

KNOWLEDGE AND PRACTICE OF LIRA UNIVERSITY STUDENTS REGARDING SEXUALLY TRANSMITTED INFECTIONS. A CROSS-SECTIONAL STUDY

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Abstract

Background

An estimated 492,000 people worldwide die each year from STIs and related illnesses like gonorrhea, trichomoniasis, genital herpes, hepatitis B, and syphilis. This study aimed to assess students' level of knowledge and their practices regarding STIs.

Methodology

A cross-sectional study used self-administered questionnaires distributed to a representative sample of 344 students. The data was entered into a statistical package for social science version 23 and analyzed at the univariate level.

Results

The study found that most respondents were between 21 and 23 years old (44.2%), the majority were males (54.4%), and the mean level of knowledge was 0.62 (± 0.11). Most knew that syphilis 315(91.9%), gonorrhea 268(77.9%), and HIV 249(72.4%) were among the STIs. Hepatitis C was poorly known as an STI by students. 266(77.3%) students knew candida as an STI. 194(56.4%) knew that STIs can be transmitted through blood transfusion. Most 214, 62.2%) were not abstaining from sex and were sexually active. 210(62%) students never used condoms consistently, most students 244(70.9%) had one sexual partner. Concerning risky sexual behaviors, only 9(2.6%) students injected drugs before having sexual intercourse, 17(4.9%) students injected drugs before sexual intercourse, 44(12.8%) students took alcohol before sex, 9(2.6%) shared injection needles, 84(24.4%) students watched pornographic materials and 6(1.7%) had sex with commercial sex workers.

Conclusion

Lira University students had a moderate level of knowledge about STIs, similar to students in other studies. Their knowledge about specific STIs beyond HIV, syphilis, and gonorrhea was lower. Students engaged in risky sexual behaviors, and condom use was low.

Recommendations

There should be the implementation of comprehensive, age-appropriate sexual health education programs that cover a wide range of STIs, including lesser-known infections.

Keywords: Lira University students, Knowledge and Practices regarding sexually transmitted infections, Age-appropriate sexual health Education.

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BACKGROUND

Globally 492,000 people die every year from sexually transmitted infections and related illnesses such as syphilis, chlamydia, gonorrhea, trichomoniasis, genital herpes, and hepatitis B and most of these STIs-related deaths happen in middle and low-income countries where Uganda belongs where there is often limited access to sexual and reproductive health services on top of stigma and discrimination for those who contracted STIs. (WHO, 2019) According to the CDC, "a sexually transmitted infection (STI) is a virus, bacteria, fungus, or parasite people can get through sexual contact. (CDC, 2023). More than 30 different bacteria, viruses, and parasites are known to be transmitted through sexual contact, including vaginal, anal and oral sex. (WHO, 2023). All these

microorganisms are capable of causing a wide variety of sexually transmitted infections. if left untreated, these can result in serious health complications such as cancers, higher chances of acquiring HIV, fertility problems, blindness, and pelvic inflammatory disease, even though most of these infections can be cured." Still, their implications on human health cannot be underestimated thus, STIs present a huge public problem to both males and females' reproductive and health lives. Although some interventions and strategies have been put in place for the achievement of universal health coverage as one of the key health targets of the Sustainable Development Goals 3.8 (SDG 3.8) 2030 Agenda for Sustainable Development such as facilitating people's access to information on their sexually-transmitted infection status,

improve access to treatment and comprehensive long-term care when they are needed to reduce stigmatization and discrimination, promote patient-centered care approach, biomedical and structural approach. (WHO, 2016), but the prevalence is still very high because some societies have not embraced the fact that these infections are a global concern; therefore, control efforts have continued to fail on top of the emergence of antimicrobial resistance. (Unemo et al., 2017) Nevertheless, STIs have remained an abandoned field for public health practice, clinical practice, and research. Also, individuals who have STIs experience stigma, resulting in their unwillingness to prioritize STI control strategies (Wu, Hawkes, & Buse, 2015).

In the US in 2018, the prevalence of sexually transmitted infections among US women and men showed a higher burden of STIs where the estimated prevalence was 67.6 million cases of STIs in 2018, depicting a global burden of the topic (Kreisel et al., 2021). Studies showed that most students knew about STIs however, some students did not know about STIs other than HIV. However, most of the ones who knew about STIs had no in-depth knowledge about the different STIs and their presentation (Akhilesh, 2017). There was less recent information about the statistical analysis of sexually transmitted infections in Sub-Saharan Africa as a whole, but according to the WHO, Sub-Saharan Africa ranked first in STIs yearly incidence compared to other world regions (WHO, 2021). The World Health Organization estimated that every year in Africa, there are 3.5 million cases of syphilis, 15 million cases of chlamydial disease, 16 million cases of gonorrhea, and 30 million cases of trichomoniasis. Studies conducted in the Southern part of Africa indicated that the burden of STIs is still huge where there were an estimated 23 million cases of syphilis, 4.2 million cases of chlamydia, and 6.2 million new cases of gonorrhea in 2017 in a study among 15-49-year-old individuals (Mokgatle, Madiba, & Cele, 2021). This study aimed to assess students' level of knowledge and their practices regarding STIs.

Methodology

Research design

This study was a cross-sectional study that utilized quantitative methods of data collection to provide a baseline understanding of the study topic. The study design was cross-sectional because it involved the collection of data from a sample of students at a single point in time. It was also efficient and provided cost-effective data collection. It involved descriptive and analytical approaches to describe and analyze the current level of knowledge and practice of Lira University students regarding STIs at a single point in time, and quantitative in a way that it measured and quantified the distribution of knowledge and practice of STIs among students.

Study site and setting

This study was conducted at Lira University. Lira University is a public university located in the Northern part of Uganda, Lira City, Lira City West Division, Barapwo parish, Ayere Village, the University occupies 621 acres in total, located about 11 kilometers by road, northwest of downtown off Lira Kamdini Road and about 337 kilometers by road from north of Kampala capital city of Uganda, about 100 kilometers by road southeast of Gulu city the largest city in Northern Uganda. Lira University has approximately 1821 enrolled students for the academic year 2023- 2024 as per the Records Office Lira University and divided into 6 faculties that is; Faculty of Nursing and Midwifery, Public Health, Management Science, Computer Science, Medicine and Education, with about 20 operating programs, that is; Masters in Midwifery, Master of Public Health, Master of Arts in Public Administration and Management, Executive Masters of Business Administration, Bachelor of Science in Midwifery, Bachelor of Medicine and Surgery, Bachelor of Science in Public Health, Bachelor of Science in Community Psychology and Psychotherapy, Bachelor of Science in Computer Science, Bachelor of Science in Accounting and Finance, Bachelor of Commerce, Bachelor of Business Administration, Bachelor of Science with Education (Physical Sciences), Bachelor of Science with Education (Biological Sciences), Bachelor of Science with Education (Agriculture Double Main), Bachelor of Science with Education (Economics), Bachelor of Computer Education and Bachelor of Public Administration. Including the libraries. Lira University has a teaching hospital called Lira University Teaching Hospital, accessible to all students, where a wide range of medical services are provided to students, staff, and the local community from various backgrounds. It is surrounded by 5 drug shops that provide primary health care to students. Students stay in private halls of residence where all genders are accepted to rent the same hall or hostel.

Study population

Target population

All university students pursuing undergraduate programs.

Accessible population

Students who were physically present or available at the university during the period of data collection

Eligibility Criteria

Inclusion criteria

All Lira University students enrolled for the academic year 2023- 2024

All Lira University students who were available at the time of collecting data and willing to provide informed consent were included in the study.

Exclusion criteria

Students with a physical or cognitive disability that affected their ability to understand or complete the study questionnaire.

Pregnant students were excluded as their knowledge and practice of STIs might be influenced by their pregnancy status and produce biased information.

Students who failed to consent

Sample size determination

The sample size was calculated using Taro Yamane's formulae 1967, a Japanese biostatistician, and is considered a simplified version of Cochran's formula.

$$n = N / (1 + N(e^2))$$

Where; n = sample size

N = Population size

e = margin of Error

Calculation

$$N = 1821 \quad e = 5\% = 0.05 \quad n = 1821 / (1 + 1821(0.05)^2) \quad n = 328$$

$$5\% \text{ non-response} = 16.4 \sim 16$$

$$328 \text{ plus non response, } n = 344$$

A sample size of about 344 students was needed to determine Lira University students' level of STI knowledge and practice with a 95% confidence level and a 5% margin of error.

Sampling techniques and procedure

This study employed a single, simple random sampling method to ensure a representative sample of university students, and each student had an equal chance of being selected from the sampling frame obtained from the University students' enrollment and registration database. Once this information was obtained, the database was anonymized to ensure confidentiality, and then a number generator was used to ensure the selection of the desired sample size of 344 students from all faculties. The method ensured equal selection probability and the elimination of potential biases.

Recruitment of study participants

Recruitment of study participants after a simple random sampling was done through emails, social media messages, and interpersonal invitations.

Study Variables

Dependent variables

The practice of university students regarding STIs refers to behaviors of students as far as STIs are concerned, for example, behaviors regarding STI transmission, prevention, and seeking health. The practice of students regarding STIs was measured using a series of questions in Section C, and whoever passes 75% of the questions will be regarded to be aware of safe practices regarding STIs.

Independent variables

Knowledge of students regarding STIs was measured using 13 questions in Section B, and whoever passed

above 10 questions was regarded to have good knowledge about STIs, between 6-9 questions was regarded to have moderate knowledge, and below 6 questions to have low knowledge regarding STIs.

Data collection procedure

This proposal was presented to the Lira University Research and Ethics Committee for review and approval. Subsequently, consent from various faculty Deans was requested. Before beginning the study, all participants who met the inclusion criteria were given information and asked for their informed permission. Participants were given questionnaires to complete between 10 and 15 minutes later, and they were acknowledged for their time.

Data collection methods and tools

The methodology for gathering data was interviewing. A self-administered questionnaire developed from the review of literature related to the knowledge and practice of university students regarding STIs (Al-Gburi, Al-Shakarchi, Al-Dabagh, & Lami, 2023; Folasayo et al., 2017; Mansor et al., 2020; McMann & Trout, 2021) and typed in the English language were used to collect data as the data collection tool. The questionnaire was created by consulting earlier research on STI knowledge and practice among students, as mentioned above. It took 10 -15 minutes to complete the questionnaires. Three sections made up the questionnaire: where section A) included demographic information anticipated from the conceptual framework, such as age, gender, ethnicity, year in school, and program of study, section B included questions about knowledge, and section C, questions about practices of students regarding STIs.

To minimize data loss, the accuracy and completeness of the obtained data were verified twice, and any incomplete or erroneous data will be instantly repaired or corrected.

Data Management

Data entry and cleaning

To ensure clarity, safety, and appropriateness of collected data, questionnaires were cross-checked for completeness before participants left and application cleaning algorithms for errors and missing values, then data was transferred to the Statistical Package for Social Sciences (SPSS) software version 23.0 for analysis.

Data analysis

A statistical software tool, Statistical Package for Social Sciences, version 23.0 (SPSS version 23.0) was used to analyze the data from the questionnaires. Graphs, charts, and tables were used to summarize the data, and then descriptive statistics like means, frequencies, and standard deviations were computed.

Quality control

The researcher employed rigorous data quality control measures to ensure the reliability and validity of the findings. The researcher sought validation from the

research supervisor to check for error inconsistencies and data verification to ensure that the data accurately represents the intended measures.

Pre-test

To ascertain the validity and reliability of the collection instruments, the research instrument was pretested on 15 students from a higher learning institution in Lira City, basically Lira School of Comprehensive Nursing, and responses were for a single day. This helped to determine the quality of the collection instruments and gaps, and misconceptions were rectified in time.

Validity

This is when the questionnaire measures appropriately what it is intended to measure. The research supervisor provided guidance and reviewed the designed questionnaire to make sure it covered all components and aspects of students' knowledge and practices regarding STIs. After that, it was pre-tested among fifteen Lira School of Comprehensive Nursing students, from whom responses were collected for a single day. This allowed the researcher to assess the questions' readability, their capacity to elicit the necessary data, and their ability to identify any ambiguities among the inquiries.

Reliability

Refers to the degree to which the questionnaire is repeatable and consistent and suggests that the data is error-free and reliable for capturing the actual state of the phenomenon under study. 15 students from the Lira School of Comprehensive Nursing pretested the questionnaire to guarantee that the study tools would produce reliable findings.

Ethical Consideration

Approval

The proposal was presented to the Department of Midwifery for approval, after which an approval letter

from the Department was taken to the Dean of Students at Lira University for administrative clearance. Lira University Research and Ethics Committee ensured that the proposal adhered to ethical guidelines, and then the researcher approached students of Lira University.

Informed consent

Potential participants were provided with clear and understandable information about the study, which involved explaining to participants the purpose, procedures, benefits, and their rights in the study.

Privacy and Confidentiality

The study adhered strictly to confidentiality principles, protecting participants' privacy and ensuring that their data was not disclosed without their consent. Codes were used to identify questionnaires; therefore, participants' names, addresses, and phone numbers were not included in the questionnaires.

Results

Response rate

The estimated sample size of this study was 344 participants, and the researcher was able to recruit all the 344 students in the study, giving a response rate of 100%

Socio-demographic characteristics of the participants.

Table 1, The age of most participants ranged between 21-23 years which was 152(44.2%). The majority of the participants were males 187(54.4%). The table shows that most participants were Anglicans by religion 131(38.1%). The majority of them were from the faculty of nursing and midwifery 156(45.3%) and were in year two 96(27.9%). Generally, the biggest percentage of students were single 215(62.5).

Table 1: Showing socio-demographic characteristics of participants

Variables	Frequency(n=344)	Percentage (%)
Age		
18-20	9	2.6
21-23	152	44.2
24-26	116	33.7
27-29	17	4.9
>29	50	14.5
Gender		
Female	157	45.6
Male	187	54.4
Religion		
Catholic	120	34.9
Muslim	22	6.4
Anglican	131	38.1
PAG	50	14.5

Others	21	6.1
Faculty		
Midwifery	156	45.3
Public health	40	11.6
Computer sciences	17	4.9
Education	28	8.1
Medicine	31	9.0
Management sciences	72	20.9
Study year		
1	84	24.4
2	96	27.9
3	80	23.3
4	84	24.4
Marital status		
Married	44	12.8
Single	215	62.5
Cohabiting	35	10.2
In a relationship	50	14.5

Source: Primary data 2024

Table legend: PAG- Pentecostal Assembly for God. n is the number of participants

Knowledge of sexually transmitted infections among Lira University students

Table 2 shows that the mean level of knowledge was 0.62 (± 0.11). Most of the students knew that syphilis 315(91.9%), gonorrhea 268(77.9%) and HIV 249(72.4%) were among the STIs and less than half knew that chlamydia 158(45.9%), Hepatitis B 140(40%), Herpes simplex virus 135(39.2%), and trichomoniasis 119(34.6%) were also STIs. Hepatitis C was poorly known as an STI by students. Surprisingly, 266(77.3%) students knew candida as an STI, and 10(2.9%) students knew dysentery was among STIs. The majority of the students, 269(78.2%), believed that the virus is a causative organism of STIs, followed by bacteria 244(70.9%), and less than half, 141(41.0%), knew that fungi were a causative organism of STIs. However, about 39(11.3%) thought parasites were causative organisms of STIs. Unprotected sex was largely known by students as a route of transmission of STIs; 194(56.4%) knew that STIs can

be transmitted through blood transfusion. Less than half knew that STIs can be transmitted by kissing 84(24.4%) and through the skin-to-skin route 43(12.5%). However, 102(29.7%) students thought STIs could be transmitted by birth rooms and toilets, 18(5.2%) by sharing clothes, and 2(0.6%) by mosquito bites. Out of the 344 participants, 314(90.7%) knew that abnormal vaginal or penile discharge were symptoms of STIs, followed by pain during urination or sex 285(82.8%) and Warts on the genitalia, mouth, and anus 214(62.2%). Only 149(43.3%) knew that fever is a symptom of STIs, Sores or bumps 148(43.0%) and Sore throat 74(21.5%). Almost all participants 334(97.1%) knew that the Use of condoms can reduce the risk of being infected with STIs, 342(99.4%) knew that having multiple sexual partners can increase the risks of being infected with STIs and 330(95.9%) knew that Sexual abstinence is the effective means of avoiding STIs, and 266(77.3%) knew that taking alcohol can increase one's susceptibility to STIs. 253(73.5%) of them knew that a person could have STDs without any visible symptom

Table 2: Showing level of knowledge of participants

Variables	YES	No
Which of the following is an STI		
Candida	266(77.3%)	78(22.7%)
Syphilis	315(91.6%)	29(8.4%)
Cholera	0(0.0%)	100(100.0%)
Dysentery	10(2.9%)	334(97.1%)
HIV	249(72.4%)	95(27.6%)
Gonorrhoea	268(77.9%)	76(22.1%)
Herpes simplex Virus	135(39.2%)	209(60.8%)

Trichomoniasis	119(34.6%)	225(65.4%)
Chlamydia	158(45.9%))	186(54.1%)
Hepatitis B	140(40.7%)	207(59.3%)
Hepatitis C	82(23.8%)	262(79.2%)
What causes STIs		
Virus	269(78.2%)	75(21.8%)
Parasites	39(11.3%)	305(88.7%)
Mosquitoes	0(0.0%)	344(100.0%)
Bacteria	244(70.9%)	100(29.1%)
Fungi	141(41.0%)	203(59.0%)
How are STIs transmitted?		
Skin to skin	43(12.5%)	301(87.5%)
Protected sex	9(2.9%)	335(97.4%)
Through toilets and birth rooms	102(29.7%)	242(70.3%)
Blood transfusion	194(56.4%)	150(43.6%)
Unprotected sex	332(96.5)	12(3.5%)
Mosquito bite	2(0.6%)	342(99.4%)
Witchcraft	4(1.2%)	340(98.8%)
Kissing	84(24.4%)	260(75.6%)
Sharing clothes	18(5.2%)	326(94.8%)

Table 2 continued.

Variables	Yes	No
Signs and symptoms of STIs		
Fever	149(43.3%)	195(56.7%)
Abnormal vaginal or penile discharge	312(90.7)	32(9.3%)
Sores or bumps	148(43.0%)	196(57.0%)
Vomiting	34(9.9%)	310(90.1%)
Warts on the genitalia, mouth, anus	214(62.2%)	130(37.8%)
Pain during urination or sex	285(82.8%)	59(17.2%)
Sore throat	74(21.5%)	270(78.5%)
Use of condoms can reduce the risk of being infected with STIs	334(97.1%)	10(2.9%)
Having multiple sexual partners can increase the risk of being infected with STIs	342(99.4%)	2(0.6%)
Sexual abstinence is an effective means of avoiding STIs	330(95.9%)	14(4.1%)
Can people have STIs and show no symptoms	253(73.5%)	91(26.5%)
Taking alcohol can increase one's susceptibility to STIs	266(77.3%)	78(22.7%)

Level of knowledge of Lira University students regarding STIs

Figure 1. The results in the pie chart below showed that the majority of the participants had moderate knowledge 247, 71.8%) as far as STIs are concerned, and only 1.16% had low knowledge concerning STIs

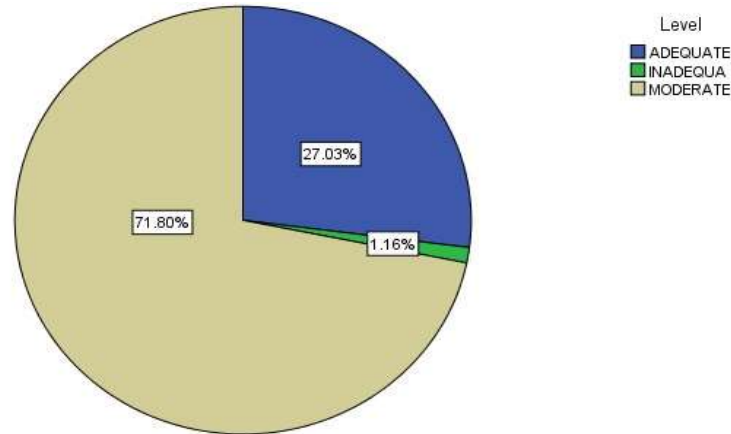


Figure 1: Showing the level of knowledge on STI among the study participants

Practice of Lira University students regarding Sexually Transmitted Infections

Table 3, most of the students 214(62.2%) were not abstaining from sex and were sexually active. 210(62%) students never used condoms consistently, most students 244(70.9%) had one sexual partner. Only 181(52.6%) students discussed STIs with their partners, more than half of the students tested for STIs annually 194(56.4%), and

the majority of the students 198, 57.6%) had partners who did not practice routine STI testing.

Concerning risky sexual behaviors, only 9(2.6%) students injected drugs before having sexual intercourse, 17(4.9%) students injected drugs before sexual intercourse, 44(12.8%) students took alcohol before sex, 9(2.6%) shared injection needles, 84(24.4%) students watched pornographic materials and 6(1.7%) had sex with commercial sex workers.

Table 3: Showing practices of respondents regarding STIs.

Variables	Yes	No
Preventive practices		
Sex Abstinence	130(37.8%)	214(62.2%)
Consistent Condom use	134(39.0%)	210(61%)
Sex with one partner	244(70.9%)	100(29.1)
Discussion of STIs with partner	181(52.6%)	163(47.3%)
Routine STI testing annually	194(56.4%)	150(43.6%)
Partner tested annually	146(42.4%)	198(57.6%)
Risky sexual behavior		
Inject drugs	9(2.6%)	335(97.4%)
Take drugs	17(4.9%)	327(95.1%)
Drinking alcohol before sex	44(12.8%)	300(87.2%)
Share injection needles	9(2.6%)	335(97.4%)
Read pornographic materials	84(24.4%)	260(75.6%)
Sex with commercial sex workers	6(1.7%)	338(98.3%)

DISCUSSION

Level of knowledge

The findings revealed that approximately three-quarters of respondents, 71.8%, had moderate knowledge regarding STIs. The possible reason for this finding may simply be due to the general awareness of STIs since they are a common public health concern as awareness and intervention programs of HIV/AIDS/STIs have been continuously implemented by the Ministry of Health through media or social circles might contribute to a similar level of basic knowledge across student populations. This finding was in agreement with the findings in comparable studies by Mansor et al. (2020), McMann and Trout (2021), and Folasayo et al. (2017), who found that the majority of the participants had moderate knowledge regarding STIs.

In contrast, the findings in this study differ from those in a similar study done at Kufa University and Saudi Arabia, which revealed that the majority of the participants had poor knowledge regarding STIs (AlNujaidi et al., 2023; Hasan & Khudair, 2019). This can be related to variations in the setting in which the study was conducted, the quality of education, and socio-demographics and countries. Surprisingly, HIV (72.4%) was the third known STI by respondents. This was unexpected and was inconsistent with other findings from previous studies among the young populations, which found that it was the most known STI (AlNujaidi et al., 2023; Mansor et al., 2020). In this study, slightly fewer participants were aware of the two common STIs other than HIV, whereby 91.9% and 77.9% of the students were aware of syphilis and gonorrhea, respectively. In contrast, Guangdong Chinese University students in China reported higher percentages of awareness of syphilis (95%) and gonorrhea (83%) (Guan, 2021). This may be explained by their students' increased awareness since Guangdong was found to have China's highest rate of gonorrhea and syphilis morbidity, which could have caused ongoing campaigns to emphasize them.

Remarkably, lesser awareness of other STIs was also observed among the study participants and in many previous studies (Al-Gburi et al., 2023; Mansor et al., 2020; Nigussie & Yosef, 2020). This could be a result of less attention given to other STIs in health lectures, initiatives, or programs.

Practices of students regarding STIs

In this present study, most respondents were sexually active 62.2%. A possible justification for this could be the age (18-30) of the study participants. This finding was consistent with findings from similar studies done at Nebraska University and Ifakala, Tanzania, which revealed that the majority of the participants were sexually active (Kara et al., 2019; McMann & Trout, 2021).

Despite the students possessing moderate levels of knowledge in the study, it was shocking to know that the majority had poor preventive practices. Only 39.0% of the sexually active students used condoms consistently. This could be due to poor attitude to condom use or low access

and availability of condoms. This finding was in line with findings from similar studies done at Nebraska University, Malaysia, and Ifakala Tanzania which revealed that the majority of the participants did not use condoms consistently despite possessing moderate levels of knowledge regarding STIs (Folasayo et al., 2017; Kara et al., 2019; McMann & Trout, 2021).

In the current study, the majority 57.6% of the participants did not have their partners tested for STIs annually. This sharply agrees with the findings by Folasayo et al. (2017) in a comparable study who found that the majority of the participants did not have their partners tested for STIs annually.

The present study revealed that some of the sexually active students, 2.6%, had injected drugs, 4.9% had taken drugs, and a sizable portion (12.8%) reported alcohol use before sex. This aligns with findings from a similar study by McMann and Trout (2021), which reported similar proportions. However, a study done by Sham et al. (2020) revealed that nearly all participants did not engage in these risky sexual behaviors; this could be due to variations in the culture and religious factors that prohibit certain practices.

In this study, over half (52.6%) did not discuss STIs with partners. This lack of communication can significantly increase the risk of STI transmission. This finding was similar to findings from a similar study done by McMann and Trout (2021), which reported that nearly half of the participants did not discuss STIs with their partners before their most recent sexual encounter.

Out of the sexually active respondents, the majority 70.9% had one sexual partner. This could be justified by the fact that the majority were aware that one well-known behavioral risk factor for contracting STDs is having multiple sexual encounters. This finding was contrary to findings in a previous comparable study at a Malaysian University, whereby the majority of the participants had multiple sexual partners (Mansor et al., 2020). The possible reason could be due to the differences in the study settings, given that Malaysia is an Islamic country, whereby the religion allows multiple partners.

In the current study, the majority did not read pornographic materials during their sexual intercourse. However, the findings of this study differ from those in a comparable study by Folasayo et al. (2017), which found that the majority of the participants read pornographic materials during their sexual intercourse. This difference could be due to variations in study settings.

Conclusion

Lira University students had a moderate level of knowledge about STIs, similar to students in other studies. Their knowledge about specific STIs beyond HIV, syphilis, and gonorrhea was lower. Students engaged in risky sexual behaviors, and condom use was low.

Study limitations

Though the questionnaire was valid and reliable, the study relied on self-reported data from participants, which may be subject to social desirability bias and recall errors.

The study was conducted on a few university students, which may limit the generalizability of the findings to the broader student population.

Due to the sensitive nature of the topic, some participants may have underreported their personal experiences or behaviors related to STIs.

Recommendations

1. Comprehensive, age-appropriate sexual health education programs that cover a wide range of STIs, including lesser-known infections. These programs should address transmission, symptoms, testing, and treatment options, as well as dispel common misconceptions.
2. Ensure that students have easy access to confidential and affordable STI testing and treatment services on campus or in the local community. This may involve partnering with healthcare providers to offer accessible and stigma-free services.
3. In addition, empower student-led initiatives and peer-to-peer education programs to promote sexual health awareness and normalize open discussions about STIs. This can help reduce the stigma and encourage more students to seek information and support.
4. Future research could incorporate more objective measures, such as medical records or direct observations, to validate the findings.

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Abbreviations

CDC Centre for Disease Control and Prevention
HIV Human Immunodeficiency Virus
SDG Sustainable Development Goal
STDs Sexually transmitted Diseases
STIs Sexually Transmitted Infections
WHO World Health Organization

Source of funding

The study was not funded

Conflict of interest

The author did not declare any conflict of interest

Author contributions

Ruth Namusoke collected data, analyzed the data and drafted the manuscript of the study. Caroline Nabasirye supervised the study.

Data availability

Data is available upon request

Author Biography

Ruth Namusoke is a student of Bachelor Degree of Science in Midwifery at Lira University.

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