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PRACTICE OF PREVENTIVE MEASURES AGAINST SEXUALLY TRANSMITTED INFECTIONS AMONG STUDENTS OF COLLEGE OF HEALTH SCIENCES IN A TERTIARY INSTITUTION IN NIGERIA

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ABSTRACT

Background: The awareness of preventive measures against sexually transmitted infections (STIs) is relatively high among students in tertiary institutions, yet they continue to constitute a population at increased risk of acquiring STIs. **Objective:** This study assessed the practice of preventive measures against STIs among health science students in a tertiary institution in Nigeria. **Methods:** A cross-sectional descriptive study was carried out using a structured, self-administered questionnaire among 394 undergraduate students in a College of Health Sciences selected through multistage sampling technique. Data were analyzed using SPSS version 25. Statistical significance was set at $p < 0.05$. **Results:** The mean age of respondents was 21.07 ± 2.46 years, with the majority aged 16–25 years (95.2%). About 41.1% of the respondents were sexually active. Among these, 75.9% use condoms while 54.5% use condoms consistently. Up to 39.8% had ever been tested for STIs with only 8.9% of them knowing their test results. Overall, 58% of the respondents demonstrated good preventive practices against STIs, while 10% demonstrated poor practices. Inadequate education (91.6%), personal health concerns (89.1%), and peer pressure (70.8%) were the major factors influencing preventive practices. Age, gender, and level of study were significantly

associated with preventive practices against STIs ($p < 0.05$). **Conclusion:** Majority of the health sciences students demonstrated good practice of preventive measures against STIs, however notable gaps exist in consistent condom use and uptake of STI testing. Addressing educational inadequacies, expanding free services and reducing stigmatization could enhance STI preventive practices among the students.

KEYWORDS: Sexually transmitted infections, preventive measures, sexual behavior, health sciences students, tertiary institution, Nigeria.

INTRODUCTION

Sexually transmitted infections (STIs) constitute a major public health problem globally due to their high prevalence, ease of transmission and significant health, social, and economic implications. The World Health Organization (WHO) estimates that more than 374 million new cases of curable STIs occur annually globally, with over one million infections acquired daily among individuals aged 15–49 years (WHO, 2023). Majority of these infections are asymptomatic and disproportionately affect young people in low- and middle-income countries where STIs continue to contribute to elevated morbidity including infertility, cervical cancer, increased HIV susceptibility and death (Nzoputam et al., 2022; UNAIDS, 2022). In the United States, over 13% increase in STIs has been reported over the past decade with over 2.2 million cases of chlamydia, gonorrhea, and syphilis, highlighting persistent challenges among young adults (Centers for Disease Control and Prevention, 2025). In Nigeria, up to three million cases of STIs occur annually with peak incidence in the 15–24 age group (Oharume, 2020).

Globally, students in tertiary institutions continue to constitute a population at increased risk of acquiring STIs due to several factors such as early sexual debut, experimentation, multiple sexual partnerships, inconsistent condom use, and limited access to youth-friendly sexual and reproductive health services. This is despite the fact that studies conducted across different regions of the world show consistently that the awareness of STIs and their modes of prevention is relatively high among these students. Nonetheless, the practice of its preventive measures remains suboptimal among this cohort, thereby highlighting persistent gaps in preventive measure adoption (European Centre for Disease Prevention and Control, 2021). Worldwide, the awareness of STIs is high, often exceeding 90% in student populations, yet prevalence can reach up to 27.7% in some cohorts, with gonorrhea predominant, as seen in Nigerian undergraduates where rates align with or exceed global averages for youth

(Nzoputam et al., 2022; World Health Organization, 2023). In Ethiopia and elsewhere, the prevalence rates of STIs among students range from 13.6% to varying figures. (Kebede et al., (2024). Nationally, self-reported STIs among Nigerian youths aged 15–29 climbed from 1.0% to 7.7% between 2003 and 2018, with infidelity and non-condom use amplifying risks, reflecting broader global increases, such as 8 million new syphilis cases in 2022 (Okunlola et al., 2025; World Health Organization, 2024). Tertiary institutions exacerbate this increase through limited youth-friendly services, stigma, and economic hurdles, leading to low screening (22.85% tested) and informal treatments (48.4%), issues echoed worldwide where educational settings in high-burden areas underutilize formal care (Nzoputam et al., 2022; Oluwole et al., 2020). Studies in North-Central Nigeria report a 12.8% STI occurrence among female students, with no knowledge-practice link ($p=0.407$). This is also akin to global challenges in LMICs where asymptomatic cases and antimicrobial resistance complicate control (Onasoga et al., 2025; World Health Organization, 2023). Among health sciences students, knowledge of STIs is also robust reaching up to 99.4% in Nigerian nursing undergraduates for instance, but practices continue to lag, and globally, only a fraction consistently use condoms or seek testing (Frank et al., 2025; Centers for Disease Control and Prevention, 2025). This theoretical-practical disconnect heightens personal and public health risks, mirroring global patterns that undermine STI control among future providers.

Addressing the burden of STIs requires sustained commitment to prevention, early detection, effective treatment, and comprehensive sexual health education, particularly among young people and future healthcare professionals. The world health organization has therefore responded to the global burden of STIs by advocating for comprehensive prevention strategies that include abstinence, correct and consistent use of condoms, mutual faithfulness, regular STI screening, vaccination against infections such as hepatitis B and HPV, and early treatment of infected individuals and their sexual partners (WHO, 2023). Adherence to these preventive measures however continues to vary widely among populations, especially among young adults in higher institutions of learning (Kumar et al., 2021). These students who often show high knowledge (84.6% in some studies) also exhibit suboptimal practices like inconsistent condom use and low testing (52.0% never tested), thereby contributing and sustaining transmissions (Nzoputam et al., 2022; Kebede et al., 2024). Stronger knowledge should correlate with reduced occurrence, yet this is not universally applied. The students of Colleges of Health Sciences, as future healthcare professionals, are expected to possess adequate knowledge of sexually transmitted infections and demonstrate appropriate preventive behaviours that align with public health standards and influence community

education. However, evidence from studies conducted in both developed and developing countries indicates that health science students may still engage in risky sexual behaviors, including inconsistent condom use and low uptake of STI screening services, highlighting a contradiction between professional knowledge and personal health practices and suggesting that knowledge alone does not necessarily translate into preventive practice (Adebayo et al., 2021; Ibrahim et al., 2019; Ogunbode et al., 2020). Poor practices could perpetuate global misconceptions, especially in LMICs where STIs fuel HIV epidemics and infertility (Frank et al., 2025; World Health Organization, 2023). The continued vulnerability of health science students to STIs therefore raises concerns about the effectiveness of existing educational and preventive strategies within tertiary institutions. This is compounded by the absence of institution-specific data on preventive practices limiting the ability of policymakers, educators, and public health practitioners to design targeted and effective interventions. Assessing the practice of preventive measures against sexually transmitted infections among students of a College of Health Sciences in a tertiary institution in Nigeria is therefore essential as it will provide valuable insight into existing behavioural patterns, contribute to the global body of knowledge on STI prevention among young adults, and support efforts aimed at reducing STI transmission in line with global public health priorities and Sustainable Development Goal 3 (Okunlola et al., 2025; Oluwole et al., 2020; WHO, 2023). This study therefore assessed the practice of preventive measures against STIs among health science students in a tertiary institution in Nigeria.

MATERIALS AND METHODS

Study Area: The study was carried out in the College of Health Sciences, Nnamdi Azikiwe University (NAU), Nnewi Campus, Anambra State, Nigeria. Nnamdi Azikiwe University is a federal government–owned tertiary institution established in 1991 and named after Nigeria's first President, Dr. Nnamdi Azikiwe. The university has multiple campuses, with the Nnewi Campus serving as the main location for health-related academic programs. The Nnewi Campus is situated in Nnewi North Local Government Area of Anambra State, in the south-eastern geopolitical zone of Nigeria. Nnewi is a prominent urban and commercial town, often referred to as the "Japan of Africa" due to its strong industrial and entrepreneurial activities. The town is well connected by road networks to major cities such as Onitsha, Awka, and Asaba, facilitating easy access for students, staff, and visitors. The population of Nnewi is predominantly Igbo, and Christianity is the major religion practiced, alongside a few traditional beliefs (Nnewi North Local Government, 2025). The College of Health Sciences is

made up of nine departments (human anatomy, physiology, medicine, nursing science, medical rehabilitation, medical laboratory science, radiography and radiological science, environmental health science and human nutrition and dietetics) in three faculties (Basic Medical Sciences, Health Sciences and Technology, and Medical Laboratory Sciences). The college is affiliated to the Nnamdi Azikiwe University Teaching Hospital (NAUTH), which provides clinical training to the students and healthcare services to the inhabitants of the town and the neighboring communities. Students of the College of Health Sciences are drawn from different parts of Nigeria and are mostly young adults within the reproductive age group. They are exposed to health-related education, clinical postings, and practical experiences that emphasize disease prevention, health promotion, and patient care. Despite their academic exposure to health information, students are also influenced by the social, cultural, and environmental factors prevalent within the university community and the larger Nnewi metropolis.

Study Design: This was a cross-sectional descriptive study.

Study Population: This comprised of undergraduate students enrolled in the College of Health Sciences, Nnamdi Azikiwe University, Nnewi, Anambra State.

Inclusion criteria: All consenting undergraduate students who had completed at least one year of study to ensure adequate exposure to health-related education.

Exclusion Criteria: Students who met the inclusion criteria but were too ill to participate in the study.

Sample Size determination**:** The sample size was determined using the formula for estimating proportions in populations less than 10,000 (Nundy et al., 2022).

$$nf = \frac{n}{1+\frac{n}{N}}$$

Where:

n*f* = the desired sample size when the population is less than 10,000

n = the desired sample size when the population is more than 10,000

N = the estimate of the size of the target population.

The target population in this study were the students in the College of Health Sciences, Nnamdi Azikiwe University, Nnewi with a population of 5890.

n (the desired sample size when the population is more than 10,000) will be derived using the formula for studying proportions with population greater than 10,000 (Araoye, 2008). *ie*:

$$n = \frac{z^2pq}{d^2}$$

Where:

n = The calculated minimum sample size

Z = Standard normal deviate at 95% confidence interval = 1.96,

p = Proportion of respondents that practiced STI prevention = 65.1% = 0.651 (Ajayi & Akpan, 2011).

q = Proportion of respondents that did not practice STI prevention = 1 – 0.651 = 0.349

d = Precision level set at 5% = 0.05.

$$n = \frac{1.96^2 \times 0.651 \times 0.349}{(0.05)^2} = 349.123$$

n*f* (the desired sample size when the population is less than 10,000) was therefore:

$$\frac{349.123}{1+\frac{349.123}{5890}} = \frac{349.123}{1.05927} = 329.59$$

An adjustment to account for non-response was made by dividing the sample size by (1 – f), where f is the anticipated non-response rate. Therefore, anticipating a non-response rate of 10%, the adjusted sample size = $\frac{329.59}{1-0.10} = \frac{329.59}{0.90} = 366.21 \approx 367$

The minimum sample size was however increased to 394 for ease of allocation and to improve the strength of the study.

Sampling Technique: Multistage sampling technique was used to enroll the respondents into this study. The college of health sciences was stratified into the four faculties making it up ie the faculties of basic medical sciences, health sciences and technology, medicine, and medical laboratory science.

Stage 1 – Allocation of sample sizes to the faculties in the College: Proportionate allocation was used to determine the number of respondents selected from each faculty using the formula – (Total number of students per faculty / Total number of students in the College) X Sample size.

For the faculty of basic medical sciences: (1475/5890) x 394 = 98.67 ≈ 99 students

For the faculty of health sciences and technology: (3102/5890) x 394 = 207.50 ≈ 208 students

For the faculty of medicine: (372/5890) x 394 = 24.88 ≈ 25 students

For the faculty of medical laboratory science: (941/5890) x 394 = 62.95 ≈

Stage 2 - Enrolment of respondents into the study: Simple random sampling technique by balloting was used to enroll the respondents from each faculty into the study until the sample size was met.

Data Collection Instrument and Method: A pretested self-administered semi-structured questionnaire adapted from the relevant literature (Oluwole et al., 2020; Onasoga et al., 2025; Adebayo et al., 2021; Ibrahim et al., 2019; Ogunbode et al., 2020) was used for data collection on the socio-demographic characteristics of the respondents, preventive measures against STIs, and the factors that influence this among the respondents. Each questionnaire took approximately 10 minutes to administer and data collection took place over one month.

Data Management –

Measurement of variables: The dependent / main outcome variable for the study was practice of preventive measures against STIs while the independent variables were the factors influencing this practice.

Questions on abstinence, STI testing and use of condoms among the sexually active respondents were used to assess the practice of preventive measures against STIs. Respondents who abstain from sexual activity and tests for STIs were regarded as having good practice. Those who are sexually active but use condoms consistently and tests for STIs were regarded as having fair practice while those who are sexually active but do not use condoms regardless of testing habits were regarded as having poor practice.

Statistical Analysis: The collected data were cross-checked and corrected for coding errors and analyzed using IBM-SPSS version 25. Frequency distribution of all relevant variables was developed. Relevant means and proportions were calculated. Associations between variables were tested using Chi-Square tests. Level of statistical significance was set at p-value ≤ 0.05 for all inferential statistics and standard deviations.

Ethical Considerations: Ethical clearance for the study was obtained from the Nnamdi Azikiwe University Teaching Hospital Ethics Committee (Ref: NAUTH/CS/66/VOL.18/VER.2/066/2015/71). Permission to carry out the study was obtained from the Deans of the faculties in the college of health sciences, Nnewi. Verbal informed consents were obtained freely and without coercion from all the respondents prior to the administration of the questionnaire. In addition, the respondents were assured of the confidentiality of the data obtained and that they are free to opt out of the study at any time without any repercussion.

RESULTS AND DISCUSSION

RESULTS: A total of 394 questionnaires were administered to the respondents. All the questionnaires were retrieved giving a response rate of 100%.

Table 1: Socio-Demographic Characteristics of the Respondents.

Variable	Frequency (n = 394)	Percentage (%)
Age (Years)		
16 – 20	189	48
21 – 25	186	47.2
26 – 30	16	4.1
31 – 35	3	0.8
Mean age	21.07 ± 2.46years	
Gender		
Female	220	55.8
Male	174	44.2
Religion		
Atheist	1	0.3
Christianity	393	99.7
Level of study		
200 level	162	41.1
300 level	110	27.9
400 level	70	17.8
500 level	52	13.2
Course of study		
Environmental Health Sciences	45	11.4
Human Anatomy	42	10.7
Human Nutrition and Dietetics	41	10.4
Medical Laboratory Science	46	11.7
Medical Rehabilitation	42	10.7
Medicine	47	11.9
Nursing	42	10.7
Physiology	43	10.9
Radiography	46	11.7

Table1 shows that the mean age of the respondents was 21.07 ± 2.46years. Most of the respondents were aged between 16 – 20 years (48%) and 21 – 25 years (47.2%). Fifty five percent of the respondents were females while 99.7% of them were Christians. Most of the respondents were in the 200 level of study (41.1%) followed by those in the 300 level of study (27.9%).

Table 2: Practice of Preventive Measures Against STIs Among the Respondents.

Variable	Frequency (n = 394)	Percentage (%)
Sexually active		
Yes	162	41.1
No	232	58.9
Uses condoms during sexual activity (n = 162)		
Yes	123	75.93
No	39	24.07

Frequency of condom use (n = 123)		
Always	67	54.47
Sometimes	47	38.21
Rarely	9	7.32
Discuses STIs with sexual partners (n = 162)		
Yes	120	74.07
No	42	25.93
Tested for STIs		
Yes	157	39.8
No	237	60.2
STI test result known (n = 157)		
Yes	14	8.92
No	143	91.08
Reason for never testing for STIs (multiple response)		
Fear of the result	13	5.31
Discomfort with discussing STIs with healthcare providers	6	2.45
Lack of knowledge on where to get tested	33	13.47
Thinks it is not necessary	184	75.10
Not sexually active	3	1.22
No reason	3	1.22
Not interested	2	0.82
Seems healthy	1	0.41

Table 2 shows that 41.1% of the respondents were sexually active. Amongst them, 75.93% uses condom during sexual activity, out of which only 54.7% uses condom always. Thirty nine point eight percent (39.8%) of the respondents had ever tested for STIs, out of which only 8.9% knew the result of the test. The main reason given by the respondents for never testing for STIs was thinking that it was unnecessary (71.10%).

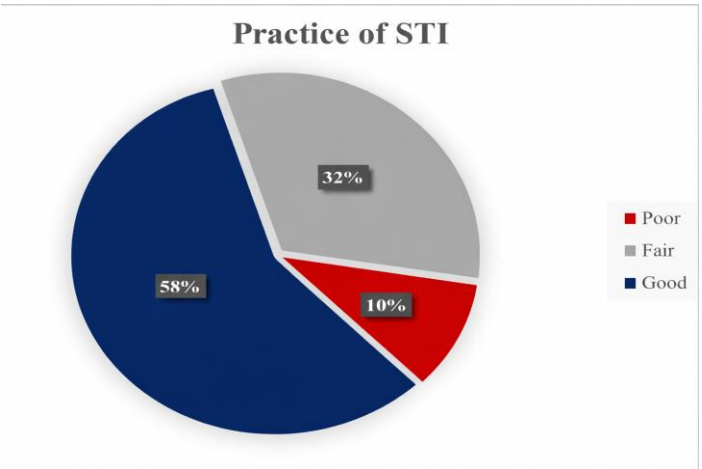

Figure 1: Level of Practice of Preventive Measures Against STIs among the Respondents

Figure 1 shows that 58% of the respondents had good practice of preventive measures against STIs. Only 10% of the respondents had poor practice.

Table 3: Factors Influencing the Practice of Preventive Measures Against STIs Among the Respondents

Variable (Multiple response)	Frequency (n = 394)	Percentage (%)
Personal health concerns	351	89.1
Lack of awareness or information	89	22.6
Religious beliefs	159	40.4
Accessibility to healthcare services	162	41.1
Cigarette smoking	28	7.1
Alcohol intake	65	16.5
Patronage of commercial sex workers	19	4.8
Sexual activity with same-sex partners	21	5.3
Use of recreational drugs	15	3.8
Inadequate education	361	91.6
Stigma or embarrassment	229	58.1
Lack of access to preventive measures	243	61.7
Peer pressure	279	70.8
Cultural or societal norms	204	51.8
Cost of preventive measures	196	49.7

Table 3 shows that the main factors influencing the practice preventive measures against STIs among the respondents were inadequacy of education (91.6%), personal health concerns (89.1%), and peer pressure (70.8%).

Table 4: Strategies Suggested for Improving the Practice of Preventive Measures Against STIs Among the Respondents

Variable (Multiple response)	Frequency	Percentage (%)
Increase education on STIs	383	97.2
Better access to condoms	279	69.5
Encouraging discussions on STIs	302	76.6
Provision of more healthcare services	279	70.8
Tackling of cultural risk factors	255	64.7
Partnership with health agencies	249	63.2

Table 4 shows that 97.2% of the respondents suggested increasing education on STIs as a strategy for improving the practice of preventive measures against STIs while 76.6% suggested encouraging discussions on STIs and 70.8% suggested the provision of more healthcare services.

Table 5: Association Between the Practice of Preventive Measures Against STIs and the Socio-Demographic Characteristics of the Respondents

Variable	Practice of STI prevention			X^2	p-value
	Poor	Fair	Good		
Age				23.83	**<0.01**
16-20	22(11.6)	40(21.2)	127(67.2)		
21–25	18(9.7)	76(40.9)	92(49.5)		
26–30	0(0)	9(56.3)	7(43.8)		
31–35	0(0)	2(66.7)	1(33.3)		
Gender				8.48	**0.01**
Female	28 (12.7)	59(26.8)	133(60.5)		
Male	12(6.9)	68(39.1)	94(54)		
Religion				0.74	**0.69**
Atheist	0(0)	0(0)	1(100)		
Christianity	40(10.2)	127(32.3)	226(57.5)		
Level of study				28.95	**<0.01**
200 level	15(9.3)	33(20.4)	114(70.4)		
300 level	13(11.8)	36(32.7)	61(55.5)		
400 level	4(5.7)	35(50)	31(44.3)		
500 level	8(15.4)	23(44.2)	21(40.4)		
Course of study				17.72	**0.34**
Environmental Health Sciences	5(10.9)	18(39.1)	23(50)		
Human Anatomy	4(10.3)	13(33.3)	22(56.4)		
Human Nutrition and Dietetics	2(5.4)	15(40.5)	20(54.1)		
Medical Laboratory Science	7(12.1)	27(46.6)	24(41.4)		
Medical Rehabilitation	3(7.9)	13(34.2)	22(57.9)		
Medicine	6(11.5)	11(21.2)	35(67.3)		
Nursing	3(7.1)	10(23.8)	29(69)		
Physiology	4(11.4)	10(28.6)	21(60)		
Radiography	6(12.8)	10(21.3)	31(66)		

Table 5 shows that age, gender, and the level of study of the respondents achieved statistically significant associations with the practice of preventive measures against STIs ($p < 0.05$).

DISCUSSION:

This study assessed the practice of preventive measures against sexually transmitted infections among students in College of Health Sciences in a tertiary institution in Nigeria. The respondents were primarily young adults, with a mean age of 21.07 ± 2.46 years, and the majority of them aged between 16–25 years. This demographic aligns with the typical undergraduate profile in college of health sciences across tertiary settings and corresponds to

the period of transitional life stages characterized by increased sexual experimentation and risk-taking behaviour due to increased independence, underscoring their vulnerability (WHO, 2022; Egharevba et al., 2025). The higher proportion of females in this study reflects gender enrolment trends in health-related courses especially in Nigerian tertiary institutions (Adebayo et al., 2020) while the preponderance of Christians reflects the religious distribution typical of many southern Nigerian tertiary institutions, potentially shaping attitudes through religious emphases on moral conduct. Most of the respondents were in their 200 and 300 levels of education, indicating that they were in their early to mid-stage undergraduate training possibly with less cumulative exposure to specialized STI education compared to those in the advanced levels.

Less than half of the respondents reported being sexually active. This rate is comparable to findings among some Nigerian university students (Oluwole et al., 2020). This proportion is however relatively moderate when compared with reports from other Nigerian studies among undergraduates, where sexual activity ranged from 50% to over 70% (Ogunbode et al., 2019). The lower prevalence observed in this study may be influenced by religious beliefs and fear of social judgment as almost all the respondents were Christians or it may be due to underreporting considering the sensitive nature of sexual behaviour in the society. Among the sexually active respondents, 75.9% used condoms, exceeding the 39.6% reported in a Benin city study by Egharevba et al., (2025) and suggesting a relatively high level of protective behaviour. However, consistent condom use was suboptimal, as only about half of those using condoms reported always using them, while the remainder used condoms inconsistently or rarely. This inconsistency mirrors patterns in other sub-Saharan African contexts, such as Uganda, where about half of the sexually active students consistently used condoms (Otim et al., 2024), and highlights persistent barriers to sustained protection despite awareness thereby corroborating evidence that inconsistent condom use remains a major challenge among young people globally (UNAIDS, 2023). Unlike the finding elsewhere (Folasayo et al., 2017), most of the respondents in this study discussed STIs with their partners, fostering potential for shared responsibility. However, testing for STIs was low in this study. Similar low testing rates have been reported among Nigerian undergraduates, where stigma, fear, and low perceived risk discourage testing (Asekun-Olarinmoye et al., 2021; Frank et al., 2025), but contrasting with higher rates of testing uptake among South African students (Teffo & Mokgatle, 2023). Among those that tested in this study, a very low proportion knew their results. This is very concerning and may point to gaps in follow-up or result disclosure and post-test counselling. The predominant reason given by those that never testing was the belief

that testing was unnecessary. This finding reflects low risk perceptions and underscores the disconnect between theoretical knowledge and personal health behaviour. This also echoes the misconceptions observed in Lagos youths, where good attitudes did not align with practices (Oluwole et al., 2020). Comparable findings have also been reported in studies from Ghana and Kenya, where perceived invulnerability significantly reduced STI screening among university students (Oppong Asante et al., 2020; Mugo et al., 2019). Other barriers, such as lack of knowledge of testing location and fear were less dominant reasons but were consistent with Ethiopian findings, where poor knowledge increased STI risk threefold (Bogale et al., 2024).

Overall, more than half of the respondents demonstrated good practice of preventive measures against STIs while only a few had poor practice. This indicates a generally favourable preventive behaviour profile, likely influenced by respondents' exposure to health-related curricula. Similar levels of good practice have been documented among health science students in Nigeria and Ethiopia, who tended to exhibit better preventive behaviours than non-health students (Abiodun et al., 2020; Tesfaye et al., 2020). Nevertheless, the existence of poor practices among a subset of respondents in this study remains a public health concern, as even small proportions engaging in risky behaviour could sustain STI transmission within the campus community. The major factors influencing the practice of STI preventive measures in this study included inadequate education, personal health concerns and peer pressure. The perception of inadequate education as the leading factor influencing STI preventive practices among the respondents in this study suggests that existing instructional approaches may not sufficiently emphasize practical, behaviour-changing sexual health education, similar to Ethiopian university findings (Bogale et al., 2024). Personal health concerns ranked second, reflecting self-motivated prevention as a positive driver just as noted in Ugandan studies (Otim et al., 2024). Peer pressure also emerged as a significant determinant, consistent with social learning theories that highlight the role of peers in shaping young adults' sexual behavior (Bandura, 1986). Stigma, lack of access to preventive measures, and cultural norms were also mentioned as barriers, mirroring findings from both Nigerian and international studies where affordability and social influences moderated practices despite moderate knowledge (Folasayo et al., 2017; Akanbi et al., 2019; CDC, 2022; Teffo & Mokgatle, 2023). Although behavioral risk factors like alcohol intake were less commonly mentioned in this study, they are still relevant as they can impair judgment, consistent with global patterns linking substance use to reduced consistency of condom use (Ajayi et al., 2019).

Nearly all the respondents recommended increasing education on STIs as a strategy for improving the practice of preventive measures against STIs. This recommendation emphasizes the need for continuous, structured sexual health education and aligns with calls in Nigerian studies for curriculum integration to bridge knowledge gaps within tertiary institutions (Egharevba et al., 2025). Encouraging open discussions on STIs and improving access to healthcare services were also strongly recommended, echoing Ugandan recommendations for peer education and accessible testing (Otim et al., 2024). These strategies also align with WHO recommendations advocating comprehensive sexuality education and youth-friendly health services as core STI prevention strategies (WHO, 2022). Better condom access, tackling cultural factors, and health agency partnerships were also recommended, similar to South African strategies emphasizing multi-faceted approaches and youth-friendly services (Teffo & Mokgatle, 2023).

Statistically significant associations existed between the practice of preventive measures against STIs and the age, gender and level of study of the respondents in this study. The younger age groups outperformed the older ones in this study in contrast with some studies showing age-related increases in risk (Bogale et al., 2024). However, similar age-related differences have been reported in Nigerian and South African studies (Olorunsola et al., 2021; Francis et al., 2019). This finding in this study may possibly be due to recent exposure to secondary-school-based sexual health education or increased caution among younger students or even targeted campus programs. Gender differences favoured females more than males in this study. This finding is consistent with Nigerian findings of gender disparities in health-seeking where females were more likely to exhibit good preventive practices compared to males. (Ajayi et al., 2019). It also aligns with evidence suggesting that female students are generally more health-conscious and risk-averse regarding sexual healthmthan male students (Adebayo et al., 2020; Oppong Asante et al., 2020). The level of study showed declining good practices with progression, contrasting with expectations but may be explained by risk fatigue or complacency or even competing priorities among senior students. Similar trends have been observed in studies conducted in Nigerian universities and among Malaysian students (Ogunbode et al., 2019; Folasayo et al., 2017). These ongoing gaps in the practice of preventive measures against STIs among the health sciences students in this study could impair their future capacity to counsel patients effectively and model healthy behaviours in communities with high STI prevalence. They therefore underscore the need for urgent, multi-level interventions to empower this cohort to become effective prevention advocates and support national efforts to control STIs and advance sexual health equity.

CONCLUSIONS

This study showed that a majority of students practiced good preventive measures against STIs but critical gaps remain in consistent condom use and uptake of STI testing. While condom use was relatively high among sexually active students, consistent use was suboptimal. Additionally, fewer than half of the respondents had ever been tested for STIs, and only a small proportion of those tested were aware of their test results. Socio-demographic factors such as age, gender, and level of study were found to significantly influence the practice of preventive measures against STIs. Younger students, females, and those in lower levels of study were more likely to demonstrate good preventive practices. Inadequate education, peer pressure, stigma, and limited access to preventive measures were the major factors influencing preventive behaviours. Strengthened, practical, and behaviour-focused sexual health education within tertiary institutions, improving access to youth-friendly STI testing and counseling services, promoting open discussions on sexual and reproductive health, and addressing socio-cultural barriers were the strategies suggesting for improving preventive practices against STIs.

RECOMMENDATIONS

1. Comprehensive practical sexual and reproductive health education should be strengthened and sustained within the College of Health Sciences. The institution should collaborate with governmental and non-governmental health agencies to support STI prevention programs, including outreach activities, and continuous training of healthcare providers on youth-friendly service delivery.
2. Tertiary institutions should promote routine and voluntary STI screening services on campus through the establishment of youth-friendly health centers. These services should ensure confidentiality, proper counseling, and effective communication of test results to address low testing uptake and poor awareness of test outcomes.
3. Tertiary institutions should make efforts to improve access to preventive commodities, particularly condoms, by ensuring their availability at strategic locations within the campus at little or no cost. This will help address barriers related to accessibility and cost
4. Peer education programs should be implemented by tertiary institutions to promote positive sexual health norms. Additionally, gender-sensitive interventions should be designed to address the specific needs and risk behaviours of students.
5. Institutional policies and programs should aim to reduce stigma and embarrassment associated with discussing STIs and accessing preventive services. Creating safe spaces

for open dialogue and engaging religious and community leaders in sexual health promotion may help address cultural and societal norms that hinder preventive practices.

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