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# Knowledge, Attitude and Practice of Condom Utilization among Axum Preparatory School Students

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## **Abstract**

**Background**: Condoms are an integral part of sexual transmitted disease, unwanted pregnancy and human immune deficiency virus (HIV) acquiring immune deficiency syndrome (AIDS) prevention and their use has increased significantly over the past decade. Correct use of them reduces the risk of HIV transmission by almost 100 percent. Therefore condom promotion has received considerable attention in the light against the AIDS pandemic (WHO 1995). This is particularly important in sub Saharan Africa, were HIV transmission is mainly through sexual contact.

**Objective:** To determine knowledge, attitude and practice of condom utilization in students of Axum preparatory school

**Methodology:** the study was conducted in Axum preparatory school from April to June 2015. Total of 358 samples was taken using systematic random sampling techniques. The data was collected using self-administered questions by using structured question. The data will be interred and analyzed using SPSS software.

**Result**: Majority of the participants 315 (90.8%) indicated that they heard and knew that about condom. The majority of the respondents 194 (55.5%) they indicated that there were no supply of male condom from their school, but 40 (11.5%) indicated that they have access. The study revealed that majority 196 (56.5%) students believed that condom use during sexual intercourse can decreases sexual pleasure (sensation), while 151 (43.5%) were disagreed. A summary of all the attitude variables revealed that 290 (83.6%) had positive attitude to majority of the questions measure the respondents attitude. The study revealed that 59 (17%) students were used male condom, and 50 (14.4%) respondents were not giving any response. Of these 17%, 31 (42.5%) students were use condom consistently, 29 (39.7%) use sometimes, 13 (17.8%) do not like to use.

**Conclusion**: Knowledge, attitude and practices are an important tool for HIV/AIDS and STIs prevention and control. Despite the presence of adequate knowledge, positive attitude the preparatory school students had less condom use practice and the study highlighted some risky sexual practice, this might be related to low access, which needs to be addressed.

Keywords: Condom; Knowledge; Attitude; Practice; High School

## Introduction

Condoms are an integral part of sexual transmitted disease; unwanted pregnancy and human immune deficiency virus (HIV) acquiring immune deficiency syndrome (AIDS) prevention and their use has increased significantly over the past decade. Correct use of condom reduces the risk of HIV transmission by almost 100 percent. Therefore condom promotion has received considerable attention in the light against the AIDS pandemic (WHO 1995) [1]. This is particularly important in sub Saharan Africa were HIV transmission is mainly through sexual contact.

Acquired immune deficiency syndrome (AIDS) caused by human immune deficiency virus (HIV) a major health problem in many; parts of the world; and considered as a pandemic disease. Sub structural Africa remains the most heavily affected region by HIV. In 2010 about 68% of people living with HIV resided in sub-Saharan Africa. It also accounted for 20% new HIV infections; in 2010. Young people ages 15-24 represents 45% of all new HIV infections. In sub Saharan Africa; nearly 3.3 million youths are living with HIV [2-4].

The sub-Saharan Africa countries are the worst affected worldwide. Under reporting of AIDS case in developing countries including Ethiopia makes the disease spread and mortality increase. The major determinant for rapid of HIV/AIDS epidemic in Ethiopia includes

behavioral factors such as unprotected sexual intercourse; multiple sexual partners. Since AIDS related death is more common in the reproductive age focuses should be on this area. For example in Ethiopia about 90% reproductive reported AIDS case occur in adult between ages 20 and 49. The loss of young adults will certainly affect the overall economic development [5].

In school youth greater than 60% had ever had sexual intercourse and condom use are found to be less with non commercial sex partner than with commercial partners among in the school youth and commercial sex in relatively high among sexual active groups [6].

Ethiopia is also among the highly affected countries in the region

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J AIDS Clin Res ISSN: 2155-6113 JAR an open access journal with the national adult prevalence of 6.6% with urban HIV prevalence estimate reaching as highly as 13.7% and that rural as low as 3.7%. And the highest prevalence of HIV is seen in age group 15-24 years and thus making a major affecting youth to days [7,8].

Adolescence is a transitional phase between childhood and adult hood characterized by physiological; cognitive and emotional changes which high risk to HIV AIDS and other sexual transmitted disease [4].

Knowledge is very important for acquiring optimum health attitude formation is no essentially a function of haw that information one receives but a function of how that information was acquired [9]. Moreover; increasing knowledge of condom can be powerful means of fostering positive attitudes and building safe practices among preparatory students hence a clear understanding about KAPs among any population is very important for planning to control or prevent the spread of HIV and other STIs.

Since HIV/AIDS and sexual transmitted infections are the major public health problems; study on knowledge; attitude and self reported sexually practice of condom utilization will be contribute in the prevention of HIV/AIDS; STIs as well as unintended pregnancy.

Adolescents and sexual active students; more over they are far away from their parents and no near supervisions of their family they are highly prone to unprotected sexual practices.

The knowledge; Attitude and practice of Axum town preparatory school students towards condom utilization has not been studied preparatory school students KAP on condom utilization can be indicator of the magnitude of problem among youths in Axum. So it is important to conduct this study among preparatory high school students in the town in order to determine their KAP regarding condom utilization and self reported sexuality practice.

## Objective of the Study

#### General objective

To assess knowledge; attitude and practice of condom utilization among Axum preparatory school students.

## Specific objectives

To determine knowledge on utilization of condom among Axum preparatory school students

To describe attitude towards the utilization of condom among Axum preparatory school students

To describe self reported practice of sexuality and condom utilization among Axum preparatory school students.

## Methodology

## Study area and period

The study will be conducted in Axum town preparatory school which is found in central zone of Tigray of a distance of 240 km north of Mekelle and 1024 km from Addis Ababa Ethiopia.

The school had two departments namely natural and social science. According the data given from the director of the school; it has a total students 2180 of these 1024 (46.97%) are males and 1156 (53.03%) are females. And grade 11<sup>th</sup> students are 1075 of these 512 are males and 563 are females respectively. Total number of grade 12<sup>th</sup> students are 1105; of these 512 are males and 593 are females. The study was conducted on April 2007 E.C.

### Source of population and study population

All Axum preparatory high school students were source population. Systematically selected Axum preparatory high school students were the study population.

## Study design

Institutional descriptive cross sectional study design was employed

### Sampling procedure

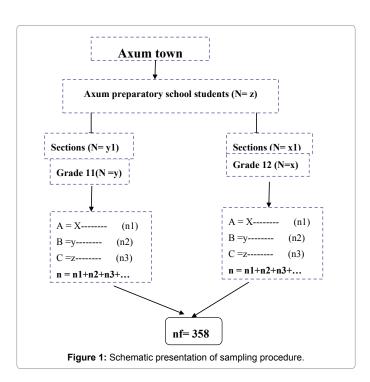
The total sample size of the study was distributed to each sections of grade 11 and 12 using proportionally allocation to their size of student's number. According the registration of the class the study participants were selected using systematic random sampling technique (calculated as 2180 total number of students divided to the calculated sample size 358; which will give us a sampling interval of 6). Then those who selected were remain in the classroom and fill the questioner while the other students; which were not be selected; made to leave the class room at the time of data collection (Figure 1).

## Sample size determination

Sample was calculated using single population proportion formula with a proportion of condom utilization of 46.9% [10]; marginal of error of 5%; 95% coincidence level; 80% power Using Open-Epi Software. The total sample is 382 since the source of the total population are <10.000; we use the correction formula and with 10% add contingency. The end result is 358 sample students.

## Data collection technique

Self-administered or semi structured questionnaire with opened and closed ended questions were adopted from previous conducted studies with some modified based on the local context and then translated in to Tigrigna and back translated to English to check for consistency.



## Quality control method

Prior to the actual data collection period the questionnaire was pretested on 5% of the sample population who are not be part of the study group and necessary correction was done after the pre test. Each questionnaire collected from the field was checked for completeness; missed values and unlikely responses daily before and after data collection and amendments were made before the next data collection process is started. Finally Data clean up and cross-checking was done before data analysis.

## Data processing and analysis

Data was processed and analyzed using SPSS statistical software version 20. Frequency distributions; percentages and Chi-square with 95% confidence level (C.I) was calculated for statistical significance tests between variables and the analyzed data were presented by chart; tables; graph and texts.

### **Ethical considerations**

Before the fieldwork; support letter was obtained from Mekelle University; Public Health Department and Axum Woreda education office. Then the formal cooperation letter written from these bodies was submitted to the school director and they were informed and communicated about the purpose of the study; importance and duration of the study in order to get their free and prior informed consent to the survey and permission was sought from them for data collection activities. Participants name was documented or recorded to maintain confidentiality throughout the study. They were informed about the purpose and significance of the survey to get the consent of the respondents and their full right to refuse; withdraw or completely reject part or all of the study.

## Operational definition

**Knowledge about condom:** Those who have adequate knowledge on condom 70-76.4% and can answer majority of questions used to asses' knowledge about condom.

**Attitude towards condom:** Those who have support the utilization of condom and can answer 50-55.5% to the majority of the questions used to measure positive attitudes towards condom [11].

**Practice of condom:** Those who had at least utilize condom once in the past or who are using correctly and consistently.

## Variables

**Independent variables:** Knowledge; Attitude; Practice; age; sex; Religion; marital status; Ethnicity and educational status

Dependent variables: Condom utilization

## Finding dissemination of result

After completing of research; the finding of this study was disseminated to Mekelle University College of health science department of public health; Axum Woreda education office; and Axum preparatory school.

#### Result

## Socio-demographic status

Out of 358 questionnaires 347 were filled; showing a response rate of 96.93%. From the result 17 3 (49.9 %) respondents were males and 174 (50.1%) were female's. The majority of the respondents 344

(99.1%) were between the ages of 15-24 years old. Of the participants; 174 (50.1%) and 173 (49.9%) were grade 11<sup>th</sup> and 12<sup>th</sup> respectively. The majority of respondents 330 (95.1%) single (not married); but 12 (3.5%) married while 5 (1.4%) were divorced. Almost all respondents were an Orthodox Christian326 (93.9%) while 19 (5.5%) were Muslims.

#### Knowledge about condom

Majority of the participants 315 (90.8%) indicated that they heard and knew about condom. The main sources of information on condoms were school 198 (60.2%). Mass media accounts 66 (20.1%) where as health center; health post and religious places accounts 45 (13.7%); 18 (5.5%); 2 (0.6%) respectively. 199 (57.3%) of participants do not knew from where they can obtain male condom. Only 129 (37.2%) knew from where they can obtain male condom while 19 (5.5%) were not give any response.

The majority of the respondents 194 (55.5%) indicated; there were no supply of male condom from their school; but 40 (11.5%) indicated that they have access. Most of the students 200 (57.6%) got male condom by money; while 124 (35.7%) students got free. 128 (36.9%) respondents knew that condom were sold in pharmacies. Most of the students 187 (5.39%) knew both types of male and female condoms but 83 (23.9%) knew only male condom. 75 (21.6%) said don not knew both types condoms. 212 (63.7%) respondents indicated that they can easily obtain condom if they need it; but 126 (36.3%) cannot easily obtain.

Most participants 259 (74.6%) knew that condom uses can prevent both pregnancy; STIs and HIV/AIDS; hepatitis-b virus. 42 (12.1%) said that condom prevents only pregnancy. 42 (12.1%) said it prevents only STIs & HIV/AIDS.

Majority students 214 (61.4%) do not knew that the price of condom; while 133 (38.3%) knew the price. 161(46.4%) said that condom could tear during sexual intercourse. 69 (19.9%) they shy and fear to bought condom from shops and 26 (7.5%) said its price is expensive.

The majority 185 (53.3%) of the respondents were confident to discuss about condom with their friends; parents; and neighbors while 162 (46.7%) said that did not discussed with anyone. Almost all 309 (89%) students knew that HIV/AIDS prevention methods are abstain; be-faithful; and condom use. 264 (76.1%) knew that condom prevents HIV/AIDS but the remaining other students stated "condom cannot prevent HIV/AIDS because it can tear during sexual intercourse; or due to incorrect use of condom; also because condom can tear from its production."

A summary of all the questions revealed that 259 (75.1%) had adequate knowledge on condom use (Table 1).

## Attitude towards condom

The study revealed that majority 196 (56.5%) students believed that condom use during sexual intercourse can decreases sexual pleasure (sensation) while 151 (43.5%) were disagreed. 299 (86.2%) participants believed that drinking alcohol can expose to unprotected sexual intercourse. But 10 (2.9%) said no while 29 (8.4%) said "I do not knew" whereas 9 (2.9%) were said no change at all.

A summary of all the attitude variables revealed that 290 (83.6%) had positive attitude to majority of the questions measure the respondents attitude (Table 2).

## Condom utilization and sexual history (risky sexual practices)

The study revealed that 59 (17%) students were used male condom.

s.no	Variable		Frequency	Percent
3	Have you heard about	Yes	315	90.8
-	condom?	No	32	9.2
4	Do you know any person or place from which you Can obtain male condom?	Yes	129	37.2
7		No	199	57.3
		No response	19	5.5
5		Yes	40	11.5
3	Access to get male condom from your School	No	194	55.9
		No response	113	32.6
6		Free	124	35.7
6	Means of getting condom			
		Money	200	57.6
_		Others	23	6.6
7	Which place or person do you know where You obtain condom?	Shop	117	33.7
		Pharmacy	128	36.9
		Market	15	4.3
		Clinic	12	3.5
		Hospital	13	3.7
		Health professional	22	6.3
		Hotel	4	1.2
		No response	35	10.1
		Others	1	0.3
8	how many types of condom	Male condom	83	23.9
	do you know	Female condom	2	0.6
		Both condoms	187	53.9
		Do not know	75	21.6
9	do you obtain condom ,if you	Yes	212	63.7
	need	No	126	36.3
		All	259	74.6
10	Do you know price of condom	Yes	133	38.3
		No	214	61.7
11	what you say about condom	Price is expensive	26	7.5
		Cannot obtain easily	45	13
		Tears during sexual intercourse	161	46.4
		Fear to bought from shop	69	19.9
		Others	46	13.3
12	do you know any person	Friends	208	59.9
	uses condom if yes what is your relation	Relatives	23	6.6
		Neighbors	49	14.1
		Others	67	19.3
13	have you ever discussed	Yes	185	53.3
-	about condom	No	162	46.7
14	if yes for the above question with whom	with friends	158	80.2
• •		with parents	15	7.6
		with fiancé	24	12.2
15	does condom prevents HIV/ AIDS	Yes	264	76.1
10		No	40	11.5
		do not know	28	8.1
16	if no what is your reason	no response can tear during sexual intercourse	15 20	4.3 32.3
			14	22.6
		incorrect use	14	
		it can have tear from its production	2	3.2
	0	All	26	41.9
	Summary of all knowledge's	knowledgeable	259	75.1

**Table 1:** knowledge about condom in students of Axum preparatory school, April, 2015.

Of these 17%; 31(42.5%) students were use condom consistently; 29 (39.7%) use sometimes. But 13 (17.8%) do not like to use it while 50 (14.4%) respondents were not giving any response.

Among 347 students 265 (76.4%) reported to have never experienced sexual intercourse whereas 68 (19.6%) agreed to the fact that they had participated in sex with someone else and they were started sexual activity at 17.7 years for males and 17.3 years for females. Our finding showed that 31 (8.9%) of the students had multiple sexual partners including sex with commercial sex workers (CSW). 25 (7.5%) of them had practiced sex in the past 12 months without condom which indicate risky behavior that can predispose the students for acquisition of HIV and other sexually transmitted infections. The study indicated that 31 (8.9%) of the students had used condom during their first sex while 54 (15.4%) do not use (Table 3).

#### Discussion

## Socio-demographic status

Students were chosen because they are a high- risk group for HIV/AIDS. Students engage in transactional; indiscriminate and/or unprotected sex; leading to unwanted pregnancy; STIs; and HIV/AIDS.

The respondents' ages were between 15 and 24; and insignificant number of the student's were 25-29 years; 330 (95.1%) single (not married). The ages were comparable in studies that were carried out among Cong University students; Agaro high school Guraghae; Ethiopia; and secondary school students in Mekelle city; Ethiopia (3; 10; 12). But this study; men and women equally participated. 326 (93.9%) were Orthodox Christian while 19 (5.5%) were Muslims but majority of participants in Kenya; Congo were protestant and catholic [11,12].

## Knowledge about condom

Our finding revealed that majority 290 (75.1%) of the respondents had adequate knowledge while 24.9% were not knowledgeable about condom. The main sources of information on condoms were 198 (60.2%) school. Almost all 309 (89%) students knew that condom will prevent HIV/AIDS transmission. Most participants 259 (74.6%) knew that condom uses can prevent both pregnancy; STIs and HIV/AIDS; hepatitis-b virus. This is similar study reported in undergraduate students of public university in Kenya [10,11]. 94.4% knew condom use prevents pregnancies and STIs which is similar with studies conducted in Mekelle [3]. But our recent study is slightly higher than the knowledge on condom uses to prevent pregnancies and STIs by 22.6% from the study reported in Congo [12]. This might be related to the presences of HIV/AIDS clubs in the school.

## Attitude towards condom

The study showed that most of the students 290 (83.6%) had positive attitude towards condom while 57 (16.4%) students had negative attitude towards condom. This study is higher than the study reported in undergraduate students of public university in Kenya [11]; but comparable with study reported in Congo; Bahir dar University [12,13].

## Condom utilization& sexual history (risky sexual practices):

The study revealed that 59 (17%) student were used male condom; of these 31 (42.5%) students were use condom consistently; 29 (39.7%) use sometimes; 13 (17.8%) do not like to use it. 68 (19.6%) had ever participated in sex with someone; and they have started sexual activity when they are 17.7 years for males and 17.3 years for females.

	Variable			percent	Remark
1	do you believe condom can reduce sexual pleasure	Yes	196	56.5	
		No	151	43.5	
2	If your friend cannot volunteer to use condom what do you do	stop sexual intercourse	121	34.9	
		try to accept to use condom	165	47.6	
		practice sexual intercourse without using condom	40	11.5	
		Others	21	6.1	I haven't friend
3	drinking alcohol can exposes to unprotected sexual intercourse	Yes	299	86.2	
		No	10	2.9	
		no change	9	2.6	
		do not know	29	8.4	
	Summary of all attitudes	Positive attitude	290	83.6	
		Negative attitude	57	16.4	

Table 2: Attitude towards condom in students of Axum preparatory school, April, 2015G.C.

s.no	Variable		Frequency	Percent
1	Have you ever used male condom	Yes	59	17.0
		No	238	68.6
		no response	50	14.4
2	if yes how frequently did you used condom	Consistently	31	42.5
		some times	28	39.7
		do not like it	13	17.8
	past 12 months did you ever have sexual intercourse without condom	Yes	25	7.2
		No	305	87.9
		no response	17	4.9
4	have you ever practiced sexual intercourse	Yes	68	19.6
		No	265	76.4
		no response	14	4.0
	have sexual contact with commercial sex workers in the past 12 months	Yes	25	7.2
		No	321	92.5
		no response	1	.3
6	have sexual contact with multiple partner	Yes	31	8.9
		No	316	91.1
	during sexual intercourse if not use condom why	I do not like it	70	20.2
		it is expensive	18	5.2
		it reduces sexual desire	65	18.7
		I do not believe it	119	34.3
		Others	75	21.6
8	have used condom during first sexual intercourse	Yes	31	8.9
		No	54	15.6
		Do not know	262	75.5
	if no used condom why	have no money	6	10.9
		my friend is free from HIV/AIDS	16	29.1
		they believe to continue to gather for the next	22	40.0
		by influencing conditions	3	5.5
		by influencing heavy alcohol drinking	8	14.5

 Table 3: Condom utilization& sexual history (risky sexual practices) in students of Axum preparatory school, April, 2015G.C.

Our finding showed that 31 (8.9%) of the students had multiple sexual partners including sex with commercial sex workers (CSW). 25 (7.5%) of them had practiced sex in the past 12 months without condom which indicate risky behavior that predispose the students for acquisition of HIV and other sexually transmitted infections. The study indicated that 31 (8.9%) of the students had used condom during their first sex while 54 (15.4%) said that do not use. This finding is similar with study finding of Grage and Congo [10,12]. In contrast study conducted in Kenya showed 72.8 % use condom [11]. This could be related to differences in level of education; sex and religion.

## Conclusion

The current study sought to explore the knowledge; attitude and practices on condom utilization and self reported sexual practice among Axum preparatory school students. KAPs are an important tool for HIV/AIDS and STIs prevention and control. Despite the presence of adequate knowledge; positive attitude the preparatory school students had less condom use practice and the study highlighted some risky sexual practice; this might be related to low awareness towards condom use practice; which needs to be addressed.

## Recommendation

Therefore; our investigation calls to implement specified; focused; continued and strengthened health education on condom use practices; HIV/AIDS-related issues and HIV/AIDS clubs in the school to bring change in practices; along with knowledge and attitudes. Promoting condoms has to be one of the strategies of HIV/AIDS prevention process. Thus; emphasis has also to be given towards avoiding other high-risk sexual behaviors. This can be done through IEC (Information; Education and Communication) materials posted closer to the students.

## Limitation of the study

This is a sensitive topic and some students may have found it inconvenient to answer some of the questions.

#### Acknowledgment

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