Research Article

iMedPub Journals
www.imedpub.com

Health Science Journal
ISSN 1791-809X

2021
Vol. 15 No. 11: 902

DOI: 10.36648/1791-809X.15.11.902

Assessment of Knowledge, Attitude and Preventive Practice towards Sexually Transmitted Infection among Tewoderos Preparatory School Students of Debere Tabor Town, North Central Ethiopia

Ayenew Assefa[1]*, Meselo Sema[2] and Mekuriaw Bezabih[3]

1 Unit of Immunology and Molecular Biology, College of Health Sciences, Debre Tabor University, Ethiopia
2 Unit of Parasitology, College of Health Sciences, Debre Tabor University, Ethiopia
3 Department Medical Laboratory Sciences, College of Health Sciences, Debre Tabor University, Ethiopia

***Corresponding author:**
Ayenew Assefa

ayenassef@gmail.com

Tel: +251936379857

Unit of Immunology and Molecular Biology, College of Health Sciences, Debre Tabor University, Ethiopia

Citation: Assefa A, Sema M, Bezabih M (2021) Assessment of Knowledge, Attitude and Preventive Practice towards Sexually Transmitted Infection among Tewoderos Preparatory School Students of Debere Tabor Town, North Central Ethiopia. Health Sci J. 15 No. 10: 902.

Abstract

Background: Sexually transmitted infections (STIs) are diseases that have a substantial public health problem universally. More than 1 million STIs are acquired every day with an estimated 357 million new infections yearly. The youth and adolescents are the most affected groups with STIs due to a lack of knowledge and health care service that lead them to practice unsafe sex and have multiple sexual partners.

Objectives: To assess knowledge, attitude, and preventive practice towards sexually transmitted infection among tewoderos preparatory school students in Debre tabor town, north-central Ethiopia, Ethiopia.

Methods: Cross-sectional study design was conducted and a simple random sampling technique was employed. A structured self-administered questionnaire was used. 207 study subjects were selected. Tables and graphs with texts were used to present the results.

Result: 53.62% of the respondents had good knowledge about STIs while 37.68% of them had fair knowledge and 3.70% of them had poor knowledge. In attitude assessment 55.1% had a good attitude towards STIs, 34.9% had a favorable attitude while 12.1% of them had a negative attitude towards STIs.

Conclusion: The knowledge and attitude of the respondents for STIs were not satisfactory. Hence, increasing awareness and improving the attitudes of the respondents towards STI must be the first action.

Keywords: Sexual transmitted infection; Knowledge; Attitude; Preventive practice

Received with Revision on: November 12, 2021, **Accepted:** November 26, 2021, **Published:** December 03, 2021

Abbreviations: AIDS=Acquired Immuno Deficiency Virus; HIV=Human Immune Virus; HPV=Human Papilloma Virus; HSV=Herpes Simplex Virus; STI=Sexual Transmitted Infection; WHO=World Health Organization

Introduction

Sexually transmitted infections (STIs) have a substantial public health problem universally. STIs consist of diseases caused by bacteria, viruses, parasites, protozoa, and fungal agents. Common STIs include Gonorrhea, Syphilis, Chancroids, Lymphogranuloma venerum, Chlamydia, Trichomoniasis, and those caused by lymphogranuloma Donovan's, HIV, HPV, Hepatitis B virus, and herpes simplex virus [1]. They are mainly transmitted by sexual contact and also through sharing needles, childbirth, and breastfeeding. STIs can be curable, non-curable but all are preventable [2]. Health educations play a major role in preventing and controlling STIs. To minimize the spread and block the secondary effects of STI, it is also beneficial to diagnose and treat early [3].

Based on 2008 WHO estimation, 498.9 million new cases of four common STI from which 105.7 million were C. trachomatis, 106.1 were *N.gonorrhea*, 10.6 million were syphilis, and 276.4 million were *T.vaginalis* cases reported in adults annually. Besides, an estimated number of 536 million individuals are infected with herpes simplex virus type 2 (HSV) and nearly 291 million women are infected with human papillomavirus once in their life [2,4-6].

More than 1 million people contract a sexually transmitted infection (STI) daily in the world and an estimated 357 million new infections with one of the four STIs globally: chlamydia, gonorrhoea, syphilis, or trichomoniasis every year [7]. In the

year 2012/2013, according to North America extrapolated statistics annual report the number of people infected with STI was greater than 10 million in North America, 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 [8]. The most affected groups with STI are the youth and adolescents because of lack of knowledge and health care service that lead them to practice unsafe sex and have multiple sexual partners. Sexually transmitted infections result in acute illness, infertility, disability, and death [9].

The current and coming economic status of a country is dependent on the adolescent age group of that population. This is due to that adolescents are the productive portions and can determine the coming fate of the communities. Thus, healthy adolescents are beneficial for the countries prosperity. In addition, decisions take place at this age and if not given with proper knowledge can result in risky sexual behavior. The likely hoods of bad emotional outcomes of premarital sexual behaviors in teenagers are not healthy. Consequently, adolescents are prone to infection; do not require proper diagnosis and treatment indicating the necessity of counseling to modify their behaviors [10,11].

Due to the awareness created by media and government programs, adolescents might be aware of HIV/AIDS but the knowledge to other STIs is lower and could be much lower in developing nations [12]. Above 90% of the population is infected with Sexually transmitted diseases in some parts of the world. Five hundred million people are still at high risk of infection with STI though there is prolonged control expenditure and from above 140 million people infected about 6 million are in Africa, the Middle East, Central and Southeast Asia, and countries in Latin America [8]. Therefore, with limited existing research on STI in our study area, we are aimed to assess knowledge, attitude, and preventive practice towards STIs among tewodros preparatory school students, debre tabor, Ethiopia.

Methods

Study design

A cross sectional study was conducted among 207 preparatory school students.

Study area and period

The study was conduct at Tewoderos preparatory school students in Debre tabor town, Ethiopia from December 2020 to January 2021. Debre tabor town is located in south Gonder zone, Amhara region, Ethiopia about 100 kilometers from bahir dar and 50 kilometers east of Lake Tana. The town has a total population of 55,596, of whom 27,644 are men and 27,952 women based on the the Central Statistical Agency of Ethiopia (CSA) conducted in 2007 [13]. There are two preparatory schools in the town of them one is Tewoderos preparatory school opened in the fall of 1967.

Population

The source population for this study was students at tewoderos preparatory school in Debre tabor town whereas all students starting from grade 11th to grade 12th at Debre tabor town tewoderos preparatory school attending during the study period were the study population.

Eligible criteria

All volunteer grade 11th and 12th students of Tewoderos preparatory school were included. Non-volunteers, those who weren't available during data collection period, those who were physically and mentally not capable to be interviewed were excluded.

Variables

Dependent variables: It is the level of students' knowledge, attitude, and preventive practices towards sexually transmitted infections.

Independent variables: Sociodemographic factors including age, sex, religion, ethnicity, income, marital status, residence, family income, living condition and inducing Factors such as peer pressure, drinking alcohol and chat chewing.

Sample size determination: The sample size was determined by using single proportion formula by considering 95% confidence level, 5% marginal error, 10% non-response rate and by taking non-proportion of preparatory students 16% (P=0.16) used from Debre birhan hailemariam mamo preparatory school [8]. The final sample size was calculated to become 207. A simple random sampling technique was used to select study units.

Data collection procedure: Self administrated structured questionnaire which contain socio-demographic characteristics, knowledge, attitude and preventive practice towards sexual transmitted infection was prepared to collect primary data. The questionnaire consists of four parts: part one was a sociodemographic background of students and living conditions, part two on the knowledge of students regarding STIs, part three concerned on the attitude of the students towards STIs, and the fourth part was on the preventive practice of the students on STIs.

Data quality control: A pre-test was done before the main study was conducted on students of cha-cha preparatory school to check the questioners are appropriate, clear and understandable. The collected data was checked daily. Structured questionnaire was primarily prepared in English then translated to Amharic and then back to English by translator in order to look for consistency of the questions. For data collectors one day training was given on data collection instrument, interview technique and importance of taking informed consent before data collection starts. The completed questionnaires were also rechecked by the principal investigator to maintain the quality of data.

Data processing and analysis: Data was entered after being encoded and analyzed using EPI info version 6 and SPSS version 20. The results were presented in the form of the table, percentage, chi-square and odds ratio to measure associations. Frequencies, proportions and summary of descriptive statics were employed to describe the study population in relation to relevant variables. Odds ratio was used to assess the presence of association between independent and outcome variables. Value

of p<0.05 was taken to indicate statistical significance.

Measurements: The respondents who answered above 75% or answered above 10 questions out of 15 of the knowledge questionnaire had good knowledge. Those who answered about 50%-75% or answered question 8-10 out of 15 had fair knowledge and those who answered questions of the knowledge below 50% or below 8 out of 15 questionnaire of knowledge assessment had poor knowledge. In the attitude assessment question, respondents who answered 3 and above out of 5 questions had good attitude towards STIs and those who answered 2-3 questions out of 5 had favorable attitudes. Respondents who answered blow 2 out of 5 had unfavorable attitudes.

Ethical considerations: This study was carried out after the proposal was get approval by an ethical review committee of ethical review board of the department of medical laboratory sciences. Before conducting the study, discussion was undertaken by the department and Department heads for the purpose of the study and then the study population was asked for consent before the study was undertaken.

Results

Socio demographic characteristics of the respondents

Among the total number of 207 students, 88 (42.5%) were male respondents and 119 (57.5%) were females. Majority of them 166 (80.2%) were single whereas 41 (18.8%) are married. 138 (66.7%) of the respondents were between 15-19 age group while 53 (25.6%) of them between 20-24 age group. The remaining 16 (7.7%) were in the age group between 25-29 age group and above. Majority of the respondents (85.99%) were orthodox religion followers, 11.59% were Muslim religion followers and few (2.42%) were protestant religion followers **(Figure 1).** Most (74.88%) of the respondents live with both parents, 20.29% of them live alone, 1.93% of them live with one parent and 2.90% of them live with others **(Figure 2).** Majority (72%) of the respondents were living in the town and 28% of them from rural area **(Figure 3).** All the respondents were from amhara ethnicity.

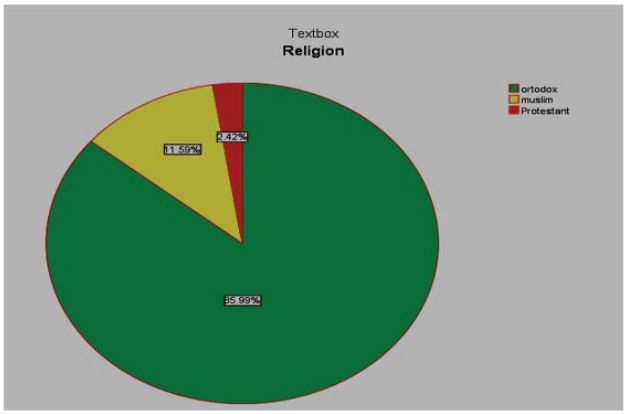

Figure 1 The above chart show that most of the respondants are orthodox (85.99%) and about 11.59% has muslim religion and a few (2.42%) of the respondant are protestant.

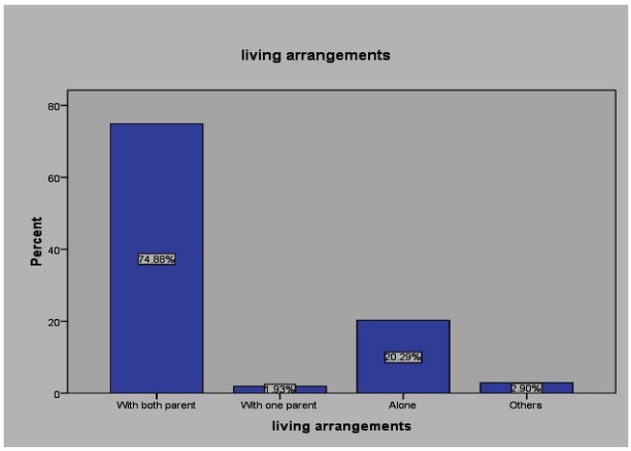

Figure 2 The above graph shows the living arrangements of the respondents. Most (74.88%) of them live with both parents, (20.29%) of them live alone, (1.93%) live with one parent and (2.9%) live with others.

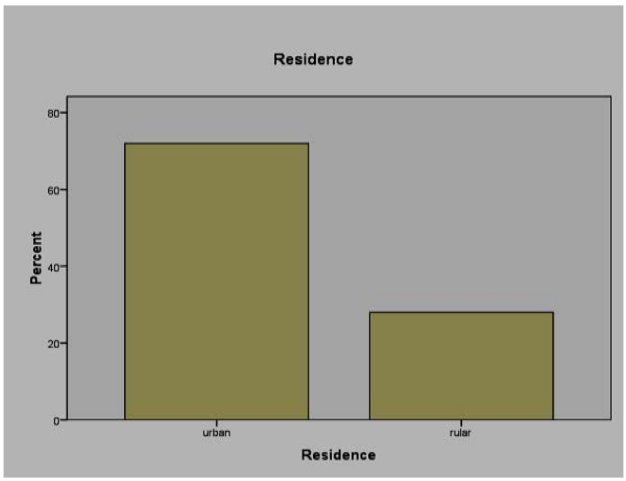

Figure 3 The graph shows respondant residence and about 149 (72%) are in urban and about (28%) live in rural area.

Table 1 shows sociodemographic characteristics of the respondents; all the respondents were amhara ethnicity, majority of them were married (80.2%). Most of the respondents were in the age group of 15-19 and 57.5% of them were females

Knowledge and attitude of preparatory school students for STIs

More than half (53.62%) of the respondents had good knowledge about STIs, 37.68% of them had fair knowledge and 3.70% of them had poor knowledge **(Figure 4).** most of the respondents (55.1%) had good attitude towards STIs, 34.9% of the respondents had favorable attitude while 12.1% of them had negative attitude for STIs **(Figure 5).**

STIs practice and preventive practice of respondents

59 (28.5%) of the respondents reported as they had experienced

Table 1 Socio demographic characteristics of tewoderos preparatory school students, debre tabor, north central Ethiopia, 2020.

Variables		Frequency	Percent (%)	Cumulative Percent
Sex	Male	88	42.5	42.5
	Female	119	57.5	100
	Single	196	80.2	80.2
Marital status	Married	11	19.8	100
Ethnicity	Amhara	207	100	100
Age	15-19	138	66.7	66.7
	20-24	53	25.6	92.3
	25-29 and above	16	7.7	100

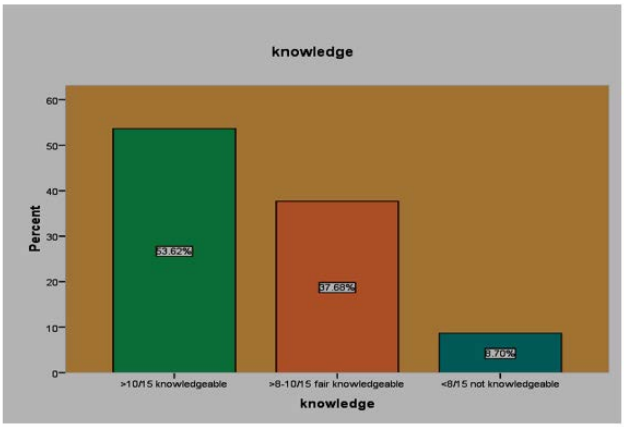

Figure 4 The above chart shows the respondents' knowledge. From the chart 53.62% are knowledgeable, 37.68% of the respondents are fair knowledgeable and about 3.7% are not knowledgeable about STIs.

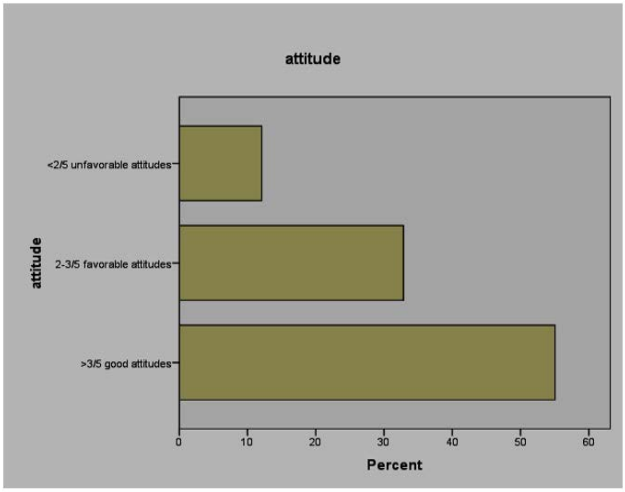

Figure 5 The above figure shows the attitudes of respondents towards STIs. Most of the respondents has good attitude about STIs, some of them has favorable attitude and the remaining has unfavorable attitudes.

sexual intercourse and 27 (13.0%) of them perform with spouse, 11 (5.3%) with friend, 18 (8.7%) with causal friend, 1 with commercial sex worker and 2 with others. From those who had history of sexual intercourse 22 (10.6%) perform by partner initiation, 6 (3.9%) by peer initiation, 30 (14.5%) by voluntarily with love and 1 by others. For prevention of STIs 12 (5.8%) of them always use condom, 9 (4.3%) sometimes, 11 (5.3%) when they had sex other than their regular partner, 5 (2.4%) when they had sex with a person whom they suspected of STIs while 162 (78.3%) do not use condom. In addition, 160 (77.3%) of the respondents had sex after having alcohol and 191 (92.3%) of them had sex after chewing chat.

Table 2 show sexual practice towards STIs among tewodros preparatory school students; From the above table 59 (28.5%) respondents had experienced to sexual practice and others that is 148 (71.5%) had not experienced sexual practice and from thus experienced respondents 27 are with spouse, 11 are with friends, 18 are with causal friends 1 is with sexual worker and 2 with others. Moreover, 22 practiced sex by partner initiation, 6 by peer's initiation, 30 voluntary with love and 1 is by other factors.

Table 3 shows respondents prevention practices towards STIs; 12 (5.8%) of them always use condom, 9 (4.3%) sometimes, 11 (5.3%) when they had sex other than their regular partner, 5 (2.4%) when they had sex with a person whom they suspected of STIs while 162 (78.3%) do not use condom. In addition, 160 (77.3%) of the respondents had sex after having alcohol and 191 (92.3%) of them had sex after chewing chat.

Discussion

This study revealed that more than half of the students (53.62%) had good knowledge for STIs. The proportion was inconsistent with studies done in different parts of Ethiopia such as debrebirhan [8], arsi negelle [2], arba minch [14], Gondar [15] and west gojjam zone [9]. The reason for these differences could be socio cultural and environmental factors. In addition, the study found that most of the students (55.1%) had good attitude towards STIs, 34.9% of the respondents had favorable attitude and 12.1% of them had

Table 2 Sexual practice and prevention practices towards STIs among tewodros preparatory school students, debre tabor, north central Ethiopia.

Variables		Frequency	Percent (%)	Cumulative Percent
Have you ever experienced sex	Yes	59	28.5	28.5
	No	148	71.5	100
With whom you first experienced	Spouse	27	13	85
	Friend	11	5.3	90.3
	Causal friend	18	8.7	99
	Commercial sex workers	1	0.5	99.5
	Others specific	2	0.5	100
How do you experience sexual intercourse	No	148	69.1	69.1
	By partner initiation	22	10.6	79.7
	By peer's initiation	6	3.9	83.6
	Voluntary with love	30	14.5	98.1
	Rape	0	1.4	99.5
	Others	1	0.5	100

Table 3 Sexual practice and prevention practices towards STIs among tewodros preparatory school students, debre tabor, north central Ethiopia.

Variables		Frequency	Percent (%)	Cumulative Percent
How many sexual partners do you have in life	No	58	28	28
	One	87	42	70
	Two and above	60	29	99
	Others	2	1	100
How many sexual partners do you have in the past one year	No	72	34.8	34.8
	One	82	39.6	74.4
	Two and above	51	24.6	99
	Others	2	1	100
Have you ever had sex after having alcohol	NO	47	22.7	22.7
	Yes	160	77.3	100
Have you had sex after chewing chat	NO	16	7.7	7.7
	Yes	191	92.3	100
Have you ever use condom after chewing chat	NO	52	25.1	25.1
	Yes	155	74.9	100
Ever had used condom	No	162	78.3	78.3
	Always	12	5.8	84. 1
	I have sex other than my regular partner	11	5.3	89.4
	Sometimes	9	4.3	93.7
	When have sex with a person when whom I suspected positive for STI	5	2.4	96.1
	When I have sex with commercial sex workers	8	3.9	100
Have you ever been pregnant	NO	196	94.7	94.7
	Yes	11	5.3	100

negative attitude for STIs. This was different from study done among preparatory students in Gondar town in which about 34% of the respondents had negative attitude towards STIs.

From the study conducted in arsi negelle preparatory school students 38.6% of respondents reported as they had history of sexual intercourse which was higher than in this study (28.5%) [2]. In addition from study in west gojjam zone 33.5% had a history of sexual intercourse in the period of the last six months [9] which was also higher than found in our study. The most probable cause for the inconsistence was the difference in knowledge towards STI in each study subjects. In that of arsi negelle preparatory students from those who had history of sexual intercourse 29% had used condom and 9.6% of them didn't utilize condom [2] but in this study it was lower that is 21.7% of the respondents used condom and about 78.3% didn't use condom. The reason of difference might be that the awareness created about preventive methods of STI in our study area is limited. Among condom users in arsi negelle respondents 11.9% used always, 8.6% usually and 8.6% sometimes [2] but in this study about 5.8% used always, 5.3% used usually and 4.3% used sometimes. The percentages are lower when compared to the previous study. Arsi negelle respondents who had positive attitude towards STI were more likely to practice prevention of sexually transmitted infections [2]. This is due to that those who are knowledgeable and have positive attitude towards the problem would be also aware about the prevention methods of the problem.

Conclusions

Knowledge and attitude of the respondents for STIs is not sufficient. Strategies to implant more positive attitude and better practice for preventing STIs transmission should be implemented. Administrative of the school should target to address the sexual issues regarding the transmission ways and preventive methods of STI among the students through Gender and Anti-AIDS movement clubs. The health office of the town should work to raise the attitude by designing proper health education targeting the preparatory school students. The health office of the town should work in collaboration with anti AIDS club of the school on how to prevent transmission of STI among youths by having youth centers to educate about reproductive health issues.

Authors' Contribution

Mekuriaw bezabih; run the lab work, analyzed, drafted and interpreted the data. Ayenew and Meslo; conceived and designed the study, supervised and reviewed the manuscript thoroughly for its scientific content and wrote the final version of the paper. All authors contributed to the writing of the paper and approved the submitted version of the paper.

Acknowledgments

Our first gratitude goes to Debre Tabor University college of Health Sciences. We also thank tewodros preparatory school administrative for their help during the data collection.

Conflict of Interest

The authors have not declared any conflict of interests.

Data Availability

The datasets used and analyzed during the current study available from the corresponding author on reasonable request.

Funding

Debre Tabore University funds this work.

References

1 Demis A, Adera A, Workeneh D (2017) Determination of knowledge, attitudes and practices on prevention of sexually transmitted infections among seto semero high school students. MOJ Public Health 5: 142-153.

2 Megersa ND, Ahmed SM, Gutema BT, Teshome GS, Melketsedik ZA, et al. (2017) Knowledge, attitude and preventive practices towards sexually transmitted infection among preparatory school students of Arsi Negelle town. J AIDS Clin Res 8: 748.

3 Díez M, Díaz A (2011) Sexually transmitted infections: epidemiology and control. Rev Esp Sanid Penit 13: 58-66.

4 Matkins PP (2013) Sexually transmitted infections in adolescents. N C Med J 74: 48-52.

5 World Health Organization (2013) Sexually transmitted infections (STIs): the importance of a renewed commitment to STI prevention and control in achieving global sexual and reproductive health. WHO, Geneva.

6 WHO (2013) Baseline report on global sexually transmitted infection surveillance 2012. WHO, Geneva.

7 Oluwole EO, Oyekanmi OD, Ogunyemi DO, Osanyin GE (2020) Knowledge, attitude and preventive practices of sexually transmitted infections among unmarried youths in an urban community in Lagos State, Nigeria. Afr J Prim Health Care Fam Med 12: 1-7.

8 Adera A, Wudu M, Yimam Y, Tamirie M, Aregah M, et al. (2015) Assessment of knowledge, attitude and practice of students towards sexual transmitted infection in Haile Mariam Mamo preparatory school Debre Birhan, Ethiopia, 2013. Science Journal of Public Health 3: 563-571.

9 Kassie AA, Gudayu TW, Araya BM (2020) Knowledge, Attitude, and Preventive Practices towards Sexually Transmitted Infections among Preparatory School Students in West Gojjam Zone, Ethiopia. Adv Public Health 2020.

10 Jain MA, Jain SM, Patil S, Bang A (2016) A study on knowledge, attitude and practice of sexually transmitted diseases and HIV in adolescent population in Wardha, Maharashtra, India. Int J Contemp Pediatr 3: 367-372.

11 WHO (2013) Towards adulthood: exploring the sexual and reproductive health of adolescents in South Asia. WHO, Geneva.

12 Tilson EC, Sanchez V, Ford CL, Smurzynski M, Leone PA, et al. (2004) Barriers to asymptomatic screening and other STD services for adolescents and young adults: focus group discussions. BMC Public Health 4: 21.

13 Central Statistical Agency (2014) Federal democratic republic of Ethiopia Central statistical agency population projection of Ethiopia for all regions at wereda level from 2014–2017. Addis Ababa, Ethiopia.

14 Mersha A, Teji K, Darghawth R, Gebretsadik W, Shibiru S, et al. (2018) Risky sexual behaviors and associated factors among preparatory school students in Arba Minch town, Southern Ethiopia. J Public Health Epidemiol 10: 429-442.

15 Shiferaw Y, Alemu A, Girma A, Getahun A, Kassa A, et al. (2011) Assessment of knowledge, attitude and risk behaviors towards HIV/AIDS and other sexual transmitted infection among preparatory students of Gondar town, north west Ethiopia. BMC Res Notes 4: 1-8.