

Understanding Knowledge, Attitude, and Practices of Adolescents towards STI Prevention: A Study in Bugembe Health Center IV, Jinja District

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ABSTRACT

Sexually Transmitted Infections (STIs) remain a significant public health concern globally, particularly among adolescents. Despite efforts to combat STIs, rates continue to rise, especially in developed countries like Sweden, Germany, France, and Britain. This study assesses the knowledge, attitude, and practices of adolescents aged 17–24 towards STI prevention at Bugembe Health Center IV, Jinja District, Uganda. Through a descriptive study involving 138 participants, data was collected using questionnaires. Results revealed that while 55.8% of adolescents demonstrated good knowledge and 58.7% exhibited positive attitudes towards STI prevention, there were poor practices observed, including low condom usage (59.4%) and engagement in risky sexual behaviors such as having multiple partners (23.1%). The study underscores the need for intensified sensitization campaigns, youth-friendly reproductive health sessions, and increased condom distribution at lower levels to enhance STI prevention among adolescents. Such interventions are crucial for reducing STI prevalence and promoting adolescent sexual health.

Keywords: Adolescents, Sexually Transmitted Infections (STIs), Knowledge, Attitude, Practices, Bugembe Health Center IV, Jinja District, Uganda.

INTRODUCTION

Sexually transmitted infections (STIs) remain a serious reproductive health problem globally [1]. STIs, also referred to as sexually transmitted diseases (STDs) or venereal diseases, are infections that are commonly spread through vaginal intercourse, anal sex, and oral sex [2]. According to Ma *et al.* [3], STIs include HIV, gonorrhea, syphilis, and HPV, among others. National academics of Science [4] reports that the spread of STIs among adolescents is influenced by several factors, including risky sexual practices and behaviors such as concurrent involvement with multiple sexual partners, poor use of protective gear such as condoms, poor health-seeking behaviors, and inadequate testing, among other factors. Globally, in developed countries such as Sweden, Germany, France, and Britain, the rate of STIs, especially Chlamydia and Gonorrhea, continues to rise and, in the last decade, has gone up by 38%. For instance, all these countries are in the top 5 European countries with the biggest number of STI infections among 16- to 24-year-olds, and more than 20,000 new cases of the STI were diagnosed in this age group in 2019 [5–7]. The knowledge of youths about the prevention of STIs is poor, yet they have risky sexual practices such as poor use of protective

measures and having multiple sexual partners, among others. In Africa, although countries such as Botswana and Ghana have made significant progress in providing testing and treatment for most sexually transmitted diseases, the rate of STI infection among adolescents remains high, and research shows that there is a 45% rise in STI cases among adolescents aged 15–25 years [8]. Furthermore, despite this progress, there is still limited utilization of the screening services, and the infection rate was attributed to many factors, such as risky sexual practices such as involvement with multiple sexual partners and sexual networking, as well as cultural practices such as wife inheritance [9–11]. Similarly, in East African countries such as Kenya and Tanzania, although testing and treatment services for sexually transmitted diseases are provided at most health centers, the rate of STI infection among adolescents remains high, estimated at 32% [12]. This was influenced by various factors, including inadequate knowledge about the effective use of preventive measures such as condoms, gender roles, risky sexual practices such as sexual networking, having multiple partners, and misperceptions about condom use, among others [13, 14]. In Uganda,

Masanja *et al.* [15] reveal that STI infection among adolescents is on the increase despite the availability of testing and treatment services, and this is estimated at 37%. This was the result of various factors, including poor use of protective gear such as condoms and involvement with multiple sexual partners. At Bugembe Health Centre IV, STIs among adolescents aged 17–24 remain prevalent. For instance, according to the Health Management Information System (HMIS) 2022, an average of 45 youths were diagnosed with STIs every month. In conclusion, the information presented showed that STIs among adolescents remain prevalent globally and in Uganda, and it was upon this background that the researcher picked interest in carrying out a study to assess the knowledge, attitude, and practice of adolescents aged 17–24 towards the prevention of STIs at Bugembe Health Centre IV, Jinja District. Adolescents tend not to use existing reproductive health services targeted at older, married couples.

Study Design

The study was descriptive in nature and employed both quantitative and qualitative data collection methods. This study design was selected because it assists in easily getting the required data for the study.

Study Area

The study was conducted at Bugembe Health Centre IV, in Jinja district. The health center offered medical and surgical services as well as maternal and child health. Jinja District is bordered by Kamuli District to the north, Luuka District to the east, Mayuge District to the south-east, Buvuma District to the south, Buikwe District to the west, and Kayunga District to the north-west. The district headquarters at Buwenge are located 96 kilometers (60 miles) by road, east of Kampala, Uganda's capital and largest city. In 1991, the national population census estimated the district population at 289,500. The 2002 national census estimated the population at 387,600, with an annual population growth rate of 2.7 percent. In 2020, the population was estimated at 501,300.

Study Population

The study included adolescent aged 17–24 attending health care services at Bugembe Health Centre IV, Jinja. It was only focused on the adolescents because they are of sexually reproductive age and hence predisposed to STIs, among other things.

Sample Size

Sample size was determined by using Fisher formula[16]:

$$s = \frac{Z^2 PQ}{d^2}$$

The provision of youth-friendly and reproductive health services is a key and crucial service that should not be overlooked in the fight to prevent the spread of STIs among adolescents, and the Ministry of Health has implemented this strategy in many hospitals, health centers, and clinics across the country [15]. Despite these efforts by the Ministry of Health to promote and encourage utilization of these services, STIs among adolescents remain prevalent, and this is attributed to various factors, including a longer period of non-marital sexual activity related to earlier menarche, later marriage, greater economic opportunities for women, as well as risky sexual practices and a disregard for condom use, among others [10]. The purpose of the study was to assess the knowledge, attitude, and practice of adolescents aged 17–24 towards the prevention of STIs at Bugembe Health Centre IV, Jinja district.

METHODOLOGY

Where;

S= Sample size

Z= Standard Deviation at required degree of accuracy which at 90% gives 1.96

P= proportion of population with desired characteristics. (10%)

Q= 1-P

d = degree of error you are able to accept.

$$s = \frac{1.96^2 * 0.7(1 - 0.1)}{0.05^2}$$

S= 138

Therefore 138 adolescents were recruited in the study.

Sampling Procedure

The researcher utilized a convenient sampling method to obtain the sample size for the study, whereby the researcher simply selected all the available potential respondents who meet the study criteria and included them in the study.

Inclusion Criteria

The study included only adolescents aged 17–24 attending health services at Bugembe Health IV who were present during the data collection days and were free and willing to voluntarily consent to participate in the study.

Data Collection Procedure

The medical superintendent first introduced the researcher before starting data collection. The researcher distributed interview guides to adolescents at Bugembe Health IV. This improved efficiency and confidentiality during data collection. Data management included data editing before leaving the area of study to ensure that there were no

mistakes or areas left blank, and any errors were corrected before leaving the area of study.

Data Analysis and Presentation

The collected data was first analyzed manually by the use of papers and pens and tallying, after which the researcher presented them in tables, graphs, and pie charts generated by Microsoft Excel version 2021 and SPSS version 22.

Ethical Considerations

A letter of introduction was obtained from Kampala International University, introducing the researcher to the medical superintendent of Bugembe Health

Center IV and seeking permission to carry out the study. After permission was granted, the medical superintendent introduced the researcher to staff on duty, who introduced the researcher to the respondents. Respondents were assured of full confidentiality and privacy, and only numbers instead of names were used to identify them. The study only commenced after the objectives of the study had been well explained to participants and they had consented to participate in the study.

RESULTS

Showing assessment of knowledge among adolescents

From Table 1 one below, adolescents were assessed for their knowledge of whether they knew youth-friendly services. The majority of the adolescents, 102 (73.9%), said they didn't know, while at least 36 (26.1%) said they knew different youth-friendly services. The adolescents were also assessed for their knowledge of condom use. The majority, 114 (82.6%), had good knowledge about condom use, while at least 24 (17.4%) of the adolescents had poor knowledge as regards condom use. The adolescents were also assessed for how many had received a sex health education. The majority of the adolescents, 89 (64.5%), said they had never received any sex health education, while at least 49 (35.5%) of the adolescents said that they had ever received a sex health education. The adolescents were also asked if they

knew where to seek treatment if they got sexually transmitted infections. The majority of the adolescents, 21 (87.7%), said they knew where to get treatment, while at least 17 (12.3%) said they didn't know where to get treatment in case they got STIS. The adolescents were also assessed to see if they knew signs and symptoms of sexually transmitted infections. The majority of the adolescents, 128 (92.8%), said they knew different signs and symptoms, while at least 10 (7.2%) said they didn't know signs and symptoms of sexually transmitted infections. The adolescents were also asked if they knew different examples of sexually transmitted infections, and the majority of the adolescents (130, or 94.2%) said they knew different examples, while at least 8(5.8%) of the adolescents said they didn't know any examples of STIS.

Table 1: Showing assessment of knowledge among adolescents

Knowledge assessment	Frequency	Percentage
Knowledge on youth friendly services		
Yes	36	26.1
No	102	73.9
Knowledge on condom use		
Yes	114	82.6
No	24	17.4
Received sex health education		
Yes	49	35.5
No	89	64.5
Where to seek treatment for STIs		
Yes	121	87.7
No	17	12.3
Knowledge on signs and symptoms of STIs		
Yes	128	92.8
No	10	7.2
Examples of STIs		
Yes	130	94.2
No	08	5.8

Summary score of knowledge

Table 2 below shows a summary score of knowledge that was out of 6, in which the majority of the

adolescents, 77 (55.8%), scored a 4 or higher score and were considered to have good knowledge, while at least 16 (44.2%) of the adolescents had a less than 4

score and were regarded as having poor knowledge on sexually transmitted infections.

Table 2: Showing a summary score of knowledge

Score out of 6	Frequency	Percentage	Comment
≥ 4 score	77	55.8	Good knowledge
< 4 score	16	44.2	Poor knowledge

Attitude assessment of adolescents on STIS prevention

Table 3 below showed the attitude of adolescents towards sexually transmitted infection prevention, adolescents were asked if they thought that STIS would lessen their quality of life, and the majority 71 (51.4%) of the adolescents thought STIS couldn't lessen the quality of their lives. Only 67 (48.6%) of the adolescents thought that STIS could actually lessen their quality of life. Adolescents were also asked if they thought that the use of alcohol and substance abuse could lead to acquiring sexually transmitted infections. 93 (67.4%) of the adolescents thought that this was not possible, while at least 25 (18.1%) thought alcohol and substance use could lead to the acquisition of STIS. The adolescents were also asked if they thought that use of a condom during

sexual intercourse could reduce sexual pleasure. The majority of the adolescents (70.7%) thought it was true, while at least 68 (49.3%) thought that use of a condom didn't reduce sexual pleasure. The adolescents were also asked if they thought that sexually transmitted infections pose a very severe health challenge. The majority of the adolescents, 81 (58.7%), thought it was not, while at least 57 (41.3%) thought that STIS poses a severe health challenge. The adolescents were also asked for their attitude if they thought being faithful to one partner was a sign of weakness in a relationship. At least 14 (10.1%) of the adolescents thought it was true, while at least 124 (89.9%) of the adolescents thought that being faithful to one partner was not a sign of weakness.

Table 3: Showing attitude assessment of adolescents on STIS prevention

Attitude assessment	Frequency	Percentage
STIs lessen quality of life		
True	67	48.6
False	71	51.4
Alcohol use / substance use leading to STIs		
True	25	18.1
False	93	67.4
Condom use reduces sexual pleasure		
True	70	50.7
False	68	49.3
STIs are a severe health challenge		
True	57	41.3
False	81	58.7
Being faithful is a sign of weakness		
True	14	10.1
False	124	89.9

Score of attitude on STIS prevention among adolescents

Table 4 below showed a summary of the attitude of adolescents in regards to sexually transmitted infection prevention among the youth, which was scored out of 4, 81 (58.7%) of the adolescents had a 3

or higher score and were regarded as having a good attitude towards STI prevention while at least 57 (41.3%) of the adolescents had a less than 3 score and were considered to have a poor attitude towards sexually transmitted infection prevention.

Table 4: Showing a summery score of attitudes on STIS prevention among adolescents

Score out of 4	Frequency	Percentage	Comment
≥ 3 score	81	58.7	Good attitude
< 3 score	57	41.3	Poor attitude

Practices on STIS prevention

Table 5 below shows practices of prevention of STIS among adolescents, in which adolescents were asked if they had ever had sexual intercourse. The majority

of the adolescents (86, or 62.3%) said they had never had any sexual intercourse, while at least 52 (37.7%) said that they had ever had one.

Table 5: Shows practices on STIS prevention

Adolescent has ever had sexual intercourse	Frequency	Percentage
Yes	52	37.7
No	86	62.3

Attitude of adolescents on STIS prevention

From Table 6, which showed practices on sexually transmitted infection among the adolescents who had ever had sexual intercourse, in which adolescents were asked if they used a condom during sexual intercourse, a majority of 31 (59.4%) of the adolescents said they didn't use a condom. The adolescents were also asked how many sexual partners they had had during their sexual interaction. The majority of the adolescents, 40 (76.9%), said they had had only one sexual partner, while at least 12 (23.1%) said they had had more than one partner. The adolescents were also asked if they had been abstaining from sex social interaction for the last 6 months, and only 14 (26.9%) of the adolescents said they had been abstaining from sexual interaction in the last 6 months, while at least 38 (73.1%) of the adolescents said they had not been abstaining from

sexual interaction in the last 6 months. The adolescents were asked how many of them had been vaccinated against hepatitis B. The majority of the adolescents, 44 (84.6%), said they were not vaccinated, while only 8 (15.4%) had been vaccinated against the hepatitis B vaccine. The adolescents were also asked how many of them would always go for medical checkups for sexually transmitted infections, and the majority of 46 (88.5%) of the adolescents said they rarely attended medical checkups for STIS, while only 6 (11.5%) of the adolescents said they regularly attended medical checkups for STIS. Adolescents were also asked how many of them had had extra coital sex, and the majority of the adolescents, 50 (96.22%), said they had never had extra coital sex, and only 2 (3.8%) of the adolescents said they had ever had one.

Table 6: Shows attitude of adolescents on STIS prevention

Practices on STIs prevention	Frequency	Percentage
Sexual intercourse with condom		
Yes	21	40.4
No	31	59.4
Number of sexual partners		
One	40	76.9
More than one	12	23.1
Abstinence since first encounter		
>6 months	14	26.9
< 6 months	38	73.1
Vaccinated against hepatitis B		
Yes	08	15.4
No	44	84.6
Medical checkups for STIs		
Regularly	06	11.5
Rarely	46	88.5
Extra coital sex		
Yes	02	3.8
No	50	96.2

DISCUSSION

Knowledge towards the Prevention of STIs among Adolescents

From the study, the majority of the adolescents, 77 (55.8%), scored a 4 or higher score and were considered to have good knowledge, while at least 16 (44.2%) of the adolescents had a less than 4 score and were regarded as having poor knowledge on sexually transmitted infections. This can be attributed to sensitization information on various media that seeks to create awareness among adolescents about STIs. When this study is compared with other studies, Nigussie and Yosef. [17] also reported that Ugandan adolescents are also affected by many social problems that negatively influence their ability to prevent STIs. These factors include poverty, drug and alcohol abuse, dropouts from education, and harassment of female adolescents, to make matters worse. Furthermore, respondents had little knowledge of the risk of unprotected sexual acts, and thus STIs and HIV/AIDS are the more obvious and unavoidable consequences.

Attitude Assessment of STI Prevention

From the study, it was discovered that the attitude of adolescents in regards to sexually transmitted infection prevention among the youth which was scored out of 4 in which 81(58.7%) of the adolescents had a 3 or more score and were regarded as having good attitude towards STI prevention while at least 57(41.3 %) of the adolescents had a less than 3 score and were considered as having poor attitude towards sexually transmitted infection prevention, this would help them to have self-discipline in prevention of STIs, when this study is compared with other studies, it shows a difference with a study by, Musumari et al [18] and Nanyonjo et. al[19] who had instead

The research revealed that 55.8% of adolescents have good knowledge and attitude towards STI prevention, with 58.7% having a positive attitude, and 59.4% not using a condom. Sensitization campaigns,

documented in their study about the impact of HIV/AIDS in selected fishing communities in South Africa that most adolescents interviewed had negative attitudes towards the prevention of STIs. This was noted as a challenge as some adolescents did not take STIs to be serious health challenges with consequences; hence, they did not take preventive measures seriously.

Practices on STI Prevention

From the study, adolescents were also asked if they used a condom during sexual intercourse, and the majority (59.4%) of the adolescents said they didn't use a condom, which could put them at risk of contracting an STI. The study further noted that the majority of adolescents had poor use of protective gear, such as condoms, yet they were sexually active, making them predisposed to STIs. The adolescents were also asked how many of the sexual partners they had had during their sexual interaction in which majority of the adolescents 40(76.9%) of said they had had only one sexual partner while at least 12 (23.1%) of the adolescents said they had had more than one partner, this could put them at increased risk of STIs when this study is compared with other studies, it shows a correlation with a study by Plignim et al[20] who mentioned in their study about socio-cultural factors that perpetuate the spread of HIV among women and girls in Keiyo District, Kenya, findings showed that the majority of adolescents aged 17 – 24 years had poor practices towards the prevention of STIs. Among the poor practices included involvement in multiple sexual relationships, which has been noted to highly predispose individuals on the sexual network to the risk of contracting STIs.

CONCLUSION

youth-friendly sessions, and lower-level condom distributions should be implemented to increase awareness and usage of condoms among adolescents, thereby promoting STI prevention.

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