

Magnitude of sexual debut and associated factors among high school girl students in Amhara region, North Western Ethiopia

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ABSTRACT

The main purpose of the present study is to evaluate the magnitude and causes of early sexual debut among high school girl students in Gondar and Metema city administrations public schools in Amhara region, northwestern Ethiopia. A cross-sectional study carried out among high school girl students age between 15 to 19 years. A structured questionnaire used for collection of quantitative data from randomly selected 693 girl students. Data entered into SPSS version 16.0 for analysis purpose. Descriptive statistics and binary logistic regression used for quantify early sexual experience and associated factors. Odds ratios (OR) with 95% confidence intervals were also calculated. All statistical tests performed with two-tailed tests significant at $p < 0.05$. Sexual experience among high school girls is 31.9%. Girls from the Gondar city (33.3%) had a greater number have sexual debut than girls from Metema city (27.8 %). As far as birth place and sexual experience is concerned, urban born girls 1.8 (OR=0.553, 95% CI: 0.937-1.011) times more likely have a sexual experience than rural born girls. Alcohol consumed girl students 3.64 (OR= 3.64, 95% CI: 1.596-8.311, $P=0.002$) times more likely to have a sexual experience than not alcohol consumed girls. Regarding chewing chat, girls who have a habit of chewing chat 2.99 (OR= 2.99, 95% CI: 1.375-6.516, $P=0.006$) is more likely to have a sexual experience as compared to non chat chewers. Girls who were pressured by Peer groups 2.348 (OR=2.348, 95% CI: 1.035-5.327) times more likely to have a sexual experience than others. The magnitude of sexual debut among late adolescent girl students in the study area is 31.9%. Drinking alcohols, chewing chat and peer pressure is the significant determinants of sexual debut among high school girls of Gondar and Metema towns.

Keywords: Sexual experience, school girls, magnitude, causes

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Adolescent has been defined as “whose age between 10 to 19 years^[1]. According to world population statistics, there were 1.2 billion adolescents worldwide and representing 18% of the total global population^[2]. Most (88%) of the adolescent population constitute from the developing countries^[2]. As far as Sub-Saharan Africa concern adolescents population make up highest with

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23% among all regions of the world^[3]. In the case of Ethiopia adolescents population is 26.1% of the total population^[4]. Sexual debut during adolescence makes adolescents vulnerable to sexual and reproductive health problems including early pregnancy, unsafe abortion, sexually transmitted infections (STI) including HIV, and sexual coercion and violence and multiple sexual partners^[5,6]. Condom prevalence inconsistent on each sexual intercourse among adolescents^[7,8]. In addition, the adolescents don't get sufficient information and services on reproductive health. If services are available and accessible they don't use them^[9]. Among adolescents, especially Girls are at greater risk at early ages due to both biological and socio-cultural factors. Especially adolescent girls in Ethiopia are more in danger to HIV than boys. The reasons beyond are sexual debut at early age, early marriage, sexual abuse and sexual violence, including rape and abduction among young girls^[10].

Many adolescents face different pressures to make use of alcohol, chewing chat or other drugs and to start sexual relationships at earlier ages^[11]. The major factors associated with early sexual initiation have been identified as poverty, exposure to mass media, as well as the changes taking place in the traditional family^[12]. Watching films found significant predictors of school adolescent premarital sexual activities^[13]. Moreover studies done in Ethiopia shows that alcohol, Peer pressure and khat use are the major causes of premarital sexual initiation^[14,17,21,18, 19,20].

METHODOLOGY OF THE STUDY

Study setting and design

A cross-sectional research design employed to evaluate the magnitude and Causes of early Sexual Experience among High school Girls of Gondar and Metema city administration, Public Schools. This study was conducted in some selected schools from Gondar town namely Fasiledes secondary and preparatory school and Angerebe secondary and preparatory schools and from Metema city administration, Metema secondary and preparatory school. These two Gondar and Metema cities are in North Gondar zone, Amhara region state, which is in northwestern part of Ethiopia. Amhara

regional state is one of the regions among 11 regional states in Ethiopia. Metema woreda is located about 900 km from Addis Ababa capital city of Ethiopia and border with Sudan. And Gondar is located 730 kms from Addis Ababa^[15].

The main reason to choose Gonder and Metema towns are high-risk zones of HIV/AIDS in the Hamara region. The levels of HIV/AIDS in both towns are among the towns record level high in the region, 15.9% for Metema and 10.3% for Gondar city administrations^[16]. Adolescent Students are the future of the nation hence researchers confine their research in two towns. Moreover, there is no clear cut-data available on both cities about magnitude and causes of early sexual debut on adolescent girls. Hence this research will try to fill thesis gaps. Therefore, the main purpose of present study is assessing the magnitude and causes of early sexual debut among high school girls in Gondar and Metema city administrations public schools.

Population and Sample size

Total high schools girls who are studying in Fasiledes, Angereb and Metema secondary and preparatory schools from grade 9th to 12th were taken as Population of the study. There were 3000 female students in Fasiledes and Angereb High school and 1100 in Metema High school. Hereafter, the total of the study population were 4100. When total population is less than 10,000 subjects following formula is most appropriate in deterring the

size of the sample $n = \frac{N}{1 + N(e)^2}$ [34]. Where, n = sample

size N = total population, e =degree of error. Hence the above formula applied to get sample size. A total of 693 sample size was determined by using this formula.

Sampling procedure

Multi stage Semi-purposive random sampling procedure used in acquiring sample from high schools of north Gondar Zone. In first stage, North Gondar Zone selected from eleven zones of Amhara Region which is one of the 11 Regional states in the country. Second stage involved in selection of Gondar and Metema woredas (districts)

purposely selected from 19 woredas (districts) from North Gondar Zone. Three secondary and preparatory schools selected randomly from both woredas (districts) in the third stage. In last stage, a total of 693 girl students were selected by using simple random sampling method from the three schools. Details wise, a total 506 girl students from Gondar wardea and 187 students from Metama wardea were elected by this method.

Data Collection Instrument

Closed ended structured questionnaire designed for the present study. It consists of 3 parts, the first part of the questioner consists of the demographic profile of the respondents and second part comprises items that measure the prevalence or magnitude of premarital sexual experience of the girls, whereas the third part dealt with the causes of premarital sexual experience.

Data quality management and assurance

The questionnaire prepared in English language based on the review of different literature and some adaptations from other prior researches to suit our objectives of the study and back translated into Amharic language where Amharic language is respondent's mother tongue. The Amharic version of the item distributed to the respondents and translated again to English for analysis.

Pre- testing was performed before data collection for checking the, internal consistency of the items, weakness and ambiguity of the questionnaires. Ten respondents involved in testing of the questionnaires to prove its validity and reliability. A two day's intensive training was given to remunerators who collected data from the field of the study. The overall data collection activity was supervised by the researchers.

Data Analysis Procedure

Data entered in to SPSS 16.0.1 Window version for the analysis. Data from sampling characteristics and magnitude analysed including descriptive statistics for percentage distribution. Moreover binary logistic regression model used to analyse the associations

between dependent variable (pre-marital sexual experience) and independent variables like place of birth, peer pressure, alcohol consumption and chat and their categorical variables. Odds ratios (OR) with 95% confidence intervals were also calculated. All statistical tests performed with two-tailed tests significant at $p < 0.05$.

Data Presentation

This part deals with presentation of the results. Researcher classified the findings of the study into three sub-sections including sample characteristics, magnitude of sexual intercourse and causes of sexual intercourse among adolescent girl students in the study area.

Ethical Considerations

Ethical approval letter has been taken from the ethics review committee of University of Gonder (Rf gc/338/2015). Among ethical consideration measures: First, for the purpose of building trust and avoid suspicion among participants, the data collectors hired among their teachers. Secondly, pilot test conducted to bring amendments over sensitive and ethical related questions. Third, the respondents were orient about the objectives of study, obscurity, confidentiality and were requested to sign a consent form. Finally, serious considerations were taken to protect the respondents' discretion and emotional states during report writing. The nature and purpose of the study explained to the respondents.

RESULTS AND DISCUSSION

Sample Characteristics

A sample of 693 girl students selected but 633 cases analyzed since some substantially incomplete questionnaires rejected. Sample characteristics include, the age group, place of birth, Educational level of the respondents (Table 1). The sample consists, the following characteristics, all respondents are found in the age category from 15-19 years old. In particular 19.2% are fifteen, 24.4% are sixteen, 26.8% are seventeen

20.8% are eighteen and the remaining 8.5% are nineteen. Regarding the place of birth of the respondents, majority (59.8%) of the respondent's birth place was rural areas and remaining 40.1% of the respondent's birth place was urban areas. The above table depicts the educational level of the respondents as below, 20% of the respondents are grade nine, 27% of the students are grade ten, 30% of the girl students are grade eleven and the remaining 22.9% the students are grade twelve.

Table 1: Socio-demographic characteristics of the respondents (N=633)

Variable	N (%)
Age group	
15	122(19.2)
16	155(24.4)
17	170(26.8)
18	132(20.8)
19	54(8.5)
Place of birth	
Rural	379(59.8)
Urban	254(40.1)
Educational level	
Grade 9	127 (20.0)
Grade 10	171 (27.0)
Grade 11	190 (30.0)
Grade 12	145 (22.9)

Data from field study

Magnitude of Sexual Experience

The data from the table 2, illustrate that the magnitude of sexual experience in the study area is 31.9%. Girls from Gondar city (33.3%) had greater number of girls have sexual debut than girls from Meteme city (27.8%).

Table 3 depicts, the association between age and sexual experience of the respondents is highly significant (P =0.004). The odds ratios show that age of the Girl student ,19,18,17,16 years were 22.542 (OR=22.542 ,95% CI:6.030 –69.245), 12.320 (OR=12.320,95% CI: 4.390–29.277), 8.000 (OR=8.000,95% CI: 3.812–17.438) and

1.444(OR=1.444,95% CI:0.671-4.016) times more likely to have sexual experience than 15 years of the respondent (as ref= category 15 yrs).

Table 2: Magnitude of Sexual Experience among high school girl students

Having pre-marital sex	Gondar Number	Gondar (%)	Metema Number	Metema (%)	Total Number	Total (%)
yes	156	33.3%	46	27.8%	202	31.9%
No	312	66.6%	119	72.1%	431	68.0%
Total	468	100%	165	100%	633	100%

Data from filed study

Table 3: Age and sexual experience of the respondents

	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
							Lower	Upper
Age								
(Ref cat= 13)								
Age19	6.797	0.634	36.000	1	0.029	22.542	6.030	69.245.
Age18	4.792	0.394	26.651	1	0.049	12.320	4.390	29.277
Age17	2.485	0.274	12.269	1	0.051	8.000	3.812	17.438
Age(16)	0.090	.392	0.635	1	0.725	1.444	0.671	4.016

Determinants of Premarital Sexual Experience among High School Girls

Table 4, furnish as follows, As far as birth place and sexual experience concerned, the association statistically insignificant (p=0.165). Birth place, which contrasts rural with urban has a OR =0.553, which means rural born girls 0.553 times less likely to have sexual experience than urban born girls. The inverse of exp (B) here as 1/0.553 = 1.8. It could be said that urban born girls 1.8 times more likely to have sexual experience than rural born girls. Urban born girls 1.8(OR=1.8, 95% CI: 0.937-1.011) times more likely have sexual experience than rural born girls.

Table 4: Determinants of Premarital Sexual Experience among High School Girls

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Birth place	-.027	.019	1.923	1	.165	.553	.937	1.011
	Drinking alcohol	1.292	.421	9.425	1	.002	3.642	1.596	8.311
	Chewing chat	1.096	.397	7.625	1	.006	2.993	1.375	6.516
	Peer pressure	.854	.418	4.168	1	.041	2.348	1.035	5.327
	Constant	-5.256	1.073	23.990	1	.000	.005		

a. Variable(s) entered on step 1: birth place, dirking alcohol, chewing chat, peer pressure.

With regard to Alcohol consumption highly significant predictor to the model with p value 0.002 corresponding to sexual experience. Alcohol consumed girl students 3.64 (OR= 3.64, 95% CI: 1.596-8.311, P=0.002) times more likely to have sexual experience than not alcohol consumed girls. Now, particularly concerning, variable of chewing chat is most significant factor with p value 0.006 corresponding to sexual experience. Regarding chewing chat, girls who have habit of chewing chat 2.99 (OR= 2.99, 95% CI: 1.375-6.516, P=0.006) is more likely to have sexual experience as compared to non chat chewers. As far as peer pressure is concerned, it is significant predator with p value 0.041. Girls who were pressured by Peer groups 2.348 (OR=2.348, 95% CI: 1.035–5.327) times more likely to have sexual experience than others.

Relatively a small number of studies have been studied on Adolescent girl’s sexual experiences and causes in Ethiopia. The present study designed to study Magnitude and Causes of Sexual Experience among High school Girls of Gondar and Metema city Public Schools to generate knowledge on serious issue. This section discusses the major findings which lead to the conclusion and implications of the study.

The results from the present study portray the scenario of the magnitudes of premarital sexual experience among high school girls are 31.9%. This is lower than the country average sexual experience of women below the age of 18 which is 39%^[22]. And greater than west Gojam preparatory school students in that nearly

a quarter of preparatory school students had sexual intercourse^[23] and 10 times more than ,Malaysian girl students^[24] and lower than study which was conducted in Nekemte^[25] and Nepal^[26]. The researchers speculate these variances maybe come out from geographical locations, demographic factors and other cultural value differences between the study areas.

When age of the girl student advancing from 14 to 15, 16, 17 18 and 19 years, sexual experience increasing, 1.444, 8.000, 12.320 and 22.542 times consecutively. This results of the present study is consistent with some studies were before done in Dominica, Tanzania and Ethiopia which revealed same thing [7, 17, 27]. Urban born girls 1.8 (OR=0.553, 95% CI: 0.937-1.011) times more likely have sexual experience than rural born girls. This finding is consistent with studies on high school students of north-east Ethiopia^[30]. Alcohol consumption is highly statistically significant predictor with p value 0.002 corresponding to sexual experience. Alcohol consumed girl students 3.64 times more likely to have sexual experience than alcohol not consumed girls. Studies from abroad and Ethiopia revealed similar findings and supporting alcohol as contributing factors for early sexual experience among high school girl students^[18,31,33]. Drinking alcohol decrease inhibitions and incline to sexual intercourse^[19-20]. Similarly chewing chat is statistically significant with early sexual debut. Girls who had habit of chewing khat 2.99 is more likely to have sexual

experience compared to non khat chewers (OR= 2.99, 95% CI: 1.375-6.516, P=0.006). This finding was supported by other studies which were conducted on high school girl students in Ethiopia^[14,17,18,31,33]. Peer pressure closely associated with early sexual debut. Girls who had Peer pressure 2.348 times more likely to have sexual experience than their counter parts (OR=2.348, 95% CI: 1.035–5.327). However, this finding is about similar with a study conducted in china and Ethiopia^[32,21]

CONCLUSION

Based on the results of the present study arrived to conclude that the magnitude of sexual practice among late adolescent girl students in the study area is 31.9%. In particular school girls in Gondar had grater sexual experience than the same categories in Metame (33.3% and 27.8 % in Gondar respectively). Drinking alcohols, chewing chat and peer pressure is the significant determinants of sexual debut among high school girls of Gondar and Metema towns.

Limitations of the study

Present study did not pay attention on other possible predicator variables of early sexual experience like media and pornographic pictures and movies due to time and money constrains.

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REFERENCES

World Health Organization. 2004. "Adolescent pregnancy. Issues in adolescent health and development Geneva". Accessed 8th December 2015; Available:http://www.who.int/publications/2004/9241591455_eng.pdf

- Demographic trends for adolescents: Ten key facts; 2009. Accessed 10th December 2015; Available: <http://www.unicef.org/sowc2011/pdfs/Demographic-Trends.pdf>
- United Nations Children Fund (UNICEF).(2012)." Progress for Children A report card on adolescents", Available:http://www.unicef.org/publications/files/Progress_for_Children_No_10_EN_04232012.pdf.
- Ethiopia Mini Demographic and Health Survey 2014. Available: http://www.unicef.org/ethiopia/Mini_DHS_2014_Final_Report.pdf
- Leslie, H.M. and Meheus, A. 1989."Sexually transmitted disease in young people: the importance of health education". *Sex Trans Dis.* **16**: 15-20.
- Pettifor A.E, Der Straten A.V., Dunbar, M.S., Shibosky, S.C. and Padian, N.S. 2004. "Early age of first sex: A risk factor for HIV infection among women in Zimbabwe", *AIDS* **18**(10): 1435–1442.
- Madan M.L. 2013. "The Sexual Behavior of Secondary School Adolescent Students in Tanzania: Patterns and Trends". *International Journal of Caring Sciences* **6**(3): 472-484.
- Zelnik, M. and Shah, F.K. 1983. "First intercourse among young Americans". *Fam Plann Perspect.*, **15**: 64–70.
- FMOH. 2003. Adolescent Reproductive Health Extension Package. Federal Democratic Republic of Ethiopia Ministry of Health. Available : http://cnhde.ei.columbia.edu/trainin_g/documents/Adolescence.pdf DOA: December 20, 2015.
- Fekadu, M. and Alemayehu, W. 2009. "Age at sexual initiation and factors associated with it among youths in North East Ethiopia". *Ethiopian Journal Health and Development* **23**(2): 145-162.
- World Health Organization. 2005. Sexual relations among young people in developing countries: Evidence from WHO Case Studies. Geneva.
- Wangeri, T. Otanga, H. 2013. "Family, Peer and Protective Factors Related to Sex Behavior Among Urban Adolescents in Secondary Schools in Mombasa County, Kenya". *International Journal of Education and Research* **1**(5).
- Kintu, J. 2011. "Causes and Characteristics of Pre-Marital Sex among the Youths of Madudu Subcounty, Mubende District. Uganda".
- Maregn T. and Gistane A. 2013. "Factors associated with age at first sexual initiation among youths in GamoGofa, South West Ethiopia: a cross sectional study". *BMC Public Health* **2013**,13:622 <http://www.biomedcentral.com/1471-2458/13/http://www.etharc.org/Amhara/About%20Us/Geography.htm>
- Ministry of Health. 2005. AIDS in Ethiopia, Ministry of Health annual report on ANC surveillancesurvey. Addis Ababa, Ethiopia.
- Mulugeta, Y. and Berhane, Y. 2014. "Factors associated with pre-marital sexual debut among unmarried high school female

- students in Bahir Dar town, Ethiopia: cross-sectional study", *BMC Reproductive Health*, **11**: 40. doi:10.1186/1742-4755-11-40
- Mulu, T.Y., Alemayehu, W.Y., Alemayehu, B.M., Agumasie, S.D. 2014. "Sexual Initiation and Factors Associated with it among Addis Ababa University Undergraduate Students, Addis Ababa, Ethiopia". *American Journal of Health Research* **2**(5): 260-270. doi: 10.11648/j.ajhr.20140205.17
- Dawit, A., Asfaw, D., Amare, D., Ambaye, D., Almaz, A. and Kelbessa, U.K. 2005. "Khat chewing habit as possible risk behaviour for HIV infection: A case-control study". *Ethiop J Health Dev.*, **19**(3): 174-181.
- Tilahun, M. and Ayele, A. 2013. "Factors associated with KHAT use and age at first initiation among youths in southern Ethiopia". *Sci. J. Public Health* **1**(3): 113-118. doi: 10.11648/j.sjph.20130103.11. [Cross Ref]
- Amsale, C. and Yemane, B. 2012. "Peer pressure is the prime driver of risky sexual behaviors among school adolescents in Addis Ababa". *Ethiopia World J AIDS*, **2**: 159-164. Publisher Full Text
- Ethiopia Demographic and Health Survey 2011. Central Statistical Agency Addis Ababa, Ethiopia, ICF International Calverton, Maryland, USA.
- Bogale, A. and Seme, A. 2014. "Premarital sexual practices and its predictors among in-school youths of shendi town, west Gojjam zone, North Western Ethiopia", *Reproductive Health* **11**: 49. doi:10.1186/1742-4755-11-49.
- Lee, L., Chen, Y., Lee, K. and Kaur, J. 2006. "Premarital sexual intercourse among adolescents in Malaysia: a cross-sectional Malaysian school survey". *Singapore Med. J.*, **47**(6): 476-481. PubMed Abstract | Publisher Full Text
- Seme, A. and Wirtu, D. 2008. "Premarital sexual practice among school adolescents in Nekemte town, East Wollega". *Ethiop J Health Dev.*, **22**(2): 167-173.
- Adhikari, R. and Tamang, J. 2009. Premarital sexual behavior among male college students of Kathmandu, Nepal. *BMC Public Health* **9**(241): 1-9. PubMed Abstract | Publisher Full Text | PubMed Central Full Text
- George, C., Alary, M. and Otis, J. 2007. "Correlates of sexual activity and inconsistent condom use among high-school girls in Dominica". *West Indian Med J.* **56**(5): 443-448. [PubMed]
- Fekadu, M. and Alemayehu, W. 2009. "Age at sexual initiation and factors associated with it among youths in North East Ethiopia", *Ethiop. J. Health Dev.*, **23**(2): 154-162.
- Tilahun, M. and Ayele, G. 2003. "Factors associated with age at first sexual initiation among youths in Gamo Gofa, South West Ethiopia: a cross sectional study". *BMC Public Health* **13**: 622. doi:10.1186/1471-2458-13-622.
- Hong, Y., Li, L., Yongyi, B., Xunyu, X., Shiyue, L. and Jay, E. 2010. "Family and peer influences on sexual behavior among female college students in Wuhan". *Chin Women Health* **50**(8): 767-782. Publisher Full Text
- Frehiwot, B., Yigeremu, A., Reta, A., Wuleta, L., Tamrat, A. and Tewodros, G. 2005. "Khat and alcohol use and risky sex behaviour among in-school and out-of-school youth in Ethiopia". *BMC Public Health* **5**(109). doi:10.1186/1471-2458-1185-1109
- Yamane, Taro. 1967. "Elementary sampling theory", Harper & Row, New York.

