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Factors Early Sexual Initiation among Governmental Preparatory School Students, Addis Ababa, Ethiopia

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Abstract

Early age at first sexual practice is now common around the world and has been found to pose both social and public health problems especially in the developing countries including HIV, STIs, unwanted pregnancy, induced abortion and Human Papilloma Virus infection. Different factors contribute to these problems. Therefore, the aim of this study was to assess factors associated with early sexual initiation among governmental preparatory in-school adolescents in Addis Ababa, Ethiopia. An institution based cross sectional study was conducted using multi-stage random sampling method from February to March, 2014. Data were entered into a computer by using Epi Info version 3.5.1 and analysed using SPSS version 16.0 for windows. Logistic regression analysis was used in order to identify the association between predictor variables and dependent variable and to control confounders. The result showed 25.3% of the students reported having practiced early sexual intercourse. Sex AOR=0.53; 95% CI (0.30-0.94), visiting night or day party AOR=4.00; 95% CI (2.25-7.13), using drugs AOR=5.23; 95% CI (2.40-11.39) and viewing pornographic materials AOR=2.84; 95% CI (1.43-5.65) were found to be significantly associated with early sexual initiation. There is a high magnitude of early sexual initiation among adolescents. Using drug was the strongest predictor of early sexual initiation. Therefore, the government and other stakeholders should give due emphasis in educating adolescents on harmful sides of drugs and create strong and practical controlling mechanisms.

Keywords: Factors; Early sexual initiation; School students

Introduction

The World Health Organization (WHO) defines adolescents as those in the age group of 10-19. The adolescent population in Ethiopia has been increasing during the last few decades. Recently, adolescents constitute about 24% while young adults 10-24 years constitute about 30% of the total population [1-6]. Adolescent sex is a matter of concern shared by parents, educators and health policy makers. Unhealthy behaviours such as unprotected sexual practice or having multiple partners are prevalent at younger ages, and subsequent consequences such as sexually transmitted infections (STIs), and unplanned pregnancies are serious problems [7-10]. Early age at first sexual practice has been found to pose both social and public health problems especially in the developing countries. The problems include issues such as teenage premarital and unwanted pregnancy, and early childbirth caused by inability of very young adolescents to negotiate safe sex, induced abortion [11].

In Ethiopia, among women age of 25-49, 29% had sexual intercourse before age of 15. Young girls in Ethiopia are more vulnerable to HIV than boys because of early age at sexual debut, early marriage, sexual abuse and violence. In Addis Ababa, a proportion of 11.1% of respondents were found to be sexually active among school youths, of which 17.7% had more than one sexual partner and consistent use of condom was reported to be 58.7% [12].

Sexuality outcomes vary between ages, gender, race, socioeconomic status, and religious groups. Complexity is also reflected in the particular influences associated with adolescent sexual activity [13]. Recent study conducted in Ethiopia on reproductive risk behaviour, had shown that the mean age reported for first sexual initiation was between 13.6 and 19 years. A study in North West Ethiopia among in school adolescents showed that 31.9% sexually active and of which 36% were females .In another study North Eastern Ethiopia, about half, of the youths have ever had early sex [14,15]. One study in East Wollega, Dessie and Jigjiga University students of Ethiopia showed that the main factors that influence early sexual intercourse were fell in love, desire to practice sexual intercourse, peer pressure being female by gender, chewing Khat, drinking alcohol, watching pornographic materials at age<18 years and being less connected with parents [15-17].

In another study, adolescents were more likely to report early sexual experience than that of females. Similarly, male adolescents who have pocket money were more likely to report early sexual practice. On the other hand, adolescents who were living with friends, relatives, and fiancé were, more likely to have early sexual practices than their counter parties [14]. Similarly in a study of South West Ethiopia, age at early sexual practice was positively associated lack of comprehensive knowledge on HIV, alcohol use and khat use [17-19]. The objective of

this study was to assess the magnitude and associated factors of early sexual initiation among governmental preparatory school students in Addis Ababa, 2014.

Methods

Study design and area

An institution based cross-sectional study was conducted in the capital city of Ethiopia, Addis Ababa from February to March, 2014. The city is subdivided in to 10 sub cities. According to 2007 Population and Housing Census of Ethiopia; the total population of the city was about 3,147,000 [20]. There are 17 preparatory schools which have both grade 11 and 12 in the city of Addis Ababa according to Addis Ababa Education Biro annual report in 2013 [21]. All governmental preparatory school students attending their education in the city were source population. All selected governmental preparatory school students attending their education during the study period were study population.

Sample size and sampling procedure

The sample size was determined by using single population proportion formula by taking z=1.96 confidence limits of the survey result (with 95% level of certainty), W=margin of error (5%), P=proportion of early sexual practice among adolescents 25.8% [18], nonresponse rate=10%, design effect of 2, the Total sample size were 650. Multi-stage random sampling method was used for the selection of study participants. Addis Ababa city have ten sub cities. Six schools from six sub cities were selected randomly. A proportional sample were taken among grade 11th and 12th in each school, then sections from each grade were selected by simple random sampling based on the average total number of students in each sections. The total number of students found in six schools was taken and proportional sample size was calculated for each school so as to give the total sample size. Finally students from selected sections were selected using simple random sampling method. Students who were severely ill during data collection, out of schools/dropouts/and unable to fill the questionnaires were excluded from the study.

Variables

The dependent variable was early sexual initiation (heterosexual intercourse before 18 years of age). The independent variables were: Socio demographic variables (age, sex, religion, ethnicity, family income, parent's educational status), Peer influence, Exposure to pornographic medias, Living arrangement, Parental monitoring, Permanent Pocket money, Substance use (alcohol, Chat and drugs), Visiting night clubs/Day parties

Data collection procedure and quality assurance

A structured self-administered questionnaire was used for this study. It was prepared in English, translated to Amharic (local language) and then translated back to English to check for consistency. The data collection instrument were adopted and modified from standard data collection tools prepared by WHO One environmental health officer supervisor and five data collectors who had completed 12th grade, having previous experience in data collection were recruited. The schools were communicated and pre-test was done in Addis Ababa in the week before data collection. One day intensive training was given to data collectors and the supervisor to make them familiar with the objective and the methodology of the research before the pre-test was undertaken. The data collection process was closely followed on day-to-day data bases and ensured completeness and consistency of the collected questionnaire daily.

Data processing and analysis

Each questionnaire was given a unique code. Data entry template was prepared and data were entered into Epi-info version 3.5.1. Any errors identified were corrected after revision of the original data using the code numbers given to the questionnaires. Data were cleaned for inconsistencies and missing values and analysed using SPSS version 16.0 statistical software. Frequencies and percentages were computed for description of the study population in relation to relevant variables. Significance was determined using crude and adjusted odds ratios with 95% confidence interval. To assess the association between different predictor variables with the dependent variable, first bi-variable relationships between each independent variable and outcome was investigated using a binary logistic regression model. Those independent variables found to be significant at $p<0.2$ at the bi-variable level were included in a multivariable logistic regression model for each dependent variable to control for potential confounding variables. In the final model significance was declared at p-value of less than 0.05

Ethical Consideration

Ethical clearance for the proposed study was obtained from Debre Markos University College of medicine and health science institutional research ethical review committee and supporting letter was also be obtained from Addis Ababa Education Biro after the approval of research proposal. The purpose and importance of the study were also explained to the participants. Data was collected after full informed verbal consent was obtained and confidentiality of the information was maintained throughout and their privacy was kept.

Results

Socio demographic characteristics of the participant

Six hundred thirty six students of the total 650 sample size completed the questionnaires making the response rate of 97.85%. Among 636 participants, 283 (44.5%) and 353 (55.5%) were males and females, respectively. The mean age of the respondents was 17.86 (SD 0.97) with mean age of 17.92 (SD 1.09) for males and 17.82 (SD 0.86) for females. They were in the age group 16-24 as shown in Table 1.

	Characteristics	Frequency (N=636)	Percentage
Sex	Male	283	44.5
	Female	353	55.5

Age in years			
	<18	526	82.7
	≥18	110	17.3
Ethnicity			
	Amhara	306	48.1
	Tigre	86	13.5
	Oromo	90	14.2
	Gurage	81	12.7
	Others	73	11.5
Grade			
	11th	335	52.7
	12th	301	47.3
Religion			
	Orthodox	476	74.8
	Protestant	68	10.7
	Others	92	14.5
Living arrangement			
	With both parents	329	51.7
	Mother or father only	139	21.9
	Other relatives	168	26.4
Permanent pocket money			
	Yes	120	18.9
	No	516	81.1
Father's education level			
	Can't read and write	32	5
	Read and write	78	12.3
	Elementary (Grade 1-8)	152	23.9
	Secondary (Grade 9-12)	155	24.4
	College and above	219	34.4
Mother's education level			
	Can't read and write	67	10.5
	Read and write	118	18.6
	Elementary (Grade 1-8)	150	23.6
	Secondary (Grade 9-12)	166	26.1
	College and above	135	21.2

Table 1: Socio demographic characteristics of governmental preparatory school student, Addis Ababa, March 2014.

Sexual initiation

One hundred sixty one (25.3%) reported ever had early sexual initiation of which 82 (50.9%) of males and 79 (49.1%) of females. The mean age at first sexual initiation was 16.03(SD 1.34) having 15.93 (SD 1.33) for male and 16.14 (SD 1.34) for females. From all sexually active adolescents, 6 (7.3%) of males and 2 (2.5%) of females had their first sexual intercourse before the age of 14 years. The majority of the adolescents 145 (90.1%), (48.3% of boys and 51.7% of the girls) had their first sexual intercourse between the ages of 15 and 17 years. Thirteen (2%) of the students had ever had experienced sexually transmitted infection (STI). Among the participants of this study, the majority reported curiosity as their reason for early sexual initiation (53.40%) followed by romantic movies (28.60%), cheated (24.80%), for love (24.80%) and because of my age (21.70%) respectively. Among sexually active respondents, fifty one (31.7%) reported that their early sex was planned and 110 (68.3%) was reported that their early sex was unplanned. Fourteen (8.7%) respondents were reported that their early sex was forced, 129 (80.1%) not forced and 18 (11.2%) don't remember. In addition, eleven (13.9%) respondents reported ever having pregnancy and all (100%) were reported as unwanted pregnancy and they aborted induced. The mean age of first pregnancy was reported as 16.27 (SD 0.79).

Factors associated with early sexual initiation

Respondents were asked about parental monitoring regarding their relationship with opposite sex friends, 283(44.5%) reported that they had parental monitoring, 230 (36.2%) reported that they had no parental monitoring and 123 (19.3%) said they don't know that whether their parent monitors them or not. They were also asked about parental monitoring, 446 (70.1%) reported that their parents know where they are when they are out of home, and 190 (29.9%) said that their parents don't know where they are. In addition, 364 (57.2%) of the respondents said that their parents know with whom are they with when they are out of home.

Among respondents participated in the study, one hundred seventy three (27.2%) comprising 104 (60.1%) males and 69 (39.9%) females reported ever visiting night club or day party. Of these 15 (8.7%) of them visit parties usually, 65 (37.6%) sometimes and 93 (53.7%) on holidays. Among all the respondents, four hundred eighty six (76.4%) were reported that they encounter peer pressure to engage in sexual practice.

Non sexual risk behaviours

Adolescents were asked for their experience of non-sexual risky behaviours. More than 12% of adolescent students have used drugs. The most abused drug was Khat (83.3%). Sixteen (20.5%) of drug users said that they have used drugs to enhance their sexual feeling or have a strong desire for sex after using drugs. The mean age of first viewing pornographic materials was 14.95 (SD 1.85). Other non-sexual risk behaviours are also displayed below in Table 2.

	Characteristics	Frequency (N=636)	Percentage
Used drugs	Yes	78	12.3
	No	558	87.7
Type of drugs (n=78)*	Heroin/ Cocaine	8	10.3
	Khat	65	83.3
	Hashish/ Mariwana	30	38.5
	Benzene	2	2.6
	Others	69	88.5
Have strong desire for sex after drug use (n=78)*	Yes	16	20.5
	No	62	79.5
Alcohol drink	Yes	214	33.6
	No	422	66.4
Age at drinking alcohol (n=631)*	Less than 18 years	618	97.9
	Greater or equal to 18 years	13	2.1
Usually had sex after drink alcohol (n=214)*	Yes	19	8.9
	No	195	91.1
View pornographic materials	Yes	339	53.3
	No	297	46.7

Age at viewing pornographic materials (n=339)*	Less than 18 years	321	94.7
	Greater or equal to 18 years	18	5.3
Type of pornographic materials viewed (n=339)*	Magazine	38	11.2
	Films & videos	291	85.8
	Pictures	150	44.2
	Others	3	0.9
*Sample size varies due to missing responses. Analysis was done for valid cases.			

Table 2: Non-sexual risk behaviours among governmental preparatory school students in Addis Ababa, March 2014.

Multivariable analysis

Variables which were associated with early sexual initiation of students in the bi-variable analysis were entered in to multivariate analysis to control for confounder and to come up with the major predictors for early sexual initiation of students. After doing this the variables which were consistently associated with sexual activity of students were, sex AOR=0.53; 95% CI (0.30-0.94), visiting night or day party AOR=4.00; 95% CI (2.25-7.13), using drugs AOR=5.23; 95% CI (2.40-11.39) and viewing pornographic materials AOR=2.84; 95% CI (1.43-5.65).

Male adolescents were less likely to report early sexual initiation than the females' one and students who visit day or night parties were 4 times more likely to initiate early sexual practice when compared to the student who didn't visit as shown in Table 3.

Variables	**Early sexual initiation**		**COR with 95% CI**	**AOR with 95% CI**	**P**
	Yes	**No**			
Sex					
Male	82	201	1.42 (0.99-2.03)	0.53 (0.30-0.94)	0.03
Female	79	274	1.00	1.00	
Grade					
11th	71	264	0.63 (0.44-0.90)	0.74 (0.44-1.25)	0.26
12th	90	211	1.00	1.00	
Permanent pocket money					
Yes	45	75	2.07 (1.36-3.2)	1.47 (0.75-2.89)	0.27
No	116	400	1.00	1.00	
Ever visit Night/ Day party					
Yes	96	77	7.63 (5.13-11.37)	4.00 (2.25-7.13)	0.001
No	65	398	1.00	1.00	
Pressure from friends to have sex					
Not at all	98	388	0.35 (0.24-0.52)	1.05 (0.57-1.95)	0.88
Yes	63	87	1.00	1.00	
Encouraged by peers to be engaged					
Yes	87	197	1.66 (1.16-2.38)	0.71 (0.40-1.24)	0.23
No	74	278	1.00	1.00	
Close friends sexual practice					

None of them	23	109	0.11 (0.03-0.45)	0.33 (0.05-2.20)	0.25
Few of them	37	99	0.19 (0.04-0.79)	0.35 (0.06-2.24)	0.27
Half of them	26	42	0.31 (0.07-1.35)	0.43 (0.07-2.80)	0.37
Most of them	40	39	0.51 (0.12-2.20)	0.68 (0.11-4.44)	0.69
All of them	6	3	1.00	1.00	
Ever used drugs					
Yes	59	19	13.88 (7.93-24.30)	5.23 (2.40-11.39)	0.001
No	102	456	1.00	1.00	
Ever drink alcohol					
Yes	108	106	7.10 (4.79-10.51)	1.27 (0.65-2.47)	0.48
No	53	369	1.00	1.00	
Ever viewed pornographic materials					
Yes	136	203	7.29 (4.59-11.59)	2.84 (1.43-5.65)	0.003
No	25	272	1.00	1.00	

Table 3: Association between early sexual initiation and other independent variables, Addis Ababa, March 2014.

Discussion

This institution based study has attempted to assess factors of early sexual initiation among in-school students of governmental preparatory school in Addis Ababa. The study participants were school adolescents found in Addis Ababa during study period from February to March, 2014.

This study identified that 25.3% of study participant in the study had early sexual intercourse. From those who had sexual intercourse about 70.2% had sex in the past one year. This finding agrees study conducted in Dessie of Ethiopia [16]. The mean age at sexual initiation was 16.03 (SD 1.34) with males initiate sex earlier with mean age at sexual intercourse of 15.93 (SD 1.33) followed by females 16.14 (SD 1.34) years. The EDHS 2005 showed median age of women at first sex was 16.1 years which is almost the same to the finding of this study [13]. The mean is also lower than study conducted in North East Ethiopia which was 16.8 and much lower than other study conducted among Jigjiga university students [17,18]. It is approximately the same to one study done in South Africa which states the mean age at sexual debut was 16.4 years for males and 16.8 years for females; and also 50% of males and 47% of females had early sex which is near the same to the finding of this study [11].

The percentages of young women who have had sexual intercourse before ages 15 and 18 have decreased somewhat since the 2005 EDHS and this study inconsistently related to EDHS 2011 which states 39% of young women and 13% of young men had had sex before age 18. 13 But, around 29% of males and 22.4% of females were found to be early sexual initiators in this study. This difference might be due to the scale of the survey and the characteristics of the study participants. A total of 339 (53.3%) of all respondents and 136 (21.4%) of them who had early sexual intercourse at the time of survey had watched pornographic materials. Multivariable analysis shows students who watched pornographic materials were 2.8 times more likely to engage in early sexual activity than who didn't watch. This finding was slightly lower than a study in East Ethiopia Jigjiga university students which were 5.9 times more likely [17].

More than 59% of respondents who had early sexual initiation visit night clubs/day parties or carnivals and students who visit night clubs or day parties were found 4 times more likely to report early sexual intercourse compared to students who didn't visit. This result is in agreement with that obtained in a study done in Nekemte town of Ethiopia which identified that alcohol use towards early sexual intercourse had no association with early initiation of sexual intercourse. But, it is inconsistent with the study with regard to gender that being male is less likely to report early sexual initiation when compared to females in this study unlike to the study in Nekemte town [15]. This difference might be due to the population characteristics of the areas. As of the study, due to sensitivity of the problem under reporting of their actual experience can't be ruled out.

In conclusion, there was high prevalence of early sexual initiation among adolescent students. Sex, visiting night/day parties, using drugs and viewing pornographic materials were identified as the main factors associated with early sexual initiation of students. Using drug was found to be the strongest predictor of early sexual initiation according to the study. Government bodies and other stakeholders should give due emphasis in educating adolescents on the bad side of drug use and night or day parties. School administrations should organize and strengthen reproductive health clubs. Radio stations and other Medias should participate in building this young generation as it contributes to the country development.

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