Dyadic Communication between Mother and Adolescent Daughter regarding Menstruation

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Abstract

Mother-adolescent daughter dyadic communication regarding sexual and reproductive health (SRH) is an effective means to transmit reproductive knowledge and to promote safe behavior among adolescent girls. In Bangladesh, especially in rural areas, teenage girls usually hesitate to discuss SRH matters openly with their mothers because of cultural taboo and orthodox values. This study aims at assessing different aspects of mother-daughter communication concerning menstruation and factors associated with these outcome variables in Chittagong district, Bangladesh. A cross-sectional study was conducted among the female students (N = 1031) five high schools. Data were collected using a structured and self-administered questionnaire. Cross-tabulation with chi-square ($\chi 2$) and logistic regression analysis were performed using IBM SPSS version 24.0. In addition to that, a number of FGDs were conducted to get deeper insight over this issue. In all, 71% respondents reported their dyadic communication with mothers commenced after menarche and 32% daughters initiated menustration-related conversation by themselves. In addition, about one-fourth of mothers explained menstruation as a disease, while 30.5% mothers suggested their daughters to use cloths or cotton instead of sanitary pads. Besides, 19% mothers precluded their daughters from touching anyone during their period and about one-third mother restricted their daughters from going to school or outside. FGD results show versatile picture in their conversational pattern and sociocultural practice which support the survey findings. This study also examined the association between the use of media as well as social media and different patterns of mother-daughter dyadic communication and found positive relationship. In logistic regression analyses, students studying science, urban students, having good SRH knowledge, having amicable relationship and regular general communication between mother and daughter, mothers having good SRH knowledge, getting mothers as the primary source of period-related knowledge were reported as the significant predictors for different aspects of mother-daughter communication on menstruation.

Introduction

Communication has an essential role in health promotion as well as improving women health. Through interpersonal communication, mothers can share knowledge, experiences, and skills, transmit social and cultural values and allay the anxieties about puberty related matters to their adolescents (Dessie, Berhane, & Worku, 2015; Jerman & Constantine, 2010). A large body of literature from developing countries also suggests that household communication on sexual and reproductive health (SRH) has a positive impact on adolescents' knowledge, attitudes, norms, intentions and behavior in this regard (Ackard, Neumark-Sztainer, Story, & Perry, 2006). Studies found that through effective interaction within the family, adolescent girls can protect themselves from unexpected reproductive health outcomes (DiClemente et al., 2001; Eisenberg et al., 2006). According to the study reports, mothers are the best sources of information and knowledge for their children on reproductive health matters (Crichton, Ibisomi, & Gyimah, 2012). Several studies identify a mother as the parent who is more actively involved and willing about sexual communication with her daughter than father (Amoran, Anadeko, & Adeniyi, 2005; Jejeebhoy & Santhya, 2011; King & Lorusso, 1997; Pluhar, Dilorio, & McCarty, 2008; Shiferaw, Getahun, & Asres, 2014; Wamoyi et al, 2010). According to the culture, mother-daughter relationship in Bangladesh is quite close and long-lasting, as they mostly spend time with one another. To holistically enhance life quality and health of daughter, communication initiated by the mother can play a very vital role. Conversation between mother and daughter, especially during any transitional period of the daughter's life would not only help the daughter to get herself prepared properly (physically, mentally, and emotionally), but also help her to touch the mother's care which would bring to more intimate and healthy relationship.

However, no study has investigated the mother-daughter dyadic communication regarding menstruation in Bangladesh. Thus the aim of the study is to assess and explore:

1. whether menstruation communication is initiated before or after menarche,
2. the initiator of this kind of communication, mother or the daughter,
3. accuracy level of information regarding menstruation provided by mothers,
4. the factors associated with these outcome variables in Chittagong district, Bangladesh.

Literature Review

There are abundant of studies that examined the content of communication between mother and daughter have received considerable attention in literature (Ayalew, Mengistie, & Semahegn, 2014; Dessie et al, 2015; Dilorio et al., 2002; Fanta, Lemma, Sagaro, & Meskele, 2016; Feldman & Rosenthal, 2010; Jerman & Constantine, 2010; Looze et al., 2015; Shiferaw et al., 2014; Tesso, Fantahun, & Enquselassie, 2012). The timing of reproductive and sexual health communication is also critical and may be useful prior related behavior and practice (Clawson & Reese-Weber, 2003; Miller, Kotchick, Dorsey, Forehand, & Ham, 1998). However, A number of developed

countries in North America and Europe are experiencing to conduct most of the erudite works about sexual communication (Bastien, Kajula, & Muhwezi, 2011).

Besides the process and practice of communication, some associated factors have been identified as the predictors of parent-adolescent conversation as regards sexual and puberty health. Abundant of studies aimed at exploring the different type of factors that included demographic, psychological, behavioral, subjective and social cognitive matters to examine their association with parent-children SRH discussion (Dilorio et al., 2000; Jerman & Constantine, 2010; Schouten, Putte, Pasmans, & Meeuwesenn, 2007). Bestien, Leshabari, & Klepp (2009) found the area of residence of the family to be a significant predictor of discussion about HIV/AIDS reporting young people living in rural areas had more communication with parents. Some literature examined the relationship between parents' race or ethnicity and sexual communication, although findings were contradictory (Dilorio, Pluhar, & Belcher, 2003; Jerman & Constantine, 2010; Pluhar et al., 2008; Swain, Ackerman, & Ackerman, 2006). Religious attachment appeared as a determinant of a good sexual health communication status between mother and daughter in few studies (Dessie et al., 2015; Pluhar et al., 2008; Swain et al., 2006). Dilorio et al. (2003) noted that other researchers have shown that parents' reproductive health knowledge can predict the extent of communication with children and this observation is also supported by other studies (Byers, Sears, & Weaver, 2008; Dessie et al., 2015). In addition to this, some studies suggest that adolescents' knowledge influence the extent to which they communicate with parents on puberty issue (Fanta et al., 2016; Shiferaw et al., 2014;). Among other factors appeared as significant, Dessie et al. (2015) observed that high television viewing, adolescents' self-disclosure to parent, and adolescent-parent good general communication quality were positively connected with SRH conversation.

Methodology

Study Design

The present study used mixed method, both quantitative and qualitative approaches for conducting the research. The quantitative approach was designed with a school-based cross-sectional survey while the focus group discussion (FGD) provided deeper elucidation of the findings depicted from the questionnaire survey.

Study Population and Sample Size

The study population for the quantitative survey was all female students aged 13-17 years attending in grade 9 and grade 10 in high schools in Chittagong district while conducting the study. It is worth mentioning that, the study included only those adolescent girls who were living with their mothers and had got menstruation at least one year preceding the survey. The girls whose mothers were not alive during the survey were excluded. For conducting this school-based cross-sectional study, both purposive and random sampling methods were used to select five schools from Chittagong district.

The sample size was 1067. The sample size was determined using single population proportion formula considering the following assumption: p = 50%, significance level 5% (α = 0.05), $Z\frac{\alpha}{2}$ = 1.96, and margin of error 3% (d = 0.03).

The final sample size was 1031 as 36 cases were removed in the analysis according to the casewise listing of residuals to identify outliers outside 2 std. dev cases with ZResid values above 2.5 (or less than -2.5). However, study participants were drawn from each school using systematic sampling method according to the proportion.

Study Settings

For conducting this school-based questionnaire survey, both purposive and random sampling methods were applied to select the study settings. For collecting data from urban respondents, one city corporation-run (autonomous) high school and one private high school were randomly selected from the two types of school list of Chittagong City. On the contrary, rural participants were selected from two schools one from Sitakunda Upazila of the north part of Chittagong district and another from Satkania Upazila from of the south part of Chittagong district following the same sampling techniques. Finally, one school was selected from Rangamati District of Chittagong Hill Tracts (CHT) area to include the Ethnic and Non-Muslim group of respondents in the study. In this way, five schools were selected for the institution-based cross-sectional study.

Data Collection

Survey data were collected using a pretested, structured and self-administered questionnaire. The questions used in the questionnaire were prepared based on reviewing related literature. The survey was guided by 10 female facilitators who were the graduate students at the University of Chittagong.

In addition, an FGD with five adolescent girls was conducted which contributed to widen insights into the issue. The co-researcher herself conducted the FGD considering the sensitivity of the issue.

The FGD participants were selected through random sampling. Semi structured questionnaire was used for eliciting discussion in the FGD. All five of the participants aged from 15 to 17. Based on their given information, it is seen that they belonged to socially marginalized class. That is say people who are socially disadvantaged living in the rural areas mostly. None of their names is mentioned in the discussion for privacy concern; as a result, participants are given number such as “P1”= Participant 1, “P2”= Participant 2 etc.

Measure of Outcome (Dependent) Variables

The accuracy level of information transmitted through mother-daughter communication on Menstruation was assessed following four questions based on some misconceptions and malpractice those were mentioned in some literature (Figure 1). Then the responses to these questions were added together to generate the overall *accuracy of information*

transmitted through communication, Afterward, the composite score ranging from 0.00 to 4.00 was dichotomized using mean (which was (2.90) as a cut-off value that above mean value was coded as 1 depicting *high* accuracy and score below mean value was coded as 0 showing *low* accuracy.

Data Analysis

The data, which were gathered using structured questionnaire was coded and entered into IBM SPSS version 24.0. Descriptive statistics using cross-tabulation was used to see the overall percentage distribution of the study for three outcome variables regarding mother-adolescent daughter communication on menstruation and their socio-demographic and other characteristics related to knowledge and communication. Secondly, chi-square ($\chi 2$) analyses were also used to examine the relationship between independent and main outcome variables. Then, variables with a $p < .10$ in chi-square test were included in the multivariate logistic regression model to assess the contribution of each of these predictor variables.

Each variable coefficient in the final model produces the odds ratios and 95% confidence intervals (CI). Variables are having *p*-value < .05 in the multivariate analysis were taken as significant predictors. Adjusted odds ratios (OR) with their 95% confidence intervals were used to report the strength of the relationship between socio- background variables and the target outcome variable. The FGD data was analyzed through discourse analysis.

Ethical Considerations

Permission was secured from the school authority where the questionnaire survey was conducted. Before the distribution of questionnaire, the purpose and confidentiality of the study were addressed to the respondents. After explication, the informed verbal consent for participating in the study was obtained from each of the participants. The facilitators maintained confidentiality and anonymity of the collected information. Study participants had the right to opt out of the survey anytime they would desire. In addition, participants' consent was taken through proper format with privacy assurance by the moderator prior to the FGD session.

Results

Socio-demographic Characteristics

Table 1 shows the socio - demographic characteristics of the participants and their parents. A total of 1031 adolescent girls were included in the study analysis. The mean age of the students was 14.92 years (SD = .870). Of them, 557 (54%) were attending grade ten while 474 (46%) were the students of grade 9 in the high schools. Regards to group, 385 (37.3%), 365 (35.4%) and 281 (27.3%) were from Commerce, Science, and Arts respectively. More than half of the students (53.6%) were from rural areas, and rest of them (46.4%) were from urban areas. Majority of the respondents (71.7%) were Muslim followed by Buddhist and Hindu accounting 188 (18.2%) and 95 (9.2%) respectively. Of students, 857 (83.1%) were Bangali while rest of them (16.9%) were identified as ethnic population

Variables	Categories	Frequency	Percentage
Grade	Nine	474	46.0
	Ten	557	54.0
Group	Arts	281	27.3
	Commerce	385	37.3
	Science	365	35.4
Area of residence	Rural	553	53.6
	Urban	478	46.4
Religion	Muslim	739	71.7
	Hindu	95	9.2
	Buddhist	188	18.2
	Christian & Others	9	0.9
Race/ethnicity	Bangali	857	83.1
	Ethnic	174	16.9

Table 1: Demographic Characteristics of Respondents and their Parents

Mother-Daughter Communication as regards to Menstruation

According to the study findings from Table 2, regards to initiation of communication between mother and daughter, 695 (67.9%) respondents reported that their mothers commenced interaction with them, while about one third (32.1%) of the respondents initiated dyadic communication with their mothers. Regarding timing, more than two-thirds (70.6%) of the respondents reported that mother-daughter communication started after menarche, while 303 (29.4%) reported commencing this type of intra-family interaction before experiencing menstruation for the first time. In respect to the accuracy of information transmitted by mothers, 755 (73.2) transferred correct knowledge regarding menstruation to their daughters.

Dependent Variable	Frequency	Percentage
The initiator of mother-daughter communication regarding menstruation		
Mother	695	67.9
Daughter	329	32.1
Starting time of communication on period		
Before menarche	303	29.4
After menarche	728	70.6
The accuracy level of period-related contents transmitted by mothers		
High	755	73.2
Low	276	26.8

Table 2: Percentage Distribution of Mother-Daughter Communication regarding Menstruation

The Accuracy of the Messages on Menstruation

Figure 1 depicts the accuracy of information distributed by the mothers to their adolescent daughters about different attitudinal and behavioral aspects of the period. The answer option 'Yes' demonstrates the ignorance of the mothers caused by the lack of adequate knowledge on reproductive health issues; whereas, option 'No' indicates accuracy of the mothers' knowledge. As reported by the respondents, about one-fourth of mothers attributed menstruation as a disease. In addition, about one-third mothers didn't allow their daughters to go outside and to school as well, while one-fifth mothers forbade their daughters to touch anyone during their period. Besides, 30.5% mothers told their daughters to use cloths or cotton that was not hygienic instead of sanitary pads.

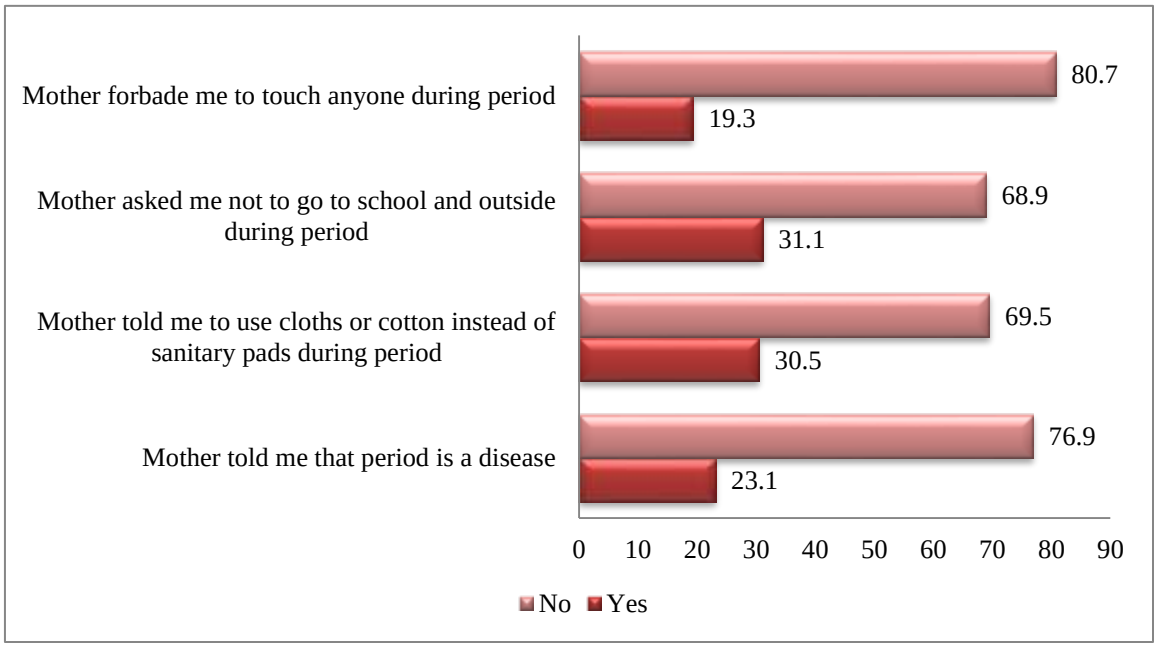

Figure 1: Percentage Distribution of Period-related Information Transmitted by Mothers

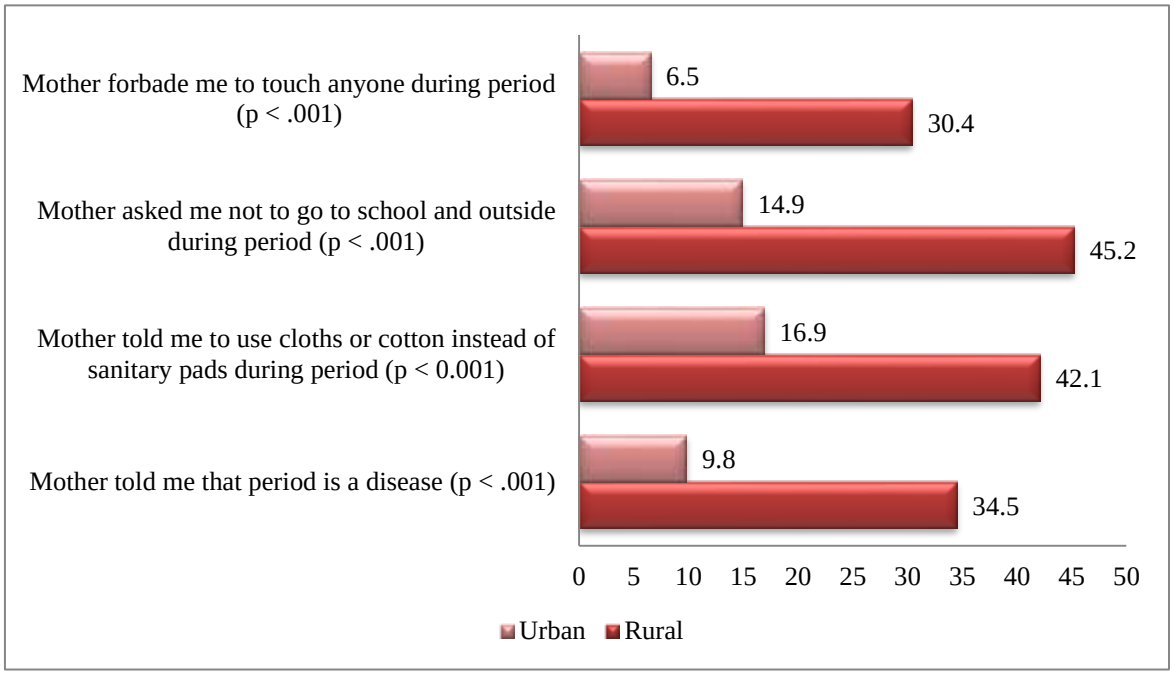

Figure 2: Percentage Distribution of Period related Information Transmitted by Mothers according to Area of Residence

Figure 2 displays highly significant difference (p <.001) in the rate of accuracy of information exchanged through mother - adolescent daughter communication based on the areas of residence, whether urban or rural. According to the reports of the respondents, 43.3% rural mothers told them to use cloths or cotton that was not hygienic, while in case

of urban mothers this figure was 19%. Besides, 33.4% rural and 11% urban mothers had forbidden their daughters to touch anyone during the period. About the same percentages have been noticed in attributing menstruation as a disease by mothers from the respective areas. Furthermore, 44.6% rural mothers didn't allow their daughters to go to school and outside whereas 17.5% urban mothers maintained this practice.

Different Reactions after Experiencing Menarche

Figure 3 demonstrates different reactions by the adolescent girls after experiencing menarche. Of them, 39% reported that they got scared after having menarche while 29% felt ashamed. In addition, 25% of the respondents told that they became worried experiencing first period whereas 7% of them cried.

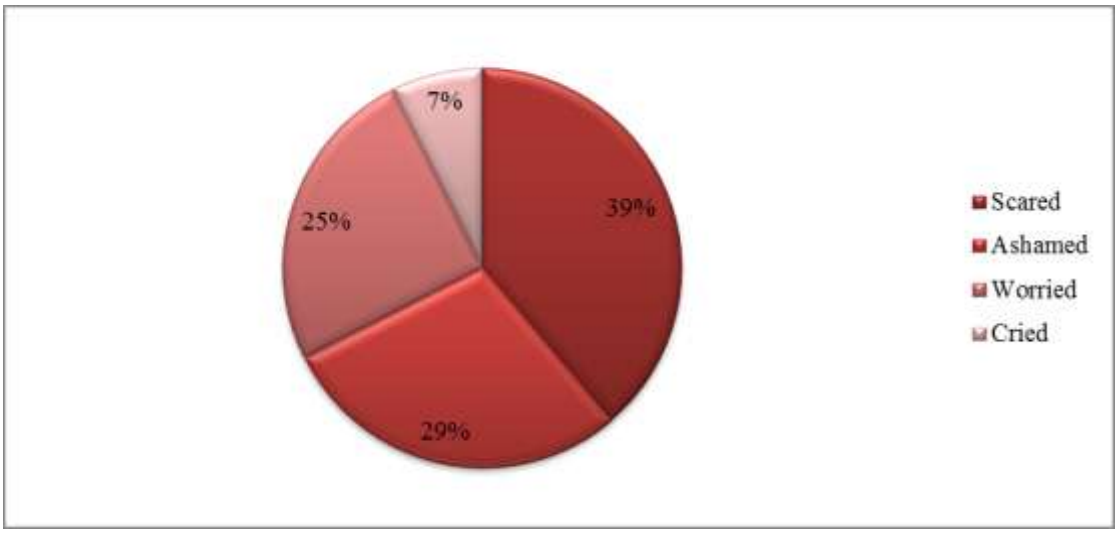

Figure 3: Percentage Distributions of Different Reactions after Experiencing Menarche

Predictors of Better Communication on Menarche in Multivariate Analysis

In this study, non-Muslim students were 0.52 times less likely to start menstruation communication before menarche than Muslim students (OR = 0.52, 95% CI: 0.30-0.89). Table 3 also demonstrates that the comparatively higher level of RH knowledge of the students and their mothers had gradually increased higher odds for commencing discussion as to period before menarche. Besides, the respondents with prior knowledge of period before experiencing it were 19.19 times more likely to start dyadic interaction than their counterparts (OR = 19.19, 95% CI: 12.24-30.09). Furthermore, the students whose primary source of RH knowledge was mothers had higher likelihood to commence communication with mothers regarding the issue (OR = 1.75, 95% CI: 1.24-2.49) than those who came across RH knowledge from other sources. The odds of starting mother-daughter communication on menstruation before menarche were 2.42 times higher among those who reported good relationship compared to those who had no friendly relationship (OR = 2.42, 95% CI: 1.66-3.52).

	Starting discussion on period before menarche	Communication on menstruation initiated by mother	High accuracy of contents transmitted by mother
Variables	**OR (95% CI)**	**OR (95% CI)**	**OR (95% CI)**
[a]Stream (r: Arts)			
Commerce		1.10 (0.78-1.55)	1.57 (1.07-2.31)*
Science		1.60 (1.07-2.39)*	4.90 (2.92-8.22)***
[a]Area of residency (r: Rural)			
Urban		0.92 (0.65-1.32)	9.94 (6.38-15.48)***
Religion (r: Muslim)			
Non-Muslim	0.52 (0.30-0.89)*	0.92 (0.58-1.47)	0.75 (0.39-1.46)
Nationality (r: Ethnic)			
Bangali	1.00 (0.51-1.98)	2.48 (1.36-4.52)**	0.08 (0.04-0.19)***
Respondents' RH knowledge (r: Poor)			
Some extent	1.54 (0.91-2.61)	1.58 (1.09-2.29)*	0.88 (0.57-1.37)
Good	1.80 (1.00-3.24)*	1.79 (1.13-2.85)*	0.95 (0.53-1.68)
[b]Respondents' prior knowledge of menstruation (r: No)			
Yes	19.19 (12.24-30.09)***		1.39 (0.98-1.96)
Source of knowledge (r: Others)			
Mother	1.75 (1.24-2.49)**	1.44 (1.08-1.93)*	0.87 (0.60-1.24)
[b]Respondents' attitude about a discussion on RH (r: Negative)			
Positive	1.36 (0.94-1.98)		1.51 (1.05-2.18)*
[ab]Respondent's media use (r: Low)			
High			1.25 (0.85-1.83)
[b]Respondent's Internet use (r: No)			
Yes	0.72 (0.49-1.06)		1.14 (0.70-1.85)
Mothers' RH knowledge (r: Poor/not sure)			
Some extent	1.78 (1.12-2.82)*	1.51 (1.05-2.15)*	1.40 (0.92-2.15)
Good	1.80 (1.12-2.90)*	1.66 (1.13-2.44)*	1.98 (1.18-3.02)**
[a]Mother's media use (r: Low)			
High		0.93 (0.69-1.26)	0.91 (0.61-1.36)
[a]Mother's Internet use (r: No)			
Yes		1.18 (0.77-1.80)	1.40 (0.77-2.54)

	Starting discussion on period before menarche	Communication on menstruation initiated by mother	High accuracy of contents transmitted by mother
Variables	**OR (95% CI)**	**OR (95% CI)**	**OR (95% CI)**
[bc]Mother-daughter good relationship (r: No)			
Yes	2.42 (1.66-3.52)***		
[c]Mother-daughter general communication (r: Irregular)			
Regular	1.58 (0.98-2.57)	1.47 (1.03-2.10)***	

Note. [a]The variables were not included for adjusted logistic regression predicting commencing mother-daughter communication regarding menstruation before menarche as p values were > 0.10 in bivariate analyses.

[b]The variables were not considered for adjusted logistic regression predicting initiating discussion by mothers relating to period as p values were > 0.10 in bivariate analyses.

[c]The variables were not considered for adjusted logistic regression predicting high accuracy level of contents transmitted by mother.

RH=Reproductive Health; r = Reference category; OR = Odds ratio; CI = Confidence interval

*p < .05; ** p < .01; *** p < .001.

Table 3: Summary of Adjusted Logistic Regression Analyses Predicting Starting Communication before Menarche, Discussion Initiated by Mother, and High Accuracy of Contents Transmitted by Mother

Table 3 also portrays that the students from science group reported higher likelihood of initiating menstruation communication by mothers than those from arts group (OR = 1.60, 95% CI: 1.07-2.39). In addition, compared to ethnic mothers, the odds of starting communication on period with daughters was higher among the Bangali mothers (OR = 2.48, 95% CI: 1.36-4.52). The study findings report that RH knowledge of the respondents and also RH knowledge of mothers were explored as the significant factors in initiating period-related discussion by mothers. Of mothers who had a regular general communication with their daughters had a greater association with their initiative of menstruation related discussion with odds of 1.47 compared with those who made general communicated irregularly (OR = 1.47, 95% CI: 1.03-2.10).

Regarding the determinants of high accuracy of contents transmitted by mothers, Table 3 displays that the students from commerce and science group were more likely to have high accuracy in the contents relating to period transmitted by mothers compared to those who were from arts stream (OR = 1.63, 95% CI: 1.11-2.39 Vs. OR = 4.92,

95% CI: 2.94-8.24). Besides, the urban respondents had increased odds of having more accurate information relating to menstruation from their mothers compared to their rural counterparts (OR = 9.70, 95% CI: 6.24-15.06). In addition, the odds of transmitting high accurate information was lower among the Bangali mothers (OR = 0.08, 95% CI: 0.04-0.19) than the ethnic mothers. Apart from this, the students with positive attitude towards open discussion on RH had a higher likelihood to have more accurate information from their mothers (OR = 1.51, 95% CI: 1.05-2.18). Of mothers, who had good RH knowledge had a positive association with maintaining high accuracy while discussion with daughters (OR = 1.98, 95% CI: 1.24-3.15).

FGD Findings

The findings section was designed following the outline of the survey result. It firstly focuses on the initiator and the timing of dyadic communication, secondly how mothers deliver wrong information to daughters. In light of these focal points, the present study came up with some interesting findings that are elaborated in the following discussion in this section.

Communication Did Not Take Place before Menarche

The mother-daughter communication in case of these five adolescent girls and their mothers did not take place before the girls experienced their menarche. The FGD complements the survey result which shows 71% respondents commencing communication with their mothers regarding period after menarche. The FGD participants too informed that their mothers did not provide them with any prior knowledge on mestruation. All of the participants experienced their menacrhe in the playground while playing with their mates. P4 shared her experience saying,

> *"When I saw, it's bleeding and since I was not that close to my mom neither were open to each other and mom also never told me about these issues, I went to a bhabi in the neighborhood."*

When P4 went to her neighberhood bhabi (brother's wife), P5 went to her elder sister, P4. She too wasn't informed by her mother about period. And now that P4 was experienced enough, she managed her sister's "trouble" smoothely. P5 expresses her experience saying that-

> *"It was during the flood when we went to stay at our relatives house. I was having weist ache all night. When I came back home, I told my mom about this, but she did not pay much heed and just gave me a napa (painkiller) to take (giggling). Then that day when I was playing with my mates I found out that my pajama was wet (giggle continues) and when I touched my back, I found*

out that my hand was all red. (laughing out loudly) I thought my pajama was shedding color, so I changed it not knowing that I was actually bleeing".

Participants as the Initiator for Communication

Having analyzed the FGD data, the present study finds out that the participants themselves directly of indirectly initiated the communication with their mothers regarding their menstruation. As per their statements, it is clear that mothers did not take any prior initiatve to provide their daughters with necessay information regarding menstruation. Only P1 mentioned about communicating with her mother directly after she got her menarche. Except her, all other participants did not initiate communication with their mothers directly due to the lack of friendly and open relationship with their mothers, rather tried to find out comfortable media to communicate with their mothers. And amongst the comfortable media are the neighberhood "bhabi" (brother's wife) or elder sisters. For example, P4 said that,

"I went to a bhabi (brother's wife) in the neighborhood because she was open with me and told me about this before. Actually I wanted her to talk to my mother. And then she went to mom and told her about my period."

Menarche as Some Kind of "Cultural Festival"

It is seen in the survey results that one-fourth of mothers explained menstruation as a disease. But in the FDS findings, as reported by the participants, it is seen that some mothers associated menarche with some kind of "cultural festival". P1 stated that her mother explained menarche as a happy event and in her culture; this is something to be celebrated. Although it seems quite an unusual thing to celebrate menarche, it is very usual in some areas of Bangladesh like Chittagong. P1 expressed this in this way:

"It is said that new clothing should be sent by your grandmother when you get your first period. When I was done with my "7-days", my "nanu" (grandmother), "khalamoni" (aunt) came to visit me with new dress for me. Also, they brought all my favorite dishes cooked."

Menstruation as a Supernatural Event

From some of the FGD participants' information it is seen that mothers often associated menstruation with some imaginary supernatural forces thus not allowing their daughters to go out after they experienced menarche. It is seen quite a common practice not to allow girls to go out during menarche and rarely to touch anyone, especially the males in the house. While asked if they are familiar with this concept, the participants readily expressed their

anguish on this issue. P3 said that she was allowed to go out only at the exam time.

The exam time was 12.00 pm and the times as mentioned by the participant is the *"exact midday"* which is even more evil to go out according to her mother's opinion. When the researcher asked what they understand by "exact midday", P4 replied

> "*It is 12.00 pm when midday comes on the whole world and at that time they roam around."*

While asked who *"they"* are, she replied, *"djin"* (evil spirit). She reported her mother to be the first person to provide her with all these information while asked about the sources. And as reported by the other participants, the primary source of such wrong information is mother. The additional sources again are mostly women, such as bhabi (brother's wife), nanu (maternal grandmother), mami (uncle's wife).

P4 says that she did not have such kind of restriction but since she used to be very naughty and careless, her mother forbade her to get out of home in the evening with untied hair since "asor" (bad spirit) might possess her. It is to be mentioned that this kind of beliefs are not to taken only to be confined within the mothers or the aunties, rather one of the participants shared that she too believes that "djin" exists and she herself has experienced this. For example, P2 believes that she actually got possessed by "djin" one day and even got fainted.

Menstruation as Something Untouchable

It is often seen in countries like Bangladesh that people perceive menstruation as a taboo, thus making the bearer of it untouchable. It's a common experience by most of the adolescent girls in the Bangladeshi society to get precluded from touching anyone and socially isolated during their menstruation. About getting precluded from touching others, the participants affirmed that they too are quite familiar with this concept.

Being confined within a room seemed to be a common experience and practice in the traditional Bangladeshi society. Associating to this experience P4 got upset remembering one of her friends' grief whose religion is Hinduism. She said,

> *"You know, my eyes got filled with tears when my friend said that her mother let her sleep on the floor during her period no matter how cold it was. And also her mother does not let her eat normal foods rather asks her to cook separate food for herself. Also, her mom does not let her touch her brother because she thinks that some evil thing will touch her son if anybody with period touches him. It's very cruel, you know."*

Prohibition on Eating Fish

More interestingly, in rural areas of Bangladesh, it is a random practice to put restriction on regular food habit during menstruation. Even in the urban areas too mothers often continue this as a "norm". This kind of restriction is so much implicated in the society that people from almost every social class are familiarized with the concept even if they do not practice it. Such a practice is the prohibition on eating fish during menarche. When asked if the participants had had such experience of being compelled to change their food habit, P3 reported that, blood gets stinky if someone etas fish during period.

And other participants also affirmed that they also know about that and were told to stop eating fish during their menstruation. But when in reality, eating fish is commonly known to be very much essential for maintaining the protein balance in body during menstruation.

Discussion

In the present study, more than two-thirds of mothers were reported as initiators of discussion with their daughter and this finding is in line with other studies (Ayalew et al. 2014; Wamoyi et al., 2010). Usually, mothers have a tendency to seek opportunities and cues for the commencing RH-related talk with their daughters (Rosenthal, Feldman, & Edwards, 1998). The present study depicts that menstruation-related discussion started after getting girl's menarche in most of the cases (70.6%) and this physical change had acted as a catalyst to start a conversation between mother and daughter about this issue. Besides, the daughters who initiated discussion regarding period, among them 85.4% started to interact about it after menarche implying that they were not provided with the menstruation-related information prior to their menarche. It may be due to the perception of cultural taboo, and orthodox attitude that impede to discuss sexual and reproductive health issues openly. Delaying in the first communication resulted in various types of anxiety, tension, and fear among adolescent girls. Consequently, in our study, 41% reported getting scared after the experience of the menarche. Surprisingly, among the students 27.4% got scared who had prior communication about it, while in case of respondents with after period discussion this rate was higher with 38.7% ($p < .001$).

The percentage of inaccurate information has been transferred by rural mothers as to different facets of the period was significantly higher than urban mothers ($p < .001$ in all statements). It is may be due to high education and knowledge level among urban women. Our study findings also support this statement that reports that urban mothers' education ($p < .001$) and knowledge ($p < .001$) level were significantly higher than rural counterparts. These findings are needed to be addressed for future interventions as three-fourths of total 160 million populations live in rural areas (Bangladesh Bureau of Statistics, BBS, 2015).

Mother-daughter good communication quality on puberty can produce prior knowledge. Our study displays that half of the students didn't have prior knowledge of puberty while experiencing period for the first time. Findings demonstrate the number of students got scared while having first menstruation was much higher ($p < .001$) among the students who didn't have prior knowledge than those who had prior information.

Having discussed the survey results critically, the FGD findings needs to be taken into consideration to validate the overall discussion with more realistic perceptions and opinions. One major observation is notion of lack of effective communication between the FGD participants and their mothers. All the FGD participants reported that their mothers never provided them with necessary knowledge regarding menstruation before their menarche, which mirrors the survey result as well. And then most of the girls reported that due to the conservative nature of their mothers, they felt shy to communicate with their mothers after they first bleed. Now the question is "why". Presumably social conservatism, their tacit experience, and lack of a SRH friendly education restricted them from being open to their daughters according to the opinion of the participants. To add more, the sources that the participants communicated with are neighborhood sister in laws, sisters, friends, etc. So, it is evident that the girls are not unwilling to communicate and talk about SRH issues since they have communicated with all the nearby open sources to seek help. So it is rather the conservative nature from the mothers' side which created this barrier in interaction.

Another striking observation could be the dichotomy in belief and practice of the mothers to the adolescent daughters regarding SRH issue. Sometimes mothers follow the traditional social orthodox and myths related to menstruation, and sometimes they manipulate the "norms" according to their own advantage. In one hand, they confine the daughters from going outside; on the other hand, they liberate their daughters only in exam times (as if "djin" does not roam around during exams). Again, it is quite more surprising that even the girls who are studying and are exposed to science and education believe that "djin" (evil spirit) possess them sometimes. So actually education could not function well to reduce superstitious beliefs amongst young women. So actually, social construct plays more powerful role than education.

It is again very conflicting that P1's Mother firstly informed that menarche is a happy event, and it calls for celebration but then at the same time she locked her daughter in a room for 7 days in fear of infection and "asor" (bad things). So, now the question is, is it really an infectious disease? If so, then what is the celebration about? Moreover, hardly any logic is found behind celebrating someone's menarche except only one reply that is, *"because our daughter has finally grown up" (P1).* Now a further question arises, that is, how menstruation could mark up a girl as "grown up". And it is evident how society is still clinging with the

stereotypical conceptions of "biological growth" of a woman as the yardstick of her maturity and ignoring the mental growth as the indicator of a woman's true maturity and thus establishing this kind of wrong information regarding menstruation through their communication.

Limitations of the Study

One of the limitations of this study is that it could not incorporate mothers' perception in its qualitative aspect due to mothers' shyness and conservative attitude to participate in FGD; whereas the titles of the paper being based on "Adolescent girls' menstruation communication with mothers.." itself requires both adolescent daughters and mothers as its research participants. Secondly, more FGDs including participants from various socio-demographic groups were needed to be conducted to elicit more comprehensive view over this issue which is again a major limitation of the study. As recommendation, future studies could be conducted aiming at a comparative evaluation of adolescent girls' communication with educated mothers and illiterate mothers. Then, more qualitative studies could be conducted to minimize the respondent bias.

Conclusion

To conclude, it is seen that most of the adolescent girls in Chittagong, Bangladesh are not informed about one of their most obvious biological phenomenon before they experience it directly, that is menstruation. As a result, it creates huge pressure on their mental health. Although the present study found out that, mother is the primary source to provide RH information, they do not deliver it in time since they consider it to be social taboo resulting in making them hesitant to initiate conversation with their daughters about menstruation. Behind all this, one of the reasons could be the orthodox beliefs of that particular society, which is why a huge portion of mothers never take initiative to communicate with their daughters about menstruation first. Moreover, it is also found though the survey that, major portion of the mothers in rural areas provide their daughters with wrong information on menstruation.

The findings of the study have some important policy implications. Mothers should be educated and equipped on essential reproductive and sexual health topics through a continuous training program to enhance their knowledge for improving adolescent health status. Moreover, the behavior change communication programs should be implemented with widespread education on reproductive health conveying culturally appropriate messages. The government should promote the determining factors depicted from this study to improve the intra-family communication regarding sexual and reproductive health.

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