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KNOWLEDGE AND ATTITUDE TO SEXUALLY TRANSMITTED INFECTIONS AMONG STUDENTS OF COLLEGE OF HEALTH SCIENCES IN A TERTIARY INSTITUTION IN NIGERIA.

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ABSTRACT

Background: Sexually transmitted infections (STIs) remain a major public health concern, particularly among young adults in tertiary institutions. Adequate knowledge and positive attitudes toward STI prevention among health sciences students are essential, as they are future healthcare providers and key agents of health promotion. **Objective:** This study assessed the knowledge and attitude to sexually transmitted infections among students in a College of Health Sciences in a tertiary institution in Nigeria. **Methods:** A cross-sectional descriptive study was carried out using a semi-structured, self-administered questionnaire among 394 undergraduate students in a College of Health Sciences selected through a 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 most aged 16–25 years. More than half of the respondents (55.8%) were female. Overall, 55% of the respondents had good knowledge of STIs, 42% had fair knowledge, and 3% had poor knowledge. HIV (93.9%), gonorrhea (91.4%), and syphilis (87.1%) were the most commonly identified STIs. Most respondents correctly identified unprotected sexual intercourse (94.4%) and multiple sexual partners (85.0%) as major routes of transmission. A large proportion (86.0%) knew that STIs can be asymptomatic, and 76.1% believed that STIs

are preventable. Attitudes toward STI prevention were largely positive, with all the respondents demonstrating an overall positive attitude. No significant association was found between socio-demographic characteristics and level of knowledge of STIs ($p > 0.05$). **Conclusion:** Health sciences students demonstrated generally good knowledge and positive attitudes toward STIs however, misconceptions regarding prevention and transmission persist. Continuous, evidence-based sexual health education and stigma-reduction strategies are therefore recommended to strengthen STI prevention efforts in tertiary institutions.

KEYWORDS: Sexually transmitted infections, Knowledge, Attitude, Health sciences students, Tertiary institution, Nigeria.

INTRODUCTION

Sexually transmitted Infections (STIs) are infections that are spread mainly through sexual contact and less commonly through contact with infected blood and skin, and vertically through mother to child (World Health Organization, 2024). STIs can be bacterial (syphilis, gonorrhea, chlamydia, chancroid, granuloma inguinale, etc); viral (infections caused by Human Immunodeficiency Virus, Human Papillomavirus, Hepatitis B virus, Herpes Simplex virus, Molluscum contagiosum virus, Zika virus, etc); and parasitic (trichomoniasis, scabies, and infestations by Pthirus pubis). Due to the strong correlation between Human Papillomavirus infection and cervical cancer, some sources also consider cervical cancer to be an STI (Garcia & Wray, 2024).

STIs may present with obvious symptoms such as genital ulcers, itching and redness in the genital area, urethral discharge, abnormal vaginal discharge, lower abdominal pain, inguinal bubo, scrotal swelling and neonatal conjunctivitis (Garcia & Wray, 2024). STIs may also not always present with obvious symptoms and may often go unnoticed. Irrespective of the presentation, STIs can result in serious morbidity, including enhanced HIV transmission, pelvic inflammatory disease, infertility, pregnancy complications and cancers (Francis et al., 2018). STI's can also have major impacts on people's lives economically, socially and psychologically (Lee & Cody, 2020).

STIs are largely preventable and treatable, and a range of measures has been implemented to eradicate or significantly reduce STIs. Despite this, STIs continue to represent a significant public health concern globally, especially in low- and middle-income countries. Globally, an estimated 374 million new cases of STIs occur every year among people aged 15-49 years, with over 1 million new cases reported daily with more than half of all these diseases

occuring in sub-Saharan Africa (WHO, 2024; Nzoputam et al., 2022). Semwogerere et al., (2022) estimated that the prevalence of STIs is 7.7% with a disproportionate representation of the demographic aged 15-24 years. It has also been shown that a higher burden of STIs among females, with prevalence rates of 6.9% for chlamydia, 1.8% for gonorrhea, and 7.6% for trichomoniasis, compared to lower rates in males (Michalow et al., 2025). In Nigeria, STIs continue to contribute substantially to reproductive and sexual health challenges especially among adolescents and young adults (Ibekwe et al., 2018). The prevalence in this population characterized by experimentation, increased sexual activity, and risky sexual behaviours, are often compounded by inadequate sexual health education and limited access to accurate information (Federal Ministry of Health, 2022). Therefore, STIs such as HIV/AIDS remain prevalent in Nigeria, with approximately 1.9 million people living with HIV and the disease accounting for 5.18% of the main causes of death as of 2021 (Statista Research Department, 2025). STIs not only lead to immediate health complications like infertility and chronic pain but also facilitate the transmission of HIV and exacerbates the epidemic in resource-limited settings such as Nigeria (Ibekwe et al, 2018).

Adequate knowledge of STIs is crucial for its prevention as it influences attitudes and behaviours toward safe sexual practices. However, despite the academic exposure to health sciences among tertiary institution students, especially those in health-related disciplines, poor understanding of sexually transmitted infections, misconceptions about its transmission, poor risk perception and inconsistent use of protective methods, such as condoms and regular screening, have continued to persist and exacerbate the spread of these diseases (Adeyemi et al., 2020; Adefuye et al., 2009; Okonko et al., 2012). Studies carried out in some tertiary institutions in Nigeria have revealed gaps in knowledge regarding modes of transmission, symptoms, prevention, and complications of STIs, even among students in medical and allied health programs (Ibrahim et al., 2013; Olatona et al., 2019). For instance, a study carried out among unmarried youths in Lagos showed that only 65.6% of them exhibited good levels of knowledge of STIs, with misconceptions about transmission and prevention being common (Oluwole et al., 2020). Similarly, a study carried out in a tertiary institution in south-south Nigeria showed that even though undergraduate nursing students demonstrated high levels of knowledge of STIs (99.4%), misconceptions persisted, such as the belief that STIs only affect those with multiple partners, thereby highlighting areas for improvement (Frank et al., 2025). Students in College of Health Sciences are expected to possess better understanding of STIs due to their exposure to medical education. However, the persistence of misinformation and poor knowledge among this group as seen in literature (Frank et al., 2025; Oluwole et al.,

2020) is alarming, as it may predispose them to risky sexual practices and undermine their ability to effectively educate patients and the wider community in the future. Moreover, the presence of undiagnosed and untreated STIs among these students can contribute to continued transmission, increased morbidity, and long-term reproductive health complications. It is also expected that health sciences students will play critical roles as future healthcare providers that will influence public health outcomes through their roles in the prevention, diagnosis, and treatment of STIs. Despite this, limited institution-specific data on their level of knowledge exist, particularly in tertiary institutions in Nigeria (Afolabi et al., 2016). This study therefore aimed to assess the knowledge of STIs and the factors that influence this among these students. The findings will provide valuable insights into potential knowledge gaps and areas requiring improvement (Ezeanolue et al., 2019). The findings will also help to inform tailored educational interventions that will potentially help to improve health literacy and reduce STI incidence (El-Sherbiny et al., 2025). In addition, it will also contribute to evidence-based policies that will enhance preventive strategies and ultimately contribute to the Sustainable Development Goals (SDGs) related to health and well-being.

METHODOLOGY

Study Area: This study was carried out in the College of Health Sciences, Nnamdi Azikiwe University (NAU), Nnewi Campus, Anambra State, Nigeria. Nnewi is one of the largest commercial and industrial towns and the second most populated city in the State. According to the 2006 population census, it had a population of 391,227 people. With a population growth rate of 4.69%, its projected population in 2025 is 1,362,000 (Macrotrends, 2024). The inhabitants are mainly traders and farmers. The Nnamdi Azikiwe University is a federal tertiary institution established in 1992 and named after Dr. Nnamdi Azikiwe, the first President of Nigeria. The university offers undergraduate, postgraduate, and doctoral programs in various fields of study in several faculties and colleges including the College of Health Sciences. 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 the recently introduced 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.

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

Study Population: This comprised of undergraduate students from the College of Health Sciences, Nnewi, Anambra State.

Inclusion criteria: All consenting undergraduate students who had completed at least one year of study.

Exclusion Criteria: Students who met the i n c l u s i o n 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:

nf = 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 with an estimated 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*:

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

Where:

n = The calculated minimum sample size

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

p = Proportion of respondents that had good knowledge of STIs = 65.6% = 0.66 (Oluwole et al)[21]

q = Proportion of respondents that did not have good knowledge of STIs = 1 − 0.66 = 0.34

d = Precision level set at 5% = 0.05.

$$n = \frac{1.96^2 \times 0.66 \times 0.34}{(0.05)^2} = 344.822$$

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

$$\frac{344.822}{1+\frac{344.822}{5890}} = \frac{344.822}{1.0585} = 325.76$$

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 = $\frac{325.76}{1-0.10} = \frac{325.76}{0.90} = 361.95 \approx 362$

The minimum sample size was however increased to 394 to improve the strength of the study.

Sampling Technique: Multistage sampling technique was used to enroll the respondents into this study.

Stage 1 – Allocation of sample size to the faculties in the College: Proportionate allocation was used to allocate the sample size to each of the faculties 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 sciences: (941/5890) x 394 = 62.95 ≈

Stage 2- Enrolment of respondents into the study – Respondents were enrolled into the study using simple random sampling technique through the balloting method from each of the faculties until the sample size was met.

Data Collection Instrument and Method: A pretested self-administered semi-structured questionnaire adapted from the relevant literature (Olatona et al., 2019; Oluwole et al., 2020; Frank et al., 2025) was used for data collection on the socio-demographic characteristics of the respondents, knowledge of STIs, attitude towards STIs and the factors that influence the knowledge of STIs. Each questionnaire took approximately 10 minutes to administer and data collection took place over one month.

Pretesting: The instrument for data collection was pre-tested among preclinical students in the Faculty of Clinical Medicine, Chukwuma Odumegwu Ojukwu University, Anambra state. This was done to evaluate the clarity of the questionnaire as well as to gauge the time required for its completion.

Data Management –

Measurement of variables: The dependent / main outcome variable for the study was knowledge of STIs while the independent variables were the factors influencing the knowledge of STIs.

Eight questions were used to assess knowledge. Each correct answer earned one point while each incorrect answer earned zero point. The total scores were then converted to percentages. Respondents scoring less than 50% were deemed as having poor knowledge, those scoring between 50% and 74% were deemed as having fair knowledge while those scoring 75% and above were deemed as having good knowledge.

Seven questions were used to assess attitude. Each correct answer earned one point while each incorrect answer earned zero point. The total scores were then converted to percentages. Respondents scoring less than 50% were seen as having negative attitude while those 50% or more were seen as having positive attitude.

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: 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 2a: Knowledge of Sexually Transmitted Infections Among the Respondents.

Variable	Frequency (n = 394)	Percentage (%)
Names of Common STIs (Multiple responses)		
HIV	370	93.9
Syphilis	343	87.1
Gonorrhea	360	91.4
Typhoid	21	5.3
Hepatitis B and C	232	58.9
Human papilloma virus	216	54.8
Malaria	5	1.3
Route of STI transmission (Multiple responses)		
Oral sex	297	75.4
Anal sex	334	84.8
Unprotected sexual intercourse	372	94.4

Having more than one sexual partner	335	85.0
Sharing of sharp objects like needles	253	64.2
Blood transfusion	217	55.1
Sharing of towels and under-wears	92	23.4
Symptoms of STIs (Multiple responses)		
Pain during urination	338	85.8
Unusual discharge from genital area	354	89.8
Genital sores or blisters	331	84.0
Rashes or bumps on the body	235	59.6
Pain during sex	269	68.3
Abdominal pain or pelvic discomfort	195	49.5

Table 2a shows that most of the of the respondents recognized HIV (93.9%), Gonorrhea (91.4%), and Syphilis (87.1%) as STIs while for the routes of transmission, 94.4% mentioned unprotected sexual intercourse, 85% mentioned having more than one sexual partner, and 84.8% mentioned anal sex. The common symptoms of STIs mentioned included unusual discharge from the genital area (89.8%) and pain during urination (85.8%).

Table 2b: Knowledge of Sexually Transmitted Infections Among the Respondents Continued

Variable	Frequency (n = 394)	Percentage (%)
Knows STIs can be asymptomatic		
Yes	339	86.0
No	55	14.0
Knows STIs can be completely preventable		
Yes	300	76.1
No	94	23.9
Methods of preventing STIs (Multiple responses)		
Consistent Condom use	310	78.7
Abstinence	380	96.4
Being faithful to one faithful partner	336	85.3
Use of antibiotics	104	26.4
Use of herbal concoctions	24	6.1
Getting tested regularly	206	52.3
HPV vaccination	187	47.5
Curability of all STIs		
Yes	98	24.9
No	296	75.1
Main source of information on STIs (Multiple responses)		
Health education classes	307	77.9
Peer discussions	245	62.2
Internet	307	77.9
Medical professionals	268	68.0

Media (TV, radio)	218	55.3

Table 2b shows that 86% of the respondents knows that STIs can be asymptomatic while 76.1% of them believed that STIs can be completely preventable. The commonly mentioned methods of prevention among the respondents included abstinence (96.4%), consistent condom use (78.7%), and being faithful to one faithful partner (85.3%). Health education classes and the internet were the main sources of STI information for 77.9% of the respondents.
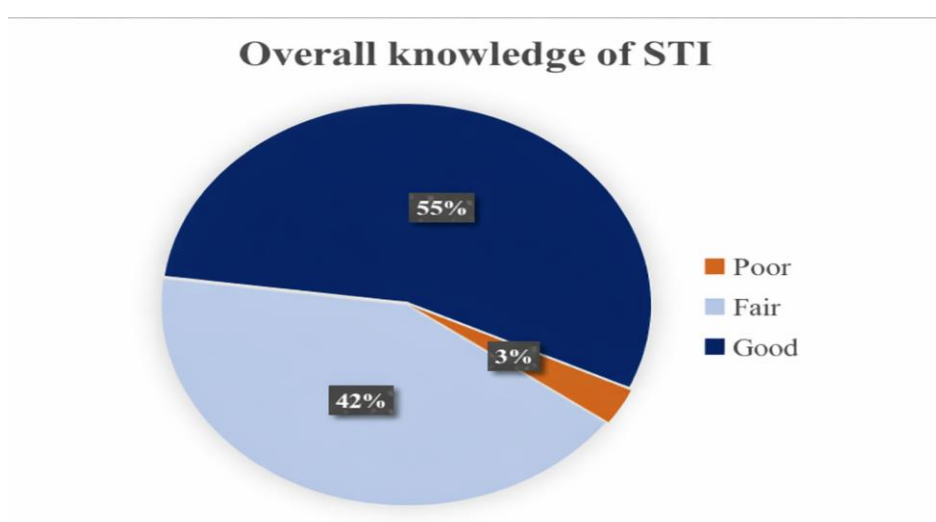

Figure1: General Knowledge of Sexually Transmitted Infections Among the Respondents.

Figure 1 shows that 55% of the respondents had good knowledge, 42% had fair knowledge, and 3% had poor knowledge of STIs.

Table 3: Attitude towards Sexually Transmitted Infections Among the Respondents.

Variable	Frequency (n = 394)	Percentage (%)
Believes condoms reduce risk of STI		
Yes	376	95.4
No	18	4.6
Believes condoms are 100% effective		
Yes	49	12.4
No	345	87.6
Believes alternative methods more effective than condoms		
Yes	377	95.7
No	17	4.3
Alternative methods more effective than condoms		

Abstinence	380	96.4
Being faithful to one faithful Partner	336	85.3
Use of antibiotics	104	26.4
Use of herbal concoctions	24	6.1
Getting tested regularly	206	52.3
HPV vaccination	187	47.5
Perceives STI education as important		
Yes	392	99.5
No	2	0.5
Feels awkward when discussing STIs		
Yes	132	33.5
No	262	66.5
Willing to encourage peers to engage in STI prevention		
Yes	377	95.7
No	17	4.3
Positive attitude to STIs		
Yes	394	100
No	0	0

Table 3 shows that 95.4% of the respondents believed that condoms reduce the risk of STIs though 87.6% of the respondents acknowledged that condoms are not 100% effective. Abstinence was identified by 96.4% of the respondents as a better method than condoms. While 99.5% of the respondents believed that STI education is important and 95.7% of the respondents are willing to encourage peers to engage in STI prevention, 33.5% of them felt awkward discussing STIs. All the respondents demonstrated a positive attitude towards STIs.

Table 4: Association Between the Level of Knowledge of Sexually Transmitted Infections and the Socio-Demographic Characteristics of the Respondents.

Variable	Level of Knowledge			X^2	P – value
	Poor	Fair	Good		
Age				9.40	0.15
16-20	8(4.2)	85(45)	96(50.8)		
21–25	4(2.2)	78(41.9)	104(55.9)		
26–30	0(0)	3(18.8)	13(81.3)		
31–35	0(0)	0(0)	3(100)		
Gender				0.40	0.98
Female	7(3.2)	93(42.3)	120(54.5)		
Male	5(2.9)	73(42)	96(55.2)		
Religion				0.83	0.66
Atheist	0(0)	0(0)	1(100)		
Christianity	12(3.1)	166(42.2)	215(54.7)		
Level of study				8.48	0.21
200 level	6(3.7)	77(47.5)	79(48.8)		

300 level	4(3.6)	47(42.7)	59(53.6)		
400 level	0(0)	25(35.7)	45(64.3)		
500 level	2(3.8)	17(32.7)	33(63.5)		
Course of study				24.05	0.09
Environmental Health Sciences	0(0)	22(47.8)	24(52.2)		
Human Anatomy	0(0)	21(53.8)	18(46.2)		
Human Nutrition and Dietetics	2(5.4)	12(32.4)	23(62.2)		
Medical Laboratory Science	2(3.4)	18(31)	38(65.5)		
Medical Rehabilitation	2(5.3)	13(34.2)	23(60.5)		
Medicine	0(0)	20(38.5)	32(61.5)		
Nursing	3(7.1)	16(38.1)	23(54.8)		
Physiology	2(5.7)	22(62.9)	11(31.4)		
Radiography	1(2.1)	22(46.8)	24(51.1)		

Table 4 shows that none of the socio-demographic characteristics of the respondents achieved statistically significant associations with knowledge of STIs (p > 0.05).

DISCUSSIONS

This study assessed the knowledge and attitude to sexually transmitted infections among students in a College of Health Sciences in a tertiary institution in Nigeria. The mean age of the respondents was 21.07 ± 2.46 years, with the majority of them falling within 16 – 25 years. This age distribution is consistent with the typical undergraduate population in Nigerian tertiary institutions and aligns with findings from similar studies among health sciences students (Adefuye et al., 2009; Ibrahim et al., 2013). This age group is also considered sexually active and at increased risk of STIs, making them a critical target for STI education and prevention programs (World Health Organization, 2023). Females constituted a slightly higher proportion than males in this study. This finding is comparable to reports from other Nigerian studies conducted in health-related faculties where female enrolment is often higher (Olowookere et al., 2012). Almost all the respondents were Christians and this is to be expected as Christianity is the dominant religious affiliation in the study setting. The nearly equal representation across courses of study in this study strengthens the generalizability of the findings within the College of Health Sciences and suggests that the observed knowledge levels are not disproportionately influenced by a single discipline.

Majority of the respondents demonstrated a high level of awareness of common STIs with HIV being the most recognized STI. This finding is in keeping with many Nigerian studies where HIV awareness is consistently high possibly due to sustained public health campaigns and media coverage (Federal Ministry of Health, 2021; UNAIDS, 2022). The high recognition of gonorrhea and syphilis as STIs further suggests that respondents possess basic

biomedical knowledge which may likely have been influenced by their health-related academic background. However, the misclassification of typhoid and malaria as STIs indicates the persistence of misconceptions among a minority of the respondents. Similar misconceptions have been reported in previous studies among university students, highlighting the need for continuous and targeted health education even among health sciences students (Asekun-Olarinmoye et al., 2011). Most of the respondents correctly identified unprotected sexual intercourse, multiple sexual partners, and anal sex as major routes of STI transmission. This finding aligns with WHO (2023) guidelines and findings from other Nigerian studies (Ibrahim et al., 2013; Olatayo et al., 2020). Nevertheless, nearly a quarter of the respondents believed that sharing towels and underwears could transmit STIs, suggesting a partial misunderstanding of non-sexual transmission routes, which may contribute to misinformation and stigma. Unusual genital discharge and painful urination were the most commonly identified symptoms of STIs in this study. This finding is consistent with those from previous studies among health-related students, where classical symptoms of STIs are often well recognized (Olowookere et al., 2012). However, only a few of the respondents identified systemic or less specific symptoms such as abdominal or pelvic pain as symptoms of STIs. This indicates a gap in the recognition of atypical or less obvious presentations of STIs. Despite this, a substantial proportion of the respondents demonstrated the awareness that STIs can be asymptomatic, which is a critical component of STI knowledge as undetected infections can contribute significantly to ongoing transmission (WHO, 2023). This finding is therefore encouraging more so as it is higher than reports from non-health-related student populations, where awareness of asymptomatic infections is often limited (Adefuye et al., 2009).

Most of the respondents correctly identified abstinence, consistent condom use, and mutual monogamy as effective preventive strategies, reflecting good alignment with global STI prevention recommendations (Centers for Disease Control and Prevention, 2022). However, the endorsement of antibiotics and herbal concoctions as preventive measures indicates misconceptions that could encourage inappropriate self-medication and antimicrobial resistance, a concern previously documented in Nigeria (Ogunbode et al., 2018). Although over three-quarters of respondents believed STIs are preventable, only about one-quarter believed all STIs are curable. This is an accurate perception, as viral STIs such as HIV and HPV are not curable but can be effectively managed (WHO, 2023). This finding suggests a relatively sound understanding of the natural history of STIs among respondents. Health education classes and the internet were said to be the leading sources of STI information in

this study. This finding is consistent with findings from other tertiary institutions in Nigeria (Olatayo et al., 2020) and underscores the importance of formal education and digital platforms in disseminating sexual health information among young adults. Overall, more than half of the respondents demonstrated good knowledge of STIs, while many had fair knowledge and only a few had poor knowledge. This overall high knowledge level is however not surprising given that the respondents are students in health-related disciplines and similar studies among health sciences students have reported comparable levels of STI knowledge (Ibrahim et al., 2013; Olowookere et al., 2012). Nonetheless, the presence of respondents with fair or poor knowledge suggests the need for strengthened and continuous STI education within the curriculum.

The attitude to STI prevention was overwhelmingly positive among the respondents in this study. Almost all the respondents believed that condoms reduce the risk of STIs, and most correctly acknowledged that condoms are not 100% effective. This balanced perception reflects a realistic understanding of condom efficacy and is consistent with public health evidence (CDC, 2022). Abstinence and faithfulness to one faithful partner were widely perceived as more effective than condoms, reflecting cultural and religious values commonly reported in Nigerian studies (Asekun-Olarinmoye et al., 2011). Encouragingly, nearly all the respondents perceived STI education as important and expressed willingness to encourage peers to adopt preventive behaviours. However, one-third of the respondents reported feeling awkward discussing STIs, indicating persistent sociocultural barriers to open sexual health communication even among health sciences students. Therefore, strengthening comprehensive, evidence-based sexual health education and addressing sociocultural barriers to open discussion are essential to further improve STI prevention efforts.

Statistically significant associations between socio-demographic variables and level of STI knowledge was not found in this study, suggesting that the relatively high knowledge level observed in this study was evenly distributed across age groups, gender, level, and course of study. Similar findings have been reported among student populations with comparable educational exposure (Olatayo et al., 2020) and this uniformity may reflect standardized health education exposure within the College of Health Sciences.

CONCLUSIONS

This study has shown that the students of the College of Health Sciences in a tertiary institution in Nigeria generally possessed good knowledge of STIs and exhibited positive attitudes toward STI prevention. High levels of awareness were observed regarding common

STIs, routes of transmission, symptoms, and preventive measures. However, notable misconceptions persist, particularly in the misclassification of non-sexually transmitted diseases as STIs and the inappropriate use of antibiotics and herbal remedies for prevention. Although most respondents were aware that STIs can be asymptomatic and that not all STIs are curable, there were still gaps in comprehensive understanding of STIs. Statistically significant associations did not exist between the socio-demographic characteristics of the respondents and the knowledge of STI, suggesting relatively uniform exposure to sexual health information among the respondents. While attitudes toward STI education and prevention were overwhelmingly positive, a considerable proportion of students reported discomfort discussing sexual health issues, highlighting ongoing sociocultural barriers.

Overall, the findings underscore the need for continuous, structured, and evidence-based sexual health education to address residual misconceptions and to promote open communication and sustained preventive behaviors among health sciences students.

RECOMMENDATIONS

1. Institutions should strengthen and sustain comprehensive, evidence-based sexual and reproductive health education within health sciences curricula, with emphasis on correcting misconceptions and addressing emerging STI-related challenges. There should be regular reviews and standardization of STI-related content across health science programs to ensure consistency, accuracy, and alignment with current national and global guidelines.

2. Interventions including peer-led education and interactive learning approaches, aimed at reducing stigma and discomfort associated with STI discussions should be implemented by the government and institutions.

3. Institutions should promote access to credible digital and media-based sexual health resources given the prominence of the internet as a source of information.

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