

Prevalence of Premarital Sexual Practice and Its Associated Factors Among Senior Students in Alage Technical Vocational Education Training College, Ministry of Agriculture and Natural Resource, Ethiopia

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Abstract

The study was conducted to explore the prevalence of premarital sexual practice and its associated factors among senior students in Alage ATVET College, Ministry of Agriculture and Natural Resource, Ethiopia. A cross-sectional survey was conducted on 363 systematically selected students by using self-administered questionnaire and complimented by a qualitative data. The data was entered, cleaned and analyzed by using SPSS version 20. Bivariate and multivariate logistic regressions were used for quantitative data analysis while thematic presentation was used for qualitative data. Odds ratio with 95% confidence interval was used to measure the strength and significance of the association. In this study, more than half 188(53%) of the participants had premarital sexual experience, of which 131(69.7%) were males and 57(30.3%) were females. The mean age at first sexual intercourse was 18.12 for males and 17.07 for females. The main reasons reported for initiation of premarital sexual intercourse were personal interest to try sex(36.17%), peer pressure (26.6%) and to get money or gifts 22 (11.7%). While male sex[AOR=3.33, 95% CI(1.2-9.24)], having pocket money[AOR=9.63, 95% CI(3.61-25.79)], watching pornography[AOR=1.34,95% CI(0.45-3.98)], having sexual experienced friends [AOR=2.97, 95% CI(1.06-8.32)], alcohol drinking [AOR=1.54; 95% CI(0.59-4.01)] and dating experience [AOR=42.43, 95% CI(14.93-120.62)] were found to be statically significant predictors of premarital sexual practice. In conclusion, this particular study indicated that a substantial proportion of youths were practicing premarital sexual practices that predispose them to different reproductive health problems. Therefore, there is a need for institutions of higher education to develop skill building programs and policies that will assure a safe institutional environment, promote access to health care and sex education, encourage peer counseling and parental communication.

Keywords: prevalence, premarital sex, risky sexual practice, factors of premarital sex, Alage Technical Vocational Education Training College.

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Introduction

Worldwide the prevalence of risky sexual practice was elevated at higher level and young people's experiences related to sex vary across the world because of various socio-cultural factors. Sub-Saharan Africa remains the region most severely affected by the HIV epidemic while risky sexual behavior is superficially increase among students in the higher education institutions (MDG Report, 2015). Moreover, sex before marriage has become a norm in African youths because adolescents perceive that it confirms their freedom and give privileges (Mashua, 2011). Similarly, a substantial proportion of school adolescents in Ethiopia were engaged in different risky sexual practices that are verified by the existence of multiple sexual partners and sex without condom that predispose them for sexual transmitted infections (Legesse, 2014). Adolescent childbearing and its harmful consequences for the health of both adolescent girls and the children is another dimension that has been strongly linked to premarital sexual intercourse that reflects broader forms of social and economic marginalization of girls (MDG Report, 2015).

Due to rapid globalization and availability of mass Medias, youths today have different exposures. University students in particular are suddenly exposed to a liberal environment and are free from parental control. Also, as they are in a phase where they are more prone to taking risks and exploring their sexuality, it may put them at risk of unwanted pregnancies and sexually transmitted diseases (STIs) (Mehra, 2013). Each student comes to the universities and colleges with his/her own socio-cultural background. Because of the multi ethnic and social nature of higher education institutions, they have the chance of learning malpractice in the process of daily association including risky sexual practices (Abdullahi and Umar, 2013). For the reason that students are relatively detached from familial supervision in the higher education centers, they have the opportunity to build their own way of life. Unfortunately, they are forced into risky sexual practices by their peers or adults in the campus (Kroone, 2010).

Alcoholic beverages and unsafe sex contribute to the global burden of disease, furthermore, amplified through the linkages that have been shown to exist between alcohol, risky sexual behavior and the spread of

sexually transmitted infections (STIs). Sexual risk behavior accounts for a large number of opportunities for acquiring HIV infection, and alcohol use has been shown to increase high-risk sexual behavior (WHO, 2006). A study in Maiduguri, Nigeria showed that students were 2.5 times more likely to engage in premarital sex than other community parts. Various drugs were used by students for enhancing sexual practice which made them drug addicts. In some cases students take drugs after their relationship has broken to forget anxiety (Bukar et al, 2013). Similar finding was produced by Basel in Nepal, where one fifth of college youths had risky premarital sex where substance users had higher risky sex than non-users (Basel, 2013). Substance misuse is the main reason for risky sexual intercourse which currently becoming a growing problem in Ethiopia. Use of khat, alcohol and cigarette was significantly and independently associated with risky sexual activities (Derese et al., 2014).

Despite the fast growth of college population in Ethiopia, little has been known about risky sexual behaviors of these sexually active groups. Even though a few academic studies were conducted, there are significant inter- and intra-regional variations on the result (Legesse, 2014; Seme and Wirtu, 2006; Mbelle et al., 2014). There are now many students enrolled in higher education centers, those students should be helped to set proper norms of behavior for our society and serve as role models for younger students, that college students are establishing and solidifying lifestyles and behaviors that will stay with them for the rest of their lives. Hence, a location specific identification of risky sexual behavior of students is critical because sexual and reproductive health of students affects not only their academic achievement but also the overall health of our society.

The prevalence of premarital sex among students in the study area is worrisome because many cases of unwanted pregnancies and induced abortion were frequently happened. Additionally, sexual assault and dating activities were commonly observed in the campus. In addition, Alage is a very wide college and large numbers of local peoples are living within its province and this may expose students for risky sexual practices. Studies on the subject of premarital sex and its associated factors are not common in higher education institutions in Ethiopia, particularly in the study area. Hence, this study will try to fill the knowledge gap through revealing the extent of premarital sex and its various associated factors among students at Alage ATVET College.

METHODS

The study was conducted at Alage ATVET College which is one of agricultural technical vocational educational training college (ATVET), established under the Ministry of Agriculture, Ethiopia. It is located 217 km south of Addis Ababa, the capital city of Ethiopia. A cross-sectional study design was conducted to convey original quantitative and qualitative data among Alage ATVET College students. The study was adopted both the qualitative and quantitative research techniques. The quantitative and qualitative research instruments were designed in such a way that they complement each other.

Data require for the study was collected from both primary and secondary sources. The primary sources includes self-administered questionnaires, focus group discussion and key informant interview while the secondary sources looked at review of previous researches and other documents related to the topic. A structured self-administered questionnaire was prepared according to each particular objective. It was pretested on 15 students for consistency of the questions one week prior to the actual data collection. Six diploma holder data collectors and three facilitators who were disaggregated in gender were participated in data collection process.

To supplement the quantitative findings, six focus group discussion sessions (made up of 8 members in each group) were carried out. Focus group discussants were purposively drawn from campus discipline committee, students' council and gender clubs based on their intimacy in observing students while involved in risky sexual behavior. The number of male and female discussants was equal and totally 48 discussants were participated. Guideline was developed for the key informants and obtained some general information about the prevalence of premarital sex and its contributing factors. The key informants constituted: member of students' dean (n=1), male and female teachers (n=3), health workers (n=1), proctors (n=2), representatives of religious affairs (n=3) and campus security guards (n=1). Totally 11 key informants were selected purposively through familiarization and recommendation.

A probability sampling method was used to select target respondents among regular senior students at Alage ATVET College. Firstly, all students were clustered in to two by year of study like second year and third year students. Then students were further stratified based on their departments. All senior students at any age group, which are 2607 in number, were considered as a study population. Out of these, systematic random sampling technique was used to draw samples from each of the respective academic years and departments.

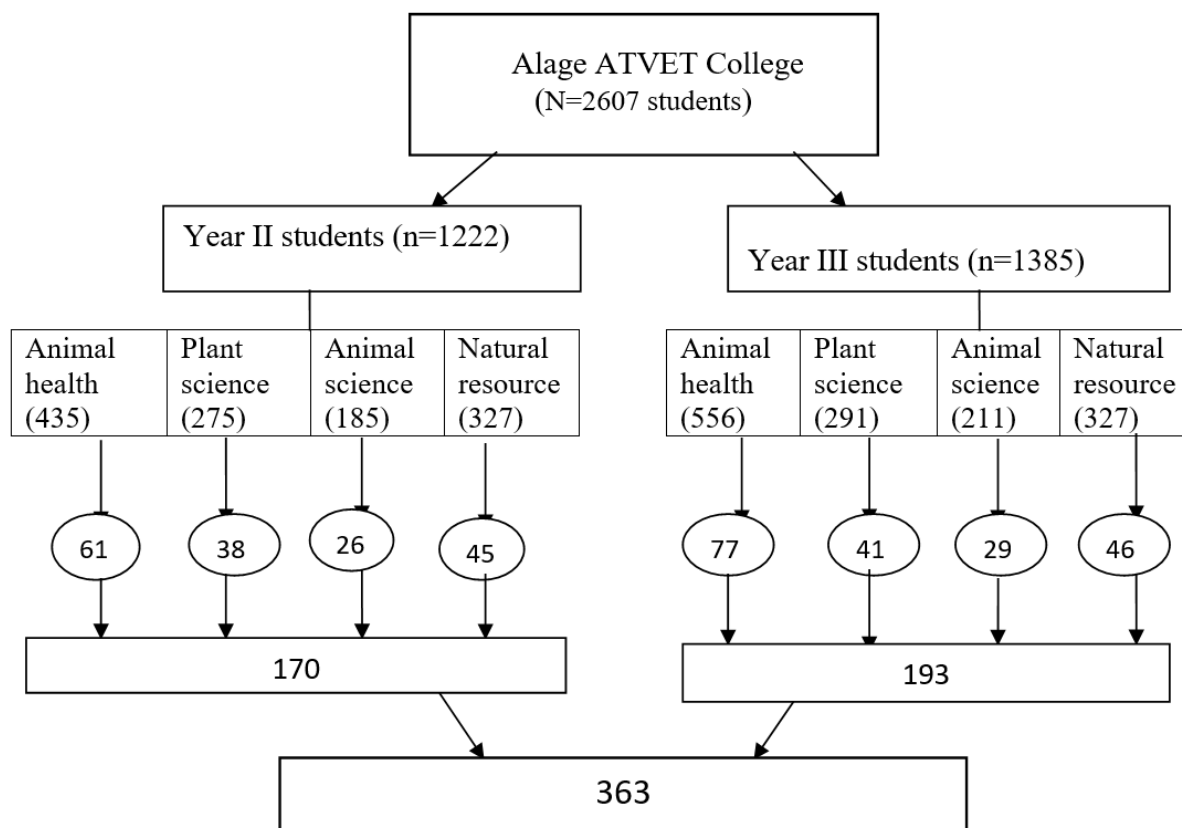


Figure 3: Schematic presentation of sampling procedure of students at Alage ATVET College, Ethiopia, 2016.

The number of year II and year III students in four departments were 1222 and 1385 respectively. Of which, 170 students from second year and 193 students from third year were selected as respondents proportionate to sample size across each department. The sample size was determined by using a simple population proportion formula. The degree of precision was assumed to be 50%, 95% confidence level ($z= 1.96$), 5% marginal error ($d=0.05$) and added non-response rate of 10%. Then:-
 $n=Z^2p(1-p)/d^2 = [(1.96)^2(.5)(.5)]/.05 = 384.16$. Added 10% non-response rate, $=384.16 + 10\% = 423$. But since the total population was less than 10,000 or $n/N > 10\%$ it is essential to use population correction (Teklemariam, 2013).

There for, final sample size (n) $=ni/1+ni/N = 423/1+423/2607=363$.

Data analysis

The collected raw data was edited, coded and entered into statistical package for social sciences (SPSS) version 20. Further cleaning and checking for missing values and errors were made after entry. Then, frequency distribution and percentages of different variables were computed and the results were illustrated in the form of frequency tables, pie charts and graphs in order to give a quick glance of the variables.

In case of inferential analysis, Bivariate and Multivariate analysis by using logistic regression models were used to determine the association between predictor variables with the dependent variable. First the relation between each independent variable and outcome variable were investigated by using a binary logistic regression analysis. The variables which showed significant association on bi-variant analysis with p-value of <0.05 were used for multivariate logistic regression to minimize the effect of confounding variables and to come up with major factors of premarital sexual practices. To assess the strength of relationships between dependent and independent variables, adjusted odd ratios with 95% confidence intervals and statistical significance at $P < 0.05$ were declared.

4. RESULT

4.1. Socio-demographic characteristics of the study participants

Three hundred fifty five (355) students out of the total 363 samples were completed the questionnaires and making the response rate of 97.8%. Eight questionnaires (2.2%) were disregarded due to incompleteness. Therefore, 355 completed questionnaires included in the analysis. Among those participants, 132 (37.2%) and

223 (62.8%) were females and males, respectively. More than three fourth of the respondents (80%) were in the age group of 19-24 years whereas the remaining 15(4.2%) and 56(15.8%) respondents were in the age group of ≤ 18 years and ≥ 25 years age respectively. The minimum age for both male and female respondents was 18 years while the maximum age for females was 27 years and that of male was 45 years. The mean (SD) age of respondents was 21.78(± 3.19) and that of females and males were 20.84(± 2.13) and 22.34(± 3.56) respectively (See table 1 below).

With regard to religion dominancy, 208 (58.6%) and 78 (22%) respondents were followers of Orthodox Christian and Islam respectively. A large majority of the respondents 250 (70.4%), out of those more than half 158 (63.2%) males and 92 (36.8%) of females attend religious education. Moreover, this study indicated that 126(35.5%), 98 (27.6%), 38 (10.7%), and 93 (26.2%) of respondents were visiting religious institutions daily, once a week, once a month and never visited religious institutions respectively. The predominant ethnic group in the study area was Oromo which accounted 178 (50.1%) followed by Sidama 80 (22.5%), Amhara 48(13.5%) and Tigray 39(11%) (See table 1 below). The previous residence for the majority 198 (55.8%) of respondents was rural setting and the rest 157 (44.2%) were urban dwellers. A large majority of respondents 333 (93.8%) were never married and less than half of the respondents 160(45.1%) reported that they get a regular pocket money from their parents (See table 1 below).

Table 1: Socio-demographic characteristics of the respondents (n=355), Alage ATVET College, Ethiopia, 2016.

		Sex					
		Female		Male		Total	
		N	%	N	%	N	%
Age	≤ 18 years	9	60.0%	6	40.0%	15	4.2%
	19-24 years	112	39.4%	172	60.6%	284	80.0%
	≥ 25 years	11	19.6%	45	80.4%	56	15.8%
	Mean(SD)	20.84	(2.13)	22.34	(3.56)	21.78	(3.19)
	Minimum	18		18		18	
	Maximum	27		45		45	
	Total	132	37.2%	223	62.8%	355	100.0%
Religion	Orthodox	93	44.7%	115	55.3%	208	58.6%
	Islam	11	20.4%	43	79.6%	54	15.2%
	Protestant	23	29.5%	55	70.5%	78	22.0%
	Catholic	2	50.0%	2	50.0%	4	1.1%
	Others	3	27.3%	8	72.7%	11	3.1%
Attend in religious services	Yes	92	36.8%	158	63.2%	250	70.4%
	No	40	38.1%	65	61.9%	105	29.6%
Frequency of going to church/mosque	Daily	54	42.9%	72	57.1%	126	35.5%
	Once per week	27	27.6%	71	72.4%	98	27.6%
	Once per month	15	39.5%	23	60.5%	38	10.7%
	Never attend	36	38.7%	57	61.3%	93	26.2%
Ethnicity	Oromo	65	36.5%	113	63.5%	178	50.1%
	Sidama	30	37.5%	50	62.5%	80	22.5%
	Amhara	18	37.5%	30	62.5%	48	13.5%
	Tigray	15	38.5%	24	61.5%	39	11.0%
	Others	4	40.0%	6	60.0%	10	2.8%
Place of residence	Rural	72	36.4%	126	63.6%	198	55.8%
	Urban	60	38.2%	97	61.8%	157	44.2%
Marital status	Never married	122	36.6%	211	63.4%	333	93.8%
	Married	8	42.1%	11	57.9%	19	5.4%
	Divorced/widowed	2	66.7%	1	33.3%	3	0.8%
Years of study	2nd year	62	37.8%	102	62.2%	164	46.2%
	3rd year	70	36.6%	121	63.4%	191	53.8%
Living arrangement	Dormitory	126	37.5%	210	62.5%	336	94.6%
	Outside dormitory	6	31.6%	13	68.4%	19	5.4%
Having pocket money	Yes	60	37.5%	100	62.5%	160	45.1%
	No	72	36.9%	123	63.1%	195	54.9%

4.2. Sexual history of respondents

Out of the total 355 respondents, two hundred three (57.2%) were had at least one boy/girl friends in their life

time and one hundred ninety six (55.2%) reported of ever having dating experience. One hundred eighty eight (53%) respondents had premarital sexual intercourse. The mean (SD) age of all of sexually experienced respondents at first sexual intercourse was 17.8(±2.21) years. From all sexually active adolescents, three (37.5%) of males and 5 (62.5%) of females had their first sexual intercourse before the age of 15 years (See table 3 below).

In terms of sexual partners of respondents, the majority 129(68.6%) of sexually experienced students had their first sexual intercourse with their girlfriends/ boyfriends whereas 46(24.5%) respondents had sex with stranger, 7(3.7%) of males with commercial sex workers and 6(3.2%) of females had their first sex with their teachers. About seventeen (9.0%) respondents reported that their first sexual partners had been younger whereas forty four (23.4%) respondents were conducted first sex with older partners (See table 3 below). When the respondents were asked on the number of life time sexual partners they ever had, the majority 118 (62.5%) reported that they had only one sexual partner while 34 (18.1%), 16(8.5%) and 20(10.6%) reported having had two, three, and four & above sexual partners respectively. From the total 188 premarital sexual experienced respondents, nearly three forth (74.5%) of them had their first sexual intercourse before joining the college (See table 3 below).

Table 2: Premarital sexual history among Alage ATVET College students, Ethiopia, 2016.

		Sex					
		Female		Male		Total	
		N	%	N	%	N	%
Ever had boy/girl Friend	Yes	75	36.9%	128	63.1%	203	57.2%
	No	57	37.5%	95	62.5%	152	42.8%
Dating Experience	Yes	64	32.7%	132	67.3%	196	55.2%
	No	68	42.8%	91	57.2%	159	44.8%
Premarital sex	Yes	57	30.3%	131	69.7%	188	53.0%
	No	75	44.9%	92	55.1%	167	47.0%
With whom 1st sex was made	Boy/girl friend	37	28.7%	92	71.3%	129	68.6%
	Non-regular partner	14	30.4%	32	69.6%	46	24.5%
	Teacher	6	100.0%	0	0.0%	6	3.2%
	Commercial sex work	0	0.0%	7	100%	7	3.7%
Age at first sex	<15 years	5	62.5%	3	37.5%	8	4.3%
	15-18 years	38	34.2%	73	65.8%	111	59.0%
	>18 years	14	20.3%	55	79.7%	69	36.7%
	Mean(SD)	17.1	(±2.17)	18.12	(±2.16)	17.8	(±2.21)
	Minimum		12		13		12
	Maximum		22		24		24
When was first sex	Before college	43	30.7%	97	69.3%	140	74.5%
	In the college	14	29.2%	34	70.8%	48	25.5%
Condom used during 1 st sex	Yes	35	31.8%	75	68.2%	110	58.5%
	No	22	28.2%	56	71.8%	78	41.5%
Number of sexual partner so far	One	43	36.4%	75	63.6%	118	62.8%
	Two	5	14.7%	29	85.3%	34	18.1%
	Three	3	18.8%	13	81.3%	16	8.5%
	Four and above	6	30.0%	14	70.0%	20	10.6%

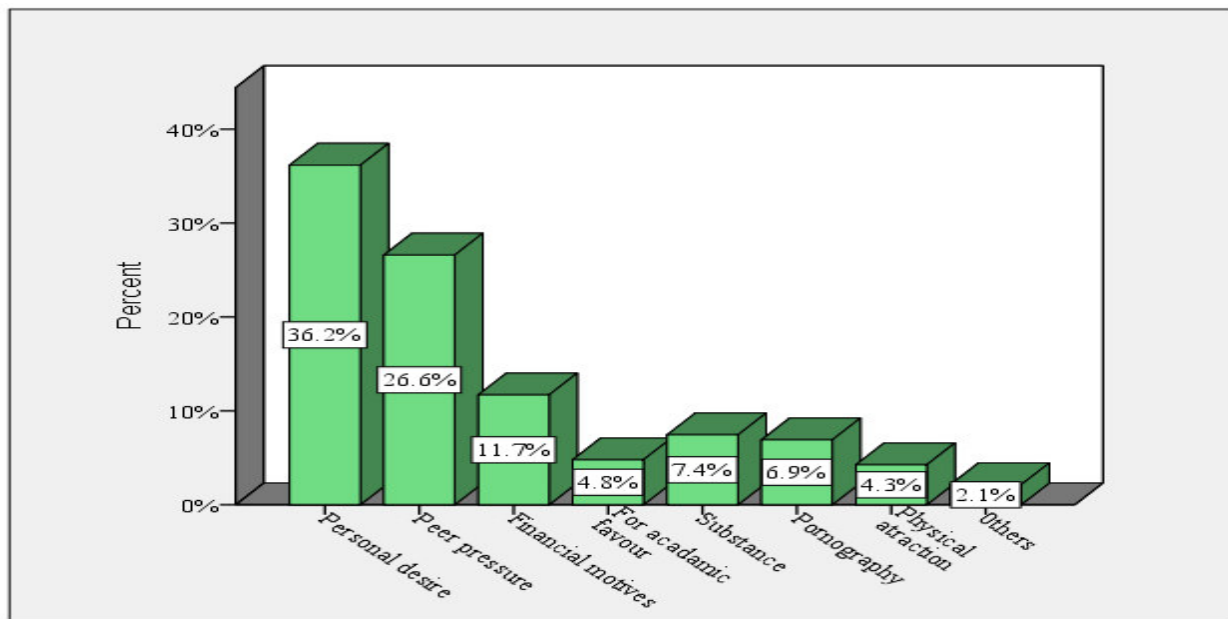


Figure 2: Main reasons for having premarital sexual intercourse among Alage ATVET College students, Ethiopia, 2016.

As presented by the figure above, the main reasons for initiation of premarital sexual intercourse were related to personal interest/curiosity (36.2%), peer pressure (26.6%), financial motives (11.7%), substance influence (7.45%), influence of pornographic movies (6.9%), for academic favor (4.8%), physical attraction of opposite sex (4.3%) and other reasons (2.1%) (See figure 4).

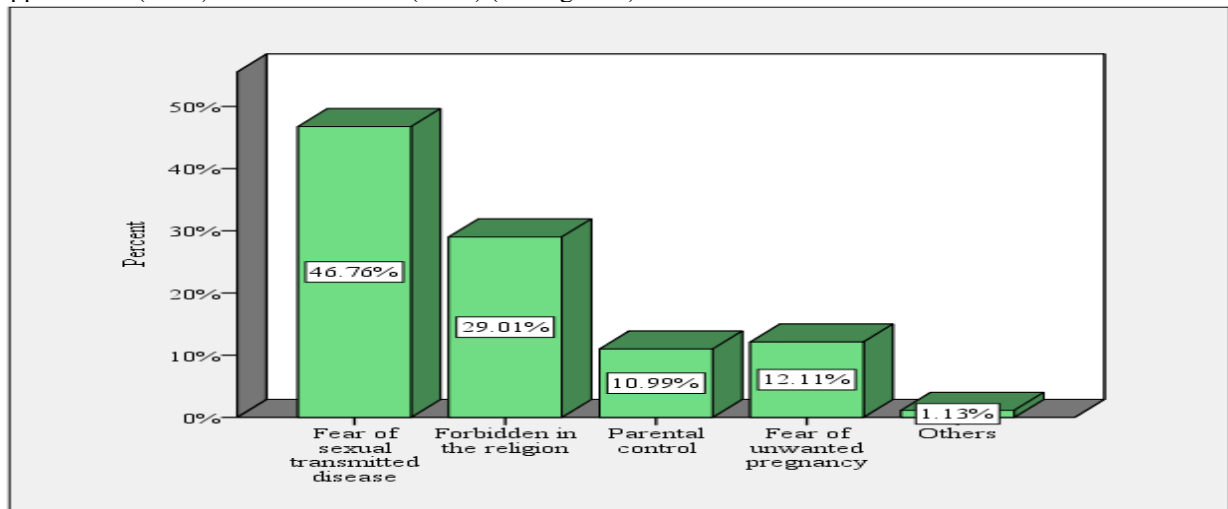


Figure 3: Perceived protective factors that help to delay the onset of sexual intercourse among Alage ATVET college students, Ministry of Agriculture and Natural Resource, Ethiopia, 2016.

The participants of this study reason out the protective factors that refrain them from commencing premarital sexual intercourse. As figure five depicted here above, young people’s care-seeking behavior (fear of sexual transmitted disease) (46.76%) was the main protective reason for not starting premarital sexual intercourse followed by religious value(religiosity) (29.01%), parental control (10.99%), fear of unwanted pregnancy (12.11%) and other reasons (1.13%) respectively (See figure 5 above). In the qualitative study, religion was repeatedly mentioned as a shield to avoid premarital sexual intercourse. Premarital sex was considered as a serious sin based on religious beliefs of participants. For example, a 24 year old male participant stated in this regard: *“Religious beliefs are very important to restrain youths from risky behaviors because religious leaders preach daily against what is called bad behaviors like corruption, alcoholism, and sexual intercourse before marriage. Someone who really adhere to his/her religion will never experience premarital sexual intercourse, and if he/she have sex, it is adultery, sin and prohibited in the religion of Christianity and Islam”*.

4.3. Current sexual experience of students

Out of 188(53%) ever sexual experienced respondents, one hundred fifty six (83%) of them had sexual

intercourse during the previous 12 months prior to the survey. Among these, 111 (71.2%) and 45 (28.8%) were males and females respectively. When respondents were asked about the number of sexual partners they had, the majority 131 (84%) of them reported that they had only one sexual partner in the past 12 months prior to the survey (See table 4 below). Among sexual experienced students in the past 12 months (156), about (78.2%) of them had sexual intercourse with their girlfriends/ boyfriends while 15 (9.6%) with stranger, 12(7.7%) of males with commercial sex workers and 7(4.5%) of female students had sexual intercourse with their teachers. Another typical feature that makes youth sexual activity risky is the absence or incorrect use of condom during sexual intercourse. Accordingly, out of 188 ever sexually experienced students, only 133 (70.7%) students were never used condoms during their last sexual intercourse (See table 4 below).

Table 3: Current sexual experience among Alage ATVET College students, Ethiopia, 2016.

		Sex					
		Female		Male		Total	
		N	%	N	%	N	%
Having sex in the past 12 months(n=188)	Yes	45	28.8%	111	71.2%	156	83.0%
	No	12	37.5%	20	62.5%	32	17.0%
No. of sexual partner in the past 12 months (n=156)	One	39	29.8%	92	70.2%	131	84.0%
	Two	6	25.0%	18	75.0%	24	15.4%
	Three and above	0	0.0%	1	100%	1	0.6%
Having sex with whom in the past12 months (n=156)	Commercial sex work	0	0.0%	12	100%	12	7.7%
	Boy/girl Friend	33	27.0%	89	73.0%	122	78.2%
	Teacher	7	100%	0	0.0%	7	4.5%
	Non-regular partner	5	33.3%	10	66.7%	15	9.6%
Condom used in the last sexual intercourse(n=188)	Yes	13	23.6%	42	76.4%	55	29.3%
	No	44	33.1%	89	66.9%	133	70.7%

4.4. Communication with parents and source of knowledge about sexuality.

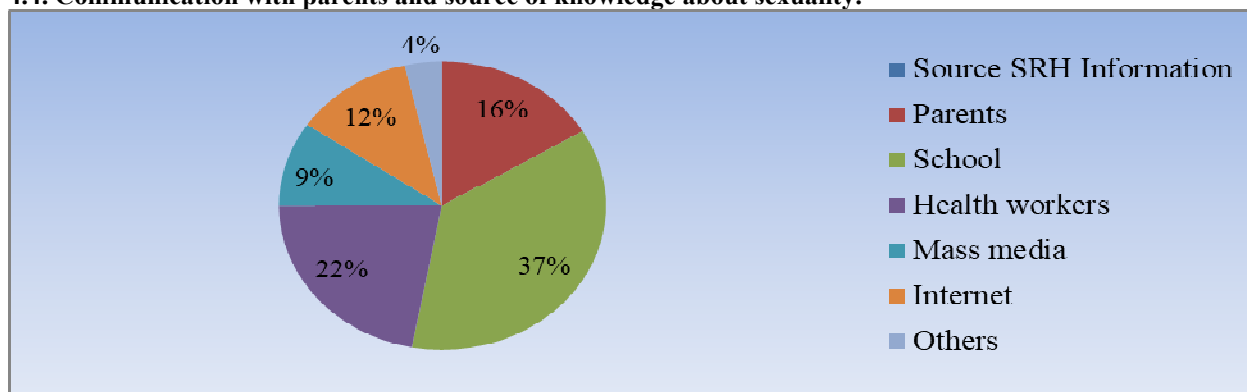


Figure 4: Sources of sexual and reproductive health information among students of Alage ATVET College, Ministry of Agriculture and Natural Resource, Ethiopia, 2016.

One alarming finding in this particular study is that a higher proportion of respondents (37%) were acquired knowledge about sexual and reproductive health issues from school, followed by health workers (22%), parents (16%), internet (12%), mass media (radio, TV) (9%) and others sources (4%) (See figure 6 above). From this we can deduce that, sexual and reproductive health intervention, particularly in colleges and universities, should be provide adequate, consistent, need based and clear messages to equip youths with necessary knowledge and skills to bring the desire behavioral change.

4.5. Main risky behaviors related to pre-marital sexual practices

Out of the total 355 respondents 106 (29.9%) were reported to have sexual experienced friends and of which 75 (70.8%) and 31(29.2%) were males and females respectively. Among all participates in the quantitative study, one hundred twenty one (34.1%) of which 100 (82.6%) males and 21 (17.4%) females reported that they had watched pornographic movies at list once in their life. The majority of the study participants, who were involved in the focus group discussion also argued that, " *Nowadays, both male and female students use media and films to pass their time. Males and females see pornographic videos and it really encourages them to do that in real life. So they have premarital sex* " (FGD, 21 year female student).

The study revealed that 52(14.6%) of the students were chewed khat at least once in their lifetime. Regarding to alcohol drinking habits of respondents, 148 (41.7%) reported that they drank alcohol at least once

in their lifetime. Accordingly only 18 (5.1%) respondents used cigarette. Overall one hundred eighteen (66.7%) and 59 (33.3%) of the respondents were started to consume substances before and after joining to the college respectively (See table 6 below).

Table 4: Main risky behaviors related to premarital sexual practices among Alage ATVET College Students, Ministry of Agriculture and Natural Resource, Ethiopia, 2016.

			Sex					
			Female		Male		Total	
			N	%	N	%	N	%
Sexual intimate friends experienced	Yes	31	29.2%	75	70.8%	106	29.9%	
	No	101	40.6%	148	59.4%	249	70.1%	
Ever seen Pornography	Yes	21	17.4%	100	82.6%	121	34.1%	
	No	111	47.4%	123	52.6%	234	65.9%	
Ever drink alcohol	Yes	42	28.4%	106	71.6%	148	41.7%	
	No	90	43.5%	117	56.5%	207	58.3%	
Ever chewing Khat	Yes	10	19.2%	42	80.8%	52	14.6%	
	No	122	40.3%	181	59.7%	303	85.4%	
Ever smoke cigarette	Yes	1	5.60%	17	94.4%	18	5.1%	
	No	131	38.9%	206	61.1%	337	94.9%	
When you start using substances	Before joining to college	36	30.5%	82	69.5%	118	66.7%	
	After joining to college	12	20.3%	47	79.7%	59	33.3%	

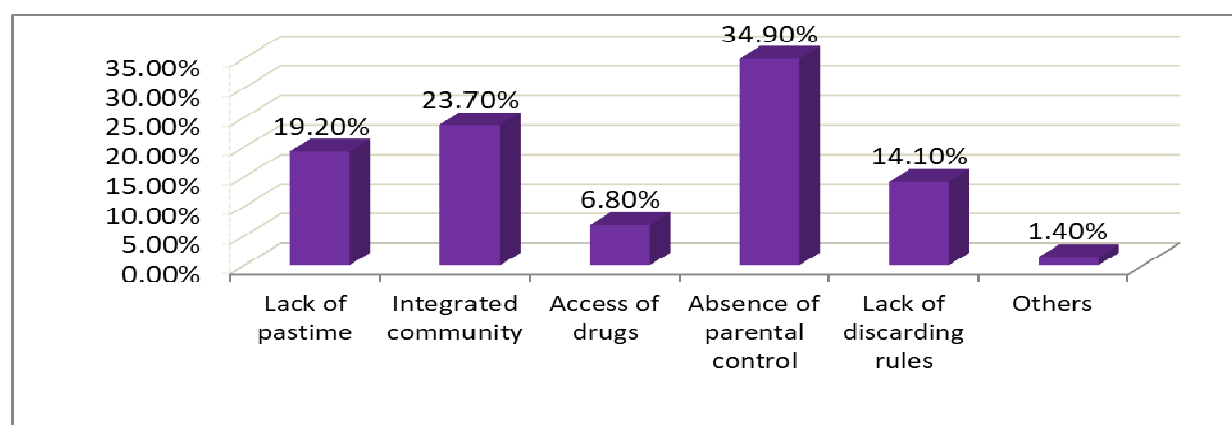


Figure 5: Perceived driving factors for premarital sexual intercourse associated with school environment at Alage ATVET College, Ethiopia, 2016.

Regarding to the reasons for initiation of premarital sex associated with school environment, the respondents claimed major reasons were; absence of parental control (supervision) (34.9%) followed by integrated local community in the college (23.7%), lack of pastime/entertainment (19.2%), lack of discarding rules/lack of rules regulating risky sexual intercourse (14.1%), high access of drugs (6.8%) and other factors within the college (1.4%) (See figure 7 above). Almost the entire focused group discussants also suggest that the prevalence of premarital sex at Alage ATVET College is more severe than elsewhere because of the availability of substance, peer pressure and school environment. For instance, a 25 years female student opined that “*Dating is the most common practice and becoming as a fashion compared to penetrative sexual activities. It is the act of kissing, fondling, placed hands on girl's breast to sexual stimulation. There is a high chance of sexual acts occurring if students arrange a date at a sheltered and quiet place.*”

4.6. Factors associated with premarital sex at bivariate and multivariate logistic regression analysis

Among the socio-demographic variables, family income and knowledge about SRH issues, and from the behavioral variables such as, chewing khat were associated with pre-marital sexual practice only at COR at $p < 0.05$ while other variables like male sex, having regular pocket money, ever having boy/girl-friend, ever having dating experience, ever had sexual experienced intimate friends, frequency of visiting religious institutions, ever watched pornography and ever drink alcohol were all significantly associated with pre-marital sexual practice at both crude and adjusted odd ratios at $p < 0.05$ (See table 7 below). Male respondents were more than three times to have pre-marital sexual practice as compared to female respondents [AOR=3.33, 95% CI (1.2-9.24)]. Regarding to participation in religious services, students who visit religious institutions daily were sixty six percent less likely to be engaged in premarital sexual intercourse when compared to those who did not

visit [AOR=0.66, 95% CI(0.22- 2.04)]. Respondents who had pocket money found to be more than nine times more likely practiced premarital sex than those did not have [AOR=9.63, 95% CI (3.61-25.79)] (See table 7 below). Adolescents who had boy or girl friends were almost forty two times more likely practiced premarital sex [AOR= 41.92, 95% CI (14.07-124.88)] compared with those who had no boy or girl friends. Similarly, students who have an intimate friend who started sex were about three times more likely to have pre-marital sexual intercourse compared to those who do not have [AOR = 2.97; 95% CI: (1.06-8.32)] (See table 7 below). Those students who were watching pornography movies were [AOR= 1.34, 95% CI (0.45-3.98)] 1.34 times more likely practiced premarital sex compared to those didn't watch pornography, and there is also statistically significant association between alcohol intake and having premarital sexual intercourse [AOR = 1.54; 95% CI: (0.59-4.01)] (See table 7).

Table 5: Factors associated with premarital sexual practices at bivariate and multivariate logistic regression analysis for Alage ATVET College students, MANR, Ethiopia, 2016.

	Premarital sex ever practiced				COR	AOR
	Yes		No		(95% CI)	(95% CI)
Sex						
Female	57	30.3%	75	44.9%	1	1
Male	131	69.7%	92	55.1%	1.87(1.20-2.90)	3.33(1.2-9.24) *
Frequency of visiting religious institutions						
Daily	53	28.2%	73	43.7%	1	1
Once per week	63	33.5%	35	21.0%	0.40(0.23-0.70)	0.58(0.18-1.93) *
Once per month	26	13.8%	12	7.20%	0.33(0.15-0.72)	0.36(0.07-2.0)
Never attend	46	24.5%	47	28.1%	0.74(0.43-1.27)	0.66(0.22- 2.0) **
Having pocket money						
Yes	115	61.2%	45	26.9%	1	1
No	73	38.8%	122	73.1%	4.27(2.72, 6.70)	9.63(3.61-25.79)***
Family income per month						
≤500 ETB	64	34.0%	75	44.9%	1	1
500-1000 ETB	47	25.0%	49	29.3%	0.84(0.51-1.43)	0.68(0.23-2.04)
1001-1500 ETB	34	18.1%	16	9.60%	0.39(0.20-0.76)	0.27(0.07-1.02)
≥1500 ETB	17	9.0%	7	4.20%	0.38(0.15-0.92)	0.19(0.031-1.14)
I do not know	26	13.8%	20	12.0%	0.78(0.40-1.50)	0.40(0.09-1.78)
Ever had boy/girl friend						
Yes	169	89.9%	34	20.4%	1	1
No	19	10.1%	133	79.6%	34.8(18.99-63.76)	41.9(14.07-124)***
Dating experience						
Yes	160	85.1%	36	21.6%	1	1
No	28	14.9%	131	78.4%	20.8(12.06-35.87)	42.4(14.9-120.6)***
Having sexual experienced close friends						
Yes	66	35.1%	40	24.0%	1	1
No	122	64.9%	127	76.0%	1.72(1.08-2.73)	2.97(1.06-8.32)*
Knowledge about SHR issues						
Poor	74	39.4%	49	29.3%	1	1
Medium	94	50.0%	78	46.7%	1.25(0.78-21)	1.81(0.66-4.98)
Good	20	10.6%	40	24.0%	3.02(1.58-5.8)	11.49(2.47-53.53)
Ever seen pornography						
Yes	80	42.6%	41	24.6%	1	1
No	108	57.4%	126	75.4%	2.28(1.44-3.59)	1.34(0.45-3.98) *
Ever drink alcohol						
Yes	92	48.9%	56	33.5%	1	1
No	96	51.1%	111	66.5%	1.9(1.24-2.92)	1.54(0.59-4.01) **
Ever chewing khat						
Yes	41	21.8%	11	6.60%	1	1
No	147	78.2%	156	93.4%	3.96(1.96-7.99)	5.13(0.98-26.81)

Note: *** = p < .001, ** = p < .01, * = p < .05

Discussion

This study investigated the prevalence of premarital sexual practices and associated factors among senior students in Alage ATVET College, Ministry of Agriculture and Natural Resource, Ethiopia. The overall prevalence of premarital sexual practice in the study population was 188 (53%). This finding is higher than the findings reported for Shendi town which was 157 (19%), kolfe keraniyo sub city (19.8%) and Jimma Teacher Training College 142 (39.7%) (Bogale and Seme, 2014; Alemu et al., 2015 & Fekecha et al., 2014). Similarly half of students of Wollega University had premarital sex (Legesse, 2014). The current finding is however; lower than 60.9% reported in Alkan University College in Addis Ababa (Gemechu, 2014). In Uganda, the figures were higher than the current finding, which were 60.3% (Mehra, 2013). It opposed to a study in Mashhad university of Iran on which only 15% of students engaged in premarital sex in their life time (Reza et al., 2014). Hence, the prevalence of premarital sexual behavior varies across the world. The disparity may be due to different sample characteristics, different cultural background, and different socioeconomic environment as well as religious conditions.

The proportion of male students 131(69.7%) who were involved in premarital sex in the study area was more than the proportion of female students 57(30.3%). This finding is higher than the finding of Alkan University College in Addis Ababa, in which 58% males and 42% of females were had premarital sex (Gemechu, 2014). This finding also corroborated with the study reported by Basel (2013) in Nepal where male was more likely (16.9%) to be involved in premarital sex than female (2.6%). The same is true in university of South Africa, in which 119(60.7%) males and 77(39.3%) females were engaged in sexual intercourse (Dekeke, 2014). In Uganda, more males (66.2%) had premarital sex compared to females (60%) (Mehra, 2013). This finding is also relatively high particularly for males compared to other prior findings in the Middle East. In Iran, for instance, the lifetime prevalence of sexual relationship in males (32.9%) was significantly higher than females (7.6%) (Reza et al., 2015).

The mean (SD) age at first sexual intercourse for both sexes was about 17.8(\pm 2.21) years, while 18.12(\pm 2.16) years for males and 17.07(\pm 2.17) years for females. It is slightly greater than a study conducted in west Gojjam zone reported that the mean age at first sexual intercourse was 16.5 (\pm 1.6) years for males and 15.9 (\pm 1.7) for females and out of all sexually active youths, 20 (12.7%) had their first sexual intercourse before the age of 15 years (Bogale and Seme, 2014). Another similar study carried out in Gedeo zone revealed that the mean age of sexual debut for both sexes was 16.7(\pm 2.8) and that of males and females were 17(\pm 3) and 15.7(\pm 2.1) years respectively (Alemayehu, 2006). A study conducted in India (Prasad et al., 2014) showed that the mean age at first sexual practice was 18.3 years which is greater than the current study. Exactly half of students in Iran started sexual contact between the age of 15-19 years old and 24% of them initiated at age below 15 years old (Reza et al., 2014). Generally, the age category of sexual initiation among adolescents is quite different in different study areas due to different socio-economic environments into which students were exposed.

When the partners of the respondents during their first sexual intercourse were examined, the majorities of the partners (68.6%) were boy/girl-friends followed by strangers (24.5%) and teachers (3.2%). According to a study from HAPCO (2014), 81% of male and 63% of female students had sex with non-regular partners (strangers). In addition among sexually active male students almost two third (64%) had sex with female sex workers. This study also in line with another finding in the university of south Africa where (43.3%) of sexually experienced students reported that their first sexual intercourse was with a boy or girl friend, while (4.0%) claimed that their first sexual partner was a stranger (Dekeke, 2014). This situation implies that the substantial numbers of adolescents carried out sexual intercourse with unknown person (stranger). Therefore, they have higher probability of acquiring HIV and other sexual transmitted infections.

In this study, the main reasons reported for initiation of premarital sex were personal desire to have sex 68 (36.2%), peer pressure 50 (26.6%), and to get money or gifts 22 (11.7%). A quantitative study in Jimma university revealed that sexual desire 106(42.9%), peer pressure 66(26.7%) and to maintain relationship with partner 48(19.4%) were important influencing factors of early sexual intercourse (Tura et al., 2012)). A similar study among adolescents of Kolfe Keraniyo sub city, Addis Ababa showed that main reason reported for initiation of premarital sexual practice was peer pressure which accounted 37 (30.8%) (Alemu et al, 2015). A cross sectional study from Nekemete town indicated that, peer pressure contributes for 17.2% of pre-marital sexual initiation of the adolescents (Legesse, 2014). Likewise, according to a study conducted in Gedeo, personal desire and peer pressure were the most common reasons to commence sexual intercourse reported by 81.2% and 10.6% sexually active respondents respectively (Alemayehu, 2006). This finding is also consistent with other studies conducted in other countries. For instance, a study conducted in Nepal, curiosity, peer pressure and experience of watching pornographic films were identified as the main factors associated with premarital sex (Regmi et al., 2010). However, a study done by Abdullahi (2013) in Nigeria university of Maiduguri indicated that majority (69%) of the respondents carried out early sexual intercourse due to economic reasons.

This study further inquired participants to point out perceived protective factors that help to delay the onset of sexual intercourse. Out of these reasons, fear of sexual transmitted disease (46.76%) was mentioned as the

main factor of delaying premarital sexual intercourse followed by religious value (29.01%), parental control (10.99%) and fear of unwanted pregnancy (12.11%). This finding was supported by the previous study done by Gebremedhin (2015) in Mekele, where religiosity is the leading protective factor 120 (28.6%) followed by economic problems/lack of pocket money 24(5.7%). Similarly, a study in Iran stated that premarital sex is relatively rare, especially in Islamic societies, because sexuality is a sensitive issue for many Muslims (Ghaffari et al., 2014).

Focus group discussants also gave emphasis for perceived social benefits like keeping own honor or dignity of their families, and psychological benefits such as mental and spiritual peace. For example, a 21 year female discussant stated that: *“I give a value for my parents from whatever I have in my life. So I do not want to lose my personality and my family’s dignity and that is why I do not want to have premarital sexual intercourse”*.

In this study, some socio-demographic variables such as sex of respondents, frequency of visiting religious institutions, having pocket money, and variables from young people sexual history, such as ever had girl/boyfriend, dating experience, intimate friends had sexual experience, ever seen pornography and ever drink alcohol were analyzed for possible association with pre-marital sexual practice. Being a male adolescent was found to be significantly associated with premarital sex in the study area. Multi-variate logistic regression analysis showed that male respondents were more than 3 times to have premarital sexual intercourse as compared to female respondents [AOR=3.33, 95% CI (1.2, 9.24)]. The finding of this study was higher than the same study conducted in Harumaya university [AOR=1.89, 95% CI (1.18, 3.04)] and lower than that of done in Alkan university college, Addis Ababa [AOR= 7.6; 95% CI (4.51, 34.87)] (Derese et al., 2014 and Gemechu, 2014).

In the current study, students who had pocket money were found to be nearly ten times more likely to practice premarital sex than those who did not have [AOR=9.63, 95%CI (3.61, 25.79)]. This finding was supported by the study of Endazeneu and Abebe (2015) in west Shewa who found that participants who have no pocket money were 86% less likely engaged in premarital sexual practice when compared to participants who have pocket money [AOR=0.14; 95% CI (0.09-0.20)]. Similarly premarital sexual practice was strongly associated with having pocket money among adolescents of Kolfe Keraniyo [AOR= 3.04 95% CI (1.6-5.78)] and Jimma [AOR=2.2, 95% CI (1.14, 4.05)] (Alemu et al., 2015 & Fekecha, 2013). This is also consistent with another study done in Nigeria university of Maiduguri (Abdullahi, 2013). The possible reasons might be due to lack of skills to wisely use the pocket money, students use the money for exposure to different medias that initiate sex, have high chance of dating with their friends and drinking different alcoholic beverages and buy different addictives as well as porn films that enforce them to start premarital sex (Fekecha et al., 2013 and Gebremedhin et al., 2015).

Respondents who had boy or girl friends were almost forty two times more likely practiced premarital sex [AOR =41.92, 95% CI (14.07, 124.88)] compared with those had no boy or girl friends. This is greater than another previous findings in Nekemete Town, east Wollega [AOR=22.3, 95% CI (13.1, 37.9)] (Seme and Wirtu, 2006). Those students whose close friends practiced premarital sex were [AOR=2.97, 95% CI (1.06, 8.32)] nearly three times more likely to be engaged in premarital sex compared with those adolescents whose friends didn’t experience premarital sex. This finding agrees a study conducted in university of South Africa (Dekeke, 2014). Likewise, according to a study in Kolfe Keraniyo, students whose close friends practiced premarital sex were [AOR=4.52; 95% CI (2.50-8.51)] 4.5 times more likely to be engaged in premarital sex compared with those adolescents whose friends didn’t experience premarital sex (Alemu et al., 2015).

According to the finding of this study, 121 (34.1%) of respondents had watched pornographic materials. Those students who were watching pornography movies were [AOR=1.34, 95% CI (0.45, 3.98)] 1.34 times more likely practiced premarital sex compared to those didn’t watch pornography film. This is relatively lower than another study in west Shewa in which students who watched pornographic movies were 4.03 times more likely involved in premarital sex when compared to students who did not watch it (Endazeneu and Abebe, 2015). A study in Addis Ababa shows students who watched pornographic materials were three times more likely to engage in early sexual activity than who didn’t watch (Girma et al., 2015). This study was more consistent with a cross sectional study conducted in Shendi Town, where students who reported watching pornographic movies were about 1.7 times more likely to experience premarital sex than those who didn’t (Bogale and Seme, 2014). Similar study in Jimma town reported that respondents who saw pornography were more likely to indulge in premarital sexual practice than those who didn’t see it [AOR=5.7, 95% CI (2.82, 11.43)] (Fekecha, 2013).

In this study, alcohol users were 1.5 times more likely to begin premarital sexual intercourse than those who didn’t use alcohol [AOR=1.54, 95%CI (0.59, 4.01)] and it is congruent with a study done by Derese (2014) in Harumaya university. However, lower than another study done in West Shewa which states students who drink alcohol were 2.63 times more likely involved in premarital sex when compared to students who did not drink alcohol (Endazeneu and Abebe, 2015). Alcohol drinking increases the odds of risky sexual behavior with 0.47 [AOR=0.47, 95% CI (0.18, 1.19)] (Bogale and Seme, 2014). Similarly a study in Wollega University depicted that the odd of having had sex is significantly three times higher for youths of drinking alcohol than youths who

didn't drink (Legesse, 2014). This is comparable with a study in Nepal in which youths who drink and get involved in premarital sex behavior are much higher (34.6%) than youths who do not drink (7.1%) (Basel, 2013). We can generalize that substance intake was the risk factor for initiation of sexual intercourse like khat chewing and alcohol drinking. This is consistent with qualitative study in which discussants were mentioned that when boys drink, they lose their control over their sexual need and get forced to engage in sexual practice.

CONCLUSION

This study was set up to assess the level of premarital sexual practice and associated factors in Alage ATVET College, Ministry Agriculture and Natural Resource, Ethiopia. Based on the finding of both quantitative and qualitative studies premarital sex was commonly practiced by most school adolescents. One hundred eighty eight (53%) of the participants practiced premarital sexual intercourse with one or more sexual partners in their life time. Among those sexually active respondents, sixty nine (36.7%) and 111 (59%) started sexual intercourse at the age of greater than 18 years and between 15-19 years of age respectively. Additionally, 41.5% and 70.7% of them were not used condom during their first and last sexual intercourse respectively.

Main reasons reported for initiation of premarital sex were personal desire to have sex (36.2%), peer pressure (26.6%), and financial motive (to get money or gifts) (11.7%) whereas fear of sexual transmitted disease (46.76%), religious value (29.01%), parental control (10.99%), fear of unwanted pregnancy (12.11%) were considered as main protective reasons for not starting premarital sexual intercourse. Among the socio-demographic variables, sex of the respondents (male), having regular pocket money and frequency of visiting religious institutions; and from the behavioral variables, having boy or girl friend, students who have dating experience, participants who watched pornographic movies, students whose close friends experienced in premarital sex and respondents who drink alcohol were significantly associated with pre-marital sexual practice. Therefore, school peer reproductive education should be strengthened and should provide comprehensive, accurate and timely information on sexual issues. An integrated effort between school administrative and the surrounding community need to be initiated to address adolescents' sexual and reproductive health problems through empowering females, discouraging risky sexual behaviors like the use of drugs among adolescents and watching pornographic movies that push them to engaged to sexual practice; and sensitizing parents, community members and the public focusing on parent-child communication and discussion about sex related issues.

RECOMMENDATIONS

Since the students are to be distributed in the community after completing their education, preparing and equipping them with necessary knowledge of sexual and reproductive health will help to disseminate information widely in the community in a sustainable way in addition to protecting themselves. After a thorough examination and comparison of the data obtained from both quantitative and qualitative study on the prevalence of premarital sexual practices and associated factors, the following recommendations are made.

- Algae ATVET College supposed to design programs with comprehensive education on sexual and reproductive health issues through strengthen behavioral change communications; life skill training, peer-education, and working with the surrounding community to address the accessibility of services, and provide information related to SRH issues.
- Education and health offices should work together in order to promote open discussion about sexuality and updated information related to SRH issues through school health education, establishing reproductive health club in the colleges and universities.
- There is a need for institutions of higher education to develop programs and policies that will assure a safe institutional environment and promote access to health care services and contribute to the health, well-being, and academic success of students.
- The college authority should step up to its responsibility as a guardian of students by punishing the youths who force the students to engage in risky sexual activities in the campus, and review the policy regulating the conduct of substance use and the practice of unsafe pre-marital sex.
- Strengthen cooperation between school administrative and the surrounding community to address SRH problems through discouraging risky sexual behaviors; and sensitizing community members focusing on parent-child communication about sex related issues.
- Youth and women affairs should take the initiative in the promotion of school adolescents' sexual health in collaboration with each school administration and different stakeholders including health sector.
- Strengthen Youth-serving agencies, churches, Sunday Schools, community and social organizations to develop strategies that promote high levels of parent-youth-connectedness.
- Further research should be conducted comparative study on risky sexual behavior among in-school and out-school youths, and its contributing factors and consequences.

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Annex 5: Biography sketch

My Manale Andargie Embiyale, I was born on 7th September 1987 in Amhara Regional State, Ethiopia. I attended my elementary, secondary and preparatory education at Boda Baradi, Woin Woha and Motta Schools respectively. Then, in 2008 I joined to Hawassa University College of agriculture and graduated with BSc in Rural Development and Family Sciences in 2010. My professional career started in Alage Technical Vocational Education and Training College, Ministry of Agriculture and Natural Resource as an instructor from 2012 -2018. While on job, I rejoined to Hawassa University to pursue my postgraduate study in July 2014 in the related field of Gender and Family Study. Now I am a lecturer in Debremarkos University, College of Agriculture, Ethiopia.