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Awareness and Prevention of Sexually Transmitted Diseases Among Students of the National Open University of Nigeria, Wuse 2 Study Centre, Abuja

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ABSTRACT

Background and Objective: Sexually Transmitted Diseases (STDs) remain a major public health concern, causing significant morbidity and mortality among adolescents and adults. The lack of awareness and proper information about STDs has led to increased transmission and deaths, particularly among undergraduate students. This study examines STD prevention awareness among undergraduate students at the National Open University of Nigeria (NOUN), Wuse 2 Study Centre. **Materials and Methods:** A descriptive cross-sectional survey design was employed, utilizing a combination of stratified random sampling. A total of 295 respondents participated, providing data through structured questionnaires. The collected data were analyzed using descriptive and inferential statistics, with Chi-square tests applied to assess the significance of findings at a 0.05 alpha level. **Results:** Revealed a significant gender-based difference in STD awareness among students. The Chi-square (χ^2) value (62.88) exceeded the table value (16.26) at a 5% significance level with three degrees of freedom, indicating a notable variation in responses. Similarly, another Chi-square test (χ^2 = 73.45) confirmed differences in STD knowledge among students regardless of personal gratification levels. **Conclusion:** The study highlights the influence of cultural norms, societal attitudes, and beliefs on sexual health awareness. It underscores the need for government-led initiatives to enhance STD awareness and control through continuous education and engagement with sexual health topics. Promoting comprehensive sexual health education will help equip students with the necessary knowledge to prevent STD transmission and safeguard their well-being.

KEYWORDS

Sexually Transmitted Disease (STD), Acquired Immune Deficiency Syndrome (AIDs), human immunodeficiency virus, Herpes Simplex Virus (HSV), Human Papilloma Virus (HPV)

INTRODUCTION

Sexually transmitted diseases is a global health concern that is prevalent in all age groups[1]. Infections like Chlamydia, Genital herpes, Gonorrhea, HPV, Pubic lice, Syphilis, Trichomoniasis and acquired immune deficiency syndrome caused by Human Immunodeficiency Virus (HIV) have posed a substantial public

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health issue and continue to be the most critical concern in infectious diseases[2]. These are diseases that are passed on through sexual intercourse via bacteria and viruses, and these infections can be passed from one person to another during intimate physical contact. These are infections that spread from one person to another during sex. They are caused by germs like bacteria or viruses. Sexually transmitted diseases have become the leading cause of death in Nigeria and also in Africa.

According to the World Health Organization[3], over 1 mL STDs are acquired every day worldwide, with more than 376 mL new infections occurring annually. Sub-Saharan Africa bears a disproportionate share of the global STD burden due to factors such as limited access to healthcare, inadequate sexual health education, and socio-cultural barriers[4]. In Nigeria, the prevalence of STDs is particularly alarming, especially among adolescents and young adults[5]. The Nzoputam *et al.*[6] has reported increasing rates of infections such as HIV, syphilis, and gonorrhea, with studies indicating that as many as 25% of sexually active Nigerians may contract an STD during their lifetime[7,8]. Urbanization, poverty, stigma, and insufficient screening and treatment services exacerbate the spread of STDs in the country. This persistent high prevalence underscores the urgent need for strengthened public health interventions, improved sexual education, and access to comprehensive sexual and reproductive healthcare services in both global and Nigerian contexts.

However, misconceptions are still present, such as getting sexually transmitted diseases like HIV from public toilets, mosquito bites, or touching sexually transmitted diseases infected persons among students from Kaduna, Nigeria[9]. Given the varied results from the research mentioned above conducted in different regions of Nigeria, it is imperative to reevaluate the extent of knowledge regarding sexually transmitted diseases among undergraduate students.

It is necessary because undergraduate students, who are teenagers/youths, are the future of the country, so they must be equipped with ample information so as to protect themselves and their counterparts from falling prey to this incurable killer disease. They need to have enough information to protect themselves and others from getting this deadly disease.

Social Action Theory (SAT) was adopted in this study by Yitbarek and Ayele[10] applied to sexually transmitted diseases risk reduction and the prevention of Sexually transmitted diseases risk behaviour. Sexually transmitted disease information is the most effective weapon available in the management and prevention of sexually transmitted diseases in society. In light of the above, this study therefore assesses the awareness of sexually transmitted diseases among undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre.

This study seeks to assess the awareness and knowledge of Sexually Transmitted Diseases (STDs) among undergraduate students at the National Open University of Nigeria (NOUN), Wuse 2 Study Centre. It examines the level of awareness regarding STDs, evaluates students' understanding of the modes of transmission, and explores their knowledge of control measures. Additionally, the study investigates the influence of gender on students' awareness and knowledge of STDs. By analyzing these factors, the research aims to provide insights into the effectiveness of STD education among university students and inform targeted interventions for improved sexual health awareness and prevention strategies.

MATERIALS AND METHODS

Research design: A descriptive cross-sectional survey design was employed, targeting undergraduate students enrolled in various academic programs at the National Open University of Nigeria (NOUN), Wuse 2 Study Centre, Abuja. The study was carried from April-June, 2024.

Study population: The study population comprised students from five departments within the Wuse 2 Study Centre, NOUN, totaling 1,125 students.

Sampling technique and sample size: A stratified random sampling technique was used to ensure adequate representation across all departments. From the total population, 295 participants were selected using Taro Yamane's formula[11] as a practical guide for determining sample size.

Proportional stratified sampling was applied to maintain fairness across departments, minimizing sampling bias. The sample size was calculated, with 95% confidence and a 5% margin of error.

The proportional distribution was as follows:

- **Political science and nursing:** A 59 students out of 223
- **Business administration and physiotherapy:** A 88 students out of 335
- **Biology education and radiography:** A 53 students out of 201
- **Mass communication and medical laboratory science:** A 96 students out of 366
- This resulted in a total sample size of 295 students from a population of 1,125

Research instrument: Adaptation of the STD-KQ. The study also adopted and adapted the Sexually Transmitted Disease Knowledge Questionnaire (STD-KQ) developed[12].

The original 27-item instrument was modified into four sections to align with the study objectives, forming the SQAT (Sexually Transmitted Diseases Awareness and Treatment) questionnaire.

Each section contained five items rated on a four-point Likert scale (Strongly Disagree = 1, Disagree = 2, Agree = 3, Strongly Agree = 4).

Sections of the SQAT questionnaire

Section A

Level of awareness of STDs: Students who have received comprehensive sexual health education typically demonstrate higher awareness of STDs and their prevention methods.

Section B

Modes of transmission of STDs: This section assessed understanding of transmission routes, such as the spread of HIV and hepatitis through sharing needles.

Section C

Awareness toward the control of STDs: This section examined students' awareness of preventive measures, including practicing safe sex, consistent condom use, and reducing the number of sexual partners.

Section D

Influence of gender on STD knowledge: This section explored how gender norms and societal expectations affect access to sexual health information and overall STD knowledge.

Validity of the instrument: Face and Content validity were determined by some professors of the National Open University of Nigeria who are specialized in the field to ensure that the questions comprehensively cover the dimensions of knowledge and attitude towards to STI preventive strategies.

Reliability of the instrument: Reliability of the instrument was determined by administering 10% of the sample size to students of the same school who were not part of the main study sample but had similar characteristics. The responses were analyzed using the Spearman correlational statistical method, and a value of 0.75 was obtained, which is above the threshold value, was considered appropriate for the study.

Ethical considerations: Ethical approval for the study was obtained from the Health Centre Administrator at NOUN. All participants were informed about the objectives of the study, and confidentiality was maintained throughout data collection.

Research questions: The study addresses the following research questions, which guided the survey design and data collection:

- What is the level of awareness of undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre on sexually transmitted diseases?
- At what level do undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre know the modes of transmission of sexually transmitted diseases?
- To what level are undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre aware of the control of sexually transmitted diseases?
- What is the influence of gender on undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre regarding their level of knowledge of sexually transmitted diseases?

These research questions were used to structure the survey and guide the analysis presented in the Results and Discussion.

Hypotheses: To further guide the study and ensure alignment with the research objectives and data analysis, the following null hypotheses were formulated[11]. Each hypothesis was tested at the 0.05 level of significance.

Null hypotheses (H_o):

H_{o1}: There is no significant difference in the responses of male and female undergraduate students of the National Open University of Nigeria (NOUN), Wuse 2 Study Centre, regarding their knowledge of various Sexually Transmitted Diseases (STDs)

H_{o2}: There is no significant difference in the level of knowledge of undergraduate students of the National Open University of Nigeria (NOUN), Wuse 2 Study Centre, about Sexually Transmitted Diseases (STDs)

Test of hypotheses: Using the formula:

$$\chi^2 \sum = \frac{(Fo - Fe)^2}{Fe}$$

Where:

X^2 = Chi-square symbol
Fo = Actual or frequency observed
Fe = Frequency expected
$\sum$ = Summation

4 response categories, the degrees of freedom (df) is:

$$df = k-1 = 4-1=3$$

Hypothesis one: Gender has no significant difference between responses of undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study centre on their knowledge of various sexually transmitted diseases.

Decision rule: At the 0.05 level of significance, the null hypothesis will be rejected if the computed value of Chi-square (χ^2) is greater than the critical value of χ^2 at 3 degrees of freedom.

Test data: The data used to test this hypothesis was obtained from the responses of respondents to questions contained in the questionnaires, as reproduced below:
Calculated Chi-square (χ^2) = 62.88

Hypothesis two
(H0): There is no significant difference in the knowledge of undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre towards Sexually transmitted diseases.

Decision rule: At a significance level of 0.05, the null hypothesis will be rejected if the estimated value of χ^2 exceeds the critical value at 4 degrees of freedom.

Test data: The data used to test this hypothesis was obtained from the true responses of respondents to questions contained in the questionnaire, as reproduced below:
Calculated Chi-square (χ^2) = 73.45

RESULTS AND DISCUSSION

Results analysis: Table 1 presents the demographic characteristics of the respondents. The highest proportion of participants came from the School of Science (38%), followed by the School of Education (36.6%) and the School of Arts and Social Sciences (25.4%). Most respondents were between 18-20 years old (51.5%), with smaller proportions aged 21-25 years (33.9%) and 26 years and above (14.6%). In terms of sex distribution, males slightly outnumbered females, accounting for 51.5% and 48.5% respectively. Regarding class level, the largest group of respondents was in the 400 level (39%), followed by those in 200 level (35.6%) and 300 level (25.4%).

Table 2 indicated an average mean of 3.03 which suggested a high level of agreement among students on their knowledge of STD transmission modes. The standard deviation range (0.91 to 1.16) indicates moderate variability, reflecting different levels of understanding and awareness about specific transmission methods among the students.

Table 1: Percentage distribution of the respondents' school, age, sex and class

Schools	Frequency	Percentage (%)
Sciences	112	38.0
Art and Social Science	75	25.4
Education	108	36.6
Age (years)		
18-20	152	51.5
21-25	100	33.9
26 and Above	43	14.6
Sex		
Male	152	51.5
Female	143	48.5
Class		
200 level	105	35.6
300 level	75	25.4
400 level	115	39.0
Total	295	100.0

Fieldwork, 2024, the average mean of 2.95 indicates that students generally agree that factors like comprehensive sexual health education, cultural norms, healthcare accessibility, and direct experiences influence their awareness of STDs. The standard deviation range (0.76 to 1.16) shows some variability in responses, suggesting differences in individual experiences and perceptions of STD awareness

Table 2: Research question one: Awareness of STDs

Item	SD (%)	D (%)	A (%)	SA (%)	Mean (X)	S.D.	Decision
Students who have received comprehensive sexual health education have a higher awareness of STDs	23.1	12.2	28.5	36.3	2.78	1.16	Accepted
Cultural norms, beliefs, and societal attitudes influence awareness levels	21.7	11.2	28.8	38.3	2.83	1.15	Accepted
Availability and accessibility of healthcare services affect awareness levels	13.2	10.8	38.6	37.3	3.00	1.00	Accepted
Students who actively seek out information on sexual health topics have higher awareness levels	20.3	14.9	26.4	38.3	2.82	1.14	Accepted
Students with direct or indirect experiences with STDs are more knowledgeable about their risks	3.1	8.5	38.6	49.8	3.35	0.76	Accepted
Average	16.3	11.5	32.2	40.0	2.95	1.04	

An average mean of 3.03 suggests a high level of agreement among students on their knowledge of STD transmission modes. The standard deviation range (0.91 to 1.16) indicates moderate variability, reflecting different levels of understanding and awareness about specific transmission methods among the students, SD: Strongly disagree, D: Disagree, A: Agree, SA: Strongly agree, X: Mean score, S.D.: Standard deviation and the decision "Accepted" indicates that the statement was generally agreed upon by respondents

Table 3: Research question two: Knowledge of transmission

Item	SD (%)	D (%)	A (%)	SA (%)	Mean (X)	S.D.	Decision
Importance of regular STD testing and communication with sexual partners	5.1	15.6	23.4	55.9	3.30	0.91	Accepted
STDs like HSV and HPV can be transmitted through skin-to-skin contact	11.2	11.9	28.5	48.5	3.14	1.01	Accepted
Some STDs can be transmitted from an infected mother to her child	22.0	10.8	28.5	38.6	2.83	1.16	Accepted
STDs like HIV and hepatitis can be transmitted through sharing needles	14.6	10.5	24.7	50.2	3.10	1.08	Accepted
STDs can be transmitted through unprotected vaginal, anal, or oral sex	20.7	11.2	37.3	30.8	2.78	1.09	Accepted
Average	14.7	12.0	28.5	44.8	3.03	1.05	

An average mean of 2.90 indicates general agreement on awareness of STD control measures, such as practicing safe sex and accessing healthcare services. The standard deviation range (1.01 to 1.17) shows higher variability, suggesting diverse levels of knowledge and attitudes towards STD prevention and control strategies among the students, SD: Strongly disagree, D: Disagree, A: Agree, SA: Strongly agree, X: Mean score, S.D.: Standard deviation and the decision "Accepted" indicates that the statement was generally agreed upon by respondents

Table 4: Research question three: Awareness of STD control

Item	SD (%)	D (%)	A (%)	SA (%)	Mean (X)	S.D.	Decision
Awareness of preventive measures like safe sex and condom use	12.2	10.8	28.5	48.5	3.14	1.01	Accepted
Knowledgeable about healthcare services for STD testing and treatment	20.3	9.8	28.5	41.4	2.90	1.14	Accepted
Awareness of risk reduction strategies and seeking vaccination for STDs	22.7	9.8	28.8	38.6	2.83	1.17	Accepted
Cultural or religious beliefs affect attitudes toward sexual health and STD treatment	21.4	12.2	26.1	40.3	2.85	1.16	Accepted
Awareness of STD control can be enhanced through learning and engagement with sexual health topics	21.4	13.9	25.8	39.0	2.82	1.16	Accepted
Average	19.6	11.3	27.5	41.6	2.90	1.13	

An average mean of 2.96 reflects a general agreement that gender norms and roles significantly influence students' knowledge and behavior regarding STDs. The standard deviation range (1.01 to 1.18) indicates considerable variability, highlighting that gender-specific factors affect students differently in terms of accessing information and healthcare services related to STDs, SD: Strongly Disagree, D: Disagree, A: Agree, SA: Strongly agree, X: Mean score, S.D.: Standard deviation. The decision "Accepted" indicates that the statement was generally agreed upon by respondents

Table 3 shows the average mean of 2.90 indicating general agreement on awareness of STD control measures, such as practicing safe sex and accessing healthcare services. The standard deviation range (1.01 to 1.17) shows higher variability, suggesting diverse levels of knowledge and attitudes towards STD prevention and control strategies among the students.

Table 5: Research question four: Influence of gender on knowledge

Item	SD (%)	D (%)	A (%)	SA (%)	Mean (X)	S.D.	Decision
Gender norms and societal expectations influence access to sexual health information	14.6	10.5	20.7	54.2	3.14	1.01	Accepted
Gender roles affect healthcare-seeking behavior and access to STD testing and treatment	11.2	11.9	28.8	48.1	3.13	1.01	Accepted
Gender norms regarding communication influence discussions about STDs	24.4	11.2	28.8	35.6	2.75	1.17	Accepted
Gendered perceptions of risk influence knowledge levels	18.6	14.6	16.6	50.2	2.98	1.18	Accepted
Gender-specific barriers affect access to healthcare services for STD testing and treatment	15.3	19.0	33.6	32.2	2.82	1.04	Accepted
Average	16.8	13.4	25.7	44.1	2.96	1.08	

Gender norms and societal expectations influence access to sexual health information had a mean value of 3.14 with gender roles affecting health care seeking behavior having a mean pf 3.13 (SD 1.01). the table also expressed gender norm influencing discussion about STDs to have a mean of 2.75 (SD: 1.17). Gender specific barriers affecting access to healthcare services for STD testing and treatment, SD: Strongly disagree, D: Disagree, A: Agree, SA: Strongly agree, X: Mean score, S.D.: Standard deviation. The decision "Accepted" indicates that the statement was generally agreed upon by respondents

Table 6: One-way classical Chi-square test result on gender differences in students' knowledge of sexually transmitted diseases (Hypothesis one)

Response	Fo (Observed)	Fe (Expected)	Fo-Fe	$(Fo-Fe)^2$	$(Fo-Fe)^2/Fe$
Strongly agree	52	20	32	1024	51.20
Agree	11	20	-9	81	4.05
Disagree	2	8	-6	36	4.50
Strongly disagree	3	8	-5	25	3.13
Total χ^2					62.88

χ^2: Chi-square symbol, Fo: Actual or frequency observed, Fe: Frequency expected and $\sum$: Summation,

Table 7: One-way classical Chi-square test result on students' level of knowledge about sexually transmitted diseases (Hypothesis two)

Response	Fo	Fe	Fo-Fe	$(Fo-Fe)^2$	$(Fo-Fe)^2/Fe$
Strongly agree	52	20	32	1024	51.2
Agree	11	20	18	324	16.2
Disagree	2	8	-18	324	16.2
Strongly disagree	3	8	-16	256	12.8
Total χ^2					9.49

χ^2: Chi-square symbol, Fo: Actual or frequency observed, Fe: Frequency expected and $\sum$: Summation

Table 4 revealed that an average of 2.96 reflects a general agreement that gender norms and roles significantly influence students' knowledge and behavior regarding STDs. The standard deviation range (1.01 to 1.18) indicates considerable variability, highlighting that gender-specific factors affect students differently in terms of accessing information and healthcare services related to STDs.

Table 5 shows that gender norms and societal expectations influence access to sexual health information, had a mean value of 3.14 with gender roles affecting health care seeking behavior, having a mean pf 3.13 (SD 1.01). the table also expressed gender norms influencing discussion about STDs to have a mean of 2.75 (SD: 1.17). Gender specific barriers affecting access to healthcare services for STD testing and treatment.

From the Chi-square Table 6, the critical value of 3 degrees of freedom (k-1) (4-1) is 16.26, and the computed value of 62.88 is greater than the critical value of 16.26. The test yielded a statistically significant Chi-square value, χ^2 (3, N = 68) = 62.88, $p<.001$, indicating that the computer χ^2 value (62.88) is greater than the critical value of χ^2 (16.26) at the 0.001 level of significance and 3 degrees of freedom.

Table 7 shows the One-Way Classical Chi-square Test for students' level of knowledge about sexually transmitted diseases (Hypothesis two). The observed frequencies differ from the expected frequencies, with the majority of students (52) strongly Agree, exceeding the expected count of 20. The calculated Chi-square value (χ^2 = 9.49) indicates a significant difference between observed and expected responses, supporting the conclusion that students' knowledge levels vary across response categories.

Research question 1: What is the level of awareness of undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre on sexually transmitted diseases?

It was found that students who have received comprehensive sexual health education have a higher awareness of STDs and their prevention methods. The study also found that students who actively seek out information on sexual health topics or follow relevant campaigns and initiatives have higher awareness levels, which aligned with a study by Adebayo *et al.*[12] and Kalar *et al.*[13] carried in Pakistan. These findings show that the availability and accessibility of healthcare services, including sexual health clinics, testing facilities, and counselling services, affect awareness levels.

Research question 2: At what level does the undergraduate student in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre know the modes of transmission of sexually transmitted diseases?

The study evaluates the knowledge of the mode of transmission of sexually transmitted diseases among undergraduate students at the National Open University. The findings show that the mode of transmission emphasizes the importance of regular STD testing and communication with sexual partners. This finding also agrees with a study by Schonfeld *et al.*[14], which stated that people may be aware that certain STDs, such as HIV and syphilis, can be transmitted from an infected mother to her child during pregnancy, childbirth, or breastfeeding. These findings show that many students understand that STDs like HIV and hepatitis can be transmitted through sharing needles or other drug equipment contaminated with infected blood.

The findings also align with a previous study by Wang *et al.*[15], which noted that many people are aware that certain sexually transmitted diseases, such as HIV and syphilis, can be passed from an infected mother to her baby during pregnancy, delivery, or breastfeeding. The results further indicate that several students understand that infections like HIV and hepatitis can spread through the sharing of needles or other drug-related equipment contaminated with infected blood.

However, most STIs are treatable or curable[16]. Of the most common infections, syphilis, gonorrhea, Chlamydia and trichomoniasis can be cured, whereas herpes, hepatitis B, HIV/AIDS, and HPV can be treated but not completely cured. Some species, including gonorrhea, are acquiring resistance to specific drugs.

Research question 3: To what level are the undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study Centre aware of the control of Sexually transmitted diseases?

The study sought to determine the awareness of the control of Sexually transmitted diseases by students of the National Open University of Nigeria (NOUN) Wuse 2 Study Centre of Wuse 2 Study center. It was found that students' awareness of risk reduction strategies beyond practicing safe sex, avoiding high-risk sexual behaviors that can impair judgment, and seeking vaccination for STDs such as HPV. These findings agree with study by Nguyen *et al.*[17], which stated that awareness, which is made up of data and information, can be thought of as a much greater understanding of a situation. Relationship phenomena refer to events or occurrences that are influenced by a cause and have an effect. The ideas and rules, whether explicitly stated or implied, form the basis of understanding a specific field or issue.

Research question 4: What is the influence of gender on undergraduate students in the National Open University of Nigeria (NOUN) Wuse 2 Study centre level of knowledge of sexually transmitted diseases?

The study shows the influence of gender on undergraduate students in the National Open University of Nigeria (NOUN), Wuse 2 Study center, the level of knowledge of Sexually transmitted diseases. It was found that gender roles and expectations affect healthcare-seeking behavior, including seeking

information about STDs and accessing testing and treatment services. According to researchers by Du *et al.*[1] point out that early sexual debut by young persons, unprotected sex with multiple partners, patronage of commercial sex workers, and sex between men are reasons why sexual intercourse is the highest mode of HIV transmission. This study shows that Gender-specific barriers, such as financial constraints, transportation issues, or cultural norms, affect access to healthcare services for STD testing and treatment.

Hypotheses: Two hypotheses were tested using data obtained from questionnaire responses of undergraduate students at the National Open University of Nigeria (NOUN), Wuse 2 Study Centre, to assess their knowledge of Sexually Transmitted Diseases (STDs). For the first hypothesis test that gender has no significant difference on their knowledge of various Sexually transmitted diseases, a Chi-square value of χ^2 (3, N = 68) = 62.88 exceeded the critical value of 16.26 at the 0.001 significance level, leading to the rejection of the null hypothesis[18,19]. To further assess the strength of the observed association, Cramér's V was computed and yielded a value of 0.56, indicating a strong effect size. This result suggests a substantial relationship between gender and respondents' knowledge of various sexually transmitted diseases. Given this strong association, the null hypothesis stating that gender has no significant influence on their knowledge of sexually transmitted diseases is rejected. The findings demonstrate a clear and statistically meaningful pattern, with a notable concentration of responses indicating that gender plays a significant role in shaping students' knowledge of sexually transmitted infections, and minimal disagreement across the categories.

Similarly, for the second hypothesis, The null hypothesis, which stated that there is no significant difference in the knowledge of Sexually transmitted diseases, which is dependent on the number of gratifications they derive from was reject since the computed Chi-square value of χ^2 (4, N = 75) = 73.45 was greater than the critical value of 18.47, also at the 0.001 significance level, confirming a statistically significant difference in responses. These results indicate that gender and related factors significantly influence students' knowledge of STDs. The strength of these associations was further confirmed using Cramer's V, which yielded values of 0.56 and 0.46, respectively, both suggesting strong effect sizes[20].

These findings reveal a clear pattern of informed awareness and significant variation in responses, underscoring the relevance of demographic variables in shaping students' understanding of sexually transmitted. Gender roles and societal expectations significantly influence healthcare-seeking behaviors, including the pursuit of information on Sexually Transmitted Diseases (STDs) and the utilization of diagnostic and treatment services[21]. These social constructs shape individuals' willingness to engage in preventive measures and access medical care. Additionally, students demonstrate awareness of comprehensive risk reduction strategies beyond safe sex practices, including the avoidance of high-risk behaviors that may impair judgment and the proactive pursuit of vaccinations, such as those for Hman Papillomavirus (HPV). Moreover, individuals with direct or indirect experiences with STDs exhibit a heightened understanding of their risks and consequences, reinforcing the role of personal exposure in shaping disease awareness and preventive attitudes.

CONCLUSION

The study concludes that awareness and prevention of Sexually Transmitted Diseases (STDs) among students of the National Open University of Nigeria, Wuse 2 Study Centre, remain moderate, with cultural and societal factors influencing knowledge levels. Limited understanding of transmission and prevention underscores the need for continuous education and engagement on sexual health. Strengthening health education initiatives will help promote responsible behavior and reduce STD prevalence among university students.

SIGNIFICANCE STATEMENT

This study discovered significant gender- and behavior-based differences in sexually transmitted disease awareness that can be beneficial for policymakers, health educators, and university health programs in designing targeted interventions. The findings provide evidence to strengthen campus-based sexual health education and prevention strategies. This study will help researchers to uncover the critical areas of cultural and behavioral influences on STD awareness that many researchers were not able to explore. Thus, a new theory on context-driven sexual health education may be arrived at.

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