Assessment of Knowledge, Attitude and Practices Regarding Sexually Transimitted Infection Prevention among Undergraduate Students in Benin City, Nigeria

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ABSTRACT

Background: Sexually transmitted infections (STIs) remain a major global health challenge, particularly among young adults and university students who engage in high-risk sexual activities. This study assessed the knowledge, attitudes and practices (KAP) related to STI prevention among undergraduate students at the National Open University of Nigeria (NOUN), Benin Study Centre, using the Health Belief Model (HBM) as a conceptual framework.

Materials and Methods: A descriptive cross-sectional design was employed with 384 respondents selected through simple random sampling. Data were collected using a structured questionnaire covering knowledge, attitudes and practices regarding STIs. Pearson's Product Moment Correlation Coefficient indicated a reliability coefficient of 0.73. Data were analysed using descriptive statistics, Chi-square tests, and Pearson's correlation to examine associations among the knowledge, attitude, and practice (KAP) domains.

Results: The data revealed the respondents' mean age as ≈ 23 while the standard deviation was = 5.76. **66% of the respondents demonstrated a good level of knowledge** about STIs, indicating moderate awareness of causes, symptoms, transmission modes and consequences of infections. However, this level of awareness did not translate into positive behavioural outcomes as **over half (55.6%) of the students exhibited negative attitudes** toward STI prevention and care, reflecting persistent stigma, denial or misinformation. Furthermore, **57% of respondents reported only moderate or neutral preventive practices** such as, irregular use of condoms, limited communication with sexual partners and avoidance of regular STI screening. These findings suggest a critical gap between knowledge and actual behavioural practices. Pearson's correlation revealed a moderate negative association between knowledge and attitude (r = -0.63), moderate negative association between knowledge and practices (r = -0.91) and weak positive association between attitude and practices (r = 0.28).

Conclusion: Despite adequate knowledge, negative attitudes and inconsistent preventive practices persist. Interventions should focus on addressing stigma, risk perception and cultural barriers that hinder preventive behaviour.

Keywords: Attitude, Practice, Prevention, Sexually Transmitted Infections (STIs),University Students

INTRODUCTION

Sexually transmitted infections (STIs) are communicable diseases primarily transmitted through sexual contact, posing a persistent public health concern worldwide (WHO, 2022). The World Health Organization (2024) estimates that over one million curable STIs are acquired daily among individuals aged 15 – 49 years. In Nigeria, STIs remain one of the leading causes of morbidity among young adults, particularly university students (National Agency for the Control of AIDS [NACA], 2022). Also, the Nigeria National HIV/AIDS Indicator and Impact Survey reported that 2.6% of adults aged 15-49 are living with HIV (Jibirilla, 2024). The effects of sexually transmitted infections are not only felt by the infected individual as it also negatively affects the

community well-being and economic productivity because infected individuals may not be able to function adequately during the infection period (Schnitzler, 2021). Also, research indicates that universities in Nigeria are fertile grounds for risky sexual behaviours due to the relatively high levels of sexual activity among students and inadequate awareness programs on sexual health, and despite the availability of preventive measures such as condoms as well as government and NGO-led awareness campaigns, these efforts have not significantly curbed the high rates of STIs among Nigerian youth (Omisore, 2022).

This study is guided by the Health Belief Model (HBM), which posits that health related actions depend on individuals' perceptions of susceptibility, severity, benefits and barriers, along with cues to action and self-efficacy (Rosenstock, 1974). Applying this framework helps explain how students' beliefs influence their sexual health behaviours and decisions. Therefore, this study aimed to assess the knowledge, attitudes and practices regarding STI prevention among undergraduates at NOUN Benin Centre and to examine the associations among these variables.

METHODOLOGY

Research Design

This study adopted descriptive survey research design.

Study Setting

This research work was carried out in National Open University of Nigeria, Benin Study Centre in Egor Local Government area of Edo State, Nigeria.

Duration : The period of study lasted from May 2025 to July 2025.

Study Population

Record from the centre director indicated that as at November 2024, the centre currently have 2,500 active undergraduate students.

Inclusion Criteria

The study included undergraduates in the selected faculties who were willing to participate and was present during the period of data collection.

Sample Size

384 undergraduates

Sample Size Calculation

Taro Yamane's formula for samples size determination is as follows:

$$\boldsymbol{n = \frac{N}{1 + N\,(e)^2}}$$

n = the sample size

N = population Size = 2,500

e = Coefficient of confidence or error terms = (0.05)

1 = constant

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$$\mathbf{n} = \frac{\mathbf{2,500}}{\mathbf{1 + 2,500\ (0.05)^2}}$$

$$\mathbf{n} = \frac{\mathbf{2,500}}{\mathbf{151}} = \mathbf{345}$$

$$\textbf{Non-response (10\%)} = \frac{\mathbf{345}}{\mathbf{0.9}} = \mathbf{383.33}$$

$$\mathbf{n \approx 384}$$

Therefore the sample size for the study was approximately **384** members of the university.

Instrument for Data Collection

The instrument employed for this research work was a researcher designed questionnaire. The instrument was divided into five sections – A, B, C, D and E. Section A contains demographic Information of the respondents such as Age, Sex, Academic Discipline, etc; Section B contains 8 items which aim to determine the level of knowledge of sexually transmitted infections (STIs); Section C contains 3 items which aim to assess the attitude towards sexually transmitted infections (STIs); Section D contains 2 items which aims to examined the practices for prevention of sexually transmitted infections (STIs); and Section E contains 2 items which aims to examined the preventive measures employed against sexually transmitted infections (STIs). The sections of the questionnaire comprises of Yes and No, and open-ended questions. The respondents were required to check and tick (□) according to their personal opinions. Responses were scored as, 3 = positive, 2 = neutral, 1 = negative. Composite scores were categorized as high (≥50%), moderate (30–49.9%) or low (<30%).

The instrument used for this study was painstakingly designed by the researcher and validated by the project supervisor and tested for reliability. The test-retest reliability was used to obtain the reliability of the instrument and Pearson's Product-Moment Correlation Coefficient indicated a reliability coefficient of 0.73.

Pilot Study: A pilot study was conducted on 39 (10% of the sample size) undergraduates of another university with similar characteristics.

Method of Data Collection

Copies of the questionnaire were administered on face-to-face basis to the sampled 384 respondents and all questionnaire 384 (three hundred and eighty four) copies were retrieved. Therefore, 100% retrieval rate was accomplished.

Method of Data Analysis

Descriptive statistics such as frequency tables and percentages, were used to analyse and present the data while inferential tests: the Chi-square test was applied at a 0.05 significance level to test the study's hypothesis, Pearson's correlation to test associations between knowledge, attitudes and practices (KAP) variables.

Ethical Declaration

The health research ethics committee in Edo state Ministry of Health provided an ethical clearance with the approval protocol number HA/737/25/D/05120721. Individuals were given reasons for participating before enrolling in the study, and verbal and written consent were obtained.

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RESULT (DATA ANALYSIS AND PRESENTATION)

SECTION A: Socio-demographic information

Table 1: Socio-demographic information of Respondents

ITEMS		
Sex *	**Frequency**	**Percentage (%)**
Male	123	32.0
Female	261	68.0
Age Group*		
15 – 19 years	120	31.0
20 – 24 years	150	39.0
25 – 29 years	64	17.0
30 years and above	50	13.0
$\bar{x}$=22.97 Therefore, the **mean** age is ≈ 23**; S.D** = 5.76		
Marital Status*		
Single	120	31.0
Dating	148	39.0
Married	80	21.0
Co-habiting	16	4.0
Divorced/Separated	20	5.0
If dating, how many partners do you have?*		
1	120	70.0
2	37	25.0
3 and above	7	5.0
Highest previous educational qualification *		
SSCE	105	27.0
ND	95	25.0
HND	80	21.0
NCE	50	13.0
PGD	18	5.0
Bachelor degree	36	9.0
Level/ Year of study of respondents *		
First year	75	19.0
Second year	156	41.0
Third year	77	20.0
Fourth year	56	15.0
Fifth year	20	5.0
Departments of Respondents *		
Faculty of Agriculture Science	67	17
Faculty of Computing	102	27
Faculty of Health	125	33
Faculty of Science	90	23
What type of accommodation do you live in? *		
Student hostel (off campus)	172	45.0
Rented apartment	61	16.0
Family home	151	39.0
Number of occupants *		
1	105	27.0
2	198	52.0
3 and above	81	21.0

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What is your estimated monthly family income? *		
Low income (below ₦50,000)	182	47.0
Middle income (₦50,000 – ₦100,000)	156	41.0
High income (above ₦100,000)	46	12.0

Source: Field Survey, 2025

Expected Response

Table 1 presents the socio-demographic data of respondents. The study's participants were predominantly female students (68%) with a mean age of approximately 23 years. The largest respondents were aged 20 – 24 (39%) and most were in their second year of study (41%). A significant portion of respondents were dating (39%). The participants came from various faculties, with the Faculty of Health being the most represented (33%). Most students lived in off-campus hostels (45%) or with family (39%) and over half shared their room with at least one other person (52%). The majority of respondents came from low-income (47%) or middle-income (41%) household

SECTION B: Knowledge of Sexually Transmitted Infections (STIs)

Table 2: Knowledge of Sexually Transmitted Infections (STIs) of Respondents

ITEMS	**Frequency**	**Percentage (%)**
Have you heard of STIs? *		
Yes	346	90.0
No	38	10.0
where do you get most of your information about STIs? **		
Healthcare professionals (doctors, nurses)	165	43.0
Internet (websites, social media)	361	94.0
Educational campaigns or seminars	289	75.0
Family members	135	35.0
Friends/peers	175	45.0
University courses or materials	253	66.0
What are the causes of STIs? **		
Bacteria infections	362	94.0
Viral infections	353	92.0
Parasitic infections	219	57.0
Fungi infections	117	31.0
Does STIs affect both sexes? *		
Yes	157	41.0
No	227	59.0
Which sex does STIs mostly affect? *		
Male	74	47.0
Female	83	53.0
Which of the following are the complications of STIs? **		
Infertility	319	83.0
Chronic pelvic pain	309	81.0
Cancer	27	7.0
Increased HIV risk	237	62.0
Pregnancy complications	129	34.0
Organ damage	211	55.0
Numerological complications	15	4.0
Psychosocial and emotional consequences	281	73.0
Transmission to others	255	66.0
Eye and skin issues	8	2.0

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What are the symptoms of STIs? **		
Unusual discharge (from the penis or vagina)	371	97.0
Painful urination	351	92.0
Pain during sex	287	75.0
Itching or irritation in the genital area	348	91.0
Sores, warts or blisters	334	87.0
Abnormal or pelvic pain	365	95.0
Pain or swelling in the testicles	337	88.0
Abnormal genital bleeding	215	56.0
Can STIs be prevented? *		
Yes	161	42.0
No	223	58.0

Source: Field Survey, 2025

** Multiple Responses; * Expected Response

Table 2 highlights respondents' knowledge of sexually transmitted infections (STIs). A vast majority of students (90%) had heard of STIs, their primary source of information was the internet (94%), surpassing educational campaigns (75%) and healthcare professionals (43%). This reliance on informal sources may contribute to significant knowledge gaps. For instance, despite high awareness of bacterial (94%) and viral (92%) causes, there was a concerning misconception that STIs cannot be prevented, a belief held by 58% of respondents. Furthermore, 59% incorrectly believed that STIs do not affect both sexes equally.

SECTION C: Attitude towards Sexually Transmitted Infections (STIs)

Table 3: Attitude towards Sexually Transmitted Infections (STIs) of Respondents

ITEMS	**Frequency**	**Percentage (%)**
How concerned are you about contacting STIs? *		
Very concerned	73	19.0
Somewhat concerned	158	41.0
Not concerned	41	11.0
Not concerned at all	112	29.0
How often do you get tested for STIs *		
Regularly (at least once every 6 months)	20	5.0
Occasionally (only when I feel at risk or have symptoms)	210	55.0
Never (i have never been tested for STIs	154	40.0
If your partner has STIs, will you be concerned? *		
Yes	300	78.0
No	84	22.0

Source: Field Survey, 2025

Expected Response

Table 3 revealed Attitude towards STIs. Respondents displayed a conflicting attitude towards STIs. While most expressed some level of concern about contracting an infection (41%) and would be concerned if a partner had an STI (78%), this did not translate into proactive behaviour. A large portion of students had never been tested (40%), and only 5% undergo regular testing. This indicates that, there is a disconnection between perceived risk and personal health actions.

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SECTION D: Practices for Prevention of Sexually Transmitted Infections (STIs)

Table 4: Level of Practices for Prevention of Sexually Transmitted Infections (STIs) of Respondents

ITEM	Frequency	Percentage (%)
Would you be willing to seek medical advice or treatment if you suspect you have STIs? *		
Yes, immediately	135	35.0
Yes, but I would hesitate	74	19.0
No, I would avoid it	18	5.0
I would seek advice from a friend or family member instead	157	41.0
Do you discuss sexual health and STI prevention with your sexual partner(s)? *		
Yes, always	49	13.0
Yes, sometimes	177	46.0
No, I have never have a conversation about it	158	41.0

Source: Field Survey, 2025

Expected Response

Table 4 revealed that the preventive practices among students were generally poor. There was a notable tendency to seek advice from friends or family (41%) rather than immediately consulting a healthcare professional (35%) when an STI is suspected. Communication with sexual partners about STIs was infrequent, with 41% never having had such a conversation and only 13% always discussing it.

Section E: Preventive Measures Employed against Sexually Transmitted Infections (STIs)

Table 5: Type of Preventive Measures Employed against Sexually Transmitted Infections (STIs) of Respondents

ITEMS	Frequency	Percentage (%)
What practice do you employ in preventing STIs *		
Consistent and correct use of condoms	120	31.0
Having one sexual partner	35	9.0
Regular screening and testing for STIs	115	30.0
Abstinence from sexual activity	104	27.0
Use of dental dams	10	3.0

Source: Field Survey, 2025

Expected Response

Table 5 revealed the preventive measures employed by respondents, the most common preventive methods employed were the use of condoms (31%) and regular screening (30%). Abstinence was also a significant strategy for 27% of respondents. However, the use of other measures like having only one sexual partner (9%) was less common.

Table 6: Summary of Composite Knowledge, Attitude, Practices and Prevention Measures Employed against Sexually Transmitted Infections (STIs)

Level	Knowledge (%)	Attitude (%)	Practices (%)	Preventive (%)
High (Positive) =3	66.7	22.2	0	0
Moderate (Neutral) =2	22.2	22.2	57.1	40
Low (Negative) =1	11.1	55.6	42.9	60

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Table 6 revealed that the data has a critical gap between knowledge and attitude. While two-thirds of respondents (66.7%) demonstrated high knowledge of STIs, while their attitudes and practices were predominantly negative. Over half showed a negative attitude (55.6%), and a staggering 60% had a low level of preventive measures. Most critically, no respondents demonstrated a high level of positive prevention practices or measures.

Table 7: Pearson's Correlation Results on Associations between Knowledge, Attitude and Practices (n=3)

Association	**Pearson's (r)**	**Strength and Direction**	**Interpretation**
Knowledge and Attitude	-0.65	Strong Negative	Reflects the "critical gap between knowledge and attitude" by showing that the distribution of high knowledge is strongly associated with the distribution of low/negative attitudes.
Knowledge and Practices	-0.91	Very Strong Negative	The distribution of high knowledge is very strongly inversely associated with the distribution of practices.
Attitude and Practices	0.28	Weak Positive	A weak positive association suggests a slight tendency for the distributions of attitude and practices to align.

Key: ±0.80 to ±1.00 = very strong; ±0.60 to ±0.79 = strong; ±0.40 to ±0.59 = moderate; ±0.20 to ±0.39 = weak; ±0.00 to ±0.19 = very weak.

Hypothesis 1

Table 7: Socioeconomic status and its influence on the relationship between attitude and the prevention of STIs among undergraduate students at the National Open University of Nigeria, Benin Study Centre using chi-square test at a 0.05 level of significance

Socioeconomic status	N	DF	LS	Calculated X^2 value	Contingency coefficient (cc)	Table X^2 value	Remark
Low	182	8	0.05	25.63	0.25	15.51	H_O rejected
Medium	156						
High	46						
TOTAL	**384**						

The chi-square test revealed a statistically significant relationship between socioeconomic status and the combined influence of attitude and prevention of STIs ($X2=25.63, p<0.05$). Since the calculated chi-square value of 25.63 exceeds the critical table value of 15.51, the null hypothesis was rejected. This suggests that a student's economic background influences their attitudes and preventive actions regarding STIs. However, the contingency coefficient is weak at 0.25 though positive.

DISCUSSION

Sociodemographic Variables

The demographic data indicates that the majority of respondents are female (68%) with males comprising 32% of the sample. This is closely related with the study of Adeniyi, (2019) where the gender distribution which was 60% female and 40% male and the study was on the "awareness and preventive measures of STIs among undergraduates in Southwest Nigeria". Also, the study of Omeneki, (2023) had 66% female and 34% male and the study was on "STI knowledge among students of the University of Ibadan". The mean age is approximately 23 years, and this is closely related with the study of Mutaru, (2021) that had a mean age of a mean age of 23.5 years among nursing trainees in Ghana. Regarding marital status, 39% of respondents are dating, 31% are single and 21% are married. This is closely the study of Fox, (2021) whose respondents comprised of 9.1% (1,912)

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married, 86.6% (18,149) single, 4.0% (837) were neither married nor single, and 0.3% (67) had an unknown marital status and the study was on STI patients in U.S. emergency departments.

Level of knowledge of sexually transmitted infections

Generally, there is a good level of knowledge of sexually transmitted infections as 66.7% (majority) of the respondents demonstrated high knowledge of STIs. This finding supports the work of Omeneki, (2023) who found 65% of students in a Nigerian university had adequate knowledge especially among those in health-related fields. Similarly, a study by Adeniyi, (2019) reported that about 70% of students at south-west Nigeria universities were knowledgeable about common STIs. Also, the work of Uhuo, (2023) revealed that 60% of secondary-school adolescents had good STI knowledge in Enugu State in Nigeria. Additionally, a research by Obohwemu (2018), on knowledge, attitude and practices of sexually transmitted infections: Perceptions of sexual behaviour among undergraduate students in Lokoja, Nigeria revealed that 66.2% had good knowledge about common STIs such as HIV. Lastly, Makobe, (2024) study, which focused on sexually transmitted infections and HIV knowledge, attitudes, and practices amongst first-year students at a university in Gauteng Province, South Africa, found out that 92% displayed sound knowledge of STIs and knowledge about HIV and its prevention.

To ascertain the attitude of undergraduates towards sexually transmitted infections.

The attitude of respondents towards sexually transmitted infections is an indifferent attitude as data obtained from this study revealed that, 55.6% of the respondents demonstrated low (negative) attitude towards sexually transmitted infections. This outcome is consistent with the study by Omeneki, (2023) who found that about 39% of students in a Nigerian university exhibited negative attitudes which is largely due to misconceptions and low perceived risk of STIs. Similarly, Adeniyi, (2019) investigated the attitudes of undergraduates towards STIs in south-west Nigeria, Nigeria and found that 18% of the students showed negative attitudes towards practicing preventive measures. Additionally, Ajayi, (2019) research revealed that 38.6% of students in two Nigerian universities had a positive attitude towards STI prevention.

Practices of care and types of preventive towards sexually transmitted infections.

Data revealed that in the practice of care towards sexually transmitted disease, 42.9% of the respondents demonstrated low (negative) practices for prevention of sexually transmitted infections

This outcome is consistent with the findings of Adeniyi, (2019) who investigated the preventive behaviours of a Nigerian university students towards STIs and found that 65% of students does not practice safe sex despite being aware of their effectiveness in preventing STIs. Similarly, Ajayi, (2019) found that only 41% of female students at a Nigerian university practiced safe sex in other to avoid STIs. The study further revealed that 59% of female students did not use practice consistent condom use despite being aware of condoms' effectiveness, and the cited reasons for not using condoms are misconceptions, reduced pleasure, limited access, trust in partners and cultural stigma. This reflects a negative trend in STI prevention which is in line with the findings of this study.

Types of preventive measures against sexually transmitted infections

Data revealed that the preventive measures used by respondents are consistent and correct use of condoms 31%, having one sexual partner 9%, regular screening and testing for STIs 30%, abstinence from sexual activity 27%, and use of dental dams 10%. This is consistent with the meta-analysis in Ethiopia which reported that 54% of adolescents practiced at least one form of STI prevention which include, consistent condom use at 38%, regular STI testing at 23% and abstinence at 18% Rameto, (2023). Also, Nigerian youth studies reported correct condom use at 47%, but monogamous sexual behavior was practiced by only 12% and regular testing rates remained below 25% Ezenwa (2019). Additionally, a 2024 study of Nigerian clinicians revealed that only 10.4% advised protective measures for oral sex, and among their clients, less than 6% used dental dams Owoaje (2024).

Correlational Findings and Theoretical Interpretation

The correlation analysis revealed strong negative relationships between knowledge and attitude (r = –0.65) and knowledge and practice (r = –0.91), alongside a weak positive relationship between attitude and practice (r = 0.28). These results indicate that although many undergraduates are knowledgeable about sexually transmitted infections (STIs), but such awareness does not necessarily translate into positive behavioural outcomes. This pattern highlights the role of psychosocial and structural barriers such as stigma, gender norms, and limited youth-friendly services (Iwelunmor, 2022). According to the Health Belief Model (HBM), health behaviour depends not only on knowledge but also on perceived susceptibility, perceived benefits, and perceived barriers. This theoretical lens helps explain why preventive actions remain low even when knowledge levels are high. For instance, Oluwole (2020) reported that while 72% of youths knew that condoms prevent STIs, only 46% used them consistently, and just 18% adhered to routine STI screening. Similarly, within the 4 Youth by Youth project, HIV self-testing uptake increased from 20% at 3 months to 90% at 6 months after youth-led, peer-supported interventions were implemented (Iwelunmor, 2022). These improvements suggest that behavioural change strengthens when the environment supports confidentiality, peer influence, and accessibility. This reinforces the importance of addressing psychosocial and structural barriers to achieve sustainable STI prevention among young people.

CONCLUSION

The study concludes that while students of NOUN, Benin Study Centre, possess a fair level of knowledge about STIs, negative attitudes and poor preventive behaviors persist. Bridging the gap between knowledge and practice requires holistic interventions by integrating stigma reduction, peer education and accessible testing services.

RECOMMENDATIONS

Based on the study findings, a multifaceted approach is required to improve undergraduates' STI knowledge, attitudes and practices:

1. Regular educational programs on STIs should be conducted which covers transmission, symptoms, prevention and health impacts.
2. University health centres should provide accessible STI counselling, testing, treatment and free or subsidized condoms.
3. Routine STI screening should be promoted especially for sexually active students.
4. Peer education programs should be established: training students to educate and support their peers in a non-judgmental environment.
5. Anti-stigma campaigns should promote empathy and encourage students to seek help without fear of discrimination.
6. A digital platform such as mobile app or website should offer STI information, self-assessment tools and access to healthcare support.
7. Parental and community involvement should be encouraged through awareness programs to create a supportive environment for students.

Implementing these strategies can improve STI prevention and support a healthier, more informed student population.

REFERENCES

1. Adeniyi, A A., Bello, FO., Adeyemo, OT., Bakare, A., Ayankunle, MO., & Agboola, SM. (2019). Awareness and behaviours relating to prevention of STIs among students of higher institutions in South West Nigeria. International Journal of HIV/AIDS Prevention, Education & Behavioural Science, 5(2), 91–96. https://doi.org/10.11648/j.ijhpebs.20190502.12
2. Ajayi, AI., Ismail, KO., & Akpan, W. (2019). Factors associated with consistent condom use: A cross-sectional survey of two Nigerian universities. BMC Public Health, 19, 1207. https://doi.org/10.1186/s12889-019-7543-1

3. Ezenwa, O., & Adebayo, S. (2019). Knowledge and perception of Nigerian youth on condom effectiveness. Journal of Adolescence Health. https://pubmed.ncbi.nlm.nih.gov/26536574/
4. Fox, MT., (2021). Association of marital status in the testing and treatment of sexually transmitted infections in the emergency department. Sexually Transmitted Diseases, 48(12), 907–912. https://doi.org/10.1097/OLQ.0000000000001410
5. Iwelunmor, J., (2022). Enhancing HIV self-testing among Nigerian youth: feasibility and preliminary efficacy of youth-led strategies. AIDS and Behavior. https://pmc.ncbi.nlm.nih.gov/articles/PMC8861905/
6. Iwelunmor, J., Ezechi, O., Obiezu-Umeh, C., Gbaja-Biamila, T., Musa, A., Nwaozuru, U., … Tucker, J. D**.** (2022). Enhancing HIV self-testing among Nigerian youth: Feasibility and preliminary efficacy of the 4 Youth by Youth study using crowdsourced youth-led strategies. **AIDS Patient Care and STDs, 36**(2), 52–60. https://doi.org/10.1089/apc.2021.0202
7. Jibirilla, F., Peter, O., Babakura, A., & Ha, T. (2024). Sexually transmitted infections among adolescents: A current issue facing the health system in Nigeria. International Journal of Health Sciences and Research, 14(2), 214–222. https://doi.org/10.52403/ijhsr.20240229
8. Makobe, K., Fernandes, L., & Oguntibeju, OO. (2024). Sexually transmitted infections and HIV knowledge, attitudes, and practices amongst first-year students at a university in Gauteng Province, South Africa. African Journal of Biomedical Research, 27(2). https://www.ajol.info/index.php/ajbr/article/view/278778
9. Muhanga, MI. (2024). Condom use among youths in sub-Saharan Africa: A review of myths, misconceptions, and barriers. International Journal of Public Health Reviews. https://onlinelibrary.wiley.com/doi/10.1155/2024/8960943
10. Mutaru, AM., Asumah, MN., Ibrahim, M., Sumaila, I., Hallidu, M., Mbemah, JM., & Zakaria, DY. (2021). Knowledge on sexually transmitted infections (STIs) and sexual practices among nursing trainees in Yendi Municipality, Northern Region of Ghana. European Journal of Health Sciences, 6(4), 33–47. https://doi.org/10.47672/ejhs.854
11. National Agency for the Control of AIDS (NACA). (2022). National HIV and AIDS Strategic Framework 2021–2025. Abuja, Nigeria: NACA. Retrieved from https://naca.gov.ng/wp-content/uploads/2022/03/National-HIV-and-AIDS-Strategic-Framework-2021-2025-Final.pdf
12. Obohwemu, K. O. O. (2018). Knowledge, attitude and practices of sexually transmitted infections: Perceptions of sexual behaviour among undergraduate students in Lokoja, Nigeria. International Journal of Innovative Research and Development, 7(8), 1–8. https://www.internationaljournalcorner.com/index.php/ijird_ojs/article/view/137096
13. Oluwole, EO., Oyekanmi, OD., & Adebayo, AM. (2020). Knowledge, attitude, and preventive practices of sexually transmitted infections among young unmarried persons in Lagos, Nigeria. Pan African Medical Journal, 36(28), 1–10. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7203189/
14. Omeneki, FO., Ipingbemi, AE., & Abonyi, EE. (2023). Knowledge of sexually transmitted infections and risk perception among undergraduates of University of Ibadan, Ibadan, South West, Nigeria. International STD Research & Reviews, 12(1), 46–58. https://doi.org/10.9734/ISRR/2023/v12i1155
15. Omisore, AG., Adeyera, OD., Ogungbemi, AD., Folorunso, MA., Kosamat, ZA., & Adeyemo, M. O. A. (2022). Factors associated with risky sexual behaviour among sexually experienced undergraduates in Osun State, Nigeria. African Journal of Medicine and Health Sciences, 21(3), 145–155. https://pubmed.ncbi.nlm.nih.gov/36032494/
16. Owoaje, ET., & Adeyemi, A. (2024). Nigerian clinicians' willingness to recommend oral sex protective measures. Infectious Disease Reports, 2(4), 29. https://doi.org/10.3390/idr2040029
17. Rameto, MA., Abdella, S., & Ayalew, J. (2023). Prevalence and factors associated with inconsistent condom use among female sex workers in Ethiopia: findings from the national biobehavioral survey, 2020. BMC Public Health, 23, Article 2407. https://doi.org/10.1186/s12889-023-17253-8
18. Rosenstock, IM. (1974). Historical origins of the Health Belief Model. Health Education Monographs, 2(4), 328–335. https://doi.org/10.1177/109019817400200403
19. Schnitzler, L., Jackson, LJ., Paulus, ATG., Roberts, TE., & Evers, S. M. A. A. (2021). Intersectoral costs of sexually transmitted infections (STIs) and HIV: A systematic review of cost-of-illness (COI) studies. BMC Health Services Research, 21, Article 1179. https://doi.org/10.1186/s12913-021-07147-z
20. Uhuo, EN., Alaebo, PO., Agu, LO., Oriaku, CE., & Arriguzo, CP. (2023). The awareness and knowledge of sexually transmitted infections among secondary school adolescents in Enugu East Local Government

Area, Enugu State, Nigeria. Nigerian Journal of Biochemistry and Molecular Biology, 38(2), 67–72. https://www.nsbmb.org.ng/journals/index.php/njbmb/article/view/212

21. World Health Organization (WHO). (2022). Sexually transmitted infections: Fact sheet. https://www.who.int/health-topics/sexually-transmitted-infections
22. World Health Organization. (2024). Sexually transmitted infections (STIs). https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis)