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KNOWLEDGE, ATTITUIED AND PREVENTIVE PRACTICES ON SEXUALLY TRANSMITED INFECTIONSAND ASSOCIATED FACTORS AMONG STUDENTS AT ABA FRANSO PREPARATORY SCHOOL IN GURAGE ZONE,SNNPR,ETHIOPIA 2022

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ASSESSMENT OF KNOWLEGDE, ATTITUDE AND PREVENTIVE PRACTICES TOWARDS SEXUAL TRANSMITTED INFECTION AND ASSOCIATED FACTORS AMONG STUDENTS AT ABA FRANSO PREPARATORY SCHOOL GURAGE ZONE, SNNPR, ETHIOPIA,2022

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RESEARCH TO BE SUBMITTED TO WOLIKTE UNIVIRSTY COLLGE OF MEDICENE AND HEALTH SCIENCE DEPARTMENT OF NURSING FOR PARITAL FULLIFILMENT OF BACHELOR OF SCIENCE IN NURSING

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Abbreviations and Acronyms

- AIDS----Acquire immune deficiency syndrome
- E.C----Ethiopian calendar
- EDHS----Ethiopian demographic and health survey
- ETB----Ethiopian birr
- HIV----Human immune virus
- HPV-----Human papillomavirus
- HSV---Herpes simplex virus
- KAP ---Knowledge, attitude and prevention
- KM--------Kilo meter
- RSB------Risk sexual behaviors
- SNNPR-----Southern nations and nationalities people region
- STD------Sexually transmitted disease
- STI-----Sexually transmitted infections

Abstract

Background- Sexually transmitted infections are a major health problem affecting mostly young people, not only in developing, but also in developed countries. It is an infection that has a significant probability of transmission between humans by means of human sexual behavior, including vaginal oral sex, and anal sex. More than 30 different bacteria, virus and parasites are known to be transmitted through sexual contact. According to the 2011 EDHS report, 63% of women and 56%of men who had an STI or STI symptoms did not seek any advice or treatment; this has a great impact on STIs prevalent in the country (12).The aim of this study was to assessed knowledge, attitude, preventive practice and associated factors on STIs.

Objectives: To assess the knowledge, attitude, preventive practice on sexually transmitted infections and associated factors among students at Aba Franso preparatory school Gurage zone, SNNPR, Ethiopia, 2022

Methods –An institutional based cross- sectional study was conduct from March to June 2022.A total of 423 students was involved in the study using systematic random sampling technique. Data was collect using a structured self-administer questionnaire, the collected data was enter to EPI-data version 3.1 software and analyze using SPSS version 21. The descriptive result present in text, figure and table. P-value of < 0.05 and 95% confidence level was considered to be asserted statistical significance.

Result-From the total 423 respondents 95% heard about sexual transmitted infection, majority of them get the information in friends. 46.1% of participant had good knowledge and 39% had favorable attitude. 44% had good preventive practice on sexual transmitted infection.

Conclusion and recommendation- less than half of participant had good knowledge and less half of participant had favorable attitude and preventive practices. We would like to recommend Aba franso preparatory school director and other teacher members to organize and strengthen anti-Sexual transmitted infection club in school that focus on reproductive health of youth to raise their attitude

Key words- Knowledge, Attitude, Preventive practice, Sexually Transmitted Infections

1. INTRODUCTION

1.1.Background

The term sexually transmitted infection is used to denote variety of clinical condition that are caused by pathogens which can be acquired and transmitted through sexual activity. More than 30 difference bacteria viruses and parasites are known to be transmitted through sexual contact. Eight of those pathogens are linked to the greatest incidence of sexually transmitted disease. Of those, four are currently curable; syphilis, gonorrhea, Chlamydia, and trichomoniasis. The other 4 are viral infection which are include; Hepatitis B Virus (HBV), Herpes Simplex Virus (HSV), HIV and Human Papillomavirus (HPV) ((1).

STI_S are transmitted predominantly through unprotected sex, during child birth and breast feeding. In addition, factors such as multiple sexual partners, engaging in risky sexual activities, sex without a condom, sex with a commercial sex worker and older partners, consumption of alcohol and illicit drugs, cultural, religious, peer pressure, watching pornography, being single, nondisclosure of HIV status, conflicts between couples and families affect young people risky sexual behavior (RSB). STI_s are caused 8by more than 30different kinds of pathogens including bacteria, virus, protozoa and fungus ((2)

STIs can be curable and incurable. The curable STIs include gonorrhea, syphilis, trichomoniasis, and chlamydia. The incurables STIs include the herpes simplex virus, hepatitis B, HIV, and human papillomavirus (HPV). The STIs transmit through sexual contact such as vaginal, anal, and oral sex. It can also spread through nonsexual means via blood or blood products and mother to child during pregnancy, childbirth, and breastfeeding the common symptoms of or syndrome of STI include urethral discharge, vaginal discharge, genital ulcer, lower abdominal pain, inguinal bubo, neonatal conjunctivitis, and scrotal swelling. STIs are the major universal public health concerns. The infection causes an acute illness, infertility, disability, and death. ((3)

In most cases, sexually transmitted infections are asymptomatic and that make it difficult to diagnosis. ((4) In addition, most adolescents, those particularly from a rural society, might not have access to the required information and service to prevent STIs. (5) So, such a condition coupled with syndrome managements of STIs in resource limited countries could further facilitate the transmission of infection.

As a result, particularly females who were infected with STIs could experience acute symptoms, chronic infection, and serious delayed consequences such as ectopic pregnancy, infertility, and cervical cancer ((6)

Adolescents, particularly students in developing countries, travel far away from their families and stay away for long time when they attend secondary school education. In their stay, they usually live in rented homes and come in contact with people from socio-cultural and behavioral background. Coupled with a lack of knowledge and available services about STIs, adolescents are more likely to practice unprotected sex and have multiple sexual partners and thereby have higher chance of getting infected with STIS (5)

1.2. Statements of the problem

The problem of STI_S in Ethiopia is not different from that of other developing countries. Eighty six percent of the world's burden of STIs occurs in the developing world, the biggest burden being in the poorest countries many of which are in sub-Saharan Africa, where identification and management of STIs is limited (7)

The incidence, burden, and distribution of STIs in Ethiopia are generally similar to that of other developing countries. According to the Ethiopia demographic and health surveys (EDHS) (2005 and 2011) data, the burden of self-reported abnormal genital discharge increased from 1.4%to 3% among women and 1%to 2% among men. These numbers may be underestimated because respondents may be embarrassed or ashamed to report STIs symptoms (8).

STIs surveillance study which was conducted in 2013 indicated that vaginal discharge (50%) and urethral discharge (31%) were the two most common syndromes reported. The survey added that 16% of STI patients were co-infected with HIV (8.1% male and 21% female)(16). In addition to the STIs asymptomatic nature that challenges its prevention and control programs, reports indicate that treatment seeking for STI is also low. According to the 2011 EDHS report, 63% of women and 56%of men who had an STI or STI symptoms did not seek any advice or treatment; this has a great impact on STIs prevalent in the country (12). There is also an HIV pandemic that challenges STIs prevention. In 2016, the prevalence of HIV in Ethiopia was 0.9%, of which 1.2 among females and 0.6% among males ((9)

The size of global burden of STIs is uncertain because of lack of effective control and notification system in many countries .the world health organization report published in 2011has estimated a total of

340million new case of curable STIs in adults per annum, mainly in South and South East Asia (151 million new cases per year), and sub-Saharan Africa (69 million)((10).

More than 1 million STIs are acquired every day. In 2020, WHO estimated 374 million new infections with one of four STIs; Chlamydia (129 million), gonorrhea (82 million), syphilis (7.1 million) and trichomoniasis (156 million). More than 490 million people were estimated to be living with genital HSV (herpes) infection in 2016, and an estimated 300 million women have an HPV infection, the primary cause of cervical cancer. An estimated 296 million people are living with chronic hepatitis B globally. Both HPV AND HBV infections are preventable with vaccination ((1).

Young people are more vulnerable for STIs because they practice unprotected sex, have multiple sexual partners and have Trans-generation and transactional sex. Other important factors for the spread of HIV and STIs are alcohol and drugs abuse, these two factors increase the incidence of high risk behaviors in particular in sex and rape ((11)

The magnitude of STIs is high in developing countries because there are so many challenges to prevent and control especially countries like Ethiopia. From thus challenges governmental problems, for instance limited access to health center, lack of air in mass media concerning about STIs severity, not have enough air in mass concerning about STIs, inadequate control and action of alcohol taking and drug addictions in adolescents ((12).

STIs magnitude, potential complications and their interaction with HIV/AIDS make STIs important public health problems of the world. They are a major global cause of acute illness, infertility; long-term disability and death with sever medical and psychological consequence for millions of men, women and infants. They are among the world's most common disease with annual incidence next to diarrhea, malaria and respiratory disease. Worldwide, about one million people acquire a new curable STI every day and about more than 340 million new cases occur each year. Adolescents and young adults have highest rates of curable STIs, 1 in 20 adolescents acquired a new STI each year. Developing countries are particularly affected because the majority of the population is under the age of 40 years (13).

In order to design appropriate preventive strategies; it is an advisable fact to clearly and systematically understand the sexual behavior from preparatory school environment but there has been little researches conducted. So the finding of this research helps to know the knowledge, attitude and practice of preparatory school students towards sexually transmitted infections. Therefore, this study was aimed to

assess knowledge, attitude, preventive practices, towards STI including HIV/AIDS among preparatory school students in Gubre sub-town, Gurage zone.

1.3. Significance of the study

In the country, which has been suffering from scarcity of trained human power for most of its development sectors; it is extremely difficult to quantify the crisis resulting from mortality and morbidity because of STIs. High school and preparatory school students are potential source for the development of the Nations .So, protecting those groups from this threat is a crucial step and has significant contribution for the development of the Nation. This study will help students to improve knowledge, attitude, and preventive practice towards STIs.

The result of this investigation helps any concerned body to know the problem in the study area and carry out intervention activities for reduction of the problem encountered. This research will help health care system, community, government and researcher by providing good information related to STIs.

2. Literature review

2.1. Knowledge towards STIs

According to a cross sectional study conducted on Tanzania secondary school students in Mlimba division showed that a total of 350(95.9%) male and 60(16.4) female students mentioned AIDS , gonorrhea and syphilis are sexually transmitted infection ,The majority of sexual intercourse as main mode of transmission of STDs. The main source was from teachers and mass media. Also in the study the main symptoms of STIs mentioned by participants was discharge from genital organs, penis was 138(37.8%) male and vagina was 128(35.1%) female students (14).

Study conducted on Arise Negelle preparatory school students showed that from total of 303 participants majority of them had heard about STI and 50.8% of respondents had good knowledge about STIs (15).

On study conducted on west Gojjam Zone, Amhara region, Northwest Ethiopia from October 24 to November 4, 2018 among preparatory school students showed that from total of 828 participants, 698(84.3) had heard about STI_S. The source information was from school for 479 (68.7%), from

TV/radio for 276 (39.6%), from friends for 105 (15.1%), from families for 54 (7.7%), and from other sources such as books and internet for 2 (0.3%) (16).

2.2. Attitude towards STIs

A Study conducted in 2021 to assess knowledge, attitude and preventive practice towards STIs among secondary school students in Mlimba, Division, Faskara, Tanzania. In this study, from a total of 365 students (193, male 172 female) aged between 12 and 23 years the majority of students responded shows that condom protect people from STDs,190(52.1%) male and 165(45.2%) female students ,180(49.3%) male and 163(44.7%) female responded it was necessary to use condom during sexual intercourse .Both 186(51.0%) male and 186(51.0%) female students responded it was necessary to do screening while 193(52.9%) male and 153(41.9%) female students . All participants agreed to seek treatment after noticing symptoms were 193(52.9%) male and 172(47.1%) females (14).

On study conducted in west Gojjam preparatory school students from the total of 828 students in attitude response showed that 496(60% students disagreed on the vulnerable of adolescents for STI_S on the vulnerability of adolescents for STIs. On the other hand, about 45%of students agreed on the presence of curable and non-curable STI_S. Six hundred twenty-seven (75.7%) of respondents also agreed on the idea "person infected with STIs can go to health institution for treatment," whereas 446(54%) disagreed on the concept "by treating an individual who had STIs, spread of the disease can be prevented" (16).

According to study conducted on Arsi Negelle preparatory school students showed that out of the total respondents that participate in the study 54.5% of them have positive attitude while most of them believe STIs can be transmitted other than sexual intercourse (15).

2.3. Preventive practices

Study conducted in Mlimba, Division Faskara, Tanzania among 365 participants aged between 12-23 showed that who used condom first time to have sex were 62 (17%) males and 47 (12.9%) females who used condom last time to have sex were 37(10.1%) males and 97(26.6%) females participants who do sex with single participants were 62 (1.7%) males and 73 (20%) females (14)

On study conducted I Nigeria revealed that the relationship between source of information as function of practice was analyzed along gender line, it was observed that from 405 respondents 44.9% males and 46.9% females were inadequate in practice while relating source of information to practice in the prevention of STIs and condom use. It was observed that 5.18% males and 2.71% females were adequate practice (17)

On study conduct on west Gojjam preparatory school students, preventive practice towards STI_S showed that from total of 828 participants, sex workers. More than half of the students were practicing abstinence and faithfulness as means of preventive practices nearly one-tenth of student participated washing genitalia before and after intercourse as a preventive measure for STIs (16).

2.4. Factors affecting knowledge, attitude and preventive practice of students

Understanding the factors that drive STIs transmission is important to implementing effective STI prevention programs, particularly in high HIV-burden settings. Several studies from sub- Saharan Africa have identified women of reproductive age at high risk for STIs. Socio-behavioral risk factors for STIs in this group include low levels of education, not being married, multiple sex partners, alcohol and drug use, and early sexual debut (18). Additionally, key population such as men who have sex with men, transgender women, and commercial sex workers are at increased risk of STIs acquisition (19)

2.4. Socio-demographic factors

On study conducted in 2018 to assess knowledge of sexually transmitted infections and its associated factors among Polytechnic Collage students in Southwest Ethiopia from 453 randomly selected students in Mizan-Aman polytechnic college majority of the respondents were male(53.6%), single (88.1%), and orthodox religious followers (54.7%). More than half (57.6%) of the respondents were from urban. The mean of the respondents were cigarette smokers. Nearly one-fourth (23.6%) and 172 (38%) of respondents were alcohol drinkers and watching pornography at least once a time in life time respectively (20)

2.4.2. Individual factors

On study conducted in 2018 to assess knowledge of sexually transmitted infections and its associated factors among Polytechnic Collage students in Southwest Ethiopia from 453 randomly selected students in Mizan-Aman polytechnic college the mean of the respondents were cigarette smokers. Nearly one-fourth (23.6%) and 172 (38%) of respondents were alcohol drinkers and watching pornography at least once a time in life time respectively (20).

3. Objectives

3.1. General objectives

- To assess the knowledge, attitude and preventive practices on sexually transmitted infection and associated factors among students at Aba Franso preparatory school , Gubre sub-town, Gurage zone, SNNPR, Ethiopia 2022.

3.2. Specific objective

- To describe the level of knowledge towards STIs prevention among students at Aba Franso preparatory school, Gubre sub-town, Gurage zone, SNNPR, Ethiopia, 2022.
- To determine attitude towards STI prevention among students at Aba Franso preparatory school, Gubre sub-town, Gurage zone, SNNPR, Ethiopia, 2022
- To assess the level of practice towards STI preventive method among students at Aba Franso preparatory school in Gubre sub -town Gurage zone, SNNPR, Ethiopia, 2022
- To identify factors affecting KAP towards STI preventive method among students at Aba Franso preparatory school, Gubre sub-town, Gurage zone, SNNPR, Ethiopia, 2022.

4. Methods and material

4.1. Study area

This study was conducted in Aba Franso preparatory school Gubre sub Town, Gurage Zone, SNNPR, Ethiopia, located at a distance of 139.KM Southwest of Addis Ababa. Gubre is one of the sub town of Wolkite the capital city of Gurage zone and 1050 house holder lives in this sub-city. Aba Franso is the only one preparatory school in Gubre and it contains 8section of 11^{th} and 8 section of 12^{th} with total number of 717 students.

4.2. Study period

The study was conduct from March to June2022.

4.3. Study design

An Institutional based cross sectional study design was employ.

4.4. Population

4.4.1. source population

The Source population was all regular preparatory students in Aba Franso register in the academic years of 2014 EC.

4.4.2. Study population

The study population was students in Aba Franso Preparatory school who are in those classes that was select in lottery method which attended at the time of data collection.

4.5. Inclusion and Exclusion criteria

4.5.1. Inclusion

All grade 11 and 12 students attending their education in Aba Franso Preparatory school in academic year 2014 EC.

4.5.2. Exclusion criteria

Who was absent from school during data collection.

4.6. Sample size

The sample size is determined by using single population proportion formula by considering the following statistical assumptions: 95% confidence interval , 5% margin of error, and prevalence of respondents who had good knowledge on STI_S from previous study at west Gojjam zone, preparatory school student was 50.5 % ((16). 10% non –response rate .

P=50.5%

W=5%=0.05

Z=95%=1.96

$n=z^2\times p(1-p/w^{2)}$

$1.96^2\times 0.505(1-0.505)/0.05^2=0.495$

$=1.96^2 \times 0.249975/0.0025$

$=0.960/0.0025$

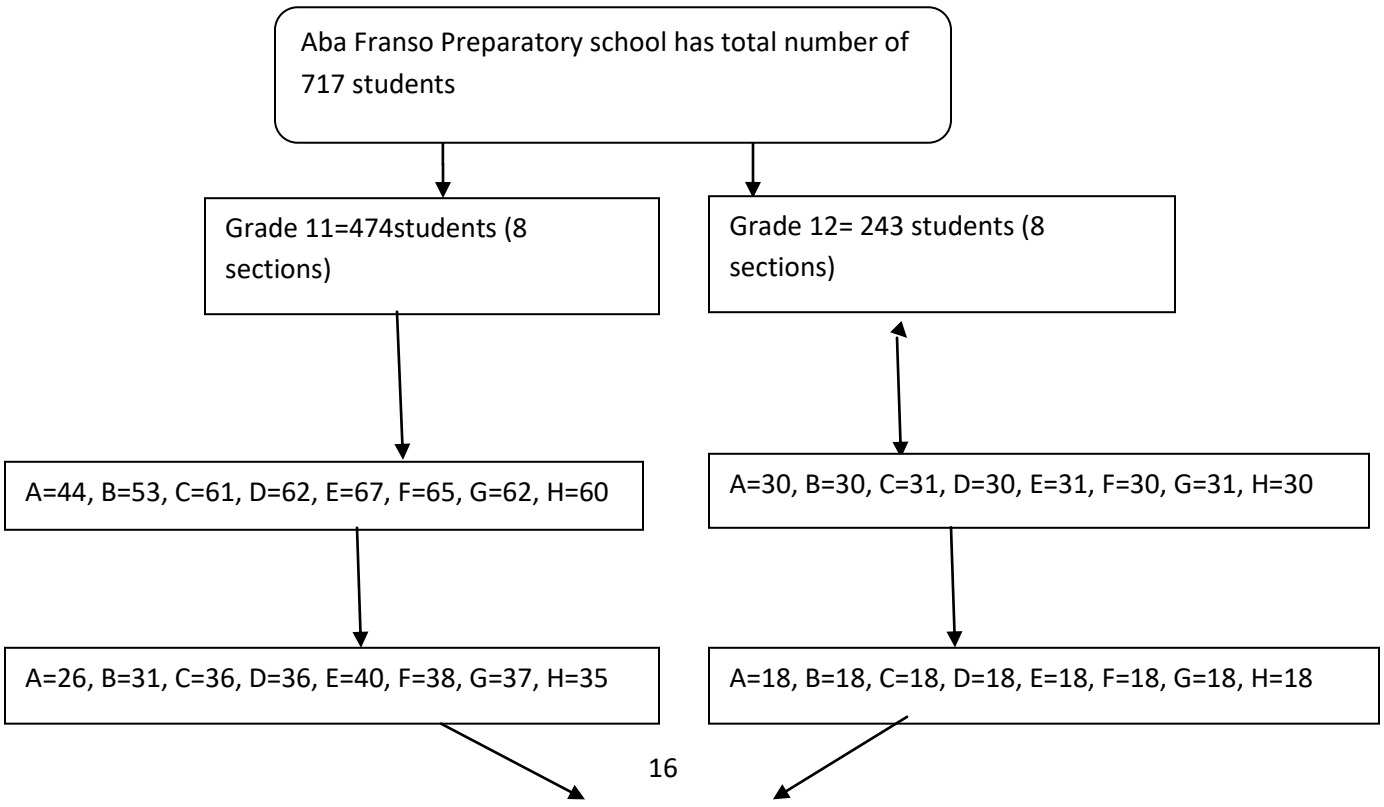
10% non- respondent rate $=384 \times 10/100$

$=384 + 384*10\% = 423$

4.7. Sample procedure

Systemic random sampling method was used to select study participants. First through roster we were trying to obtain student list from the school and, grade 11 and 12 then after by using lottery sampling method section were selected and the total calculated sample were proportional allocated to each grade based on the size of students .

Sample size from each grade = Number of students from each grade× $final\ sample\ size$/ total number of source population



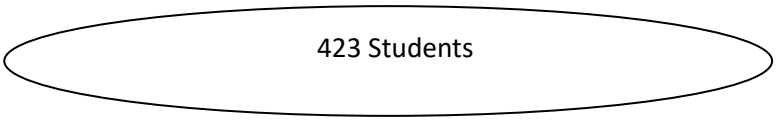


Figure 3-Gant chart to select for assessment of KAP on sexually transmitted infections and associated factors among students at Aba Franso preparatory school in Gurage zone, SNNPR, Ethiopia 2022

4.8. Study variables

4.8.1. Dependent Variables

- Knowledge towards STIs
- Attitude towards STIs
- Preventive practice towards STIs

4.8.2. Independent variables

- Age
- sex
- Religion
- Ethnicity
- Educational statutes of respondents
- Marital status
- Residence of respondent
- Economic status

4.9. Operational definition

- **Good knowledge-** If students answer the mean score and above out of prepared knowledge questions were good knowledge and below the mean were poor knowledge.

- **Favorable Attitude-** If students answer the mean score and above out of prepared attitude questions were favorable attitude and below the mean were unfavorable attitude.

- **Good Preventive Practice-** If students answer the mean score and above out of prepared practice questions had good preventive practice and below the mean were poor preventive practice.

4.10. Data collection and Tools

Data collection tools was developed and adapted after review of relevant literature. The questionnaire was prepared in English language and then translated in to Amharic language. The questionnaires have sections: socio demographic information, Knowledge on STIs, Attitude on STIs and practice on STIs.

4.11. Data collection procedure

For the sample students, purpose of the study and importance of participation was informed and verbal consent was ensured. Based on their willingness to participate in the study, standardized self - administered questionnaires which contain socio demographic data, knowledge, attitude, practice was used to data collection tools by principal investigators.

4.13. Data Quality Control

Structured questionnaires was primarily prepared in English then translated to Amharic and then back to English by translators in order to check consistency of questionnaire. After complete the correction of questionnaire the data also checked for completeness and consistency before any attempt to the enter code and analyze it by principal investigators.

4.14. Data Analysis

The collected data were check for completeness before the analysis. The data were enter in EPI-data version 3.1 and then export to SPSS version 21 for analysis for descriptive and associated factors in bivariate and multivariate analysis. The result was presented in text, figure and tables.

4.15. Ethical Consideration

The ethical clearance was obtained from institutional Ethical review board of school of nursing, collage of Medicine and Health Science, University of Wolkite. Official letter was writing to Aba Franso

preparatory school to obtain their permission. All study participants were clearly informed about the purpose of study and assured that the data they offer us was confidential. All respondents were signed the informed consent form prior to participants.

5. Result

5.1. Socio Demographic characteristics

A total of 423 respondents participated in this study making the response rate of 100%. Among these respondents 206 (48.7%) were males and 217(51.3%) were females. The age distribution showed the respondents 297(70.2%) were between 18-24 years old with 19 mean ages. From respondents 133(31.4%) were Orthodox religion followers. Majority of 356(84.2%) of respondents were Gurage, and others come from other regions. Majority 239(56.5%) of the respondents were living in the town. During the study period 358(84.6%) of the respondents were living with their family. 48.2% of respondents mother were attend primary school.179(42.3%) of respondents family's had above 5000ETB monthly income.

5.2. Knowledge of respondents towards STI

A Majority of 402 (95%) of respondents were heard about STI. The source of information was from school 100(23.6), from friends 402(95%), from family 207(51.3%), and others from TV/radio 43(10.2). Concerning the causes of STIs, 402(95%) bacteria is a cause of STI. Knowledge regarding STIs sign and symptom 401(94.6%) knew discharge from penis/vulva. Major of 402(95.1%) respondents answered that sexual intercourse is the common transmission mode of STIs.

From the respondents participated in this study 195(46.1%) had good knowledge and 228(53.9%) had poor knowledge about STIs.

Table 1. Knowledge characteristic of respondents towards STI Among Aba Franso preparatory school students.

Variable	Category	Frequency	Percentage
Have you heard about STI	Yes	402	95
	No	21	5.0
From where have heard information	Friend	402	95.0

	Family	207	51.3
	School	100	23.6
	TV /radio	43	10.2
	Health center	14	3.3
	Other	3	0.7
What are possible causes of STI	Bacteria	402	95.0
	Virus	154	36.4
	Fungus	24	5.7
	Sex during menstruation	2	0.5
Can an individual get STI from other who is infected with STI	Yes	373	93.0
Which is STI	Syphilis	400	94.6
	Gonorrhea	121	28.6
	Chancroid	85	20.1
	Hepatitis B	56	13.2
	HIV/AIDS	412	97.4
	Other	8	1.9
What are the common modes of transmission STI	Sexual intercourse	402	95.1
	Blood transfusion	219	51.8
	Sharing needles	103	24.3
	Mother to child	43	10.2
	Breast feeding	18	4.3
	Other	11	2.6
Can we prevent STI	Yes	389	96.8
	No	34	3.2
What are the common way of preventing	Condom use	400	94.6

	Abstinence	252	59.6
	Not having multiple sexual partners	124	29.3
	Not receiving unscreened blood	72	17.0
What are the sign and symptom s of STI	Abdominal	402	95.0
	Discharge from penis/vulva	401	94.6
	Itching in genital area	294	69.5
	Failure to urinate	170	40.2
	Loss of weight	91	21.5
	Pain during intercourse	41	9.7
	Genital ulcer	16	3.8
	Weakness	9	2.1
	other	2	0.5
Is it possible for individual to have STIs other than HIV without having symptom	Yes	290	72.1
	No		
What are complication of STI if untreated	Infertility	401	94.8
	Premature birth	246	58.2
	Still birth	117	27.7
	Ectopic pregnancy	64	15.1
	Miscarriage	30	7.1
	Cervix cancer	24	5.7
Do you know having one of STI other than HIV can increase risk acquisition of HIV	Yes	319	75.4
	No	104	24.6
Did STI can be cured by medicine	All are incurable	63	14.9

All are curable	59	13.9
Curable and incurable	301	71.2

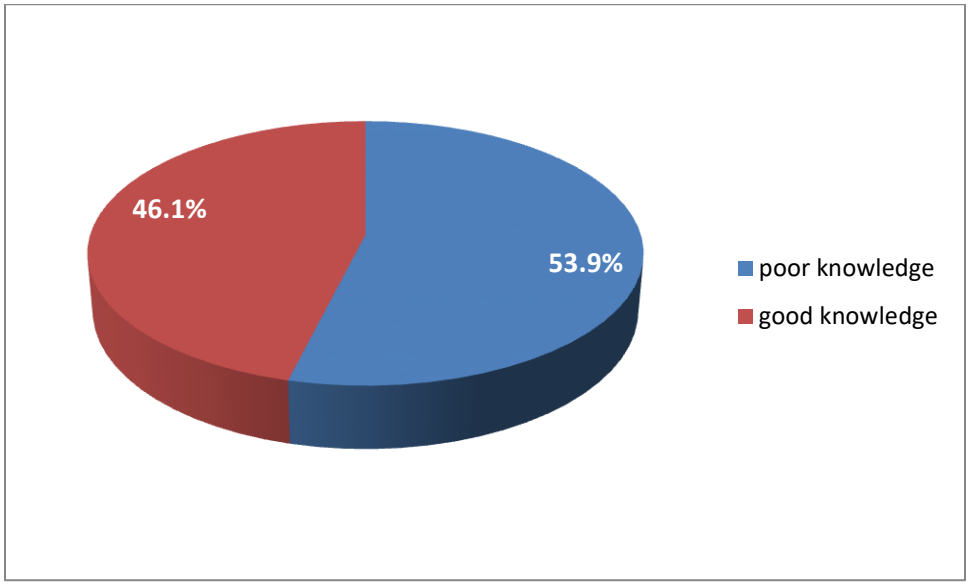


Figure 4-level of knowledge of respondents on STI among aba Franso School

5.3. Attitude of respondents towards STI

According to participants' attitudes towards STIs, 165(39%) had favorable attitude towards STIs, the remaining 258(61%) as unfavorable attitude. Regarding their perception towards identifying STI easily in the community 186(44%) perceived it is not identifiable, the majority 363(85%) of participants were perceived that young people should get information about STI to prevent the disease.

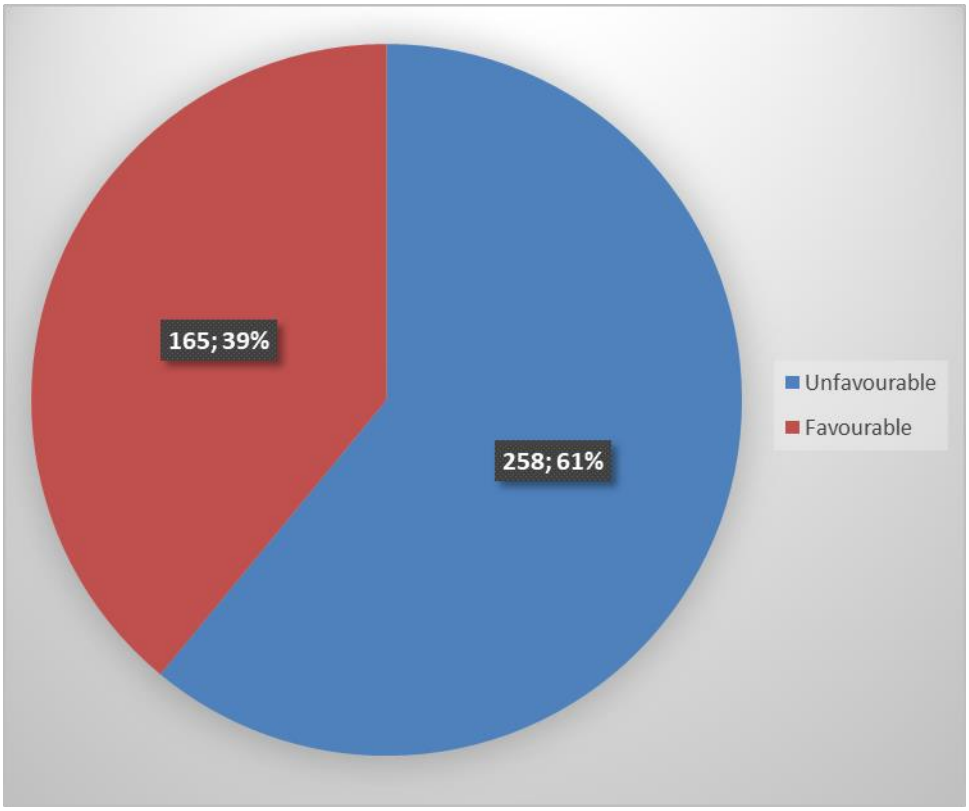


Figure 5: percentage of attitude towards STI among Aba Franso preparatory school students

5.4. Preventive practice of respondents towards STI

According to participant's preventive practice towards STI 44% has good preventive practice and 56% has poor preventive practice. We use six question to assess preventive practice of the respondents which is do you have boy/girlfriend, do you have more than 1 sexual partner, do you have sexual intercourse in the past, do you discuss about STI, with whom do you discuss, do you have STI test before, do have any type of STI previously. Among the respondents who were participated in the study, 29(6.9%) had history of STIs. Of those individuals who had had history of STIs previously 2(6.9%).From those study participants 69(16.3%) of them had history of sex. Those students were also asked about factors that initiated them to perform sex, sexual desire 38(24.2%) and peer-pressure 22(14%) were the major factors.

Table 2 prevention practice characteristics of respondents among Aba Franso preparatory school students.

Variable	Category	Number	Percent
Do you have boy/girl friend	Yes	164	38.8
	No	259	61.2
Do you have more than one sexual partner	Yes	28	6.6
	No	395	93.4
Do you have sexual intercourse in the past	Yes	69	16.3
	No	354	83.7
With whom do you have sex	Boy/girl friend	54	12.8
	Classmate	8	1.9
	Other	7	1.7
What forces you to undertake sexual intercourse	Sexual desire	38	24.2
	Peer pressure	22	14
	Drinking alcohol	1	0.6
	watching porn movies	6	3.8
	Other	2	1.3
Do you use condom when having sex	Yes	39	56.5
	No	30	43.5
How often do you use	Always	1	2.6
	Usually	12	30.8
	sometimes	26	66.7
Do you discuss about STIs	Yes	340	80.4
	No	83	19.6

With whom do you discuss	Parents	31	9.1
	Friend	225	66.2
	Sister/brother	30	8.8
	Boy/girl friend	49	14.4
	Other	5	1.5
Have ever been screened	Yes	154	36.4
	No	269	63.6
Do you have any type of STI previously	Yes	29	6.9
	No	394	93.1
Where have you been treated	Health institution	10	34.4
	Traditional healers	16	55.2
	At home	2	6.9
	Other	1	3.4

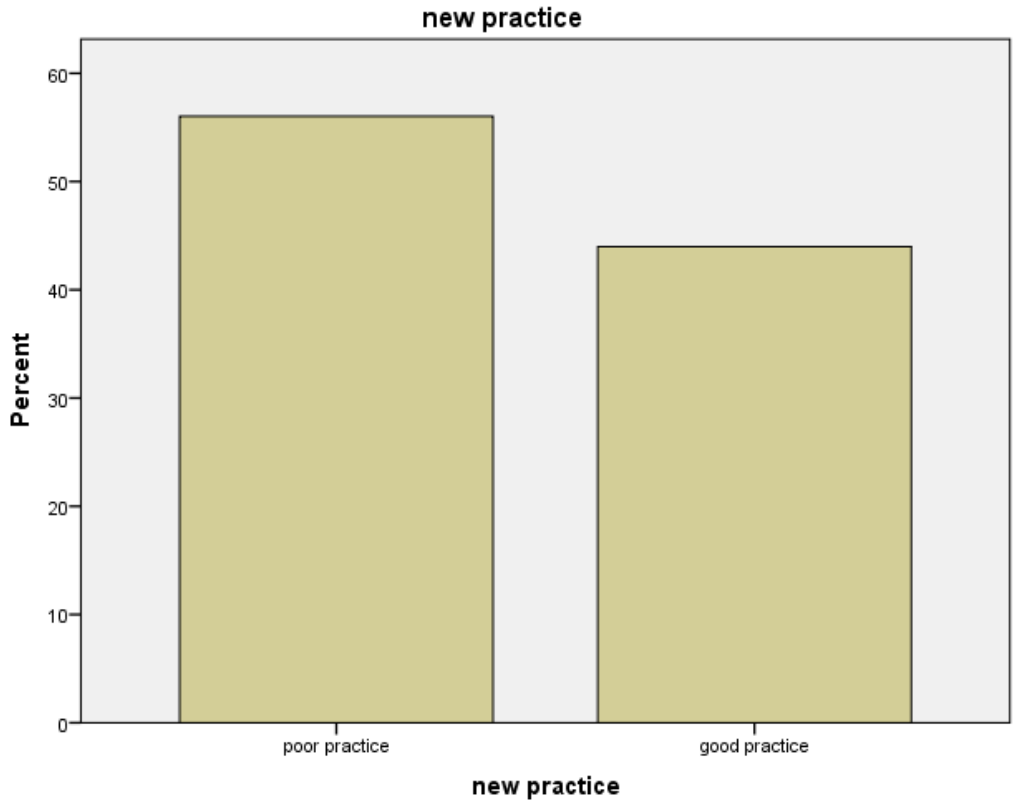


Figure 4 prevention practices of respondents towards STI among Aba Franso preparatory school students in Gurage zone ,SNNPR,Ethiopia

6.5. Factors associated with knowledge of the respondents towards STI

In the bivariate analysis factors which are significantly associated with knowledge about STI was: educational level of the respondents, stream of grade, mothers educational level after controlling the confounding in multivariate logistic regression analysis .grade, stream and mother educational level on STI were found to be significantly association with knowledge on infection prevention.

For thus, grade 11th students were about two times more knowledgeable about STI than compare to thus grade 12th students.[AOR=1.686,95% (CI=1.088-2.612)]

Those social students were more likely knowledgeable than those natural students.[AOR=1.580,95%, (CI=1.007-2.479)].

In regard to mother level of education secondary school more knowledgeable than primary school mother. [AOR=2.401, 95% (CI=1.292-4.463)].

Variable		Knowledge		COR{95%CI}	AOR{95CI}	p-value
		poor	good			
Grade	11	108	120	0.493(0.333-0.792)	1.686(1.088-2.612)	0.019
	12	125	69	1		
Stream	Natural science	71	90	0.528(0.355-0.785)	1.580(1.007-2.479)	
	Social science	157	105	1	1	
Mother educational status	No formal education	70	34	2.141(1.308-3.506)	1.193(0.594-2.395)	
	Primary	100	104	4.481(2.213-9.073)	2.401(1.292-4.463)	
	Secondary	17	37	1.004(0.572-1.970)	4.901(2.192-10.961	
	Collage and above	41	20	1	1	

6.6. Factors associated with attitude of the respondents towards STI.

In the bivariate analysis factors grade, resident, religion, father educational level and substance use which factor were significantly associated with attitude about STI after controlling the cofounding in multivariate logistic regression grade, resident and fathers educational level on STI were significantly associated with attitude of the respondents towards STI. This study revealed that the resident of urban were about two times more knowledgeable than rural residents [AOR=2.041, 95% CI= (1.323-3.149)].

Furthermore ,father educational level primary educational level were one times more poor attitude for STI compared with fathers with secondary educational level .[AOR= 1.471, 95% CI=(0.825-2.624)]

Table 5: bivariate and multivariate analysis on associated factors of attitude among Aba Franso preparatory school students towards STI

Variable		Attitude		COR{95%CI}	AOR{95CI}	P value
		negative	positive			
Grade	11th	16	74	2.008(1.350-2.985)	0.449(0.297-0.879)	
	12th	98	91	1	1	
Residence	Urban	130	109	0.522(0.348-0.782)	2.041(1.323-3.149)	
	Rural	128	56	1	1	
Father educational level	Non formal education	41	12	2.228(1.084-4.582)	0.432(0.200-0.930)	
	Primary education	92	60	2.784(1.307-5.932)	0.998(0.598-1.666)	
	Secondary education	54	44	2.358(1.126-4.932)	1.471(0.825-2.624)	
	College and above	71	46	1	1	
Substance use	Yes	67	59	0.630(0.413-0.962)	1.61291.034-2.514)	
	No	191	106	1	1	

7. Discussion

This was study about the knowledge, attitude and preventive practice on STIs among Aba Franso preparatory school students in Gubre sub town in Gurarage zone. The knowledge in this study was around 46.1% {CI 95%: (36.9-55.3) it is in line with compared with study in Arise Negelle 50.8 % (15). Also this study is higher when Compared to study in Gondar Fasileds preparatory school 45.4% of respondents had good knowledge about STIs (24).

165 (39%) {CI 95% (24-53)} participant of this study had favorable attitude, this result was in line with seto semero high school 44% of participant had favorable attitude toward STIs. This difference might be educational difference between the study subjects since the study was in high school (7). The current study was lower than study in Shone preparatory school 84.8% of respondents had positive attitude toward STIs. The variation might be due to their higher respondent rate (10).

With regarding preventive practices 44.9% of participant had good preventive practice, this is higher than study in arise Negelle 38.6% of respondents had good preventive practices which is conducted among 117 students who had history of sexual contact. The possible reason for having different preventive practices might be due to difference in participant number of the two study participants (21)

` In this study 16.3% of the respondents reported as they had history of sexual intercourse and from this only 11.6% of participants were used condom as a method of prevention, this result was significantly lower than study in Kenya which showed that (66.2%) of respondents had sex and 72.8% of them indicated they use condom during sexual intercourse. The possible reason might be due to the difference socio economic status of the countries. In addition to the above justification it might be due to the research in Kenya conducted at university students where as our research was conducted at preparatory school students. This might create gap in knowledge attitude and preventive practice of the students. In similar study from those who used condom, many of them used to prevent pregnancy but our study showed that more than half of respondents used because of they fear HIV infection only; this showed that in these two studies respondents were misunderstanding and not considering other STIs and fear of pregnancy (22)

8. Limitation of the study

This study use cross sectional study design as long as the study is cross sectional it show exposure and out come at the same time

9. Conclusion

In this study reviled that the participants had low knowledge, unfavorable attitude as well as low preventive practice.

10. Recommendation

Based on the study findings the following recommendations were forwarded

For central Gurage zone health bureau:

We would like to recommend Gurage zone health bureau to work in collaboration with DKT Ethiopia to distribute condom and teach about correct and consistent use of condom.

For Wolkite university college of medicine and health science:

We would like to recommend Wolkite University College of medicine and health science to have a link with schools and prepare a program that mainly focuses on sexually transmitted infections, importance of getting treatment at health institution and use of condom during sexual intercourse

For School director:

We would like to recommend Aba Franso preparatory school director members to organize and strengthen anti-STIs club in school that focus on reproductive health of Youth to raise their attitude.

For Researchers:

We would like to recommend researchers to conduct further studies in order to examine sexuality and reproductive health related issue and their determinants in the study area.

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Part 1: -Socio demographic characteristics of respondents

	Variable	Option	
1	Age	----------	
2.	Sex	1.Male 2.Female	
3.	What is your religion?	1.Orthodox 2.Muslim 3.Protestant 4.Other(specify)	
4.	To which grade do you belong?	1.Grade 11 2.Grade 12	
5.	Where is your residence?	1.Urban 2.Rural	
6.	With whom do you live?	1.Parents or family 2.Friends or friend in rental home 3.By myself in rental home 4.Others (specify)	If not with parents/Family skip Q.7&8
7.	What is the highest level of school your mother attended:	1.No formal education 2.Primary 3.Secondary 4.College and above	
8.	What is the highest level of school your father attended:	1.No formal education 2.Primary 3.Secondary 4.College and above	

Part -2. Question regarding knowledge of participants			
Ser. No	**Question**	**Response**	**Skip pattern**
9.	Have you heard about STI?	1.yes 2.no	
10.	From where have you received information on STI? (*You can circle more than one alternative*)	1.Friends 2.Family 3.School 4.Television/Radio 5.others (specify):	
11.	12. What are the possible "causes" of STI? (*You can circle more than one alternative*)	1.Bacteria 2.Virus 3.Fungus 4.Sex during menstruation 5.other (specify)	
12.	Can an individual get STIs from other who is infected with STIs?	1.Yes 2.No	
13.	Which is sexually transmitted infection? (*You can circle more than one alternative*)	1. Syphilis 2.Gonorrhea 3.Chancroid 4. Hepatitis B 5. Hepatitis C 6. HIV/AIDS 7. others (specify)	
14.	What are the common modes of transmission of STI? (*You can circle more than one alternative*)	1.Sexual intercourse 2.Blood transfusions 3.sharing needle 4. Mother to child	

		5.Brest feeding 6.others (specify):	
15.	Can we prevent STIs?	1.yes 2.no	
16.	What are the common ways of preventing STI(*You can circle more than one answer*)	1.condom 2. abstinence TI 3. not having multiple sexual partners 4.not receiving unscreened blood	
17.	What are the signs and symptoms of sexually transmitted infections? (*You can circle more than one alternative*)	1.Abdominal pain 2.Discharge from penis/vulva 3.Itching in genital area 4.Failure to urinate 5.Loss of weight 6.Pain during intercourse 7.Genital ulcers or open sores 8.Weakness 9.Others (specify):	
18.	Is it possible for an individual to have STIs other than HIV without having symptoms?	1.Yes 2.No	
19.	What are complications of STIs if untreated? (*You can circle more than one alternative*)	1.Infertility 2.Pre-mature birth 3.Still birth 4.Ectopic pregnancy 5.Miscarriage 6.Cervix cancer	
20.	Do you know having one of STIs other	1.yes	

	than HIV can increase risk of acquisition of HIV?	2.no	
21.	Did STIs can be cured by medicine	1.all are incurable 2.there are curable and incurable 3. all are curable	

Part-3 Question Regarding Attitude of Students

NO.	Question	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
22.	Do you think patients with STIs are easily identified in the community?					
23.	Do you think sexually transmitted infections are not dangerous because They can be cured?					
24.	Do you think people who are infected with STI must get treatment					
25.	If a person believes that he or she had gotten a sexually transmitted infection and is unsure about the symptoms he/she should directly contact health personal					
26.	Young people should get information/knowledge about STIs in order to prevent these diseases					
27.	A person who does not want to become infected with a STI should use condom When having sexual intercourse.					

28.	Do you believe isolating an individual Who had STI can help prevent the Spread of the disease.					
29.	Do you think STIs can transmit by other means than sex?					

Part- 4 Question Concerning Preventive Practices of Respondents

s. no	Question	Response	Skip pattern
30.	Do you have a boyfriend/girlfriend?	1.yes 2.no	
31.	Do you have more than 1 sexual partner?	1.Yes 2.No	
32.	Do you have sexual intercourse in the past?	1.Yes 2.No	If no skip Q.32-38.
33.	With whom do you have sex?	1.Boy/girl friend 2.Classmate 3.Other(specify)	
34.	What forces you to undertake sexual intercourse? (*You can circle more than one alternative*)	1.Sexual desire 2.Peer pressure 3.Drinking alcohol 4.Watching porn movies 5.Other(specify)	
35.	Do you use condom when having sex?	1.Yes 2.No	If no skip Q. 36
36.	How often do you use?	1.Always 2.Usually 3.Sometimes	
37.	Do you discuss about STIs?	1.Yes 2.No	If no skip Q.38

38.	With whom do you discuss? (*You can circle more than one alternative*)	1.Mother or father 2.Friends 3.Sister/brother 4.Other (specify)	
39.	Do you have any type of STI previously?	1.Yes 2.No	If no skip Q.40.
40.	Where have you been treated?	1.At health institution 2.By traditional healers 3.At home 4.Other(specify)	