

# Factors determining premarital sexual practice of school students, institutional based cross sectional study in northern Ethiopia

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## Research note

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# Abstract

Objective Reports indicating that adolescents Sexual activities have been increasing worldwide, and the issue is most of the Sexual activities are happening before marriage, which makes vulnerable for multi-sexual behaviors, but there is limited data in this title in the region. So this study intended to identify the status and determinants of premarital sexual practice. Result Among the students 292(52.1%) were females, most of the students found in the age interval of 13 up to 23 (121(21.6%)), the prevalence of premarital sexual practice was 21.5%. Residence, discussion on reproductive health issues with family members, monthly pocket money, peer pressure, seen pornography had significant association with the dependent variable.

## Introduction

Youth age covers a huge number of the total population. From the current data around 50% of world population was in the age group below 25 years old; of those around 1.7 billion were in the age group of 10-24 and around 90% of these resides in low income countries. Since youths specifically adolescents are vulnerable to different age related challenges, there is internationally high prevalence of STI among them, especially in the age group of 15 to 24. In Ethiopia youth's account a large percentage of the population and most of them enrolled to high school or preparatory schools. (1-4).

As a means of prevention and control of the spread of HIV/AIDS, delaying initiation of sex, especially abstinence from sexual intercourse before engagement of marriage is crucial in youths, but as current data from different reports, sex before marriage is increasing worldwide related to different changes in perception on sex before marriage, increasing in media, websites and other related behaviors of adolescents(5, 6).

Adolescents influenced by different factors to engage in sex before marriage without knowing the prevention and control methods and complication of the practice they did. Many researches in Africa, specifically in countries below Sahara indicated that Sex before marriage is being increasing among this age group; as a result unwanted conception, abortion and sexually transmitting disease especially HIV/AIDS have high prevalent among them (3, 7-11).

In Ethiopia sex before marriage and early initiation of sex is still high among adolescents and as a consequence they are becoming a victim of different negative outcomes of the practice (7), (8, 12).

Different articles indicated that age, gender, residence, educational level, watching pornography, Khat and alcohol utilization had been contributing for sex before marriage, but they are not consistent, still there is controversy among different reports (1), (3), so it is mandatory to identify the prevalence and associated factors of premarital sexual practice in the specified study area that can give information for Health policy makers, local health program managers and other responsible bodies that focus on health related issues. However, adolescent premarital sexual practice and its related factors were not studied in the study area, so this study was tried to fill the gap.

# Main Text

School based a cross-sectional study design was applied. The study involved five secondary schools of the study area. All the students attending regular classes in the selected high schools were eligible for the study and the respondents were selected by systematic random sampling (K= 9) by considering grade of the students in the specified academic year. The sample size was calculated using single population proportion with assumptions of p-value= 95%, marginal error=5%, proportion of risk sexual behavior= 21% (2), design effect=2 and proportion of different independent variables was assumed and the final total sample size was 561. Data were collected using pre-tested self-administered semi structured questionnaire adapted from sexual and reproductive health questionnaires of WHO(13). Data were collected from students selected from secondary schools at the same time to overcome information contamination. The data collection was facilitated by trained facilitators and closely supervised by trained supervisors; completion of the questionnaire was checked by data collectors, supervisors and principal investigator. The questionnaire was prepared in English version and translated to the local language of the study area and translated back to English version by language experts to ensure Consistency of the questionnaire.

The dependent variable was pre-marital sexual practice which refers to heterosexual intercourse (putting penis inside vagina before marriage), while the independent variables were gender, area of residence, father's educational status, mother's educational status, pocket money per month, living arrangement during high school education, peer pressure, discussion on reproductive health issues with family members, alcohol drinking, cigarette smoking, seen pornography, family control, ever had sex, marital status.

Data were entered into the Epi-data Version 3.1 software and exported to SPSS version 22.0 software. Data was summarized using descriptive and inferential statistics. Factors associated with pre-marital sexual practice were identified at Bivariate and the variables with p-value of 0.25 were taken to multivariable analysis. Statistical significance was declared at a p- value 0.05.

The study was conducted after approval of the Institutional Review Committee of Aksum University and the necessary permission from other concerned educational authorities and school directors was obtained. Data were collected after full informed written consent/assent was obtained. When age was <16 years old, it obtained from parents/legal guardians of students.

## Results

### **Sociodemographic characteristics of study participants**

Among the 561 participants expected to participate 560 were responded the questionnaire yielding a response rate of 99.8%. Among the students 292(52.1%) were females, most of the students found in the age interval of 13-23, and Majority of the students, 360(64.3%) were in the age group of 15-18 years old With average age  $16.6 \pm 6$  years. Two hundred twenty eight (40.7%) were grade 10 students. Most of the

students were orthodox religion followers, 497(88.8%) and Tigray in ethnicity 502(89.6%). Majority of the students were from urban residence 447(89.8%). Five hundred forty nine (98%) of the students were unmarried. 68.6 % ( 384) of the students were living with their parents. Most of the students 497(88.8%) were being get support to learn by their parents. 124(21.1%) takes alcohol, 171(30.5%) seen pornography and 23(4.1%) smokes cigarette (table 1).

### **Prevalence of premarital sexual practice**

Out of the total students 132(23.6%) had ever penetrative sex in their life among this 121(91.6%) had premarital penetrative sexual practice and among them 98.2% engaged in sex before the age of 18. The overall prevalence of premarital sexual practice from the total sample size was 121(21.6%), this means every 1 student from each 5 students had premarital sexual practice among the secondary schools students of the town. The interval of premarital penetrative sexual practice age was 7-20 years with a mean age of 15.2 years  $\pm 1.7$ (15.5 $\pm$ 1.9 for males and 15.1 $\pm$ 1.5 for females), from this females engaged in premarital sexual practice early than their male counterparts .

### **3.3 factors associated with premarital sexual practice**

After controlling the confounding effect, variables such as residence; discussion on reproductive health issues with family member, monthly pocket money, peer pressure, seen pornography had significantly associated with premarital sexual practice. (Table 2).

## **Discussion**

This study was attempted to determine the prevalence and associated factors of premarital sexual practice among Secondary school regular students of northern Ethiopia just to add some valuable current data related to the topic. The prevalence of premarital sexual practice was reported as 23.6%, when compared with related studies result, it was lower than from studies finding in Ambo, 25.7%(9), Eastern Ethiopia, 686(24.8%) (3), Addis Ababa, 126(60.9%)(1), Bale goba, 129 (42.7%)(7), west shoe, as high as 80%(14) Nigeria, (52.0%)(10), Pokhara Sub-Metropolitan City, Nepal, (24.6%)(15) and Kathmandu, Nepal, (39%)(6) and Tanzania(32%) (16), it was also comparable with study in Jimma, 21%(2) and higher than from the study finding in Gojam, 157 (19%) (8). The difference might be due to study area, study period and sample size difference used to quantify pre-marital sexual practice. This significant prevalence of pre-marital sexual practice indicates us, even if in Ethiopia this practice is not accepted, the new generation is being violating the norms and values of the society which acknowledges to work in collaboration with the religious, community leaders, family and health policy makers, to make clear the negative sides of the practice in the future life of the school aged adolescents and to follow their norms and values.

Among the participants who had ever sex, 98.2% engaged in sex before the age of 18. It was higher than from the finding in the study in Kathmandu, Nepal, (66%)(6) Eastern Ethiopia,54.3% (3), Gojam, 75%(8) and in bale goba, 89(69.5%)(7), but the value in bale goba was the report to those who had sex ever

between the age group of 15-19 years old. The possible reason might be the difference in study area, study period, participant's characteristics and decreased age at menarche and increasing the tradition of later age at marriage.

Urban residing decreases the odds of engagement in premarital sexual practice by 44%, this means being rural residing participants more likely engaged in premarital sexual practice than their counterpart. This is comparable with study in , Gojam (8), Nekemte(17), Tanzania(16) and in contrast with study finding in Eastern Ethiopia(3) . The possible justification might be due to a difference in living arrangement, which means students coming from rural areas often live with their relatives or rental house instead of their biological parents, and this can cause lack familial control, they might also have lack of adequate knowledge about sexual and reproductive health risks and consequences, so they can engaged in premarital sexual practice.

Exposure to pornography six times more likely increases engagement in premarital sexual practice. This is comparable with study done in ambo(9), Gojam(8), west shoe(14) and Dessie(18) and Pokhara Sub-Metropolitan City, Nepal(15).The most likely explanation is exposure to sexually explicit stimuli(pornographies) can increase relative acceptance of range of non-monogamous sexual behaviors, such as premarital sex, extramarital sex, extra-cohabitation sex, and sexual non-exclusivity and it also increases relative acceptance of both male and female promiscuity and sex without emotional involvement(19).

Those who discuss on reproductive health issues with family members' three times more likely reports engagement in premarital sexual practice. This is comparable with the study in bale goba(7), Eastern Ethiopia(3) and Pokhara Sub-Metropolitan City, Nepal(15), this might be since early exposure to sex education and discussion with family members is reporting to encourage early sexual debut before marriage(20) and in contrast to the study in ambo(9) and west shoe(14). The most likely explanation is majority of student preferred to discuss about sexual issues with their peers of the same sex than with their family members, and so even if they discussed with their family they may not give attention for the discussion or the discussion topics are limited and not to the satisfaction level of the students, as a result they may develop immature awareness, which contributes to practice pre-marital sex initiation(2). The difference between the studies finding might be due to different in study area and different study participants' characteristics.

Those students who got 1-150 Birr per month, 42% decreases engagement in premarital sexual practice and those students who got 151-250 Birr per month 36.7% decreases engagement in premarital sexual practice, this means those who got 1-150 Birr per month as a pocket money, Those students who got  $\geq 250$  more likely reports premarital sexual practice than those who got below 250 birr, and as we compare males and females premarital sexual practice in related to the monthly pocket money they got, male students who got higher (>500 Birr) pocket money reported more premarital sex (68.3%) than female students who got higher monthly pocket money (31.7%). This is comparable with the study in Eastern Ethiopia(3) and west shoe(14). This might be due to the reason that when adolescents get money they

may have opportunity to practice what they desire and the adolescents age interval demands high sexual desire so money helps them to fulfill their desire like it may be to be sexually attractive as they observed from their peer or different websites.

Those students who had peer pressure 4.5 times more likely reports engaged in premarital sexual practice than those had no peer pressure. This is comparable with study in Eastern Ethiopia(3), Pokhara Sub-Metropolitan City, Nepal(15) and jimma(2). As the study in Benishangul Gumuz Region a high proportion of both male (78%) and female (72%) students preferred to discuss sexual and reproductive health issues with peers compared to less than 27% who prefer to discuss with parents, which indicates the level of influence by peer pressure positively or negatively for their sexual activities(21).

## Conclusion

A significant number of students practiced pre-marital sex. Residence, seeing pornography, discussion on reproductive health issues with family members, pocket money and peer pressure were factors associated with the premarital sexual practice of the participants.

### Limitation of the study

The result depends only on the response of participants, so that there might be chance of social unforeseen ness and recall bias.

## Abbreviations

CI: Confidence interval, AOR: Adjusted Odd Ratio, SPSS: Statistical Package for Social Sciences

## Declarations

### Acknowledgment

We would like to thank all study participants and data collectors for their contribution in success of our work.

**Consent to Publish:** Not applicable

### Availability of Data and Materials:

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

### Ethics approval and consent to participate

The study was conducted after approval of the Institutional Review Committee of Aksum University and the necessary permission from other concerned educational authorities and school directors was obtained. Data were collected after full informed written consent/assent was obtained from each study subject's. When age was less than 16 years old, it obtained from parents/legal guardians of students.

### **Competing Interests**

This manuscript maintains no competing financial interest declaration from any person or

Organization or non-financial competing interests such as political, personal, religious, ideological, academic, intellectual, commercial or any other.

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### **Authors Contribution**

AG conceived and designed the study, analyzed the data and wrote the manuscript. TM and HG Data analysis, drafting of the manuscript and advising the whole research paper. AG and HG were involved in the interpretation of the data and contributed to manuscript preparation. AG involve in title selection, data analysis, drafting of the manuscript. Similarly all authors have read and approved the final version of the manuscript.

## **References**

1. Sendo EG. Premarital sexual practice among unmarried first year undergraduate students in Alkan university college in Addis Ababa, Ethiopia. *Global journal of medicine and public health*. 2014;3(2):1-10.
2. Abate G, Tessema, F. Girma, A. . Premarital sexual practice and associated factors among preparatory school students in jimma town, oromia region, south west ethiopia *Journal of Biology, Agriculture and Healthcare*. 2016;6.
3. Oljira L, Berhane Y, Worku A. Pre-marital sexual debut and its associated factors among in-school adolescents in eastern Ethiopia. *BMC public health*. 2012;12(1):375.
4. Wong M-L, Chan RK-W, Koh D, Tan H-H, Lim F-S, Emmanuel S, et al. Premarital sexual intercourse among adolescents in an Asian country: multilevel ecological factors. *Pediatrics*. 2009;124(1):e44-e52.
5. Ayodele O. Prevalence of premarital sex and factors influencing it among students in a private tertiary institution in Nigeria. *International Journal of Psychology and Counselling*. 2012;4(1):6-9.
6. Adhikari R, Tamang J. Premarital sexual behavior among male college students of Kathmandu, Nepal. *BMC public health*. 2009;9(1):241.
7. Teferra TB, Erena AN, Kebede A. Prevalence of premarital sexual practice and associated factors among undergraduate health science students of Madawalabu University, Bale Goba, South East Ethiopia: institution based cross sectional study. *Pan African medical journal*. 2015;20(1).
8. Bogale A, Seme A. Premarital sexual practices and its predictors among in-school youths of shendi town, west Gojjam zone,

North Western Ethiopia. *Reproductive health*. 2014;11(1):49. 9. Abdissa B, Addisie M, Seifu W. Premarital Sexual Practices, Consequences and Associated Factors among Regular Undergraduate Female Students in Ambo University, Oromia Regional State, Central Ethiopia, 2015. *Health Science Journal*. 2017;11(1). 10. Imaledo JA, Peter-Kio OB, Asuquo EO. Pattern of risky sexual behavior and associated factors among undergraduate students of the University of Port Harcourt, Rivers State, Nigeria. *Pan African Medical Journal*. 2012;12(1). 11. Akibu M, Gebresellasie F, Zekarias F, Tsegaye W. Premarital sexual practice and its predictors among university students: institution based cross sectional study. *Pan African Medical Journal*. 2017;28(234). 12. Regassa T, Chala D, Adeba E. Premarital sex in the last twelve months and its predictors among students of Wollega University, Ethiopia. *Ethiopian journal of health sciences*. 2016;26(4):351-8. 13. Cleland J, Ingham R, Stone N. *Special Programme of Research, Development and Research Training in Human Reproduction*. UNDP/UNFPA/WHO/World Bank, 2001. 14. Endazenaw G, Abebe, M. Assessment of Premarital Sexual Practices and Determinant Factors Among High School Students in West Shoa Zone, Oromia Regional State, Ethiopia *Science Journal of Public Health*. 2015; 3(2). 15. Adhikari N, Adhikari S. Attitude towards Premarital Sex among Higher Secondary Students in Pokhara Sub-Metropolitan City. *J Community Med Health Educ* 7: 564. doi: 10.4172/2161-0711.1000564 Page 2 of 6 *J Community Med Health Educ*, an open access journal ISSN: 2161-0711 Volume 7• Issue 5• 1000564. were in early adolescent stage ie age group of. 2017:14-6. 16. Masatu MC. Sexual practices among unmarried adolescents in Tanzania. *BMC Public Health*. 2009;9(1):373. 17. Seme A, Wirtu D. Premarital sexual practice among school adolescents in Nekemte Town, East Wollega. *Ethiopian Journal of Health Development*. 2008;22(2):167-73. 18. Mazengia F, Worku A. Age at sexual initiation and factors associated with it among youths in North East Ethiopia. *Ethiopian Journal of Health Development*. 2009;23(2). 19. Kohut T. *Pornography*. 2017. 20. Bastien S, Kajula LJ, Muhwezi WW. A review of studies of parent-child communication about sexuality and HIV/AIDS in sub-Saharan Africa. *Reproductive health*. 2011;8(1):25. 21. Yesus DG, Fantahun M. Assessing communication on sexual and reproductive health issues among high school students with their parents, Bullen Woreda, Benishangul Gumuz Region, North West Ethiopia. *Ethiopian Journal of Health Development*. 2010;24(2).

## Tables

Table 1 Sociodemographic of characteristics of participants in the study done on factors determining premarital sexual practice of school students, institutional based cross sectional study in northern Ethiopia(n=560)

<b>Variables</b>	<b>Frequency (%)</b>
<b>Age of student</b>	
<15	168(30)
15-18	360(64.3)
>18	32(5.7)
<b>Students Sex</b>	
Male	268(47.9)
Female	292(51.1)
<b>Grade level</b>	
9 <sup>th</sup>	216(38.6)
10 <sup>th</sup>	228(40.7)
11 <sup>th</sup>	79(14.1)
12 <sup>th</sup>	37(6.6)
<b>Religion</b>	
Orthodox	497(88.8)
Muslim	47(8.4)
Protestant	15(2.7)
Catholic	1(0.2)
<b>Ethnicity</b>	
Tigrrian	502(89.6)
Oromo	39(7)
Amhara	19(3.4)
Others	
<b>Previous residence</b>	
Urban	447(79.8)
Rural	113(21.2)
<b>With whom are you living now?</b>	
Both parents	384(68.6)
Father	28(5)

Mother	88(15.7)
Alone	51(9.1)
Others	9(1.6)
<b>Father's education level</b>	
Can't read and write	47(8.4)
Read and write	246(43.9)
Elementary	161(28.8)
High school and above	105(18.8)
<b>Mother's education level</b>	
Can't read and write	115(20.5)
Read and write	224(40)
Elementary	143(25.5)
High school and above	77(13.5)
<b>Parents control</b>	
Yes	526(93.1)
No	34(6.1)
<b>Pocket money per month</b>	
1-150 birr	400(71.4)
150-250 birr	67(12)
251-500 birr	32(5.7)
>500birr	61(10.9)
<b>Ever had sex</b>	
Yes	132(23.6)
No	428(76.4)
<b>Peer pressure</b>	
Yes	62(11.1)
No	497(88.8)
<b>Marital status</b>	
Single	549(98)

Married	7(1.3)
Divorced	4(0.7)
<b>Alcohol drinking</b>	
Yes	124(22.1)
No	436(77.9)
<b>Cigarette smoking</b>	
Yes	23(4.1)
No	537(95.9)
<b>Read/seen pornography</b>	
Yes	171(30.5)
No	388(69.3)

Table 2 factors associated with premarital sexual practice in the study done on factors determining premarital sexual practice of school students, institutional based cross sectional study in northern Ethiopia (n=560)

Variables	Premarital sex		p-value	95%CI COR	p-value	95% CI AOR
	Yes	No				
<b>Sex</b>						
Male	77	191		1		1
Female	44	246	0.001	2.15 (1.3,3.4)	0.47	1.4 (0.79, 2.8)
<b>Residence**</b>						
Urban	90	354	0.157	0.52(0.4, 1.7)	0.004**	0.44(0.24, .805)
Rural	31	85		1		1
<b>Fathers education</b>						
Can't read and write	14	35	0.038	2.7(1.05, 6.7)	0.103	2.9(0.8, 10.9)
Read and write	53	185	0.028	2.2(1.09,4.4)	0.145	2.16(0.77,2.92)
Elementary	39	125	0.020	2.4(1.14, 4.9)	0.23	3.1(1.3, 6.7)
High school and above	15	93		1	1	1
<b>Seen/read Pornography**</b>						
Yes	80	93	0.002	3.39(1.8, 6.3)	0.01**	6.2(3.5, 11.2)
No	41	346		1		1
<b>Discussion on RH**</b>						
Yes	95	310	0.003	3.3(1.8, 8.2)	0.001**	3.60(1.7, 7.5)
No	26	127		1		1
<b>Alcohol drinking</b>						
Yes	47	81	0.001	2.5(1.6, 3.99)	0.407	1.6(0.697, 2.4)
No	74	356		1		1
<b>Cigarette smoking</b>						
Yes	25	9	0.001	4.2(1.8, 9.7)	0.877	1.094(0.35, 3.437)
No	96	430		1		1
<b>Pocket money**</b>						
1-150 birr	63	329	0.001	0.37(0.2, .63)	0.042**	0.415(0.2, 0.88)
150-250 birr	26	48	0.29		0.8	0.369(0.14, 0.97)

251-500 birr	11	22	0.353	0.635(0.3, 1.4)	0.72(0.3,2.3 )
>500birr	21	40		0.635(.24, 1.7)	1
				1	
<b>Peer pressure**</b>			0.001		0.023**
Yes	50	22		8.4(4.7, 17.4)	4.5(2.2,9.4)
No	71	417		1	1

\*\*= significant variables with p-value less than 0.05.