not usually show any symptoms of the disease, while 106 (88.3%) did not. In addition, 40 (33.3%) respondents stated that HIV can be contacted through the bite of a mosquito, while 80 (66.7%) did not. Furthermore, 115 (95.8%) respondents acknowledged that HIV can be contacted through receiving blood from an infected person, while 5 (4.2%) did not. Besides, 59 (49.2%) revealed that there is a vaccine for HIV, while 61 (50.8%) did not. Moreover, 31 (25.8%) respondents admitted that 89 (74.2%) that HIV is a hereditary disease. Additionally, 51 (42.5%) respondents disclosed that someone that contact HIV through exposure to an infected person could cough or sneeze, while 69 (57.5%) did not. In addition, 89 (74.2%) respondents revealed that resistance to other diseases in an individual with HIV is rather low, while 31 (25.8%) did not. Also, 75 (62.5%) stated that HIV is a contagious disease, while 45 (37.5%) did not. Table 4.4 further revealed that the weighted mean was 1.51 which indicated that the score was high based on the decision rule. This means that the level of knowledge of HIV infection was high among secondary school students in Ona Ara Local Government Area.

Research Question 2: *What is the attitude towards HIV infection among secondary school students in Ona Ara Local Government Area?*

Table 5: Summary of Result on the Attitude towards HIV infection transmission

S/n	Statement	Yes	No	Mean	Std. Dev.
1.	HIV is a punishment from God.	34 (28.3%)	86 (71.7%)	1.28	0.45
2.	People with HIV must be supported, treated and helped.	117 (97.5%)	3 (2.5%)	1.98	0.16
3.	People with HIV should have social right to study or work.	117 (97.5%)	3 (2.5%)	1.94	0.24
4.	I feel comfortable talking about HIV with my friends.	109 (90.8%)	11 (9.2%)	1.91	0.29
5.	I believe that people with HIV are dirty or immoral.	30 (25.8%)	90 (74.2%)	1.25	0.43
Weighted mean=1.67					

Decision Rule: <0.49=Negative; 1.50>=Positive

Table 5, revealed that 34 (28.3%) respondents affirmed that HIV is a punishment from God, while 86 (71.7%) did not. Similarly, 117 (97.5%) respondents affirmed that people with HIV must be supported, treated and helped, while 3 (2.5%) did not. Equally, 117 (97.5%) respondents expressed that people with HIV should have social right to study or work, while 3 (2.5%) did not. Moreover, 109 (90.8%) respondents expressed that they feel comfortable talking about HIV with their friends, while 11 (89.2%) did not. Also, 30 (25.8%) confirmed that they believe that people with HIV are dirty or immoral, while 90 (74.2%) did not. Table 4.5 further revealed that the weighted mean was 1.67 which indicated that the score was positive based on the decision rule. This means that the attitude towards HIV infection was positive among secondary school students in Ona Ara Local Government Area.

Research Question 3: *What is the at-risk behaviour towards HIV infection among secondary school students?*

Table 6: Summary of Result on the At-risk Behaviour to HIV infection

S/n	Statement	Yes	No	Mean	Std. Dev.
1.	Engaging in unprotected sexual intercourse increases the risk of HIV transmission	120 (100.0%)	0 (0.0%)	2.00	0.00
2.	Having multiple sexual partners without protection possess a significant risk of contracting HIV.	117 (97.5%)	3 (2.5%)	1.98	0.16
3.	Total abstinence is the best way to prevent HIV infection	118 (98.3%)	2 (1.7%)	1.98	0.13
4.	Sharing of sharp objects like blade, needles can expose me to HIV infection	119 (99.2%)	1 (0.8%)	1.99	0.90
5.	I prefer to go for HIV testing to know my status.	107 (89.2%)	13 (10.8%)	1.89	0.31
Weighted mean=1.97					

Decision Rule: <0.49=risky behaviour; 1.50>=healthy behaviour

As indicated in table 6, all the respondents 120 (100.0%) affirmed that engaging in unprotected sexual intercourse increases the risk of HIV transmission. Additionally, 117 (97.5%) respondents were having multiple sexual partners without protection possess a significant risk of contracting HIV, while 3 (2.5%) did not. Besides, 118 (98.3%) respondents expressed that total abstinence is the best way to prevent HIV infection, while 2 (1.7%) did not. Moreover, 119 (99.2%) respondents stated that sharing of sharp objects like blade, needles can expose them to HIV infection, 1 (0.8%) did not. Additionally, 107 (89.2%) respondents stated that they prefer to go for HIV testing to know their status, 13 (10.8%) did not. Table 4.6 further revealed that the weighted mean was 1.97 which indicated that there is healthy behaviour based on the decision rule; while risky behaviour was reduced. This means that the secondary school students in Ona Ara Local Government Area had healthy behaviour in relation to HIV infection.

Hypothesis 1: There will be no significant relationship between knowledge and attitude towards HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State.

Table 7: Summary of Result on Relationship between Knowledge and Attitude towards HIV infection

Variables	Mean	Std. Dev.	Knowledge	Attitude	N	Sig. (p value)	Remark
Knowledge	12.05	1.65	1	-0.338*	120	0.000	Significant
Attitude	8.35	0.71	-0.338*	1			

Correlation is Significant at 0.05 alpha level (p<0.05)

Table 7 shows that knowledge was tested significant on attitude towards HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State ($r=-0.338$, $p<.05$). It was further established that knowledge had negative correlation with attitude towards HIV infection; while correlation coefficient's magnitude was weak. This implied that there was a significant negative relationship between knowledge and attitude towards HIV infection. The null hypothesis was therefore rejected. The negative relationship between knowledge and attitude implied that, knowledge of HIV infection among secondary school students in Ona-Ara LGA could not improve their attitude towards it.

Hypothesis 2: There will be no significant relationship between knowledge and at-risk behaviour of HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State.

Table 8: Summary of Result on Relationship between Knowledge and At-risk Behaviour of HIV infection

Variables	Mean	Std. Dev.	Knowledge	At-risk behaviour	N	Sig. (p value)	Remark
Knowledge	12.05	1.65	1	0.130	120	0.157	Not Significant
At-risk behaviour	9.84	0.39	0.130	1			

Correlation is Significant at 0.05 alpha level (p<0.05)

Source: Field Survey, 2024

Table 8 shows that knowledge was not tested significant on at-risk behaviour of HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State ($r=0.130$, $p>.05$). It was further established that knowledge did not have significant correlation with at-risk behaviour of HIV infection; while correlation coefficient's magnitude was weak. This implied that there was no significant relationship between knowledge and at-risk behaviour of HIV infection. The null hypothesis was therefore accepted. The negative relationship between knowledge and at-risk behaviour implied that, knowledge of HIV

infection among secondary school students in Ona-Ara LGA could not improve their at-risk behaviour towards it.

Hypothesis 3: There will be no significant relationship between attitude and at-risk of HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State.

Table 9: Summary of Result on Relationship between Attitude and At-risk Behaviour of HIV infection

Variables	Mean	Std. Dev.	Attitude	At-risk behaviour	N	Sig. (p value)	Remark
Attitude	8.36	0.71	1	-0.067	120	0.468	Not Significant
At-risk behaviour	9.84	0.39	-0.067	1			

Correlation is Significant at 0.05 alpha level ($p < 0.05$)

Table 9 shows that attitude was not tested significant on at-risk behaviour of HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State ($r = -0.067$, $p > .05$). It was further established that attitude did not have significant correlation with at-risk behaviour of HIV infection; while correlation coefficient's magnitude was weak. This implied that there was no significant relationship between attitude and at-risk behaviour of HIV infection. The null hypothesis was therefore accepted. The negative relationship between attitude and at-risk behaviour implied that, attitude towards HIV infection among secondary school students in Ona-Ara LGA could not improve their at-risk behaviour towards it.

DISCUSSION OF FINDINGS

The finding of this study revealed that the level of knowledge of HIV infection was high among secondary school students in Ona Ara Local Government Area. This was further established through the responses of majority of the respondents denied that person infected with HIV does not usually show any symptoms of the disease. In addition, most of the respondents did not agree that HIV can be contacted through the bite of a mosquito. Furthermore, most respondents acknowledged that HIV can be contacted through receiving blood from an infected person. Besides, many of the respondents revealed that there is a vaccine for HIV. Moreover, most respondents did not admit that HIV is a hereditary disease. Additionally, most of the respondents disagreed that someone that contact HIV through exposure to an infected person could cough or sneeze. In addition, most of the respondents revealed that resistance to other diseases in an individual with HIV is rather low. Also, most respondents stated that HIV is a contagious disease.

The finding of this study revealed that attitude towards HIV infection was positive among secondary school students in Ona Ara Local Government Area. This was further established through the responses of majority of which they disagreed that HIV is not a punishment from God. Similarly, majority of the respondents affirmed that people with HIV must be supported, treated and helped. Equally, most respondents expressed that people with HIV should have social right to study or work. Moreover, most respondents expressed that they feel comfortable talking about HIV with their friends. Also, most respondents did not confirm that they believe that people with HIV are dirty or immoral.

The finding of this study revealed further that secondary school students in Ona Ara Local Government Area had healthy behaviour in relation to HIV infection. This was further established through the responses of which all the respondents affirmed that engaging in unprotected sexual intercourse increases the risk of HIV transmission. Additionally, most of the respondents revealed that they were having multiple sexual partners without protection possess a significant risk of contracting HIV. Besides, majority of respondents expressed that total abstinence is the best way to prevent HIV infection. Moreover, most respondents stated that sharing of sharp objects like blade, needles can expose them to

HIV infection. Additionally, most respondents stated that they prefer to go for HIV testing to know their status.

The outcome of this study further revealed that knowledge was tested significant on attitude towards HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State. It was further established that knowledge had negative correlation with attitude towards HIV infection; while correlation coefficient's magnitude was weak. This implied that there was a significant negative relationship between knowledge and attitude towards HIV infection. The negative relationship between knowledge and attitude implied that, knowledge of HIV infection among secondary school students in Ona-Ara LGA could not improve their attitude towards it.

The finding of this study revealed that knowledge was not tested significant on at-risk behaviour of HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State. It was further established that knowledge did not have significant correlation with at-risk behaviour of HIV infection; while correlation coefficient's magnitude was weak. This implied that there was no significant relationship between knowledge and at-risk behaviour of HIV infection. The negative relationship between knowledge and at-risk behaviour implied that, knowledge of HIV infection among secondary school students in Ona-Ara LGA could not improve their at-risk behaviour towards it.

The outcome of this study revealed that attitude was not tested significant on at-risk behaviour of HIV infection among secondary school students in Ona-Ara LGA, Ibadan Oyo State. It was further established that attitude did not have significant correlation with at-risk behaviour of HIV infection; while correlation coefficient's magnitude was weak. This implied that there was no significant relationship between attitude and at-risk behaviour of HIV infection. The negative relationship between attitude and at-risk behaviour implied that, attitude towards HIV infection among secondary school students in Ona-Ara LGA could not improve their at-risk behaviour towards it.

CONCLUSION AND RECOMMENDATION

It was concluded in this study that the level of knowledge of HIV infection was high among secondary school students in Ona Ara Local Government Area. It was established that attitude towards HIV infection was positive among secondary school students in Ona Ara Local Government Area. Conclusion was further made that secondary school students in Ona Ara Local Government Area had healthy behaviour in relation to HIV infection. In addition, there was a significant negative relationship between knowledge and attitude towards HIV infection. It was concluded that there was no significant relationship between knowledge and at-risk behaviour of HIV infection. Conclusion was also made that there was no significant relationship between attitude and at-risk behaviour of HIV infection.

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

1. The authorities of Secondary Schools in Ona Ara Local Government Area should organize periodic sensitization programme on HIV infection for students in the study area.
2. The authorities of Secondary Schools in collaboration with State Ministry of Health to organize periodic Health Education programmes specifically on knowledge, attitude and at-risk behaviour of HIV infection among secondary school students Ona Ara Local Government Area.

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