

# Parent-Adolescent Communication About Contraceptives And Its Associated Factors in Bahir Dar City, North West, Ethiopia, 2022

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**Abstract:** Adolescent pregnancy is a serious and complex problem. An overwhelming majority of teens feel that avoiding teen pregnancy would be easier if they were able to have open discussions about contraceptives with their parents. This study aimed to assess parent-adolescent communication about contraceptives and its associated factors in Bahir Dar city, North West Ethiopia, 2022 GC. Institution based cross-sectional study was conducted. A total of 821 adolescents was included in the study from June 10 to 30/2022GC. Multi stage - simple random sampling technique was used. The data was collected by using a pretested and structured interviewer administered questionnaire via Epicollect5. Then it was exported in to Statistical Package for Social Sciences version 25 for analysis. Both bivariable and multivariable logistic regression analysis were done. Variables with a p-value of  $<0.05$  were considered statistically significant. *Result:* Overall (22.3%) (95% CI: 19%-25%) of the adolescent had communicated about contraceptives with their parents in the past six months. Favorable attitude toward parent-adolescent communication [AOR= 4.014; 95%CI: 2.618-6.155], being sexually active [AOR= 2.236, 95%CI: 1.341-3.731], female sex [AOR =2.675, 95%CI: 1.761-4.065], age (15-19) [AOR=1.641, 95%CI: 1.042,2.586], knowledgeable toward contraceptives [AOR=1.661, 95%CI: 1.016-2.717], private school student [AOR=0.451; 95%CI: 0.245-0.831] and family size of  $\geq 5$  [AOR=2.764, 95%CI: 1.791-4.267] were significantly associated with parent-adolescentcommunication about contraceptives. *Conclusion and Recommendation:* Communication about contraceptives between the adolescent and their parents was low. Parents shall give especial emphasis to male adolescents, but not mean that neglecting the female adolescent. It is important to encourage and empower parents to start to communicate with their adolescents while the adolescents are still in the early adolescent years, before they become sexually active.

**Keywords:** Contraceptive, Adolescent, Parent, Communication

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## 1. Introduction

Adolescence is defined by the World Health Organization (WHO) as the period between the ages of 10 and 19 during which a person transitions from childhood to adulthood [1]. Adolescence is a time of experimentation, and during this time, adolescents frequently come into contact with high-risk circumstances, such as HIV, unintended pregnancy and abortion [1]. Many Adolescents experience critical and life-defining challenges such as their first sexual experience, marriage, pregnancy, and parenthood [2]. The essential process

by which parents transmit to their children ideas, values, beliefs, expectations, knowledge, and information is known as parent-adolescent communication [3]. Adolescents have been at risk to sex at an early age ( $< 15$  years) (4). The mean ages of first sexual activity were prior to the age 15 [4-8]. Twenty four percent of women and 2% of men have first sexual intercourse before age 15, (62%) and (17%) have had sexual intercourse before age 18, respectively. By age 20, 76% of women and 36% of men have had sexual intercourse [9]. This early age at first sex among adolescents could expose them to the risks of unplanned pregnancy and sexually transmitted infections

including HIV and abortion. Since many adolescents begin sexual activity at a young age, communication between parents and adolescents about contraceptive is essential [4, 10]. Talking with adolescents about contraceptives this is a positive parenting practice [11]. By discussing contraception with their adolescents, parents can help their children reach this potential [12]. Globally, adolescents constitute a population of 1.2 billion, and more than 80% of them live in low- and middle-income countries [1].

Although there are several safe and effective contraceptives available, adolescent pregnancy is still on the increase [13]. Every year, approximately 21 million girls aged 15 to 19 years and 2 million girls aged less than 15 years become pregnant in developing regions [14]. In Sub-Saharan Africa, where the risk of HIV, STIs, unwanted pregnancies, and unsafe abortions is high, parent-adolescent contraceptive communication is especially important [15]. In Ethiopia, adolescent population age (10–19) years accounts a quarter of the total Ethiopian population which demands large investment in reproductive health.

Adolescent pregnancies are highly likely to be unplanned. Almost half of the pregnancies among adolescents in Ethiopia are unintended, and 46% of those unintended pregnancies end in abortion [16]. The 2016 Ethiopia Demographic and Health Survey (EDHS) showed that 25.1% of pregnancies among Ethiopian adolescents aged 15-19 years were unintended [9]. Lack of parental guidance and communication about sexual issues is in fact a determinant of adolescent pregnancy [17]. An overwhelming majority of teens feel that avoiding teen pregnancy would be easier if they were able to have open discussions on contraceptives with their parents [18]. Adolescents had also suggested that parent-child communication about sexual issues may be an effective means of reducing teenage pregnancies [19].

Discussing about contraceptives with parents were found to be independent predictors for contraceptive awareness among adolescent [20]. However, rarely discussed sexual and reproductive health (SRH) topics were contraceptive and Condom [7, 21, 22]. Parent adolescent communication about the use of condoms was an uncommon and untouched topic of discussion [21, 23-25]. So far, in many of the existing studies in Ethiopia on parent-adolescent communication on SRH issues had provided only a global SRH assessment of information, without offering detail data on the specific contraceptives communication.

Thus, the need to examine parent-adolescent contraceptive communication would help to provide a comprehensive picture on how best to improve parent-adolescent communication and its outcomes.

## 2. Methodology

### 2.1. Study Setting and Design

The study was conducted in Bahir Dar City, which is located in Amhara region, at a distance of 565 km from Addis Ababa. Bahir Dar is the capital of Amhara National

Regional State. There were a total of 47 Primary schools and 17 Secondary schools in Bahir Dar City. Institution based cross-sectional study design was conducted among all students aged between 10 to 19 years who were attending their education in Bahir Dar city from June 10 to 30/2022 GC.

Study population were selected adolescents aged 10 to 19 years old attending at primary and secondary schools who enrolled in the year of 2021/2022 G. C. All regular adolescent students aged 10 to 19 years old enrolled from grade 4 to 12 at primary and secondary schools in Bahir Dar city at the time of data collection were included. While Non-regular adolescent students (night program), students with seriously illness to respond to the question and those who withdraw the second semester school program, students who were absent at the time of data collection and married adolescent were excluded.

### 2.2. Sample Size and Sampling Procedure

The sample size was determined by using a single population proportion formula with margin of error (w) 5%, 95% confidence level;  $p=50\%$  of the proportion of parent-adolescent communication, design effect of 2 and adding 10 % non-response rate.

The final sample size after adding 10% non-response rate was 845.

$$n = \frac{Z (\alpha/2) 2P (1-P)}{d^2}$$

Accordingly,

$$\begin{aligned} n &= (1.96)^2 (0.5 \times 0.5) / (0.05)^2 \times DE \\ &= 384 \times 2 = 768 \end{aligned}$$

After adding 10 % non-response rate=845

Multi stage sampling technique was used to reach the study participants. Initially, stratification was made by school type. There were 23 public schools and 41 private schools in Bahir Dar city. By taking 30% of each school, 7 public and 12 private schools were selected randomly.

Accordingly, the sample was allocated proportionally based on the number of adolescents with respect to each school. To select the study participants, a first a list of students was secured from the rosters of all selected schools and two sampling frames was prepared, one for governmental schools and the other for private schools, in Microsoft Excel. A simple random sample of the required sample size was selected from each sampling frame by generating a random number in Excel.

### 2.3. Data Collection Tools and Procedures

The tool was adapted from previous literatures [26-28]. The questionnaire had five parts, part I: socio-demographic characteristics, part II: knowledge of adolescents towards contraceptives, part III: attitude of adolescents towards contraceptive communication, part IV: sexual behavior of adolescents, part V: communication of adolescents and parents about contraceptives. Prior to the data collection date, eight

data collectors and two supervisors were recruited based on being familiar with the same task before. Young data collectors were selected because they were seamlessly acceptable to target adolescents. Male data collectors assigned for male adolescent and females data collectors did the same for females adolescents. In each school, an official communication was used to identify a suitable time for data collection. Adolescents were given a clear introduction explaining the purpose and objectives of the study and similarly assured about the confidentiality and privacy of their responses. After guarantying respondents willingness to take part in the study, data collectors collected the data in local language (Amharic) through face-to-face interviews by using pretested and anonymously structured closed-ended questionnaire. To avoid information contamination, data were collected during a single day in each participating school from each selected adolescent at a convenient place via epi-collect5. Data collection occurred in the absence of class teachers, and efforts were made to ensure maximum comfort and privacy for the participants. One respondent at a time where the place and time were convenient for the interviewee. Subjects were considered as non-respondents if they were not willing to answer or unable to finish the interview and replaced if they were not been around during the data collection period.

#### 2.4. Data Quality Assurance

To assure the quality of the data, questionnaire was prepared in English and then translated to Amharic and translated back to English to observe its consistency. Pretest was done before the actual data collection time on 5% (43 adolescents) of the sample to check the clarity, consistency, skipping pattern, and order of the questions. The data obtained from the pretest was not included in the final analysis. After the pretest, the questionnaire was modified accordingly. The purpose of data collection and the importance of the study as well as the significance of true information was enlightened in order to maximize the response rate and to generate reliable data. Training was given to data collectors and supervisors for two days. Every day after data collection, the questionnaires were reviewed and checked for completeness, accuracy and clarity by the principal investigator and supervisors. Finally, appropriate coding and entry was done. Content validity indices for the items were calculated by 10 experts accordingly the result was 0.9. For the attitude assessing question, internal consistency was checked by calculating Cronbach's Alpha, i.e 0.83 with 10 items.

#### 2.5. Data Processing and Analysis

Data were coded, entered, and cleaned and exported to SPSS version 25 for analysis. Descriptive statistics, proportions, frequencies, and mean were calculated. Categorical variable were summarized using numbers and percentages to be displayed by using frequency tables and graphs, whereas continuous variable was presented as mean/median and standard deviation /IQR based on the distribution of the data. In addition, the cross-tabulation was

computed using dependent and independent variables to see the relative effect of the independent variables on the dependent variable. Binary logistic regression was run to see the association of each independent variable with parent-adolescent communication about contraceptives. Variables with P-value less than 0.25 in bivariable analysis were entered in the multivariable logistic regression. Then, multiple logistic regression analysis was performed to identify independent predictors by controlling for possible confounders. The adjusted odds ratio was used to interpret the strength of association at 95% CI. A statistical test of association was considered significant at a p-value of <0.05. Multicollinearity was checked by using correlation coefficient and variance inflation factor via considering the value of  $>|0.7|$  and  $>5$  as an indicator for the existence of collinearity respectively. The model fitness was checked using Hosmer-Lemeshow Goodness of fit test ( $p > 0.05$ ), accordingly the result was 0.3.

#### 2.6. Variables of the Study

Communication between parents and adolescents about contraceptives was our dependent variable. Variables, such as sociodemographic characteristics, knowledge of the adolescent about contraceptives, attitude of the adolescent about contraceptive communication with the parent, sexual factors, and behavioral factors were our independent variables.

##### *Operational definitions*

**Parent:** Parents in this study denote the biological or non biological mothers/fathers with whom the adolescents were primarily living the last six months prior to the study period [29].

**Parent adolescent communication:** Parent adolescent communication regarding contraceptives was measured by adolescent reports about contraceptives communication in the past six months with their parents.

**Contraceptives:** Female sterilisation, male sterilisation, and the intrauterine contraceptive device.

(IUD), implants, injectables, pill, male condoms, female condoms, emergency contraception, standard day method (SDM), and lactational amenorrhoea method (LAM).

**Attitudes about contraceptive communication:** Adolescent who scored 75% and above from the 10 attitudes assessing Likert scale questions was considered as having a favorable attitudes and who scored below 75% was considered as unfavorable attitude [27].

**Knowledge about contraceptives:** Adolescents who answered 50% or more questions from those 10 knowledge assessing questions were considered as knowledgeable, those adolescents who scored below 50% or those who have no information about contraceptives at all was considered as not knowledgeable [28].

### 3. Result

#### 3.1. Socio-Demographic Characteristics of the Respondents

In this study, eight hundred twenty-one adolescents were

participated making a response rate of (97.2%). Four hundred forty-three (54%) were females.

The mean age of the adolescent was 14.5 (SD  $\pm$ 2.6) years.

Seven hundred fifty-three (91.7%) were amhara in their Ethnicity. Six hundred eleven (74.4%) were in public schools. Six hundred fifty-two (79.4%) were Orthodox. (Table 1).

**Table 1.** Socio-demographic characteristics of adolescents in Bahir dar city, North West, Ethiopia, June, 2022.

Variables	Categories	Frequency	Percent
Sex	Male	378	46.0
	Female	443	54.0
Age	10-14	428	52.1
	15-19	393	47.9
Educational status	Primary	417	50.8
	Secondary	404	49.2
Type of school	Private school	210	25.6
	Public school	611	74.4
Listen school mini media	No	417	50.8
	Yes	404	49.2
Ethnicity	Amhara	753	91.7
	Others <sup>1</sup>	68	8.3
Religion	Orthodox	652	79.4
	Muslim	81	9.9
Religious participation	Others <sup>2</sup>	88	10.7
	Every day	109	13.3
Living arrangements of students	At least once a week	402	49.0
	At least once a month	239	29.1
Mother's educational status; n=795	Once a year	71	8.6
	With Both parents	696	84.8
Father's educational status, n=775	Others <sup>3</sup>	125	15.2
	Unable to read and write	23	2.9
Occupation of the mother, n=795	Able to read and write (but no formal education)	171	21.5
	Primary (1-8th)	231	29.1
Occupation of your father, n=775	Secondary (9-10th)	173	21.1
	Diploma and above	197	25.4
Family size	Unable to read and write	17	2.2
	Able to read and write (but no formal education)	109	15.4
Family income per month	Primary (1-8 <sup>th</sup> )	177	22.8
	Secondary (9-10 <sup>th</sup> )	164	21.2
	Diploma and above	308	38.4
	House maker	387	48.7
	Employed (private)	158	19.8
	Employed (government)	149	18.8
	Others <sup>4</sup>	101	12.7
	Unemployed	25	3.2
	Employed (private)	319	41.2
	Employed (government)	235	30.3
	Others <sup>5</sup>	242	25.3
	<5	582	70.9
	$\geq$ 5	239	29.1
	<4000	231	28.1
	4001-7000	219	26.7
	7001-10000	246	30.0
	>10001	125	15.2

Others<sup>1</sup> Tigrie, Gurage, Agew, Oromo; Others<sup>2</sup> Protestant, Adventist; Others<sup>3</sup> With Mother only, With Father only; Others<sup>4</sup> Merchant, Daily laborer, Farmer  
Others<sup>5</sup> Merchant, Daily laborer, Farmer

### 3.2. Knowledge of the Adolescent About Contraceptives

Among the 516 adolescents who had awareness about contraceptives when responding to each method-specific knowledge question, out of those who had heard about the pills, 45 (24.1%) of them were not sure or did not know

whether oral pills should be taken daily, 47 (17.7%) were not sure whether emergency pills must be taken within 72 hour after unprotected sex, 87 (28.1%) were not sure or did not know whether injectable should be taken every 3 month. The analysis showed that 162 (19.7%) of the adolescent had comprehensive knowledge about contraceptives. (Table 2).

**Table 2.** Knowledge level of adolescent among who had awareness about contraceptives in Bahir dar city, North West Ethiopia, June 2022.

Total Knowledge indicators			
women should take a pill every day to avoid becoming pregnant (n=187)	Yes	142	75.9
	No / Don't know	45	24.1
To prevent pregnancy emergency pills must be taken within 72 hour after unprotected sex (n=265)	Yes	218	82.3
	No / Don't know	47	17.7
To prevent pregnancy injectable (Depo) should be taken every 3 months.(n=310)	Yes	223	71.9
	No / Don't know	87	28.1
Implants can prevent pregnancy up to 5 years (n=176)	Yes	68	38.6
	No / Don't know	108	61.4
IUCD (loop) can prevent pregnancy up to 12 years (n=201)	Yes	70	34.8
	No / Don't know	131	65.2
One condom can't be used more than once (n=449)	Yes	226	50.3
	No / Don't know	223	49.7
Breast feeding can prevent pregnancy up to 6 months (n=119)	Yes	81	68.1
	No / Don't know	38	31.9
Day 9–19 are unsafe period of the menstrual cycle (n=203)	Yes	141	69.5
	No / Don't know	62	30.5

### 3.3. Sexual History of Participants

Three hundred sixty-four (44.35%) of the students believed that it is normal to have sexual feeling during adolescent. One hundred ninety-four (23.6%) had a boy friend/girl friend. One Hundred Fourteen (13.9%) adolescents had made sexual intercourse. The mean age for adolescents to have first sex was found to be 15.2 ( $\pm 1.3$ SD). Among the sexually active adolescents forty-one (35.9%) of them had multiple sexual partners.

Eighty Two (72%) had made sex with their Boy/ girlfriends. Twenty-eight (24.5%) made sex an unknown person & the rest made sex with relatives (3.5%). Sixty (52.6%) initiated sexual intercourse by peer pressure, 49 (42.9%) due to falling in love, fourteen (12.2%) to maintain relationship, thirty-three (28.9%) by sex film influence, nine (7.8%) by the influence of alcohol, six (5.2%) to get money and other gifts.

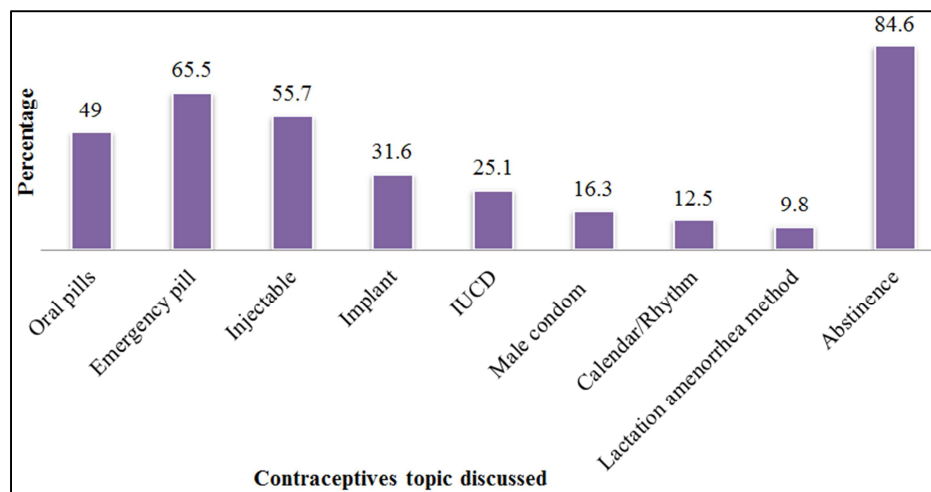
Thirty-three (28.9%) had used contraceptives when they had sex for the first time. Fifteen (45.4%) used an emergency pills, eight (24.2%) used condoms, and ten (30.3%) used injectables at their first sexual intercourse. The reasons for not using contraceptives at first sexual intercourse were, fifty (61.7%) because they believed pregnancy were not possible,

seventeen (20.9%) of them responded that sex was unplanned, twenty-eight (34.5%) didn't know any method, seven (6.1%) intoxication with alcohol, eight (9.8%) afraid of being seen by parents.

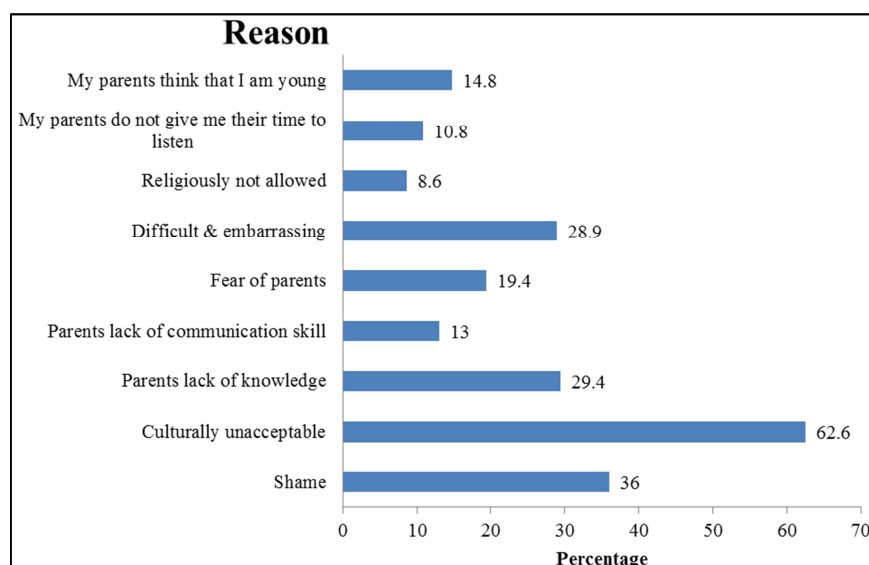
Eighty-four (73.3%) had used contraceptives at their last sexual intercourse. Thirty-four (40.7%) used injectable. Majority 453 (55.2%) of the respondent plan to use contraceptives in the future. Among the sexually active female participant, 17 (3.8%) of them experienced unwanted pregnancy. Of those pregnancy, 13 (76.4%) ended up in abortion. Ninety five (11.6%) took substance. Among those majority, 70 (73.6%) used alcohol, while 20 (21%), 13 (13.1%), and 5 (5.2%) used khat, tobacco, and shisha respectively. Thirty-eight (40%) had sexual intercourse after the substance use.

### 3.4. Parent-Adolescent Contraceptives Communication

Although six hundred fifty-seven (80%) of the respondents reported that it was important to discuss about contraceptives with parents, one hundred eighty-three (22.3%)(95% CI: 19%-25%) of the adolescent had communicated with their parents. Regarding, the contraceptives topics Among 183 adolescents who discussed with the parent about contraceptives, the majority (84.6%) were discussed about Abstinence. (Figure 1).



**Figure 1.** Contraceptives topic discussed among parent and adolescent in Bahir dar city, North West, Ethiopia June, 2022.



**Figure 2.** Major reasons of respondents for not discussing about contraceptives in the last 6 months with their parents, in Bahir dar city, North West, Ethiopia, June 2022.

One hundred forty-five (79.2%) had discussed with their mother, whereas 38 (20.8%) discussed with their father. Regarding the frequency of communication, 20 (52.6%), 11 (29%), and 7 (18.4A%) of the adolescent had discussed about contraceptives with their father rarely, sometimes, and often respectively. Where as 64 (44.2%), 37 (25.5%), 44 (30.3%) of the adolescent had discussed about contraceptives with their mother rarely, sometimes, and often respectively. Majority (36.2%) of the adolescent preferred to discuss about contraceptives with their friends (peers), followed by their mothers (20.2%), brother/sisters (19.4%). Among the three hundred five who didn't discussed contraceptives with parent, the majority (62.6%) were due to parent adolescent contraceptive communication were culturally unacceptable,

followed by Shame (36%), Parents lack of knowledge (29.4 %), Difficult & embarrassing (28.9%) (Figure 2).

### 3.5. Factors Associated with Parent-Adolescent Communication

In bivariable logistic regression analysis, sex of adolescent, family size, age, income, school type, perceived importance of discussion, attitude, knowledge, and ever had sex were the candidate variables for multivariable logistic regression at P value <0.25. The results of the multivariable logistic regression model revealed that sex of adolescents, family size, age, knowledge, attitude, school type, ever had sex were significantly associated with parent-adolescent communication (Table 3).

**Table 3.** Bi-variable and multi-variable logistic regression of parent adolescent contraceptives communication in Bahir Dar city, North West Ethiopia, June, 2022.

Variables	Category	Parent adolescent communication		COR (95%CI)	AOR (95%C)
		Yes	No		
Sex	Male	47	331	1	1
	Female	136	307	3.120 (2.163,4.50)	2.675 (1.761,4.065)**
Age	10-14	52	376	1	1
	15-19	131	262	3.615 (2.528,5.171)	1.641 (1.042,2.586)*
Family size	<5	89	493	1	1
	≥5	94	145	3.591 (2.546,5.065)	2.764 (1.791,4.267)**
	<4000	`	194	1	1
Family income per month	4001-7000	38	181	1.101 (.670-1.808)	.780 (.438,1.389)
	7001-10000	60	186	1.691 (1.072-2.670)	.926 (.514,1.667)
	>10001	48	77	3.269 (1.975-5.408)	1.617 (.764,3.425)
Knowledge	Not Knowledgeable	104	555	1	1
	knowledgeable	79	83	5.079 (3.5,7.372)	1.661 (1.016,2.717)*
Attitude	Unfavorable	83	535	1	1
	Favorable	100	103	6.258 (4.369,8.965)	4.014 (2.618,6.155)**
Perceived importance of discussion	No	16	132	1	1
	Yes	167	506	1.819 (1.127,2.934)	1.495 (.8,2.793)
Ever had sex	No	130	577	1	1
	Yes	53	61	3.856 (2.548,5.836)	2.236 (1.341,3.731)*
Types of school	Public	155	456	1	1
	Private	28	182	.453 (.292, .701)	.451 (.245, .831)*

COR: crude odd ratio; AOR: adjusted odd ratio; CI: confidence interval \*= $p$  value <0.05 and \*\*= $p$  value ≤0.001

## 4. Discussion

This study revealed that in the past 6 months parent-adolescent communication about contraceptives was 183 (22.3%) (95% CI: 19%-25%). This finding is in line with studies done in Weldia (20.9%), and Awabel (21.2%) [30, 31]. The possible reason may be due to similarity in the measurement of the outcome variable, as they also measure the presence of communication in the past 6 months. However, this finding is lower than study done in Wereta (43.3%) [32] and Yirgalem (36.1%) [33]. This difference may be attributable to the difference in the study population. The study done in Yirgalem and Wereta collected information from late adolescents (from grade 9–12 students) which are assumed to communicate contraceptives than early adolescent, therefore it may increase the proportion of adolescents who communicate with their parents about contraceptives. Where as in this study, both early and late adolescents were participated. Again, this finding is lower than study done in Netherland (47.5%), China (35%), Nigeria (50.2%) and Gambia (42.2%) [34-37]. The possible explanation for this discrepancy may be due socioeconomic differences and culture related to openness of contraceptives discussion. This is due to the fact that contraceptive conversations are deemed a taboo subject in Ethiopia. In addition, it might be due to the difference related to parenting style, having such conversion may be seen as a positive parenting style in that countries.

However, this study is higher than two district of Nepal (10.1%), (2.8%) [11, 38], Bangladesh (4.4%) and Myanmar (5.3%) [39, 40]. This difference might be due to tool differences. Here in this study contraceptives include all pregnancy prevention methods like condoms, abstinence and others where as in that studies condoms and abstinence were not included in contraceptives because they had own category. Adolescents who had a favorable attitudes toward parent-adolescent contraceptive communication were more likely to discuss issues with their parents than their counterparts. This is in line with study done in bidity town [26]. Similarly adolescents who had knowledge about contraceptives were more likely to discuss issues with their parents than their counterparts. This is due to adolescents who had knowledge about contraceptives being anxious to communicate the issue to parents. This is in line with study done in Debre Markos [41]. The possible reason might be due to their perceived importance to discussion. Having poor knowledge and unfavorable attitudes are communication barriers that make the adolescent less confident or skeptical of talking about contraceptives with parents.

The odds of parent-adolescent communication were higher among female adolescents than male adolescents. This is in line with study in Myanmar [39], in Ambo [42], in Netherlands [36] which might be due to the fact that females spend more time in the home where they can easily access their parents. In addition, it might be due to adolescent girls are more vulnerable; thereby, they require more information

on preventive sexual practices to lead a healthy life.

Adolescents who were within the age group (15–19) years were 1.6 times more likely likely to communicate with their parents about contraceptives than adolescents who were in the age group (10-14). This is in line with study done in Nigeria [34].

The implication is that the discussion about contraceptives varies as adolescents approach late adolescents' stage. Adolescents who were sexually active were 2.2 times more likely to communicate with their parents about contraceptives than adolescents who were not sexually active. This is in line with study done in Weldia [31] and in Amhara region [43]. Which might be due to the adolescent who enter into sexual relationships may raise the issue about contraceptives with each other, and they may discuss with their parents for more information to know more about contraceptives.

Moreover, a possible explanation for this might be communication about contraceptives mainly occurred once the adolescent were already sexually active. Another possible reason might also be due to fear of the complication that comes after sexual intercourse, a sexually active adolescents may discuss this issue with their parents. Similarly, the odds of parent-adolescent contraceptive communication were 2.7 times higher among students of family size of  $\geq 5$  than their counter parts. This is supported by a study done in Dera woreda, North West Ethiopia [44]. The possible reason might be as family members increase, they can easily predict the outcome of poor communication between family members. In addition, there might have different information sources as family members increase, the information they got from different sources may pave the way for the initiation of communication.

## 5. Conclusion

Communication about contraceptives between the adolescent and their parent was low. Favorable attitude toward parent-adolescent communication, being sexually active, female sex, age (15-19), knowledgeable toward contraceptives, private school student, and family size of  $\geq 5$  were significantly associated with parent adolescent communication about contraceptives.

## 6. Recommendation

Based on the current findings, the following recommendations were made.

Parents shall give especial emphasis to male adolescents, but not mean that neglecting the female adolescent. It is important to encourage and empower parents to start to communicate with their adolescents while the adolescents are still in the early adolescent years, before they become sexually active.

The health extension workers and other health professionals shall teach parents how to communication with their adolescents and facilitate the community to encourage open contraceptives discussion among family members with



their adolescents. Role model families' and adolescents shall share their experience in media. Additionally, in order to ensure the discussions between parents and adolescents in the early stages of puberty are beneficial, parents must be equipped with reliable and current contraceptive information.

## List of Abbreviations

AOR: Adjusted Odds Ratio; CI: Confidence Interval; COR: Crude Odds Ratio; EDHS: Ethiopia Demographic and Health Survey; HEW: Health Extension Worker; HIV: Human Immune Deficiency Virus; IDI: In-Depth Interview; PI: Principal Investigator; RH: Reproductive Health; SRH: Sexual and Reproductive Health; SRS: Simple Random Sampling; STI: Sexually Transmitted infection; WHO: World Health Organization.

## Declaration

### *Ethics Approval and Consent to Participate*

This study was conducted in accordance with the Declaration of Helsinki. Ethical clearance was obtained from Bahir Dar University College of Medicine and Health Science Institutional Review Board (IRB) with ethical clearance letter Ref No443/2022. A letter of cooperation was obtained from Amhara Public Health Institute and from Bahir Dar town Health Office. Participants were informed explicitly about the purpose, benefits, risks, discomfort, and right to refusal, even withdrawal at any time while interview. Written informed consent was obtained from parents or legal guardians for those adolescents aged below 18 years. For those study participants who were greater or equal to 18 years written consent was obtained directly from adolescents. In order to secure the confidentiality of the information, personal identifier was not used throughout the study.

### *Availability of Data and Materials*

The data could be accessed for every one based on requests.

### *Competing Interests*

We have no competing interests.

### *Author Details*

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### *Authors' Contributions*

BW designed the research proposal, supervised the data collection, conducted the data analysis and wrote this manuscript. GA and GW were involved in all stage of this research. All authors reviewed and approved the

manuscript.

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