# Parent-adolescent communication about Sexual and Reproductive Health Issues and Associated Factors among Mothers in Wogdie District, North Ethiopia

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# Abstract

**Background:** Adolescence is a stage of rapid transition of physical, psychological and emotional development. Parent-adolescent communication has great role on the reduction of SRH problem of adolescents. However evidences shows that there is a silence between parent and adolescent because of this adolescent are affected by STIs, HIV, unsafe abortion and unwanted pregnancy. Therefore this study tried to identify factors that hinder communication in Wogdie district North East Ethiopia.

**Method:** A community based cross-sectional study supplemented with qualitative data was conducted. Six hundred fifteen mothers were selected by multi-stage sampling method for quantitative study. Interviewer administered questionnaire was used for quantitative data collection. Multiple binary logistic regression analysis was executed to assess the association between variables. Participants were selected by purposive sampling method for qualitative part. Fourteen participants were participated in in-depth interview. The qualitative data was transcribed manually using verbatim approach.

**Results**: The magnitude of parent-adolescent communication was 198 (32.8%) with 95% CI (29.1, 36.7). Rural residence of mother [AOR=0.056, 95% CI (0.01, 0.331)], family size of >6 [AOR=0.338, 95% CI (0.13, 0.874)], maternal education status of uneducated [AOR=0.421, 95% CI (0.186, 0.951)], maternal occupational status of housewife [AOR=0.085, 95% CI (0.024, 0.298)], low wealth status [AOR=0.316, 95% CI (0.129, 0.777)], poor maternal knowledge about SRH [AOR=0.063, 95% CI (0.024, 0.164)] and negative maternal attitude towards SRH communication [AOR=0.037, 95% CI (0.008, 0.169)] were have significant negative association with parent-adolescent communication. Cultural taboo, fear and lack of knowledge were reasons that hinder communication.

**Conclusion:** Communication on sexual and reproductive health issue between parent and adolescent was low. Home to home and community health education of mothers is important to create good knowledge and positive attitude about sexual and reproductive communication.


# Introduction

WHO defines adolescence as it is the transitional stage from childhood to adulthood that occurs between ages of 10 and 19. It is a period of rapid physical, psychological and emotional development. Generally this transition is natural though it can be stormy affect their health (1). The main problems of adolescent are sexual and reproductive health related issues such as HIV, unwanted pregnancy, sexual transmitted disease, unsafe abortion and early initiation of sexual intercourse (2, 3). Even-though parents are influential source of knowledge for adolescent about SRH, there is silence between parent and adolescent on the subject of SRH (4, 5). Parent can help their adolescent to develop and practice reasonable sexual behavior. There are evidences that adolescent who communicate with their parents are more likely to remain sexual abstinent, post pone intercourse and use contraceptive (6, 7). Without access to information about sexual and reproductive health adolescents are at high risk of contracting sexually

transmitted infections (STIs) including HIV/AIDS, having unwanted pregnancies, unsafe abortions and other serious SRH problems which will negatively affect future life (8).

Adolescents frequently engage in risky sexual behaviors that adverse health outcome including unintended pregnancy, early initiation of sexual activity and sexually transmitted diseases. Globally the rates of early sexual initiation, STIs and HIV during adolescent are rising and remaining unchanged in many countries (2, 9). Although Ethiopia applies national reproductive health strategy and plan to increase accessibility of SRH information for adolescent by 50% to reduce SRH problems among adolescent (10), STI (rate of reported Chlamydial among adolescent increased by1.8% during 2017-2018), HIV (60% of new infections are among adolescent), teenage pregnancy (13%) and unwanted pregnancy (49% of pregnancy of adolescent are unwanted) (2, 11-14) were increased. To reduce such sexual and reproductive health problem of adolescent parent-adolescent communication is important because sexual activities begin at early age (15).

In United States and developed countries there is higher percentage (75%) of adolescent received parental SRH communication such as how to say no to sex, methods of birth control, STIs, where to get birth control, how to prevent HIV infection and how to use a condom (16, 17). However, the situation is not similar in developing country including Africa. In Africa parent-adolescent communication about SRH is not practice interactively which is warning and threatening way (5, 6) and lower in magnitude (18, 19)

Studies identified sex of adolescent, age of adolescent, educational status of mother, knowledge of mothers about SRH as factors for parent-adolescent communication about SRH but most studies conducted at urban areas (4, 7, 20-22).

Studies conducted in Ethiopia focus on from the adolescent perspective (there are evidences which showed that when adolescent asks about communication most of them are said yes, but when the parent asks about communication the result is different this results wrongly determination of magnitude of parent-adolescent communication), conducted in urban residence and institution based (4, 21, 23-25). Mothers were participated in this study because mothers are primary source of SRH information for adolescent (26-29). Therefore this study conducted among mothers, it is community based, conducted in rural setting and supplemented with qualitative data.

# Methods And Materials

### Study setting and period

This study was conducted in Wogdie district from March 1 to April 1 2020. The district is located 585 km away from Addis Ababa (Capital city of Ethiopia), 345 km from Bahir Dar (Capital town of Amhara regional state) and 184 km to the West of Dessie (Capital town of South Wollo zone). There are 6 health centers, 1 primary hospital, 44 HEWs, 1 preparatory school and 4 high schools in the district. According to the national census report of 2007 the projected population of Wogdie for the year 2016 was 152,719 of whom 26.5% were adolescents. Wogdie has a total of 34 kebeles (lowest administrative units).

### Study design and sampling

It was a community based cross-sectional study supplemented with qualitative data conducted among mothers who have adolescent in Wogdie district, North Ethiopia. The sample size was 615 which determined using a single population proportion formula by taking a proportion (p) of parent-adolescent communication about sexual and reproductive health in Yirgalem (59.1%) (7) at 95 % confidence level, 5 % margin of error, design effect of 1.5 and 10 % of non-response rate. The study participants were selected by using a multistage sampling technique: - at stage one nine kebeles were selected from the total 34 by using simple random sampling method. In the next stage by using simple random sampling technique a total of 615 mothers who have adolescent were selected from each sampled kebeles proportionally from 2907 mothers. To select mothers who have adolescent the existing Health Post Family Folder were used. For qualitative in-depth interview mothers and fathers who have adolescent, religious leaders and adolescents were selected purposively.

### Inclusion and Exclusion criteria

## Inclusion criteria

Mothers who lived in the selected kebeles and had adolescent were included in the study

## Exclusion criteria

Mothers who were seriously ill were excluded from the study.

Mothers whose adolescents were not lived with them for more than 6 months.

### Data collection tool and procedure

A pre-tested interviewer administered questionnaire adapted from different literatures that explored the objectives of the study was used (13, 30). According to the local culture and norm first questionnaires was prepared in English and translated to Amharic language then back translated into English to check consistencies. Six female data collectors who had completed grade 12 educations and who had previous experience in data collection were used as data collectors. Data was collected by using interviewer administered questionnaires at the home of mothers. Data collection was taken place from March 1 to April 1 2020.

Separate in-depth interviews between selected participants were conducted. The interviews were guided with interview guide questions followed by possible probing questions to explore their experience and barriers to communicate. After some common introductory questions the principal investigator asked the participants opinions and experience about the parent-adolescent communication about SRH. Interview was conducted until the data was saturated.

# Data quality control

To assure the quality of the data properly designed data collection tool was prepared. Training was given to data collectors and supervisors for two days. The training was focused on understanding the research question, data handling, ethical conduct and quality of data. On each data collection day the collected data's were reviewed by principal investigator. Questionnaire was pre-tested at Mekane-Selam district by taking 60 questionnaires to assess clarity and flow. Interview was conducted at a private place to ensure good atmosphere for interview.

In-depth-interviews were conducted in private and quiet rooms at kebele offices, Church and Mosque where only the principal investigator and participant were present. The interviews were used discussion guide question followed by possible probing questions. Tape recorder was used in order to prevent missing of data.

**Variables of the study**

# Dependent variable

Parent-adolescent communication about sexual and reproductive health issues (Yes/No)

# Independent variables

Age of the mother, Sex of adolescents, Age of adolescents, Maternal occupation status, Family size, Educational status of the mother, Wealth status, Residence, Knowledge of the mother about SRH, Attitude of mother towards SRH communication, Mass-media exposure of mother, Cultural and religious factors, Religious taboo, Cultural taboo and fear.

**Operational definitions**

**Communication between parents and adolescents on SRH issues:-**

In this particular study context parents-adolescent communication regarding SRH issues is a simple discussion or talking between mothers and adolescent on STIs, HIV/AIDS, safe sexual practice, abortion, sexual violence, unintended pregnancy, early marriage physical and behavioral change of adolescent and family planning (4)

**Mother who are communicated with their adolescent:-** Mothers who were discussed at least two topics of SRH issue in the past 6 months were considered as communicated (4).

**Knowledgeable about sexual and reproductive health:** Those mothers who scored above the mean score from nine knowledge related SRH questions were considered as had good knowledge (4).

**Attitude towards sexual and reproductive health communication:** Mothers who were scored at least 75% of 10 attitude questions considered as had positive attitude.

**Attending mass media:** Mothers who were listen radio or watch television at least once a week in her home considered as exposed to mass-media (13).

**Parent:** Applies for both biological and non-biological mothers (24)

**Wealth quantile:** Was determined by using durable household assets a total of 35 durable assets was identified and assigned as dummy variables. After adjusting and coding we used multivariate analysis i.e principal component analysis. Then we re-categorize in to three wealth quantiles with approximately equal number of households.

# Data Processing, Analysis and Interpretation

The collected data were entered and cleaned using Epi data version 3.1 then exported to SPSS version 23 for analysis. Descriptive analysis was conducted to summarize the data and the final result of the study was presented in the form of number, text, figures and tables. Binary logistic regression analysis was executed to see the association between variables. All explanatory variables with $p<0.25$ in bi-variable logistic regression were entered into multivariable logistic regression analysis and significant association were identified based on $p<0.05$ and odds ratio with 95% CI in multivariable binary logistic regression. The model fitness was checked using Hosmer-Lemeshow Goodness of fit test.

Ideas of participants were recorded, transcribed, translated and recoded. After read and read again the finding was analyzed in text form. Analysis of qualitative data was taken in each day of interviews and used verbatim analysis method.

The quantitative results and qualitative findings were merged at results and discussion section.

# Ethical consideration

Ethical clearance was obtained from the Institutional Review Board (IRB) of Bahir Dar University College of Medicine and Health sciences. Further permission was also gain from Wogdie district health and administrative office. The aim of the study was informed for each study participant and the study participants had a right to refuse or discontinue interviews without any restriction. The study was respected autonomy and decision of all participants. Finally written informed consent was obtained from each participant before data collection and confidentiality was assured.

## Results

A total of 603 mothers completed the questionnaire with response rate of about 98.05%.

Out of the total mothers 443 (73.5%) were lived in rural residence. Five hundred thirty three (88.4%) of mothers were married. The mean age of the mothers was 42.01 ± 7.16 SD years and with the range of 27-58 years. Out of the total mothers 343 (56.1%) of mothers were educated. Three hundred two (50.1%) of mothers were Orthodox by religion and 7 (1.1%) of mothers were Protestant religion followers. Four hundred twenty two (70.3%) of mothers were housewife and 69 (11.4%) of mothers were government employed. Three hundred twelve (51.7%) of mothers were had family size of 1-3 members.

Table 1:- Socio-demographic characteristics of mothers in Wogdie district, 2020 (N=603)

| Variable | Frequency | Percent |
|---|---|---|
| Maternal age | | |
| <35 | 99 | 16.4 |
| 35-45 | 267 | 44.3 |
| >45 | 237 | 39.3 |
| Residence | | |
| Urban | 160 | 26.5 |
| Rural | 443 | 73.5 |
| Maternal education status | | |
| Not educated | 260 | 43.1 |
| Educated | 343 | 56.1 |
| Maternal occupation status | | |
| Housewife | 424 | 70.3 |
| Self employed | 110 | 18.3 |
| Government employed | 69 | 11.4 |
| Family size | | |
| 1-3 | 312 | 51.7 |
| 4-6 | 185 | 30.7 |
| >6 | 106 | 17.6 |
| Sex of adolescent they have | | |
| Male only | 189 | 31.3 |
| Female only | 203 | 33.7 |
| Both male and female | 211 | 35.0 |
| Age of adolescent they have | | |
| 10-15 | 175 | 29.0 |
| 16-19 | 284 | 47.1 |
| Both 10-15 and 16-19 | 144 | 23.9 |
| Wealth index | | |
| Low | 201 | 33.3 |

| | | |
|---|---|---|
| Medium | 188 | 31.2 |
| High | 214 | 35.5 |

# Mass media exposure and source of information about sexual and reproductive health issues

HEWs were served as a primary source of SRH issues for 241 (60.1%) of mothers followed by mass-media 135 (33.7%). About 397 (65.8%) of mothers were listen or watch TV at least once per a week

Knowledge of mother about sexual and reproductive health issues

Three hundred five (50.6%) of mothers had a good knowledge about SRH issues. Among 9 selected SRH issues which were included in this study physical and behavioral change during adolescence was the most known which is 372 (61.7%) followed by family planning 352 (58.4%).

# Attitude of mothers towards sexual and reproductive health issues communication

Four hundred eleven (68.2%) of mothers had positive attitude towards SRH communication with adolescent. From the selected SRH issues in this study 579 (96.0%) of mother had positive attitude towards family planning communication and 293 (48.6%) of mother had positive attitude towards unwanted pregnancy communication.

Table 2:- Attitude of mothers on selected sexual and reproductive health issues communication in Wogdie district, 2020

| Topics | Strongly disagree | Disagree | Agree | Strongly agree |
|---|---|---|---|---|
| Family planning | 7 (1.2) | 17 (2.8) | 396 (65.7) | 183 (30.3) |
| STI | 2 (0.3) | 106 (17.6) | 322 (53.4) | 173 (28.7) |
| HIV | 2 (0.3) | 85 (14.1) | 321 (53.2) | 195 (32.3) |
| Early marriage | 4 (0.4) | 182 (30.2) | 256 (42.5) | 161 (26.7) |
| Unsafe sexual practice | 1 (0.2) | 144 (23.9) | 306 (50.7) | 152 (25.2) |
| Abortion | 1 (0.1) | 174 (28.9) | 264 (43.8) | 164 (27.2) |
| Physical and behavioural change of adolescent | 2 (0.3) | 105 (17.4) | 353 (58.5) | 143 (23.7) |
| Unwanted pregnancy | 46 (7.6) | 264 (43.8) | 183 (30.3) | 110 (18.3) |
| Sexual violence | 68 (11.3) | 182 (30.2) | 161 (26.7) | 182 (30.2) |
| Parent are primary source of SRH information | 2 (0.3) | 71 (11.8) | 373 (61.9) | 157 (26.0) |

# Parent-adolescent sexual and reproductive health communication

The magnitude of parent-adolescent communication was 198 (32.8%) with 95% CI (29.1%, 36.7%). From those mothers who were communicated with their adolescent 101 (51.0%) mothers were communicated with their female adolescence and 44 (22.0%) mothers were communicated with their male and female adolescent. ***A 48 years old mother said that:-*** *"I prefer my female adolescent to communicate about SRH because I think they (female) are more vulnerable for SRH problems."*

From 9 selected sexual and reproductive health issues HIV was the most communicated topic which is 197 (98.0%) mothers but abortion was the least communicated topic which is about 44 (21.9%). ***A 59 years old mother explained that:-*** *"The most common topics of parent-adolescent communication were: HIV, abstinence and pregnancy."*

***A 19 years old female adolescent also explained that***

*"Most of our (adolescent) parent tells about…value of virginity, HIV, avoiding any sexual activity and warn them (adolescent) again and again."*

6.6 Major reasons for not communicated about sexual and reproductive health issue

In this study 144 (72.73%) of mothers reported that the major reason for not communicate with their adolescent was lack of knowledge and lack of attention accounts 18 (9.09%). A qualitative finding explored about reason for not communication about SRH as follows.

***A 19 years old male adolescent explained as:-***

*"Parents do not want to communicate sexual and reproductive issues with adolescents because such issues are culturally considered as taboo, they (parent) think that communicating those (SRH) things is the role of schools but schools are not doing that."*

***A 18 years old female adolescent also explained that:-***

*"Parents do not communicate about sexual and reproductive health issues with adolescent. The problem is our social norm that defines SRH as taboo and we also feel fear."*

***A 49 years old male parent said that:-***

*"Such communication was taking place when something happens to adolescent. Like when premarital pregnancy, HIV related problems, abortion, and related complications occur or heard from Mass Media otherwise we (parent) have no attention to communicate."*

***A 18 years old female adolescence also explained that:-***

*"Parent always talks about virginity and their (parent) dignity….They warn us do not involve in any sexuality practice if we participate in sexuality they punish and remove form home so in this situation how we communicate with them (parent)."*

***A 37 yrs mother told that:-***

*"Ehhh really speaking I am very fear to communicate this (SRH) and I have not enough knowledge about SRH. I prefer my husband to do this."*

***A 45 years priest said that:-***

*"BIBLE does no hinder communication about sexual and reproductive health but most people do not think that. Our church is not educate the followers to not to communicate about SRH. Parent should educate adolescent about all health aspect and they (parent) have an obligation to keep the health of life next to spiritual life"*

***A 54 years old Sheik explained that:-***

*“QUARAN is very complete book in the world. If parents read it (QUARAN) they (parent) know about SRH and educate everything including sexual and reproductive health but people do not read.”*

Table 3:- Major reason for not communication about sexual and reproductive health among mothers in Wogdie district, 2020 (multiple response is possible)

| Reasons for not communication | Frequency (percentage) |
|---|---|
| Lack of knowledge | 144 (35.4) |
| Fear | 78 (19.1) |
| Religious taboos | 65 (16.0) |
| Cultural taboos | 44 (10.8) |
| Communication on RH makes child rude | 42 (10.3) |
| Child not listen | 24 (5.1) |
| Lack of attention | 19 (4.1) |

# 6.7 Associated factors of communication about sexual and reproductive health issues

In bi-variable analysis residence, maternal age, family size, maternal educational status, maternal occupational status, sex of adolescent, age of adolescent, wealth status, mass media exposure status of mother, maternal SRH knowledge and maternal attitude towards SRH communication have P-values <0.25 and included in multiple binary logistic regressions.

On multiple binary logistic regressions rural residence, family size of 4-6 and >6, maternal educational status of uneducated, maternal occupational status of house-wife, wealth status of low, poor maternal knowledge and negative maternal attitude towards SRH communication had significant negative association with SRH communication at p value of less than 0.05.

The odds of parent-adolescent communication about SRH among mothers who were lived in rural residence was 94.4% times less likely as compared with mothers who were lived in urban residence [AOR=0.056, 95% CI (0.010, 0.331)].

The odds of parent-adolescent communication about SRH among mothers who had family size of 4-6 and >6 was 80.1% and 66.2% times less likely as compared with mothers mothers who had family size of 1-3 [(AOR=0.199, 95% CI (0.070, 0.564) and AOR= 0.338, 95% CI (0.130, 0.874))] respectively.

The odds of parent-adolescent communication about SRH among mothers who were not educated were 57.9% times less likely as compared with educated mothers [AOR=0.421, 95% CI (0.186, 0.951)].

The odds of parent-adolescent communication about SRH among house-wife mothers was 91.5% times less likely as compared with government employed mothers [AOR=0.085, 95% CI (0.024, 0.298)].

The odds of parent-adolescent communication about SRH among mothers who had low wealth status was 68.4% times less likely as compared with mothers who had high wealth status [(AOR= 0.316, 65% CI (0.129, 0.777)].

The odds of parent-adolescent communication about SRH among mothers who had poor knowledge was 93.7% times less likely as compared with mothers who had good knowledge about SRH [AOR=0.063, 95% CI (0.024, 0.164)].

The odds of parent-adolescent about SRH among mothers who had negative attitude towards SRH communication was 96.3% times less likely as compared with mothers who had positive attitude [AOR=0.037, 95% CI (0.0080, 0.169)].

Table 4 Bi-variable and Multi-variable analysis of factors associated with parent-adolescent communication about sexual and reproductive health communication among mother in Wogdie district, 2020

| Variables | Communication | | COR (95% CI) | AOR (95% CI) |
|---|---|---|---|---|
| | Yes | No | | |
| | | | | |
| Residence | | | | |
| Urban | 88 | 72 | 1.00 | 1.00 |
| Rural | 110 | 333 | 0.270 (0.185, 0.395) | **0.056 (0.010, 0.331)*** |
| Maternal age | | | | |
| <35 | 9 | 90 | 0.270(0.129, 0.568) | 0.660 (0.191, 2.296) |
| 35-45 | 125 | 142 | 2.38 (1.637, 3.459) | 2.519 (0.899, 4.988) |
| >45 | 64 | 173 | 1.00 | 1.00 |
| Family size | | | | |
| 1-3 | 82 | 230 | 1.00 | 1.00 |
| 4-6 | 72 | 113 | 1.787 (1.212, 2.636) | **0.199 (0.070, 0.564)*** |
| >6 | 44 | 62 | 1.991 (1.255, 3.157) | **0.338 (0.130, 0.874)*** |
| Maternal education | | | | |
| Uneducated | 18 | 242 | 0.067 (0.040, 0.114) | **0.421 (0.186, 0.951)*** |
| Educated | 180 | 163 | 1.00 | 1.00 |
| Maternal occupational status | | | | |
| House wife | 60 | 364 | 0.025 (0.012, 0.052) | **0.085 (0.024, 0.298)*** |
| Private employee | 78 | 32 | 0.366 (0.162, 0.824) | 1.076 (0.272, 4.257) |
| Government employee | 60 | 9 | 1.00 | 1.00 |
| Sex of adolescent they have | | | | |
| Male only | 56 | 133 | 1.469 (0.937, 2.305) | 0.652 (0.177, 2.398) |
| Female only | 95 | 108 | 3.069 (2.005, 4.698) | 1.430 (0.482, 4.241) |
| Both male and female | 47 | 164 | 1.00 | 1.00 |
| Age of adolescent they have | | | | |
| 10-15 | 13 | 162 | 1.00 | 1.00 |
| 16-19 | 141 | 143 | 12.287 (6.670, 22.636) | 1.891 (0.725, 4.932) |

| | | | | |
|---|---|---|---|---|
| Both | 44 | 100 | 5.483 (2.814, 10.683) | 2.507 (0.686, 9.153) |
| Wealth index | | | | |
| Low | 95 | 106 | 1.283 (0.87, 1.892) | **0.316 (0.129, 0.777)*** |
| Medium | 15 | 173 | 0.124 (0.069, 0.225) | 0.244 (0.098, 1.611) |
| High | 88 | 126 | 1.00 | 1.00 |
| Mass media exposure | | | | |
| Not exposed | 79 | 318 | 0.182 (0.125, 0.263) | 0.609 (0.178, 2.080) |
| Exposed | 119 | 87 | 1.00 | 1.00 |
| Maternal knowledge | | | | |
| Poor | 38 | 267 | 0.123 (0.082, 0.185) | **0.063 (0.024, 0.164)*** |
| Good | 160 | 138 | 1.00 | 1.00 |
| Maternal attitude | | | | |
| Negative | 40 | 152 | 0.421 (0.282, 0.629) | **0.037 (0.0080, 0.169)*** |
| Positive | 158 | 253 | 1.00 | 1.00 |

* Significance at P<0.05, Hosmer, Leme show test 0.121, they indicates mothers,

## Discussion

This study shows that 198 (32.8%) with CI of (29.1, 36.7) of mothers had ever discussed about sexual and reproductive health issues with their adolescent. This finding is consistence with studies conducted in Wollega (32.5%), Woldia (30.4%), Hadiya (35%) and Benshangul Gumuz Bullen wereda (29.6%) (21, 24, 31, 32), But this finding higher than studies conducted in Awabel (25.3%) and Mizan (28.9%) this might due to time variation and socio demographic difference like in Awabel the magnitude of urban population was 23.9% which is lower than the study area and in Mizan about 57.3% of populations were unable to read and write which is higher than the study area (33, 34). This finding is lower than stuies conducted in Yirgalem (59.1%), Debre-markos (36.9%), Dire-dawa (37%), Hawassa (61%), South Africa (57%), Ghana (72.8%) and Mynamar (62%) this might due to study area difference (these studies conducted at institution but this study was community based), lower illiteracy rate (Debre-markos 20.5%, Yirgalem 7.4%, and Dire-dawa 20.5% and Myanmar 6.3%) and more urbanized (Mekelle 84.9%, Hawassa 73.2%) (4, 5, 7, 20, 23, 35, 36).

In this study rural residence had significance negative association with parent-adolescent communication. This finding is concurrent with studies conducted in Awabel, Wollega and Bangladesh (31, 34, 37). The possible justification might be mothers who lived in urban residence were more

accessible for SRH information, media exposure and more knowledgeable as compared with rural mothers.

In this study uneducated mothers had significance negative association with parent-adolescent communication as compared with educated mothers. This finding concurrent with studies conducted in Debre-markos, Woldia, Debre-tabor and Myanmar (4, 21, 22, 36). The possible justification might be educated mothers have good knowledge and positive attitude about SRH communication.

In this study mothers who had negative attitude towards SRH communication were less communicated as compared with those mothers who had positive attitude towards SRH communication. This is supported with study conducted in Bangladesh (37). This might due to those mothers who have positive attitude were have a positive tendency to communicate.

In this study house-wife mothers were less communicated as compared with government employed mothers. The possible justification might be housewife mothers were less educated than government employed so-that housewife would have poor knowledge about SRH. This is supported with qualitative data from *37 years old housewife mother said that:-"I am uneducated and nothing knows about SRH and also most of the time I stay at y home so I didn't gets any information about SRH from my peers."*

In this study mothers who had family size of 4-6 and >6 were less communicated as compared with mothers who had family size of 1-3. This finding is supported with studies conducted in Bangladesh (37). This may be due to as family size is increase; parents are less concerned to communication on SRH issues. This also supported with qualitative data from *51 years old mother explained that "I have eight family members and I can't communicate with each my adolescent. May be if I have one or two, I might communicate."*

In this study mothers who had low wealth status were less communicated as compared with mothers who had high wealth status. This finding is agreed with study conducted in Myanmar (36). This might due to most low wealth status mothers were uneducated so-that those mothers were not accessible to SRH information and had poor knowledge as compared with high wealth status mothers.

In this study poor knowledgeable mothers about SRH were less communicated as compared with mothers who had good knowledge about SRH. This finding is agreed with studies conducted in Woldia, Hadiya, Myanmar and Bangladesh (21, 24, 36, 37). This also supported with qualitative data from *48 years old male parent who live in rural residence explained that "we (he and his wife) have no enough knowledge about SRH rather they (adolescent) could gain SRH information from school and peers."* Other qualitative data from 37 years old mother who live in urban residence explained that *"I had no good knowledge about SRH and I prefer my husband to communicate with them (adolescent)*."

A qualitative finding of this study explored that Lack of knowledge, fear, cultural taboos of communicating SRH with makes adolescent rude and religious taboos of communicating about SRH

predispose adolescent to make sin were the major reasons that hinder parent-adolescent communication. This is supported with studies conducted in Yirgalem, Uganda, South Africa and Zanzibar (5-7, 38).

## Conclusion

In this study parent-adolescent communication on sexual and reproductive health issues was found to be low as compared with Ethiopia national reproductive health strategy and plan which is 50%. Rural residence, maternal educational status of uneducated, maternal occupation of housewife, low wealth status, family size of 4-6 and >6, poor maternal knowledge about SRH and negative attitude towards SRH communication had significant negative association with parent-adolescent communication. HIV and STI were the most communicated topics. Lack of knowledge about SRH, fear, cultural taboos of communicating SRH with adolescents makes adolescent rude and religious taboos of communicating about SRH predispose adolescent to make sin were the major reasons that hinder parent-adolescent communication.

# Recommendations

### Amhara regional education office

Please incorporate sexual and reproductive health issues course in the curriculum.

### Wogdie district health office

Please give great attention to those parents who have family size of more than three to improve their attention towards SRH communication with adolescent.

### For health professionals and community leaders

Home to home and community health education of mothers is recommended to create good knowledge and positive attitude about sexual and reproductive health.

### For researchers

Since husband has influence on adolescent sexual and reproductive health so-that future husband participation is recommended.

## List Of Abbreviations

AIDS: Acquired immune deficiency syndrome; AOR: Adjusted Odd Ratio; BDU: Bahir Dar University; CI: Confidence Interval; HEW: Health Extension Workers; HIV: Human Immune Virus; KM: Kilo Meter; SPSS: Statistical Package for Social Science; SRH: Sexual and Reproductive Health; STDs: Sexual Transmitted Diseases; STI: Sexual Transmitted Infection; UNFPA: United Nation Food Program Agencies; WHO: World Health Organization.

# Declarations

### Ethical approval and consent to participate

Approval to conduct this research was obtained from Bahir Dar University Ethics Review Board. Written consent was obtained from all study participants after a detailed explanation of the purpose of the study.

### Availability of data and materials

The data could be accessed for every one based on requests


### Funding

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The authors declare that we have no competing interests.

### Authors' contributions

Lioul ewnetu was the principal investigator of this reseach. Ms. Alemtsehay Mekonnen and Mr. Yibeltal Alemu were advised during all stage of this research development.


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# References


1. WHO, IAAH and Child health intiative. Adolescent Health The Missing Population in Universal Health Coverage. 2018.
2. WHO. Report on global sexually transmitted infection surveillance. 2018.
3. Morris JL, Rushwan H. Adolescent sexual and reproductive health: The global challenges. International Journal of Gynecology & Obstetrics. 2015 Oct;131:S40-2.
4. Shiferaw K, Getahun F, Asres G. Assessment of adolescents' communication on sexual and reproductive health matters with parents and associated factors among secondary and preparatory

schools' students in Debremarkos town, North West Ethiopia. Reproductive health. 2014 Dec;11(1):2.

5. Motsomi K, Makanjee C, Basera T, Nyasulu P. Factors affecting effective communication about sexual and reproductive health issues between parents and adolescents in zandspruit informal settlement, Johannesburg, South Africa. The Pan African Medical Journal. 2016;25.
6. Muhwezi WW, Katahoire AR, Banura C, Mugooda H, Kwesiga D, Bastien S, Klepp KI. Perceptions and experiences of adolescents, parents and school administrators regarding adolescent-parent communication on sexual and reproductive health issues in urban and rural Uganda. Reproductive Health. 2015 Dec;12(1):110.
7. Yohannes Z, Tsegaye B. Barriers of parent-adolescent communication on sexual and reproductive health issues among secondary and preparatory school students in Yirgalem, Town, South Ethiopia. Fam Med Med Sci Res. 2015;4(4):181.
8. Kaphagawani NC, Kalipeni E. Sociocultural factors contributing to teenage pregnancy in Zomba district, Malawi. Global public health. 2017 Jun 3;12(6):694-710.
9. Rowley J, Vander Hoorn S, Korenromp E, Low N, Unemo M, Abu-Raddad LJ, Chico RM, Smolak A, Newman L, Gottlieb S, Thwin SS. Chlamydia, gonorrhoea, trichomoniasis and syphilis: global prevalence and incidence estimates, 2016. Bulletin of the World Health Organization. 2019 Aug 1;97(8):548.
10. Federal democratic republic of Ethiopia minister of health. National reproductive health strategy 2016-2020. 2016, p 36.
11. Ayanaw Habitu Y, Yalew A, Azale Bisetegn T. Prevalence and factors associated with teenage pregnancy, Northeast Ethiopia, 2017: a cross-sectional study. Journal of pregnancy. 2018;2018.
12. Muche AA, Kassa GM, Berhe AK, Fekadu GA. Prevalence and determinants of risky sexual practice in Ethiopia: Systematic review and Meta-analysis. Reproductive health. 2017 Dec 1;14(1):113.
13. Central Statistical Agency (CSA) [Ethiopia] and ICF. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF. 2016.
14. Arega WL, Zewale TA, Bogale KA. Premarital sexual practice and associated factors among high school youths in Debretabor town, South Gondar zone, North West Ethiopia, 2017. BMC research notes. 2019 Dec;12(1):314.
15. Melaku YA, Berhane Y, Kinsman J, Reda HL. Sexual and reproductive health communication and awareness of contraceptive methods among secondary school female students, northern Ethiopia: a cross-sectional study. BMC Public Health. 2014 Dec;14(1):252.
16. Hall. K, Moreau, Trussel. J. Associations between sexual and reproductive health communication and health service use among U.S. adolescent women. Perspectives on Sexual and Reproductive Health, 2012. 44(1): p. 6-12.
17. Ancheta R, Hynes C, Shrier LA. Reproductive health education and sexual risk among high-risk female adolescents and young adults. Journal of pediatric and adolescent Gynecology. 2005 Apr 1;18(2):105-11.

18. Coetzee J, Dietrich J, Otwombe K, Nkala B, Khunwane M, van der Watt M, Sikkema KJ, Gray GE. Predictors of parent–adolescent communication in post-apartheid South Africa: A protective factor in adolescent sexual and reproductive health. Journal of Adolescence. 2014 Apr 1;37(3):313-24.
19. Ngwenya S. Communication of reproductive health information to the rural girl child in Filabusi, Zimbabwe. Afri Health Sci 2016;16(2): 451-461. http://dx.doi.org/10.4314/ahs.v16i2.13.
20. Ayalew M, Mengistie B, Semahegn A. Adolescent-parent communication on sexual and reproductive health issues among high school students in Dire Dawa, Eastern Ethiopia: a cross sectional study. Reproductive health. 2014 Dec;11(1):77.
21. Mekonen MT, Dagnew HA, Yimam TA, Yimam HN, Reta MA. Adolescent-parent communication on sexual and reproductive health issues and associated factors among high school students in Woldia town, Northeastern Ethiopia. The Pan African medical journal. 2018;3.
22. Mekie M, Taklual W, Melkie A, Addisu D. Parental communication on sexual and reproductive health issues and its associated factors among preparatory school students in Debre Tabor, Northcentral Ethiopia: institution based cross-sectional study. BMC research notes. 2019 Dec 1;12(1):598.
23. Sailaja B, Nana C. Barriers of Discussion Concerning Sexual and Reproductive Health Issues Among Adolescents and Parents, Hawassa, SNNPR, Ethiopia. Biomed J Sci & Tech Res 1(7)-2017. BJSTR. MS.ID.000591. DOI : 10.26717/BJSTR.2017.01.000591.
24. Kusheta. S, Bancha. B, Habtu. Y, Helamo. D. Adolescent-parent communication on sexual and reproductive health issues and its factors among secondary and preparatory school students in Hadiya Zone, Southern Ethiopia: institution based cross sectional study. 2018.
25. Dessie Y, Berhane Y, Worku A. Parent-adolescent sexual and reproductive health communication is very limited and associated with adolescent poor behavioral beliefs and subjective norms: evidence from a community based cross-sectional study in eastern Ethiopia. PloS one. 2015 Jul 13;10(7):e0129941.
26. Isaksen. K. Characteristics of parent-child sexuality communication in Zambia: A cross sectional study of adolescent girls and their parents. 2019.
27. Patton G, Temmerman M. Evidence and evidence gaps in adolescent health. Journal of Adolescent Health. 2016 Oct 1;59(4):S1-3.
28. Igras SM, Macieira M, Murphy E, Lundgren R. Investing in very young adolescents' sexual and reproductive health. Global public health. 2014 May 28;9(5):555-69.
29. Mohammed S, Susuman S. Factors associated with level of reproductive health information in Ethiopia. Asia Pac J Res. 2013;2:8.
30. Global standards for quality health-care services for adolscents . 2015;3.
31. Tesso DW, Fantahun MA, Enquselassie F. Parent-young people communication about sexual and reproductive health in E/Wollega zone, West Ethiopia: Implications for interventions. Reproductive health. 2012 Dec;9(1):13.
32. Gebreyesus D: Assessing communication on sexual and reproductive health issues among high school students with their parents, bullen woreda benishangul gumuz region North West Ethiopia.

Ethiop J Health Dev 2010, 24(2):89–95.

33. Shewasinad S, Alelign Z, Yeshitla K, Bunga G, Negash S. Assessment of Communication on Sexual and Reproductive Health Issues among Mizan Secondary and Preparatory School Students with Parents, Mizan Town, Ethiopia, 2016. American Journal of Health Research. 2017 Sep 7;5(5):131-40.
34. Ayehu A, Kassaw T, Hailu G. Young people's parental discussion about sexual and reproductive health issues and its associated factors in Awabel woreda, Northwest Ethiopia. Reproductive health. 2016 Dec;13(1):19.
35. Manu AA, Mba CJ, Asare GQ, Odoi-Agyarko K, Asante RK. Parent–child communication about sexual and reproductive health: evidence from the Brong Ahafo region, Ghana. Reproductive Health. 2015 Dec;12(1):16.
36. Noe MT, Saw YM, Soe PP, Khaing M, Saw TN, Hamajima N, Win HH. Barriers between mothers and their adolescent daughters with regards to sexual and reproductive health communication in Taunggyi Township, Myanmar: What factors play important roles?. PloS one. 2018 Dec 18;13(12):e0208849.
37. Zakaria M, Xu J, Karim F, Cheng F. Reproductive health communication between mother and adolescent daughter in Bangladesh: a cross-sectional study. Reproductive health. 2019 Dec;16(1):114.
38. Seif SA, Kohi TW. Caretaker-adolescent communication on sexuality and reproductive health: my perceptions matter; a qualitative study on adolescents' perspectives in Unguja-Zanzibar. Health. 2014 Dec 23;6(21):2904.

# Figures

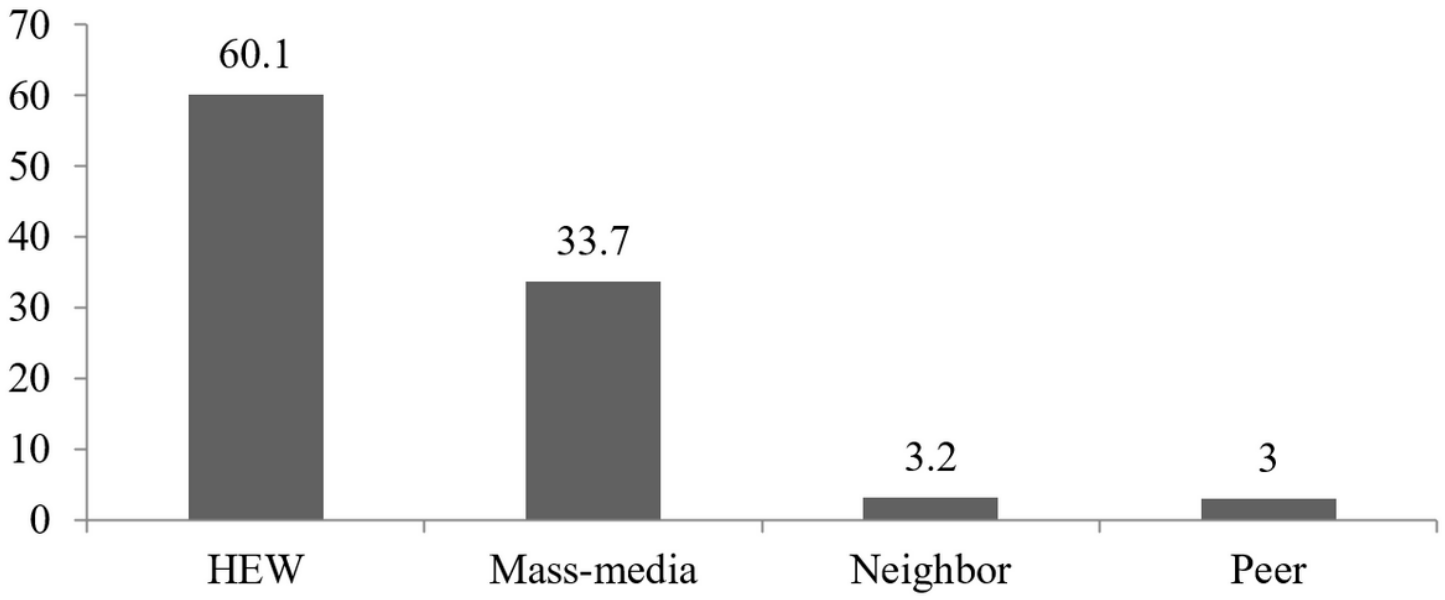


**Figure 1**

Primary source of sexual and reproductive health information of mothers in Wogdie district, 2020

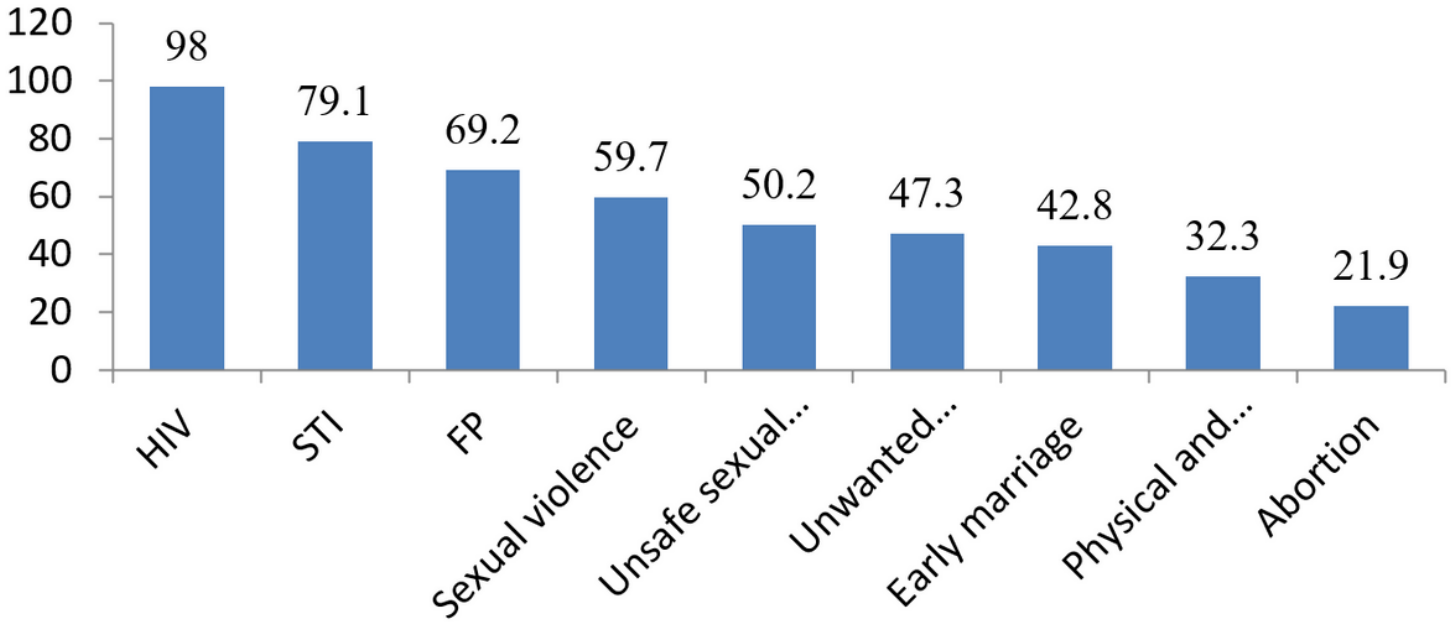


**Figure 2**

Topics of communication about sexual and reproductive health issues among mothers who have adolescent in wogdie district, 2020 (Multiple response is possible)