

Parent-Adolescent Communication on Sexual and Reproductive Health Issues and Associated Factors Among Secondary and Preparatory School Students in Agaro town, Jimma Zone Southwest Ethiopia

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Abstract

Background: Adolescents are rarely provided with adequate information about their development, especially in regard to sexuality. This problem has exposed the adolescents to the risk of many sexual and reproductive health problems. Parents have significant role to reduce sexual risk behaviors and promote healthy adolescent sexual development. Hence, the aim of this study was to assess parent-adolescent communication on SRH issues among secondary and preparatory school students in Agaro town, Southwest Ethiopia, 2019.

Methods: School based cross-sectional study was conducted from April 13-20/2019 using stratified random sampling technique. Data were collected using pretested interviewer-administered structured questionnaire entered into Epi data version 3.1; and analyzed using SPSS version 20. A variable having a p-value of <0.25 in the bivariable model was subjected to multivariable analysis to avoid the confounding variable's effect. Adjusted odds ratios were calculated at the 95% confidence interval and considered significant with a p-value of <0.05.

Results: A total of 315 students were included to the study. The mean age of the respondents was 20.2±2.6 years. The study finding showed that 61.3% of the participants were discussed on SRH issues with their parents. Educational status of mother [primary education (AOR=3.67; 95%CI:1.93,6.97),secondary education(AOR:2.86;95%CI:1.2,6.8)],educational status of father[primary education (AOR=5.8;95%CI:2.8,12.3,secondary education (AOR=3.21; 95%CI:1.55,6.59)],having family size of <5 (AOR= 6.4; 95%CI: 3.36,12.37) and having boy/girlfriend(AOR=1.99; 95%CI:1,3.8) were significantly associated with parent adolescent communication.

Conclusion: About two third of the participants communicate with their parents. parents' educational status, family size of <5 and having boy/girlfriend were significantly associated with the communication.

Plain English Summary

Adolescents are rarely provided with adequate information about their development, especially in regard to sexuality. This problem has exposed the adolescents to the risk of many sexual and reproductive health problems. Parents have significant role to reduce sexual risk behaviors and promote healthy adolescent sexual development. This study was aimed to assess parent-adolescent communication on SRH issues among secondary and preparatory school students. using pretested interviewer-administered structured questionnaire.

A total of 315 students were included to the study. The study finding showed that 61.3% of the participants were discussed on SRH issues with their parents. Educational status of mother ,educational status of father, having family size of <5 and having boy/girlfriend were significantly associated with parent adolescent communication.

In conclusion, about two third of the participants communicate with their parents. parents' educational status, family size of <5 and having boy/girlfriend were significantly associated with the communication.

1. Introduction

Adolescence is the period of transition from childhood to adulthood characterized by significant physical, cognitive, social and emotional changes. Because of the rapid cognitive, physical and emotional developments that takes place before adequate information, skills and experience of life is achieved, adolescence is a time when several health problems emerge unless managed properly(1,2).

Globally, a significant number of adolescents and youth aged 10 to 24 years die each year due to lack of information about available health services and avoidable sexual and reproductive health (SRH) negative consequences. Each year around the globe sixteen million late adolescent girls give birth, in which 95 percent of them occur in developing countries(3). Unplanned birth for unmarried adolescent women results in dropout of school, rejection from family and community. Besides,

adolescents present with a highest incidence rate for sexually transmitted infections (4). The main cause for the above situation is the gap in promoting the SRH agenda and adolescent health is usually ignored area in health priority (5).

Parent-adolescent communication on SRH issues with adolescents is vital in reducing risky sexual behaviors and negative its consequences (6). It is fundamental process through which parents transmit sexual values, information, beliefs, and expectations to their children with the purpose of influencing sexual behaviours, attitudes and decision-making of their children and becomes effective when parents are openly discussed, skilled, and comfortable in their discussion of sex related topics (7). Parents are the primary source of information concerning sexuality and adolescents prefer to receive sexual information from their parents (8).

Studies revealed that adolescents in Ethiopia have very low health-seeking behavior mainly to their SRH matters and even the current reproductive health services are not adolescent-centered(9,10). Even though the Ethiopian government has identified the reproductive health of adolescents as one of the priority areas in the national reproductive health strategy, it is not yet put in practice(11). Furthermore, the government of Ethiopia has set objectives with strategies that encourage parents' participation, but little is known about the parental engagement (12). In general, to decrease adolescent's morbidity and mortality, parent-adolescent communication about SRH issues were crucial and can greatly reduce adolescent's sexual risk.

Parent-adolescent communication on SRH issues in Ethiopia is believed to be socially disgraceful (13) and most youth-friendly services and health care providers in Ethiopia are not well prepared in addressing adolescents' SRH desires. As a result, most of the adolescent communication attempts regarding sexual matters is generally misguided by their peer group of the same sex and many teenagers do not have access to reliable information regarding their SRH needs (9,14). Hence, the participation of community members, families, and other stakeholders is important to improve the health status of the adolescents. As adolescents are cornerstone for future economic development, policy and strategy that support adolescent should be develop to reduce the risk of adolescent health problem.

The factors associated with the communication are parental education, adolescent's age and living arrangements, type of parents, and parents' sexual and reproductive health knowledge and attitude (13,15,16).

In Ethiopia limited study was conducted on parents-adolescents communication on sexual and reproductive health and to our knowledge, there is no established evidence regarding the prevalence and associated factors of parent adolescent communication on SRH in Agaro town, Oromia region Ethiopia. Hence, this study was aimed at assessing the prevalence and associated factors of parent adolescent communication on SRH among secondary and preparatory school students for risk minimization and better health. This study will help to provide information regarding the prevalence of parent adolescent communication on SRH and its determinants to suggest possible ways of improving the challenges in family communication. Moreover, this study will attempt to generate evidence based information for concerned government bodies and policy makers to consider the situation and to design an appropriate intervention strategy.

2. Methods

2.1 Study area, period and design

School-based cross-sectional study was conducted among secondary and preparatory school students at Agaro town, Jimma Zone, Southwest Ethiopia from April 13–20/2019. It is located 45 km from Jimma town and 391 km from Addis Ababa. There are educational services from kindergarten to university in the town and it has two health centers and one primary hospital. There are 2 secondary and preparatory schools and 4 secondary schools in the town. According to the data obtained from school directors, the schools had 2818 total regular secondary and preparatory students during the study period.

2.2 Population

The source population comprised of all Agaro secondary and preparatory school students during the academic year of 2019, while the study population comprised all Agaro secondary and preparatory school students who fulfilled the inclusion criteria.

Eligibility criteria

Regular students were included in the study, whereas students absent from class on data collection days, sick and married students were excluded.

2.4 Sample size determination

The sample size was determined using single population proportion formula considering the following assumptions: $P = 28.9(17)$, significance level 5% and margin of error 5%. It gives initial sample size of 317. Since the source population is less than 10,000, (2818), we employed population correction formula for a finite population. Accordingly, the final sample size was calculated to be 286. By taking into consideration 10% non-response rate, the final sample size was 315.

2.5 Sampling procedure

Stratified random sampling technique was employed to select study participants. First the students were stratified from grade 9 to 12 and then the sample population was proportionally assigned to each grade. Finally samples were selected from each class by simple random sampling technique using students' roster as a sample frame.

2.6 Operational definition

Parents

biological parents or step parents or foster parents

Parent-adolescent communication on SRH

Students open discussion on at least two SRH issues (STIs/ HIV/AIDS, condom, sexual intercourse, premarital sex, puberty, menstrual cycle, unwanted pregnancy and contraception) with their parents in the last 12 months initiated by the adolescents or both.

Adolescent

In this study context participant in the age range of 15–24 years were considered as adolescent

2.7 Data collection instrument

Data were collected using pretested, validated, self-administered structured questionnaire which was developed through reviewing different related scientific literatures. The data were collected by six diploma graduate nurses under the supervision of two supervisors and principal investigator. Data collectors were supervised by two diploma midwives.

2.8 Data quality control

Data quality was ensured through standardized data collection materials and the English version questionnaire was translated to local language (Oromic) version for appropriateness and easiness by language experts in both cases. The Oromic version was again translated back to English language to verify the content validity of the original version.

Two days of training was given for data collectors about the aim of the study, how to approach the study subjects, sampling procedure and the content of the questionnaire. The questionnaires were pre-tested on 5% of participants at the Jiren secondary and preparatory school one week ahead of actual data collection and further modified based on the results. Continuous follow-up and supervision were made by the two supervisors and principal investigator and collected data were reviewed and checked daily for clarity, completeness and consistency.

2.9 Data entry, processing and analysis

The collected data was compiled, reviewed, coded and entered in to Epidata version 3.1 and exported to SPSS version 20 for analysis. Data was checked and cleaned for its completeness and errors in coding and entering before analysis. Descriptive statistical analysis was used to compute frequency and a percentage of independent and dependent variables. A logistic regression model was computed to see the association of independent variables and dependent variables. Variables with $p \leq 0.25$ on bivariable logistic regression were considered as candidates for multivariable regression and P -values of < 0.05 were considered to be statistically significant in the multivariable analysis. Crude and adjusted odds ratios with their 95% confidence intervals were calculated. The Hosmer and Lemeshow goodness-of-fit test were checked and gave a p value of 0.704, indicating evidence of fitness of the model.

3. Results

3.1 Socio demographic characteristics of the study population

A total of 315 students were included to the study. The mean age of the respondents was 20.2 ± 2.6 years. Regarding religion most of the respondents 263(83.5%) were muslim. Majority of the respondents were ethnically Oromo, accounting for 259 (82.2%). One hundred forty one (44.7%) was grade nine students followed by grade ten students who account 105 (33.3%). Most of adolescent lives with both parents 279(88.6%). Almost half (53.3%) of the participants had ever got SRH information (Table 1).

Table 1

:Socio demographic characteristics of Agaro secondary and preparatory school students and their parents, Agaro town, Southwest Ethiopia, 2019.

Variables		Number	Percent
Sex	Male	150	47.6
	Female	165	52.4
Age(years)	15–19	142	45.1
	20–24	173	54.9
Grades	9	141	44.7
	10	105	33.3
	11	49	15.6
	12	20	6.4
Ethnicity	Oromo	263	83.5
	Amhara	29	9.2
	Others*	23	7.3
Residence	urban	112	35.6
	rural	203	64.4
Have boy/girlfriend	yes	83	26.3
	no	232	73.7
Had ever got SRH information	yes	168	53.3
	no	147	46.7
Religion	Muslim	263	83.5
	Orthodox	31	9.8
	Others†	21	6.7
Living arrangement of adolescents	With both parents	279	88.6
	With one parent	17	5.4
	With relative	11	3.5
	Alone	8	2.5
Marital status of parents	Together	295	93.7
	Widowed	14	4.4
	Divorced	6	1.9
Mother's educational status	Illiterate	91	28.9
	Primary school	150	47.6
	Secondary school and above	74	23.5
Father's educational status	Illiterate	73	23.2
*Wolayta, Dawuro, Tigre; †retired,unemployed			

Variables		Number	Percent
	primary school	134	42.5
	secondary school and above	108	34.3
Occupation of family	House wife	71	22.5
	Farmer	108	34.3
	Employed	58	18.4
	private	64	20.3
	Others	14	4.4
Family size	< 5	175	55.6
	≥ 5	140	44.4
Estimated family income per month (in birr)	< 1000	34	18.9
	1000–2000	81	45
	≥ 2000	65	36.1
	I don't know	135	42.9
*Wolayta, Dawuro, Tigre; †retired,unemployed			

3.2 Communication on sexual and reproductive health issues

Although 92% of the respondents reported that it was important to discuss sexual and reproductive health issues with parents, only 61.3% had communicated with their parents on at least two SRH topics. The major topics discussed among participants were premarital sex (40%) followed puberty (37.8%) (Table 2).

Table 2
; Different SRH issues discussed by secondary and preparatory school students in Agaro town, Southwest Ethiopia, 2019

SRH issues discussed	Category	Male (n,%)	Female(n,%)	Total (n,%)
Important to discuss on SRH issues	agree	130(86.7)	160(97)	290(92)
	neutral	6(4)	2	2.5
	disagree	14(9)	3	5.5
Discussion on at least two SRH issues	yes	101(67.3)	92(55.7)	193(61.3)
	no	49(32.7)	73(44.3)	122(38.7)
Contraceptive	yes	24(16)	38(23)	62(19.7)
	no	126(84)	127(77)	253(80.3)
Menstrual cycle	yes	21(14)	46(27.9)	67(21.3)
	no	129(86)	119(72.1)	248(78.7)
STIs/HIV/AIDS	yes	45(30)	67(40)	112(35.6)
	no	105(70)	98(60)	203(64.4)
Unwanted pregnancy	yes	24(16)	51(30.9)	75(23.8)
	no	126(84)	114(69.1)	240(76.2)
premarital sex	yes	39(26)	87(52.3)	126(40)
	no	111(74)	78(47.3)	189(60)
Abortion	yes	12(8)	17(10.3)	29(9.3)
	no	138(92)	148(89.7)	286(90.7)
Puberty	yes	65(43.3)	54(32.7)	119(37.8)
	no	85(56.7)	111(67.3)	196(62.2)
Sexual intercourse	yes	27(18)	18(10.9)	45(14.3)
	no	123(82)	147(89.1)	270(85.7)
Condom	yes	21(14)	15(9.1)	36(11.4)
	no	129(86)	150(90.9)	279(88.6)

Only hundred twelve (35.6%) of the students had discussed about STIs/HIV/AIDS because of parents' lack of knowledge (49.5%) and shame (35.9%). Similarly only 23.8% of the students discussed with their parents about unwanted pregnancy due to shame(46%) and parents lack of (24.8%) (Table 3).

Table 3; Reasons for adolescent high school students for not discussing on SRH issues with their parents in Agaro town, Southwest Ethiopia, 2019

Topic of discussion	Not discussed (n,%)	Reasons for not discussing					
		Shame*	Culturally unacceptable*	Parents lack knowledge*	Parents too busy*	Difficult and embarrassing*	Others†
Contraceptive	253(80.3)	129(40.9)	84(26.7)	95(30.2)	46(14.6)	54(17.1)	8(2.5)
STIs/HIV/AIDS	203(64.4)	113(35.9)	76(24.1)	156(49.5)	37(11.7)	31(9.8)	11(3.4)
Unwanted pregnancy	240(76.2)	145(46)	32(10.2)	78(24.8)	27(8.5)	64(20.3)	7(2.2)
Premarital sex	189(60)	178(56.5)	57(18.1)	41(13)	19(6)	94(29.8)	13(4.1)
Sexual intercourse	270(85.7)	190(60.3)	31(9.8)	51(16.2)	12(3.8)	75(23.8)	15(4.8)
Condom	279(88.6)	201(63.8)	74(23.5)	25(7.9)	13(4.1)	87(27.6)	11(3.5)
Puberty	196(62.2)	82(26)	11(3.5)	32(10.2)	43(13.7)	18(5.7)	7(2.2)

*multiple responses were possible, † Belief that it initiate sex, religious belief, don't now

3.4 Factors associated with parent-adolescent communications on SRH issues

Bivariable logistic regression analysis was performed to assess association between each independent variable and outcome variable. Results of bivariable analysis showed that sex of student, mother education status, father education status, age, having ever got SRH information, having boy/girlfriend, residence, occupation of family and family size show association with parent adolescent communication. All of them were entered to multivariable analysis to control effect of confounding. The result of multivariable logistic regression model revealed that educational status of biological parents, family size of < 5 and having boy/girlfriend were significantly associated with parent adolescent communication.

The odds of parent-adolescent communication were 6.4 times [AOR = 6.4 1.6; 95% CI: 3.36,12.37] higher among students of family size of < 5 than their counter parts. The odds of parent-adolescent communication were 1.99 times [AOR = 1.99; 95% CI: 1.3,8] higher among students who had boy/girlfriend than those who had no boy/girlfriend.

Adolescents, whose mothers had primary education, were 3.67 times more likely to communicate on SRH issues with their parents than those students whose mothers were illiterate (AOR = 3.67; 95% CI: 1.93–6.97). Similarly, adolescents, whose mothers had secondary education were 2.86 times more likely to communicate on SRH issues with their parents than those students whose mothers were illiterate (AOR = 2.86 95%CI:1.2,6.8). This study also revealed fathers' education [primary education (AOR = 5.8 95%CI: 2.8,12.3), secondary education (AOR = 3.21 95%CI:1.55,6.59)] were significantly associated with parent adolescent communication after controlling for confounders (Table 4).

Table 4

; Bivariate and multivariable binary logistic regression analysis for factors associated with parent-adolescent communication among high school and preparatory school students in Agaro town, Southwest Ethiopia 2019.

Variables	Category	Parent-adolescent communication		Bivariable Analysis		Multivariable analysis	
		Yes	No	P-value	COR (95%CI)	P-value	AOR (95%CI)
Age(years)	15–19	82	60	1	1	1	
	20–24	111	62	.245	1.31[.83,2.1]	.911	1[.58,1.81]
Mother educational level	Illiterate	36	55	1	1	1	1
	primary	109	41	0	4[2.3,7]	≤ 0.001	3.67[1.93,6.97]
	secondary	48	26	.001	2.8[1.49,5.33]	0.017*	2.86[1.2,6.8]
Father educational status	illiterate	28	45	1	1	1	1
	primary	96	38	≤ 0.001	4[2.2,7.4]	≤ 0.001*	5.8[2.8,12.3]
	secondary	69	39	.001	2.8[1.54,5.25]	0.002*	3.2[1.55,6.59]
Occupation of family	Housewife	40	31	1	1	1	1
	farmer	61	47	.985	1[.55,1.84]	.613	1.2[.58,2.45]
	employed	37	21	.391	1.36[.67,2.78]	.676	1.19[.52,2.73]
	Private worker	45	19	.095	1.83[.9,3.74]	.108	2[.85,4.77]
	othert	10	4	.300	1.93[.55,6.76]	.955	1[.25,4.3]
Sex	male	101	49	.036	1.636[1,2.58]	.100	2.45[.84,6.89]
	female	92	73	1	1	1	1
Residence	rural	115	88	1	1	1	1
	urban	78	34	0.024	1.75[1,2.86]	.774	.86[.32,2.34]
Family size	<5	129	46	≤ 0.001	3.3[2,5.34]	≤ 0.001*	6.4[3.36,12.37]
	≥ 5	64	76	1	1	1	1
Has boy/girlfriend	yes	59	24	.034	1.79[1, 3]	.041*	1.99[1,3.8]
	no	134	98	1	1	1	1
Had ever got SRH information	yes	110	58	.102	.68[.43,1]	.260	.73[.43,1.26]
	no	83	64	1	1	1	1

* value statistically significant; †retired, unemployed; AOR- Adjusted Odds ratio; COR-Crude odds ratio; 1-reference

4. Discussion

This study has attempted to assess the prevalence of parent-adolescent communication on SRH issues and its associated factors in Agaro secondary and preparatory school students, Southwest Ethiopia. Although the majority (92%) of participants

reported that, it is important to discuss on SRH issues with their parents, only 61.3% (193) [95% CI: 55.6,66.7] were discussed about SRH issues with their parents. This finding was in line with two independent studies done in Ethiopia, 59.1% in Yergalem, South Ethiopia (18) and 57.6% in Mekelle, Northern Ethiopia (19). However, this result was higher than a study done in Dabat, Northwest Ethiopia, Robe, Southeast Ethiopia, Dire Dawa, Eastern Ethiopia and India which reported 48.5%, 47%, 37% and 29% respectively (14,20–22). This difference might be due to the difference in socio-demographic, cultural difference and accessing sexual reproductive health information. For example, the possible explanation of higher prevalence in our study could be due to home to home, school and mass health education and information by Jimma University health science students during community based team training program every year.

In contrast, the finding of the current study is lower than that of a study conducted in Hayik, Northeast Ethiopia 83%(23), Malawi 74%(24) and Ghana 82.3%(25). The difference might be related to difference in sample size used, socio-demographic status, level of awareness, culture related to openness related to SRH issues and the difference in accessing SRH information. For instance, study in Hayik, Northeast Ethiopia in which three quarter of participants resides in urban area who has adequate access to reproductive health services.

Regarding challenges for not discussing SRH issues shame, cultural taboos, embarrassments and parents' lack of knowledge were mentioned by the majority of participants. For instance, 76.2% of participants were not discussed regarding unwanted pregnancy due to shame and parents' lack of knowledge 46% and 24.8% respectively. This was consistent with previous studies (23,26). This might be due to the fact that sexual conversations are deemed a taboo subject in many African communities, including our country.

In agreement with earlier studies, in this study educational status of father and mother showed statistical significance with parent adolescent communication about SRH issues (23,27,28). This could be due to educated parents have better access to health service information, improved perceptions of SRH issue and better skill of communication.

In the same manner, the study showed that those students whose family size was less than five were more likely to communicate compared to those whose family size was ≥ 5 . This result agreed with previous study (29). This result demonstrated that those parents with small family size had better chance of discussing SRH issues with their children. Finally, the present study revealed that there were significant association between parent adolescent's sexual and reproductive issues and having boy/girlfriend. The possible reason for this association might be students who enter to relationship may raise about SRH issues with each other and they may discuss with their parents for more information.

Limitation Of The Study

1st due to cross-sectional nature of the study, it was difficult to imply cause–effect relationship. 2nd this study was done to assess parent adolescent communication were based on adolescents' perceptions, which may not reflect what parents were actually doing. 3rd, since it was based on self-reporting, it might be affected by social desirability bias because of sensitive nature and cultural barrier for open discussion and finally additional qualitative study should be done to explore more on adolescents and parents communication.

Conclusion

This study showed about two third of adolescents had discussion on sexual and reproductive health issues with their parents on at least two sexual and reproductive health issues. Educational level of parents, having family size of < 5 and having boy/girlfriend were significantly associated with communication. The main reasons for not communicated was cultural taboos, shame and parents lack of knowledge.

Abbreviations

AIDS

Acquired immune deficiency syndrome
SRH
Sexual reproductive health
STIs
Sexually transmitted infections
HIV
Human immune virus

Declarations

Financial support

Nil.

Conflicts of Interest

The authors of this study declare that have no competing interests

Ethical approval

Ethical clearance was obtained from the Institutional Review Board of the Jimma University. A formal letter of cooperation was written to the school administration Agaro District Education Office for permission and support.

Consent to participate

After ethical approval, the objective of the study was described and oral informed consent was obtained from study participants aged ≥ 18 years and parental informed consent was obtained for those who were aged ≥ 15 years after explaining the purpose of the study. Information was recorded anonymously and confidentiality and beneficence were assured throughout the process.

Consent for publication

Not applicable

Data Availability

The data used to support the findings of this study are available from the corresponding author upon reasonable request.

Author Contributions

Both authors made substantial contributions to conception and acquisition of data, or analysis and interpretation of data; took part in drafting the article or revising it critically for important intellectual content; agreed to submit to the current journal; gave final approval of the version to be published and agree to be accountable for all aspects of the work.

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