

Communication between Mother-Adolescent Daughter about Sexual and Reproductive Health: A Cross Sectional Study at Rangpur, Bangladesh

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Abstract: The aim of the study was to examine the level of communication between mother-adolescent daughter regarding sexual and reproductive health in Rangpur Division of Bangladesh. A school-based cross-sectional study was conducted among four high school students attending at class 9 and class 10 in Rangpur Division. The researchers utilized Bandura's (1977) social learning theory as theoretical framework, purposive and random sampling as sampling strategy in the study. Using a standardized and self-administered questionnaire, information was collected. Microsoft (MS) Excel and SPSS v. 25 were used to analyze the collected data. More than one-third of the students (33.80%) had a poor communication status with mother regarding reproductive health issues. Other findings include: 77.78% students had a regular discussion with their mothers, 57.41% mentioned a few contents had been covered in the discussion, and 36.11% students had been experienced with one-sided interaction about this. The subjects of mother-daughter interaction were often limited to issues involving the menstrual cycle. Mothers were the principal source of reproductive health information and the first point of communication after the period. The subjects covered in the communication on mother-to-girl reproductive health were limited to period-related queries but the overall communications status between teens and their moms on the reproductive health problem was high. It is crucial to improve sexual and reproductive health/wellness education programs by integrating them into textbooks and implementing behavioral change communication (BCC) elements.

Keywords: Communication, Sexual Health, Reproductive Health, High School Girls, Rangpur

I. INTRODUCTION

Adolescence is defined by the World Health Organization (WHO) as a period of time between the ages of 10 and 19 (WHO, 2003). There are more than a billion adolescents worldwide, of whom 70% live in developing nations (Ayalew, Mengistie, & Semahegn, 2014). They face a variety of health risks, the majority of which are behavioral in nature and may have serious consequences for their health. Neglecting this population would lead to significant reproductive health hazards. Adolescence is a transitional phase between childhood and adulthood (Dessie, Berhane, & Worku, 2015). This is because there is a lot of physiological, social, and psychological development and growth going on. In addition, one of the remarkable changes during this time is sexual and reproductive growth (Richter, 2006), and it is when parents

are supposed to socialize their kids, of which contact between parent-adolescent SRH is one. The interaction between mother and adolescent daughter is an ineluctable phenomenon of interpersonal communication that occurs within a family setting (Gamble & Gamble 2005). Through intra-family communication, adolescents can communicate knowledge, thoughts, and problems concerning their reproductive health, so improving women's health; as a result, it can be ascribed as a health communication contour (Berry, 2007; Hugman, 2009; Schiavo, 2007; Thomas, 2006). According to research, mothers are the main source of knowledge and awareness for their children's SRH issues (Crichton et al., 2012). Girls, in particular, have a cultural and trustworthy relationship with their mothers, and they often confide in and share with them. As a result, mothers are critical in the transmission of SRH-related knowledge from maturity to later life. In addition, since their mothers and daughters are of similar genders, daughters often feel at ease discussing SRH issues with their mothers. Globally, there is an increasing emphasis on improving adolescent and young people's sexual and reproductive health by improving communication about puberty issues within the family environment (Bastien et al., 2011; Phetla et al., 2008). As a consequence, in both urban and rural Bangladesh, it is important to evaluate mother-adolescent daughter contact on sexual and reproductive health issues.

The Rationale of the Study

Discussions about SRH issues in Bangladesh are considered taboo and culturally shameful in rural Bangladesh. The cultural stigma surrounding sexual and reproductive health, particularly in rural areas, has hampered the flow of accurate information, making the issue difficult to discuss. The proposed study focused on high school girls since they often do not have access outside of the home at this age and are raised in a family environment under the supervision of their parents. As a result, the mother-daughter relationship, as well as the interpersonal communication that occurs within it, can serve as guiding forces for school girls. As a result, it's important to assess the current state of sexual and reproductive health communication between mothers and adolescent daughters. The aim of this research is to make a small contribution to understanding the gaps in adolescent

girls' SRH communication with their mothers in terms of reproductive health.

II. LITERATURE REVIEW

According to studies, parents are one of the most favored sources of SRH education for adolescents around the world (Nobelius et al. 2010). On the contrary, some studies conducted in a number of developing countries show that, despite a lack of basic SRH awareness, teenagers seldom discuss sexual issues openly with their parents or other adults, either because they are ashamed or because the adults may not be familiar with SRH (Lesta, Lazarus, & Essen, 2008; Shaikh & Rahim, 2006). Parents may often feel unprepared, uneasy, or ashamed to discuss sex with their children. Parents and other adults who want to protect their children may believe that SRH education would enable young people to engage in sexual activity (Barnett & Schueller, 2000).

Studies on parent-child communication have focused on a variety of mechanisms that affect effectiveness in reducing sexual risk behavior among young people, including the frequency of conversations and expectations of communication quality and comfort (Feldman & Rosenthal, 2000; Rosenthal & Shirley, 1999). Communication timing is also significant, and it is more likely to be successful prior to sexual debut to strengthen protective factors, but it can also help those who are already sexually active change their actions (Downing, Jones, Bates, Sumnall, & Bellis, 2011). The vast majority of these studies, however, have taken place in North America, Europe, and Australia (Bastien et al., 2011).

The mother-daughter relationship, as well as the interpersonal communication that occurs within it, may serve as guiding forces for girls as they navigate sexual changes during adolescence. Mothers serve as a primary source of sexual socialization for their daughters, providing information and modeling attitudes and beliefs about SRH issues (Clawson & Reese-Weber, 2003). A mother is the parent who is more deeply involved and intentional about sexual contact with her daughter, according to several reports (Jaccard & Dittus, 1993; Kiragu, Obwaka, Odallo, & Van Hulzen, 1996; Nolin & Peterson, 1992; Rosenthal & Feldman, 1999; Walker, 2001). In addition, a lack of maternal presence and contact between mother and daughter sends messages to daughters regarding sex, sexuality, and womanhood.

According to studies, the material, efficiency, and techniques of communication all play a role in shaping young people's sexual attitudes and behaviors. Daughters claim that when it comes to sexual problems, the conversation typically revolves around biology (Rosenthal et al., 1998). The dangers and safety measures of sex, sexual habits, pregnancy, abstinence, menstruation, and dating are among the most frequently discussed topics between mothers and daughters (Lekowitz & Espinosa-Hernandez, 2007).

It is evident from reviewing the above studies there have been many studies conducted in developed countries like while

some studies found in African countries. It is also noticeable that most of the studies have covered on mother-daughter communication about sexual activity. In addition to this, there is no study that investigates the status and pattern of interpersonal communication between mothers and adolescent daughters as regards the reproductive health as well as sexual health at Rangpur in Bangladesh perspective. This study is an attempt to fill up this gap.

Study Objectives

The main purpose of this study is to investigate communication or interaction between a mother and her adolescent daughter about sexual and reproductive wellness in Rangpur Division's urban and rural areas. Along with this purpose, the study will be designed to elicit the specific goals as follows:

1. To investigate the pattern of Communication between a mother and her adolescent daughter regarding sexual and reproductive health
2. To depict the content of mother-adolescent daughter with frequency of interaction
3. To explore the factors associated with interpersonal communication among intra-family members as to reproductive issues

Theoretical Framework

The current study's theoretical structure is based on Bandura's (1977) social learning theory, which emphasizes the importance of observing and analyzing other people's interactions, attitudes, and emotional reactions. Human behavior is defined in terms of the ongoing collective interaction of cognitive, behavioral, and environmental factors in social learning theory.

Individuals acquire knowledge, learn about social situations, and develop self-regulation through modeling, according to social learning theorists. This definition stresses the importance of mother-daughter contact about reproductive and sexual health in fostering teenage girls' healthy sexual conduct. Specifically, the frequency and comfort with which SRH-related contact with mothers is performed can influence whether teenage girls correctly learn about sexual hazards and, as a result, participate in risky sexual behaviors.

III. METHODOLOGY

In an attempt to achieve the desired research outcomes, the present study used a quantitative research approach designed with a school-based cross-sectional survey. It attempted to address the descriptive analysis by addressing the questions concerning the different aspects of interpersonal communication between mother and adolescent daughter on reproductive health issues. The study population was all female students aged 13-19 years attending class 9 and class 10 in high schools in Rangpur Division during the study period. For data collection, this study was carried out in two high schools from the Rangpur City corporation area as urban

respondents and another two from Kurigram district, as rural respondents. Researchers purposively select these four schools because these are larger than other institutions from these two districts. In purposive sample, respondents, subjects, or elements are chosen for specified characteristics or attributes, and those who do not meet these criteria are eliminated from the sample. Purposive sampling involves researchers selecting respondents who use a particular media and asking them specific questions about it (Wimmer & Dominick, 2011). Data were collected from January 11 to 24, 2020. Study data were collected using a pretested, structured, and self-administered questionnaire. The questions used in the questionnaire were prepared based on reviewing related literature. Afterward, a brainstorming session was conducted to finalize the questionnaire. The questionnaire was modified, and few questions had been excluded from the questionnaire being ready for pre-testing through this series of processes. For pre-testing the questionnaire, 20 high school girls from a city school and 20 from a rural school were randomly selected. Equal numbers of respondents were taken from class 9 and class 10. They were not included in the final study. After pre-testing and revising the questionnaire, researchers finalized the questionnaire and provided it for collecting data. Respondents were requested to carefully read and fill up the questionnaire. To conduct this study, closed-ended questions were used in the questionnaire for the convenience of the adolescent respondents. The questionnaire was consist of two parts. As demographic, socio-economic, and background characteristics (age, education, profession, income, area of residence, religion, race/ethnicity) of respondents and their families; and the questions related to the communication between mother and adolescent daughter about SRH, types of communication and Other characteristics (knowledge, access to media, relationship, general communication, attitude and comfort of communication). Before carried out the study informed consent was taken from respondents and school authorities. The participant of the respondents was voluntary. This study is descriptive-analytical. Quantitative data were collected by using a questionnaire survey, and interviews and data are analyzed by Microsoft (MS) Excel program. The total sample for the study was 216. The researchers were to avoid asking questions that might shame them and make an embarrassing situation for the respondents.

IV. RESULTS AND DISCUSSION

Socio-demographic characteristics

Table 1 shows the socio-demographic characteristics of the participants and their parents. A total of 216 adolescent girls participated in this study. 92 (42.59%) were 15 years while 48 (22.22%) were below 15 years and 76 (35.19%) were above 15 years. Of them, 103 (47.69%) were attending class ten while 113 (52.31%) were the students of class nine in the high schools. Regards to group, 66 (30.56%), 76 (36.11%) and 72 (33.33%) were from Science, Commerce, and Arts respectively implying almost close rates from three sections. Most of the students (49.54%) were from rural areas,

andrest of them (50.46%) was from urban areas. Most of the respondents 168 (77.78%) were Muslim followed by Hindu and Buddhist accounting 43 (19.91%) and 5 (2.31%) respectively. Regarding the family size, 84 (38.89%) were 3 to 4 and below in numbers followed by 132 (61.11%).

Of respondents' father, 47 (21.76%) had attained primary education where 34 (15.74%) were complete secondary education, higher secondary accounting 31 (14.35%), honors/degree amounting 27 (12.50%) and masters as 23 (10.65%) where no education were 54 (25.00%). Among the participants 54 (25.00%) mother were completed primary level education where 44 (20.37%) secondary education (SSC), 62 (28.70%) were finished higher secondary level (HSC), honors or equivalent accounting 12 (5.56%) whereas masters were 11 (5.09%) followed by 33 (15.28%) did not take any education. The absolute majority of students' mothers were housewife accounting 187 (86.57%) while among respondents' father, 71 (32.87%) were in business followed by 60 (27.78%) in agriculture, and 56 (25.93%) were in expatriate, 13 (6.02%) were in service.

Table 1 Demographic information of the participants

Variable	Frequency (N = 216)	Percentage (%)
Age		
<15	76	35.19%
15	92	42.59%
>15	48	22.22%
Grade		
Class 9	113	52.31%
Class 10	103	47.69%
Section		
Arts	72	33.33%
Commerce	78	36.11%
Science	66	30.56%
Area of residency		
Rural	107	49.54%
Urban	109	50.46%
Religion		
Muslim	168	77.78%
Hindu	43	19.91%
Buddhist	5	2.31%
Family size		
3-4	84	38.89%
> 4	132	61.11%
Educational status of father		
No Education	54	25.00%
Primary Complete	47	21.76%
Secondary	34	15.74%

Higher Secondary	31	14.35%
Honors/Degree	27	12.50%
Masters	23	10.65%
Educational status of mother		
Illiterate	33	15.28%
Primary level	54	25.00%
Secondary (SSC)	44	20.37%
Higher Secondary (HSC)	62	28.70%
Honors/Degree	12	5.56%
Masters	11	5.09%
Occupation of father		
Agriculture	60	27.78%
Expatriate	56	25.93%
Business	71	32.87%
Service	13	6.02%
Others	16	7.41%
Mother's Occupation		
Housewife	187	86.57%
Entrepreneur	7	3.24%
Service Holder	9	4.17%
Teacher	8	3.70%
Others	5	2.31%

Mother-daughter Communication on SRH

Table 2 Knowledge, Attitude and Other Characteristics of Respondents and their Mothers

Characteristics	Frequency(N = 216)	Percent (%)
Perceptions of SRH knowledge among respondents		
Poor/Insufficient knowledge	46	21.30%
Some knowledge	92	42.59%
Knowledgeable	78	36.11%
Mothers' SRH knowledge as perceived by respondents		
Poor knowledge	37	17.13%
Not sure	21	9.72%
Some extent knowledge	78	36.11%
Good knowledge	80	37.04%
Respondents' media use		
Low	85	39.35%
High	131	60.65%
Mothers' media use		
Low	111	51.39%
High	105	48.61%
Good relationship of mother-daughter		

No	76	35.19%
Yes	140	64.81%
General communication/interaction of mother-daughter		
Irregular	48	22.22%
Regular	168	77.78%
Respondents' attitude about SRH discussion		
Limited discussion	65	30.09%
Open discussion	151	69.91%
Respondents' perception of comfort to communicate RH with mothers		
Uncomfortable	67	31.02%
Comfortable	149	68.98%
Level of mother and daughter SRH communication		
High	143	66.20%
Low	73	33.80%
Frequency of communication		
Once in one month	153	70.83%
Once in more than one month	63	29.17%
Type of communication		
Interactive	138	63.89%
One-sided	78	36.11%
Topics discussed during the interaction		
More	92	42.59%
Few	124	57.41%

SRH: Sexual and Reproductive Health.

Table 2 shows the respondents' reproductive health skills and attitudes, as well as some other characteristics. Almost half of the respondents (42.59%) said they had some knowledge of adolescent issues, while 78 (36.11%) said they had a strong understanding of the topic. Furthermore, 46 (21.30%) of respondents had no knowledge of reproductive health. According to the respondents' perceptions, 78 (36.11%) mothers had some knowledge of reproductive health issues, 80 (37.04%) mothers had moderate knowledge, 37 (17.13%) mothers had bad knowledge, and 21 (9.72%) were unsure about their mothers' level of knowledge.

Two-thirds of the respondents, 151 (69.91%), said that issues related to reproductive and teenage health should be discussed extensively with mother, elderly sister, friends, and family members, and 65 (30.09%) supported limited discussions about the topic. In addition, over two-thirds (68.98%) of the students said that they felt comfortable while interacting with mothers about reproductive problems. On the contrary, during a discussion with mothers 67 (31.02%) became embarrassed.

The results show that 131 (60.65%) admitted to having a high level of media use, while more than half of the respondents 111 (51.39%) said their mothers had little access

to media. As to relationship with mothers, 143 (66.20%) respondents admitted that their interpersonal relationship was good. Accordingly, more than three-fourth (77.78%) of the respondents had regular communication with mothers on daily issues, necessities, and their studies as well.

According to study findings, overall, more than one third of 73 (33.8%) of the participants had low communication status regarding reproductive health issue with their mother. Of students, 153 (70.83%) reported that they had regular (at least once in one month) interaction on adolescence health with their mother whereas 63 (29.17%) had an irregular (once in more than one month) discussion with mother about this. 124 (57.41%) respondents indicated that a few contents (maximum 4 out of 12) were covered in communication with mothers while 92 (42.59%) admitted they were discussing other issues relating to reproductive health (more than 4 out of 12). Furthermore, about two-thirds of participants interacted mutually with the mother, i.e. mother and daughter were interacting simultaneously with each other.

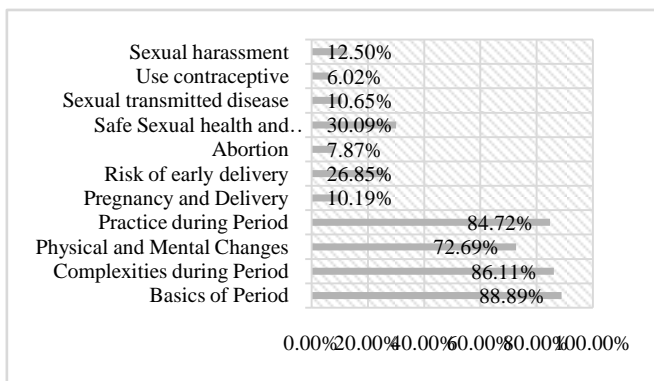


Figure 1: Matters that are discussed between mother and daughter concerning physical and reproductive well-being through interpersonal communication

Matters discussed in mother and daughter SRH discussion

Figure 1 report the matter discussed on sexual and reproductive health (MDSRH) during interaction between mother and adolescent daughter. As it can be seen, most of the interviewees' discussions with their mothers were limited to four subjects related to the period and physical changes. 30.09% of the respondents covered sexual health and behaviour, and 26.85% talked about risk of early delivery. Out of the 11 topics, rests of the topics as to reproductive health were not discussed at a satisfactory level in mother-adolescent daughter communication. As shown, interpersonal communication content was covered by: basics of a period (88.89%), practice during a period (84.72%), complexities during a period (86.11%), physical and mental change (72.69%), safe sexual health and behavior (30.9%), risk of pregnancy (26.85%), harassment (12.5%) sexual transmitted diseases (10.65%), pregnancy and delivery process (10.19%), contraceptive methods (6.02%) and abortion (7.87%).

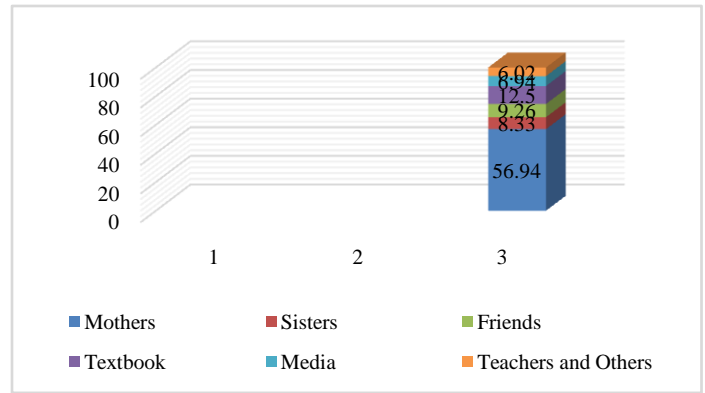


Figure 2: Respondents' prime sources of knowledge about SRH

The prime source of knowledge on juvenescence

The main source of information and knowledge on adolescent health and the individual's first communication in this regard is illustrated in Figure 2. The majority of the study population have recognized their mothers as their principal source of knowledge of sexual and reproductive health at 56.94% and friends at 9.26% and elderly sisters at 8.33% as textbooks at 12.5% for the same reason.

RH Discussion on Classroom

Characteristics	Respondents	Percentage
Discussed by Teachers	26	12.04%
Suggest to read at home	190	87.96%

Table 3: Sexual and Reproductive Health discussion by teachers in Classroom

Table 3 displays the discussion about sexual and reproductive health by class teachers within the classroom regarding adolescence health during period.

Majorities of the respondents admitted that their teachers had not wanted to talk in the classroom about reproductive health problems amounting to 87.96% (190), but that the students should read at home as if it were tabooed communications that amount to 12.04% (26) for almost the similar purpose.

The high media usage of mothers was described as one of the factors affecting the quality of contact between mother and daughter. Mass media often broadcast the reproductive health-related content that may increase mothers' knowledge as well as awareness, and persuade them for further discussion about this topic. A good relationship between parents and children results in effective communication on any topic discussed between them. A pleasant relationship with the mother encourages the daughter to be honest with her mother and to address any problems freely. These results are close to those of others (Dessie et al., 2015), who found a clear connection between mother-daughter amity and their puberty interactions. Furthermore, some research has discovered a correlation between general communication and reproductive and sexual health communication (Dessie et al., 2015; Lefkowitz, 2002).

These findings support previous research showing an enormously positive effect on juvenile communication from a mother to her daughter on daily general contact with her. This is maybe attributable that through regular contact a daughter can be closer to mother and have similar thinking pattern. Strong general communication makes it easier to speak about reproductive health and provides a healthy climate for it. As a result, they are not uncomfortable in discussion and are willing to address any problems at any time. Communication and relationships, according to behavioral science, breed each other. Lack of contact creates a barrier between people, resulting in awkward interactions. Accordingly, Students' perceptions of comfort communication were found to be a major determinant of good reproductive health communication in this research. Our findings are in line with those of others (Dessie et al., 2015).

Strength and Limitation of the Study

The study's strength is that it gathered data from large samples, including all students in classes 9 and 10 at the time of the survey. As a result, students from diverse ethnic backgrounds had a chance to participate in the research. Furthermore, different aspects of communication, such as frequency, interactive form, and content of communication, have been investigated in our operationalization of mother-daughter reproductive health communication, which was its unique power.

However, its findings have to be interpreted within some constraints, which in future research on this topic should be taken into account. To begin, various aspects of mother-daughter communication on reproductive health, knowledge, attitude, and relationship outcomes are depicted in our study based on self-reported information from the daughters, which is subject to reporting errors. As a consequence, evaluating the situation from both the mother's and daughter's viewpoints will provide a reasonable picture. Studies indicated that mothers and daughters often have different perception and understanding of reproductive health communication. Secondly, it is also difficult to establish cause and effect relationship since the study was designed as cross-sectional.

V. CONCLUSION

The study findings showed that more than two-thirds of students had regular interaction with their mothers, and more than one-third had one-sided communication about this issue. Besides, the findings explored that few contents as to reproductive and sexual health had been covered in the intra-family discussion. A small number of reproductive and sexual health queries were covered by correspondence, which focused mainly on menstrual information. For the majority of teenage girls, mothers were the main source of awareness and information regarding reproductive health problems, as well as the most favored source.

Respondents from families with less than four children were more possible to have successfully

communicated regarding reproductive wellness with their moms. Students with some and strong puberty knowledge were more likely than those with poor knowledge to have a good discussion in this area. Likewise, the probability of good reproductive health interaction was more likely among the mothers who had some extent and well sexual knowledge. Respondents' mother who watched TV and read a newspaper regularly had a higher likelihood to promote reproductive health communication. Besides, participants' having a good relationship with mother for self-disclosure appeared in more effective communication on puberty. Likewise, high adolescent-mother general communication quality and respondents' comfort of communication significantly improve the status of reproductive health communication.

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REFERENCE

- [1] Afifi, T., Joseph, A., & Aldeis, D. (2008). Why can't we just talk about it? : An observational study of parents' and adolescents' conversations about sex. *Journal of Adolescent Research*, 23(6), 689-721. doi: 10.1177/0743558408323841
- [2] Alam, S. (2015). Factors that influence women's decision in contraceptive use in urban area in Bangladesh. *The Journal of Social Studies*, 146, 45-59.
- [3] Ayalew, M., Mengistie, B., & Semahegn, A. (2014). Adolescent-parent communication on sexual and reproductive health issues among high school students in Dire Dawa, Eastern Ethiopia: a cross sectional study, 11(77). doi:10.1186/1742-4755-11-77
- [4] Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- [5] Bandura, A. (1997). The anatomy of stages of change. *American Journal of Health Promotion*. 12(1), 8-10. PMID:10170438
- [6] Barnett, B., & Schueller, J. (2000). *Meeting the Needs of Young Clients: A Guide to Providing Reproductive Health Services to Adolescents*. North Carolina: Family Health International.
- [7] Bastien, S., Kajula, L., & Muhwezi, W. (2011). A review of studies of parent-child communication about sexuality and HIV/AIDS in sub-Saharan Africa. *Reproductive Health*, doi:10.1186/1742-4755-8-25
- [8] Bastien, S., Leshabari, M. T., & Klepp, K. I. (2009). Exposure to information and communication about HIV/AIDS and perceived credibility of information sources among young people in northern Tanzania. *African Journal of AIDS Research*, 8(2), 213-222, doi: 10.2989/AJAR.2009.8.2.9.861
- [9] Berry, D. (2007). *Health Communication: Theory and Practice*. Berkshire: Open University Press, McGraw-Hill Education.
- [10] Burleson, B. R., Metts, S., & Kirch, M. W. (2000). Communication in closer relationships. In C. Hendrik & S. S. Hendrick (Eds.), *Close relationships: A sourcebook* (pp.245-258). Thousand Oaks, CA: Sage.
- [11] Clawson, C. L., & Reese-Weber, M. (2003). The amount and time of parent-adolescent sexual communication as predictors of late adolescent sexual risk-taking behaviors. *Journal of Sex Research*, 40, 256-265. doi: 10.1080/00224490309552190
- [12] Crichton, J., Ibisomi, L., & Gyimah, S. O. (2012). Mother-daughter communication about sexual maturation, abstinence and unintended pregnancy: Experiences from an informal settlement in Nairobi, Kenya. *Journal of Adolescence*, 35, 21-30. doi:10.1016/j.adolescence.2011.06.008
- [13] Crohn, H. (2010). Communication about sexuality with mothers and stepmothers from the perspective of young adult daughters. *Journal of Divorce & Remarriage*, 51(6), 348-365. doi: 10.1080/10502551003652108

- [14] Davis, A., Gahagan, J., & George, C. (2013). 'Everyone just keeps their eyes closed and their fingers crossed': Sexual health communication among black parents and children in Nova Scotia, Canada. *International Journal for Equity in Health*, 12(1), 55-65. doi: [10.1186/1475-2875-12-55](https://doi.org/10.1186/1475-2875-12-55)
- [15] Dennis, A., & Wood, J. (2012). We're not going to have this conversation, but you get it: Black mother-daughter communication about sexual relations. *Women's Studies in Communication*, 35(2), 204-223.
- [16] Dessie, Y., Berhane, Y., & Worku, A. (2015). 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*, 10(7). doi:10.1371/journal.pone.0129941
- [17] Dilorio, C., Kelley, M., & Hockenberry-Eaton, M. (1999). Communication about sexual issues: mothers, fathers, and friends. *Journal of Adolescent Health*, 24(3), 181-189. doi: [10.1016/S1054-139X\(98\)00115-3](https://doi.org/10.1016/S1054-139X(98)00115-3)
- [18] Directorate General of Health Services (DGHS). (2016). *Health Bulletin 2016*. Dhaka: MIS. Management Information System, DGHS, Ministry of Health and Family Welfare, Bangladesh.
- [19] Downing, J., Jones, L., Bates, G., Sumnall, H., & Bellis, M. A. (2011). A systematic review of parent and family-based intervention effectiveness on sexual outcomes in young people. *Health Educ Res*, 26(5), 808-33. doi: [10.1093/her/cyr019](https://doi.org/10.1093/her/cyr019)
- [20] Eisenberg, M. E., Sieving, R. E., Bearinger, L. H., Swain, C., & Resnick, M. D. (2006). Parents' communication with adolescents about sexual behavior: a missed opportunity for prevention? *Journal of Youth Adolescence*, 35, 893-902. doi: [10.1007/s10964-006-9093-y](https://doi.org/10.1007/s10964-006-9093-y)
- [21] Fanta, M., Lemma, S., Sagaro, G. G., & Meskele, M. (2016). Factors associated with adolescent-parent communication regarding reproductive health issues, among high school and preparatory students in Boditi town, Southern Ethiopia: a cross-sectional study. *Patient Intelligence*, 8, 57-70. doi: [10.2147/PLS97838](https://doi.org/10.2147/PLS97838)
- [22] Feldman, S. S., Rosenthal, D. A. (2000). The Effect of Communication Characteristics on Family Members' Perceptions of Parents as Sex Educators. *Journal of Research on Adolescence*, 10, 119-150. doi: [10.1177/0017896911398817](https://doi.org/10.1177/0017896911398817)
- [23] Gamble, T. k. and Gamble, M. (2015). *Communication Works* (8th ed.), New York: McGraw Hill. Glanz, K., Rimer, B. K., & Lewis, F. M. (2002). *Health Behavior and Health Education. Theory, Research and Practice*. San Francisco: Wiley & Sons.
- [24] Hugman, B. (2009). *Healthcare Communication*. London: Pharmaceutical Press.
- [25] Jerman, P., & Constantine, N. (2010). Demographic and psychological predictors of parent-adolescent communication about sex: A representative statewide analysis. *Journal of Youth and Adolescence*, 39(10), 1164-1174. doi: [10.1007/s10964-010-9546-1](https://doi.org/10.1007/s10964-010-9546-1)
- [26] Jordan, T. R., Price, J., & Fitzgerald, S. (2000). Rural Parents' Communication With Their Teen-agers About Sexual Issues. *Journal of School Health*, 70(8), 338-344. doi: [10.1111/j.1746-1561.2000.tb07269.x](https://doi.org/10.1111/j.1746-1561.2000.tb07269.x)
- [27] Khan, M. E., Townsend, J. W., & D'Costa, S. (2002). A Qualitative Study of Sexual Behaviour of Married Women in Bangladesh. *Culture, Health & Sexuality*, 4(2), 237-256. Retrieved from <http://www.jstor.org/stable/4005270>
- [28] Kim, Y.M., Kols, A., Nyakauru, R., Marangwande, C., & Chibatamoto, P. (2001). Promoting Sexual Responsibility Among Young People in Zimbabwe. *International Family Planning Perspectives*, 27(1), 11-19. doi: [10.2307/2673800](https://doi.org/10.2307/2673800)
- [29] Jaccard, J., & Dittus, P. (1993). Parent-adolescent communication about premarital pregnancy. *Families in Society*, 74(6), 329-343. Retrieved from <http://www.popline.org/node/331992>
- [30] Jejeebhoy, S. J., & Santhya, K. G. (2011). *Parent-child communication on sexual and reproductive health matters: Perspectives of mothers and fathers of youth in India*. New Delhi: Population Council.
- [31] Kiragu, K., Obwaka, E., Odallo, D., & Van Hulzen, C. (1996). Communicating about sex: Adolescents and parents in Kenya. *AIDS & STDS Health Promotion Exchange*, 3, 11-13. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12291986>
- [32] Lefkowitz, E. (2002). Beyond the Yes-No Question: Measuring Parent-Adolescent Communication about Sex. *New Directions for Child and Adolescent Development*, 97, 43-56. doi: [10.1002/cd.49](https://doi.org/10.1002/cd.49)
- [33] Lefkowitz, E., & Espinosa-Hernandez, G. (2007). Sex-related communication with mothers and close friends during the transition to University. *The Journal of Sex Research*, 44(1), 17-27. doi: [10.1080/00224490709336789](https://doi.org/10.1080/00224490709336789)
- [34] Lefkowitz, E., & Stoppa, T. (2006). Positive sexual communication and socialization in the parent adolescent context. *New Direct Child Adolescent Dev*, 12, 39-55. doi: [10.1002/cd.161](https://doi.org/10.1002/cd.161)
- [35] Lesta, S., Lazarus, J. V., & Essen, B. (2008). Young Cypriots on sex education: Sources and adequacy of information received on sexuality issues. *Sex Education: Sexuality, Society and Learning*, 8(2), 237-246. doi: [10.1080/14681810801981381](https://doi.org/10.1080/14681810801981381)
- [36] Lisa, D. L. (2006). Early predictors of sexual behavior: implications for young adolescents and their parents. *Perspect Sex Reprod Health*, 38(2):112-114. Retrieved from <https://www.guttmacher.org/sites/default/files/pdfs/pubs/journals/3811206.pdf>
- [37] Looze, M., Constantine, N., Jerman, P., Vermeulen-Smit, E., & Bogt, T. (2015). Parent-Adolescent Sexual Communication and Its Association With Adolescent Sexual Behaviors: A Nationally Representative Analysis in the Netherlands, *The Journal of Sex Research*, 52:3, 257-268. doi: [10.1080/00224499.2013.858307](https://doi.org/10.1080/00224499.2013.858307)
- [38] Manu, A., Mba, C. J., Asare, G. Q., Odoi-Agyarko, K., Asants, R. K. O. (2015). Parent-child communication about sexual and reproductive health: evidence from the BrongAhafo region, Ghana. *Reproductive Health*, 12(16). doi: [10.1186/s12978-015-0003-1](https://doi.org/10.1186/s12978-015-0003-1)
- [39] Melaku, Y. A., Berhane, Y., Kinsman, J., & Reda, H. L. (2014). Sexual and reproductive health communication and awareness of contraceptive methods among secondary school female students, northern Ethiopia: a cross-sectional study. *BMC Public Health*, 14(252). doi: [10.1186/1471-2458-14-252](https://doi.org/10.1186/1471-2458-14-252)
- [40] Namisi, F., Flisher, A., Overland, S., Bastien, S., Onya, H., Kaaya, S., & Aaro, L. (2008). Sociodemographic variations in communication on sexuality and HIV/AIDS with parents, family members and teachers among in-school adolescents: A multisite study in Tanzania and South Africa. *Scandinavian Journal of Public Health*, 37(2), 65-74. doi: [10.1177/1403494808086986](https://doi.org/10.1177/1403494808086986)
- [41] Nolin, M. J., & Peterson, K. K. (1992). Gender differences in parent-child communication about sexuality: An exploratory study. *Journal of Adolescent Research*, 7(1), 59-79. doi: [10.1177/074355489271005](https://doi.org/10.1177/074355489271005)
- [42] Nobelius, Ann-Maree, B., Kalina, R., Pool, J., Whitworth, J., Chesters, & Power, R. (2010). Sexual and reproductive health information sources preferred by out-of-school adolescents in rural southwest Uganda. *Sex Education: Sexuality, Society and Learning*, 10(1), 91-107. doi: [10.1080/14681810903491438](https://doi.org/10.1080/14681810903491438)
- [43] Parraga, I. M. (1990). Determinants of Food Consumption. *Journal of American Dietetic Association*, 90, 661-663. Retrieved from <https://www.cabdirect.org/cabdirect/abstract/19901451543>
- [44] Phetla, G., Busza, J., Hargreaves, J., Pronyk, P., Kim, J., Morison, L., Watts, C., & Porter, J. (2008). 'They have opened our mouths': Increasing women's skills and motivation for sexual communication with young people in rural South Africa. *AIDS Education and Prevention*, 20(6), 504-518. doi: [10.1521/aeap.2008.20.6.504](https://doi.org/10.1521/aeap.2008.20.6.504)
- [45] Richter, L. M. (2006). Studying adolescence. *Science*, 312, 1902-1905. doi: [10.1126/science.1127489](https://doi.org/10.1126/science.1127489)
- [46] Rogers, E. M. (1973). *Communication Strategies for Family Planning*. New York: Free Press.
- [47] Rosenthal, D. A., Feldman, S., & Edwards, D. (1998). Mum's the word: Mothers' perspectives on communication about sexuality with adolescents. *Journal of Adolescence*, 21(6), 727-743. doi: [10.1006/jado.1998.0192](https://doi.org/10.1006/jado.1998.0192)

- [48] Rosenthal, D. A., Russell, J., & Thomson, G. (2008). The health and wellbeing of international students at an Australian university. *Higher Education*, 55(51). doi:10.1007/s10734-006-9037-1
- [49] Rosenthal, D. A., & Shirley, F. S. (1999). The importance of importance: adolescents' perceptions of parental communication about sexuality. *J Adolesc*, 22(6), 835-851. doi: 10.1006/jado.1999.0279
- [50] Schiavo, R. (2007). *Health Communication: From Theory to Practice*. San Francisco: Jossey-Bass.
- [51] Shaikh, B. T., & Rahim, S. T. (2006). Assessing knowledge, exploring needs: A reproductive health survey of adolescents and young adults in Pakistan," *European Journal of Contraception & Reproductive Health Care* 11(2): 132-137. doi.org/10.1080/13625180500389463
- [52] Shinn, L., & Lauren, M. (2005). *The role of gender and social class in parent-child communication*. MA. The Faculty of the graduate school. The University of North Carolina at Greensboro. Retrieved from <http://libres.uncg.edu/ir/uncg/f/umi-uncg-1081.pdf>
- [53] Sprecher, S., Harris, G., & Meyers, A. (2008). Perceptions of sources of sex education and targets of sex communication: Sociodemographic and cohort effects. *Journal of Sex Research*, 45(1), 17-26. doi: 10.1080/00224490701629522
- [54] Stidham-Hall, K., Moreau, C., & Trussell, J. (2012). Patterns and Correlates of Parental and Formal Sexual and Reproductive Health Communication for Adolescent Women in the United States, 2002-2008. *Journal of Adolescent Health*, 50, 410-413. doi: 10.1016/j.jadohealth.2011.06.007
- [55] Tesso, D. W., Fantahun, M. A., & Enquesslassie, F. (2012). Parent-young people communication about sexual and reproductive health in E/Wollega zone, West Ethiopia: Implications for interventions. *Reproductive Health*, 9(13), doi:10.1186/1742-4755-9-13
- [56] Thomas, R. K. (2006). *Health Communication*. New York: Springer.
- [57] Walker, J. L. (2001). A qualitative study of parents' experiences of providing sex education for their children: The implications for health education. *Health Education Journal*, 60(2), 132-146. doi: 10.1177/001789690106000205
- [58] Wamoyi, J., Fenwick, A., Urassa, M., Zaba, B., & Stones, W. (2010). Parent-child communication about sexual and reproductive health in rural Tanzania: Implications for young people's sexual health interventions. *Reproductive Health*, 7(1), 1-18. doi: 10.1186/1742-4755-7-6
- [59] Wikipedia. (2018a). Retrieved from https://en.wikipedia.org/wiki/Rangpur_Division
- [60] Wikipedia. (2018b). <https://en.wikipedia.org/wiki/Rangpur>
- [61] Wimmer, R. D & Dominick, J.R.(2011), *Mass Media Research: An Introduction*, Wadsworth Cengage Learning, USA, P-94.
- [62] World Health Organization (WHO). (2003). *Early Childhood Development: A Powerful Equalizer*. Geneva Switzerland: WHO. http://www.who.int/topics/adolescent_health/en/
- [63] Yousri, Y., & Mamdouh, H. M. (2013). Mother-Daughter Communication about Sexual and Reproductive Health in Alexandria, Egypt. In Nahla, A. T., Sally, S., & Nora, E. I. N. (Eds.). 2013. "Breaking the Silence: Learning about Youth Sexual and Reproductive Health in Egypt." Cairo: Population Council.
- [64] Zakaria, M., & Azim, S. (2016). Couple Communication on Family Planning: A Study on Wives' Responses from Urban and Rural Bangladesh. *Social Science Review [The Dhaka University Studies: Part-D]*, 33(1), 155-170.
- [65] Zakaria, M., & Bhuiyan, M. M. (2016). Determinants of Male Involvement in Women's Reproductive Health: A Multilevel Study in Bangladesh. *Malaysian Journal of Public Health Medicine*, 16(3), 211-218.