

Full Length Research Paper

Magnitude of risky sexual behavior among high school adolescents in Ethiopia: A cross-sectional study

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Risky sexual behavior increases the likelihood of adverse sexual and reproductive health consequences such as unwanted pregnancies, unsafe abortion, and sexually transmitted infections (STIs) including (HIV/AIDS). Adolescents in sub-Saharan Africa including Ethiopia are highly exposed to various risky sexual behaviors. The aim of this study was to determine the magnitude of risky sexual behaviors among Boditti Secondary and Preparatory School adolescents. A school based cross-sectional study was conducted from March 9 to April 27, 2013 among a random sample of 508 students in Boditti Secondary and Preparatory School, Boditti town, Wolayta zone, South Ethiopia. Of 508 students surveyed, 29.1% (148); 95% confidence interval (CI) [25.2, 33.3] were sexually active. About 20.5% (104); 95%CI [17.9, 24.2] and 8.7% (44), 95%CI [6.4, 11.5] of the students had committed sex with more than one sexual partner in their life time and in six months prior to the survey, respectively. Concerning the frequency of condom use, 69%; 95%CI [59.0, 77.9] used condom with casual friends inconsistently or never. Overall, 17.9% (91); 95%CI [14.7, 21.5] were engaged in risky sexual practice for HIV. Peer pressure and need of money were the major reasons cited to have influenced adolescents' sexual activities. Student's age, living arrangement, previous HIV test experience and grade level were independent predictors of risky sexual behavior. Significant numbers of students were engaged in risky sexual behavior. Strengthening sexual education to the target groups could help reduce the consequences of risky sexual behaviors.

Key words: Magnitude, risky sexual behavior, high school, students.

INTRODUCTION

Adolescence is the time of transition from childhood to adulthood during which young people experience changes following puberty (Seme and Wirtu, 2008). The common risky sexual practices in this age group include early sexual intercourse, multiple sexual partners,

unprotected sexual intercourse, engaging in sex with older partners and non-regular partners such as commercial sex workers (Dingeta et al., 2012). Risky behaviors such as consumption of alcohol cigarette smoking or the use of illicit drugs by adolescents have been shown to be

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associated with increased risk of sexual intercourse, multiple sexual partners and lower rates of condom use (Dingeta et al., 2012).

Several factors are involved in the process of the decision for sexual experimentation among youth. Sensation seeking, impulsivity, curiosity, use of substance such as alcohol, and lack of self-regulation seem to contribute to the problem (Dingeta et al., 2012). Studies also suggested that adolescents have limited knowledge about sexual and reproductive health and know little about the natural process of puberty. This lack of knowledge about reproductive health may have serious consequences (Seme and Wirtu, 2008).

Approximately half of the new human immunodeficiency virus (HIV) infections globally occur in the age group 15 to 24 years (Dingeta et al., 2012). Many young people engage in risky sexual behaviors that can result in unintended health outcomes. Sexual risk behaviors place adolescent at risk for infection, sexually transmitted infections (STDs) and unintended pregnancy.

Early and unprotected sexual initiation can trigger harmful physical, emotional and social outcomes, especially for girls. Moreover, compared with adults, adolescents are less likely to have skills, cognitive maturity, and information needed to protect themselves from unwanted pregnancy, HIV and STIs (Dingeta et al., 2012).

According to the study conducted in among students in Agaro High School, 25% had history of sexual intercourse for the first coitus the mean age was 16.74 years. The average age for males and females were 16.45 and 16.8 years, respectively. Majority (55.6%) of those with previous sexual exposure had one partner and 35.6% had 2 to 5 partners and the remaining 8.8% students had more than 5 partners. (Girma et al., 2004).

According to a survey conducted According to a Nekemit High School, the magnitude of premarital sex stands at 21.5%. About 57.1% had their first sexual intercourse between the age of 15 and 17 years. The main motive for initiation of sexual intercourse were falling in love (33.8%), desire to practice sexual intercourse (30.3%), peer pressure (17.2%), and to get money or gifts (7.6%).

Also, the prevalence of premarital sexual practice in Addis Ababa was 39.8% for males and 5.6% for females. But, the national finding of the prevalence of premarital sex among high school adolescents was 19% (Lamesgin, 2013).

As reported in different studies, the condom use rate was very low 44.4% in Addis Ababa Ethiopia (Charrie and Berhane, 2012); 46.9% Agaro, Ethiopia (Girma et al., 2004), and 47.8% in Gondar, Ethiopia.

In Ethiopia, most STI related interventions including HIV/AIDS targeting the general populations do not spend on needs of students, because students are considered to have sufficient knowledge about HIV/AIDS and other reproductive health issues (Lamesgin 2013). Therefore, the aim of this study was to assess the magnitude of risky

sexual behavior among high school adolescents in Boditti Secondary and Preparatory School, Boditti, Southern, Ethiopia.

METHODS

A cross-sectional study was conducted to determine the magnitude of risky sexual behavior among high school adolescents in Boditti Secondary and Preparatory School in 2013. Boditti town is located in Southern Ethiopia at a distance of 370 km South of Addis Ababa and 132 km South of Hawassa which is the capital city of the Southern Nations, Nationalities and People's Region (SNNPR). Boditti town had one preparatory school. The town is divided by a high way running from Addis Ababa to Arbaminch (tourist destiny). Students with rural family residence, live away from their families in a rental house. Boditti high school had 5914 (3155 males and 2759 females) students.

A total sample size of 508 was estimated after fixing proportion of risky sexual behavior to be 50%, 95% confidence interval (CI), margin of error at 5% and none response rate at 15%.

A sampling frame which contained the lists of all 5914 students from 9 to 12 grades was developed based on the lists obtained from students' record office. Finally, 508 students were selected using a computer generated random numbers.

Data were collected using structured self-administered questionnaires prepared in the national language (Amharic). Appropriateness of the questionnaires was checked by conducting pretest on 5% of the sample. Students selected randomly from the list were asked to fill the questionnaires in the separate rooms during break time. 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. Data were collected after securing informed consent.

The collected data were entered, cleaned and analyzed using SPSS version 18. Socio economic/demographic characteristics of the study participants and magnitude of risky sexual behavior were analyzed using frequency distribution. Risky sexual behavior was defined when a student has at least one of the following: student had sex without condom with causal partner, used condom irregularly with causal partner and had more than one sex partner in the past six months. Predictors of risky sexual behavior were analyzed using logistic regression model. Model goodness of fit test was checked using Hosmer-Lemeshow statistics. All variables which were significant at a p-value of 0.25 in the binary logistic regression model were fitted into the multiple logistic regression models. Variables which were significant at a p-value of 0.05 in the final model were retained as independent predictors of risky sexual behavior among students.

RESULTS

A total of 508 students participated in the study with 100% response rate. Among them 271 (53.3%) were males. About 71.7% of the study participants were between the ages of 15 and 19 years. Majority of the participants (51.4%) have attended their primary school at rural. Regarding living arrangement, 86.4% of the students were living with at least one family member, and the rest (13.6%) were living alone. Ninety three percent of the students were never married (Table 1).

Table 1. Socio-demographic characteristics of Boditti secondary and preparatory School, Boditti town, Wolayta Zone, SNNPRS, Ethiopia.

Characteristic	Frequency	Percentage
Age		
<15	57	11.2
15-19	364	71.7
20-30	87	17.1
Sex		
Male	271	53.4
Female	237	46.0
Religion		
Protestant	282	55.5
Orthodox	103	20.3
Muslim	18	3.5
Catholic	20	3.9
Others	85	16.7
Grade level		
9th	145	28.3
10th	156	30.9
11th	132	26
12th	75	14.8
Marital status		
Single	473	93.1
Married	26	5.1
Divorced	6	1.2
Widowed	3	0.6
Living arrangement		
With parents	439	86.4
Alone	69	13.6
Get pocket money		
Yes	397	78.2
No	111	21.9

Magnitude of risky sexual behavior

From the 508 respondents, 29.1% (148); 95%CI [25.2, 33.3] ever had sexual intercourse history of which 61.5% (91); 95%CI [53.1, 69.4] had risky sexual practice. Males account for 98 (66.2%) of those who ever had sex. Overall, 17.9% (91); 95%CI [14.7, 21.5] were engaged in risky sexual practice for HIV. From those who ever had sex, most have committed their first sex with students. while few students with their boy or girl friends. The mean age of their first sex partner was 16.8 and 20.4 years for males and females, respectively. The mean age at which they started sex was similar for both males and females

16.6 ± 2 years. The first sexual debut in majority of them was when they were grade 8 or 9, which is similar for both sexes.

Majority of male students committed their first sex for the purpose of trial 39.8% followed by peer pressure (26.5%), whereas 11 (22%) females committed sex as a means to generate money.

Among respondents, 27 (5.3%), 95%CI [3.5, 7.6] had sex three and more times in the last three months prior to the study, while 48 (48.5%) had sex one to two times during the last 3 months.

About 20.5%, 95%CI [17.9, 24.2] of the respondents who committed sex had sex with two and more sexual partners in their life time. In six months prior to the study, 8.7% (44), 95%CI [6.4, 11.5] study participants committed sex with more than one sexual partner.

Among the study participants, 7 (1.3%) and 26 (5.1%) were reported of committing anal and oral sex, respectively. Out of 148 respondents who had sex, only 67.6%, 95%CI [59.4, 75] used condom. Concerning the frequency of condom use, only 20.8%; 95%CI [13.5, 30.3] used condom with regular friends and 31%; 95%CI [22.1, 41] with casual friends always.

About 215 (42.3%) of the respondents were tested for HIV, while 12 (24%) of the female respondents who had sex were tested for pregnancy. Among 40 females who were never married and ever had sex, 16 (40%) had history of pregnancy. Of these, 9 (56.3%) had abortion at health institutions, 6 (37.5%) had abortion traditionally, while only one of them had given birth.

From the 148 respondents who ever had sex, 30 (20.3%), 16 (10.8%), 10 (6.8%), and 10 (6.8%) had genital discharge, itching sensation around the genitalia, genital sore and swelling following sexual intercourse.

Factors associated with risky sexual behavior

Associated factors with risky sexual behavior were determined by fitting different predictors into logistic regression model after checking model fitness using Hosmer-Lemeshow statistics.

The study showed the odds of risky sexual behavior is lower by 68% among female students than their male counterparts, AOR [95%]; 0.32 [0.2, 0.53]. The odds of risky sexual behavior increases with an increasing age. The odds of risky sex were significantly lower among preparatory level students compared to those in secondary school level (grades nine and ten). One of the independent predictor of risky sexual behavior is the student's living arrangement. Students who live alone compared to others who live with at least one family member do have significantly higher odds of risky sexual behavior, AOR [95%]; 2.0 [1.04, 3.9]. HIV test experience of the students was found to be associated with risky sexual behavior. The odds of being HIV tested was two times higher among students who had risky sexual behavior compared to those who had no risky sexual behavior

Table 2. Factors associated with risky sexual behavior among Boditi High School students.

Variable	Risky sexual behavior		COR [95% CI]	P-value	AOR [95% CI]
	Yes [n (%)]	No [n (%)]			
Sex					
Male	65 (24)	206 (76)	1.0		1.0
Female	26 (11)	211 (89)	0.4 [0.24, 0.6]	<0.001	0.32 [0.2, 0.53]
Age					
Below 15 years	4 (7)	53 (93)	1.0		1.0
15-19 years	68 (18.7)	296 (81)	3.0 [1.1, 8.7]	0.038	4.6 [1.5, 13.7]
20-30 ears	19 (21.8)	68 (78)	3.7 [1.2, 11.5]	0.024	5.5 [1.6, 18.3]
Schooling*					
Secondary(9 &10)	63 (20.9)	238 (79.1)	1.0		1.0
Preparatory (11 &12)	28 (13.5)	179 (86.5)	0.59 [0.4, 0.96]	0.034	0.3 [0.2, 0.6]
Living arrangement					
With parents	74 (16.9)	365 (83)	1.0		1.0
Alone	17 (24.6)	52 (75.4)	1.6 [0.88, 2.9]	0.120	2.0 [1.04, 3.9]
HIV tested					
Yes	45 (20.9)	170 (79.1)	1.4 [0.90, 2.2]	0.130	2.2 [1.3, 3.6]
No	46 (15.7)	247 (84.3)	1.0		1.0
Get monthly pocket money					
Yes	69 (17.4)	328 (82.6)	1.0		1.0
No	22 (19.8)	89 (80.2)	1.18 [0.69, 2.0]	0.56	1.2 [0.68, 2.13]
Known risk of unsafe sex					
Yes	84 (18)	379 (81.9)	1:00		1.0
No	7 (15.6)	38 (84.4)	0.83 [0.36, 1.9]	0.66	0.94 [0.38, 2.33]

*Secondary (grades 9 and 10), preparatory (grades 11 and 12).

AOR [95%]; 2.2[1.3, 3.6]. However, in this study knowledge on the risk of unsafe sex and getting monthly pocket money did not show statistically significant association (Table 2).

DISCUSSION

According to this study, 148 (29.1%) of the respondents had committed sexual intercourse, of which 91 (61.5%) had risky sex. The prevalence of risky sexual behavior stands at 17.9% among the study participants. This verifies that there is slightly high prevalence of sexual intercourse when compared with a study conducted among Agaro High School adolescents, which was 25%, of these 32.6% were males (Girma et al., 2014). This higher prevalence might be due to time difference between the two studies. There is higher accessibility of romantic and pornographic films as well as wide spread

use of mobile phones nowadays.

The prevalence of premarital sex 22.2% (29.5% for males and 13.9% for females) was found to be comparable to the national finding (19%) and 39.8% for males and 5.6% for females. From another study males were more likely to be engaged in sexual activities (Siyon et al., 2010).

The mean age at first sex was 16.6 years among the study participants. This indicates that onset of sexual practice is comparable with prior study conducted among Nekemte High School adolescents which is 16.2±1.5 years for males and 15.2±1.7 years for females (Seme and Wirtu, 2008). But it is earlier when compared with prior study conducted in other countries. Also, the mean age at which a teen lost his/her virginity was 17.13 years in 2002 and 17.14 years in 2006 for girls and 18.06 for boys in Britain (Wikipedia, 2013). The reason for high prevalence of premarital sex in our case might be due to low open discussion between parents and children about

sexual matters, and for need of money.

In this study more male adolescents than females were sexually experienced, but in Burkinafaso and Ghana adolescents, more females than males, while in Malawi and Uganda more males than females were sexually experienced (Nyovani et al., 2007).

The major reasons cited to have first sexual intercourse were desire to experiment (35.1%), peer pressure (23.6%), preparation for marriage (17.6%) and need of money (16.2%), when compared with a survey conducted in Nekemte High School adolescents, which shows 30.3% for desire to experiment, 17.2% for peer pressure and 7.6% for need of money (Seme and Wirtu, 2008).

From individuals who had sex in our study, 75.7% were sexually active in the three months prior to the study, where as 41.8% were reported to be sexually active three months prior to the survey in high school students of South Carolina (Simply Stated, 2012).

In case of our survey, 70.3% of the respondents who committed sex had more than one sexual partner. But according to the study conducted among Agaro High School students, 55.6% with previous sexual exposure had one sexual partner and 44.4% of them had two and more sexual partners (Lamesgin, 2013). However, in the survey conducted in Nekemte High School adolescents, 34.5% have two or more sexual partners in 12 months prior to the survey (Seme and Wirtu, 2008). This might be because of long time difference (e.g., the research done at Agaro was conducted in 2004) between the two studies.

The condom use rate was 67.6% in our study which was higher when compared with Agaro High School study (46.9%) and out of school youth in Hawassa town (27.6%). Also, this is higher when compared with study conducted in Gondar College of Medical Sciences students (47.8%) (Kitaw and Worku, 2002).

In our study, students who live alone had two times [AOR=2.0] higher odds of being engaged into risky sexual behavior than those who live with parents. This could be due to lack of opportunity for parental monitoring and guidance. Those students whose parents live in rural areas often attend their education in rental house in urban place. This living arrangement provides the opportunity of being free from parental supervision so that the students will have freedom of exercising sexual issues.

Cognizant of the potential effect on the validity of the study pertaining to the sensitive nature of the study 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 students) limits its generalizability to out-school youths.

In conclusion, this study showed high magnitude of risky sexual behavior. Peer pressure and need of money were the major reasons for involvement into risky sexual practice. Student's living arrangement, sex, age and HIV test practice were significantly associated with risky sexual behavior.

RECOMMENDATION

Effective sexuality education could help lighten the problem. There is also a need to conduct community based behavioral survey.

Conflict of Interests

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

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