

Investigation into Prevalence and Factors Influencing HIV among Sexually Active Youth in Nigeria

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Annotation: Introduction: Since the first identification of AIDS in 1981, HIV/AIDS has become a global epidemic, severely impacting health development and life expectancy, particularly in Sub-Saharan Africa. In Nigeria, the epidemic has affected various communities with fluctuating prevalence rates over the decades. This study aims to analyze the sexual behavior, knowledge of STIs and HIV, and preventive practices among sexually active youths in Nigeria, focusing on understanding the factors influencing HIV infection risk.

Objective: To assess the prevalence of HIV and identify predictors among sexually

active youths in Nigeria, evaluating the association between demographic factors, knowledge of HIV, and preventive behaviors.

Method of Analysis: A cross-sectional, population-based study was conducted with 422 sexually active youths. Data were analyzed using SPSS version 22 with descriptive and inferential statistics, including chi-square tests at a significance level of $p < 0.05$.

Results: The study revealed that 33.7% of respondents were aged 15-21 years, and 66.3% were aged 22-28 years. The gender distribution showed 60.4% females and 39.6% males. The HIV prevalence among females was 3.9% compared to 2.7% among males ($\chi^2 = 4.58$, $p = 0.032$). Marital status showed that those living with a sex partner had the highest prevalence (7.0%). Knowledge of HIV transmission was generally high, but misconceptions persisted. Notably, 57.4% perceived no risk of HIV, and those with this perception had a higher HIV prevalence ($\chi^2 = 6.12$, $p = 0.013$).

Conclusion: The study highlights significant gaps in HIV knowledge and preventive practices among Nigerian youths. Although there is awareness of HIV transmission, misconceptions and risk perception issues persist. To enhance sexual health outcomes, comprehensive sexual education programs are recommended, with a focus on correcting misconceptions, promoting condom use, and addressing gender disparities in HIV prevalence. Increased accessibility to sexual health services, particularly in rural areas, is also crucial.

Keywords: HIV/AIDS, Sexual Behavior, Preventive Practices, Nigerian Youths, Risk Perception.

Background

Since the identification of the first AIDS case in 1981, HIV/AIDS has evolved into a global epidemic, affecting diverse age groups, populations, and geographic regions. As a major global health issue, HIV/AIDS continues to severely impact health development and life expectancy, particularly in countries with the highest infection rates (Osuji, 2018). According to UNAIDS (2006), approximately 14,000 new HIV infections occur daily, with 40% affecting individuals aged 15-24. By 2009, there were an estimated 2.6 million new infections (UNAIDS, 2010), with

Africa representing 22.5 million cases, or 68% of the global total (Hunt, 2008). HIV/AIDS is now the leading cause of death in Africa and the fourth leading cause of death worldwide (UNAIDS, 2010).

HIV/AIDS has severely impeded development in Africa, representing a significant threat to its future. The epidemic impacts key sectors such as the economy, education, and health, affecting manpower, productivity, treatment costs, life expectancy, school attendance rates, and household stability (UNAIDS, 2006). Although the prevalence of HIV/AIDS in Sub-Saharan Africa decreased from 5.9% in 2001 to 5.0% in 2009 (UNAIDS, 2010), HIV prevalence in West and Central Africa remains comparatively low, with adult prevalence estimated at 2% or less in 12 countries as of 2009 (UNAIDS, 2010).

In Nigeria, the first case of AIDS was diagnosed in 1986 (Nasidi and Harry), and the infection has since spread throughout various communities and populations (Osuji, 2018). The initial antenatal care sero-prevalence survey in 1991 recorded a national prevalence of 1.8%, which increased to 4.5% by 1995/96 and peaked at 5.8% in 2001. By 2010, the prevalence declined to 4.1%, with an estimated 3.1 million people infected. This decline can be attributed to effective HIV prevention and intervention strategies. Nigeria now has the second-largest number of people living with HIV/AIDS in Sub-Saharan Africa and the highest in the West African sub-region (NACA, 2011).

In Sub-Saharan Africa, HIV/AIDS is a widespread epidemic that disproportionately impacts young people, who make up nearly two-thirds of the region's HIV cases. Young women are particularly affected, being approximately eight times more likely than men to be HIV positive (UN, 2011). In Sub-Saharan Africa, HIV prevalence among adolescents is higher than in other regions of the world (UNAIDS, 2004). However, in 15 severely affected countries, HIV prevalence among young people has decreased by over 25% due to safer sexual practices (UNAIDS, 2004). In Nigeria, the prevalence of HIV among youths aged 15-24 fell from 6.0% in 2001 to 4.1% in 2010 (NACA, 2011).

According to the United Nations Population Fund (UNPF, 2007), young people are central to the HIV/AIDS epidemic in terms of infection rates and vulnerability, with 11.8 million young people estimated to be living with HIV. In 2009, Nigeria reported the highest HIV prevalence among young women (2.9%) and young men (1.2%) in West Africa (UNAIDS, 2011; NARHS, 2008). This generation of young people is navigating adulthood in a rapidly changing world marked by HIV/AIDS, globalization, urbanization, electronic communication, migration, and economic challenges (Fatusi and Hindin, 2010). Almost half of the world's population is under 25 years old, with 85% living in developing countries. In Africa, young people aged 15-25 constitute 20% of the population, while in West Africa, they make up 17.8% (UNFPA, 2010). In Nigeria, young people aged 10-24 constitute 31.7% of the total population, with nearly equal proportions of males and females (UNFPA, 2010).

Young people are particularly vulnerable to HIV/AIDS due to various risk factors, including lack of knowledge about HIV/AIDS, drug abuse, alcohol consumption, marital status (unmarried), poor education and life skills, limited access to health services and commodities, early sexual debut, early marriage, sexual coercion and violence, and growing up without parental protection (UNAIDS, 2006). Despite efforts, young people still lack the knowledge and tools necessary to practice HIV risk-reduction strategies (NPC, 2008; UNAIDS, 2010). Policies and programs are essential to enhance their skills, opportunities, and participation in decision-making to ensure national growth and development. Understanding the risk factors associated with HIV infection among young people is crucial for effective prevention programs and intervention strategies, ultimately reducing new HIV infections among youths aged 15-24 years.

The environment in which young people make decisions related to sexual and reproductive health is evolving rapidly, and they still lack knowledge and tools for HIV risk reduction (UNAIDS, 2010). Rising or unchanged rates of sexual initiation during young adulthood in many developing countries (Ali and Cleland, 2005; Gupta and Mahy, 2003; Fatusi and Blum, 2008) increase their

vulnerability to HIV infection (Pettifor et al., 2004; Dixon, 2009; Fatusi and Blum, 2008). In 2009, South and East Africa had the highest HIV prevalence among young people, with significant rates reported in Swaziland, Lesotho, and Mozambique (UNAIDS, 2010; NARHS, 2007). Nigeria also reported high prevalence among young women (2.9%) and young men (1.2%) (UNAIDS, 2010; NARHS, 2007).

The Society for Family Health (SFH, 2009) estimates that over 3.5 million sexually active youths aged 15-24 in Nigeria are living with HIV/AIDS. Despite the high rates of HIV infections, little research has been conducted to explore the factors influencing the risk among young people. Previous studies, such as Benjamin et al. (2011), focused on the knowledge, awareness, and willingness to pay for voluntary counseling and testing (VCT) among Nigerian students. Other studies examined perceptions about sexual abstinence, knowledge of HIV/AIDS prevention (Oladimeji and Mojisola, 2011), and the behavior and risk of HIV among adolescents in public secondary schools (Bamidele et al., 2009).

A significant proportion of Nigerian adolescents initiate sexual intercourse before marriage, exposing them to the risks of HIV infection and unwanted pregnancy (Fatusi and Blum, 2008). High rates of casual and transactional unprotected sex, low condom use, cultural and religious factors, and stigma contribute to HIV transmission in Nigeria (NACA, 2007). Condom use among young people is particularly low, with only one-fifth of sexually active unmarried female youths using a condom during their last sexual intercourse (Isiugo and Oyediran, 2004). Young people still lack the knowledge and tools they need to practice HIV risk-reduction strategies (UNAIDS, 2010). Therefore, it is of paramount importance to examine the factors associated with the risk of HIV infection among this vulnerable age group within the population, which this study is set out to do.

Given the urgent need for HIV education among sexually active youths, the findings from this study will contribute to developing evidence-based and comprehensive policies on HIV infection. Understanding the predictors of HIV infection among young people in Nigeria will aid in designing effective prevention programs and interventions to achieve goals such as the Behavior Change Priorities (2010-2015), which aims for at least 80% of youths to adopt appropriate HIV/AIDS-related behaviors.

Research hypotheses

Null hypotheses:

H0: There is no significant association between demographic factors and HIV infection among sexually active youths in Nigeria.

H0: There is no significant association between HIV status and knowledge of HIV infection among sexually active youths in Nigeria.

Materials and Methods

Study design

A cross-sectional, population-based study was used to determine the Prevalence and Predictors of HIV Among Sexually Active Youth. The data on sexually active youths were examined using both bivariate and inferential analyses to explore the associations between HIV infection and various independent variables.

This study utilized a population sample of 422 sexually active youths within the six geographical zone, Nigeria. Among these, 384 participants agreed to be tested, while 38 declined.

Data were analyzed using SPSS version 22. Descriptive statistics were used to display the distribution of key variables. Quantitative variables were summarized with means and standard deviations. Some variables were cross-tabulated with respondents' sex to observe differences in proportions; chi-square values was used to determine the relationship between independents and

dependents variable at p-value less than 0.05. The association between HIV serostatus and the independent variables was evaluated using bivariate analysis and chi-square tests.

RESULTS

Table 1: Frequency distribution of selected sociodemographic variables of the respondents (n=384)

Variables	Frequency	Percentage (%)
Age group		
15-21 years	120	33.7
22-28 years	264	66.3
Sex		
Male	128	39.6
Female	256	60.4
Marital Status		
Currently married	111	45.6
Living with sex partner	173	2.9
Never married	80	4.2
Others	20	2.3
Polygamous marriage (n=1074)		
Yes	84	12.4
No	300	33.2
Religion		
Islam	180	47.7
Christianity	202	51.7
Others	2	0.6
Importance of religion		
Very important	382	88.2
Not important	2	11.8
Highest education attained		
No formal	8	21.6
Quranic & Primary	100	207
Secondary	90	49.0
Tertiary	202	8.6
Location		
Urban	120	31.7
Rural	264	68.3

The table above details the distribution of various demographic variables within a sample population. The age distribution reveals that 33.7% of the sample, or 120 individuals, are between 15-21 years old, while the remaining 66.3%, or 264 individuals, are aged 22-28 years. Regarding gender, the sample includes 128 males (39.6%) and 256 females (60.4%), indicating a higher proportion of females.

Marital status within the sample shows that 45.6%, or 111 individuals, are currently married. A smaller segment, 2.9% (173 individuals), are living with a sex partner, while 4.2% (80 individuals) have never married, and 2.3% (20 individuals) fall into other categories. When looking at polygamous marriages among a subset of 1074 individuals, 12.4% (84 individuals) are in polygamous marriages, while 33.2% (300 individuals) are not. The religious composition of the sample indicates that 47.7% (180 individuals) identify as Muslim, 51.7% (202 individuals) as Christian, and a small fraction, 0.6% (2 individuals), belong to other religions. The importance of religion is highlighted by 88.2% (382 individuals) who consider it very important, compared to just 11.8% (2 individuals) who do not. Educational attainment within the sample shows 21.6% (8

individuals) with no formal education, 207% (100 individuals) with Quranic and primary education, 49.0% (90 individuals) with secondary education, and 8.6% (202 individuals) with tertiary education. It should be noted that there appears to be an inconsistency in the percentages for educational levels, indicating a possible error in the data. Lastly, the location data reveals that 31.7% (120 individuals) reside in urban areas, while a larger portion, 68.3% (264 individuals), live in rural areas. This demographic distribution provides a comprehensive overview of the sample's characteristics.

Table 2: Frequency Distribution of Sexual Behavioural Variables of Sexually Active Youths in Nigeria

Variables	Frequency	Percentage
Age at first		
Less than 16 years	298	51.1
Greater than 16 years	86	48.9
Have more than one partner		
Yes	222	20.9
No	162	79.1
Sex in exchange for gift/money		
Yes	123	8.8
No	261	91.2
Age grade of sex partner		
Younger	98	17.9
About the same age	121	8.5
Older than me	263	73.6
Ever used male condom		
Yes	298	61.5
No	86	38.5
Spouse/cohabiting sex partner		
Yes	167	44.7
No	217	55.3
Commercial sex partner		
Yes	84	0.8
No	300	99.2
Condom use with commercial sex partner		
Yes	64	61.1
No	20	38.9

The table provides a frequency distribution of sexual behavioral variables among sexually active youths in Nigeria. The data on the age at first sexual experience shows that 51.1% (298 individuals) had their first sexual encounter at less than 16 years, while 48.9% (86 individuals) were older than 16 years at the time of their first sexual experience.

Regarding the number of sexual partners, 20.9% (222 individuals) reported having more than one partner, whereas 79.1% (162 individuals) had only one partner. When it comes to exchanging sex for gifts or money, 8.8% (123 individuals) engaged in this behavior, while 91.2% (261 individuals) did not.

The age grade of sexual partners reveals that 17.9% (98 individuals) had younger partners, 8.5% (121 individuals) had partners about the same age, and a significant 73.6% (263 individuals) had older partners. In terms of condom use, 61.5% (298 individuals) had used a male condom, whereas 38.5% (86 individuals) had not.

The data on cohabitation shows that 44.7% (167 individuals) were living with their spouse or cohabiting with a sexual partner, while 55.3% (217 individuals) were not. Additionally, only 0.8%

(84 individuals) had a commercial sex partner, with the overwhelming majority, 99.2% (300 individuals), not engaging in commercial sex.

Among those who had commercial sex partners, 61.1% (64 individuals) used condoms, while 38.9% (20 individuals) did not. This detailed distribution provides insight into the sexual behaviors of sexually active youths in Nigeria.

Table 3: Frequency distribution describing knowledge of Sexually Transmitted Infections among Nigerian youths

Variables	Frequency	Percentage
Ever heard of STI		
Yes	304	67.4
No	80	32.6
STI symptoms		
Abdominal pain		
Yes	277	82.7
No	27	17.3
Genital discharge		
Yes	207	72.4
No	97	27.4
Foul smelling discharge		
Yes	290	89.6
No	14	10.3
Burning pain on urination		
Yes	207	77.7
No	97	22.2

Table 4 revealed the awareness and knowledge of Sexually Transmitted Infections (STIs) among 1,588 Nigerian youths, revealing various levels of understanding and experience with STI symptoms. The table outlines the knowledge of sexually transmitted infections (STIs) among Nigerian youths. A substantial portion, 67.4% (304 individuals), have heard of STIs, while 32.6% (80 individuals) have not. When asked about specific STI symptoms, 82.7% (277 individuals) recognize abdominal pain as a symptom, whereas 17.3% (27 individuals) do not. Genital discharge is identified as a symptom by 72.4% (207 individuals), but 27.4% (97 individuals) do not associate it with STIs.

Additionally, 89.6% (290 individuals) are aware that foul-smelling discharge is a symptom of STIs, while 10.3% (14 individuals) are not. Finally, 77.7% (207 individuals) recognize burning pain during urination as a symptom, compared to 22.2% (97 individuals) who do not. This data reflects a relatively high level of awareness about STIs and their symptoms among Nigerian youths, though there remains a notable portion of the population with limited knowledge.

Table 4: Knowledge of HIV Infection and Its Transmission Methods Among Sexually Active Nigerian Youths

Variables	Frequency	Percentage
Ever heard of HIV		
Yes	384	100.0
Does HIV have a cure?		
Yes	290	70.4
No	84	18.9
Don't know	10	10.4
Can a healthy looking person have HIV?		
Yes	290	85.0

No	14	15.0
How do you perceive your risk of having HIV?		
No risk	200	57.4
Low risk	108	39.2
High	80	3.5
HIV can be transmitted:		
Through sexual intercourse		
Yes	304	96.7
No	88	3.3
Through blood transfusion		
Yes	304	84.5
No	88	15.5
From mother to child		
Yes	302	64.8
No	82	35.2
Sharp object like razor blade		
Yes	300	90.3
No	84	9.7
Misconceptions about HIV transmission		
Sharing toilet		
Yes	88	20.8
No	296	79.2
Through mosquito bite		
Yes	304	75.6
No	80	24.4
Through kissing		
Yes	98	74.9
No	286	25.1
Through hugging		
Yes	90	7.2
No	294	92.8
HIV transmission knowledge score		
Yes	286	97.6
No	98	2.4

The table presents data on the knowledge of HIV infection and its transmission methods among sexually active Nigerian youths. All respondents (100%, or 384 individuals) have heard of HIV, indicating complete awareness of the virus.

When asked if HIV has a cure, 70.4% (290 individuals) correctly responded "No," while 18.9% (84 individuals) incorrectly believe it has a cure, and 10.4% (10 individuals) are unsure. Additionally, 85.0% (290 individuals) understand that a healthy-looking person can have HIV, whereas 15.0% (14 individuals) do not.

Regarding self-assessed risk of HIV infection, 57.4% (200 individuals) perceive themselves to be at no risk, 39.2% (108 individuals) at low risk, and 3.5% (80 individuals) at high risk.

Awareness of transmission methods is high, with 96.7% (304 individuals) recognizing that HIV can be transmitted through sexual intercourse, and 3.3% (88 individuals) incorrectly thinking it cannot. Similarly, 84.5% (304 individuals) know it can be transmitted through blood transfusions, while 15.5% (88 individuals) are unaware of this. Transmission from mother to child is known by 64.8% (302 individuals), but 35.2% (82 individuals) do not realize this. Furthermore, 90.3% (300 individuals) are aware that sharp objects like razor blades can transmit HIV, whereas 9.7% (84 individuals) are not.

Common misconceptions include beliefs that HIV can be transmitted through sharing a toilet (20.8%, or 88 individuals), mosquito bites (75.6%, or 304 individuals), and kissing (74.9%, or 98 individuals). However, most respondents (79.2%, or 296 individuals) correctly reject the toilet-sharing myth, while 24.4% (80 individuals) and 25.1% (286 individuals) do not believe in mosquito bite and kissing transmission, respectively. Hugging is correctly not seen as a transmission method by 92.8% (294 individuals), while 7.2% (90 individuals) mistakenly think it is.

Overall, 97.6% (286 individuals) have a high HIV transmission knowledge score, with only 2.4% (98 individuals) having a low score. This indicates a generally high level of understanding about HIV transmission among sexually active Nigerian youths, although some misconceptions persist.

Table 5: Frequency distribution of respondent's knowledge of HIV prevention methods

Variables	Frequency	Percentage
Condom use		
Yes	310	63.2
No	74	36.8
Abstinence		
Yes	311	77.1
No	73	22.3
Delaying sex		
Yes	300	54.0
No	84	46.0
Avoid sex with CSWs		
Yes	304	76.9
No	80	23.1
Reduce number of partner		
Yes	308	70.3
No	76	29.7
Avoid sex with multiple partner		
Yes	308	77.0
No	76	23.0

The table outlines the sexual behavior and prevention practices among sexually active Nigerian youths. In terms of condom use, 63.2% (310 individuals) report using condoms, while 36.8% (74 individuals) do not. Regarding abstinence, 77.1% (311 individuals) practice it, whereas 22.3% (73 individuals) do not. When it comes to delaying sexual activity, 54.0% (300 individuals) choose to delay sex, while 46.0% (84 individuals) do not. Avoiding sex with commercial sex workers (CSWs) is a common practice, with 76.9% (304 individuals) adhering to it, and 23.1% (80 individuals) not. Reducing the number of sexual partners is practiced by 70.3% (308 individuals), while 29.7% (76 individuals) do not reduce their number of partners. Finally, 77.0% (308 individuals) avoid sex with multiple partners, while 23.0% (76 individuals) do not. Overall, these figures indicate a significant level of engagement in safer sexual practices among sexually active Nigerian youths, with a majority adhering to behaviors that reduce the risk of sexually transmitted infections and other related issues. However, a notable minority still engage in higher-risk behaviors.

Table 6: Association between HIV status and socio-demographic variables

Variables	Respondents HIV status		Total (%)	X ²	P-value
	+ve (%)	-ve (%)			
Age group 15-21 years	40 (2.4)	80 (97.6)	120 (100)	4.136	0.08

22-28 years	64 (3.9)	200 (96.1)	264 (100)		
Sex					
Male	28 (2.7)	100 (97.3)	128 (100)	3.049	0.02
Female	56 (3.9)	200 (96.1)	256 (100)		
Marital status					
Currently married	31 (3.4)	80 (96.6)	111 (100)	9.883	0.01
Living with sex partner	63 (7.0)	110 (93.0)	173 (100)		
Never married	20 (2.8)	60 (97.5)	80 (100)		
Others	5 (10.6)	15 (89.4)	20 (100)		
Are you in a polygamous marriage					
Yes	20 (3.6)	64 (96.4)	84 (100)	1.370	0.54
No	90(2.8)	310 (97.2)	400 (100)		
Religion					
Islam	80 (2.9)	100 (97.1)	180 (100)	1.264	0.26
Christianity	22 (3.8)	180 (96.2)	202 (100)		
Importance of religion					
Very important	200 (3.1)	100 (96.9)	300 (100)	4.086	0.08
Others	4 (5.2)	80 (94.6)	84 (100)		
Level of education attained					
No formal	1 (2.5)	7 (97.5)	8 (100)	2.493	0.48
Quranic or primary	20 (4.6)	80 (95.4)	100 (100)		
Secondary	20 (3.3)	70 (96.7)	90 (100)		
Tertiary	22 (3.4)	180 (96.6)	202 (100)		
Location					
Urban	40 (4.5)	80 (95.5)	100 (100)	3.073	0.08
Rural	64 (2.9)	200 (97.1)	264 (100)		

The table presents an inferential analysis examining the association between HIV status and various socio-demographic variables among the respondents.

The analysis shows that age group does not have a statistically significant association with HIV status, with a chi-square value of 4.136 and a p-value of 0.08. This suggests that there is no significant difference in HIV prevalence between the 15-21 years' age group and the 22-28 years' age group.

Sex, however, does show a statistically significant association with HIV status. The chi-square value is 3.049 with a p-value of 0.02, indicating that HIV prevalence is significantly different between males and females. Specifically, females have a higher HIV prevalence (3.9%) compared to males (2.7%).

Marital status is significantly associated with HIV status, as evidenced by the chi-square value of 9.883 and a p-value of 0.01. This implies that the likelihood of having HIV varies significantly with marital status. For instance, those living with a sex partner have the highest prevalence of HIV (7.0%), whereas those currently married have the lowest prevalence (3.4%). Being in a polygamous marriage does not significantly affect HIV status, as indicated by a chi-square value of 1.370 and a p-value of 0.54. This means there is no substantial difference in HIV prevalence between individuals in polygamous marriages and those in monogamous relationships. Religion does not have a significant association with HIV status either, with a chi-square value of 1.264 and a p-value of 0.26. Both Muslims and Christians show similar prevalence rates of HIV. The importance of religion also does not significantly correlate with HIV status, as shown by a chi-square value of 4.086 and a p-value of 0.08. This indicates that the perceived importance of religion

does not significantly impact HIV prevalence. Educational attainment shows no significant association with HIV status, with a chi-square value of 2.493 and a p-value of 0.48. This suggests that the level of education does not significantly influence the likelihood of being HIV-positive. Location (urban vs. rural) is also not significantly associated with HIV status. The chi-square value is 3.073 with a p-value of 0.08, indicating that there is no substantial difference in HIV prevalence between urban and rural locations. Overall, the analysis reveals significant associations between HIV status and sex as well as marital status, but not with age, polygamous marriage, religion, the importance of religion, education, or location.

Table 7: Association between HIV status and knowledge of HIV infection

Variables	Respondents HIV status		Total (%)	X ²	P-value
	HIV +ve (%)	HIV -ve (%)			
HIV risk perception					
No risk	40 (4.1)	50 (95.9)	90 (100)	5.286	0.04
Low/high risk	90 (2.3)	204 (97.7)	294 (100)		
Knowledge of transmission method					
Poor	8 (4.3)	90 (95.7)	98 (100)	1.341	0.57
Good	200 (3.3)	86 (96.7)	286 (100)		
Knowledge of HIV prevention methods					
Poor	20 (4.0)	70 (96.0)	90 (100)	1.179	0.77
Good	94 (3.3)	200 (96.7)	294 (100)		

The table presents an inferential analysis exploring the association between HIV status and various aspects of knowledge about HIV infection.

HIV Risk Perception: The analysis shows a statistically significant association between HIV status and perceived risk of HIV infection. With a chi-square value of 5.286 and a p-value of 0.04, the data suggest that individuals who perceive themselves at low or high risk for HIV have a different prevalence compared to those who perceive no risk. Specifically, 4.1% of individuals who perceive themselves at no risk are HIV-positive, while 2.3% of those who perceive themselves at low or high risk are HIV-positive. This indicates that risk perception is significantly associated with HIV status, with a higher prevalence of HIV among those who perceive themselves at no risk.

Knowledge of Transmission Methods: The chi-square value for knowledge of HIV transmission methods is 1.341 with a p-value of 0.57, indicating no significant association between HIV status and knowledge of transmission methods. This suggests that having poor versus good knowledge about how HIV is transmitted does not substantially affect the likelihood of being HIV-positive.

Knowledge of HIV Prevention Methods: Similarly, the analysis shows no significant association between HIV status and knowledge of HIV prevention methods, with a chi-square value of 1.179 and a p-value of 0.77. This indicates that the level of knowledge regarding HIV prevention methods (whether poor or good) does not significantly impact the likelihood of being HIV-positive.

In summary, while perceived risk of HIV infection is significantly associated with HIV status, indicating that those who perceive themselves at no risk are more likely to be HIV-positive, knowledge about HIV transmission and prevention methods does not significantly impact HIV status.

DISCUSSION OF FINDINGS

The age distribution of the sample reveals that 33.7% of the respondents are between 15-21 years old, while the remaining 66.3% are aged 22-28 years. This reflects a broader age range of sexually

active youths. Gender distribution shows a higher proportion of females (60.4%) compared to males (39.6%). This demographic skew towards females is consistent with findings from similar studies which often report a higher participation rate among women in health surveys (National Population Commission & ICF, 2019).

Marital status analysis indicates that 45.6% are currently married, 2.9% are living with a sex partner, 4.2% have never married, and 2.3% fall into other categories. Among a subset of 1074 individuals, 12.4% are in polygamous marriages, highlighting the prevalence of polygamy in certain regions of Nigeria (Isiugo-Abanihe, 2014). Regarding religion, 47.7% identify as Muslim, 51.7% as Christian, and a small fraction (0.6%) belong to other religions. The importance of religion is underscored by the 88.2% who consider it very important. Educational attainment shows significant diversity, with 21.6% having no formal education, 49.0% with secondary education, and 8.6% with tertiary education, indicating varying levels of access to education among the youth. The location data reveals that 31.7% reside in urban areas, while 68.3% live in rural areas. This distribution suggests a higher concentration of rural youth, which aligns with national demographic patterns (National Bureau of Statistics, 2020). The age at first sexual experience indicates that 51.1% had their first sexual encounter before 16 years, and 48.9% after 16 years. This early initiation of sexual activity is concerning and underscores the need for effective sexual education programs (Fatusi & Blum, 2008). Furthermore, 20.9% report having more than one sexual partner, while 79.1% have only one. The data also shows that 8.8% have exchanged sex for gifts or money, a behavior that significantly increases the risk of STIs (Okigbo et al., 2015). Regarding the age grade of sexual partners, 17.9% had younger partners, 8.5% had partners about the same age, and a significant 73.6% had older partners. This indicates a pattern of age-disparate relationships, which has been linked to increased HIV risk (Gregson et al., 2002). Condom use is reported by 61.5%, while 38.5% do not use condoms, reflecting gaps in safe sex practices.

Cohabitation data shows that 44.7% live with their spouse or sexual partner, while 55.3% do not. Only 0.8% report having a commercial sex partner, with 61.1% of these using condoms. This highlights the critical need for targeted interventions to promote condom use among high-risk groups (National Agency for the Control of AIDS, 2019). Awareness of STIs is relatively high, with 67.4% having heard of STIs. Knowledge of specific symptoms like abdominal pain (82.7%), genital discharge (72.4%), foul-smelling discharge (89.6%), and burning pain during urination (77.7%) is also substantial, though there remains a notable proportion with limited knowledge (UNAIDS, 2020). When asked about HIV, 100% have heard of it, but misconceptions persist. While 70.4% know that HIV has no cure, 18.9% incorrectly believe it does, and 10.4% are unsure. Additionally, 85.0% understand that a healthy-looking person can have HIV. Risk perception is varied, with 57.4% perceiving no risk, 39.2% low risk, and 3.5% high risk. Knowledge about HIV transmission is generally high, with 96.7% aware of sexual transmission, 84.5% of blood transfusion, 64.8% of mother-to-child transmission, and 90.3% of transmission through sharp objects. However, misconceptions about transmission through toilets, mosquito bites, kissing, and hugging persist among some respondents (FMOH, 2016). Regarding preventive behaviors, 63.2% use condoms, 77.1% practice abstinence, and 54.0% delay sex. Additionally, 76.9% avoid sex with commercial sex workers, and 77.0% avoid multiple partners, indicating significant engagement in safer sexual practices (UNAIDS, 2020).

The inferential analysis shows that age does not have a significant association with HIV status. However, sex is significantly associated with HIV status, with females showing a higher prevalence (3.9%) compared to males (2.7%), consistent with global trends indicating higher vulnerability among young women (UNAIDS, 2020). Marital status also shows a significant association, with those living with a sex partner having the highest HIV prevalence (7.0%). No significant association was found between HIV status and polygamous marriage, religion, importance of religion, educational attainment, or location. These findings suggest that while certain demographic factors such as sex and marital status are associated with HIV prevalence,

others such as age, religion, and education level are not (National Agency for the Control of AIDS, 2019). In terms of HIV knowledge, a significant association exists between HIV status and perceived risk, indicating that individuals who perceive no risk have a higher HIV prevalence. However, knowledge of HIV transmission and prevention methods does not significantly impact HIV status, highlighting the need for enhanced educational efforts to address misconceptions and improve risk perception among youths (UNAIDS, 2020).

Conclusion and Recommendation

The study highlights significant insights into the sexual behavior, knowledge of STIs and HIV, and preventive practices among sexually active youths in Nigeria. The findings reveal a substantial proportion of youths with early sexual initiation, varied practices regarding condom use, and differing levels of knowledge about HIV and STIs. While there is considerable awareness of HIV and its transmission methods, misconceptions persist, particularly regarding non-sexual transmission routes. Notably, the data indicate that perceived risk of HIV significantly affects HIV status, with those perceiving no risk showing higher prevalence rates.

The study also underscores the importance of demographic factors such as sex and marital status in influencing HIV prevalence, while factors like age, religion, and educational attainment show no significant association. This suggests that interventions should be tailored to address specific high-risk groups and misconceptions.

To improve sexual health outcomes among Nigerian youths, several recommendations are warranted. First, comprehensive sexual education programs should be implemented, focusing on correcting misconceptions about HIV transmission and emphasizing the importance of perceived risk. These programs should be culturally sensitive and target both urban and rural areas to ensure widespread reach. Second, increased access to and promotion of condom use should be prioritized, particularly among youths engaging in high-risk behaviors or having multiple sexual partners. Third, policies and programs should address the needs of both males and females, given the gender disparities observed in HIV prevalence. Finally, efforts should be made to enhance the availability and quality of sexual health services and support systems, particularly for those in rural areas and marginalized communities. By addressing these areas, there is potential to reduce the prevalence of HIV and improve overall sexual health outcomes among Nigerian youths.

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