

Knowledge and attitude towards Sexually Transmitted Infections preventive strategies among undergraduate students nurses in a tertiary institution, south-south, Nigeria

Abstract

Sleep hygiene is essential for maintaining both health and academic performance, particularly for medical sciences students who often face unique stressors. Poor sleep hygiene has become a global public health concern, increasing the demand for effective and accessible sleep promotion strategies. This study assessed factors influencing good sleep hygiene behavior among students in college of medical sciences, Rivers State University. A descriptive cross-sectional design; multi-stage sampling was used to determine sample size of 273, (200 to 400) level students. Self-structured e-questionnaire was used to collect data, reliability of the instrument was established through test-retest method. Pearson Correlation Coefficient was used to determine the reliability coefficient of 0.85, same was adjudged adequate for the instrument. Data analysis was done using Statistical Package for Social Sciences (SPSS) version 23 and results presented as percentage, frequency distributions and chart. The findings from the study revealed that several barriers to effective sleep hygiene exist, including use of electronic devices (92%) within an hour of bedtime, unaware of the negative impact of this behavior on sleep quality, social activities (67.1%), environmental factors (61.2%), academic workload (59.2%) among other factors. Study concluded that poor knowledge, cultural, behavioural and environmental factors influences good sleep hygiene behaviours among the study population. Recommendations included that targeted educational interventions, such as workshops, seminars and even including it in their curriculum should be adopted and used to significantly improve sleep hygiene knowledge and practices among medical students.

Keywords: college students, factors, influence, sleep hygiene

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Introduction

Sexually transmitted infections (STIs) remain a critical public health issue worldwide, with significant implications for morbidity and mortality. Despite numerous efforts to curb the spread of STIs, the prevalence remains alarmingly high, particularly in sub-Saharan Africa. More than one million STIs are acquired globally each day.¹ There is approximately 376 million new cases of four primary STIs—chlamydia, gonorrhea, syphilis, and trichomoniasis—each year.²

In Africa, the prevalence of STIs is alarmingly high, with about 20 million new cases reported annually across the continent.² In South Africa, about 25% of the sexually active population is affected by STIs, with notable occurrences of chlamydia, gonorrhea, and syphilis.³ Similarly, in Kenya, the STI prevalence rate is approximately 13%, with chlamydia and gonorrhea being the most common infections.⁴

The other parts of Africa are not spared of these infections; In Ghana, there is about 11% of the sexually active population reports having STIs, with gonorrhea and syphilis being prevalent;⁵ Tanzania also faces a significant STI burden, with a prevalence rate of about 15%, including high incidences of both bacterial and viral STIs⁶ while In Nigeria, the prevalence of STIs among the sexually active population is estimated to range from 10% to 15%, with high rates of gonorrhea and chlamydia.⁷ This high prevalence has significant consequences for individuals, communities, and healthcare systems and as such underscores the urgent need for effective preventive intervention strategies.

Prevalence of STIs among the university population is notably high, exacerbated by factors such as inadequate and poor sexual health education, cultural stigmas, and socio-economic barriers.⁸ Young adults are more likely to engage in risky sexual behavior, such as unprotected sex and multiple sexual partnerships. This behavior increases their risk of contracting STIs.⁹ Several studies reported these risky behaviours, among these studies are: Kavanaugh et al.,¹⁰ which reported that among college students, only 50% reported used condoms consistently; Smith et al.,¹¹ studied young adults and observed that only 30% reported having been vaccinated against human papillomavirus (HPV); Among college students, 60% reported having had unprotected sex in the past month^{12,13} and in another study among young adults, 45% reported having had multiple sexual partners in the past year.¹⁴ Good or adequate knowledge empowers individuals to develop positive attitudes and engage in appropriate actions (practice) to maintain health.

Sexually transmitted infections (STI) are predominantly spread by sexual contact, including vaginal, anal and oral intercourse.¹⁵ The global burden of STIs is significant, as these infections can lead to severe health outcomes including infertility, adverse pregnancy outcomes, and increased susceptibility to HIV transmission.¹⁶ These infections can lead to severe health consequences if left untreated. STIs such as chlamydia, gonorrhea, and syphilis can cause pelvic inflammatory disease (PID) in women, which may result in chronic pelvic pain, ectopic pregnancy, and infertility. In men, untreated gonorrhea and chlamydia can lead to epididymitis, which can also result in infertility.¹⁷ HIV, a major STI, compromises the immune

system, making individuals susceptible to opportunistic infections and certain cancers.¹⁸ Human papillomavirus (HPV) infections are linked to cervical, anal, and other genital cancers.¹⁹ Also they can cause chronic pelvic pain, infertility, ectopic pregnancy, and increased susceptibility to HIV.²⁰

Effective STI prevention and control strategies include abstinence, comprehensive sexual education, promotion of condom use, regular screening and timely treatment, vaccination such as HPV vaccine, and targeted interventions for high-risk populations²¹ also Innovative approaches such as point-of-care diagnostic tests and digital health interventions are being explored to improve STI detection and management.¹ However, these strategies rely on individuals' willingness to adopt them.

The Nigerian government, in collaboration with international organizations, has implemented various programs to combat STIs. These include the National HIV/AIDS Strategic Framework and the National Reproductive Health Policy, which aim to reduce the prevalence of STIs and improve reproductive health outcomes.²²

However, prevention of these infections still experiences some challenges which includes; inadequate knowledge and poor attitude towards these infections among young adults, including nursing students who are future healthcare providers.²³ Additionally, the stigma and misconceptions surrounding STIs can lead to delayed diagnosis and treatment, also cultural and religious influences are significant factors shaping student's perceptions and attitudes towards STIs preventive strategies further complicating public health efforts to control these infections.²⁴ The fear of judgment and discrimination can discourage individuals from seeking timely diagnosis and treatment, thereby promoting the spread of infections.¹⁸ Education, social context access to accurate information and resources plays a crucial role, as those with greater educational opportunities tend to have more positive attitudes and higher knowledge levels.^{11,25} Also, peer influence and media representation can shape perceptions and understanding of STIs, impacting both awareness and stigma.²⁶

Studies from various regions show that STIs remain a significant public health issue, with substantial infection rates across different populations. Also, there is knowledge gap and misconception about STIs which has contributed significantly to the continued spread of these infections.²³ This gap among Nursing students is of particular concern given their roles in educating patients and the general population at large. The implications are far reaching because without proper understanding and positive attitudes, they are less likely to engage in preventive practices themselves and may also fail to adequately educate their patients.²³ This can perpetuate the cycle of STI transmission within the community. These studies underscore the complexity of addressing STI prevention in a socio-culturally diverse setting like Nigeria.

Thus, this study assessed knowledge and attitude of future healthcare professionals towards STI preventive strategies which is essential for enhancing STI prevention.

Methodology

Research design

This study employs a descriptive cross-sectional design to assess knowledge and attitude of STI preventive strategies among nursing students at Rivers State University.

Research setting

The study was carried out at Rivers State University, Port Harcourt. The institution is located in Port Harcourt, Rivers State, Nigeria.

Among other faculties and departments, it has Medical College and Faculty with various departments, Nursing inclusive. The university's nursing program is well-established and provides comprehensive training for future Nurses.

Target population

The target population for this study comprised of all level 200 to 400 undergraduate nursing students enrolled in the Department of Nursing at Rivers State University. These students are selected due to their relevance to the study's focus on knowledge and attitudes toward STI preventive strategies, as they are future practitioners in the healthcare field.

Sample size

The Target population was 307 students comprising of 200 level-140; 300 level – 92 and 400 level - 75 students. Using the sample size calculation formula for a finite population, with a confidence level of 95% and a margin error of 5%, the sample size is determined 175

Taro Yamane's Sample Size Formula

$$n = \frac{N}{1 + N \times e^2} \times 2$$

Where:

n = sample size

N = total population size

e = margin of error (as a decimal, usually 0.05)

Substituting the given values:

$$n = \frac{307}{1 + 307 \times 0.05^2} \times 2$$

$$n = \frac{307}{1 + 307 \times 0.0025}$$

$$n = \frac{307}{1 + 0.75}$$

$$n = \frac{307}{1.75}$$

$$n = 175.43$$

Therefore, the sample size =175

Sampling techniques

Stratified random sampling technique was used to determine the study sample. Population was divided into strata based on academic levels second-year; third-year and fourth-year students. Proportionate sampling technique was used to select respondents from each stratum. This method ensures that every student in the target population has an equal chance of being represented in the study.

Instruments for data collection

Self-structured questionnaire was used for data collection. The questionnaire consists of three (3) sections: Section A used five (5) items to elicit information on socio-demographic data from the respondents; Section B had nine (9) items for knowledge of STIs preventive strategies and Section C had nine (9) items on respondents' attitudes towards STIs preventive strategies. The instrument used Likert scale to elicit data from the respondents.

Validity of instrument

Face and Content validity were established by ensuring that the questions comprehensively cover the dimensions of knowledge and attitude towards to STI preventive strategies.

Reliability of instrument

Reliability of the instrument was ascertained using test-retest method. The instrument was administered to 17 (10% of sample size) nursing students who were not part of the main study sample but had similar characteristics. Two weeks later same instrument was re-administered to the same respondents. The responses were analyzed using Spearman correlational statistical method, a value of 0.75 was obtained, same considered appropriate for the study.

Method of data collection

The questionnaire was administered during school session and lecture days to ensure a higher attendance rate, as most students are likely to be present during this period. Participants are given 20-30 minutes to complete the questionnaire, and the total data collection period is 2 weeks. A total of 175 questionnaires were returned, giving a 100% retrieval rate.

Method of data analysis

Collected data was coded, entered and analysed using Statistical Package for Social Sciences version 23. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize data which were presented in tables.

Ethical considerations

Ethical considerations are paramount to ensure the protection of participants' rights and well-being. Prior to data collection, ethical approval was obtained from the university's Institutional Review Board (IRB) or Ethics Committee. A detailed research proposal outlining the study's objectives, methodology, potential risks, and benefits were submitted. Informed consent were obtained from all participants, clearly explaining the purpose of the study, the voluntary nature of participation, and the assurance of confidentiality and anonymity of their responses. Participants were informed of their right to withdraw from the study at any point without any repercussions. The questionnaires was designed to avoid any sensitive questions that might reveal their identity. Data was securely stored and used solely for the purposes of the research. These ethical standards helped to maintain the integrity of the research process and protect the dignity and privacy of participants.

Results

Table 1 shows the social demographics of the respondents with a significant majority aged between 21 and 25 years (53.1%). A notable portion was under 20 (31.4%), while those aged 26-29 and above 30 made up smaller percentages (12% and 3.4%, respectively). In terms of gender, the respondents were predominantly female (63.4%), with males constituting 36.6%. Regarding the year of study, most respondents were in their 400 level at 38.5%, followed closely by those in their third year (300 level, 35.6%), and a smaller group in their second year (200 level, 25.9%). The marital status revealed that the overwhelming majority were single (92%), with a small number married (7.4%) and one individual divorced (0.6%). Finally, the religious affiliation was overwhelmingly Christian (97.1%), with very few identifying as Muslim (1.2%) or following traditional beliefs (1.7%).

Table 1 Social demographics of the respondents

Variables	Frequency (n=175)	Percentage (%)
Age(years)		
Below 20	55	31.40%
21-25	93	53.10%
26-29	21	12%
Above 30	6	3.40%
Gender		
Male	64	36.6
Female	111	63.4
Year of study		
200 level	45	25.9
300 level	62	35.6
400 level	67	38.5
Marital status		
single	161	92%
Married	13	7.40%
Divorced	1	0.60%
Widowed	0	0%
Religious affiliation		
Christian	170	97.1
Islam	2	1.2
Traditional	3	1.7

Table 2 provides insights into the knowledge of sexually transmitted infections (STIs) and their preventive strategies among nursing students at Rivers State University. The data indicates that a vast majority of students (99.4%) have heard of the term "sexually transmitted infections," with only 0.6% reporting that they have not encountered the term before. When asked about the source of their knowledge, multiple options were provided. The most common source of information was lectures or classes, cited by 89.1% of the students. This indicates that formal education is a major contributor to the students' understanding of STIs. Other notable sources include books (49.1%) and online resources (21.1%), reflecting the role of self-study and internet-based learning in expanding their knowledge. Social media and peer influence were mentioned less frequently, with 14% and 12% of students, respectively, reporting them as sources of information.

Table 2 The Knowledge of Sexually transmitted Infections preventive strategies among nursing students in Rivers state university

Variable	Frequency (n=175)	Percentage (%)
Have you heard of the term "sexually transmitted infections" before?		
No	1	0.6
Yes	174	99.4
If yes, where did you first learn about sexually transmitted infections? (Check all that apply)		
Lecture/Classes	156	89.1
Online resources	37	21.1
Books	86	49.1
Friends/peers	21	12
Social media	14	14

Table 3 presents the nursing students' knowledge of sexually transmitted infections (STIs) preventive strategies at Rivers State University. The table outlines responses to various statements regarding STIs and their transmission, prevention, and symptoms,

accompanied by the frequency and percentage of participants who selected each response. It also includes the mean and standard deviation for each item, providing insights into the general consensus and variability in responses.

Table 3 The Knowledge of Sexually transmitted Infections preventive strategies among nursing students in Rivers state university

Items	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Mean/Standard deviation
STIs can be transmitted through oral sex	138 (78.8%)	28 (16.0%)	5 (2.8%)	2 (1.1%)	2 (1.1%)	Mean: 4.67, SD: 0.57
Using condoms can significantly reduce the risk of contracting STI	100(57.1)	30(17.1)	15(8.5)	21(12)	9(5.1)	4.19(1.02)
Vaccines are available to prevent certain STIs (e.g., HPV, Hepatitis)	70(40)	47(26.8)	39(22.2)	17(9.7)	2(1.1)	3.72,1.09
STIs can affect anyone, regardless of gender or sexual orientation	121(69.1)	42(24)	5(2.8)	6(3.4)	1(0.5)	4.61,0.58
STIs can be contacted from sharing personal items (e.g., razors, towels)	108(61.7)	50(28.5)	15(8.5)	1(0.5)	1(0.5)	4.48,0.66
STIs can be contacted by having multiple sexual partners only	19(10.8)	15(8.5)	25(14.3)	80(45.7)	36(20.5)	2.39,1.18
People with STIs always show visible symptoms	9(5.1)	26(14.8)	15(8.5)	101(57.7)	24(13.7)	1.92,1.14

The first item, “STIs can be transmitted through oral sex,” demonstrates strong awareness, with 78.8% of students strongly agreeing and 16% agreeing, leading to a high mean score of 4.67 (SD = 0.57).

The statement “Using condoms can significantly reduce the risk of contracting STI” also shows a good understanding, with 57.1% strongly agreeing and 17.1% agreeing, yielding a mean of 4.19 (SD = 1.02). While the majority of students are aware of the effectiveness of condoms, the higher standard deviation suggests some variability in students’ certainty or knowledge about this preventive measure.

Regarding the availability of vaccines for certain STIs, such as HPV and Hepatitis, 40% strongly agree and 26.8% agree, with a mean of 3.72 (SD = 1.09). This suggests that while a significant portion of students are aware of vaccines for specific STIs, there is a notable percentage (22.2%) who are undecided or unaware, as reflected in the larger standard deviation.

The statement “STIs can affect anyone, regardless of gender or sexual orientation” is also well understood, with 69.1% strongly agreeing and 24% agreeing, leading to a mean of 4.61 (SD = 0.58). This reflects a strong awareness that STIs do not discriminate based on gender or sexual orientation, with minimal disagreement.

The knowledge that STIs can be contracted from sharing personal items like razors or towels is acknowledged by 61.7% of students strongly agreeing and 28.5% agreeing, resulting in a mean of 4.48 (SD = 0.66).

The statement “STIs can be contacted by having multiple sexual partners only” received much lower agreement, with 45.7% disagreeing and 20.5% strongly disagreeing. This resulted in a low mean of 2.39 (SD = 1.18), indicating a misunderstanding or confusion about this statement, with students recognizing that STIs can be transmitted in various ways beyond multiple sexual partners.

Lastly, the statement “People with STIs always show visible symptoms” was largely disputed, with 57.7% disagreeing and 13.7% strongly disagreeing, resulting in a mean of 1.92 (SD = 1.14). This suggests that most students are aware that many STIs can be asymptomatic, though a smaller group may still hold the misconception that visible symptoms are always present.

The results from Table 4 present the attitudes of nursing students at Rivers State University towards sexually transmitted infection (STI) preventive strategies. The data shows that the majority of students hold progressive and supportive views on various aspects of STI prevention, including awareness, responsibility, and the reduction of stigma.

Table 4 Attitudes towards sexually transmitted infections preventive strategies among nursing students in Rivers State University

Items	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Mean, standard deviation
Stigmatizing people with STIs is unacceptable	%)	30 (17.14%)	3 (1.71%)	1 (0.57%)	1 (0.57%)	3.77,0.67
Society should do more to raise awareness about STIs	110 (62.86%)	60 (34.29%)	3 (1.71%)	1 (0.57%)	1 (0.57%)	3.54,0.60
Discussing STIs can help reduce its prevalence	95 (54.29%)	65 (37.14%)	10 (5.71%)	3 (1.71%)	2 (1.14%)	3.36,0.59
Taking responsibility for sexual health is essential	120 (68.57%)	45 (25.71%)	5 (2.86%)	3 (1.71%)	2 (1.14%)	3.66,0.64
Fear of STIs prevents people from seeking help and information	90 (51.43%)	45 (25.71%)	30 (17.14%)	5 (2.86%)	5 (2.86%)	3.00,0.74
Seeking testing for STIs should be done without hesitation	130 (74.29%)	40 (22.86%)	2 (1.14%)	2 (1.14%)	1 (0.57%)	3.68,0.65

Firstly, the majority of students (62.86%) strongly agree that society should do more to raise awareness about STIs, with an additional 34.29% agreeing with this sentiment. This indicates a general recognition among students of the importance of public awareness in combating STIs. The mean score of 3.54 with a standard deviation of 0.60 suggests a consensus towards the belief that increased awareness could play a key role in STI prevention.

Similarly, students overwhelmingly agree (68.57% strongly agree, 25.71% agree) with the statement that taking responsibility for sexual health is essential, highlighting a strong sense of personal accountability among future healthcare professionals. The mean score of 3.66 (S.D=0.64), reflects a positive view on the need for individuals to take proactive steps in managing their sexual health.

In line with these attitudes, 54.29% of students strongly agree and 37.14% agree that discussing STIs can help reduce its prevalence. This suggests that nursing students see open discussions about STIs as crucial for reducing transmission rates and increasing understanding. The mean score here is 3.36 (S.D=0.59), indicating general support for discussions around STI prevention.

However, when it comes to stigmatizing people with STIs, a large majority (17.14%) strongly agree that it is unacceptable to stigmatize those affected by STIs. This suggests a strong stance against the societal stigma that often surrounds these infections, with a mean score of 3.77 (S.D=0.67), reflecting high levels of agreement on the unacceptability of stigma.

Fear of STIs preventing people from seeking help and information has a mixed response. While over half of students (51.43%) strongly agree and 25.71% agree that fear is a barrier to seeking help, 17.14% disagreed. This shows some awareness of the negative impact fear can

have, although there is also recognition that not all individuals may feel deterred by fear alone. The mean score here is 3.00, indicating moderate concern about fear as an obstacle, with a standard deviation of 0.74 suggesting some variation in the responses.

Lastly, students strongly endorse the idea that seeking testing for STIs should be done without hesitation, with 74.29% strongly agreeing and 22.86% agreeing. This shows a strong inclination towards promoting regular STI testing as an essential part of sexual health. The mean score of 3.68 (S.D=0.65) further emphasizes this sentiment.

Only 15(8.57%) of the respondents has had STI diagnosis; 25 (14.28%) had multiple sexual partners in the last one year of the study and 40 (22.85%) had gone for STI tests (Table 5).

Table 5 Attitudes towards sexually transmitted infections preventive strategies among nursing students in Rivers State University

Have you ever been diagnosed with an STI?		
Yes	15	8.57
No	160	91.42
Have you had multiple sexual partners in the last year?		
Yes	25	14.28
No	150	85.7
Have you ever been tested for STI?		
Yes	40	22.85
No	135	77.14

Hypotheses testing

Table 6 shows the hypotheses

Table 6 Relationship between knowledge of STI preventive strategies and contracting the infection

	Diagnosed with STI (Yes)	Not diagnosed with STI (No)	Total	X ²	df	p-value	Decision
High Knowledge	14(15)	160(159)	174	0.073	1	0.05	Accept
Low Knowledge	1(0.1)	0(0.9)	1	9			
Total	15	160	175	9.073			

Inference: There is a significant relationship between the knowledge of Sexually Transmitted Infections preventive strategies and contracting the infection will be rejected.

Decision rule for assessing if the test is significant

If $p < 0.05$, the test is no significant (there is no significant relationship)

If $p > 0.05$, the test is significant.

From the CHI-SQUARE TEST TABLE, our p-value is 0.073, therefore from the decision rule, our p-value > 0.05 , which implies that there is a significant relationship between knowledge of Sexually transmitted Infections preventive strategies and contracting the infection.

Discussion

Knowledge of STI preventive strategies

The findings from the study indicate good knowledge STI preventive strategies among respondents. This finding is in tandem with the findings of Hossain et al.,²⁷ which reported that Nursing students exhibited a substantial understanding of STI transmission modes and preventive measures, including condom use and regular testing. However, findings of other studies are in contrast with this

finding. In Nigeria, a study by Oladimeji et al.²⁸ found that 32% of university students had a poor understanding of STI prevention and transmission, with only 38% correctly identifying all methods of STI prevention. In the United States, Belk et al. (2023) revealed that 35% of young adults lacked comprehensive STI knowledge, and only 42% could identify all prevention methods. These differences could be as a result of different study populations and settings. Thus there is still need for extensive education and awareness initiatives on STI preventive strategies among the young ones.

Attitude of respondents towards STI preventive strategies

The findings from the study showed a positive attitude towards STIs preventive practices. This finding is supported by other studies, however, there was an observation that, attitudes towards STI preventive strategies among nursing students are generally positive, yet there is a noticeable gap between these attitudes and actual preventive practices. Khan and Zahid (2023) conducted a study with 175 nursing students at a university in Pakistan, employing a structured questionnaire to assess attitudes and self-reported preventive practices. They discovered that 78% of participants had positive attitudes towards STI prevention, but only 42% engaged in regular STI screenings and 55% practiced consistent condom use. Similarly, Gupta and Sharma²⁹ conducted a study with 160 nursing students

in an Indian university, using a self-administered questionnaire to evaluate attitudes and practices towards STI prevention. Their findings revealed that while 70% of students had favorable attitudes towards STI prevention, only 40% engaged in preventive behaviors such as regular screenings and consistent condom use. These findings highlight a significant disconnect between positive attitudes and the actual implementation of STI preventive measures.)

Thus, there should be Programs which will focus on bridging the gap between positive attitudes and actual preventive behaviors by addressing barriers to regular screenings and condom use (Khan & Zahid, 2023). Providing resources such as free STI screenings, access to condoms, and counseling services is also crucial.²⁹ Finally, creating a supportive learning environment that encourages open discussions about STI prevention will facilitate better engagement in STI prevention efforts.³⁰ Conducting longitudinal studies will help assess the long-term effectiveness of these interventions and guide future efforts.³¹

Hypotheses testing

Table 6 examines the relationship between nursing students' knowledge of sexually transmitted infection (STI) preventive strategies and their reported history of contracting an STI. The table compares two groups: those diagnosed with an STI and those not diagnosed, based on their level of knowledge about STI prevention. The results are accompanied by a chi-square (X^2) value, degrees of freedom (df), and a p-value to assess the statistical significance of the relationship.

The chi-square test results ($X^2 = 0.073$, $df = 1$, $p = 0.05$) indicate that there is no statistically significant relationship between the level of knowledge about STI prevention and the likelihood of contracting an STI, as the p-value (0.05) is exactly on the threshold of significance. Since the p-value is not less than 0.05, the null hypothesis is accepted, suggesting that, according to this data, knowledge of STI prevention does not appear to have a strong impact on the likelihood of contracting an STI among nursing students in this sample. This shows that knowledge has not been translated to practice; there is a gap between good knowledge, attitude and practice of STI preventive strategies.³²⁻⁴⁵

Conclusion

The study highlights that respondents has good knowledge and positive attitude towards sexually transmitted infections (STIs) and their preventive strategies. However, while there is a commendable level of knowledge and positive attitudes among nursing students, targeted educational initiatives and accessible resources are essential to address misconceptions and empower students in STI prevention efforts. These will help in bridging the gap between good knowledge, positive attitude and the practice of STI preventive strategies. Additionally, continued education and support will be crucial in fostering a more informed and proactive approach to sexual health among future healthcare professionals.

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Conflicts of interest

The authors declare that they have no competing interests.

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