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EARLY SEXUAL DEBUT AND ASSOCIATED FACTORS AMONG HIGH SCHOOL FEMALE ADOLESCENTS,IN ADAMATOWN, OROMIA, ETHIOPIA, 2019

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ABSTRACT

Early sexual debut is the first infiltratory sexual contact in adolescent age undr18 years. It is the most serious social and public health problem in the world including Ethiopia, affecting reproductive health of adolescent age in all social class. However, little information was found and not recent in study area. The aim of this study was to assess magnitude of early sexual debut and associated factors among high school female adolescent students from Nov 19-22/ 2019 at Adama, Ethiopia.

Method: A School based cross-sectional study was conducted from November 19-22/2019 in Adama. Multistage sampling technique was used to select representative sample. Data were collected by using pretested, structured, and self-administered questionnaires. Then data were entered in to Epi-Info version 7.1&transferred to Statistical Package for Social Sciences version 20 for analysis. Descriptive statistics were performed to describe the study population. Binary logistic and Multivariable logistic regression analysis were used to see the association bet wean dependent and independent variables. Predictor variables with p-value <0.25 were considered candidate for multivariable analysis. The collinearity effect was tested using variance inflation factors and tolerance test. P-value < 0.05 with 95% CI was considered to declare statistical significance. Model fitness test was done using Homer-Lemeshow.

Result: Out of 562/ 533 respondents were complete the questioner with 94.8% response rate & 90 had sexual contact. The magnitude of early sexual debut were 16.79 (90/533, 95% CI, 13.7-19.8%) Age, living condition, and not having boyfriend were significantly associated with early sexual debut (AOR=.136; 95% CI, .024-.766) for age 14 years, living with mother, (AOR=.101; 95% CI .016-.635), living with relatives (AOR= 5.491; 95% CI, .955-31.578) and not having boyfriend (AOR= .017; 95% CI, .008-.035) were associated with early sexual debut. Conclusion: The Significant amount of school adolescents was involved in early sexual contact. The factors associated with the problem of early sexual debut, were age, having boyfriend and living with mother and relatives measured. Public health interventions should involve awareness creation and strong follow up at family, community, at school & health facility to have friendly communication and programmer and planner to consider the problem.

Key words: Early sexual debut, Adolescent, teenage, children, early marriage, Adama, Ethiopia.

Introduction

Early sexual debut is infiltratory sexual contact in adolescent age under 18thyears; before they mature socially, physically, psychologically and biologically(1).This age is the challenging time for Adolescent byexposing to risky sexual &reproductive health and to cope up with the new feeling in their life(2–6).Adolescent age is channel between child hood and young adult &the start of sexual and reproductive health challenge and developing knowledge and skill; learn to manage feeling or antagonism and violence (e.g Abduction, early marriage and female genital mutilation) among youth and adolescent(8–10) . Early sexual debut results in ASRHR secondary to early marriage, teenage unwanted-pregnancy, abortion and complication,multiple sexual partners, STI/HIVAIDS & school dropout(1,7).

Adolescent girls are prone to SRHR, than boys. e.g. In Thailand,ESD face adolescent in child trafficking &prostitution accepted as legal duty for female children to join sex selling for family income generation (11,12). Sexual-start is individual need to exercise sexual activity (7,9,13,14).WHO define adolescent as the age group from 10 to 19yrs(16). UNICEF classifies adolescent age in to 3: Early adolescent is 10 -14 years, middle 15-17, and late adolescent are 18 to 19 years (15,16). Early sexual debut is different in countries, culture, norms & development(17).

As adolescents physically grow and reach puberty becomes sexually matured. This can happen in age 10-14 in girls & 12-16yrs in boys. The first sign of puberty in girlis budding of the breast. Puberty is the time of higher physical growth: increase height 20 %, weight 50 % and bone mass by 45 % and its remodeling (10,3,18,14).Onset of early sexual debut usually develops at 11-18 years; the pick age for sexual initiation is 15-19 years. 11 years in Jamaica, United Nation before 14, at 10 - 13 years they became sexually active, Nigeria 17 years, Kenya and Ethiopia under 18, as thestudy unit, residence, and population can affect early age at sexual debut (3,4,16,19).

Globally resent generation of adolescent is largest in history; 50% of population is under 25 years, in developing countries higher & in Ethiopia 35% (20). In 1995 studies estimated 193 million adolescents (85%) of total population, the number will reach 1.13 billion in year 2025.

However, adolescent sexual health care is ignored in many countries (21).Worldwide 1in 20 adolescents treaties STI/ HIV/AIDS. Over 7000 young are 10 to 24yrs infected with HIV/AIDS. Globally above 50% of new HIV infections are in the age 15- 24following unprotected sex(9).

Worldwide above 100 million act of sexual contact -occur each day, around 1 million conceptions, 50% are unplanned and quarter of which are unwanted (4). Early sexual contact acted among youth is extensive in the world and high in developing nation, 19% in Ethiopia, 31% in Oromiya region and 39% in study area (22).

In developing Nation, early sexual debut is worsening by the overall poor socio economic, environment and harmful traditional practices, Nigerian study in 2017 the magnitude was 67.8 %, and 22% were females among this total prevalence was 11% (17). It has both social and public health problems in the world especially in developing countries(23). As study indicate comprehensive age appropriate sex education used to delay sex, and the use of contraception reduce number of sexual debut complication (19,24).In EDHS 2016 reported adolescent age 15-19 years about 13% were child bearing; proportion increase from2% at age 15 to 28% at 19 years. Northern Ethiopia study 2015 prevalence of ESDwas 21.1% and 19% of it above 10 - 18 years(16,25).The Child who is maltreated at school, home, and in community has a negative effect on their health they become alcoholic, drug abuse, high-risk sexual behaviors, smoking& certain chronic diseases (8).

As survey report indicate total fertility rate (TFR) is the number of children the women can

born in her life, declining from 5.5 to 4.6 children per women respectively in EDHS (16,21,26–28). However the population growth is still rising high. It'srisky out comes dueto hidden communication skill inchild hood developmentthe adolescent unable to decide their sexual need& lack of health service delivery(3,10,29)30).Early marriage is fundamental child right violation, takes place in children under 18$^{th.}$ It is worldwide and spread in developing country like Ethiopia, cause for adolescent sexual and reproductive health problem (31–33).Marrying a minor is criminalized in the Ethiopian Criminal Code and the right to marry with informed consent is reflected in the Revised Family Code (34). However marriage proposal more valued than girl's health in many parts Ethiopia and study areatoaddress the adolescent RH we can see3, level of analysis - community, systems &policy.

At community area -adolescent girl vulnerability to STI/HIV infection with low perception, early marriage, low education and income, social isolation limit their knowledge & unsafe sexual practice and the risks of STI and early marriage tend to be widely recognized by communities, other health and psychosocial risks of young not well understood, at Program level, the institutional frame work for adequately addressing RH issues of young people weak and at policy level legislation is in place to prevent many of the practices that undermine the RH of young, (Revised Penal Code and the National Policy on Women) implementation is often weak(35).

Factors like; Socio demographic factors, including sex, age (1) parent education, primitive norms (5,8,17,22, 37), Individual behavior (6,20,27, 31), Environmental Factors (1,17,33, 38) and Income factor (having income), (2,9 ,18 ,24, and 28)were significantly associated with early sexual debut.There has been only limited information on the magnitude of early sexual initiation and associated factors among female adolescent students in East Shewa, Adama ,Ethiopia. Understanding and recognizing factors associated with early sexual debut are essential for developing effective policies and strategies to reduce the adverse consequences of early sexual initiation.

Therefore the aim of this study was: i. To determine magnitude of early sexual debut, and ii. To identify factors associated with early sexual debut among high school female adolescents at Adama, Ethiopia.

MATERIALS AND METHODS

Study area and period

The study was conducted in Adama town, located at 100 km South East of Addis Ababa, capital city of Ethiopia. It isone of the biggest city in Ethiopia and in Oromiya region andwith an area of 13000 square km , total population of 337,556. Geographically attitude range from 1590-1700meter & annual temperature ranges from 17-33^{0}Cwith mean temperature of 25 ^{0}c. There are nine government and seventeen private schools that manner education for grade nine and tentotal of 26 high schools in Adama town serving for the population. The study was conducted at 3 governmental and 5 privet schools from November 19-22/2019.

The town is populated by many ethnic groups: Oromo, Amara, Tigre, Gurage, SNNP, and Afar etc, with different religion; Muslim, orthodox, protestant and others with diversity of culture. Majority of people living in the town are merchant and government workers. Asit is the center of trade many people came from different regions in the country. Adama is having large and small industry, shopping of alcoholic beverage and substance; Tella, Teji, Beer, Chatetc, &others came for education, in addition the presence of internal displaced people camped in the city, this all can contribute for increasing number of adolescent in the town who needs health service delivery.

The school based cross sectional study was conducted in Adama town high school from November 19-22/2019.The source population was alladolescent female students whowereattending high school at Adama town in 2019, Study populationwas all adolescent female students in eight randomly selected (3government and 5privet) schoolsof Adamaduring the study period and who fulfill the inclusion criteria and the Study unit was randomly selected adolescent female student from selected school during study period. Age at sexual initiation-is age an individual had sexual intercourse from the first time (1). Early marriageis marriage takes place in age before 18 yrs(34)

Early sexual debut is when sexual contact happens in adolescents < 18 years (1,6)

Adolescent is the age from 10 to 19 years (9). Children are including all under 18 years (32).

The sample size was determined by using single population proportion formula and the required sample size was calculated based on source population of all high schools at Adama (5043female students). Considering$(z\ \alpha/2)^2$Z= 1.96 confidence limit with level of significance 95% &margin of

error (d)5%, was taken and 39 % prevalence(magnitude) of early sexual debutamong adolescents in study conducted in Adama(18),nonresponse rate=10%,design effect of 1.5, P= proportion assumed for early sexual exposure, n= sample size and N= corrected sample sizewith the final sample size562.

Multi-stage random sampling method was used for the selection of study participants.

Sampling technique

The multistage random sampling techniquewas used to select the sample from stage one to four

1stStage select 3 governmental and 5 privet schools randomly

2ndStageallocation of total female student number in each of the selected schools to sharethe data for8 high schools, three governmental and five privet schools. with source population of adolescent female students 5043, (Goroo1703,Adama secondary school 1974,Bole preparatory390,Med land academy 110,Meko Bill 142, Nejashi134, Excel Academy 217&Kdistemariyam 372)thenproportionally allocate sample of 562 female students.

3rdstage proportionallysharesdatafor grade 9th& grade 10thbased on number of students.

4thstageto collect information from each grade (9th and 10th) based on existing student list availableby using lottery system selected the section&allocate sample. Female adolescentstudents whose age less than 10 and greater than or equal to 18 years during screening excluded from the study(Figer1).

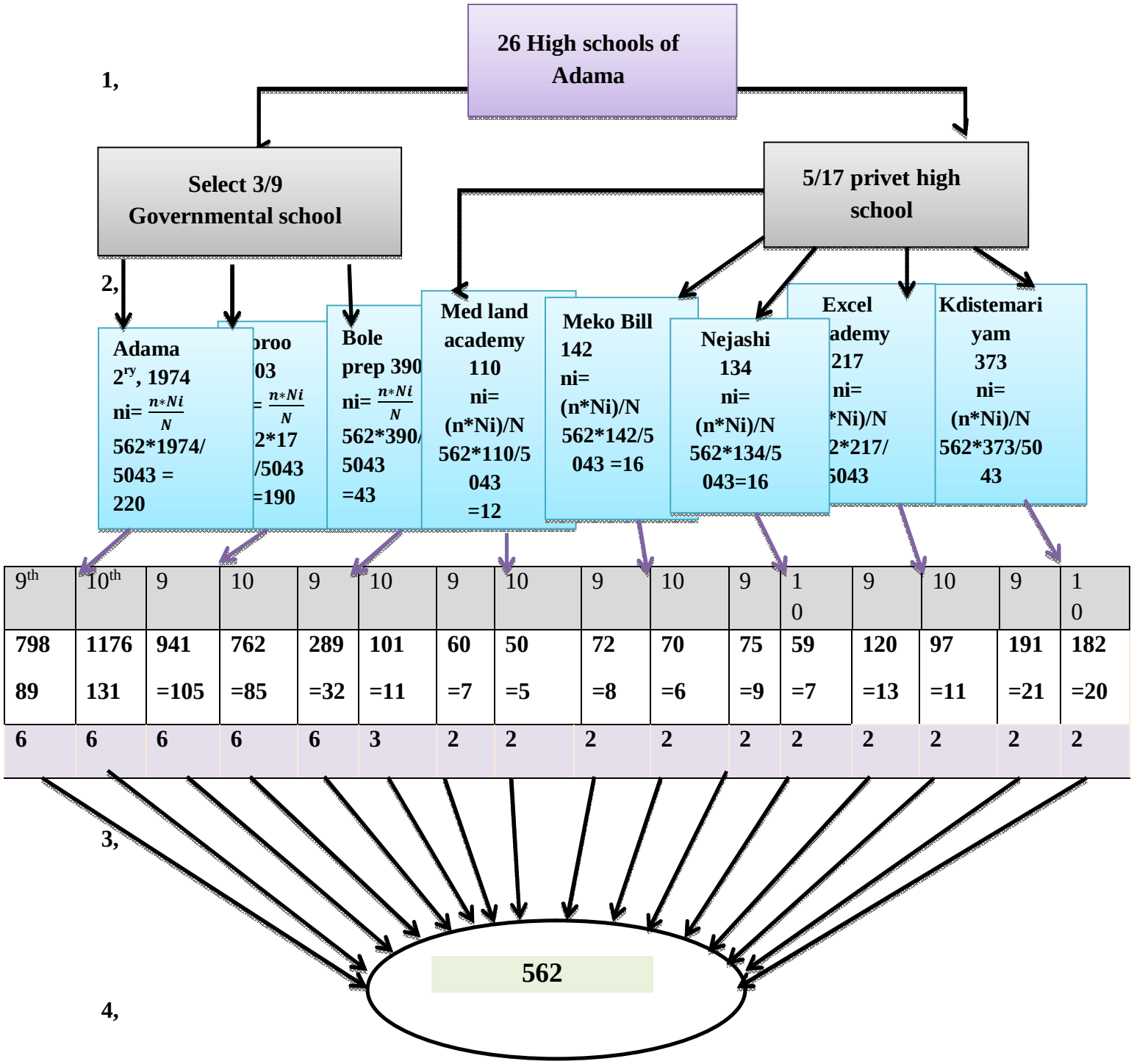

Figure1. Schematic presentation of sampling procedures

Data collectors

Data collection facilitators and supervisors wereassigned based on their educational back ground and experience of data collection. There were 4 in number 1 deploma clinical nurse, 1 biostatistitian and one BSc health officer and one data collection supervisor BSc in health officer.The orientation was given for facilitators for one day to have information about the questionnaires and data collection methods, inclusion criteria, and when to start and finished and the way to communicate the participants and how to handle the document. Facilitatorswere trained on the objective, and data collection techniques of the study.Pre-test of the questionnaire was conducted on 5% of sample size (37 female students) in the Same town at (Set Josef secondary school),1 week before actual data collection to see for the accuracy of responses andcompletenessto estimate time needed.

Data collection

The primary data was collected from respondents at school, by using structured Self-administered questionnaire which was prepared in English language by adapting from similar literature and translated to local languages (Afaan- Oromo and Amharic), & finally translate back to English to measure the consistency of questioner and used to collect quantitative data (11,18).

The data were collected at four week days b/n (Monday to Friday).Three BSC degree (two HO, One statistician) & one diploma clinical nurse 3female and 1male were facilitate data collection at each selected high schools in Adama at the time of data collection. The principal investigator was supervising all schools during data collection to give feedback every day before daily work started. The purpose and objectives of the study were clearly explained to participants before data collection.

Dependent variable for this study wasearly sexual debut in female adolescent<18 years.

Explanatory variable **(**independent variables**)-**Socio demographic factors (Age, marital status of respondents&educational status of family and respondents**),** Environmental factor(living condition of respondents, availability of alcohol, shisha and chat house around the school and the school attendedetc),Income factors (income of the family, respondent's having daily income or pocket many)and Individual factors (substance use, stress (loneliness), living condition and having boyfriend).

Data processing and analysis

The data processing was started at field level by coding and checking, cleaning and correcting then entered in to Epi–Info^{TM} 7.1 and then exported in to Statistical Package for Social Sciences version 20 for analysis. Descriptive statistics was performed to describe the study population. Binary logistic regression analysis was used to see the independent predictors of early sexual practices. Then the Independent variables with P-value of < 0.25 wereentered in to Multivariable in order to identify the significant predictors of early sexual debut after controlling the possible effect of other variables. A Multivariable logistic regression model was fitted to identify factors associated with early sexual debut. At the end based on the odds ratio the variable which has significant association were identified with 95% CI or p-value less than 0.05. Model adequacy and collinearitywere assessed.

Ethical consideration

Ethical clearance and official support letter was obtained from Adama Hospital Medical College Institutional Review Board (IRB) to Adama administrative education office before conducting the study.Adama Administrative education office was offered official support letter to eight Adama high schools. Verbal consent was obtained from their teachersfor minors(under 18th). After getting authorization from the schools, the principal investigator established dates and times of data collections with the school administrations. The study participants were informed about purpose of the study. While this study was mandatory for the participants and others, information was given about their right to accept or to refuse participation on interview, and their name not needed to state to be confidential.

RESULTS

Socio demographic factors

Out of 562 fife hundred thirty three (533) respondents were completed the questionnaires and making the response rate of 94.8%. All of the respondents (533) were females. The median age of the respondents were 16 (IQR0.92) years with the age range minimum and maximum of 14 and17 years respectively. 89.5 % were in the age range of 15-17 years. Out of 533 students 428(80.3%), from Government school and Out of total respondents 517 (97.0%) were never married. 16of (17.7%) of them were ever married at early ageEducational status of first sex grade 9, 58 (10.9%) and grade 1-6, 2 (.4 %). Three hundred eighty nine, 389(73.%) were from Urban. Half of 286 (53.7%) of respondents were Oromo and 131 (24.6%), Amararespectively.And282 (53.2%)orthodox and 124 (23.3%) were Muslim religion follower (See Table 1).

Table 1.Socio demographic factors of respondents and respondent's parent among high school adolescent female students, Adama, Ethiopia, 2019

Variables	Characteristics	Frequency(N=533)	Percentage (%)
School(n=533)	Government	428	80.3
	Privet	105	19.7
Respondent education	grade 9	294	55.2
	grade 10	239	44.8
Marital status /respondent	No	517	97.0
	Yes	16	3.0
Mother education	Primary	215	40.3
	Secondary	144	27.0
	Higher	69	12.9
	No education	105	19.7
Father education	Primary	121	22.7
	Secondary	133	25.0
	Higher	184	34.5
	No education	95	17.8
Age/respondent	14 years	56	10.5
	15	172	32.3
	16	195	36.6
	17	110	20.6
Age at first marriage	<=14	8	1.5
	15-6	8	1.5
Residence	Urban	389	73.0
	Rural	144	27.0
Religion	Orthodox	282	52.9
	Protestant	96	18.0
	Muslim	124	23.3
	Catholic	9	1.7
	Other	22	4.1
Ethnicity	Oromo	286	53.7
	Amara	131	24.6
	Gurage	43	8.1
	Tigre	16	3.0
	Other	57	10.7
Living with,	Parent	357	67.0
	Mam	67	12.6
	Dad	13	2.4
	Relative	18	3.4
	Other	30	5.6

Socio economic/ income factors of the respondent

Quarter143(26.8%),of their parents were having > 4500 ETB per month and 225(42.2%) had less than 3500 ETB per month. (see, Table2).

Table 2.Socio economic or income factors of the respondent and respondent's parent among high school female students, Adama, Oromiya, Ethiopia, 2019

Variables	Characteristics	Frequency (N=562)	Percentage (%)
Family income	>4500ETB	143	26.8
	3500-4500	165	31.0
	<3500	225	42.2
Average pocket many/day	< 10 ETB	143	26.8
	10-20	47	8.8
	20-30	14	2.6
	>30 ETB	11	2.1

Individual risky factors and early sexual debut

Out of 533 one hundred twenty 120(22.5%) of them had boyfriend. 90 (16.9%) were having sexual contact.Having one sexual partner were reported by 106 (88.33) of the respondents, and four (3.33%) of them were having>=2 partners.The respondents who were married 16 (17.8%) and all of them were under 18th year. (see.Table3).

Table 3.Individual risk factor among the female adolescent students, at high school of Adama, Oromiya, Ethiopia, 2019

Variables	Characteristics	Frequency (N=533)	Percentage (%)
Having boyfriend(N=533)	No	413	77.5
	Yes	120	22.5
Number of partner (n=120)	1	116	96.7
	>=2	4	0.8
Using stimulant (N=90)	No	11	12.2
	Yes	79	87.8
Stimulant/ substance used(n=79)			
Chat	Yes	4	5.1
	No	75	94.9
Cigarette smoking	Yes	2	2.5
	No	77	97.5
Alcohol	Yes	8	10.12
	No	71	89.9

N.B the rest 71implies that: those who use beverage, coffee and tea

From totalrespondents who had sexual contact, those who were treated for STI symptoms in the past 12 month were5(5.5%) for the symptoms include vulvar etching 3(60%),vaginal discharge1(20%),Vesicular rash 1(20%) respectively, See Table 4.

Table4.Risky out came and protective factors early sexual debut among high school female adolescent students, Adama, Oromiya, Ethiopia, 2019

Variables	Characters	Frequency N=90	Percentage (%)
STI(n=90)	No	81	90
	Yes	9	10
Treatment ofSymptoms(n=9)	Vaginal discharge	2	22.2
	Vulva etching	3	33.3
	Burning & V. rash	2	22.2
Pregnancy history (n=90)	No	76	84.4
	Yes	14	15.6
Pregnancy outcome(=14)	Preterm	5	35.7
	Abortion	2	14
	Delivered at term	6	42.8
	Other	1	7
Consequence of early sex (n=90)	STD	9	10
	Pregnancy	9	10
	School dropout	5	5
	Nothing	71	5.6
	Abortion	2	2.22
Protection of early sex(90)	No	55	61
	Yes	35	38.9
Resent-condom use (n=35)	NO	14	40
	Yes	21	60
Contraceptive use (n=90)	Yes	28	31
	No	62	68.9
Type-of-modern contraceptive(n=28)	Depot	10	35.7
	Implant	5	17.9
	Pills	2	7.14
Others		11	39.3

N.B others includes Condom, IUCD and natural

Environmental factors

Those, who were urban dweller 389 (73 %). From all, who were living with both biological parent 357 (67%), who livedwith mother only 67(12.2%) and with relatives 18(3.4%),(Table 5).

Table 5. Environmental factor which can expose the respondent to early sexual debut among Adama high school female students, Oromiya, Ethiopia, 2019

Variables	Characters	Frequency n=562	Percentage%
School attended (n=533)	Government	428	80.3
	Privet	105	19.7
Availability of chat, alcohol & shisha and other selling house nearby school (n=90)	Yes	79	87.8
	No	11	12.2
Living condition (533)	Parent	357	66.9
	Mam	67	12.5
	Dad	13	2.4
	Relative/friend	18	3.4
	live alone in rent home	30	5.6
	Other	48	9.0

N.B Other here include living with any other rather than the mentioned above

Magnitude of Early sexual debut among high school female adolescent studentsin Adama, Ethiopia, 2019

In further analysis the age of the first sex recoded in ESD were below 18 years. From 533 study participants 90(16.9) had the first sexual contact in the age range bet wean 14 to 17 years and 90 were early sexual debut. The motive for the first sex reported as interest (love) were about 61(11.4) and raped 1 (.2) respectively See Figure2.

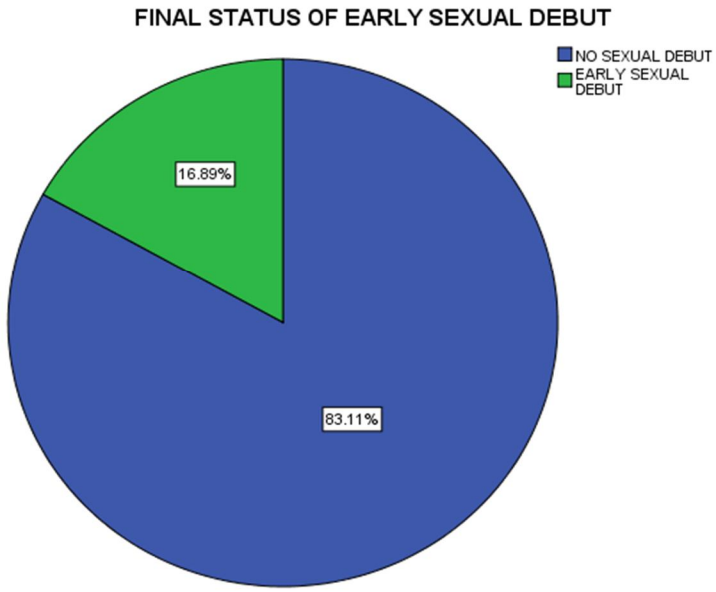

Figure2. Status of early sexual debut among female adolescent students in high school of Adama, Oromiya, Ethiopia, 2019

Factors significantly contributing early sexual debut

Seven variables significantly associated with early sexual debut in bivariate analysis (crude) by considering P value < 0.25. These include; school attended associated (COR= 2.490; 95% CI, 1.206, 5.140),age (COR=0.022; 95% CI 0.007,0.068) Living condition (COR=.103; 95% CI,(.022, .492), Have an income or pocket many (COR= .406; 95% CI, .256, .645), source of income (COR= 1.946; 95% CI,1.179,3.211), average many per day (COR=2.016 ;95% CI,1.188, 3.421) andhaving boyfriend(COR=.018; CI, .009- .035) were associated significantly.

Three variables significantly associated with ESD in multivariable logistic analysis. After controlling the other confounder using multivariate analysis;having an income, source of income, average many per day and school attended were removed, and finally Age, living condition and having boyfriend were remain significantlyassociated with early sexual debut; considering p-value less than 0.05. Age (AOR=.132;95% CI, .023,.755), living with mother(AOR=.094; 95% CI,.015, .589), living with relative (AOR=5.142; 95% CI,.873, 30.270) and not having boyfriend (AOR=.017;95%,CI,.008,.035),SeeTable.6.

Table 6.Factors associated with early sexual debut in bivariate and multivariate logistic regression among female students in Adama high school, Oromiya, Ethiopia 2019

Variables	Early sexual debut		COR	95% CI	AOR	95% CI	P-value
	No	Yes					<0.05
Schools attended							
Privet	96	9	2.490*	(1.206,5.140)	1.449	(.536,3.915)	P=.465
Government	347	81	1.00				
Age							
<= 14	54	2	0.022*	(0.007,0.068)	**.132****	**(.023,.755)**	**.023****
15-17	389	88	1.00				
Living condition							
Both Parent	300	57	.639	(.308,1.326)	.620**	(.218,1.759)	.369
mother	65	2	.103*	(.022, .492)	.094**	(.015,..589)	**.012****
Father	12	1	.066*	(.002,1.809)	.214**	(.014,3.201)	.264
Relative	6	12	6.727*	(2.049,22.088)	5.142**	(.873,30.270)	**0.049****
Alone rent home	23	7	1.024	(.347,3.018)	.652**	(.135,3.157)	**.**595
other	37	11	1.00				
pocket money							
No	280	37	.406*	(.256, .645)	1.476**	(.752,2.896)	P=.257
Yes	263	53	1.00				
Source of income							
Parent	131	35	1.946*	(1.179,3.211)	1.524**	(.160, 14.492)	P=.714
Fellowship	20	3	2.427*	(.246,23.917)	-	-	P=.447
Other	104	2	1.00				
Average/day							
<10 ETB	143	30	2.016*	(1.188,3.421)	.736**	(.075,7.186)	P=.792
10-20	47	16	3.920*	(1.958,7.846)	1.829**	(.162,20.664)	P=.625
20-30	14	5	4.219*	(1.342,13.268)	.954**	(.066,13.839)	P=.973
>=30	11	2	1.688	(.351,8.113)	6.459**	(.315,132.621)	P=.226
other	48	0	1.00				
Have boy friend							
No	400	13	.018*	(.009,.035)	017**	(.008,.035)	.001**
Yes	43	77	1.00				

N.B:*P-value less than 0. 25 and **P-value less than 0.05 considered as significant

DISCUSSION

A school based cross sectional study conducted to assess the magnitude and associated factors of early sexual debut among female adolescent students in high schools of Adama, Oromiya, Ethiopia, 2019. Among total participants of 533,90(16.89 %) early sexualdebut, 443 (83.11 %) not early sexual debut.Among respondents who exposedto sexual contact 90, who were exposed before marriage were74(82.2%) and the rest16 (17.7%)at marriage. The Median age of this study was 16 years near to other study in Ethiopia, (9,14,38,39).

Nekemte and North east Ethiopia study was similar with the this study by having 16.66 years in female respondents(3,4). There were studies about ESD conducted in different part of Ethiopia comparable with this study by having median age of ESD 17-18 years, East Harerghe, Waldeya town , and North east Ethiopia (1,3,14).This study reviled the magnitude of ESD among total participants were17.79. Study in Huruta age (20-24) was 3times more higher(84.1%) to have sexual debut this difference is due to the characteristics and age of participants involved, other study in North east Ethiopia also different by having more likely ratio 2.8 times higher(51.3%) and the included age were 15-19 only(3,22).

There were studies which was near to this study conducted in different part of Ethiopia and comparable with this study by magnitude, East Harerghe 24.8, (1,3,14). Additionally study inWaldeya town 18.4%, study participant were involved high school and preparatory school and different from this study, this study was higher involved group were only from high school and technological advancement and difference in study groups(23). The magnitude ESD in this study was nearly 17%, less than study in Bahar Dar 2012, 30.8% this can be influenced by character of the study group and age involved (40).

InKeniyastudy 50% with median age of 18 years (KDHS, 2008/9) , and in other study done in Keniya(36%) girls engaged in ESD , Nigeriya(67.8%). In this study magnitude of early sexual debut was less than study in Six Caribbean Countries 2014, early sexual debut was reported as

26.9% and Other study in Nepal revealed prevalence of ESD among female was 54%, it was more than this study, may be due to the difference in study population in relation to their environment, norm and culture and involvement of wider age.
groups from age 8 up to 49 years, also women vulnerability to ESD was stated well than men, study conducted elsewhere reported 26 % ESD in age before 15 years it was involving 13- 16 years adolescent comparing to this study it was higher because of difference in life style, technological advancement and cultural influence(5,6).

The difference in magnitude of early sexual debut may be due to factors like characteristics of the population involved in the study, age, living condition, having income, having boyfriend,peer pressure, using drugs(10,40,42). Additionally, living arrangements & age, were defined well in Alamata study 2014,(38). Early adolescent age was less likely to have ESD than the age above 14 years (86.8% less likely). Study in Benishangulgumuz was different by having risky sexual activity most likely 3.3 times higherin age 18-24years(36).

The odds of having ESD among respondent who were living with relatives/friends were 5.4 times higher than those who live with other, living with mother was 90.6% less likely, comparing to other and associated inversely.While not having boyfriend was(98%)least likely than those who had boyfriendin other way having boyfriend is predicting factor for sexual debut. This study is looks similar the study conducted in Northern Ethiopia having a boyfriend or girlfriend were significant predictors of early sexual debut having9.6 times higher than counter groups which is similar with this study (20).
Limitation of the study, study was involved only in school adolescents, while school going adolescent may not be representative of the whole community as the occurrence of ESD and factors avail.Since the study is cross –sectional it may not determine direct cause and effect between dependent and independent variables. The study used self-administered questionnaire, the studies trust on the honesty of the participant's response but some of them may be dishonest in responding.

Conclusion

The study found high magnitude of early sexual debut among adolescent female at eight Adama high schools and nearly equal with Northern Ethiopia but lower than study in Arsi Zone Huruta 2017. The factors associated with early sexual debut, individual factors (age; early adolescent, having boyfriend) and Environmental factor (living condition; lived with mother, relatives).

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