

# Determinants of Sexual Debut among High School Girl Students in Arsi Zone, Huruta Town, Ethiopia: School based Cross Sectional Study

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## Abstract

**Background:** premature sexual debut increases the risk of sexually transmitted infection including HIV/AIDS, having many sexual partners, unintended pregnancy, abortion and its complications. In addition, the timing of primary sex is affected by a variety of factors and this makes the consequences of female sexuality much more serious. Therefore, the aim of this study is to explore factors that affect high school female students. **Methods:** School based cross-sectional study was conducted from December, 15-19/2015. A total of 845 high school female students were selected by multi-stage sampling procedure. Data were gathered using structured, self-administered questionnaire. Data were entered, cleaned and analyzed using Epi-Info version 3.5.1. Descriptive statistics, binary and multivariable logistic regression analyses were used to explore factors associated with early sexual debut. **Result:** Among high school girl students 53.7% reported early sexual debut. The mean age at primary sexual initiation was 16.27 (SD  $\pm$ 2.1) years. The major predictors were age group 20-24 [AOR=3.03, 95% CI; (2.09, 4.39)], marital status [AOR=0.05, 95% CI; (0.02, 0.12)], peer pressure [AOR=3.85, 95% CI; (2.66, 5.58)], alcohol use (AOR=2.01, 95% CI; (1.41, 2.87)) and watching pornographic videos [AOR=3.01, 95% CI; (2.06, 4.40)]. **Conclusion:** Significant proportion of high school students have started early sexual debut. The finding suggests that the need to communicating and supporting school students to help them make informed and safer decision on their sexual behavior. Therefore, Huruta town administration education and health bureau should design a persistent and effective health education, establishing and strengthening center/club should be intensified to reduce early sexual debut in high school girl students.

**Keywords:** Early, Sexual debut, female students.

## Introduction

Early coital activity is not a new incident in sub-Saharan Africa. Today, secondary sexual characteristic (maturity) occurs at an earlier age, and age at marriage is going up; therefore, adolescents' sexual initiation is found to be earlier and premarital. Due to this, school girls are more vulnerable to risks of unwanted pregnancy, early pregnancy, premature births, and sexually transmitted infection [1].

Ethiopia as one of a Sub-Sahara African country, regarded as having many cultural diversity, there are diverse culture, social values and practices that influence the age at which young girls begin sexual proximity. In this practice they become sufferers of unprotected sex, early marriage, early pregnancy and mortality from unsafe abortion [2, 3].

Studies have also revealed that in Ethiopia, 29% of women age 25-49 had first sexual intercourse before age 15, and 62% before age 18. For women age 25-49 years old, the median age at first sexual intercourse is 16.6 years that is very close to the first marriage of 16.5 years [4].

Cross-sectional studies conducted in South Western Ethiopia have shown that adolescent sexual debut timing is influenced by number of factors including age, gender, residence, educational level, knowledge on HIV, economic status, watching pornography, Khat and alcohol utilization [5]. In addition, adolescents take part in sex activities because of the factors such as peers, unlicensed erotic video films exposure and the desire for economic gain [6]. Due to this, a substantial proportion of young students are participated in their earlier sexual activity.

Any sexual activity before marriage is regarded as the reproductive health problem in adolescent. Studies showed that the proportion of premarital sexual practice among youths in Oromia region (31%) is higher compared to national (19%) [7]. However, factors that contribute to early sexual practices were not as such dealt in-depth within the study area.

Therefore, this study has been intended to explore factors associated with early sexual debut among high school girl students in Huruta high school, Huruta town.

## Method and Materials

### Study design and Study setting

School-based cross-sectional study design was conducted in Huruta town from December, 15-19/2015. Huruta is a town in central Ethiopia. The town is situated in the Arsi Zone of the Oromia Region to the north of Itaya.

Based on figures from the CSA, Ethiopia published in 2005, Huruta has an estimated total population of 16,922 consisting of 8,391 men and 8,531 women [8]. In Ethiopia, high school includes education from the ninth grade to twelfth grade. The town has one high school and one junior secondary school (1-8 grades). The high school serves for the students found in the town and coming from surrounding rural areas.

### **Study participants & sample size calculation**

The study participants were high school female students selected from a high school. The required sample size was estimated using single population proportion formula by considering the following assumption a 95% level of confidence interval, 0.05 margins of error, and with expected proportion of early sexual debut 51% [9]. After the correction of the primary sample size, we used a design effect of 2 to calculate the final sample size. Finally, after adding a 10% of non-response rate, the final sample size was 845 high school female students.

### **Sampling procedure**

A total of 845 High school female students were selected using a multi-stage sampling procedure and probability proportionate to size of the students from each grade (ninth and tenth grade). List of sections from each grade used as a sampling frame. Sample sections were selected randomly using a simple random sampling procedure. Students from each section were selected again lottery method from the list of students in each selected section. The age range of students enrolled in Ethiopian high school is 15-24 years, however, in some cases; students could be younger or older than the mentioned age range. Students who were not within this age range were ineligible in this study.

### **Data collection & analysis**

Data were collected by adapted from EDHS, 2011 [4], pretested, structured facilitator guided self-administered questionnaire. The questionnaire was developed in English and then translated in to Oromiffa (local language) again back to English to check consistency. Data were collected from all students in one day to overcome contamination of the information. Data supervisors and facilitator were recruited and trained. Both the supervisors and facilitators were provided explanation on the study procedure and tool. They also ensured privacy and confidentiality of information during completing the questionnaire.

The outcome variable was early sexual debut, while the independent variables were socio-demographic characteristics of the respondents, peer pressure, alcohol use, watching pornographic videos, and drug use.

Data were entered, coded, cleaned and analyzed using Epi Info Version 3.5.1 statistical package software. Frequency of reported early sexual debut was computed. To control the effect of confounding factors, a logistic regression was employed. P-value < 20% was taken as a cut-off point for selecting variables for logistic regression model. P-value less than 0.05 was considered as statistically significant.

### **Ethical issues**

The study was conducted after securing all the ethical approval of institutional review committee. A permission letter was obtained from the woreda Education bureau. An oral consent was secured from each participant. The confidentiality was maintained throughout the study by not mentioning their name on the questionnaire.

### **Result**

A total of 784 high school female students were participated in the study and obtained a complete response of 92.9%. The questions (7.1%) were excluded for general incompleteness and inconsistencies. More than half, 425 (54.2%) of the respondents were 15-19 years age group. Majority 511 (65.2%), of the participants were Oromo in ethnicity, 416 (53.1%) of them were Orthodox followers and never married constitute 659 (84.1%). regarding, parental residence, 672 (85.7%) of respondents were had parents from urban areas and a little higher percentage (50.3%) of respondents were attend grade nine (**Table 1**).

**Table 1:** Socio-demographic characteristics of high school female students in Huruta town, from December, 15-19/2015, Ethiopia

Variables	Number	Percent (%)
<b>Age group (years)</b>		
15-19	425	54.2
20-24	359	45.8
<b>Ethnicity</b>		
Oromo	511	65.2
Amhara	148	18.9
Tigre	125	15.9
<b>Religion</b>		
Orthodox	416	53.1
Protestant	261	33.3
Muslim	107	13.6
<b>Marital status</b>		
Married	125	15.9
Unmarried	659	84.1
<b>Educational Grade</b>		
Grade 9	394	50.3
Grade 10	390	49.7
<b>Parental Residence</b>		
Urban	672	85.7
Rural	112	14.3

About 259 (61.5%) of age 20-24 years and 305 (72.4%) of unmarried female students reported having sexual debut. The mean age of respondents was 16.27 years with 2.1 years Standard deviations. The minimum age of sexual debut was 15 years and maximum age of sexual debut was 24 years. About 46.3% were influenced by their friends to have sex and among 284 (67.5%) of the respondents it happened willingly. One fifth, 144 (18.4%) of students who started sexual debut had pregnancy. From those who were pregnant, 100 (12.8%) of them had history of abortion. Only 286 (36.5%) of students were reported consistent use of condom. One third, 250 (59.4%) and 242 (57.5%) of female students who were began sexual debut reported drunk alcohol, watched pornographic videos respectively (**Table 2**).

**Table 2:** Percentage distribution of sexual and non-sexual behavior regarding sexual debut among high school female students in Huruta town, from December, 15-19/2015, Ethiopia.

Variables	Frequency	Percent
<b>Sexual debut</b>		
Yes	421	53.7
No	363	46.3
<b>Condition of sexual debut</b>		
Willingly	284	67.5
Sudden	137	32.5
<b>Peer pressure</b>		
Yes	363	46.3
No	421	53.7
<b>Parent-child communication on sexual behavior</b>		
Yes	101	12.9
No	683	87.1
<b>History of pregnancy</b>		
Yes	144	18.4
No	640	81.6
<b>History of abortion</b>		
Yes	100	12.8
No	684	87.2
<b>Use of condom</b>		
Yes	286	36.5
No	498	63.5
<b>Drunk alcohol</b>		
Yes	379	48.3
No	405	51.7
<b>Viewed pornographic videos</b>		
Yes	346	44.1
No	438	55.9

The logistic regression analysis depicted that sexual debut was more likely to occur among girl students

age group 20-24 [AOR=3.03, 95% CI; (2.09, 4.39)], unmarried [AOR=0.05, 95% CI; (0.02, 0.12)], peer pressure [AOR=3.85, 95% CI; (2.66, 5.58)], alcohol use (AOR=2.01, 95% CI; (1.41, 2.87)) and watching pornographic videos [AOR=3.01, 95% CI; (2.06, 4.40)] (**Table 3**).

**Table 3:** Factors associated with sexual debut among high school female students in Huruta town, from December, 15-19/2015, Ethiopia

Determinants	Start sexual debut		Crude OR (95% CI)	Adjusted OR (95% CI)
	Yes (%)	No (%)		
<b>Age group (years)</b>				
15-19	162 (38.5)	263 (72.5)	1.00	1.00
20-24	259 (61.5)	100 (27.5)	4.20 (3.11 5.69)	3.03 (2.09 4.39)
<b>Marital status</b>				
Married	116 (27.6)	125 (15.9)	1.00	1.00
Single	305 (72.4)	659 (84.1)	0.06 (0.03 0.13)	0.05 (0.02 0.12)
<b>Peer pressure</b>				
Yes	260 (61.8)	103 (28.4)	4.07 (3.01 5.50)	3.85 (2.66 5.58)
No	161 (38.2)	260 (71.6)	1.00	1.00
<b>History of pregnancy</b>				
Yes	90 (21.4)	54 (14.9)	1.55 (1.07, 2.25)	0.79 (0.35 1.74)
No	331 (78.6)	309 (85.1)	1.00	1.00
<b>History of Abortion</b>				
Yes	66 (15.7)	34 (9.4)	1.79 (1.15 2.79)	2.19 (0.86 5.53)
No	355 (84.3)	329 (90.6)	1.00	1.00
<b>Drunk alcohol</b>				
Yes	250 (59.4)	129 (35.5)	2.65 (1.98, 3.54)	2.01 (1.41 2.87)
No	171 (40.6)	234 (64.5)	1.00	1.00
<b>viewed pornographic videos</b>				
Yes	242 (57.5)	104 (28.7)	3.36 (2.49, 4.53)	3.01 (2.06 4.40)
No	179 (42.5)	259 (71.3)	1.00	1.00

Notes: 1.00: Reference category

## Discussion

Early sexual debut predispose high school girl students to numerous reproductive health problems such as sexually transmitted infection; including HIV/AIDS, unintended pregnancy, abortion, etc.

Age of the respondents was associated with sexual debut; those female students whose age group 20-24 years were 3 times more likely to start sexual debut compared to 15-19 years [AOR=3.03, 95% CI; (2.09, 4.39)]. This finding is in line with a study conducted in Jamaica and India [10, 11].

About 84.1% of unmarried high school girl students have initiated sexual debut. It was relatively higher than a study done in high school students of Jimma and eastern Ethiopia [12, 13]. The difference might be due to the fact that technological advancement that increases watching videos and substance use such as alcohol, khat and cigarette, which might increase the chance to be engaged in early sexual debut.

This study showed that majority (87.1%) of the high school female students had no parent-child communication at home related to sexual matters. This might be due to the fact that sexuality issue still remains a taboo in Ethiopia so; the parent-child communication is not encouraged as a result of culture. However, the peer pressure to undertake sexual debut among school female students was found to be statistically associated [AOR=3.85, 95% CI; (2.66, 5.58)] with first sexual exposure. This result was similar with other studies [12, 14].

Drinking alcohol decreases self-control and expose to risky sexual intercourse [5, 15]. In this finding, students who drinking alcohol were twice more likely to start sexual debut compared to their counterpart (AOR=2.01, 95% CI; (1.41, 2.87)). In this study, frequency of watching pornographic materials was associated with sexual debut; the adjusted odds ratio also showed that high school female students who watched

pornographic videos was found to be three times more likely to start sexual debut [AOR=3.01, 95% CI; (2.06, 4.40)], which is conform with Unmatched case control study conducted in Gamo-Gofa Zone, South West Ethiopia; which reveals that the use of alcohol was found to be a major predictors of early sexual initiation and HIV infection [19]. Likewise, a survey conducted in Botswana also revealed that the number of sexual intercourse increased according to the number of times that they drank alcohol [10].

### Limitation of the study

The study was conducted based on cross-sectional survey; casualty cannot be inferred from the finding. The other possible limitations could be lack of using qualitative method which helps to explore in-depth view about the enabling factors for sexual debut.

### Conclusion and Recommendation

In conclusion, the proportion of sexual debut was high. Age of respondent and being unmarried were major predictor for sexual debut. Peer influences, drinking alcohol and watching pornographic material/videos have substantial effect on the timing of sexual initiation for high school girls' students. Therefore, firming the norm of virginity, which delays sexual intercourse, should be advocated. The town administration education and health bureau should design a persistent and effective health education, establishing and strengthening center/club should be intensified to reduce early sexual debut in high school girl students. Finally, Policy makers should think of setting a legal age for buying alcohol and restricting videos.

### Declarations

**Competing Interest:** Authors declare that they have no competing interest.

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### Authors' contribution

DTN participate in design, analysis, and write-up of the project and in development of the manuscript. The author read and approved the final manuscript.

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