Determination of Knowledge, Attitudes and Practices on Prevention of Sexually Transmitted Infections among Seto Semero High School Students

Abstract

**Background:** Sexually transmitted infections (STIs) are illnesses that have a significant probability of transmission between humans by means of human sexual behavior including vaginal intercourse, oral and anal sex. Sexually transmitted diseases (STDs) are major public health problem affecting mostly young people in both developing countries and developed countries.

**Objective:** This study aims to assess knowledge, attitude and practice of STIs among Seto Semero high school students, Jimma town, Ethiopia.

**Methods:** A cross sectional descriptive study was conducted. A total of 324 participants completed Pre-tested, structured self-administered questionnaires in April 2014. The Statistically Packages for Social Sciences (SPSS) version 16 was used for the statistical description and ANOVA analysis and results were presented in numbers, percentages, means and standard deviations. The cut-off 5% level of significance was taken to see the difference between groups.

**Results:** Three hundred and twenty four students participated in the study. Students making a response rate of 98.2%. Of which 189(58.3%) were males and the remaining 135(41.7%) were females. Most of (88%) of the participants were between 15–19 years of age and 274 (84.6%) were single. The majority of 287(88.5%) had ever heard about STIs. Radio/TV was the most frequently source of information for STIs.

**Conclusion:** Practice of respondents towards condom use is low. Educational level of respondents and parents had significant association with knowledge level. We recommended that Setosemero high school administration body to organize and strengthen anti-STIs club in school to raise awareness among students.

**Keywords:** Sexually transmitted infections; Knowledge; Attitude; Practice; Radio/TV; Gonorrhea; Syphilis; Chancroid; Lymphogranulomavirus; Chlamydia; Viruses; Parasite; Protozoa

**Abbreviations:** STIs: Sexually Transmitted Infections; STDs: Sexually Transmitted Diseases; VD: Venereal Disease; SPSS: Statistically Packages for Social Sciences

**Introduction**

Sexually transmitted infections (STIs) also referred to as sexually transmitted diseases (STDs) and venereal disease (VD) are illnesses that have a significant probability of transmission between humans by means of human sexual behavior including vaginal intercourse, oral and anal sex [1,2]. Sexually transmitted infections (STIs) are recognized as a major public health problem in most of the world. STDs include not only the common classical disease like Gonorrhea, Syphilis, Chancroids and Lymphogranuloma Venerum but also about twenty infections often referred to as "second generation "STDs caused by bacteria, viruses, parasite, protozoa and fungal agents. STDs can be recognized as curable and incurable. The common curable STDs are Gonorrhea, Syphilis, Chancroid, Lymphogranulomavirus, Chlamydia, and Trichomoniasis and lymphogranuloma Donovan’s. The STDs that are preventable but not curable are the viral STDs which include HIV, HPV, Hepatitis B virus and herpes simplex virus. Syndromic case definitions are important in situations where clinical examination and laboratory are not options. STDs present themselves mainly in seven syndromes; these are genital ulcer; urethral discharge, vaginal discharge, lower abdominal pain, inguinal bubo, neonatal conjunctivitis and scrotal swelling [3,4].

According to North America extrapolated statistic annual report of STI in 2012/13, Number of the STI infected person in North America was greater than 10 million, above 48 million in Western Europe, greater than 11 million in Central Asia, 7,881,783 in Kenya, 1,984,555 in Somalia, 6,306,495 in Uganda and 17,047,342
in Ethiopia [5,6]. In some part of the developing world, over 90% of the population was infected with STIs. Despite long standing control efforts, it is estimated that more than 500 million people still are at high risk of infection; over 140 million persons are infected and about 6 million are in Africa Middle East, central and south-east Asia and countries in Latin America [7]. An estimated 340 million new case of syphilis, gonorrhea and Chlamydia occurred throughout the world since 1999. However, in sub Saharan Africa bears the largest burden of these new cases and it response from 11 to 35% of this new case of curable STIs [8]. In 2001, more than one million of people were being infected daily. Meanwhile, about 60% of young people whose age between 14-19 is infected with STIs and females who are at age of 20 prone to this case [8]. According to 2012 WHO annual report of STIs dose to 333 million people worldwide contracts sexually transmitted infections (STIs) yearly. Ranking among the top five diseases for which adults in developing countries seek health care [9]. In Ethiopia during a national review meeting on STIs in 2003, a total of 451,686 cases of STIs were reported from all regions except SNNP for the period 1999-1994E.C (1998-2002). In addition, According to 2002 quarterly report 27,947 STI cases are reported from all regions [10,11]. The problem of STIs in Ethiopia is generally believed to be similar to that of other Developing countries. But to dates, there are no studies on students in this country indicating the Current magnitude of STIs. 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. Adolescent especially in developing countries are exposed to unsafe and early sex, poverty and lack of appropriate information, which is very common in developing countries makes adolescent more vulnerable to STIs including HIV/AIDS. For some STIs such as Chlamydia and trachoma is adolescent females may have increased susceptibility for infections because of increased cervical ectopic. Globally more than half of all new HIV infections are among 15-24 years of age. In Ethiopia among men of age 15-19 1nd 20-24 nearly 5% and 2% had experienced STIs or associated symptoms has got treatment or medical advice but the rest did not get treatment because of lack of health insurance or ability to pay, lack of transportation, discomfort with facilities and services designed for adults and concern about confidentiality [12-14]. With the advent of STIs for which curative therapy is not available, primary prevention has assumed greater importance. Modifying selection of sexual partners, avoiding certain sexual practices theoretically and designing effective behavioral change intervention reduces the risk of infection. In Ethiopia, studies on Sexually Transmitted Infections (STIs) among high school students are very few; therefore, conducting research on STIs in general and among High school students in particular is an important input to design policy and strategy aimed at preventing and controlling the infections. No previous research conducted on assessment of KAP towards STIs in Setosemero high school students makes me to conduct a research. This study aims to assess the knowledge, attitude and practice among Setosemero high school students towards STIs.

Methodology

Study area and period

The study was conducted in Seto semiro High School located in Jimma Town, South West Ethiopia, Oromia Regional State from April 01-03/2014. Jimma town is the capital city of Jimma zone which is located at 346 Km to the south west of Addis Ababa. The area lies between a latitude of 7° 41’ N and longitude of 36° 50’E and has an elevation of 1704 meters above sea level, with a total population of 159,009 of whom 80,897 were males and 78,112 were females [25]. There is a university (Jimma University), ten colleges (eight private and two government colleges), six high schools, and seventeen elementary schools in the town. Seto Semero is one of the high schools in Jimma town which is located 350 Km away from Addis Ababa and 3km away from Jimma University main campus. The School was built in 1953 with elementary and upgrade to high school in 1996E.C.Currently According to the statics obtained from the school offices a total of 1381 students were enrolled during 2013/14 academic year. From the total students of 1381(649=grade 9th and 732=grade 10th) out of which 787(57%) of them were female and 594(43%) were male students. The school had total of 32 sections with 16 in grade 9th with average of 40 students in each class and 16 in grade 10th with average of 45 students in each class.

Study Design

A descriptive quantitative cross sectional study design was employed.

Population

A. Source Population

All grade 9th and grade 10th students of Seto Semero high school.

B. Study Population

All Sample students of Seto Semero high school who were selected by the study.

Sampling Frame: List of students from the school registrar.

Sampling Criteria

Inclusion Criteria

a. Seto Semero high school students who attend the class during data collection period and Volunteers.

b. When the sample was absent the students before or after the sample was selected.

Exclusive Criteria

a. Volunteers

b. Those who weren’t available during data collection period.

c. Those who were physically and mentally not capable to be interviewed.

Sample size determination and sampling procedure

Sample Size Determination

Sample size was determined using the formula for a single population proportion for cross sectional study with the following assumptions. By assuming that 50% of students has knowledge, attitude and practice about STIs to obtain maximum sample size at 95% certainty and a maximum discrepancy of ± 5% between the
sample and the population, the size of the sample was determined by the formula:

\[ n = \frac{(Z/2)^2 \cdot p \cdot (1-p)}{d^2} \]

Where \( n \) = minimum sample size needed

\( p \) = proportion (50%)

\( Z \) = significance level at confidence interval of 95%

\( d \) = margin of error (0.05)

\( Z \alpha/2 \) = value of standard normal distribution corresponding to significant level of alpha (\( \alpha \)) 0.05 which is 1.96.

Since the total populations were less than 10,000 the final sample size was determined by using the correction formula:

\[ nf = \frac{n}{1+n/N} = \frac{384}{1+384/1381} = 300 \] where \( n \) = minimum sample size

\( N \) = source population

\( nf \) = final corrected sample size

Taking in consideration the non-response rate, 10% of the sample size was added and the final total sample size of the study was 330.

**Sampling Procedure**

1. **First**: Through obtaining student list from the school, students were stratified in two strata (grade 9 and 10) based on grade level difference.

2. **Second**: The total calculated sample was proportionally allocated to each grade based on the size of students.

3. **Finally**: Systematic sampling method was used to select the sample student in the class by every \( k \) interval according to students roll number in the class and the first student was selected by lottery method. \( K = N/nf = 1381/330 = 4 \), so every 4 individual were selected until the sample size was completed (Figure 1).

**Figure 1**: Schematic presentation of sampling procedure.
Determination of Knowledge, Attitudes and Practices on Prevention of Sexually Transmitted Infections among Seto Semero High School Students

Study variables

Dependent variables
a. Knowledge towards STIs
b. Attitude towards STIs
c. Practice towards STIs

Independent variables
a. Age, Sex, Religion, Educational status of respondents and parents, Marital status, Ethnicity

Data collection tool and procedure

Data collection tool
The questionnaire was prepared in English language, during preparation we try to follow the logical order from simple to complex and put sensitive questions at the end. A structured, pre-tested and self-administered questionnaire was used for data collection. The questionnaire was initially prepared in English language and then translated in to Afan Oromo and Amharic language by data collectors. It had four sections: Socio demographic information, Knowledge on STIs, Attitude on STIs and Practices on STIs.

Data collection procedure
For the sampled students the purpose of the study and importance of participation was informed and verbal consent was ensured. Based on their willingness to participate in the study, a pre tested, structured, standardized self-administered questionnaire which was modified contextually was distributed to collect the data by three trained 4th year regular nursing students who spoke both Afan Oromo and Amharic language.

Data processing and analysis
After data collection each questionnaire was checked for completeness and consistency. The statistically Packages for Social Sciences (SPSS) version 16 was used for the statistical descriptions and ANOVA analysis and results were presented in numbers, percentages, means and standard deviations. The cut-off 5% level of significance was taken to see the difference between groups.

Ethical considerations
The proposal of the study was first submitted to Jimma university department of nursing for ethical approval. After approval formal official letter was written to Seto Semero high school administrative office to get permission and cooperation. The respondents were informed about the objective and purpose of the study and verbal consent was taken from each respondent and assured that all data was confidential and only analyzed as aggregates.

Data quality control
Training was given for data collectors on the objectives of the study, the contents of the questionnaire, issues related to the confidentiality of the responses and the rights of respondents. A structured questionnaire developed was pre tested on 5% of the study population in Jiren high school students that were not include in the main survey, to ensure clarity of questions and required amendment was done. Follow up and supervision was conducted by the investigator during data collection period and support was given to students at the time of difficulty. The collected data was checked by principal investigator and data collectors every day at the end of each data collection day.

Limitation of the study
Since the questions focus on sensitive issue the respondent might not give genuine information even if confidentiality was assured. Thus, it could affect the reliability of the information in this study.

Operational definitions and definition of terms
Knowledge = level of educational difference about the mode of transmission, sign and symptoms and way of prevention as well as control.
Attitude = the value of adolescent towards STDs
Practice = the value of adolescent towards STIs, either for prevention or control.
Knowledgeable: those answered 51.7-74% of knowledge question were labeled as
Knowledgeable: those answered ≥ 75% of total knowledge question were labeled as

Knowledgeable: those answered 51.7-74% of knowledge question were labeled as
Knowledgeable: those answered ≥ 75% of total knowledge question were labeled as

Knowledgeable: those answered ≤50% of total knowledge question are considered as not knowledgeable [14].

Result
Socio demographic characteristics of the respondents
Three hundred and twenty four students were participated in the study making a response rate of 98.2%. Of which 189 (58.3%) were males and the remaining 135 (41.7%) were females. Most of (88%) of the participants were between 15-19 years of age and 274 (84.6%) were single. More than half 173 (53.4%) of them were attending grade 10th level whilst 151 (46.6%) were grade 9th level students (Table 1).

| Characteristics | Category | Number | Percent |
|-----------------|----------|--------|---------|
| Sex             | Male     | 189    | 58.3    |
|                 | Female   | 135    | 41.7    |
|                 | Total    | 324    | 100     |
| Age             | 15-19    | 285    | 88      |
|                 | 20-24    | 36     | 11.1    |
|                 | 25-29    | 3      | 0.9     |
|                 | Total    | 324    | 100     |
| Ethnicity       | Amhara   | 105    | 32.4    |
|                 | Oromo    | 158    | 48.8    |
|                 | Tigre    | 22     | 6.8     |
|                 | SNPP     | 39     | 12      |
|                 | Total    | 324    | 100     |

Table 1: Socio-demographic characteristics of respondents among Setosemero high school students, Jimma, Ethiopia, April, 2014.

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Knowledge towards STIs

A Majority 287 (88.5%) of respondents had ever heard about STIs. Meanwhile, 37(11.5%) didn’t heard about STIs (Figure 2).

Source of information about STIs

A majority 249(82.6%) of participants were using radio/Television as most frequently source of information about STIs transmission methods and its treatments followed by 234(77.4%) by school and 176(58.2%), 15(4.8%) were used parents and others respectively (Figure 3).

Participant’s knowledge

Sign and symptoms of sexual transmitted infection.

The findings based on the responses of the participants regarding their knowledge on the STIs sign and symptoms were 245(89.4%) answered urethral discharge among males and 243(88.6%) answered vaginal discharge among female respondents (Table 2).

Transmission methods

A majority of 274 (84.6%) respondents were identified a single transmission methods of STIs. Of which like sexual intercourse 237(42.5%), contact with contaminated blood and needle 202(36.3%), breast feeding 32(5.7%), and genetics 75(13.5%) where more than one answer were common (Figure 4).

Prevention methods

Regarding prevention methods of STIs, more than two third 269(83.1%) were knew prevention methods of STIs, the remaining...
55(16.9%) of the participants did not know any prevention methods of STIs. From those who were positive respondents about prevention methods of STIs they were chosen using condom (107), faithfulness (124) and abstinence (183) (Figure 4). Furthermore, for knowledge questions we were used scoring of ≥ 9/12=knowledgeable, scoring ≥ 7/12=fairly knowledgeable and scoring ≤ 6/12=not knowledgeable. Regarding the overall knowledge level, from a total of participant 102 (31.5%), were knowledgeable, 154 (47.5%) were fairly knowledgeable and the rest 68 (21%) were not knowledgeable. (Table 5).

Table 2: Frequency and percentage distribution of knowledge among Setosemero high school students towards STIs, Jimma, Ethiopia, April, 2014.

| Variable                                      | Categories              | Number | Percent |
|-----------------------------------------------|-------------------------|--------|---------|
| Do you know sign and symptom of STIs?         | Yes                     | 274    | 84.6    |
|                                              | No                      | 50     | 15.4    |
|                                              | Total                   | 324    | 100     |
| Sign and symptom occur in female             | Vaginal discharge       | 243    | 88.6    |
|                                              | Burning pain on urination| 208    | 75.9    |
|                                              | Redness & swelling in genital area | 198 | 72.3 |
|                                              | Loss of weight          | 189    | 68.9    |
|                                              | Lower abdominal pain    | 179    | 65.3    |
|                                              | Other                   | 12     | 4.4     |
| Sign and symptom occur in male               | Burning pain on urination | 223  | 81.4  |
|                                              | Urethral discharge      | 245    | 89.4    |
|                                              | Readness& swelling in genital area | 194 | 70.8 |
|                                              | Loss of weight          | 187    | 68.2    |
|                                              | Lower abdominal pain    | 171    | 62.4    |
|                                              | Other                   | 17     | 6.2     |
| Do you know type of STIs                     | Yes                     | 252    | 77.7    |
|                                              | No                      | 72     | 22.3    |
|                                              | Total                   | 324    | 100     |
| Type of STIs you know                        | Gonorrhea               | 192    | 76.2    |
|                                              | Syphilis                | 189    | 75      |
|                                              | Genital warts           | 187    | 74.2    |
|                                              | Trichomoniasis          | 112    | 44.4    |
|                                              | Candidacies             | 101    | 40      |
|                                              | Genital herpes          | 108    | 42.8    |
|                                              | HIV/AIDS                | 224    | 88.8    |
|                                              | Chancroids              | 145    | 44.7    |
| Do you know any curable STIs?                | Yes                     | 247    | 76.2    |
|                                              | No                      | 77     | 23.8    |
|                                              | Total                   | 324    | 100     |
| Curable STIs you know                        | Gonorrhea               | 189    | 58.3    |
|                                              | Syphilis                | 162    | 50      |
|                                              | Trichomoniasis          | 102    | 31.5    |
|                                              | Candidacies             | 98     | 30.2    |
|                                              | Chancroids              | 137    | 42.3    |

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Attitudes towards STIs
According to participants’ attitudes towards STIs, more than two third 237 (73.2%) were believed that STIs are a diseases which can transmitted through sexual methods, the remaining 29 (8.9%) STIs as a curse and 58 (17.9%) as a syndrome. Regarding their perception towards vulnerability, the majority 284 (88.7%) of participants were perceived that adolescents are more vulnerable to STIs infections than others. Almost all 288 (88.9%) of them considered STIs as preventable diseases (Table 4). Regarding the overall attitudes/believe ≥ 6/8=good attitude, scoring 5/8=favorable attitude and ≤ 4/6=unfavorable attitude. Regarding their overall attitude level, 145 (44.7%), 114 (35.2%) and 65 (20.1%) had favorable attitude, fairly favorable attitude and unfavorable attitude respectively (Table 5).

Practices towards STIs
Among the respondents who were participated in the study, 17 (5.3%) had history of STIs. Of those individuals who had had history of STIs, 5 (29.4%) of them treated at home, 11 (64.7%) treated at health institution and the remaining 1 (5.9%) treated by religious based practices (holy water). From those study participants 64 (19.7%) of them had history of sex. Among those who performed sex 42 (65.6%) of them performed sex at age between 20-24 years. Those students were also asked about factors that initiated them to perform sex, boy/girlfriend 44 (68.8%) and peer pressure 8 (12.5%) were the major factors. From the total 64 students 29 (45.3%) were used condom during sexual intercourse and the rest 35 (54.7%) didn’t used condom during sexual intercourse (Table 6). Regarding their plan for the future to prevent STIs, 170 (52.5%), 98 (30.3%) and 56 (17.2%) said abstinence, being faithfulness and using condom respectively. Statistically significant association was observed between grade level, father & mother level of education and knowledge about sign & symptom of STIs (p<0.05) (Table.7). Statistically significant association was observed between grade level, father & mother occupation and knowledge about prevention method of STIs (p<0.05) (Table 8). Furthermore, statistically significant association was observed between grade level, sex and knowledge about prevention method of STIs (p<0.05) (Table 9).

Table 3: Frequency and percentage distribution on level of knowledge among Setosemero high school students towards STIs, Jimma, Ethiopia, April, 2014.

| Level of Knowledge | Number | Percent |
|--------------------|--------|---------|
| Knowledgeable      | 102    | 31.5    |
| Fairly knowledgeable| 154    | 47.5    |
| Not knowledgeable  | 68     | 21      |
| Total              | 324    | 100     |

Table 4: Frequency and percentage distribution of Attitude among Setosemero high school students towards STIs, Jimma, Ethiopia, April, 2014.

| Variable | Categories | Number | Percent |
|----------|------------|--------|---------|
| What do you think about STI? | It is diseases | 237    | 73.2    |
| | It is a curse | 29     | 8.9     |
| | It is a syndrome | 58     | 17.9    |
| | Total | 324 | 100    |
| Do you think that STIs can transmit through methods other than sexual intercourse? | Yes | 253 | 78.1 |
| | No | 71 | 21.9 |
| | Total | 324 | 100 |
| Do you agree that adolescents are more vulnerable to STIs? | Yes | 245 | 75.6 |
| | No | 79 | 24.4 |
| | Total | 324 | 100 |
| Do you think that STIs are preventable | Yes | 288 | 88.9 |
| | No | 36 | 11.1 |
| | Total | 324 | 100 |

Figure 4: Frequency distribution of Transmission Methods of STIs among Setosemero high school students, Jimma, Ethiopia April, 2014. **Others= blood transfusion, contact with body secretions.

Figure 5: Frequency distribution of Prevention methods of STIs among Setosemero high school students, Jimma, Ethiopia, April, 2014. **Others= avoid contact with body fluids, avoid homosexual.

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Do you think person with STIs can be easily identified from community | Yes | 87 | 26.9 |
| No | 237 | 73.1 |
| Total | 324 | 100 |

Do you think that health education can reduce STIs transmission | Yes | 292 | 90.1 |
| No | 32 | 9.9 |
| Total | 324 | 100 |

Do you think person with STIs can go to health institution for treatment | Yes | 289 | 89.2 |
| No | 35 | 10.8 |
| Total | 324 | 100 |

Do you think that STIs can cause social stigma & discrimination | Yes | 102 | 31.5 |
| No | 222 | 68.5 |
| Total | 324 | 100 |

Table 5: Frequency and percentage distribution on level of attitude among Seto Semero high school students towards STIs, Jimma, Ethiopia, April, 2014.

| Level of Attitude | Frequency | Percentage |
|------------------|-----------|------------|
| Favorable attitude | 145 | 44.7 |
| Fairly favorable attitude | 114 | 35.2 |
| Unfavorable attitude | 65 | 20.1 |
| Total | 324 | 100 |

Table 6: Frequency and percentage distribution on practice among Seto Semero high School students towards STIs, Jimma, Ethiopia, April, 2014.

| Variables | Categories | Frequency | Percentage |
|-----------|------------|-----------|------------|
| Did you practice sex? | Yes | 64 | 19.7 |
| | No | 260 | 80.3 |
| | Total | 324 | 100 |
| What was your age at that time | 15-19 | 22 | 34.4 |
| | 20-24 | 42 | 65.6 |
| | Total | 64 | 100 |
| With whom you perform a sex? | Girlfriend/boyfriend | 41 | 64.1 |
| | Class fellow student | 14 | 21.9 |
| | Prostitute | 9 | 14 |
| | Total | 64 | 100 |
| What was the cause? | Peer pressure | 8 | 12.5 |
| | Boy/girlfriend pressure | 44 | 68.8 |
| | Sexual initiation because of age | 10 | 15.6 |
| | Economical and educational gain | 2 | 3.1 |
| | Total | 64 | 100 |
| Did you use condom during sexual intercourse | Yes | 29 | 45.3 |
| | No | 35 | 54.7 |
| | Total | 64 | 100 |
Table 7: Association of socio demographic factors & knowledge on sign & symptoms of STIs among Seto Semero high school students, Jimma, Ethiopia, April, 2014.

| Variables                        | Knows Symptom of STIs | Total | X2   | Df | P-value |
|----------------------------------|-----------------------|-------|------|----|---------|
| Current grade level              |                       |       | 5.63 | 1  | 0.018   |
| 9th                              | 120                   | 31    | 151  |   |         |
| 10th                             | 154                   | 19    | 173  |   |         |
| Total                            | 274                   | 50    | 324  |   |         |
| Father level of education        |                       |       | 14.5 | 2  | 0.001   |
| Literate                         | 212                   | 31    | 243  |   |         |
| Only reading & writing           | 55                    | 12    | 67   |   |         |
| Illiterate                       | 7                     | 7     | 14   |   |         |
| Total                            | 274                   | 50    | 324  |   |         |
| Mother level of education        |                       |       | 10.8 | 2  | 0.004   |
| Literate                         | 197                   | 29    | 226  |   |         |
| Only reading & writing           | 72                    | 16    | 88   |   |         |
| Illiterate                       | 5                     | 5     | 10   |   |         |
| Total                            | 274                   | 50    | 324  |   |         |

Table 8: Association between socio demographic factors & knowledge on prevention methods of STIs among Seto Semero high school students, Jimma, Ethiopia, April, 2014.

| Variables                        | Know Prevention Method of STIs | Total | X2   | Df | P-value |
|----------------------------------|-------------------------------|-------|------|----|---------|
| Current grade level              |                               |       | 7.72 | 1  | 0.005   |
| 9th                              | 116                           | 35    | 151  |   |         |
| 10th                             | 153                           | 20    | 173  |   |         |
| Total                            | 269                           | 55    | 324  |   |         |
| Father occupation                |                               |       | 17.1 | 3  | 0.001   |
| Farmer                           | 37                             | 10    | 47   |   |         |
| Merchant                         | 56                             | 11    | 67   |   |         |
| Gov’t employee                   | 165                            | 24    | 189  |   |         |
| Daily labor                      | 11                             | 10    | 21   |   |         |
| Total                            | 269                            | 55    | 324  |   |         |
| Mother occupation                |                               |       | 15.5 | 3  | 0.001   |
| Farmer                           | 50                             | 11    | 61   |   |         |
Discission

The study assessed the knowledge, attitude and practice of sexually transmitted infections among Setosemero high school students in Jimma town, Jimma zone, Oromia regional state, South West of Ethiopia. In this study 88.5% of the respondents were heard about STIs. This result was lower than the study conducted in Tanzania and Wolaita Sodo University in which 99% and 96.4% of the respondents heard about STIs respectively [15,16]. This might be because of the educational difference between the students since the study conducted in university students and some respondents in this study were from rural area 24.4% and have no access to mass media. In this study the most frequent source of information for STIs was radio/TV 82.6% followed by school 77.3% and parents 51.2%.Finding this was slightly higher than the survey conducted in Gondar, Ethiopia regarding source of information on STIs, respondents got information from radio/TV 78%, school 45%, parents 21.7% and youth club 11.7% where more than one source were common [17]. This difference might be because of currently media and at curriculum level emphasis was given about STIs. In this study 84.6% of respondents were aware about sign and symptoms of STIs but the rest 15.4% didn’t know any sign and symptoms of STIs. This finding was closely similar to survey conducted in Hawassa, Ethiopia at which 79.69% of respondents knew the sign and symptoms of STIs in which 91.9% reported unsafe sex as mode of transmission. This difference might be due to educational difference and awareness about STIs is higher in university students than high school students. Concerning the overall knowledge on STIs, 31.5% had good knowledge, 47.5% had fair knowledge and the rest 21% had poor knowledge. This result was lower than Wolaita Sodo University in which, 36.0% had good knowledge and the rest had Poor knowledge on STIs. This might be because of educational difference between the study subjects [20]. From study participants, majority of respondents 83.1% aware prevention methods of STIs but 16.9% did not aware. From prevention methods abstinence was listed by 68% of respondents, followed by being faithfulness 46.1% and use condom 39.7%. This result was different from previous study which was conducted in Durban, South Africa; majority of the students mentioned condom 80.1% followed by zero gazing 46.4% and abstinence 19.9% [21]. But it was almost similar to study done in Debre Markose regarding

knowledge respondents were answered individual preventive methods like abstinence 52.1%, and 70% said be faithful to one uninfected partner [22].This difference might be the effect of cultural practice in which in our country there was negative attitude towards condom use but has positive attitude about abstinence and faithfulness. Concerned with their attitude towards risk of acquiring STIs most of students 75.6% said they were more vulnerable for STIs while 24.4% said they were not more vulnerable for STIs. This result was inconsistent with that of research conducted in Tanzania, 46% of students said they were not at risk of contracting STIs, while 38% said they were at risk [15]. This variation might be due to the difference between their levels of knowledge and attitude towards STIs. Concerning history of sexual intercourse, 19.7% had history of sex and the rest 80.3% had not history of sex. From this majority 65.6% were in the age group of 20-24 years. From this 64.1% perform sex with his/her girl/boyfriend followed by class fellow student which accounts 21.9%. This result was lower than the study conducted in Wolaita Sodo University in which 35.3% reported to had sex; out of this 24.8% perform sex with girl/boyfriend[11]. This might be due to university students were more sensitive to sex and our study subjects were under the influence of parents. Among respondents 5.3% had history of STIs, out of this 29.4% of them treated at home, 64.7% treated at health institution and 5.9% treated by other religious based practices. This result was lower than the study conducted in Hawassa, Ethiopia from those students who had history of STIs 49.88% were treated at home, 40.09% were treated at health institution and 10.03% were treated at other places [18]. This difference might be due to currently health information was distributed by different media concerning to STIs and its importance of treating at health

![Table 9: Association between socio demographic factors & condom use during sexual intercourse among Setosemero high school students, Jimma, Ethiopia, April, 2014.](image)

| Variables | Use of Condom During Sexual Intercourse | Total | X2  | DF | P-value |
|-----------|----------------------------------------|-------|-----|----|---------|
| Sex       |                                        |       |     |    |         |
| Male      | 21                                     | 16    | 37  |    | 0.031   |
| Female    | 8                                      | 19    | 27  |    |         |
| Total     | 29                                     | 35    | 64  |    |         |
| Grade level |                                      |       |     |    |         |
| 9th       | 6                                      | 17    | 23  |    | 0.021   |
| 10th      | 23                                     | 18    | 41  |    |         |
| Total     | 29                                     | 35    | 64  |    |         |

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Determination of Knowledge, Attitudes and Practices on Prevention of Sexually Transmitted Infections among Seto Semero High School Students

Author’s Contributions
A D, have made substantial contributions to beginning and design, collection of data, analysis and interpretation of data and in drafting the manuscripts and correcting the comment given by the advisors.

D W have involved in revising the research paper and the manuscript critically for important intellectual context and approval of the final version to be published and participated in its design and coordination. They had also greater contribution in reviewing the manuscript English and topography. And helped to draft the manuscript, involved in reviewing the research paper and the manuscript critically for important intellectual context and approval of the final version to be published and participated in its design and coordination.

Author conflict
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