

Full Length Research Paper

Prevalence, associated risk factors and consequences of premarital sex among female students in Aletawondo High School, Sidama Zone, Ethiopia

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Youth age is the period when majority of youths become sexually active. However, majority of the youths lack sufficient knowledge about (HIV/AIDS) and other reproductive health issues. As a result, youths have multitude of reproductive problems, including HIV, other sexually transmitted infections (STIs), unwanted pregnancy, induced abortion and dropping out of school due to unwanted pregnancy. The objective of this study was to assess the prevalence, associated risk factors and consequences of premarital sex among high school female students in Aletawondo town, Southern Ethiopia 2013. A cross-sectional school-based study was conducted using a facilitator guided self administered questionnaire. Study participants were female students attending regular school classes in high schools. The percentage of youths involved in pre-marital sex and those affected by its consequence were computed. Factors associated with pre-marital sex were assessed using bivariate and multivariable logistic regression. Among the total participants (n = 413), 394 were never married. Of the 394 never married study participants, 72 (18.3%) have in premarital sex. Of these, 11 (15.3%) had unwanted pregnancy and 82% had terminated their pregnancy (induced abortion). Predictors of premarital sex were: age [AOR (95% CI) = 1.43 (1.15, 1.77)], rural family residence [AOR (95% CI) = 2.12 (1.09, 4.12)], having a boy friend [AOR (95% CI) = 4.15 (2.34, 7.36)], going to night club [AOR (95% CI) = 2.92 (1.12, 7.65)]. Significant number of girls started having premarital sex due to various factors at different levels. Therefore, comprehensive sexual education at their earlier age could help reduce the consequences of pre-marital sexual intercourse.

Key words: Premarital sex, consequences, high school, female students.

INTRODUCTION

Adolescence and youth (ages 15 to 24) is the time when majority of youths become sexually active; however,

majority of them lack sufficient knowledge about human immunodeficiency virus (HIV) transmission (Population

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Reference Bureau, 2013). As a result, youths have multitude of reproductive problems, including HIV, other STIs, unwanted pregnancy, induced abortion and dropping out of school (Tamire and Enqueselassie, 2007; WHO, 2012a). This unwanted early pregnancy is associated with increased maternal and neonatal morbidity and mortality (WHO, 2012b). Lack of access to sexual education and contraceptives is reported to be the key issue contributing to the reproductive health problems faced by youths (WHO, 2012a). About 5% of never married women in Ethiopia have had premarital sexual intercourse and 5% have had sexual intercourse within the prior one year (Central Statistical Agency, 2012).

Youths tend to be sexually active and have more sexual partners, thus putting them at greater risk of having HIV infection and unwanted pregnancy. This in turn is associated with increased maternal morbidity and mortality due to attempts for induced abortion. Moreover, due to the fact that majority of higher education students and high school students are economically insecure, they are susceptible to economic incentives that can lead to higher risk sexual practices (Lamesgin, 2013).

Previous studies in Ethiopia among students indicated that from 14 to 23.4% of female adolescents had premarital sexual intercourse (Oljira et al., 2012; Ahmed et al., 2012; Seme and Wirtu, 2008). The first sexual practices in Ethiopia are often unplanned (Mazengia and Worku 2009), increasing young peoples' risk of having HIV and other STIs. Prevalence of HIV among female youths ranges from 0.2 to 9% in the country by region (Central Statistical Agency, 2012).

Pre-marital sexual intercourse is more common among the following group of adolescents: those whose parents live in urban areas, those who receive higher pocket money per month, those who perceive low self-educational rank and those who live in rented houses (Central Statistical Agency, 2012; Oljira et al., 2012). Early sexual intercourse is also associated with chat chewing, watching pornographic movies below 18 years, living away from parents and having boyfriends (Seme and Wirtu, 2008; Mazengia and Worku, 2009). It was also reported that in Ethiopia risk of women having HIV infection is particularly exacerbated by early sexual debut, lack of comprehensive HIV/AIDS knowledge and lack of access to health care services (Lamesgin, 2013). The young age of students, long periods of physical stay in the educational environment and emotional contacts within school communities are reported to increase the collective vulnerability of these communities to HIV/AIDS (Federal ministry of Health, 2004).

In Ethiopia, most HIV related interventions targeting the general public do not respond to the needs of students, because they are considered to have adequate knowledge about HIV/AIDS and other reproductive health issues (Lamesgin, 2013). So the aim of this study is to assess the prevalence, associated risk factors and consequences of premarital sex among high school female

students in Aletawondo town, Southern Ethiopia.

METHODOLOGY

A cross-sectional school based study was conducted to determine prevalence, associated risk factors and consequences of premarital sex among female students in Aletawondo High School in 2012. Aletawondo town is located in Southern Ethiopia, at a distance of 337 km South of Addis Ababa and 64 km South of Hawassa (the capital of the region). The town had only one high school. As a result, students, whose parents reside in rural areas, live away from their parents in rented houses alone or with other peers in the town. In 2013, Aletawondo High School had 2004 female students in grades ranging from 9-12.

A sample size of 420 was estimated after fixing proportion of premarital sexual practice to be 50%, 95% CI; margin of error, 5% and none response rate, 10%. A sampling frame which contained the lists of all 2004 female students from grades 9 to 12 was developed based on the lists obtained from students' record office. Eventually, 420 students were selected using a computer generated random numbers. Data were collected using structured self-administered questionnaires prepared in the official language (Amharic). Suitability of the questionnaires was checked by conducting pretest on 5% of the study participants. Students selected randomly from the list were asked to fill the questionnaires in separate rooms during break period. Questionnaires were handed out to the students who consented to participate in the study. The study information sheet was attached with the questionnaires. Data collection was facilitated by trained supervisors. Data were collected after securing informed consent.

The collected data were entered, cleaned and analyzed using Statistical Package for Social Sciences (SPSS) version 20. Socio-economic characteristics of the study participants, magnitude and consequences of premarital sex were analyzed using frequency distribution. Predictors of premarital sex were analyzed using logistic regression model after checking major assumptions for goodness of fit test (Hosmer and Lemeshow test), outliers and interaction between independent variables. All variables which were significant at a p-value of 0.3 in the binary logistic regression model (crude) were fitted into the final multiple logistic regression model. Predictors significant at a p-value of 0.05 in the multiple logistic regression models were retained as independent predictors of premarital sex among female students.

RESULTS

Characteristics of study respondents

A total of 413 female students were included in the study with a response rate of 98.3%. The mean age of the respondents was 16.4 ± 1.38 years. A large majority of study participants (95%) were never married. Regarding residence, higher proportion of the study participants (81%) were from urban areas.

By religious affiliation, majority of the respondents (66%) were protestants, and about one fifth (21%) were orthodox. Muslims accounted for 3% of study participants. By ethnic composition, about three-fourth of respondents (79%) belong to the Sidama ethnic group, followed by Amhara (9%).

Respondents' fathers and mothers who completed

primary school and above were about 68 and 55.7%, respectively. Majority of the study participants' fathers were farmers (44%) and mothers were house wives (60%). More than two-thirds of the study participants do not get pocket money. Regarding living arrangement of the study participants, 59, 10 and 5% live with both parents friends (peers) and alone, respectively. Regarding having a boy friend, 68.8% of unmarried female students had no boy friend at the time of this survey (Table 1).

Prevalence and consequence of premarital sexual intercourse

Among 394 female students who were never married, 72 (18.3%) had premarital sexual intercourse. And 51.4% of the students who had premarital sexual intercourse did so without condom. The prevalence of premarital sexual intercourse was higher among grade 9 students, with magnitude of 83 (32.4%). When the relationship of the study population to their sexual practices was examined, about 37 (51.4%) of the study participants who had premarital sex had no boyfriends. The main reasons for having sexual intercourse were lack of confidence to refuse 26 (6.6%), peer-pressure 14 (3.6%), desire to practice sexual intercourse and falling in love 10 (2.5%), money 7 (1.8%) and rape 4 (1%).

Out of those who had premarital sexual intercourse, 15.3% of the women faced unwanted pregnancy and those with unwanted pregnancy, 82% had an induced abortion. Similarly, 19 (20.9%) reported symptoms of sexually transmitted disease such as vaginal discharge 13 (14.3%), genital ulcer 5 (5.5%) and inguinal swelling 1 (1.1%). Of 19 students with symptoms of sexually transmitted disease, 68% had vaginal discharge (Figure 1).

Magnitude of premarital sex was higher among students whose residence is in rural areas compared to their counterparts from urban areas (Figure 2).

Factors associated with premarital sex

Four predictors namely age of the respondents, having a boy friend, going to night clubs and family residence emerged as independent predictors of premarital sexual intercourse from the logistic regression analysis. Logistic regression analysis showed that the odds of premarital sex increased with an increase in age of the study participants. For every year, increase in the age of the study participants, the odds of premarital sexual intercourse increase by 33%; [AOR (95% CI) = 1.33 (1.05, 1.7)]. The odds of having a boyfriend was more than four times higher among unmarried female students who had premarital sexual intercourse than unmarried female students without premarital sexual intercourse experience [AOR (95% CI) = 4.15 (2.34, 7.36)].

Residence of parents was associated with premarital sexual intercourse, with lower odds of premarital sexual intercourse among students whose parents are in the urban area where the school is found [AOR (95% CI) = 0.41 (0.22, 0.79)]. Similarly, the odds of premarital sex was statistically significantly lower by 78% among female students who did visit night clubs [AOR (95% CI) = 0.22 (0.10, 0.45)] (Table 2).

DISCUSSION

The proportion of pre-marital sex among female high school students is consistent with similar studies conducted among high school or university students in Nekemite and elsewhere in Ethiopia (Ojjira et al., 2012; Seme and Wirtu, 2008; Molla et al., 2008). However, the notion of comparability between the Nekemite study (the zonal capital) where the proportion of female students with pre-marital sex was 21.1% and the magnitude in the current study (18.3%) should be cautiously interpreted as it appears that the latter study is more of rural in nature (Seme and Wirtu, 2008). As such, this study may corroborate with a previous study conducted in Ethiopia where there was no difference in the rate of having sex between urban and rural (Mazengia and Worku 2009). However, the pre-marital sex magnitude observed in our study is relatively much higher than the finding from a Malaysian study, conducted in 2006 (Lee et al. 2006).

Unprotected sexual intercourse was reported by more than 50% of female participants in this study. As a result, the magnitude of the negative consequences of premarital sex is much higher in this study. WHO attributes the high rate of pregnancy and its complications to lack of effective sexuality education (WHO 2012b). According to WHO, 24% of young women aged 15 to 24 years in developing regions have comprehensive and correct knowledge of HIV/AIDS (WHO 2012b). Other similar investigations have strengthened the link between reproductive health knowledge and premarital sex (Wong, 2012; Thin et al., 2013). As a result, dissemination of reliable SRH information among youths is emphasized by different authors.

The finding that significant proportion of study participants had unwanted pregnancy is supported by a study conducted among undergraduate students of Addis Ababa University, Ethiopia, where 73.5% had unwanted pregnancy and almost all were terminated through induced abortion (Tamire and Enqueselassie 2007). The higher prevalence rate of induced abortion reported in the Addis Ababa study compared to the current study could be related to differences in the study areas, where the former is mostly urban. However, the reason why proportion of unwanted pregnancy remains higher among undergraduate university students in the Addis Ababa where contraceptive methods are widely available compared to the current study conducted in a sub-urban

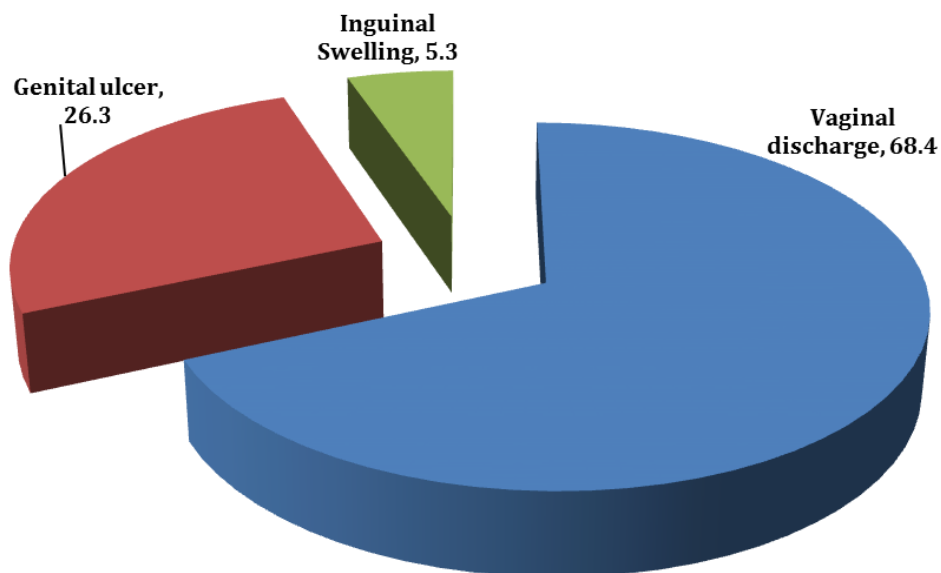
Table 1. Socio-demographic characteristics of the study participants.

Variable	Category	Frequency	Percent
Age	15-19	391	99.2
	20-24	3	0.8
Grade Level	9 th	250	60.5
	10 th	128	31
	Preparatory	35	8.5
Marital status	Single	394	95.4
	Married	19	4.6
Ethnicity	Sidama	325	78.7
	Amhara	39	9.4
	Oromo	24	5.8
	Guragae	11	2.7
	Others	14	3.4
Religion	Orthodox	86	20.8
	Protestant	273	66.1
	Muslim	13	3.1
	Others	41	9.9
Education level of Fathers	No formal education	58	14
	Read or/and write only	74	17.9
	Primary	96	23.2
	Secondary	93	22.5
	Tertiary	92	22.3
Maternal Education level	No formal education	69	16.7
	Read or/and write only	114	27.6
	Primary	91	22
	Secondary	73	17.7
	Tertiary	66	16
Students' residence	Urban	334	80.9
	Rural	79	19.1
Live with	Father	15	3.6
	Both	245	59.3
	Relative	40	9.7
	Friends	43	10.4
	Alone	22	5.3
	Other	10	2.4
Pocket money	Yes	138	33.4
	No	275	66.6
Fathers' occupation	Government employ	135	32.7
	Farmer	180	43.6
	Merchant	68	16.5
	Others	30	7.3

Table 2. Predictors of premarital sexual intercourse in Aleta Wondo Town.

Variable	Category	Premarital sex		COR 95% CI	AOR 95% CI	P-value
		Yes	No			
Students' residence	Urban	54	267	0.62 (0.34, 1.13)	0.78 (0.37, 1.65)	0.52
	Rural	18	55	1	1	
Pocket money	Yes	29	100	1.50 (0.88, 2.54)	1.43 (0.80, 2.6)	0.23
	No	43	222	1	1	
Having a boy friend	Yes	54	88	3.9 (2.39, 6.30)	4.15 (2.34, 7.36)*	0.00
	No	37	234	1	1	
Go to night club	Yes	53	296	1	1	0.00
	No	19	26	0.25 (0.13, 0.47)	0.22 (0.10, 0.45)*	
Live with parents	Yes	68	304	1.01 (0.33, 3.07)	1.43 (0.43, 4.74)	0.52
	No	4	18	1	1	
Age	15-25 years	72	322	1.2 (0.96, 1.43)	1.33 (1.05, 1.7)*	0.00
Family residence	Urban	30	191	0.49 (0.29, 0.82)	0.41 (0.22, 0.79)*	0.01
	Rural	42	131	1	1	
Mothers' education	Illiterate	36	138	0.75 (0.45, 1.25)	0.96 (0.49, 1.85)	0.90
	Primary/above	36	184	1	1	
Fathers' education	Illiterate	31	192	1.89 (1.12, 3.20)	1.71 (0.89, 3.30)	0.11
	Primary/Above	41	230	1	1	

*Statistically significant.

**Figure 1.** Symptoms of sexually transmitted infection among study participants (Aletawondo, 2013).

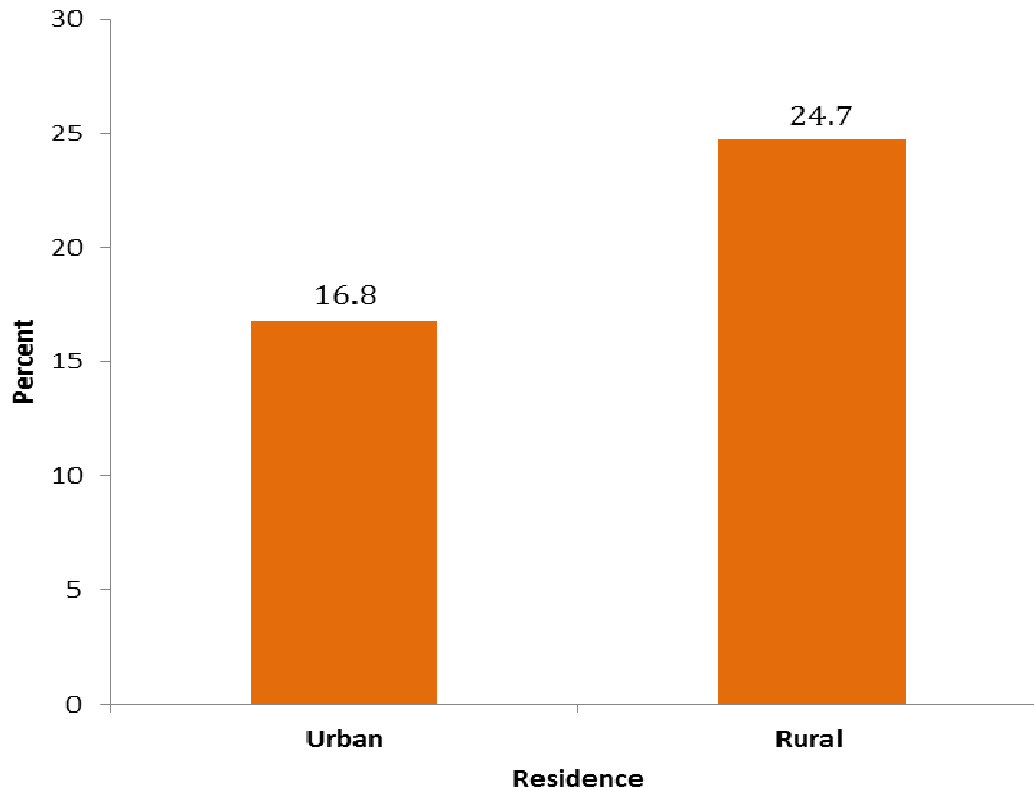


Figure 2. Magnitude of premarital sex by place of residence of study participants.
Source: Aletawondo (2013).

area among high school students with lower educational level is still a paradox. On the contrary, the influence of night clubs and peer pressure on pre-marital sexual encounter could explain the increased magnitude among the urban, like that observed in Addis Ababa.

The protective association between urban parental residence (where the school is found) and pre-marital sexual intercourse among female students could be due to the opportunity for parental monitoring and guidance. Those students whose parents live in rural areas often attend their education in rented houses in urban areas. This living arrangement provides the opportunity of being free from parental supervision so that the students will have freedom of exercising sexual issues. However, this finding is in contrast with the findings of other studies in Ethiopia (Oljira et al 2012).

Consistent with a study conducted elsewhere, the odds of pre-marital sex increased with increasing age (Khalaj et al. 2011; Gyan and Basel 2013). This finding is supported by the explanation that as age increases the exposure duration for predictors will increase.

In contrast with similar studies (Lee et al., 2006; Khalaj et al. 2011; Gyan and Basel 2013), the association between living with or away from parents and premarital sex was not statistically significant. This could be due to lower sample size for study participants who live away

from parents. As observed in similar studies conducted in Nekemte town, East of Wollega and Tehran (Seme and Wirtu 2008; Khalaj et al. 2011), having a boy friend is positively associated with premarital sex in this study. The likely reason is that as persons of opposite sex stay together during the time of fire age they will be sexually attracted and have sexual intercourse.

Consistent with many studies (Mazengia and Worku 2009; Gyan and Basel 2013), parental education (both mother and father) showed no statistically significant association with premarital sex in the current study.

Based on the potential effect of the validity of the study and its objective, data were collected using self-administered questionnaire. This attempt, however, might not totally avoid social desirability bias. The scope of our study (limited to school and female students) limits its generalizability to out-school youths and male youths.

CONCLUSION AND RECOMMENDATION

The study demonstrated that a significant number of female students are engaged in premarital sexual intercourse and suffer from its complications (unwanted pregnancy, abortion and STIs). Age of the student, having a boy friend, family rural residence and exposure to night

clubs were independent predictors of premarital sex. Thus, effective sexuality education that considers the identified predictors could help alleviate the problem. There is also a need to conduct more rigorous study that addresses out-school youths as well.

Conflict of Interests

The author(s) have not declared any conflict of interests.

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