

**KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS THE PREVENTION OF GONORRHEA  
AMONG TEENAGE GIRLS ATTENDING NAMULONGE HEALTH CENTER III, WAKISO DISTRICT  
A CROSS-SECTIONAL STUDY.**

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**Abstract**

**Background**

Gonorrhoea is a common bacterial sexually transmitted infection (STI) that can have serious health consequences if left untreated. This study aimed to assess the knowledge, attitudes, and practices towards the prevention of gonorrhoea among teenage girls attending Namulonge Health Center III in Wakiso District.

**Methodology**

The study used a quantitative cross-sectional study design. A sample of 50 respondents was selected using a purposive sampling technique. The data was analyzed manually using tally sheets and frequency distribution tables, and later exported into Excel to generate tables and figures.

**Results**

(60%) of the respondents were aged 17 – 19 years, (66%) of the participants were students' Knowledge of teenage girls towards prevention of gonorrhoea was good as all the respondents (100%) knew the definition of gonorrhoea, (70%) had adequate knowledge on the common signs of gonorrhoea, and all (100%) had been sensitized about gonorrhoea prevention. Attitudes of teenage girls towards prevention of gonorrhoea were fairly good, as the majority (70%) felt uncomfortable discussing gonorrhoea prevention, (80%) thought it was good that they could prevent gonorrhoea, and (86%) reported that they felt no embarrassment towards condom use. Practices of teenage girls towards prevention of gonorrhoea were poor as more than half of the respondents (66%) had been involved in sexual relationships, (56.67%) had at least 2- 3partners, and only a few (26%) used condoms.

**Conclusion**

There was adequate knowledge towards the prevention of gonorrhoea, attitudes were fairly good; however, practices were very poor towards the prevention of gonorrhoea among teenage girls attending Namulonge Health Centre III, Wakiso district.

**Recommendation**

Patients should be health educated on the health risks of having unprotected sexual intercourse, having more sexual partners, and encouraged condom use.

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**Keywords:** *Teenage girls, prevention of gonorrhoea, Namulonge Health Center III, Wakiso district.*

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**Background**

Gonorrhoea is a common bacterial sexually transmitted infection (STI) that can have serious health consequences if left untreated. It is caused by the bacterium *Neisseria gonorrhoea* (Medline, 2021). Following transmission, gonorrhoea infects the mucosa of exposed anatomical sites, such as the urogenital tract, rectum, pharynx, and conjunctivae, making it one of the STIs that usually affect adolescents. STIs are infections that are passed from one person to another through sexual contact (Medline, 2021). STIs are among the most common infectious conditions affecting humans all over the world, infecting more than one million individuals daily. Anyone sexually active is

susceptible to sexually transmitted infections. Bacterial sexually transmitted diseases, which include chlamydia caused by *Chlamydia trachomatis*, syphilis caused by *Treponema pallidum*, and gonorrhoea caused by *Neisseria gonorrhoea*, are among the few curable STIs (CDC, 2020). Statistical studies show that chlamydia and gonorrhoea are two of the leading causes of preventable infertility both in the US and worldwide. A 2020 report by the WHO showed that each year, there are at least 374 million new cases of gonorrhoea and other common STIs worldwide, with 1 in 4 curable STIs. For example, while the number of chlamydia infections was 127million, that of gonorrhoea was 87million. On the other hand, the report revealed 6million infections of

syphilis (Alexander Borve, 2022).

STIs have a direct impact on sexual and reproductive health through stigmatization, infertility, cancers, and pregnancy complications, and can increase the risk of HIV (WHO, 2018). In Uganda, recent studies show that the burden of gonorrhoea plus related STIs remains high. STI prevalence was higher among those with primary level education or less (8.9%), females (10.4%), participants who were not married (9.2%) (M. Semwogerere, et al. 2021) In Wakiso however, related little information reveals that gonorrhoea and other STI burden especially among teenage girls is high. Though partially explained by the asymptomatic nature of the infections, underreporting is also due to delays in seeking health care and inaccessible or inadequate testing in underserved populations or those particularly vulnerable to infection (Jane Whelan, et al. 2021). This study aimed to assess the knowledge, attitudes, and practices towards the prevention of gonorrhoea among teenage girls attending Namulonge Health Center III in Wakiso District.

## Methodology

### Study Design

The study used a quantitative cross-sectional study design as it aimed at assessing the knowledge, attitudes, and practices of teenage girls towards the prevention of gonorrhoea at a specific point in time. Primary data was collected from the study participants through conducting focus group discussions (FGDs).

### Study Area

This study was carried out from Namulonge Health Center III, Wakiso district, located 6km from Gayaza town along Gayaza–Zirobwe road. Departments interested include: OPD, where AYPHS and the Maternity department where the family planning services were offered.

### Study Techniques

Purposive sampling was used to select the sample. Teenage girls were obtained from the Out-Patient Department of Namulonge Health Centre III, and each was provided with a questionnaire to fill out. Each distributed questionnaire was coded.

### Study Population

The study population was teenage girls found at Namulonge Health Center III, Wakiso district. The study population was teenage girls attending Namulonge Health Center III, Wakiso district.

### Sample size determination

The sample size was determined using the formula below;  $N = a^2bc / x^2$  (Keisha and Leslie, 1967)

Where;

N=desired sample size.

a= standard normal deviation usually set at 1.96 which corresponds to 95% confidence level.

b = proportion of survey population with particulars under investigation and where it's unknown, 50% is used.

c = probability that the researcher goes to a certain the degree of error. 50% was considered to cater for that.

x = degree of accuracy which ranges from 0.01-0.1 Therefore, its:  $(1.96)^2 \times 0.5 \times 0.5 / (0.09)^2$

118.57

~119 respondents.

However, due to financial and time constraints, a sample of 50 respondents was used.

### Sampling techniques

The study employed a purposive sampling. It was preferred over other techniques because it ensured time-saving. This method requires less knowledge and reduces the risks of error.

### Data collection method

The questionnaire guide was used with the different sections A, B, C, and D, assessing aspects of socio-demographic data of teenage girls, knowledge, attitudes, and practices of teenage girls towards the prevention of gonorrhoea.

### Pilot study

A pilot study was conducted to test the questionnaires for comprehension and clarity at Kasangati Health Centre IV. Ethics approval for the pilot test was obtained from the committee for research at Kampala School of Health Sciences.

### Inclusion Criteria

Teenage girls attending Namulonge Health Centre III, Wakiso district who consented to participate in the study.

### Data analysis

Data was analyzed manually through tally sheets and frequency distribution tables, and presented in tables and figures, and later exported to Microsoft Excel software for analysis.

**Results**

**Socio-demographic characteristics of respondents**

**Table 1: Shows the distribution of respondents according to Age and Occupation N= 50**

AGE GROUP	Frequency	Percentage (%)
13-14	7	14
15-16	13	26
17-19	30	60
Total	50	100
Occupation		
Self employed	7	14
Student	33	66
Unemployed	10	20
Total	50	100

Table 1 indicates that most of the respondents (60%) were in the age range of 17 – 19 years, while 7 (14%) were in the age range of 13 – 14 years.

The study also revealed that more than half of the respondents (66%) were students, while (14%) were self-employed.

**Figure 1: Shows the distribution of respondents according to marital status N=50.**

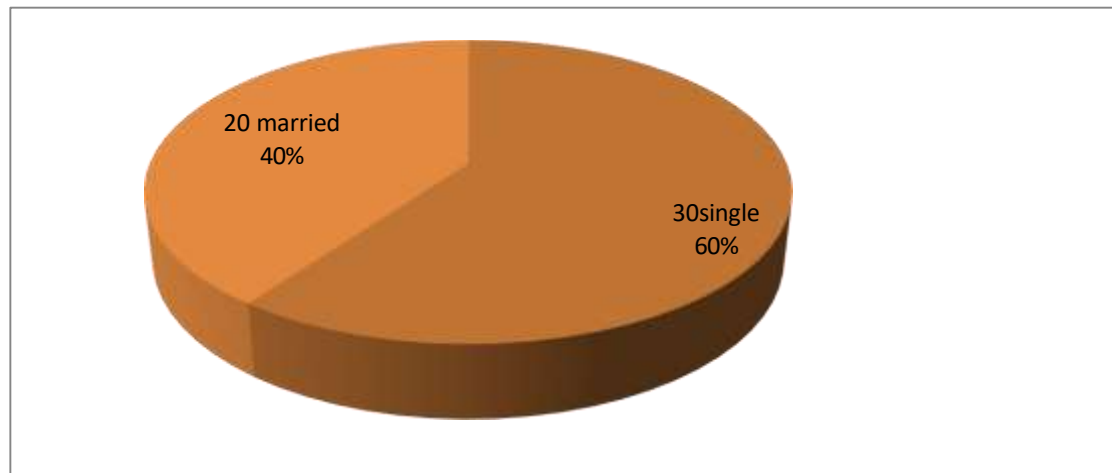


Figure 1 show that majority of respondents (60%) where single, while (40%) were married.

**Knowledge of teenage girls towards prevention of gonorrhoea**

### What do you understand by the term gonorrhoea?

The current study findings regarding respondent's knowledge about the definition of gonorrhoea, all 50(100) reported to have known the definition of gonorrhoea.

Name the common signs of gonorrhoea you know

**Table 2: shows distribution of respondents' responses towards common signs of gonorrhoea N=50**

Responses	Frequency	Percentage (%)
Yes	35	70
No	15	30
Total	50	100

Table 2 shows that, (70%) had adequate knowledge of common signs of gonorrhoea, while (30%) lacked adequate knowledge of common signs of gonorrhoea.

### How does an individual acquire gonorrhoea?

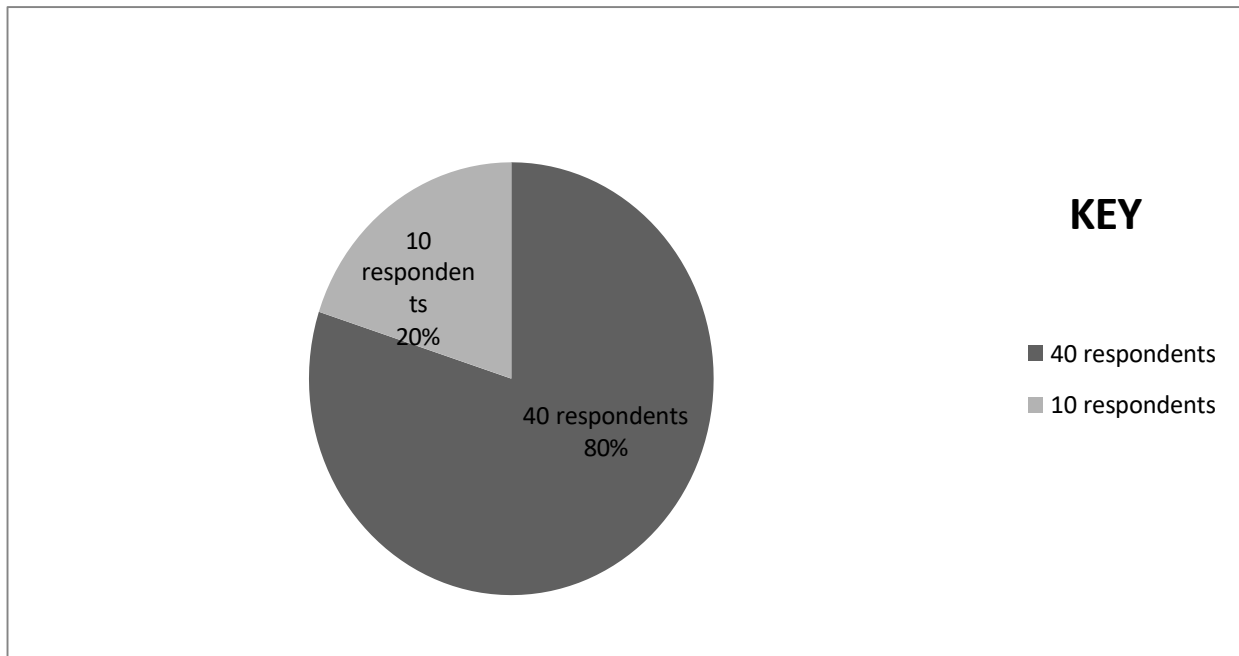
Regarding on how gonorrhoea is acquired all 50(100%) said gonorrhoea is transmitted through unprotected sex.

Have you ever been sensitized and health educated about gonorrhoea prevention?

Regarding whether the respondents were sensitized about gonorrhoea prevention, all 50(100%) reported to have been sensitized about gonorrhoea prevention.

What could be done to prevent gonorrhoea?

Basing on the research study, findings shows that all respondents 50(100%), knew at least that proper use of condom prevents gonorrhoea transmission.



**Figure 2: Shows distribution of respondents who have ever suffered from gonorrhea N=50**

Figure 2. Shows that the majority of the respondents, 40(80%), had suffered from gonorrhea, while the minority (20%) had never suffered from gonorrhea.

### Attitudes of teenage girls towards prevention of gonorrhea among teenage girls

**Does the use of condom during sexual intercourse embarrassing to you or your sexual partner?**

**Table 3: shows the distribution of respondents' attitudes towards condom use. N=50**

Response	Frequency	Percentage (%)
Yes	7	14
No	43	86
Total	50	100

From table 3 above, the majority (86%) of respondents reported that they don't feel embarrassed to use condoms, while the minority (14%) reported embarrassment.

Is gonorrhea prevention a personal responsibility?

Regarding whether gonorrhea is a personal responsibility, all 50 (100%) of respondents said "YES" that it is a personal responsibility to prevent gonorrhea.

**Table 4: shows distribution of respondents' attitudes towards gonorrhoea prevention discussions. N=50**

Do you feel comfortable discussing about gonorrhoea prevention?	Frequency	Percentage (%)
Yes	15	30
No	35	70
<b>Total</b>	<b>50</b>	<b>100</b>

Table 4 shows that the majority (70%) of respondents felt uncomfortable discussing gonorrhoea prevention, while the minority (30%) felt comfortable.

Do you think getting tested for gonorrhoea important for your healthy? And if yes, at which percentage is it important for your health?

Regarding whether getting tested for gonorrhoea is important for respondents' health, all 50(100%) agreed by saying "YES" and all rated its importance at a percentage above 60%.

### **Practices of teenage girls towards prevention of gonorrhoea**

#### **Have you ever involved in a sexual relationship?**

**Table 5: shows distribution of respondents regarding sexual relationships N=50.**

Response	Frequency	Percentage (%)
Yes	30	60
No	20	40
<b>Total</b>	<b>50</b>	<b>100</b>

Table 5 shows that more than half of the respondents (60%) reported having been involved in sexual relationships, while a few (40%) had never been.

#### **How many partners are you currently involved with?**

**Table 6: shows distributions of respondents' number of partners they were involved with. N=30.**

Response	Frequency	Percentage (%)
1partner	9	30
2partners	17	56.67
3partners and more	4	13.33
<b>Total</b>	<b>30</b>	<b>100</b>

Table 6 shows that the majority (56.67%) of respondents had two partners, while the minority (13.33%) had three or more partners.

**How old is your partner?**

**Table 7: Shows distribution of the ages of respondents' partners. N=30**

Age of the partner	Frequency	Percentage (%)
15-20years	19	63.33
21years and above	11	36.67
<b>Total</b>	<b>30</b>	<b>100</b>

From table 7 above, more than half of the respondents (63.33%) had their partners with an age ranging between 15-20years, while others (36.67%) had their partners with an age of 21years and above.

**Figure 3: Shows distribution of precautions taken against gonorrhoea during sexual intercourse. N= 50.**

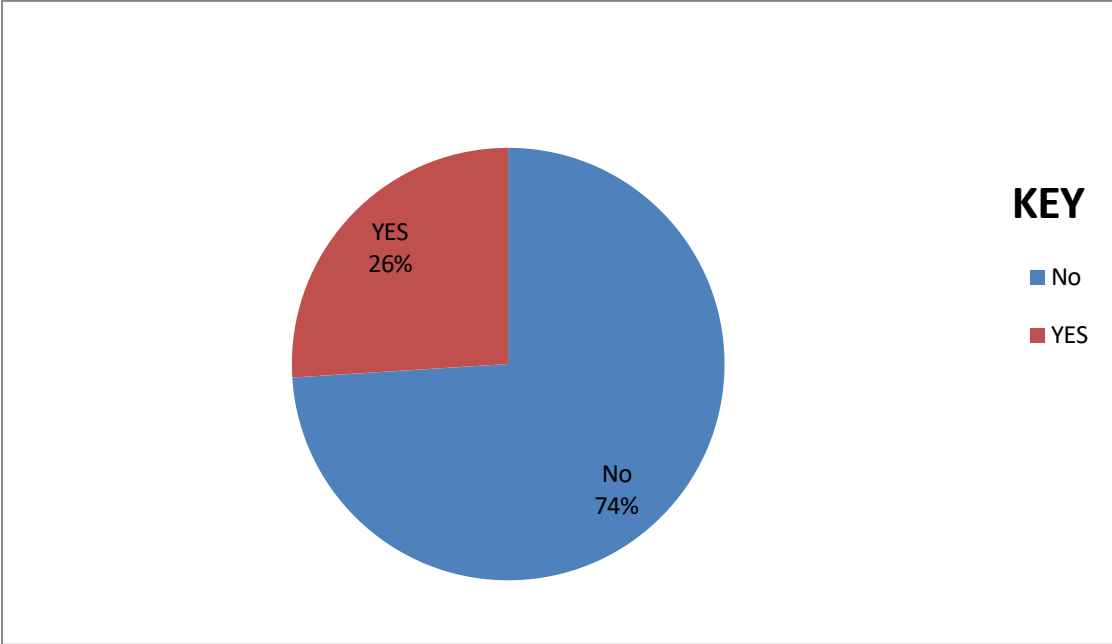


Figure 3 shows that the majority of the respondents, 37 (74%), had not taken precautions towards the prevention of gonorrhoea, while 13 (26%) had taken some precautions towards gonorrhoea prevention.

**Figure 4: Shows the distribution of respondents' reasons for the failure to use any prevention precaution of gonorrhoea. N=50**

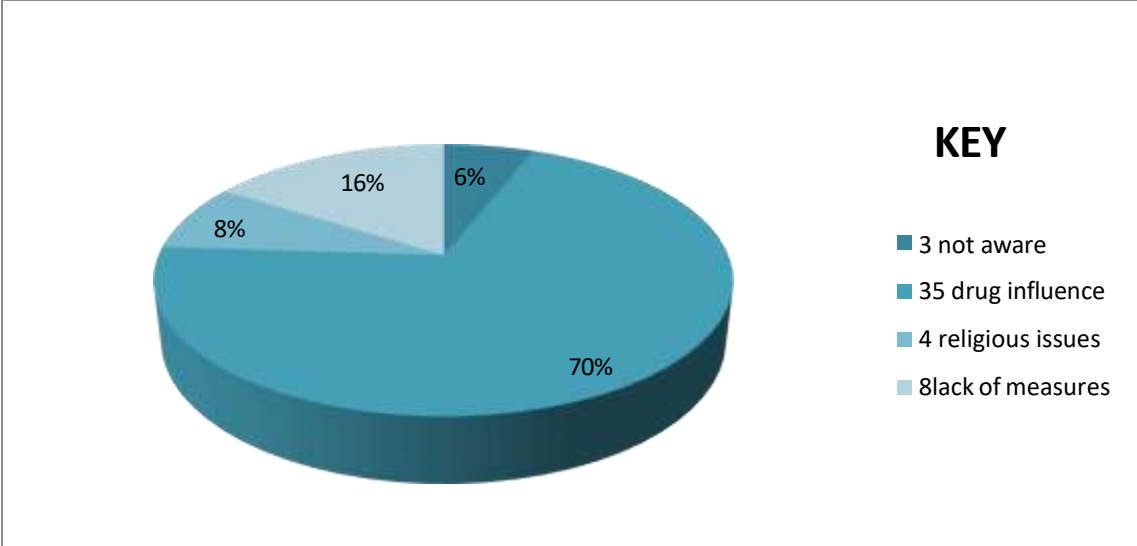


Figure 4 Shows that most of the respondents, 35(70%), while very few, 3(6%), were not aware of the precautions to be taken.

## **Discussion of results**

### **Knowledge of teenage girls towards prevention of gonorrhoea**

The current study findings revealed that all 50(100%) respondents knew the definition of gonorrhoea. This indicates that the respondents knew gonorrhoea as they defined it as a sexually transmitted infection that is acquired through having unprotected sexual intercourse with individuals who have gonorrhoea. The study findings were in agreement with the study conducted in Tanzania on school-going adolescents found that (95.9%) had an idea about gonorrhoea including other STIs with (21.6%) male and (16.4%) females able to identify gonorrhoea and other common STIs, their most common sources of information being school and mass media advertisements (Kavana, 2021). The majority of the study participants (70%) knew the common signs of gonorrhoea. This indicates that they had adequate knowledge because they were able to mention painful urination, pus like vaginal discharge as the common signs of gonorrhoea in females. The study finding was in agreement with Ruaner D et al (2015), where it was reported in a study of youth towards prevention of STIs in native America that although they were knowledgeable about types of STIs, they managed to identify signs and symptoms of each (Medline, (2021). Results showed that most youths (60%) had been sensitized and health educated about gonorrhoea prevention, and the majority of the respondents knew condom use (60%) as one way of preventing gonorrhoea. This could probably have been the reason why they were knowledgeable about gonorrhoea transmission, as mentioned above. This finding was in line with a study conducted by Mohammed, who reported that teenagers who receive appropriate sexual education have extensive awareness about gonorrhoea, plus other bacterial STIs, which lowers the risk of spread (Mohammed, 2017). Study findings also revealed that the majority, 30(60%), had never suffered from gonorrhoea. This was a sign that respondents knew how to prevent gonorrhoea unlike the findings in a study by Brabin et al (2013), about the preventive and curative care for youth and the role of the health sector that the majority of respondents stated that they did not have adequate knowledge and awareness about gonorrhoea and how they could be adequately prevented.

### **Attitudes of teenage girls towards gonorrhoea prevention**

The majority of the respondents, 40(80%), believed that gonorrhoea, as compared to other STIs, can be dangerous, and most of them cited out infertility 25(50%) as one of the dangers that can be caused by gonorrhoea. This study finding was in agreement with Mwakagile, Mmari and Makwaya, (2011) mentioned in their study about sexual behavior

among youths at high risk for HIV infection in Dar es Salaam, Tanzania that the majority of youth aged 19 – 24 years had positive attitude towards the prevention of STIs as they believed that the infections could lessen their quality of life.

It was also found that the majority of the respondents felt they could prevent gonorrhoea 40(80%), and this was a good attitude, and it implied that, if at all, they are encouraged and given more health talks, gonorrhoea can be markedly reduced in communities. This was in line with another study by Fernando et al (2012) in Brazil, which reported that youth had positive attitudes towards the prevention of gonorrhoea and other sexually transmitted infections. However, it was revealed that to reduce and prevent gonorrhoea among teenage girls, there is a need to ensure that sexually active teenage girls remain faithful to their sexual partners, avoid casual sex relationships, and consistently and correctly use protection such as condoms, while those who can should abstain from sex altogether.

### **Practices of teenage girls towards prevention of gonorrhoea**

Majority of the respondents 30(60%) had ever been involved in the sexual relationship This implied that they were at risk of contracting gonorrhoea if at all they do not hold on to available measures of preventing gonorrhoea just like it was in the earlier studies by Herz et al (2011) in the study about family planning for teens and strategies for improving outreach and service delivery in public health settings showed that youth had poor practices towards the prevention of STIs and hence remained highly predisposed to the STIs and also a study by Jebet, Onkware and Ntobo (2011) which revealed about socio-cultural factors that perpetuate the spread of HIV among women and girls in Keiyo District, Kenya, that majority of youth 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 in the sexual network to the risk of contracting gonorrhoea. Majority of the respondents had partners ranging from 15-20 years, 37(74%) and more than half of the respondents 30(60%) first had their partner when they were 15-17 years old 30(60%) and another scaring finding was that majority of the respondents do take alcohol 35(70%) which was very threatening as it predisposes this young generation to gonorrhoea. This finding was in comparison with a study by Gorgen et al (2009).

About his study on the problems related to school girl pregnancies in Burkina Faso, where results showed that the majority of respondents had poor practices towards the prevention of STIs, including gonorrhoea. Results showed that youth aged 17- 19 years include poor use of protective barriers with casual partners/sex workers among male youth, which places them at risk of gonorrhoea. Furthermore, majority of the respondents 37(74%) reported that many

teenage girls are involved in sexual relationships, 35(70%) reported alcohol as the most leading factor persuading them into sexual relationships and dangerously, majority of the respondents 33(66%), reported that they don't take prevention precautions during sexual intercourse for instance few of the respondents 18(36%) used condoms as most of them 27(54%) STIs they were expensive. This study's finding was compared with a study by Koontz and Conly (2011) in their study about youth at risk and meeting the sexual health needs of youth, which showed that youth had poor practices towards the prevention of gonorrhoea. It was noted that practices such as over-reliance on sexual partners for upkeep all exposed respondents to the risk of gonorrhoea and other STIs.

It was further reported that unemployment and poverty contributed to reliance on sexual partners which further led to increased risk of gonorrhoea and also Coffee, Garnett, Mlilo, Voeten and Chandiwana (2012) reported in their study about patterns of movement and risk of HIV infection in rural Zimbabwe that the majority of youth aged 19 – 24 years had poor practices towards prevention of gonorrhoea as it was noted that the majority of respondents had poor use of protective gears such as condoms yet they were sexually active and this predisposed them to gonorrhoea and other sexually transmitted infections.

### Conclusion

The study established that: Knowledge of teenage girls towards prevention of gonorrhoea was good, as all the respondents knew the definition of gonorrhoea, had adequate knowledge on the common signs of gonorrhoea, all reported that gonorrhoea is transmitted through unprotected sex, and all had been sensitized about gonorrhoea prevention.

Attitudes of teenage girls towards prevention of gonorrhoea were fairly good, as the majority felt uncomfortable discussing gonorrhoea prevention, thought it was good that they could prevent gonorrhoea, and reported that they felt no embarrassment towards condom use.

Practices of teenage girls towards prevention of gonorrhoea were poor as more than half of the respondents had been involved in sexual relationships, had at least 2- 3 partners, (74%) did not take any precautions during sexual intercourse, and only a few used condoms.

### Study limitations

The study was limited by the sensitivity of the study, consenting, and unfavorable weather conditions.

### Recommendations

The government, through the Ministry of Health, should draft a policy for the prevention of sexually transmitted diseases, especially in adolescents.

The district health officer should put in place a surveillance committee specifically responsible for prevention. They should monitor the hospital/health center and see how they

treat specifically gonorrhoea, and advise them accordingly.

The health workers at Namulonge Health Center III, Wakiso district, should educate the teenage girls on the dangers of gonorrhoea, the services available, and how to practice safe sex.

### Acknowledgement

I would like to thank the Almighty God who has done great wonders for me during my academic journey and for giving me the knowledge to write this report.

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May the Almighty God grant you all your heart's desires, Amen.

### List of abbreviations

<b>AYFHS</b>	:	Adolescent and Youth Friendly Health Services
<b>AYFC</b>	:	Adolescent and Youth Friendly Clinics
<b>HIV</b>	:	Human Immunodeficiency Virus
<b>KSHS</b>	:	Kampala School of Health Sciences
<b>MOH</b>	:	Ministry of Health
<b>PHC</b>	:	Primary Health Care
<b>PID</b>	:	Pelvic Inflammatory Disease
<b>STI</b>	:	Sexually Transmitted Infection
<b>WHO</b>	:	World Health Organization?

### Source of funding

There is no source of funding.

### Conflict of interest

No conflict of interest declared.

### Availability of data

Data used in this study is available upon request from the

corresponding author

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### Author's contribution

MS designed the study, conducted data collection, cleaned and analyzed data, and drafted the manuscript, and PM supervised all stages of the study from conceptualization of the topic to manuscript writing.

### Ethical approval

Approval to conduct this study was obtained from the research committee of the Kampala School of Health Sciences. Seeking permission to conduct a study from the responsible authorities at the place where the study was conducted was imperative. Final permission to conduct the study was obtained from the administration of Namulonge Health Centre III, Wakiso district.

### Informed consent

A consent form was filled out by the respondents after explaining the purpose of the study to them. The respondents were assured of confidentiality as no names would appear on the questionnaire. No participant was forced to participate in the study, and all the study materials used during the interviews were safely kept under lock and key, only accessible by the researcher.

### Author's biography

Mike Ssepuuya is a student of diploma in clinical medicine and community health at Kampala school of Health sciences. Prosper Mubangizi is a research supervisor at Kampala school of Health sciences

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