# EARLY SEXUAL DEBUT AND ASSOCIATED FACTORS AMONG HIGH SCHOOL STUDENTS IN KINDO KOYISHA DISTRICT, WOLAYTA ZONE, SOUTH ETHIOPIA

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## **ABSTRACT**

**BACKGROUND:** Early Sexual debut during adolescent period has several potential impacts on sexual and reproductive health of adolescents. Sexual interest peaks around puberty and continues through adolescence. The adolescent sexual interest is motivated by a number of factors, including physiologic changes, nutritional and social factors, peer influences, and rehearsal for identity and adult gender roles. Therefore, the aim of this study was to determine the magnitude and associated factors of early sexual debut among high school students in Kindo Koyisha district Wolaita zone southern Ethiopia.

**METHODS:** A cross-sectional study was conducted in Kindo Koyisha district, Wolaita Zone, Sothern Ethiopia. About 508 students were selected to be enrolled in this study. The Data were analyzed by using SPSS version 20. Both bivariable and multivariable logistic regression analysis were done. Multi-colinearity tests were conducted using variance inflation factor (VIF<10) and tolerance (>0.1) as cutoff. Hosmer and Lemeshew goodness of fit test was used to check for model fitness. Normality tests were done for continuous data. Variables with p<0.05 in multivariable regression were considered as statistically significant.

**RESULT:** This study revealed that 152 (30.3%), of respondents were involved in early sexual debut. Factors associated with early sexual debut were higher grade 10th-11th (AOR =2.6; 95% CI: 1.32-5.13), marital status being single (AOR= 0.10; 95% CI:0.049-0.29), watching porn media (AOR=1.72; 95%CI:1.01-2.94), having boy/girl friend (AOR=2.16; 95%CI:1.38-3.40), not discussing sexual and reproductive health issues with parents (AOR=2.91;95%CI:1.74-4.89).

This study showed that relatively high early sexual debut has been verified compared to other study areas. The major factors associated with early sexual debut were student's grade (grade 10th), marital status (singles), watching porn media, having boy/girl friend, not discussing sexual and reproductive health issues with parents and having source of information on sexual and reproductive health.

KEYWORDS: Early sexual debut, students, Kindo Koysha, high school, Ethiopia

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#### INTRODUCTION

Early Sexual debut during adolescent period has several potential impacts on sexual and reproductive health of adolescents. Sexual interest peaks around puberty and continues through adolescence. The adolescent sexual interest is motivated by a number of factors, including physiologic changes, nutritional and social factors <sup>1</sup>.

Transition to sexual activity is an important event in the life stage of human being. However, youths in early adolescence have not yet made the physical, mental, and emotional developments necessary to make sensible decisions surrounding sexual activity. Early sexual debut increases exposure to sexually transmitted diseases and other reproductive health disorders <sup>2</sup>.

Adolescence is the natural and physiologic milestone whereby individuals make the gradual shifting from childhood to adulthood. Adolescent people are those with ages between 10 to 19 years old and young people 10-24 years, where as those aged 15-24 years are referred as youths. The adolescent age group is state of rapid physical, social and psychological change where new behaviors are more easily learned than when in adulthood. <sup>3</sup>.

Adolescents have curiosity, responsibility and or risk taking and urge to experience new phenomena. This behaviour exposes them to significant sexual and reproductive health related problems including sexually transmitted infections and most importantly HIV/AIDS, unwanted pregnancy and its outcomes <sup>3</sup>, <sup>4</sup>.

According to Ethiopian Demographic and Health Survey (EDHS) 2016 report, among women age 25-49 years, 24% of them had first sexual intercourse before age 15 <sup>5</sup>. Also another studies conducted in different part of Ethiopia for instance Gamo Gofa, South West Ethiopia; Dessie, North East Ethiopia, Gojjam, North Ethiopia, 72%, 51% and 12.7% of high school students had initiated sex respectively at the mean (±SD) age of 17.07(±2.12), 16.8(+2.3) and 16.5(±1.6) respectively(6-8). Additionally astudy conducted among Jiga high

school students showed that 56.3% of respondents had first sexual intercourse before their  $18^{th}$  birthday  $^9$ . Also among Wollega University students premarital sexual practice between 15-19 years of age were 62.1%  $^{10}$ .

In Addis Ababa 20.8% of the study participants ever had practiced sexual intercourse at median age of 16 years <sup>11</sup>. Other studies in Addis Ababa, Ambo University and Awi zone northwest Ethiopia showed 25%, 25.3% and 20.4% respectively <sup>12-15</sup>. In Wolaita Sodo University students the mean age of first sexual experience was found to be 18.4(±1.75) and 19.9(±1.87) for males and females, respectively(16). Also the Boditti's high school study shows that 29.1% of participants had a sexual debut at age of 16.8 and 20.4 years for males and females respectively <sup>17</sup>.

This indicate that youth who begin early sexual activity have little knowledge and awareness, therefore, they are more likely to have high-risk sex. This may be related with increased susceptibility to HIV transmission and other STIs, unwanted pregnancy and its complications <sup>18</sup>.

Some of the factors associated with early sexual debut among high school youths are age, gender, educational level, knowledge on HIV, communication on sexual and reproductive health issues with parents, living arrangement, parental socio economic status, watching pornography, attitude towards early sex and substance abuse <sup>18</sup>, <sup>19</sup>.

Although rates of adolescent childbearing are declining in many countries, 15 million women ages 15 to 19 give birth every year, 13 million in less developed countries. Overall, 33% of women from less developed countries give birth before the age of 20 years <sup>20</sup>.

In Ethiopia, adolescents have been given higher priority in the prevention and control of HIV/AIDS because most new infections are occurring among them so that delaying time of sexual debut is the base for prevention of HIV/AIDS and STIs, teenage and unwanted pregnancy and related consequences among adolescents <sup>2</sup>.

As shown in the different studies gender, substance use (smoking and alcohol use), having been in a physical fight, lack of parental or guardian attachment, lack of peer support at school 21, 22 maternal education, place of residence and family influence 22, participating in religious activity 23, 24, medias such as (internet, TV, newspaper, magazines, romantic novels, etc) 25-27 were factors associated with early sexual debut among high school students.

Communication between parents and adolescents <sup>28</sup>, pornographic films <sup>29</sup>, personal interest or curiosity, sex for money source, forced sex, to pass examination <sup>30</sup>, <sup>31</sup>, employment status <sup>7</sup>, lack of access to health care services <sup>32</sup>, living at rural area were the associated factors on pre-marital sex among adolescents <sup>33</sup>.

Therefore, the aim of this study was to determine the magnitude of early sexual debut and associated factors among high school in Kindo Koyisha district, Wolaita zone, SNNPR Ethiopia.

#### **METHODS**

#### Study setting and Period

The study was conducted in Kindo Koyisha district, Wolaita Zone, Sothern Ethiopia which is 410 km far from Addis Ababa from February 1-30, 2017. According to 2017 report of district education office, there were 45 primary schools and 4 high schools in the district, of which one is located in urban kebele and the other three high schools in the rural kebeles of the district. The total number of grade 9th -12th student were 6349 (male 3448 and females 2901) 34.

### Study design

Institution based cross-sectional study was conducted in Kindo Koysha district.

# Study population

All high school students

#### Study Unit

The study units were randomly selected students from randomly selected sections of each grade.

#### **Inclusion Criterion**

All students who attended a class during this study period were included.

#### **Exclusion Criteria**

Students who were ill were excluded. For this study, students who were younger than 15 year were excluded.

# Sample size determination and sampling procedure

The sample was calculated with Open-Epi statistical software version 3.03 using single population proportion statistical formula using p- prevalence of early sexual debut 20.4% (0.204) from previous study <sup>19</sup>. The final calculated sample size was 499 and 10% non response rate was added become 549. After computing correction formula the final sample size becomes 508.

#### Data collection tools

A structured pre-tested and self-administrated questionnaire was used to collect data which was prepared form different studies and literatures. Information was extracted on: Socio-demographic characteristics. non-sexual behavior, behavior, knowledge on sexual and reproductive issues, attitude toward early sexual debut and student-parent communication on sexual and reproductive issues. The data was collected by using pre-structured questionnaire which adopted from Central Statistical Agency CSA <sup>35</sup>. List of sections from each school used as a sampling frame. Sample sections were selected randomly using simple random sampling technique. Students from the section were selected again using lottery method from list of students in each selected section.

# Data quality assurance

Before data collection, the questionnaires were pretested and translated into Amharic and back to English to keep consistency of the questionnaires. One day training was given to data collectors and supervisors.

#### Data management and analysis

The ddependent variable for this study was early sexual debut. However, iIndependent variables

Socio-demographic variables such as age, sex, religion, own income, getting pocket money, living arrangement, grade level, residence, behavioral and knowledge factors such as alcohol drinking, chewing khat, smoking, having boy/girl friend, watching pornographic films, attitude toward early sexual debut, knowledge about HIV/AIDS, parental factors: Parental education level, discussing SRH issues, family income.

Data were checked for completeness consistency, coded and then entered into EpiData version 3.1 and exported into SPSS version 20 to be analyzed. Descriptive statistics was used to calculate frequencies and percentages of the data. Both bivariable and multivariable logistic regression analysis were done. Variables with a p-value <0.25 on bivariable analysis were considered as candidates for multivariable analysis. Multi-colinearity tests were conducted using variance inflation factor (VIF<10) and tolerance (>0.1) as cutoff. Hosmer and Lemeshew goodness of fit test was used to check for model fitness. Normality tests were done for continuous data. Variables with p<0.05 in multivariable regression were considered as statistically significant.

#### RESULTS

# Socio-demographic characteristics

A total of 501 out of 508 students participated in this study. From 501 respondents 265(52.9%) were males, 421(84%) were age less than 18 years with the mean and SD age of 17.64 (+1.915) years. Majorities 296(59.1%) of the respondents were protestant, 442(88.2%) of respondents are single or not married, 331(66.1%) were residing in urban area, 224(44.7%) of them live with their father and mother (Table 1).

Table 1: Socio-Demographic Characteristics of high school students, in Kindo Koysha district South Ethiopia, February 2017(n=501)

Variables	Category	Frequency	Percent
Age	15-18 years	421	84
	≥18 years	80	16
Sex	Male	265	52.9
	Female	236	47.1
Grade	9th	142	28.3
	10th	122	24.4
	11th	157	31.3
	12th	80	16
Marital status	Single	442	88.2
	Ever married	59	11.8
Age at marriage (n=59)	<18 years	44	74.5
	≥18 years	15	25.5
Respondents residence	Rural	170	33.9
	Urban	331	66.1
Family residence	Rural	339	67.7
	Urban	162	32.3
Fathers education	Can't read and write	87	17.4
	Primary Secondary Tertiary	175 172 67	34.9 34.3 13.4
Mothers education	Can't read and write	157	31.3
	Primary Secondary Tertiary	195 103 46	38.9 20.6 9.2
Family monthly income	<500 ETB	105	21.0
	500-1500ETB	218	43.5
	≥1501ETB	178	35.5

# Prevalence of Early sexual debut

About 152(30.3%) of students had practiced sex before 18 years of age. From these, 77(50.7%) were males and 75(49.3%) were females. The mean age at first sexual intercourse was 15(+1.64) years.

About 473 (94.4%) of study participants had no comprehensive knowledge while 28 (5.6%) had comprehensive knowledge towards RH. Regarding the attitude towards early sexual debut, 322(64.3%) of the respondents had positive attitude while 179

(35.7%)of them had negative knowledge attitude. Majority 383(76.4%) of the respondents had never drink alcohols in their life. Moreover, 190(37.9%) of participants watched pornographic movies, 311(62.1%) of them never watched pornographic movies (Table 2).

# Factors associated with early sexual debut among High school students

According to results of bivariate analysis, students higher grade level, marital being single, ever watching porn/sex film, having boy/girl friend, having source of information on SRH issues, discussing SRH issues with parents, SRH service provision in schools, participating on school SRH services, mean attitude towards early sexual debut and having comprehensive knowledge towards HIV/AIDS were associated with early sexual debut (Table 2).

Table 2: Bivariate analysis showing factors associated with early sexual debut among High school students in Kindo Koysha district, February 2017.

Variable	Category		sexual debut	COR with 95%CI	P value_
		No	Yes		
Grade	9th	109	33	1	1
	10th	73	49	2.07[1.21-3.52]	0.005*
	11th	112	45	1.32[0.78-2.23]	0.05*
	12th	55	25	1.5[0.81-2.77]	0.26
Marital status	Single	334	108	0.11[0.05-0.20]	0.00*
	Ever married	15	44	1	1
Fathers education level	Can't read/write	63	24	1	1
	Primary(1-8)	112	63	1.44[0.82-2.52]	0.15*
	Secondary (9-12)	126	46	0.93[0.522-1.66]	0.94
	Tertiary	48	19	1.03[0.51-2.11]	0.40
Ever watched sex film/porn	Yes	110	80	2.31[1.56-3.14]	0.04*
	No	239	72	1	1
Ever drink alcohol	Yes	65	53	2.18[1.42-3.35]	0.22*
	No	284	99	1	1
Ever chewed chat	Yes	36	23	1.45[0.82-2.57]	0.05*
	No	313	129	1	1
Have boy girl friend	Yes	126	90	2.56[1.74-3.79]	0.001*
, 0	No	223	62	1	1
Have source or information on SRH issues	Yes	214	123	1	1
	No	135	29	0.38[0.24-0.60]	0.00*
Discuss SRH issues with parents	Yes	170	54	1	1
r	No	179	98	1.73[1.17-2.58]	0.00*
Comprehensive knowledge towards HIV/AIDS	Had no knowledge	325	148	1	1
Comprehensive knowledge towards III V/ MDS	Had knowledge	24	4	0.36[0.12-1.07]	0.06*

<sup>\*</sup> Variables eligible for multivariate analysis

Students who watch sex films or porn media were 1.7 times more likely to practice early sexual debut than who did not watch AOR 1.72[1.01-2.94]. Students who have boy or girl friend had two times higher chance of practicing early sexual debut

when compared with those who did not have AOR 2.16[1.38-3.4]. Those students who did not discuss Sexual and Reproductive Health (SRH) issues with their family are 2.9 times more likely to experience early sexual debut than those who discuss AOR 2.91[1.74-4.89] (Table 3).

Table 3: Multivariate logistic regression analysis showing factors associated with early sexual debut among high school students in Kindo Koysha district February 2017

Variables	Category	Early sexual debut		COR 95%CI	AOR 95% CI
		No	Yes		
Grade	9	109	33	1	1
	10	73	49	2.07[1.21-5.52]	2.61[1.32-5.13]*
	11	112	45	1.32[0.78.2.23]	1.93[0.98-3.8]
	12	55	25	1.5[0.81-2.77]	1.55[0.7-3.53]
Watching sex film or porn media	Yes	110	80	2.31[1.56-3.14]	1.72[1.01-2.94]*
	No	239	72	1	1
Having boy/girl friend	Yes	126	90	2.56[1.74-3.79]	2.16[1.38-3.4]*
	No	223	62	1	1
Discuss SRH issues with family	Yes	170	54	1	1
	No	179	98	1.73[1.17-2.58]	2.91[1.74-4.89]**
Have source of information on SRH issues	Yes	214	123	1	1
	No	135	29	0.57[0.24-0.59]	0.34[0.19-0.59]**
Marital status	Single	334	108	0.11[0.05-0.2]	0.10[0.049-0.29]**
	Ever married	15	44	1	1

<sup>\*</sup> P< 0.05, \*\* P< 0.00; COR: crude odds ratio, AOR: adjusted odds ratio, CI: confidence interval

#### DISCUSSION

Our study showed that 152(30.3%) of students had practiced sex before 18 years of age with mean age at first sexual intercourse was 15(+1.64) years. Watching sex film or porn media, having boy/girl friend, discussing of SRH issues with family, have source of information on SRH issues, marital status being single are one of the associated factors.

This study revealed that 152(30.3%), (95% CI=26.30%-34.38%) of respondents were involved in early sexual debut (sexual initiation before 18 years of age). This finding is higher than studies conducted in six Caribbean countries (29.9%)<sup>21</sup>, combined DHS results in sub Saharan Africa(25%)<sup>36</sup>, Addis Ababa(25%) <sup>11</sup> and Awi zone Amhara region(20.4%) <sup>14</sup>. However, this finding is lower than other studies done in Ghana(72%) <sup>37</sup>, Tanzania (40.2%) <sup>1</sup>, EDHS 2016 (62%) <sup>35</sup> and Gamo Gofa (72%) <sup>7</sup>. This might be the definition of early sexual debut that we used, age category of respondents, differences in social, cultural, religious values and different setup of the study area and study population.

This study show that the mean +SD age at first sexual intercourse was 15(+1.64) years (16.07+1.71 for males and 15.86+1.57 for females). This is similar with studies done in Shendi town 16.5±1.6 8 and Swaziland 16.2±1.1(38),but lower than studies conducted in Tanzania17.2±1.8 1, Gamo Gofa 17.07 ±2.12 7 and higher than results of studies conducted in Ghana 14.5 37 and in Nigeria 14.1±1.2 for males and 13.4±1.5 for females 39. The likely explanation could be the larger sample size, social, religious, cultural setting and diversity of population.

In this study being grade 10 student was found to be more associated with early sexual debut, which is different from the study conducted in Awi zone <sup>14</sup>. The difference might be due to that current study used students from grades 9-12 and so the larger proportion of grade 10 students were participated. However, the previous study used only preparatory students (grades 11 and 12) <sup>40</sup>.

The current study also showed that singles were 90% less likely to practice early sexual debut than ever married. This may be related with presence of early marriage (lower age at marriage) in the study area and also the reason that the majority of respondents were not married in this study.

In present study those who watching sex films or porn media had 1.7 times more liable to have early sexual debut. This finding is in line with findings from Nigeria <sup>26</sup>, Zimbabwe <sup>27</sup>, Shendi town <sup>8</sup>, Shireendaselassie school <sup>41</sup>, Dessie <sup>6</sup>, Jigjiga <sup>29</sup> and Addis Ababa <sup>11</sup>. The possible suggestion might be that sex films may raise student's arousal and motivation to practice what they have seen. But this finding is contrary to study done in Gamogofa zone [AOR 1.9 (1.0, 3.3), p<0.09] <sup>7</sup>. This might be that the previous study used samples from those who visited health institutions for VCT service and the interview method was face to face which may make fear of giving true response about the issue.

This study revealed that having boy/girl friend is another factor associated with early sexual debut which is similar of the study conducted in Shendi town(8), Shireendasellasie <sup>41</sup> and Awi zone <sup>14</sup>. Even though some studies are not in line with this study the possible reason could be that boy/girl may pressure each other to have or practice sex because of their relationship.

According to this study those students who do not discuss sexual and reproductive health issues with their parents were three times more likely to start early sex than their counterparts. This finding is consistent with other studies from Tanzania 42, Debremarkos University 15, Shireendasellasie 41 and Diredawa 28. The likely explanation could be that discussion about sexual and reproductive health issues helps to create awareness about consequences of early sex and this may reduce student's engagement in early sex.

Our study revealed that those who do not have information source about sexual and reproductive health issues had 66% reduced odds of engaging in early sex. This finding is consistent with study done in Shire town <sup>31</sup> and West Shoa <sup>43</sup>. The possible explanation might be that the students used different information for safer and protective manner for sexual practices.

#### **CONCLUSION**

In this study area relatively high early sexual debut has been verified compared to other study areas. The major factors associated with early sexual debut were student's grade (grade 10<sup>th</sup>), marital status (singles), watching porn media, having boy/girl friend, not discussing sexual and reproductive health issues with parents and having source of information on sexual and reproductive health. We recommend that the formal comprehensive sex education programs targeted at delaying age at first sex. Further studies using large sample size should be conducted to explore more.

#### LIMITATION

Since, the study is very sensitive that are more of private that someone may have Social desirability bias and has recall bias.

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# Availability of data

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

# Ethics approval and consent to participate

The ethical clearance was obtained from Ethical Review Committee of the College of Health Sciences, Wolayta Sodo University. Based on approval, official letter of cooperation was written to Kindo Koyisha district education and health office for permission. Permission letter was obtained from Kindo Koyisha district education and health office and the school principals were contacted and communicated. For students less than 18 years ages were signed over assent with parents or guardians.

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