

1 Prevalence of Premarital Sexual Practice and Associated Factors
2 among Alamata High School and Preparatory School
3 Adolescents, Northern Ethiopia

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6 *Received: 6 December 2013 Accepted: 5 January 2014 Published: 15 January 2014*

7 **Abstract**

8 Context: Sexual intercourse during adolescence period is unprotected and it has a lot of health
9 risks and physical and psychological hazards. Meanwhile there is no study on the prevalence
10 and associated factors of premarital sexual practice in the study area. Aims: The aim of this
11 study is to assess the prevalence of premarital sexual practice and associated factors among
12 Alamata high school and preparatory school adolescents in 2013. Settings and design: The
13 study was conducted in Alamata, Tigray which is the northern Ethiopia. There is one high
14 school and one preparatory school. The study design was cross sectional. Methods and
15 materials: All regular students attending their school in the year 2013 were included and multi
16 stage sampling method was used. A total of 520 participants were included. Data were
17 collected using self-administered questionnaire. Statistical analysis used: Data entered using
18 EpI Info version 3.5.1 analyzed using SPSS version 16. Descriptive, bivariate, and multivariate
19 logistic regression analysis were used Result: A total of 493 participants give complete
20 response. One hundred four (21.1
21

22 *Index terms*— sexual practice, health related problems, alamata, adolescent

23 **1 Introduction**

24 according to World Health Organization (WHO) definition adolescent comprises individuals between the age group
25 of 10-19 years old. 1 United Nations International Children's Emergency Fund (UNICEF) categorizes adolescents
26 in to three stages; 10-13 years old as early adolescents, 14-16 years old as middle adolescents, and 17-19 years
27 old as late adolescents. 2 The World Health Organizations (WHO) has reported that young people aged 15-24
28 accounted for an estimated 45% of new HIV infections worldwide. 3 Age at marriage is rising in many African
29 societies, especially among the better-educated and urban segments of the population. At the same time, it
30 is believed that age at menarche is declining, and that premarital adolescent sexual activity is increasing. 4
31 According to Ethiopian Demographic and Health Survey (EDHS) 2011 report, among women age 25-49, 29
32 percent first had sexual intercourse before age 15. 5 Early sexual debut increases young peoples' risk for infection
33 with HIV and other STIs. Youth who begin early sexual activity are more likely to have highrisk sex or multiple
34 partners and are less likely to use condoms. 6 In Ethiopia, HIV prevalence in the 15-24 age groups is 8.6%.7
35 the commonest mode of HIV infection is heterosexual contact accounting 87%. 5, 7 Studies conducted so far on
36 pre-marital sexual practices and factors related to it in Ethiopia are few in number and there are no current data
37 on this topic in the study area.
38

6 DISCUSSION

39 2 II.

40 3 Materials and Methods

41 Institutional based cross sectional study design was conducted among high school and preparatory school students
42 in Alamata town, northern Ethiopia in 2013. A total of 520 sample size was calculated using single population
43 proportion formula then the sample was allocated proportionally for all classes. The procedure involved of three
44 steps. First, in order to select the A (namely, grade 9, 10, 11, and 12) were selected by using simple random
45 sampling (SRS) Second, a probability proportion to sample size (PPs) was used to select the total number of
46 participants to be included in the study from the randomly selected sections. Third, in order to select the study
47 participants, a systematic random sampling method was used by using roster list or names of the students from
48 the registrar office of both schools in every forth interval.

49 Data was collected from March to April, 2013 using self administered questionnaire with seven parts
50 namely, Socio-demographic characteristics; Sexual and Reproductive health knowledge and related questions,
51 communication on Sexuality and HIV/AIDS; Attitudes towards pre-marital sex; related to some risk behaviours
52 of Adolescents; Peer Influence and peer behaviour; and sexual behaviour and practices.

53 Data quality was ensured through pre test was done from other school out of the mail study participants, the
54 questionnaire was translated in to local language-Tigrigna, supervisors and school community were communicated
55 and orientation was given for data collectors and study participants on the purpose of the study.

56 Data cleaning and entry was performed by using Epi Info version 3.5.1 and analyzed by using SPSS version
57 16. Descriptive analysis was carried out for the dependent and independent variables. Bivariate analysis was
58 done for the independent variables with the dependent variable to select candidate variables (pvalue less than
59 20%) for multivariate analysis. P value less than 0.05 and 95% confidence interval (CI) for odds ratio was used
60 to judge the significance of association.

61 Administrative and academic staffs were communicated about the study, and they gave their willingness
62 on data collection. Informed consent was obtained from the study subjects after providing the necessary
63 information through the information sheet and the informed consent form which is attached to the front page of
64 the questionnaire and data was collected after getting informed consent from the study participant.

65 4 III.

66 5 Result a) Socio demographic characteristics of respondents

67 The response rate was 94.8%. From the total respondents, male accounting 264 (53.5%). Among the respondents
68 472(95.7) were in the age group of 15 to 19 years old. The mean age and standard deviation (SD) for male
69 was 16.7 and 1.48 respectively, and mean age for females was 16.45 and SD of 1.26. (Table ??) One hundred
70 four (21.1%) of adolescent students participated in this study had had premarital sexual practice. From these,
71 Seventy five (72%) were male and 29 (28%) were females. Age at first sexual intercourse is shown in (fig 1).

72 Volume XIV Issue III Version I Year () K Ethical clearance was obtained from Addis Ababa University (AAU),
73 department of nursing and midwifery research committee institutional review board. Permission was granted from
74 officials at different levels in Alamata town through the formal letter obtained from the department's research
75 committee institutional review board. Sixty six (17.2%) of urban residents and 38(34.5%) of rural residents had
76 had sexual practice before marriage. In addition, 24(77.4%) of respondents who didn't attend church or mosque
77 were engaged in premarital sexual practice, compare to 80(17.3%) of those who attend religious. More than one
78 third of respondents (38.5%) who had sexual practice were from illiterate father, 40(31.5%) of respondents who
79 start sexual practice were from illiterate father, while 8(9.4%) of those who start sexual practice were from a
80 father who have educational level of college and above.

81 Similarly, 47(27.5%) of respondents who start sexual practice were from illiterate mother, while 12(17.1%) of
82 respondents who start sexual practice were from a mother with educational status of college level and above.

83 Reasons given by the respondents to start sexual practice include fall in love, had desire, peer pressure, raped
84 was drunk and to get money or gift accounting (figure 2). Regarding the risk behaviors of adolescent's majority,
85 253(51.3%), of the respondents had never drink alcoholic beverages, while 23.3% drink once or twice a week.
86 Four hundred sixty one (93.5%) had never smoke cigarette in their life, while 21(4.3%) smokes once or twice a
87 week and 3 (0.6%) smokes daily.

88 More than one third (36.3%) of the respondents said that they have a boy/girlfriend at the time of data
89 collection, while 314(63.7%) don't have a boy/girlfriend (Table 2).

90 6 Discussion

91 This study revealed that more than one fifth (21.1%) of respondents were involved in premarital sexual practice.
92 When compared with other studies done on a similar topic, the finding of this study is almost similar with
93 studies done in Nekemt and Injibara. 8,9 But the finding of this study is relatively higher than the national
94 level of premarital sex. According to BSS, the proportion of premarital sex among in school youths is 16%. This
95 difference could be due to the study population (this study assessed the prevalence of premarital sex among
96 in school students aged 10 to 19 years old, while the national study included only adolescents who are at the
97 age group of 15 to 19 years old). The other reason could be the number of sample used, the current study

98 assessed adolescents found in two schools, while the national survey included a large number sample with diverse
99 population.

100 According to this study, majority, 75(28.4%) of male respondents and 29(12.7%) of female respondents had had
101 sexual intercourse. showed that males are highly involved in premarital sexual activity than their counterparts.
102 This could be due to the high expectation of virginity before marriage for females than males and a lesser
103 cultural expectation for males to remain virgin until marriage than females in our society, due to low parental
104 control for males than females and the differ -ence in the opportunity costs of becoming sexually active (and
105 the subsequent risks of unintended pregnancy). 10,11 Other similar studies done in eastern Ethiopia, Ambo,
106 Nekemt, Injibara, and Gedeo zone also showed that the proportion of males to engage in premarital sexual
107 practice is relatively higher than females. 8,9,10,12,13 A study done among undergraduate university students in
108 Ethiopia also showed that more proportion of male students ever had sex compared to females. 14 Another study
109 done in Jima University students also showed that male students are three times more as likely as their female
110 encounter parts to experience sexual intercourse. 15 Previous studies done in India, Malaysia and China also
111 found that young boys tend to have premarital sexual activity than young girls. 16 According to the current study,
112 adolescents who are aged 18 and above are more likely to involve in premarital sexual practice than adolescents
113 who are aged below 18 years old. This shows that as the age of adolescents increase, there is higher probability to
114 involve in sexual practice. This result is similar with other studies done in Ambo, Jimma, and Injibara. 9,12,15
115 Place of residence was another factor found to be associated with premarital sexual practice. According to this
116 study, adolescents who were living in the rural area were more likely to involve in premarital sexual activity
117 than urban residents. This could be because adolescents from rural areas often live away from parental guidance
118 and peoples in urban areas commonly have better sexual and reproductive health access comparing with the
119 rural people. 10,16,17 A study conducted in Nekemt town showed that if adolescents migrate from rural areas
120 to urban areas, then it predisposes them to unnecessary communications and unsupervised relations which lead
121 them to reckless sex.8A study done in Nigeria regarding internal migration and premarital sexual practice also
122 showed that premarital sexual debut is generally higher among migrants than non-migrants. 17 In contrast to
123 the current study, a study done in eastern Ethiopia showed that, adolescents from urban families are more likely
124 to engage in pre-marital sex than those from rural area. The reason for this difference could be attributed to
125 a reason that this study involved only 2 schools, while the study in eastern Ethiopia involved 14 schools with
126 diverse population. Another study done in Lesotho showed that norms of the society discouraging sex before
127 marriage have eroded more in urban areas than in rural areas. Hence urban environment provides a conducive
128 environment for experimenting with sex before marriage. Because of this, never married women living in urban
129 areas are more likely to be sexually experienced than their counterparts residing in rural areas. 18 The difference
130 with the current study could be due to the difference in the socio demographic characteristics and the difference
131 in the study population (the study in Lesotho included women's aged 15-49 years old while the current study
132 included both male and female in school students whose age is 10 to 19 years old). By considering the above
133 different findings and the reasons given, the association between premarital sex and place of residence needs
134 further investigation.

135 Adolescents with positive attitude towards premarital sexual practice were more likely to engage in premarital
136 sex than those who have negative attitude towards premarital sex. This may be because of the reason that,
137 since the acceptance of sexual practice before marriage encourage adolescents to engage in premarital sexual
138 activity. Other studies done in Jima and Jigjiga also showed that students with moderate and positive attitude
139 towards premarital sexual practice are more likely to engage in sexual activity than their traditional minded
140 students. 15,19 A study done in Nigeria also showed that personal attitude in favor of delayed sexual debut were
141 associated with lower sexual debut among both males and females.20A study done in Indonesia also showed that,
142 adolescents who accept premarital sexual intercourse have had premarital sexual intercourse than those who do
143 not accept (8.0% and 0.4 respectively). 16 According to the result of this study, adolescents who use drugs are
144 more likely to involve in premarital sexual practice than non-drug users. This could be because adolescents who
145 abuse drugs are more likely to have poor judgment, which can result in unplanned and unsafe sex. In addition,
146 most of the adolescents involved in substance use are often also involved in sexual practice. 21 A study done in
147 Maharashtra, India on correlates of premarital relationships among unmarried youth also showed that exposure
148 to drugs to be positively associated with rom -antic and sexual relationships for both young women and young
149 men. 22 According to the study done on individual, familial, friends and contextual predictors of early sexual
150 intercourse, substance use was found to be associated with early sexual intercourse. 21 In addition, a study
151 done regarding sexual initiation, substance use, and sexual behavior and knowledge among vocational students
152 in Northern Thailand also showed that use of substances is associated with initiation of sexual intercourse.
153 23 Similar findings were also seen in a study done in Malaysia, showing that adolescent sexual intercourse is
154 significantly associated with drug use. 11 A study done in Indonesia showed that, in school late adolescents who
155 have a boyfriend or girlfriend were more likely to have premarital sexual intercourse than those who do not have
156 a boy/girlfriend. 16 Similar finding was also observed in this study that, adolescents who have a boy/girlfriend
157 are more likely to involve in premarital sex than those who don't have a boy/girlfriend. This could be due
158 to the pressure from their girl/boyfriend to have sexual practice. In Ethiopia, a study done in Jigjiga and
159 Nekemt town also showed that having a boy/girl friend is one factor which determines to start sexual intercourse.
160 8,19 Other study done in Malawi also showed that romantic interpersonal relationship was one of the factors

7 CONCLUSION

161 that informed sexual decisions of female adolescents. 24 According to the result of this study, adolescents who
162 experience pressure from their friends were found more likely to involve in premarital sexual practice than those
163 adolescents who didn't experience peer pressure from their friends. This could be because; peers play important
164 part in deciding personality and behavior among adolescents. 16 In Ethiopia, according the national HIV/AIDS
165 Behavioral Surveillance Survey (BSS), peer pressure was one of the common reasons given for starting sex. 25
166 Similar result were also observed in studies done in Injibara, Jimma, and Jigjiga showing that students who had
167 peer influence were more likely to have sexual intercourse than students who do not. 9,15,19 A study done on
168 premarital sexual debut and its associated factors among in school adolescents in eastern Ethiopia also showed
169 that adolescents who were less influenced by external pressure were more protected against pre-marital sexual
170 debut than their counter parts. 10 Another study done in Nigeria regarding adolescent's susceptibility to peer
171 pressure and how it affects pre-marital sexual practice among adolescents, also showed that susceptibility to peer
172 pressure is significantly associated with premarital sexual practice. 26 Another study regarding the reasons
173 for delaying or engaging in early sexual initiation among adolescents in Nigeria, also showed that peer pressure
174 to be associated with early sexual initiation. ??7 According to the result of this study, adolescents who watch
175 sex/pornographic movies were more likely to engage in premarital sexual practice than those who don't. This
176 could be because adolescents who watch pornographic movies may develop unrealistic attitudes about sex, which
177 leads them to engage in sexual practice. A study done regarding the age at sexual initiation and factors associated
178 to it among youths in North East Ethiopia showed that watching pornographic materials at age less than 18
179 years old was found to be associated with sexual initiation. 28 A study done in Jigjiga also showed that students
180 who watched pornographic/sex movies are more likely to engage in sexual activity. 19 Another study done in
181 Jimma also showed that high and medium level of erotic exposure was more than twice as likely as their peer
182 who had low exposure to erotic materials to be sexual experienced. 15 A study done in Injibara town also showed
183 that students who had not seen sex films were less likely to get in to sexual intercourse than those who had seen
184 such film. 9 The result of this study is also similar with a study done in Asian country about premarital sexual
185 intercourse among adolescents. According to the study, pornography viewing was found to be significant factor
186 for premarital sex among boys. 29 In addition a study done in Maharashtra, India, also showed that exposure
187 to pornographic films is positively associated with romantic and sexual relationship. 22 V.

188 7 Conclusion

189 A large number of school adolescents were engaged in sexual practice before marriage. Majority of adolescents
190 were males.

191 The risk factors associated with premarital sexual practice were age (>18 years old), previous residence in
192 rural area, having positive attitude towards premarital sexual practice, use of drugs, having a boy/girlfriend,
193 peer pressure and watching sex movies.

194 So, community and/or school health interventions are needed to reduce the premarital sexual practice among
195 in school adolescents to prevent sexually related problems by providing due attention for adolescents with above
196 characteristics. ^{1 2}

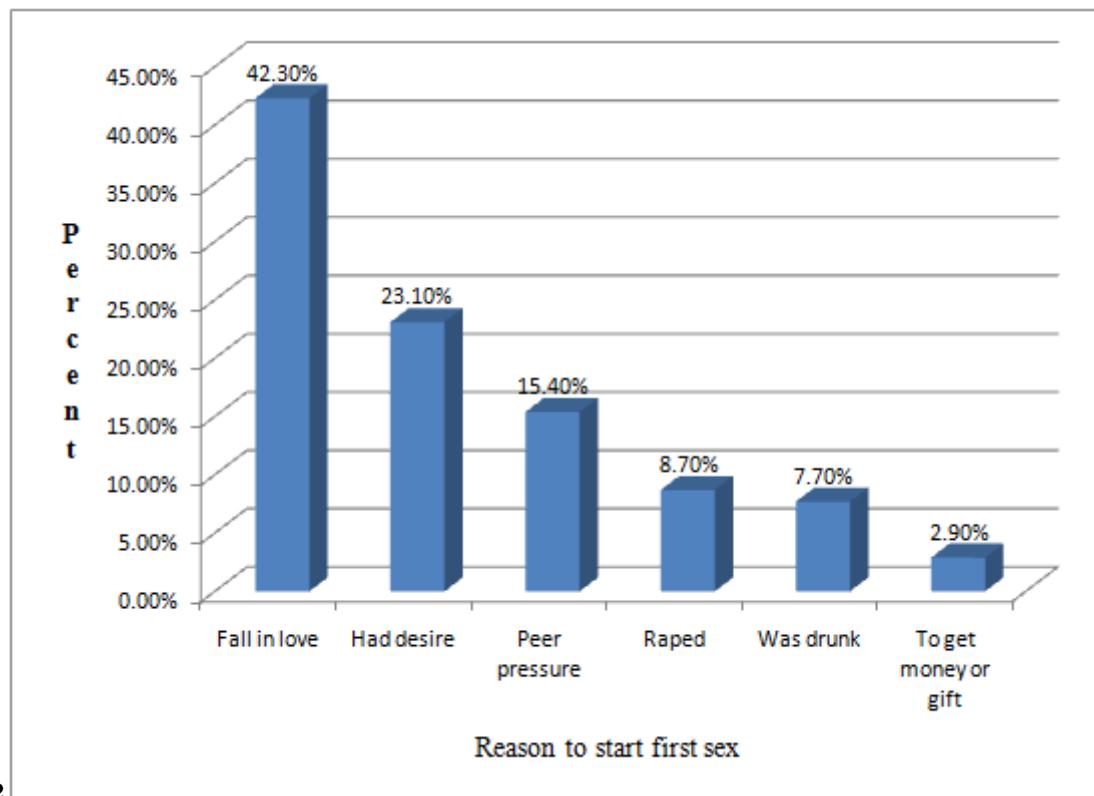
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1

Figure 1: Figure 1 :



2

Figure 2: Figure 2 :

Figure 3: Table

2

northern Ethiopia, March
to April 2013

Variable		Frequency	Percentage
Have boy/girl friend	Yes	179	36.3
	No	314	63.7
Peer pressure	Yes	123	24.9
	No	370	75.1
Male friend sex with prostitute	Yes	69	14
	No	267	54
	I don't know	157	31.8
Best friend had sex	Yes	101	20.5
	No	198	40.2
	I don't know	194	39.4
Place to spend leisure time	Reading books/attend religious ceremony	331	67.1
	Night club	15	3.0
	Others(Watch films with friends, playing with friends, helping family at home)	147	29.8
Watch sex movies	Yes	232	47.1
	No	261	52.9
Frequency of watching sex movies	Once per week	115	49.6
	Twice per week	16	6.9
	Three times and more per week	38	16.4
	Others *	63	27.2

*= every month, twice a month, every 3 months, twice a year, every 1 year
c) Factors associated with premarital sexual practice

Variables found to have significant association with the premarital sexual practice on bivariate and multivariate analysis are shown in Table 3.

Figure 4: Table 2 :

3

Volume XIV Issue
III Version I

Variables	Premarital sex		Crud OR (95% CI)	Adjusted OR(95%CI)	P-val
	Yes	No			
Age	<18 years old	31	313 1	1	0.0
	>18 years old	73	76	9.7(5.94,15.81)2.05(3.97,36.53)	
Previous residence	Urban	66	317 0.39(0.25,0.63)	0.23(0.07,0.75)	0.0
	Rural	38	72	1	
Attitude to prem. sex	Positive	86	167 6.35(3.7,10.96)	3.07(1.19,7.91)	0.0
	Negative	18	222 1	1	
Use of drugs	Yes	18	5	15.93(5.8,44.8)30(1.17,58.97)	0.0
	No	85	376 1	1	
Have boy or girl friend	Yes	76	103 7.5(4.6,12.3)	3.33(1.39,7.99)	0.0
	No	28	286 1	1	
Peer Pressure	Yes	75	48	18.3(10.87,31.7)33(2.97,18.09)	0.0
	No	29	341 1	1	
Watch explicit film	Yes	91	141 12.3(6.6,22.8)	7.98(2.55,24.93)	0.0
	No	13	248 1	1	

[Note: Year()K IV.]

Figure 5: Table 3 :

7 CONCLUSION

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