

**Original Article**

Determinants of Risky Sexual Behaviors Associated With HIV/AIDS Among Undergraduate Students of Al-Hikmah University, Ilorin, Kwara State

Shukurat Opeyemi Tijani, Hameedah Yusuf Shiru, Abdus-samad Adebayo Rasheed and Kaosarat Olajumoke Abdulsalam

Department of Public Health, Faculty of Basic Medical Sciences, Al-Hikmah University, Ilorin, Kwara State, Nigeria.

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ABSTRACT

Background: HIV/AIDS remains a major public health challenge in sub-Saharan Africa, with young adults and university students being particularly vulnerable due to engagement in risky sexual behaviors (RSBs). Despite increased awareness of HIV transmission and prevention, unsafe sexual practices persist among undergraduates.

Objective: The study assessed the prevalence and perceived determinants of risky sexual behaviors associated with HIV/AIDS among undergraduate students of Al-Hikmah University, Ilorin, Kwara State.

Keywords:

HIV/AIDS

Risky sexual behavior

Undergraduates

Determinants

Nigeria

Methods: This study employed a descriptive cross-sectional design among 400 undergraduate students selected using a multistage sampling technique. Data were collected using a structured, pretested, self-administered online questionnaire. Analysis was limited to descriptive statistics (frequencies and percentages) using SPSS version 25.

Results: Most respondents (88.0%) reported being sexually active. Although over 90% demonstrated good knowledge of HIV transmission and prevention, risky sexual behaviors were prevalent. Perceived determinants of risky sexual behaviors, reported as descriptive frequencies, included economic hardship (29.5%), curiosity and peer influence (22.3%), substance use (17.5%), and media influence (17.0%).

Conclusion: Risky sexual behaviors remain prevalent among undergraduates despite high levels of HIV awareness. Comprehensive campus-based interventions that address socio-economic factors, provide sexuality education, and strengthen counseling services are essential to reduce HIV risk among university students.

Corresponding Author:**Shukurat Opeyemi Tijani**

Department of Public Health, Faculty of Basic Medical Sciences, Al-Hikmah University, Ilorin, Kwara State, Nigeria.

Phone number: +2348143790513

Email: shukurattijani13@gmail.com

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Introduction

Human Immunodeficiency Virus (HIV) remains a major global public health challenge, particularly in sub-Saharan Africa, where young adults are disproportionately affected (WHO, 2024). HIV attacks CD4⁺ cells, weakening the immune system and potentially leading to Acquired Immunodeficiency Syndrome (AIDS) if untreated (Prabhu & Van, 2023). Despite advances in prevention and treatment, HIV continues to cause significant morbidity and mortality, especially among adolescents and young adults engaged in high-risk behaviors (WHO, 2023). Nigeria ranks third globally in HIV burden, with an estimated 1.9 million people living with HIV/AIDS in 2018 (Onovo *et al.*, 2022). Risky sexual behaviors (RSBs) are primary drivers of HIV and other sexually transmitted infections, and a gap persists between awareness and practice among university students (Tekletsadik *et al.*, 2022). Factors such as peer influence, economic hardship, curiosity, media exposure, and limited access to youth-friendly health services perpetuate RSBs (Chanakira *et al.*, 2014; Adal *et al.*, 2024). Understanding the perceptions and behaviors of undergraduate students is critical for designing effective HIV prevention strategies in Nigerian tertiary institutions, which this study aims to address.

Study Objectives

To determine the prevalence of sexual activity among undergraduate students of Al-Hikmah University, Ilorin.

To assess the level of knowledge and perceptions of HIV/AIDS among undergraduate students.

To identify and analyze the perceived socio-economic, behavioral, and environmental determinants associated with risky sexual behaviors among undergraduate students

To examine perceived preventive measures for reducing risky sexual behaviors associated with HIV/AIDS among undergraduate students

Methodology

Study Design and Setting

This study adopted a descriptive cross-sectional survey design and was conducted at Al-Hikmah University, Ilorin, Kwara State, Nigeria.

Study Population and Sampling

The study population comprised all registered undergraduate students of Al-Hikmah University across different faculties and levels of study. A sample size of 400 students was determined using the standard sample size formula for descriptive studies and adjusted to account for possible non-response.

A multistage sampling technique was employed. Faculties were first stratified, followed by

stratification based on academic levels. Participants were then selected proportionately from each stratum to ensure representativeness.

Operational Definition of Variables

For the purpose of this study: Risky sexual behavior was defined as self-reported engagement in one or more of the following: sexual activity without consistent condom use, multiple sexual partnerships, or sexual activity under the influence of substances.

Perceived determinants referred to respondents' self-identified social, economic, and environmental factors influencing risky sexual behaviors.

Perceived preventive measures referred to respondents' opinions on strategies they believe can reduce risky sexual behaviors among students.

Data Collection Instrument

Data were collected using a structured, self-administered online questionnaire developed from a review of relevant literature. The questionnaire consisted of sections on socio-demographic characteristics, sexual behaviors, knowledge of HIV/AIDS, perceived determinants of risky sexual behaviors, and perceived preventive measures.

Validity and Reliability of Instrument

The questionnaire was developed based on a review of relevant literature and previously published studies. Content validity was ensured through expert review by public health lecturers, who assessed the relevance and appropriateness of the items. The instrument was pretested among undergraduate students outside the study population to ensure clarity, consistency, and comprehensibility. Necessary modifications were made before final administration. The questionnaire demonstrated acceptable face and content validity for the purpose of this descriptive study.

Data Collection Procedure

Participants were informed about the purpose of the study, and informed consent was obtained electronically. Participation was voluntary, and anonymity and confidentiality were assured to encourage honest responses.

Data Analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 25. Analysis was limited strictly to descriptive statistics, including frequencies and percentages. No inferential statistical tests were conducted.

Ethical Considerations

This study did not involve the collection of personal identifiers, and all data were analyzed anonymously to

protect participants' privacy and confidentiality. Formal ethical approval reference number was not applicable, as this study was a minimal-risk, anonymous, questionnaire-based survey that did not involve clinical intervention or collection of personal

identifiers. Ethical principles of voluntary participation, confidentiality, and informed consent were strictly observed in line with standard guidelines for social and behavioral research.

Results

Prevalence of Sexual Activity

Table 1: Prevalence of Sexual Activity among Undergraduate Students (n = 400)

Sexual Activity Status	Frequency	Percentage (%)
Ever had sexual intercourse	352	88.0
Never had sexual intercourse	48	12.0
Total	400	100.0

Table 1 shows that the majority of respondents (88.0%) had engaged in sexual activity at least once.

Knowledge of HIV/AIDS

Table 2: Knowledge of HIV/AIDS among Undergraduate Students

Knowledge Indicator	Yes n (%)	No n (%)
Awareness of HIV/AIDS	392 (98.0)	8 (2.0)
Knowledge of HIV transmission routes	368 (92.0)	32 (8.0)
Knowledge of HIV prevention methods	360 (90.0)	40 (10.0)

Table 2 shows that most respondents had good knowledge of HIV/AIDS transmission and prevention.

Perceived Determinants of Risky Sexual Behaviors

Table 3: Perceived Determinants of Risky Sexual Behaviors among Students

Perceived Determinant	Frequency	Percentage (%)
Economic hardship	118	29.5
Curiosity/ Peer influence	89	22.3
Substance use	70	17.5
Media influence	68	17.0
Lack of sex education	50	12.5
Total	400	100.0

Table 3 shows that Economic hardship was the most commonly reported perceived determinant of risky sexual behavior.

Perceived Preventive Measures

Table 4: Perceived Preventive Measures for Reducing Risky Sexual Behaviors

Preventive Measures	Frequency	Percentage (%)
Comprehensive sexuality education	153	38.3
Counseling services	121	30.3
Increased awareness campaigns	118	29.5
Regular HIV testing	8	2.0
Access to free condoms	0	0.0
Total	400	100.0

Table 4 shows that Comprehensive sexuality education was the most commonly perceived preventive measure (38.3%), followed by counseling services (30.3%) and awareness campaigns (29.5%). Regular HIV testing (2.0%) and access to free condoms (0.0%) were least perceived as preventive measures.

Discussion

This study assessed the prevalence, perceived determinants, and preventive measures of risky sexual behaviors among undergraduate students of Al-Hikmah University, Ilorin. Despite high awareness of HIV/AIDS, risky sexual behaviors remain common, confirming that knowledge alone does not guarantee safer sexual practices (Tekletsadik *et al.*, 2022; WHO,

2023). Economic hardship was the most frequently reported determinant, consistent with the Social Determinants of Health framework, as financial constraints can increase vulnerability to transactional sex and limit access to sexual health resources (Adegoke, 2011; UNAIDS, 2023; NACA, 2023). Peer influence, curiosity, substance use, and media exposure were also noted as contributors, aligning with the Theory of Planned Behavior and evidence on environmental and behavioral influences on sexual decision-making (Chanakira et al., 2014; Tekletsadik et al., 2022; WHO, 2022). Regarding prevention, students perceived comprehensive sexuality education and counseling as more effective than condom access, highlighting gaps in condom-related education, cultural beliefs, or stigma rather than outright rejection of condoms (UNAIDS, 2022; WHO, 2023). These findings align with previous studies indicating that environmental and behavioral factors play an important role in shaping sexual behaviors among young adults (Tekletsadik et al., 2022; WHO, 2022). Regarding preventive strategies, respondents perceived comprehensive sexuality education and counseling services as more effective than access to free condoms. This finding reflects students' perceptions rather than objective effectiveness and should be interpreted cautiously. Evidence from public health research demonstrates that while condoms are highly effective in preventing HIV transmission, their effectiveness depends on correct and consistent use, which is influenced by education, attitudes, and skills (UNAIDS, 2022; WHO, 2023). The low prioritization of condom access in this study may therefore indicate gaps in condom-related education, cultural beliefs, or stigma rather than rejection of condoms as a preventive method.

Conclusion

Risky sexual behaviors associated with HIV/AIDS remain prevalent among undergraduate students of Al-Hikmah University despite high awareness of HIV transmission and prevention. Economic hardship, peer influence, curiosity, substance use, and media exposure were the most commonly perceived determinants. These findings highlight the need for comprehensive, context-specific interventions that go beyond awareness creation to address underlying social and economic factors.

Recommendations

Universities should institutionalize comprehensive sexuality education programs that emphasize risk perception and practical decision-making skills. Youth-friendly counseling and sexual health services should be strengthened within university campuses.

Collaboration with governmental and non-governmental organizations should be encouraged to implement campus-based HIV prevention programs. Student welfare and socio-economic support programs should be enhanced to reduce financial pressures that may predispose students to risky sexual behaviors.

Conflict of Interest

The authors declare no conflict of interest.

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