Living with parents and risky sexual behaviors among preparatory school students in Jimma zone, South west Ethiopia

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Abstract

Background: Risky sexual behavior is any behavior that increases the probability of negative consequences associated with sexual contact. Family environment, peer influence, community factors and school attachment seem an important factor affecting sexual risk behavior and decision of in-school youths.

Objective: To assess sexual risk behaviors and associated factors among students living with parents in Jimma zone preparatory schools.

Methods: A cross sectional study designs both qualitative and quantitative approaches was conducted in 5 randomly selected preparatory schools. A total of 273 students were randomly selected. Multiple logistic regressions were performed to identify the independent predictor of risk sexual behavior.

Result: One hundred fiten (42.1%) students had sexual risk bahivor. Thirty six (30.8%) student's reports they had two or more sexual partners in their lifetime. Out of 117 students, 13 (11.2%) students used condom always. One hundred one (37%) students were consumed alcohol. Higher likelihood of risky sexual behavior significantly associated with higher levels of alcohol consumption and low frequency of religious visit.

Conclusion: Alcohol consumption and religious visit were the major predictors of risky sexual behaviors. Therefore, Behavior change communication should consider family environment and other factors which predict risk sexual behaviors.

Keywords: Risky sexual behavior, living with parents, family environment

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Introduction

According to the World Health Organization (WHO), "adolescents" cover the age of 10 to 19 years and youths are defined as belonging to the age group of 15 to 24 years, while the terminology "young people" covers the age of 10 to 24 years[1, 2]. Young people are at high risk for risky sexual behaviors and reproductive health problems. Young people have limited access to reproductive health services that focus on the special needs of adolescents. Because of the complex nature of the problems, youth reproductive health strategies demand a multi-sector and integrated approach on risky sexual factors and risky sexual behavior[2]. Risk factors are characteristics of individuals, families, schools and communities that make people more vulnerable to adverse consequences[3].

Risky sexual behavior is any behavior that increases the probability of negative consequences associated with sexual contact, including HIV/AIDS or other sexually transmitted diseases (STD), abortion and unplanned pregnancy. It also includes behaviors like, having multiple partners, having risky casual or unknown sexual partners, early sexual initiation and failure to discuss risk topics prior to intercourse and failure to take protective actions, such as use of condoms and birth contro[3, 4].

In Ethiopia, it is estimated that 2.1 percent of the large population is HIV positive, with the epidemic concentrated among women and in urban areas. Moreover, the younger the age group, the greater the gender imbalance in rates of HIV infection, with far greater rates among young women compared to young men in which most of these young groups are in schools[5, 6].

The youth years are a time of rapid growth, exploration, and risk taking. Taking risks provide young people the opportunity to test their skills and abilities and discover who they are. But, some risks-such as smoking, using drugs, drinking and driving, and having unprotected sex - can have harmful and

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long-lasting effects on a youth's health and well-being[7-10].

Adolescent and young adults are more likely than older adults to engage on risky sexual practice to have multiple sex partners, to engage in unprotected sexual intercourse, and to select higher risk partners [5, 9].

The current data from USA showed that 46% of in-school youths had ever had sexual intercourse and 34% had sexual intercourse during the previous 3 months. Of these, 39% did not use a condom the last time they had sex and 77% did not use any birth control pills to prevent pregnancy the last time they had sex. Fourten perecents had sex with four or more people during their life[11-14].

in Ethiopia indicated that majority of youths are in-schools and living arrangement of high school students are living with friends followed by relatives and both biological parents[15] . For urban students, the most common living arrangements were living with both parents or with one biological parent[5, 7, 15, 16].

Though there are a number of factors affecting the sexual health of in-school youths, Family connectedness and living arrangements seem an important factor affecting the sexual decisions of youths. There are information gap regarding to sexual risk behaviors and associated factors among students living with parents in Jimma zone preparatory schools until the time of this study.

Therefore this study was intiated to assess sexual risk behaviors and associated factors among students living with parents in Jimma zone preparatory schools.

Methods

Study setting

A cross sectional study designs both qualitative and quantitative approaches was conducted in Jimma zone from February 14-28/2012. Jimma town is the capital town of Jimma zone and it is located 356 Km away from Addis Ababa in South West Ethiopia. Jimma town is sub divided in to 13 administrative kebeles with 159,009 populations.

According to 2011/12 G.C there are 985 governmental and private schools in Jimma zone. These schools are providing educational services for 3065 students [male-1879 and females-1186]. Nine preparatory schools are found in Jimma zone.

Study population

Sampled students living with parents and whose age between 15 -24 in five preparatory schools in Jimma zone. Selected in-depth interview participants based on their gender including student representative, schools HIV/AIDS club focal persons.

Sample size determination

The sample size was determined using single population proportion formula with the following assumption; p= 14%[16] and margin of error 5%. The final sample size was 288 in-school youths living with their parents. Ten interviewees were intervewied in qualitative part.

Sampling technique

For the quantitative study simple random sampling technique had been employed. All preparatory schools in Jimma zone and town was identified and listed. And then five preparatory schools were selected from nine preparatory schools using simple random sampling. Finally, simple random sampling technique was employed to select the participants from each selected school using lottery method. The participants for the in-depth interview were selected from five preparatory schools using judgmental sampling technique.

Data collection

A pretested, structured and translated questionnair adapted from various sexual risks behavior studies. The questionnaire was originally developed in English and then translated into Afan Oromo and Amharic language.The instrument includes (Socio-demographic characteristics; Individual factors (yes/no and multiple choices), Family environment[(family connectedness,parental monitoring,parental communication and family support) (22 Items with 5-point Likert scale)], School attachment[(teacher-students relationship and school-students relationship) (8 items with 4-point Likert scale), Peer pressure (5 items with 3-point Likert scale)], Community factors[(Norms of the community) (6 items with 5-point Likert scale)] and Risky sexual behavior[(inconstistence condom use and multiple sexual partners (3 items with yes/no)][10, 14, 15, 16, 17, 18, 19]. The content validity of the questionnaire was assured by experts. The internal constistency of the items with likert scales were checked through Cronbach alpha. The cronbach alpha value for each items was greater than 0.7.

Seven trained data collectors were recruited with diploma holders for quantitative study. Five MPH students were supervised the data collection. The in-depth interviews were conducted by two trained MPH students.

Data management and quality assurance
The questionnaire was used and translated to two local languages [Afan Oromo and Amharic] and back translated to English by language expert who is blind to the original questionnaire. Pre-testing of the questionnaire was undertaken in 5 percent of the sample size in similar areas before the actual data collection. A total of two days'intensive trainings were given for all supervisors and data collectors. For qualitative study, the in-depth interview was conducted by two trained interviewers and Tape recorder was used.

Data processing and analysis
Data were checked for completeness and consistency. Data entry and analyses was performed using SPSS (version 16 for Windows). First, descriptive analysis was carried out to describe the socio-demographic characteristics of the respondents. Finally, multiple logistic regression analysis was performed to identify the independent predictors of risky sexual behavior. The qualitative data were analyzed in to thematic areas and then triangulated with quantitative finding.

Ethical considerations
The study protocol was approved by Ethical Clearance Committee of Jimma University, College of Public Health and Medical Sciences. Permission letter had been obtained from the Jimma zone educational office. Information on the studies was given to the participants, including purpose and procedures, potential risk and benefits so encourage provision of accurate and honest responses. Potential participants were told that participation is voluntary and that confidential and private information was protected. For under 18 age students they told to ask their parents for permission to participate on the study and only those who have got permission from parents were participated. Written informed consent was obtained from each participant.

Results

Socio-demographic characteristics
A total of 273 students participated in the study with a response rate of 94.8%. The mean age of the students was 18.6 ±1.6. From a total of 273 students, 172 (63%) students were female. Out of 273 students, 28(10.3% of them were rural students and 157(57.1%) were Orthodox Christian. Regarding to educational status, 32(11.77%) mothers and 23 (8.4%) fathers of students were illiterate (table 1).
Individual factors and Risky sexual behaviors of the students

Table 1: Distribution of socio-demographic characteristics of students in Jimma zone preparatory school, February, 2012

Variables	Frequency n=273	Percentage
Age		
15-19	217	79.5%
20-24	56	20.5%
Sex		
Female	172	63%
Male	101	37%
Grade level		
11th grade	115	42.1%
12th grade	158	57.9%
Residence		
Rural	28	10.3%
Urban	245	89.7%
Religion		
Orthodox	156	57.1%
Muslim	66	24.2%
Protestant	41	15.0%
Catholic	10	3.7%
Educational status of mother		
Illiterate	32	11.7%
Elementary	111	40.7%
Secondary	44	16.1%
Above	86	31.5%
Educational status of father		
Illiterate	23	8.4%
Elementary	71	26.0%
Secondary	63	23.1%
Above	116	42.5%

One hundred and seventeen (42.9%) students had ever had sexual intercourse with opposite sex. Out of 117 students, 69(59%) had first sexual intercourse at age of less than or equal to 18 years. Regarding to religious visit, 100(36.6%) students had visit the church/mosque most of the time.

One hundred and one (37%) students were consumed alcohol and 97 (35.5%) students were watched pornographic movies in the last 6 months. Ninety seven (35.5%) and 147(53.8%) students were chewed chat and used Sniffed glue in the last 6 months respectively. Thirty six (30.8%) students had two or more sexual partners in their lifetime. Out of 116 students, 13(11.2%) used condom consistently as shown in table 2.

Table 2: Frequency distribution of students by individual factors in Jimma zone preparatory school, February, 2012

Variables [n=273]	Frequency	Percentage
Have had sex		
Yes	117	42.9%
No	156	57.1%
Age of first sexual		
intercourse(N=117)	69	59%
<18	48	41%
18-24		
Had boy/girl friend		
Yes	132	48.4%
No	141	51.6%
Religious visit		
Yes	112	41.0%
No	161	59.0%
Frequency of Religious visit		
Daily	61	22.3%
Most of the time	100	36.6%
Once per week	48	17.6%
Once per month	33	12.1%
Never visit	31	11.4%
Alcohol Consumption	101	37.0%
Yes	172	63.0%
No		
Watch pornographic film		
Yes	97	35.5%
No	176	64.5%
Chewing chat		
Yes	97	35.5%
No	176	64.5%
Sniffed glue		
Yes	147	53.8%
No	126	46.2%
Number of sexual partners in		
lifetime (N=117)	48	41%
None	33	28.2%
One	36	30.8%
Two or more		
Frequency of condom		
use(N=116)	50	43.1%
Some times	53	45.7%
Most of the time	13	11.2%
Always		
Having sex with Commercial		
sex workers	5	1.8%
Yes	268	98.2%
No		

Table 3: Multiple logistic regression analysis of risky sexual behaviors among study participants in Jimma zone preparatory school, February, 2012

Variables	Risky sexual behavior		COR(95% CI)	AOR(95% CI)
	At risk N=115 No (%)	Not at risk N=158 No (%)		
Residence				
Urban	104[90.4]	141[89.2]	**1.74(1.3-2.5)***	1.5(.59-4.0)
Rural	11[9.6]	17[10.8]	**1.00**	1.00
Had boy/girl friend				
Yes	67[58.3]	65[41.1]	3.2(2.16-4.5)*	1.73(.90-3.35)
No	48[41.7]	93[58.9]	1.00	1.00
Religious visit				
No	84[73]	77[48.7]	1.9(1.28-2.7)*	6.4(3.1-13.4)*
Yes	31[27]	81[51.3]	1.00	1.00
Consume alcohol				
Yes	71[61.7]	30[19]	4.1(2.8-6.0)*	7.0(5.4-22.5)*
No	44[38.3]	128[81]	1.00	1.00
Watch pornographic film				
Yes	49(42.6)	48(30.4)	1.7(1.0-2.8)*	1.48(.59-4.0)
No	66(57.4)	110(69.6)	1.00	1.00
Chewing chat				
Yes	49(42.6)	48(30.4)	1.7(1.0-2.8)*	1.48(.59-4.0)
No	66(57.4)	110(69.6)	1.00	1.00
Sniffed glue				
Yes	84(73.0)	63(39.9)	4.1(2.43-6.8)*	1.9(.8-4.53)
No	31(27.0)	95(60.1)	1.00	1.00
Peer pressure				
Low	75[65.2]	87[55.1]	1.00	1.00
High	40[34.8]	71[44.9]	1.7(1.05-3.2)*	.97(.5-1.82)
Family connectedness**			.93(.92-.95)*	.943(.91-.97)*
Family support **			.911(.88-.94)*	.921(.91-.96)*
School attachment**			.90(.85-.95)*	.901(.81-.999)*

*= indicates significant at P<0.05

**=Continuous variables

Family environment

Family connected-ness scores and Family supports scores were 10-50 (mean 35.42±12.3) and 11 -55(mean 28.95±5.2) respectively. Out of 273 students, 147[48%] was exposed to family monitoring. This implies that students had higher family connectedness and lower family supports.

Communication and discussion regarding sexuality and HIV/AIDS with parents

Two hundred and nine (94.9 %) students were discussed about sexuality. Mother, Friend of the opposite sex and Friend of the same sex were the major sources of information about sexuality and HIV/AIDS. This result supported by qualitative study "In my Family it is free to talk about sex and anything related to sexual matter." *(*19 years girls)

School attachment

School attachment score was 7 -21(mean score 15.9±3.3). This implies that students had higher school attachement.

Peer influence

Out of 273 students, 162(59.3%) students were under high pressure influence from their peers. This result supported by qualitative study "I am worrying about my friends, because after I came to Agaro high school two of my best friends have boyfriends and they enforce me to join them. *(*18 years girls)

Community factors

Community factors score was 7 – 30(mean score 20.49 ±5.19). This implies that students highly influenced by norm of the community.

Independent predictors risky sexual behavior

Logistic regression analysis was done to identify the effect of independent variables on risk sexual behaviors. The overall model to predict probability of risky sexual behavior was statistically significant (-2Loglikelyhood=263.757, X^2= 107.900, *DF*=10 with a p-value<0.0001). The overall prediction of the model was 80%**.** The result showed that students who consumed alcohol were 7 times more likely at risk as compares to those who didn't consume alcohol [OR 95%CI 7.0(5.4-22.5)].

Regarding religious visit, students who didn't visit religious institution were 6.39 times more likely to be at risk than students who visited religious institution [OR, 95%CI, 6.39(3.1-13.38)]**.** This finding was also supported from the in-depth interview "My mother always forced me to visit church and told me 'if you are spiritual person you are safe from many maladapted behaviors like chewing chat, drinking alcohols, smoking" (19 years boy).

Regarding to family and school environment the result indicated that per a unit increase in total score of family connection, family support and school attachments the odds of becoming at risk was reduced by 0.94[OR, 95%CI, .94(.91-.97)], 0 .92[OR, 95%CI 0.92(.91-.96)] and 0.90 [OR, 95%CI 0.90(.81-.999)] respectively (table 3).

Generally in the model, the largest variance 24% [R^2= 0.242, p<0.001] was explained by alcohol consumption. This finding indicated that alcohol consumption was the highest predictor variable of risky sexual behaviors as compared to other predictor variables.

Discussion

This study provides insight into the operation of risk and protective factors in different domains to predict risky sexual behavior among preparatory school students in Jimma zone.

The findings of this study showed that 42% students have had sexual intercourse.This sexual initiation prevalence is almost consistent with a study by Dessalegn[20] and less than data from 2006 in Behavioral Surveillance Survey of Ethiopia[5] and 2007 Youths Risks Behaviors Surveys in Ethiopia[21]. This discrepancy might be due to difference in sample size and time of the different studies.

Alcohol consumption is significant predictors of risky sexual behavior. Many studies also indicated that alcohol users are almost two times more likely to have non-regular sex partner than non-users[22-24] and other also signified that adolescents and young adults are more likely than older adults to engage on risky sexual practice to have multiple sex partners, to engage in unprotected sexual intercourse, and to select higher risk partners due to drinking alcohols[5, 9].

The most frequently cited explanation for the link between alcohol and risky sexual behavior is sensation-seeking behavior, which are defined as a disposition characterized by the tendency to pursue novel, exciting, and optimal levels of stimulation[25]. Regarding religious affiliation the result revealed that student who didn't visit religious institution were more likely to be at risk than students who visited

religious institution. Similarly study in Australia show that the respondents who considered themselves very religious feel that premarital sex are always wrong and regularly visiting religious institution are protective of risky sex[29]. This further support the idea they are a relationship between religiosity and a person's view of premarital sex[30]. Study of youth ages 12 to 17 in USA found that attending religious services identified "morals, values and/or religious beliefs" as the factor that most affected their decisions about whether to have sex [31].

Family connected-ness is protective factor for risk sexual behavior. Several studies have found that positive relationship or connected-ness between parents and adolescents is linked to avoidance or lower use of alcohol, tobacco, and drugs and less likely to initiate sex[26-28].

Family supports were significantly associated with risky sexual behavior as protective factors. This finding is also consistent with many other findings. Meta-analysis of "youth-focused" prevention strategies aimed at delaying sexual intercourse and reducing risky sexual behavior found no evidence of beneficial effects In contrast, numerous family interventions focused on improving parent-child communication, supportive parenting, and parental monitoring have shown effects on these outcomes[26-28].

A unit increases in total score of school attachment the odds of becoming at risk reduced by 0.901. This finding is similar with various studies. As education researcher Daniel Duke points out, "the goal of good behavior is necessary, but not sufficient to ensure academic growth." Effective school discipline strategies seek to encourage responsible behavior and to provide all students with a satisfying school experience as well as to discourage misconduct[32-35]. This can be explained by the fact that well-designed, well-implemented school-based HIV/STD prevention programs can significantly reduce sexual risk behaviors among students

Significant number (93%) of students reported that they had ever discussed sexuality. We have tried to investigate parent-youths communication as another dimension in family relationship and found not to be significantly associated with sexual activity. This is also consistent with previous studies[36, 37] and unlike to other studies which showed significant association with sexual activity[38, 39]. Here, the relationship may vary by the content and degree of discussion as well as other factors.

Conclusion

Despite these limitations, these findings contribute to the literature in several ways.The findings indicates that a substantial proportion of adolescents in preparatory school is sexually active. Alcohol users are more likely to have non-regular sex partner than non-users and to engage on risky sexual behavior.

Family supports and positive relationships between parents and adolescents are linked to prevent deviant peers, a primary pathway leading to onset and escalation of high risk behavior in adolescence and minimize risky sexual behaviors and also association with avoidance or lower use of alcohol, tobacco, and drugs and less likely to initiate sex.

Spiritual places and Religious services are very important factor to affect student's decisions about risk sexual behaior. Schools are an essential part of students' health and the extent to which students feel accepted, valued, respected and school has surfaced as one of the most important predictors to tackle risky sexual behaviors.

Recommendation

Interventions that emphasize different domains of the high risk factors [alcohol consumption, watching porn, having girl/boy friends] and protective factors [family connection, family support, religious visit and school attachments] in an integrated manner may be the most effective strategies.

Improving parent-youths connected-ness and family support should be the primary focus for interventions. Youth-serving parties like religious institutions, schools and HIV/AIDS clubs should develop strategies that promote healthy behaviors in their settings. Researcher should assess the risk sexual behavior among students living away from parents.

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