

## Knowledge regarding sexually transmitted diseases among students of Kajjansi Progressive Secondary School in Lweza, Wakiso district. Cross-sectional study.

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Page | 1 **Abstract**

### Background:

Knowledge of sexually transmitted infections (STIs) among adolescents is essential for preventing transmission and promoting early diagnosis and treatment. Therefore, this study aims to assess the knowledge regarding sexually transmitted diseases among students of Kajjansi Progressive Secondary School in Lweza, Wakiso District.

### Methodology:

The study employed a cross-sectional design using quantitative methods. 90 participants were recruited through stratified and systematic random sampling. Self-administered questionnaires were used; data were analyzed using Microsoft Excel and Word 2010 and presented in the form of descriptive statistics.

### Results:

The study had 90 respondents, 46.7% of the respondents were between 11 and 15 years; 66.7% were in O-Level, 82.2% were Christians, and 57.8% were male. All 90 (100%) of the respondents had ever heard about sexually transmitted infections; Majority, 72 (80%) identified gonorrhea as a curable STI; 86 (95.6%) reported STI's are transmitted through unprotected sexual intercourse; 80 (88.9%) disagree that STIs only affect women; Slightly more than half, 47 (52.2) reported that showering after sex had a protective effect towards acquiring STIs; and more than half, 53 (59%) reported burning urination as a symptom of STIs. Respondents were asked to name the source of the information about STDs, and the main responses were from teachers, health workers, peers, media platforms such as the internet and radio. Some of the sexually transmitted infections that were known to the respondents were HIV, gonorrhea, and syphilis.

### Conclusion:

The study showed that most students had high awareness of sexually transmitted infections, including their transmission and common symptoms. However, some misconceptions about STI prevention still exist among the students, indicating gaps in comprehensive knowledge.

### Recommendations:

Schools should strengthen sexual health education, involve health workers in school health talks, and promote accurate sources of information to improve students' understanding and prevention of STIs.

**Keywords:** Sexually transmitted infections (STIs), secondary school students, STI transmission, STI symptoms, sexual health education, Wakiso District.

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### Background of the study

Knowledge about sexually transmitted infections (STIs) is a critical factor in preventing their transmission, particularly among adolescents and young people. Adolescence is a stage characterized by curiosity, experimentation, and the development of sexual identity, which may expose young people to risky sexual behaviors if they lack adequate information about sexually transmitted diseases (STDs). Adequate knowledge of STDs includes understanding their causes, modes of transmission, symptoms, complications, and prevention methods. When adolescents are well informed, they are more likely to adopt preventive behaviors such as abstinence, condom use, and seeking early medical care (Ofori et al., 2025).

However, several studies indicate that although many adolescents have heard about STDs, their knowledge is often incomplete or inaccurate. A study conducted among secondary school students in Dar es Salaam, Tanzania, found that while most students had heard about STDs, many had a poor understanding of their symptoms and modes of transmission, and some believed that sexual intercourse was the only way infections could spread (Mmbaga et al., 2007). This limited understanding increases vulnerability to infection because students may fail to recognize early symptoms or underestimate their personal risk. Similarly, research among adolescents in Ado Ekiti, Nigeria, revealed high awareness of STIs among students, but detailed knowledge about specific infections, symptoms, and preventive measures was

inadequate. The study emphasized the importance of comprehensive sexual health education in secondary schools to improve students' knowledge beyond HIV/AIDS and include other common STIs (Amu & Adegun, 2015).

In Uganda, studies have also reported knowledge gaps among secondary school students regarding STIs. For instance, a study conducted in secondary schools in Kisoro municipality found that many students had limited knowledge about certain common infections, such as chlamydia, with less than 5% of students being aware of the disease. The study further noted that students often lacked understanding of risk factors associated with STI transmission, highlighting the need for improved school-based sexual health education programs (Kayondo et al., 2023). In addition, research in Ghana showed that although adolescents had moderate awareness of STDs, misconceptions and inadequate knowledge about prevention and transmission remained common. The study recommended strengthening sexual health education through school-based programs, peer education, and parental involvement to enhance adolescents' understanding of STDs and promote informed decision-making (Ofori et al., 2025).

Despite the growing number of awareness campaigns on sexual health, gaps in knowledge persist among secondary school students in many developing countries. These gaps may contribute to risky sexual behaviors, delayed treatment seeking, and increased transmission of STDs among adolescents. Therefore, assessing the level of knowledge regarding sexually transmitted diseases among students is essential in identifying information gaps and guiding the development of effective health education programs. This study, therefore, seeks to assess the knowledge regarding sexually transmitted diseases among students of Kajjansi Progressive Secondary School in Lweza, Wakiso District.

## Methodology

### Research Design

An institution-based cross-sectional study using quantitative methods to collect and analyze data will be employed. The design is chosen to cater to the limited time and resources for the study.

### Study Area

The study was conducted at Kajjansi Progressive Secondary School, located in Lweza, Ssabagabo-Makindye, Wakiso district, approximately 30 kilometers by road, North of Entebbe International airport, and approximately 13 kilometers south of Kampala at latitude 0.22 degrees North and longitude 32.55 degrees West.

### Study Population

The study population consisted of all students enrolled at Kajjansi Progressive Secondary School from senior one to senior six during the study period.

## Selection Criteria

### Inclusion Criteria

All students attending Kajjansi Progressive who were above 18 and all that below 18 whose parents provided consent physically or by telephone were included in the study.

### Exclusion Criteria

All students who were absent during the data collection activity were excluded from the study.

## Sample Size Determination

The sample size of the study was determined using the Morgan tables, assuming a finite population of approximately 1500 students to be currently enrolled at Kajjansi Progressive SS.

$N$  = Number of students enrolled in Kajjansi Progressive SS (1500)  
 $n$  = sample size

$N=200, n=322,$

Due to limited time and resources, the calculated sample size was divided by 4 and adjusted for the non-response rate of 10%, giving a final sample size of 88. Therefore, rounding off to the nearest multiple of 5 gives a total of 90 respondents. Therefore, 90 participants were recruited to the study.

## Sampling Technique

Stratified random sampling was used, whereby each class from senior one to senior six was considered as a stratum. Systematic sampling was then applied to each stratum. The random sampling techniques chosen gave an equal chance for all participants to be included in the study.

## Sampling Procedure

Stratified sampling was used to distribute the sample size across the entire school, whereby each class was considered as a stratum. Approximately 1500 students were attending school at Kajjansi Progressive Secondary School. To obtain the required sample size of 90 students from the 6 classes, 15 students were selected per class. Systematic random sampling was applied to every class, depending on the number of students present in that particular class. A sampling interval was then calculated for every class,  $k=N/n$ , where  $N$  is the number of students in the class and  $n$  is 15. The first respondent was randomly chosen from the first 15 students on the list, after which every  $k$ th student in the class was sampled to obtain the 15 students. This was repeated until the required sample size of 90 students was reached.

## Data Collection Method

A self-administered questionnaire with closed-ended questions was used to collect data since it was easy to administer to literate respondents and was also time-saving.

## Data Collection Tools

A closed-ended questionnaire was used. The questionnaire consisted of three sections: A, B, and C,

each corresponding to knowledge, attitude, and practices on sexually transmitted diseases.

### Data Collection Procedure

An introductory letter from the Mildmay Institute of Health Sciences was presented to the school administration of Kajjansi Progressive SS to seek permission to access study participants. Informed consent was then obtained from the study participants who would later provide the data in the questionnaires and return them to the researcher when filled out.

### Data Management

After data collection, questionnaires were regularly checked for completeness, and any gaps were filled immediately before the session. The data continues to be under lock and key, secured from intrusion until ultimate termination of the study.

### Data Analysis and Presentation

Collected data was manually tallied and entered into Microsoft Excel 2010 and presented in the form of percentages, frequency tables, and graphs in a Microsoft Word document.

### Quality Control Piloting of the study

The pilot study was conducted from a neighboring secondary school to check the validity and comprehensiveness of the data collection tool and to give room for adjustments before the actual study was conducted.

### Reliability

The research proposal development was done under the supervision of the Mildmay Institute of Health Sciences supervisor.

### Ethical Consideration

Ethical approval was obtained from the Mildmay Institute of Health Sciences Research Ethics Committee; an introductory letter was obtained from the Mildmay Institute of Health Sciences; and permission to collect data was obtained from the school administration of Kajjansi Progressive Secondary School.

Informed consent was obtained directly from students aged 18 and above and from the parents of those below the age of consent before they were enrolled in the study. The study was conducted while upholding the professional code of conduct in a manner that does not compromise the scientific inclinations of the research.

### Results Socio-demographics

**Table 1: Socio-demographic characteristics of the respondents**

Variable	Category	Frequency	Percentage (%)
Age group	11–15 years	42	46.7
	16–18 years	27	30
	Above 18years	21	23.3
Level of education	O’Level	60	66.7
	A’Level	30	33.3
Religion	Christian	74	82.2
	Muslim	16	17.8
parents’ / guardians’ occupation	Businessperson	35	38.9
	Formal employment	55	61.1
	Unemployed	0	
	Other	0	
Gender	Male	52	57.8
	Female	38	57.8

Table 1: 90 student participants were recruited in the study, 15 from every class from senior one to senior six. Most of the respondents, 42 (46.7%), were between 11 and 15 years of age; most, 60(66.7%), were in O-Level;

the majority, 74 (82.2%), were Christians; more than half, 55 (61.1%), had parents or guardians in formal employment. Slightly more than half, 52 (57.8), of the respondents were male.

**Knowledge regarding sexually transmitted infections**

**Table 2 Respondents' knowledge regarding sexually transmitted infections (n=90)**

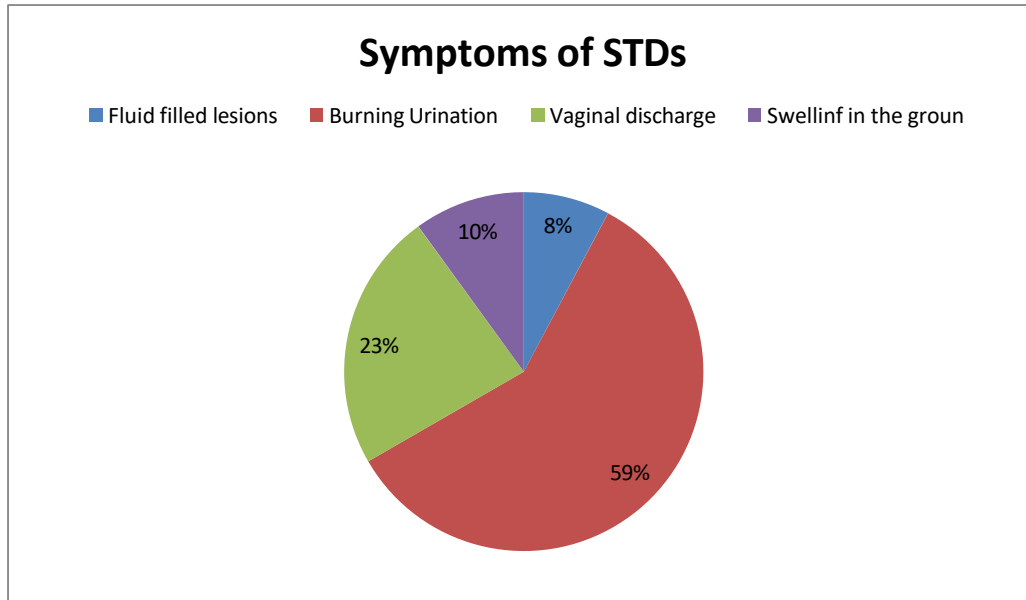
Variable	Category	Frequency	Percentage (%)
Ever heard about sexually transmitted infections	Yes	90	100
	No	0	0
Which of the following sexually transmitted infections are curable?	Syphilis	9	10
	Gonorrhea	72	80
	Candidiasis	8	8.9
	HIV/AIDS	1	1.1
Transmission of STD's	Unprotected sexual intercourse	86	95.6
	Blood transfusion Mother to child	4	4.4
	None of the above	0	0
Sexually transmitted infections affect only women	True	10	11.1
	False	80	88.9
Showering before and after sex has a protective factor against acquiring STDs	True	47	52.2
	False	43	47.8
symptoms for STD's	Fluid-filled lesions	7	7.7
	Burning urination	53	59
	Vaginal discharge	21	23.3
	Swelling in the groin	9	10

All 90 (100%) of the respondents had ever heard about sexually transmitted infections; Majority, 72 (80%) identified gonorrhea as a curable STI; Majority, 86 (95.6%) reported STI's are transmitted through unprotected sexual intercourse; Majority, 80 (88.9%) disagree that STIs only affect women; Slightly more than half, 47 (52.2) reported that showering after sex had a protective effect towards acquiring STIs; and more than

half, 53 (59%) reported burning urination as a symptom of STIs.

Respondents were asked to name the source of the information about STDs, and the main responses were from teachers, health workers, peers, media platforms such as the internet and radio. Some of the sexually transmitted infections that were known to the respondents were HIV, gonorrhea, and syphilis.

Figure 1: Symptoms of STDs according to the respondents (n=90)



### Discussion socio-demographic characteristics of respondents

A total of 90 students participated in the study. Most respondents (46.7%) were aged 11–15 years, the majority (66.7%) were in O-Level, and most were Christians (82.2%). Slightly more than half (57.8%) were male. Most parents or guardians were in formal employment (61.1%). These characteristics indicate that the respondents were predominantly young adolescents with relatively stable parental socio-economic backgrounds, which may influence their exposure to health information.

### Knowledge of Sexually Transmitted Infections (STIs)

The findings of the study revealed that the majority of respondents had high general awareness of sexually transmitted infections, although significant knowledge gaps and misconceptions still existed. Most students had heard about STIs and were able to identify common infections such as HIV, gonorrhea, and syphilis. However, misconceptions about STI transmission and prevention were still present among some respondents. For example, a considerable number of students believed that showering before or after sexual intercourse can prevent STIs, which reflects an inadequate understanding of effective prevention methods. In addition, some respondents showed limited knowledge regarding the symptoms of STIs and which infections are curable. These findings are consistent with previous studies conducted among adolescents in other settings. For instance, Kassie et al. (2020) reported that although most secondary school students had heard about STIs, many still had incomplete knowledge about modes of transmission, symptoms, and

prevention methods. Similarly, Gebru (2015) found that while awareness levels among students were relatively high, misconceptions about STI prevention and transmission were still common. The author emphasized that students often rely on informal sources of information, which may contribute to an inaccurate understanding of sexual health issues. Furthermore, the misconception that washing or showering after sex can prevent STIs has also been documented in other studies. Al-Gburi et al. (2023) found that only 7.9% of students correctly rejected the myth that bathing after sexual intercourse can prevent sexually transmitted infections, indicating that this misunderstanding is widespread among adolescents. Such misconceptions can increase vulnerability to infections because students may rely on ineffective preventive measures rather than scientifically proven methods such as abstinence, condom use, and regular testing.

### Conclusion

The study showed that most students had high awareness of sexually transmitted infections, including their transmission and common symptoms. However, some misconceptions about STI prevention still exist among the students, indicating gaps in comprehensive knowledge.

### Recommendations:

Schools should strengthen sexual health education, involve health workers in school health talks, and promote accurate sources of information to improve students' understanding and prevention of STIs.

### Acknowledgement

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### List of Abbreviations

AIDS: Acquired Immunodeficiency Syndrome

BT: Blood Transfusion

Hep. B: Hepatitis B

HIV: Human Immunodeficiency Virus

MoH; Ministry of Health S.I: Sexual Intercourse SSA: Sub-Saharan Africa

STDs: Sexually transmitted diseases STIs: Sexually Transmitted Infections T.V: Television

UAHEB: Uganda Health Professions Assessment Board.

### Data availability

The data is available upon request.

### Informed consent

All the respondents consented to this study.

### Source of funding

The study did not receive any external funding.

### Conflict of interest

The author did not declare any conflict of interest.

### Author contributions

Lillian Chance Agondeze was the principal investigator. Ronald Mbide, Hasifah Nansereko, Francisco Ssemuwemba, and Jane Frank Nalubega supervised the research project.

### Author Biography

Lillian Chance Agondeze holds A Diploma in Clinical Medicine and Community Health from Mildmay Institute of Health Sciences.

Francisco Ssemuwemba is the dean of the School of Allied Health

Hasifah Nansereko is the chairperson of the Institutional Review Council (IRC).

Ronald Mbide and Jane Frank Nalubega are tutors at Mildmay Institute of Health Sciences.

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