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PREMARITAL SEXUAL PRACTICE AND ITS ASSOCIATED FACTORS AMONG HIGH SCHOOL ADOLESCENTS IN KOLFE KERANIYO SUB CITY, ADDIS ABABA, ETHIOPIA: A CROSS SECTIONAL STUDY

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ABSTRACT

Back ground: Adolescents comprise of individuals between the age group of 10–19 years. In Ethiopia, adolescents in the age range of 15-24 comprise 30% of the population that represent a huge segment of potentially vulnerable population. They are at high risk for practicing risky sexual behaviors which result in STIs including HIV, unplanned pregnancy and abortion which can lead them to death, disability, high girls dropping rate of schools.

Objective: To assess the premarital sexual practice and its associated factors among high school adolescents in Kolfe Keraniyo sub city, Addis Ababa from January to February, 2014.

Methods: Kolfe Keraniyo is a sub city of Addis Ababa. There are 30 high schools in the sub city. A cross-sectional study design was used. The study subjects were adolescents of five High schools in the sub city by using simple random sampling technique. All students enrolled in the regular day program and aged 15-19 years were included. The total sample size was 631.

Result: The premarital sexual practice among high school adolescents was 19.8% and 84(70%) of them had practiced sex in past 12 months. The main reason reported for initiation of premarital sexual practice was peer pressure which accounted 37 (30.8%). Premarital sexual practice was strongly associated with having pocket money [AOR= 3.035 95% CI (1.594-5.781)], watching pornography [AOR=2.385 95% CI (1.262-4.509)], having close friends experienced in premarital sex [AOR=4.524; 95% CI (2.505-8.509)], alcohol drinking [AOR=4.069; 95% CI (2.070-7.998)] and having boy or girl friend [ARO=2.341 95%CI (1.355-4.044)].

Conclusion and Recommendations: According to the findings of this study, the practice of premarital sex among high school adolescents was 19.8%, hence its associated factors were peer pressure, having pocket money, watching pornography, drinking alcohol, having boy or girl friend and students whose close friends experienced in premarital sex. Therefore, to halt this problem, school peer reproductive education should be strengthened and should provide comprehensive, accurate and timely information on sexual issues and sexually explicated materials, and parents should monitor how they are utilizing their pocket money.

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INTRODUCTION

Adolescents comprise of individuals between the age group of 10–19 years old (WHO/UNFPA/UNICEF, 1999). About 1.7 billion people of the world's population are between the ages of 10 and 24 (UNFPA, 2011). These teenagers are tomorrow's parents (Dawud, 2003).

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However, they are at high risk for practicing risky sexual behaviors (Alamrew *et al.*, 2013). Report from USA showed that 46% of school youths had ever had sexual intercourse and 34% had sexual intercourse during the previous three months. From this, 39% did not use condom last time they had sex and 77% did not use any birth control to prevent pregnancy During the last time sexual practice they had. About 14% had sex with four or more people during their life (<http://www.cdc.gov/>. 2011 and Chapman *et al.*, 2010). The World Health Organizations (WHO) has reported that young people aged 15-24 accounted for an estimated 45% of new HIV infections

worldwide (Dorothy, 2009). Sub-Saharan Africa remains most severely affected with HIV and accounted for 69% of the PLWHA worldwide (Selassie *et al.*, 2013). Other studies in Sub Saharan Africa revealed that adolescents were also tending to engage in having multiple sexual partners, concurrent sexual partners and unprotected sexual intercourse (Gavin *et al.*, 2006; HIV/AIDS, 2008-2009 and Chapman *et al.*, 2010). In Ethiopia, adolescents in the age range of 15-24 comprise 30% of the population that represent a huge segment of potentially vulnerable population (Cooper, 2002). An increasing number of them increase the probability of undesired health outcomes or negative consequence associated with sexual contact like STIs including HIV, unplanned pregnancy and abortion which can lead them to death, disability, high girls' dropping rate of schools and face the serious responsibilities of parenthood. Besides, it also increases other risky behaviors like having multiple partners, early sexual initiation and failure to discuss risk topics with partner and inability to use protective methods like condom (Alo, 2008 and Ethiopian Demographic and Health Survey 2011).

According to report of Ethiopian Demographic and Health Survey (EDHS), among women age 25-49, 29 % had first sexual intercourse before age 15 (Ethiopian Demographic and Health Survey 2005). Early sexual debut increases young peoples' risk for STIs. Youth who begin early sexual activity are more likely to have high risk sex or multiple partners and are less likely to use condoms (FDRE, HAPCO, 2006). In Ethiopia, HIV prevalence in the 15-24 age groups is 8.6%.7 the commonest mode of HIV infection is heterosexual contact accounting 87% (Cooper, 2002 and Exavery *et al.*, 2011). Different studies were conducted in Ethiopia to determine the prevalence of premarital sex & contributing factors among high school and college youths. However, as far as we reviewed the literatures, there are few data on premarital Sexual practice among high-school adolescents, particularly in urban settings and capital city of the country. Therefore, the overall aim of this study was to assess the current premarital sexual practice and its associated factors among high school adolescents, in the Kolfe Keraniyo sub city, Addis Ababa, Ethiopia.

MATERIALS AND METHODS

Study setting

Kolfe Keraniyo is a sub city of Addis Ababa. In the sub city, there are 30 high schools including 16 privet, 8 public, 4 religious, 1 Compassion (NGOs), and 1 share Company. A cross-sectional study design was used. The data collection period was from January 1 to February, 2014.

Study Participants

All regular day time students enrolled in all high schools of Kolfe Keraniyo sub city were the source population and, all regular day time students of 5 randomly selected high schools & aged 15-19 years were included in the survey as the study population. A multi-stage sampling technique was employed. Those students who were not able to complete the questionnaire due to visual impairment were excluded. First

the sub city was selected randomly, and then the schools were stratified. From each stratum one school was selected by using simple random sampling method. Sample was assigned to each school and proportional to the size of the population. The number of sampled students was calculated from each school and divided in to grades, (9th up to 12th). Among all sections, 40 sections were randomly selected (20 from Governmental school, 8 from shared company school, 4 from compassion school, 4 from privet school and 4 from religious school) and the samples assigned to each school distributed proportionately by section. To determine sample size, the single population proportion formula was used and the total calculated sample size was 631.

Data collection procedures

Data was collected using a pre-tested structured self-administered questionnaires adopted from different literatures. The questionnaire was first prepared in English, then translated into the Amharic language, and then translated back to English to maintain its consistency. The data collectors and supervisors were trained about the objective of the study and the importance of data quality before data collection for one day. Then pre-testing was conducted in 5% of the sample. Those vague and difficulty words and statements were rephrased and corrected. Besides, the principal investigator and supervisors have checked accuracy and completeness of data in a daily basis.

Measurements

Premarital Sexual practice was the "outcome variable" which is defined as having penetrative vaginal sex with opposite sex before marriage. Other variables were adopted from different literatures published before. These include socio-demographic variables, peers' attitude and practice/influence related variables, sexual behavior, family structures such as co-residence and parental communication related characteristics, Variables related to substance & alcohol use, having boy/girl friends and friends engaged in premarital sex & watching pornographic film.

Data processing and analysis

Data was cleaned, coded, entered into statistical software called EPI INFO version 3.5.1 and analysis was done using SPSS version 20.0. Univariate and multivariate analyses were carried out to determine the factors associated with premarital sexual practice among high school adolescents premarital sexual practices. A P-value < 0.05 were considered as statistically significant.

Ethical consideration

Ethical clearance was obtained from Institutional Review Board (IRB) of University of Gondar Faculty of Medicine Ethical Committee. Written consent was also obtained from Addis Ababa and Kolfe Keraniyo sub city educational Bureau. Prior to actual data collection, the study subjects were informed about the purpose, risks and benefits, and confidential nature of the study. Participation was voluntary and declining participation would not bring any adverse consequences on their education.

RESULTS

Socio Demographic and Economic characteristic of the study participants

A total of 606 school adolescents were participated in the study and gave a response rate of 96%. Among them 282(46.5%) were male and 324(53.5%) were female. One hundred eighty (29.7%) of them were 18 years old. Regarding level of education, two hundred seven (34.2%) were attending grade 11 during the time of survey. All respondents 606(100%) were unmarried and above half of the respondents 364 (60.3%) were Orthodox by religion & 217 (35.8%) were Amhara by ethnicity. More than a half of the respondents 387 (63.9%) reported having pocket money. 392 (64%) of the respondents were attending public school (Table 1).

Table 1. Socio-Demographic & Socio-Economic characteristics of high school adolescents, in Kolfe Keraniyo sub city, Addis Ababa, 2014

Variable	N=606	(%)
Sex		
Male	282	46.5
Female	324	53.5
Age in year		
15 Years	82	13.5
16 years	95	15.7
17 Years	170	28.1
18 years	180	29.7
19 years	79	13.0
School		
Public school	392	64.7
Shared company school	121	20.0
Compassion school	33	5.4
Privet school	25	4.1
Religious school	35	5.8
Grade level		
Grade 9	90	14.9
Grade 10	120	19.8
Grade 11	207	34.2
Grade 12	185	31.2
Religion		
Orthodox Christian	364	60.3
Protestant	81	13.4
Muslim	146	24.1
Catholic	12	2
Others	3	0.5
Ethnic group		
Amhara	217	35.8
Oromo	147	24.3
Gurage	134	22.1
Tigre	42	6.9
Other(Wolaita, Hadiya etc)	66	10.9
Permanent place of residence		
Addis Ababa	594	98
Out of Addis Ababa	12	2
Having pocket money		
Yes	387	63.9
No	219	36.1
Working for payment and income.		
Yes	46	7.6
No	560	92.4

Parental communication with study participants

Two hundred thirty two (38.3%) of study subjects had easily communicated with their father easily about other parts of life and 488(83.4%) never discussed about sex related issues with

their father and 468(77.7%) also never discussed sex related issues with their mother.

Table 2. Parental communication and relationship with their high school adolescents in Kolfe Keraniyo sub city, Addis Ababa, 2014

Variables	(N=606)	(%)
Communication with father about other issues		
Very easy	132	21.8
Easy	232	38.3
Difficulty	116	19.1
Very difficult	126	20.8
Discussion of sexuality issues with father		
Often	8	1.3
Occasionally	110	18.2
Never	488	80.5
Discussion of sexuality issues with mother		
Often	20	3.3
Occasionally	118	19.5
Never	468	77.2
Discussion sex related issues with (relatives, friends etc)		
Often	49	8.1
Occasionally	308	50.8
Never	249	41.1

Sexual behavior of the study participants

One hundred twenty (19.8%) adolescents had premarital sexual intercourse and 84 (70%) of them were practiced sex in past 12 months and from those students practiced premarital sex, 72 (60.0%) of them were males. The median age at first sexual intercourse was 16 years. Forty three (35.8%) study subjects who had premarital sex were grade 12th. Among those participants experienced premarital sex, 43 (36%) of them had sex with students. Among those who had premarital sex, only 47(39.2%) of them used condom during their first sex& 19(26.1%) of them encountered STIs and 10(13.7%) unwanted pregnancy. Concerning the number of sexual partner, 61 (72.6%) of them had only one sexual partner in the past 12 months prior to the survey.

Table 3. Sexual behavior of high school adolescent in Kolefe Keraniyo sub city, Addis Ababa, 2014

Variables	Frequency	Percentage
Premarital sex ever practiced (N=606)		
Yes	120	19.8
No	486	80.2
First Sexual partner (N= 120)		
Student	43	36
Boyfriend	36	30
Girl friends	36	30
Teacher	2	1.7
Commercial sex worker	3	2.5
Number of sexual partner in the past 12 months (N=84)		
One sexual partner	61	61.0
Two and more sexual partners	23	39.0

The reasons reported for initiation of premarital sexual practice

The main reason reported for initiation of sexual intercourse was peer pressure which accounted 37 (30.8%) among all mentioned reasons.

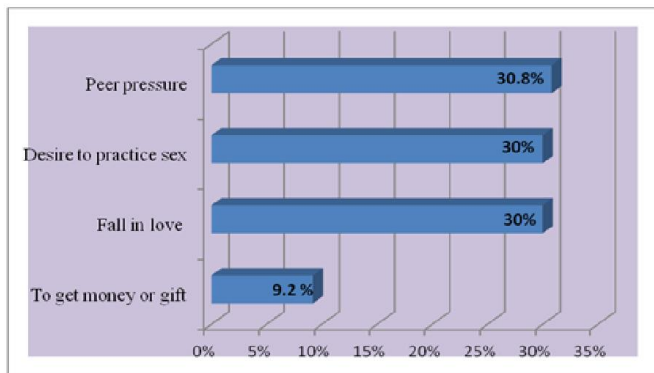


Fig.1. The reasons reported for initiation of premarital sex among high school adolescents in Kolfefe Keraniyo sub city, Addis Ababa, 2014

Adolescents who were drinking alcohol were four times engaged in premarital sex practice [AOR= 4.069, 95% CI (2.070-7.998)] compared to their counterparts. Similarly, those who had boy or girl friends were almost two times more likely practiced premarital sex [AOR= 2.341, 95% CI (0.1355-4.044)] compared with those had no boy or girl friends..Those students who were watching pornography movies were [AOR= 2.385, 95% CI (1.262-4.509)] two times more likely practiced premarital sex compared to those didn't watch pornography film. Having pocket money was found to be [AOR= 3.035(1.594-5.781)] three times more likely practice of premarital sex than those did not have and Those students whose close friends practiced premarital sex were [AOR=4.524 95%; CI (2.505-8.509)] four times more likely to be engaged in premarital sex compared with those adolescents whose friends didn't experience premarital sex.

Table 4. Premarital sexual practice & its associated factors among high school adolescents in Kolfe Keraniyo sub city, Addis Ababa, 2014

Variables	Premarital sexual practice		COR (CI 95%)	AOR (CI 95%)	P.Value
	Yes	No			
Sex					
Male	72(11.9%)	210(34.9%)	1.971(1.312-2.961)	1.156(0.663-2.017)	0.067
Female	48(8%)	276(45%)	1		
Age					
15 years	3(0.5%)	79(13.3%)	1	1	
16 years	22(3.6%)	73(12%)	0.126(0.036- 0.439)	0.087(0.018-0.426)	0.030
17 years	27(4.5%)	143(26%)	0.201(0.59- 0.684)	0.124(0.024-0.645)	0.130
18 years	43(7.1%)	137(22.6%)	0.121(0.036- 0.403)	0.640(0.120-0.345)	0.253
19 years	25(4.1%)	54(8.9%)	0.082(0.82-0.285)	0.042(0.007-0.241)	0.152
Grade					
Grade 9	9(1.5%)	81(13.4%)	1	1	
Grade 10	28(4.6%)	92(15.2%)	0.365(0.163-0.819)	1.017(0.330-3.135)	0.371
Grade 11	40(6.6%)	167(27.5%)	0.464(0.215-1.002)	2.164(0.652-7.174)	0.131
Grade 12	43(7.1%)	146(24.5%)	0.377(0.175-0.813)	3.107(0.857-11.258)	0.101
Having pocket money					
Yes	96(15.8%)	291(48%)	2.68(0.230-0.605)	03.035(1.594-5.781)	0.001*
No	24(4%)	195(32.2%)	1	1	
Having boy or girl friend					
Yes	76(12.5%)	165(27.2%)	3.360(2.217-5.094)	2.341(1.355-4.044)	0.002*
No	44(7.3%)	321(53%)	1	1	
Drinking alcohol					
Yes	60(10%)	51(8.4%)	8.53(5.381-13.520)	4.069(2.070-7.998)	0.000*
No	60(10%)	435(71.8%)	1	1	
Chewing 'khat'					
Yes	34(5.6%)	39(6.4%)	4.531 (2.709-0.7.580)	1.524(0.749-3.102)	0.245
No	86(14.2%)	477(62.2%)	1	1	
Having close friend who had sex					
Yes	91(15.1%)	142(23.4%)	7.6 (4.792-12.059)	4.524(2.505-8.509)	0.000*
No	29(4.8%)	344(56.8%)	1	1	
Ever watched pornography films					
Yes	94(15.5%)	211(34.8%)	4.712(2.945-7.538)	2.382(1.262-4.409)	0.007*
No	26(4.3%)	275(45.4%)	1	1	

Factors associated with premarital sexual practice

In binary logistic regression analysis variables such as age, gender, grade level, having pocket money, working students for own income, having boy/girlfriend, alcohol consumption, chewing 'Khat', students watching pornography and peer alcohol drinking habit and experienced in premarital sex were found to be significantly associated with premarital sexual practice. In multiple logistic regression analysis the following variables were found to have statistically significance association with premarital sexual practice: alcohol consumption, having boy or girl friend, watching pornography film, having pocket money, and having peer experienced in premarital sex practice showed association.

DISCUSSION

In this study, the prevalence of premarital sexual practice was 19.8% and 84(70%) of study participants were found to practice sex in past 12 months. The main reason reported for initiation of premarital sex was peer pressure which accounted 37 (30.8%). Premarital sexual practice showed statistically significant association with: age, having pocket money, alcohol drinking, having boy or girl friend, watching pornography film and peer experienced in premarital sexual had shown association. Among those who had premarital sex practice, 120(19.8%), only 47(39.2%) of them used condom during their first sex & 19(26.1%) of them encountered STIs

and 10(13.7%) unwanted pregnancy. The prevalence of premarital sexual practice of this study was a bit lower than previous studies conducted in Tanzania (37.5%), in Ethiopia, Eastern Harargeh (24.8%) and Nekemet (21.5%) (Seme and Wirtu, 2008; Oljira *et al.*, 2013 and Kapamadzija *et al.*, 2010). The possible explanation could be having better awareness about sexual & reproductive health and there might be difference in methods of data collection technique and study design. In teenagers' lives sexuality is often believed as a vital aspect and it is influenced by behavior of peers, this has positive effect on the prevalence of premarital sex. The finding of this study showed that 75.8% of adolescents who had friends practicing premarital sex had chance of practice than the others which was 4.2%. Similarly, the finding of a study in Nepal agreed with this finding which means 60% Vs 15% (Madkour *et al.*, 2010; Adhikari and Tamang, 2009 and Oladepo and Fayemi, 2011). This might be since sexuality is sensitive issue that is considered as a taboo, discussing with peer could be easier than discussing with the parents.

In this study adolescents who drink alcohol were more prone to practice premarital sexual intercourse than their counterparts. This finding was supported by similar studies in other parts of Africa countries, Nigeria and Ethiopia (Tilahun and Ayele, 2013 and Wang'eri and Otanga, 2013). The reason might be due to loss of realization of mind induced by drinking alcohol. The results of study in Nekemet revealed that adolescent who had first sexual intercourse before age 15 accounted 0.7%. Similarly, other study showed that (8.3%) of them had first sexual intercourse before the age of 15 years among those high school adolescents. But the result of this study alarmingly revealed that 81% of students reported having first sexual practice at the age of 15-17 years which was much higher than findings of previous studies (Oljira *et al.*, 2013; Wang'eri and Otanga, 2013 and Luke *et al.*, 2011). The possible reasons could be the respondents of this study were sampled from the capital city of the country; they were well accessible for social media, sexually explicated materials and different kind of substances including alcohols.

According to the finding of this study, 50.3% students were watching pornography which was higher than the study in Gammo Gofa (15%). The possible reason might be location of study area. Thus, globalization has facilitated the shifting of perceptions of sex as a part of procreation due to sharing of cultures through media and this has an influence on adolescent sexual behaviors. Alcohol consumption of students in this study was 18% which was relatively lower than the finding of Gammo Gofa. This discrepancy might be majority of them live 405(66.8%) with both parents. Parental monitoring could be protective factor (Tilahun *et al.*, 2013). Those students got pocket money more likely engaged in premarital sex compared to students couldn't get pocket money. This is also supported by another study done in Eastern part of Ethiopia (Oljira *et al.*, 2013). This could be because those students who got money might have opportunities to drink alcohol or enjoy with their friends.

Conclusion

According to the finding of this study, the practice of premarital sex among school adolescent was 19.8%, which

was a bit lower than the previously reported studies. Peer pressure, having pocket money, watching pornographic movies, students whose close friends had experience of premarital sex, consuming alcohol and having boy or girl friend were still contributing for initiation of premarital sex practices.

Recommendations

- Parents should have free discussion forum with their adolescent children about sexuality, sexual health and know how they manage their pocket money.
- The parents should also advise their children about the effect of sexually explicated materials including pornographic movies and alcohol drinking.
- The schools management and Mass Media should transmit messages about consequences of premarital sex practice and unsafe sex, provide age-appropriate, culturally acceptable effective sexual health education by respecting individuals' sexual diversity, and choices
- School based peer reproductive health education focusing on prevention of risky behaviors should be strengthened.

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Authors Contributions

AA, SL and MD participated in designing, conducting, performing the statistical analysis and manuscript writing.

Competing interests

The authors declare that they have no competing interest.

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