



Assessment of Parent Adolescent Communication on Sexual and Reproductive Health Issues and Associated Factors in Alamata High School, Northern Ethiopia, 2013

Nurilign Abebe^{a*}, Getachew Mullu^b

^{a, b} Nursign department, medicine and health Sciences College, Debre Markos University, Address, Debre Markos, Ethiopia

^aEmail: nure113@gmail.com

^bEmail: gechm2005@gmail.com

Abstract

Adolescence, the second decade of life, is a period in which an individual undergoes major physical and psychological changes. Adolescence is a time of opportunity, but also one of risk. The main aim of this study is to assess parent adolescent communication on sexual and reproductive health issues and associated factors in Alamata High school, northern Ethiopia, 2013. A total of 488 adolescents were included in the study. They were selected using multistage sampling method followed by systematic random sampling technique. Data were collected using self-administered questionnaire and analyzed by SPSS version 16. Both bivariate and multivariate logistic regressions were used to determine statistical significance of association at P-value of 0.05 with 95% confidence interval. The results shows that about 51% of the respondents were aged 14-16, while the rest were aged 17 to 19 years old. More than two-third of the participant (68.2%) had had communication with their parents on sexual and reproductive issues. Adolescents at grade 9 and 10 had two times more likely to communicate (95% CI=2.2 (1.08-4.46), students attending church or mosque 3.52 times more likely to communicate (95% CI=3.52 (1.27-9.79) also students in the urban origin were 3.12 times more likely to communicate (95% CI= 3.21 (1.61-6.39) with their parents on sexual and reproductive health issues. In the conclusion we can say that Adolescents from grade 11 and 12, those from rural origin and those less likely to attend their respective religious institutions should get due attention from parents, school community and other relevant stalk holders to increase their communication efficacy.

Keywords: Adolescent; Communication; School; Sexual; Reproductive Health

* Corresponding author. Tel.: +251-910-10-62-95; fax: +251-58-771-17-64.
E-mail address: nure113@gmail.com

1. Introduction

Adolescence, the second decade of life, is a period in which an individual undergoes major physical and psychological changes. Alongside this, there are enormous changes in the person's social interactions and relationships. Adolescence is a time of opportunity, but also one of risk [1].

The parents' communication about sex further reinforced the societal expectations about masculinity and femininity. They linked femininity with abstinence until marriage while associated masculinity with sexual prowess [2]. Parent-child communication about sex is an important proximal reproductive health outcome [3].

Young people are particularly vulnerable and are the key to the future course of the HIV/AIDS epidemic. As a group, they are an essential focus for prevention and control programs. Since most new infections are in young people, modest changes in behavior will have a significant impact on the epidemic. Thus, they have been given higher priority in the prevention and control of HIV/AIDS in Ethiopia [4]. As both Khat and alcohol are widely consumed in these groups, description of the relationship between these substances and risky sexual behavior would usefully guide national policy and decision making on HIV/AIDS [5].

Study conducted in Ethiopia show that even though most of the parents said that discussion about sexual and reproductive health between adolescents and parents is important for the future life as adults. All parents also indicated that there is a gap in discussing of the positive aspects of adolescent sexuality related issues, if at all discussed they inclined to negative aspect of sexuality related issues [6]. Therefore, this particular study will try to identify possible associated factors for the existing gap of parent adolescent communication.

Previous studies on pre-marital in Ethiopia show significantly large number of school adolescents had sexual practice 24.8% in eastern Ethiopia and 21.4% in northern Ethiopia [7]. Adolescent sexual and reproductive health refers to the physical and emotional well-being of adolescents and includes their ability to remain free from unwanted pregnancy, unsafe abortion, STDs including HIV/AIDS and all forms of sexual violence and coercion. One of the major causes of several adolescent reproductive health problems the lack of knowledge regarding the sexual and reproductive health issues, mainly due to the lack of communication with other individuals. Therefore, this study will try to identify the magnitude of parent adolescent communication among Alamata high school and preparatory school adolescents and its consequences on premarital sexual practice and risky behaviours.

2. Methods and materials

2.1. Study design

Institutional based cross sectional study design was conducted

2.2. Study area and period

The study was conducted in Alamata, Tigray Region, Ethiopia. It is located 600 km north of Addis Ababa the capital of Ethiopia. Based on the 2007 national census conducted by the Central Statistical Agency of Ethiopia (CSA), the town has a total population of 33,214 of which 16,140 are men and 17,074 women. 82.35% of the population said they were Orthodox Christians, and 16.96% were Muslim.

The town has four kebeles. There is one Technical and Vocational school, one private health Science College, one high school (grade 9 and 10) and one preparatory school (grade 11 and 12) and four elementary schools (grade 1-8). In 2013, according to the data from the registrar office of Alamata high school and preparatory schools, there are a total of 80 sections, and within these sections, a total of 4,697 students (2031 students in grade 9, 1607 in grade 10, 567 in grade 11, and 492 students in grade 12) are attending their education. And the study was collected from March to April 2013.

2.3. Source population

All regular adolescent students between the age of 10 to 19 years old attending academic learning at Alamata high school and preparatory school in the year 2013,

And the study populations were those students fulfilled the inclusion criteria.

2.4. Inclusion criteria

All regular students aged 10 to 19 years old attending their education in Alamata high school and preparatory schools at the time of data collection.

2.5. Exclusion criteria

Students whose age is greater than 19 years old, non-regular students (night program), students with seriously ill to respond for the question and those who are not attending the school at the time of data collection were not be included in the study.

2.6. Sample size determination

Single population proportion formula and was used to determine the number of students to be included in the study. The proportion of parent adolescents' communication was taken to be 28.9% from a study conducted in Ethiopia [6]. Accordingly, the sample size is determined to be 488 including 10 percent for non-response rate and considering multiplication of two for design effect.

2.7. Sampling procedure

A multistage sampling technique was used to select the study participants. Simple random sampling and probability proportion to sample size were used to select the total number of participants to be included in the study. In addition to select the study participants, a systematic random sampling method was used by identification numbers of the students from the registrar office of the schools.

2.8. Data collection tool/instrument

The instrument was anonymously structured & close-ended questionnaire. It is first prepared in English, and then translated to local language (Tigrigna language) and then back to English language by a person who has good knowledge of both languages. Data was collected by using self-administered questionnaires. The data collection was done by four data collectors from health Science College and who knew Tigrigna language. Two supervisors who are nurses also selected from Alamata referral hospital and trained.

2.9. Data quality assurance

The original English version of the questionnaire is translated first to Tigrigna & back to English by the individual who has good knowledge of both in English & Tigrigna languages. Pre-test was done. There was strict supervision during data collection and data analysis.

2.10. Study variables

2.10.1. Dependent variable

- Parent-adolescent communication

2.10.2. Independent variables

- Socio demographic variables
- Educational level
- Educational and occupational status of the parents
- Knowledge on sexual and reproductive health
- Living condition
- Adolescents behavior (Sexual practice, alcohol use, chat chewing, cigarette smoking)

2.11. Operational definitions

Adolescent: are peoples who are between 10 to 19 years old. (WHO)

Parent adolescent communication: this is communication regarding sexual and reproductive health which occurs between adolescents and their family members. Respondents who answer at least 60% of sexual and reproductive health related questions will be considered as have communication.

2.12. Data analysis

Data cleaning and entry was performed by using EpI Info version 3.5.1 and data was analyzed by using SPSS version 16. Descriptive, bivariate and multivariate analysis was done. P value and 95% confidence interval (CI) for odds ratio was used to judge the significance of association between dependent and independent variables.

2.13. Ethical consideration

Ethical clearance was obtained from Addis Ababa University department of nursing and midwifery research committee institutional review board. Permission was granted from officials at different levels in Alamata town through the formal letter obtained from the department's research committee institutional review board.

Administrative and academic staffs were communicated about the study, and they gave their willingness on data collection. Informed consent was obtained from the study subjects after providing the necessary information through the information sheet and the informed consent form which is attached to the front page of the questionnaire and data was collected after getting informed consent from the study participant.

3. Result

3.1. Socio demographic characteristics of the respondents

A total of 488 schools adolescent were enrolled in the study with 100% response rate. About 261(53.5%) were male's. Majority, 222(45.5%), of the respondents were from grade 9 followed by grade 10, 11 and 12 accounting 162(33.2%), 58(11.9% and 46(9.4%) respectively. About 51% of the respondents were aged 14-16, while the rest were aged 17 to 19 years old. Their living arrangement 283 (58%) of them were living with both parents and 11 (2.3%) were living alone (Table1).

Table 1. Socio-demographic characteristics of Alamata high school and preparatory school adolescents, North Ethiopia, 2013 (n=488)

Variables	Frequency	Percentage
Sex		
Male	261	53.5
Female	227	46.5
Age		
14-16	249	51
17-19	239	49
Education		
Grade 9 and 10	384	78.7
Grade 11 and 12	104	21.3
Religion		
Orthodox	389	79.7
Muslim	84	17.2
Protestant	15	3.1
Ethnicity		
Tigray	447	91.6
Amhara	41	8.4
Attend church or mosque		
Yes	457	93.6
No	31	6.4
Living condition		
Father and mother	283	58
Either father or mother	139	28.5
Relatives/friends/fiancé	55	11.3
Alone	11	2.3

The educational status of parents were 126 (25.8%) of fathers and 169 (34.6%) of mothers could not read and write while 85 (17.4% and 70 (14.3%) of fathers and mothers had attend college and above college. The occupation of fathers was 175 (35.9%) farmers, 125 (25.6%) were civil servants and 131(26.8%) had their own private business. Meanwhile 104 (21.3%) farmers, 91(18.6%) civil servants and 193 (39.5%) of mothers had private business respectively (Table2).

Table 2: Parent’s educational and occupational status of adolescents among Alamata high school and preparatory school adolescents, North Ethiopia, 2013 (n=488)

Variables	Frequency	Percentage
Father’s educational status		
Cannot read and write	126	25.8
Read and write	150	30.7
Grade 1 to 6	58	11.9
Grade 7 to 12	69	14.1
College level and above	85	17.4
Mother’s educational status		
Cannot read and write	169	34.6
Read and write	133	27.3
Grade 1 to 6	64	13.1
Grade 7 to 12	52	10.7
College level and above	70	14.3
Occupation of father		
Daily laborer	34	7
Farmer	175	35.9
Civil servant	125	25.6
Employed in private business	18	3.7
Has private business	131	26.8
Others	5	1
Occupation of mother		
Daily laborer	53	10.9
Farmer	104	21.3
Civil servant	91	18.6
Employed in private business	16	3.3
Has private business	193	39.5
Others	31	6.4

Parent adolescent communication was assessed in the last six months prior to the study. About 333 (68.2%) had sexual and reproductive health issues communication with different members of the family and friends. Some 155 (31.8%) did not have communication on sex and reproductive health issues prior to the stud period. Communication was 49 (14.7%) with mothers, 13 (3.9%) with fathers, 50 (15%) with brothers or sisters, 78 (23.4%) with the same sex, 19 (5.7%) with the opposite sex and 50 (15%) communicated with health personnel. The communication on sexual and reproductive health issues was 30 (9%) with boy or girl friends, 37 (11.1%) with teachers and 7 (2.1%) were with other family members respectively.

Preference for information about sexual and reproductive health was high from school teachers 160 (32.8%), from mass media 100 (20.5%), from health practitioners 134 (27.5%), from peers 37 (7.6%), from books or films 31 (6.4%) and parents 26 (5.3%) respectively.

In bivariate analysis of socio-demographic variables three variables educational status, church/mosque attendance and previous residence were significantly associated with parent adolescent communication on sexual and reproductive issues.

Those who were grade 9 and 10 were two times more likely to communicated compare to those at grade 11 and 12 (at 95% CI=2 (1.28-3.13), those who attended churches/mosque were five times more likely to have communication with their parents on sexual and RH issues (95% CI=5 (2.32-11.03) and students whose previous residence were at urban were 2.26 times more likely to have parent adolescent communication (95% CI=2.26 (1.45-3.51). These three variables from the total of six socio demographic variables were also significantly associated with parent adolescent communication in the multivariate logistic regression analysis. Students at grade 9 and 10 (95% CI=2.2 (1.08-4.46), students attending church or mosque (95% CI=3.52 (1.27-9.79) and students in the urban origin were (95% CI= 3.21 (1.61-6.39) (Table 3).

Table 3. Bivariate and Multi variable analysis of Socio-demographic variables predicting of parent-adolescent communication about sexual & reproductive health issue in the last 6 months, Alamata, North Ethiopia, 2013.

Variables	Communication		COR at 95% CI	AOR at 95% CI	P value
	Yes	No			
Sex					
Male	81	180	1	1	
Female	74	153	0.93 (0.64,1.36)	0.82 (0.5,1.34)	0.42
Age					
Below 18 years old	101	238	1	1	
18 and above	54	95	0.75 (0.49,1.12)	1.4 (0.73,3.01)	0.27
Education					
Grade 9 and 10	109	275	2 (1.28,3.13)	2.2 (1.08,4.46)	0.03*
Grade 11 and 12	46	58	1	1	
Religion					
Orthodox	123	266	1.44 (0.5,4.14)	2.22 (0.59,8.3)	0.24
Muslim	26	58	1.48 (0.48,4.61)	3.02 (0.71,12.9)	0.14
Protestant	6	9	1	1	
Attend church or mosque					
Yes	134	323	5 (2.32,11.03)	3.52 (1.27,9.79)	0.02*
No	21	10	1	1	
Previous residence					
Urban	105	275	2.26 (1.45,3.51)	3.21(1.61,6.39)	0.001*
Rural	50	58	1	1	

*Significant at 95% Confidence Interval; COR=crude odds ratio; AOR=Adjusted odds ratio

Parent adolescent communication was significantly associated with paternal educational status in the bivariate logistic analysis at all levels of educational status of the fathers. Fathers with an educational status of can read and write 2.19 times, up to grade six 3.17 times, up to grade 12 1.88 times and college and above 2.1 times were more likely to have parent adolescent communication on sexual and reproductive health issues compared to those who cannot read and write. But from the multivariable logistic analysis those with educational status of can read and write 2.3 times more likely to have parent adolescent communication (95%CI=2.3 (1.16-4.49) and fathers with up to grade six educational status were 4 times more likely to communicate (95% CI=4.1(1.63-10.01). From the maternal educational status only those from grade 7-12 were 2.69 times more likely to have communication with their adolescents (95%CI=2.69 (1.26-5.73) but it was not significantly associated in the multivariate analysis (Table 4).

Regarding the parental occupation status and their communication with adolescents were significantly associated for civil servant fathers were 2.29 times more likely to communicate in bivariate analysis (95% CI=2.29(1.04-5.04) and in the multivariate analysis 5.34 times more likely to communicate (95% CI=5.34(1.72-16.58) but other categories of occupational status were not associated with parent adolescent communication in regard to sexual and reproductive health issue (Table 4).

Table 4. Bivariate and Multivariable logistic regression analysis of Parents' educational and occupational status of parent-adolescent communication on sexual & reproductive health issues in the last 6 months, Alamata, North Ethiopia, 2013.

Variables	Communication		COR 95% CI	AOR 95% CI	P-value
	Yes	No			
Father's educational status					
Cannot read & write	57	69	1	1	
Read and write	41	109	2.19(1.33,3.63)	2.3(1.16,4.49)	0.017*
Grade 1 to 6	12	46	3.17(1.53,6.54)	4.1(1.63,10.01)	0.003*
Grade 7 to 12	21	48	1.88(1.01,3.52)	1.83(0.74,4.48)	0.189
College level & above	24	61	2.1(1.17,3.78)	1.21(0.43,3.4)	0.722
Mother's educational status					
Cannot read & write	66	103	1	1	
Read and write	38	95	1.6(0.98,2.61)	0.92(0.46,1.82)	0.803
Grade 1 to 6	20	44	1.41(0.76,2.6)	0.59(0.28,1.3)	0.196
Grade 7 to 12	10	42	2.69(1.26,5.73)	1.82(0.65,5.11)	0.255
College level & above	21	49	1.49(0.82,2.72)	1.34(0.41,4.38)	0.629
Occupation of father					
Daily laborer	15	19	1	1	
Farmer	51	124	1.82(0.91,4.07)	2.48(0.78,7.89)	0.124
Civil servant	32	93	2.29(1.04,5.04)	5.34(1.72,16.58)	0.004*
In private business	9	9	0.78(0.25,2.48)	0.66(0.16,2.67)	0.559
Has private business	47	84	1.41(0.65,3.03)	1.63(0.56,4.68)	0.369
Others	1	4	3.126(0.32,31.2)	1.2(0.16,24.3)	0.587
Occupation of mother					
Daily laborer	21	32	1	1	
Farmer	35	69	1.29(0.65,2.56)	0.52(0.18,1.47)	0.217
Civil servant	24	67	1.83(0.89,3.76)	0.61(0.19,1.96)	0.409
In private business	5	11	1.44(0.44,4.75)	0.74(0.16,3.41)	0.694
Has private business	61	132	1.42(0.76,2.66)	0.54(0.22,1.29)	0.164
Others	9	22	1.6(0.62,4.15)	0.76(0.22,2.56)	0.653

*Significant at 95% Confidence Interval; COR=crude odds ratio; AOR=Adjusted odds ratio

Adolescents' behavior was assessed in relation to parent adolescent communication on the sexual and reproductive health issues. Alcohols use was associated in neither of the analysis model but those who used to smoke were 2.49 times to communicate (95% CI=2.49 (1.11-5.61), those used to chat chew were 2 times to communicate (95% CI=2(1.11-3.62), those who did not practice premarital sex was 1.71 times more likely to communicate (95%CI=1.71(1.09-2.68) on the bivariate analysis model but not significant in the multivariate analysis. Good knowledge on Sexual and reproductive health were significantly associated with parent adolescent communication (95% CI=1.62 (1.07-2.44) in the bivariate analysis and 1.7 times more likely to communicate in the multivariate analysis 1.7(1.01-2.78) (Table 5).

Table 5. Bivariate and Multivariate logistic regression analysis of adolescents' behavior on parent-adolescent communication about sexual & reproductive health issues in the last 6 months, Alamata, North Ethiopia, 2013

Variables	Communication		COR 95% CI	AOR95% CI	P-value
	Yes	No			
Alcohol use					
Yes	68(36%)	121(64%)	0.72(0.48,1.07)	0.86(0.5,1.46)	0.57
No	72(28.7%)	179(71.3%)	1	1	
Cigarette smoking					
Yes	13(52%)	12(48%)	1	1	
No	138(30.3%)	318(69.7%)	2.49(1.11,5.61)	1.3(0.39,4.01)	0.693
Chat chewing					
Yes	23(46%)	27(54%)	1	1	
No	129(29.9%)	303(68.5%)	2(1.11,3.62)	0.9(0.36,2.25)	0.828
Premarital sexual practice					
Yes	43(41.3%)	61(58.7%)	1	1	
No	112(29.2%)	272(70.8%)	1.71(1.09,2.68)	0.9(0.49,1.99)	0.983
Knowledge on Sexual and reproductive health					
Good	28(23%)	94(77%)	1.62(1.07,2.44)	1.7(1.01,2.78)	0.045*
Poor	127(34.7%)	239(65.3%)	1	1	

*Significant at 95% Confidence Interval; COR=crude odds ratio; AOR=Adjusted odds ratio

4. Discussion

This particular study assessed the level of parent adolescent communication on sexual and reproductive issues and associated factors in Alamata High school, northern Ethiopia, 2013.

In this study 68.2% of adolescents had communication with their parents on sexual and RH issues. This finding is better than study done in northwest Ethiopia which was 42.2% of sexual discussion among parent and school children [6]. This could be our study is carried out relatively in urban area in which more parents are educated and possibly have better communication on sexual and RH issues. There is also time period gap about seven year since the later study conducted that will contribute its part for the difference.

Impact of communication study on sexual behavior in Mexico indicated that as many as 83.1% reported having spoken with parents about sexual relations [9]. In relation to this, study in Tanzania also reveals that some communication about sexual health was observed in most families [2]. Other study in the capital city of Tanzania report that concerning communication about sex and HIV/AIDS, it was 37.3% for the girls and 29.6% for the boys [10]. This difference could be the later study specified only sexual and HIV/AIDS while our study is more generalized on sexual and RH issues this might increase the response of the adolescents as they had had communication better than studies in Tanzania.

Premarital sexual practice was 21.31% in this study. This was relatively larger number than study done in other parts of Ethiopia which was 13.3% [6]. The discrepancy can be explained by time gap in which many changes occurred in terms of western film introduction in to our country that has a potential for early sexual initiation [8]. This might be also the respondents answer more truly than the previous study participants did since it is relatively urban area. Study in urban Tanzania [10] Shows that 26.8% of girls and 41.4% of boys had had sexual experience. This figure is slightly bigger than ours this might be due to the Tanzanian study were from their capital city -Dare Selam which is better than Alamata in terms of modernization that will lead more practice of premarital sexual act.

Majority of study participants had preference of sexual and RH issues communication with their similar sex (23.4%), followed by health personnel (15%) and with their mothers (14.7%) respectively. But it was small preference to communicate with their fathers (3.9%) and 5.7% with their opposite sex. This result is consistent with study in USA which states that mothers generally talked with both sons and daughters more than fathers did [11]. Fathers also had lower levels of many characteristics that facilitate communication about sex (e.g., lower self-efficacy and lower expectations that talking to their children about sex would have positive outcomes) [11]. Results showed that the

adolescent girls who communicate more with their parents had significantly higher knowledge and attitude about reproductive health than those who did not communicate [10]. Therefore, adolescents of both boys and girls should be encouraged to openly communicate, discuss and share ideas among family members in order to increase their level of knowledge and confidence. Similar study in Ethiopia show that most students (76.4%) preferred to discuss SRH issues with friends or peers [6]. This figure is considerably larger than ours which might be our respondent category was large like same sex, opposite sex, boy/girl friend and relatives that end up with fractions of answers in these categories. Though there is a difference between the two findings, it is similar in the concept of relative increase in peer discussion of adolescents concerning sexual and RH issues. So that adolescents should take care of peer pressure since majority of secrets (sexual issues) are discussed with their counterparts probably with no life experience and no better idea contribution than themselves.

Regarding factors associated with parent child communication, variables were grouped under three categories namely, socio demographic characteristics of students, parents occupational status and their educational status and behavioral aspects of study participants. From this a total of six variables were significantly associated with parent adolescent communication.

Adolescents in grade 9 and 10 were 2.2 times more likely to communicate with their respective parents than adolescents in grade 11 and 12. This result is consistent with study done in Tanzania [2]. That states most of the parents focus on students in secondary school. So that we strongly believe that these (grade 9 and 10) students could have better attention by parents than grade 11 and 12 students. As evidenced in this study most of the adolescents prefer peer communication regarding sexual and RH issues. This may explain that those grades 11 and 12 might discuss their sexual and RH issues than their parents. Therefore, parents should give attention for both secondary (9&10 grade) and preparatory (11&12 grade) students while adolescents of all categories should communicate with their parents to get life experience and take care to evaluate information from peers since they have similar status.

Among the respondents those attended church or mosques were 3.52 times more likely to communicate with their parents on sexual and RH issues. On the same part of this study it is revealed that those adolescents with good knowledge of sexual and RH had 1.7 times more likely to communicate with their parents. Therefore, it can be explained by those attending churches or mosque could have better knowledge and good attitude about sexual and RH issues. This is consistent with findings in [10].

Those adolescents from urban previous residence were 3.12 times more likely to communicate with their parents than their counter parts from rural. This finding is consistent with [2,10]. In which more communication on sexual and RH issues from the study in urban was observed. The possible explanation could be those urban residents are more aware of sexual and RH issues than their partners in the rural origin. Evidence that would strengthen this idea from our study is that paternal education of who could read and write had 2.3 and up to grade six educational status had had 4.1 times more likely to communicate with their adolescent. This indicated that as educational status of fathers increase there would be more parent adolescent communication concerning sexual and RH issues. Though paternal contribution were low in parent adolescent communication fathers from civil servant occupational status were 5.34 times more likely to communicate with their adolescents. Therefore, those at resident of urban could have better chance to be from educated family that fosters parent adolescent communication on sexual and RH issues.

Concluding remarks

In this study parent adolescent communication gets improved than previous study results elsewhere in Ethiopia and other African countries.

Educational grade status of adolescents, attendance of churches or mosque, previous residence, paternal education, paternal occupation and sexual and RH knowledge of adolescents were found significant factors associated with parent adolescent communication on sexual and RH issues. Therefore, adolescents from grade 11 and 12, those from rural origin and those less likely to attend their respective religious institutions should get due attention from parents, school community and other relevant stakeholders to increase their communication efficacy.

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