

# Menstrual Hygiene Condition Of Adolescent Schoolgirls At Chittagong Division In Bangladesh

I. B. Muhit, S. Tasneem Chowdhury

**Abstract:** In developing countries like Bangladesh, menstrual hygiene and management is not prime concern in the sector of reproductive health and water, sanitation and hygiene. To achieve Millennium Development goals (MDGs) within right time a study on women reproductive health of Bangladesh is very necessary as it ensures environment sustainability, gender equality and women empowerment. A typical and systematic study on adolescent school girls of greater Chittagong Division of Bangladesh on menstrual hygiene and management condition were carried to identify the prevailing knowledge and experiences and their implications. Chittagong division consists of 11 districts including total land area 33,771.18 Sq. Km. where the total land area of Bangladesh is 1,47,570 Sq. Km. By using mixed methods both quantitative and qualitative, data was collected from 1373 adolescent school girls from 22 schools of 11 districts. The survey includes some pre-questionnaires and focus group discussions and interviews. Knowledge and beliefs, experiences during menstruation, seclusion and absenteeism and finally hygiene practices were analysed through this descriptive cross sectional study. Data wasn't fluctuated very much in different district except Khagrachhari, Rangamati and Bandarban. Maximum number of survey respondents (96%) reported that they had known about menstruation before their menarche, 90% respondents were facing abdominal pain and mental stress is another key thing due to extra thinking about her menstruation and maintain secrecy from others, 95% of them maintaining some restrictions due to religious issue and for other significant reason. Almost 39% of total respondents was being absent in school at least one day, during menstruation period and reason behind this circumstances were also evaluated. Re-usable cloths were preferred by the tribal girls (Khagrachhari, Rangamati and Bandarban district) whereas sanitary pad was preferable by rest of the district. In total 49% used re-usable cloths and use rate of old piece of cloth was higher at rural area. Absorbent material used, bath taken, cleaning and changing, availability of toilet, disposal of absorbent material in last menstruation were analysed to identify their hygiene practice. Finally some recommendations are proposed after analyzing the focus group discussions and interview.

**Index Terms:** Adolescent girls, Environmental Sustainability, Hygiene, Menstruation, Millennium Development Goal, Quantitative method and Qualitative method

## 1 INTRODUCTION

CHITTAGONG Division is a total land of 33,771.18 Km<sup>2</sup> area consists of 11 districts named Brahmanbaria (1927 Km<sup>2</sup>), Comilla (3085 km<sup>2</sup>), Chandpur (1704 Km<sup>2</sup>), Lakshmipur (1455 Km<sup>2</sup>), Noakhali (601 Km<sup>2</sup>), Feni (928 Km<sup>2</sup>), Chittagong (5283 km<sup>2</sup>), Khagrachhari (2699 Km<sup>2</sup>), Rangamati (6116 km<sup>2</sup>), Bandarban (4479 km<sup>2</sup>) and Cox's Bazar (2491 Km<sup>2</sup>) and it is the greatest division among 7 divisions of Bangladesh. Most importantly Chittagong division is the only division where maximum number of tribal lives and Chittagong Hill Tracts (CHT) is also a part of Chittagong division. The water supply and sanitation's condition is seriously worst in CHT that's why the studies on adolescent school girls of this Chittagong Division are very much important comparing with whole Bangladesh. It is clear that on environment sustainability (MDG-7) adequate menstrual hygiene as well as management contributed directly and on universal education (MDG-2) and on gender equality and women empowerment (MDG-3) poor menstrual hygiene and management may seriously hamper due to its indirect effect on school absenteeism and gender discrepancy (Ten, 2007).

To reduce morbidity and mortality, improve water supply and sanitation condition, solid waste management, to ensure proper hygiene education are the prime objective of Bangladesh now. But it is very much disappointing that maximum sanitation programmes don't mention and clarify the special needs of women and adolescent girls, though it is necessary to put special concentration on their reproductive health. Knowledge about menstruation is really frustrating in neighboring Nepal, India and Myanmar also. Though menstruation is a natural process, adolescent school girls dealt it with special secrecy and misconception and misunderstanding leads them to fall in reproductive danger. Some traditional norms and beliefs, socio economic culture and condition, physical infrastructure has direct influence on menstruation practice. But practice is not exactly same at urban and rural area. As Bangladesh is an Islamic country, all Islamic girls were abstaining from their prayer during menstruation and some sort of restrictions are applied at that time. It is sad but true that sanitary pads which would normally be changed three to five times in a day can't afford by many poor communities and especially in rural region of CHT. Lack of private bath and latrine, lack of adequate water supply, gender unfriendly school and unhealthy situation causes absenteeism from school, abstaining from social activities, illness and infection disease. Their unhygienic practice cause urinary, vaginal as well as perennial infection and sometime it may cause potentially fatal toxic syndrome. That's why some girls treated menstruation as curse. Evidences from this study are imperative to emphasize the issue and policy makers should concentrate on this issue now. The prevailing knowledge and sources of information about menstrual hygiene for adolescent school girls were revealed by this study as well as to identify the challenges and problems faced by the adolescent school girls during menstruation period this study can give lot of messages to the policymakers. After analysing their experience further precautions and some recommendations are fixed for the adolescent school girls.

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## 2 METHODOLOGY

### 2.1 Study Locations and Respondents

The study was carried at 11 districts of Chittagong Division named Brahmanbaria, Comilla, Chandpur, Lakshmipur, Noakhali, Feni, Chittagong, Khagrachhari, Rangamati, Bandarban and Cox's Bazar (Figure-1). Among these 11 districts Khagrachhari, Rangamati, Bandarban are mainly hilly region and termed as Chittagong Hill Tracts. 22 schools from 11 districts (2 schools from each district) were selected and among them 11 schools from urban area and another 11 schools from rural area (1 school from urban and another from rural for each district). Total respondents number was 1373 adolescent school girls from class 8 and 9. Not all girls were selected for the study of each school; rather the girl who willingly came and present were included. Mixture of urban and rural school gives the exact reflection of the present condition.



Fig. 1. Chittagong Division Location at Bangladesh Map (Red marked)

### 2.2 Study Techniques

Both quantitative and qualitative methods were used to convey this cross sectional study. Some predesigned structured question (with multiple options and multiple choices in some case) covers the quantitative portion and focus group discussions and interviews include the qualitative survey. These valid methods were used by Water-Aid to collect these types of data for their research.

### 2.3 Data Collection and Analysis

The data were collected from the school class room during working days without the presence of any male members or teachers. The female author of this paper and female volunteer team explain the whole process to the girls before starting the survey. All respondents took participate in survey of questionnaire but not all girls were willing to go to focus group discussion. Total numbers of participator in focus group discussions was 286 (ranges 10 to 15 from school to school) and from each school one or two girls were selected for interview and total 39 girls were finally took part into interview. All focus group discussion and interview were carried by the presence of only female correspondents. All data were analysed by SPSS 21.0 software and MS Excel. To see the association between socio-demographic variables with knowledge and practice variable, Cross-Tabulation tests were run. Focus group discussions and interviews were analysed after completing each school survey from the recorded voice and notes taking while the interview was going on.

### 2.4 Some Ethical Consideration and Issues

Confidentiality was maintained at each phase of study and recorded voices were deleted after quoting necessary data upon the respondent's requests. At interview every participator had rights to discontinue the interview at any time if she felt not comfortable. During data collection only female author of the paper and female volunteers of medical students were present.

## 3 RESULTS AND DISCUSSIONS

### 3.1 Knowledge and Beliefs

About 96% of 1373 respondents had heard about menstruation before their menarche which is figured in Figure-2. From Figure-3 it is clear that, mother (63%) and friends (41%) are two key source of knowledge related to menstruation before menarche. It was also evident that mother (71%) and sister (50%) are the source of knowledge about menstruation hygiene after menarche. Total percentage on this issue was more than hundred because they put multiple answers and only one-fifth respondents claimed that they learn about these issues from textbooks.

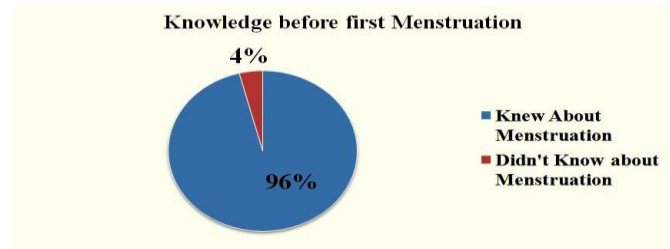


Fig. 2. Distribution of knowledge before menarche (n=1373)

Through group discussions, it was revealed that no one gave any details idea about menstruation until their first experience. Teachers were not so co-operative at that issue reported by maximum students especially in rural area. Maximum (Almost 81%) feel free to talk with friends about menstruation, 49% with mother and 41% with sister, but only 2% mentioned with teacher. In the survey 69% respondents recommended that hormones is the cause of menstruation and unfortunately one-fourth (25%) of the respondents didn't know anything about the cause (Figure-4). From discussion it was identified that 79.5% said that menstrual blood comes from vagina, 9% thought it was from uterus and rest of them (11.5%) had no idea.

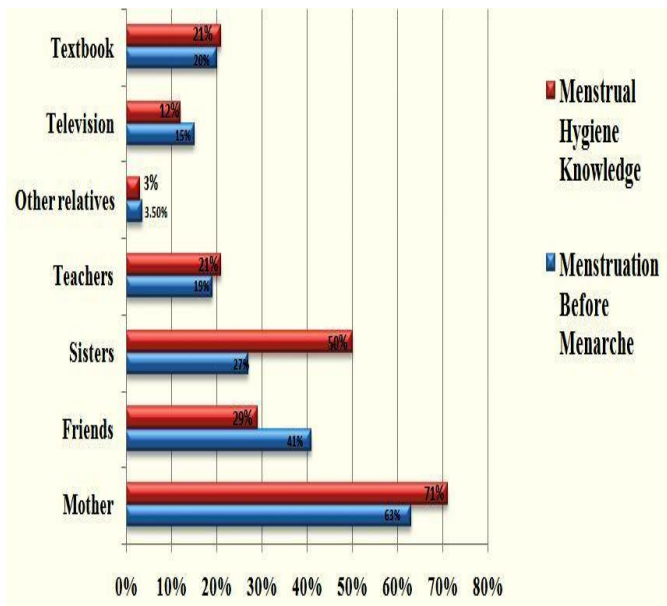


Fig. 3. Source of knowledge related to menstruation (n=1373)

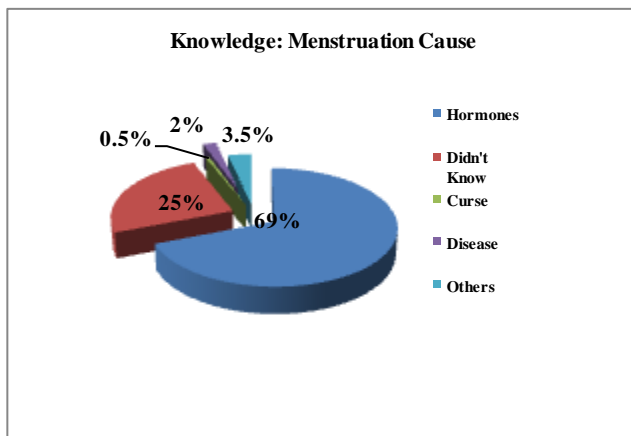


Fig. 4. Knowledge about cause of menstruation (n=1373)

**3.2 Menstruation Experience**

Respondents shared their menstruation experience in questionnaire survey and open discussions as well as personal interview. About 72% adolescent school girls mentioned that they faced abnormal physical condition during their last menstruation. Most importantly, 90% felt abdominal pain, 4.5% in excessive bleeding and 5% felt breast pain (Figure-5).

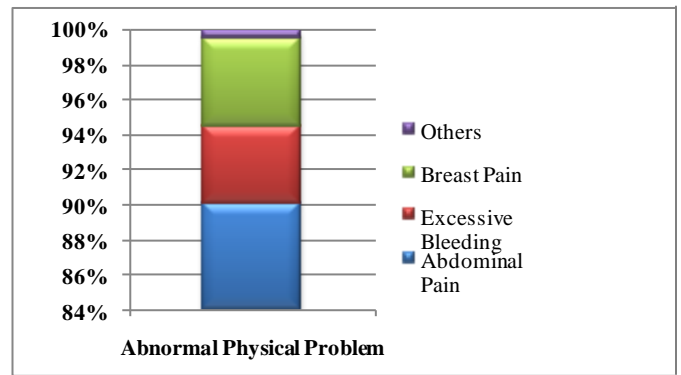


Fig. 5. Type of physical problem faced at last menstruation (n=1373)

From group discussions it was evident that, during suffering they consult with nearby physician in urban area but in rural case their parents said that it was normal and this pain would be no more if they were married. But all of the participants said commonly that they feel mental stress and following extra care during their menstruation period when go outside or laughing excessively with their friends and families.

**3.3 Seclusion, Exclusion and Absenteeism**

During open discussions participants said that they face lot of problem and fearing condition during their first menstruation. Different types of restrictions had to be followed but this picture was really different in urban and rural area. Almost all girls of the town area do all necessary normal works during menstruation but girls from rural area and from hill tracts facing different restrictions.

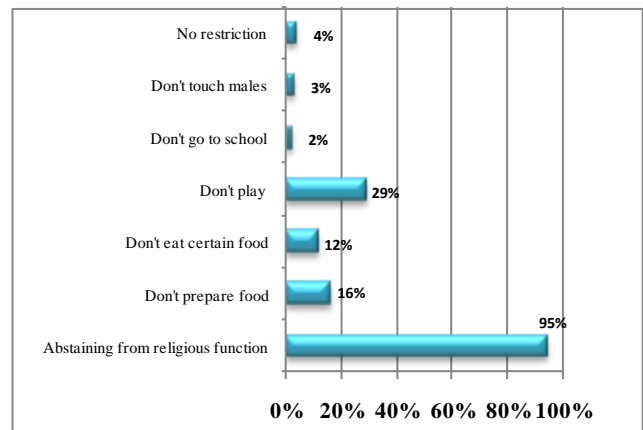


Fig. 6. Restrictions practiced during menstruation (n=1373)

But restraining from religious prayer was common for almost all as Bangladesh is an Islamic country and about 93.5% respondents were Muslim. An average data (Figure-6) said that, 95% of the respondents were abstaining from religious activities and followed by don't eat certain food (12%), don't preparing food (16%), don't play (29%). It was believed that, women were ritually impure or weird during menstruation period. During winter, they didn't get enough cloths because they 'pollute' those cloths unnecessarily. By Islamic law, a girl

can't touch holy Quran, can't fast or can't pray during menstruation. About 39% respondents were absent at least one day during menstruation because of different problem regarding menstruation. But it was revealed that they came to the school but can't hold concentration or can't move freely due to uncomfortable situation. An extra survey was conducted for 536 girls (39% of total) who were absent during menstruation to identify the reasons. Some special reasons were come out through the survey why they were not feeling comfortable in school or absent in school. Among them 36% reported lack of privacy for cleaning and washing followed by lack of disposal system of pads (35%), fear of leakage (7%), lack of water supply for cleaning (44%) and they gave multiple answer at that survey.

### 3.4 Hygiene Practice

#### *Type of Absorbent Material*

Absorbent material used in last menstruation was surveyed at that stage. All girls used absorbent material among them 48% used sanitary pad followed by 30% used new cloth piece and 22% old cloth piece. But the use of sanitary pad was higher (almost 88%) at urban than the rural and use of old piece of cloths were higher (57%) at rural than urban. In focus group discussions they said that, they not use sanitary pad due to its excessive cost, due to unavailability and difficulty of disposal. Socio economic conditions had severe effects on these issues.

#### *Cleaning & Changing Behavior*

From survey it is found that it was really difficult for girls to bath daily in winter that's why they prefer bathing alternating day but in summer they do bath daily. In an average 62% respondents do bath daily and 26% bath in alternate day and the rest percentage were bath after three or four days. Most respondents mentioned that they washed their genital with water when they went to toilet but they were highly confused that soap or any washing material is safe or not. From frequency analysis of menstrual hygiene it was evident that a girl on average changes their absorbents 3 times in a day and cleans their genital 4 times in a day. An important portion of the survey was availability of toilet in school and home were carried. It is shown in Figure-7

#### *Disposal of Absorbent Material*

Nearly 67% threw their absorbent material with other wastes and this rate was too high (more than 95%) in urban region. 28% mentioned that they buried and rest (5%) were burnt the absorbent materials they used. In rural areas there was no direct solid waste collection system that's why rural girls were facing problem in disposal and they choice the option of buried at that case. But in both rural and urban area, in schools there was hardly any specific area where they can dispose the cloths or sanitary pad.

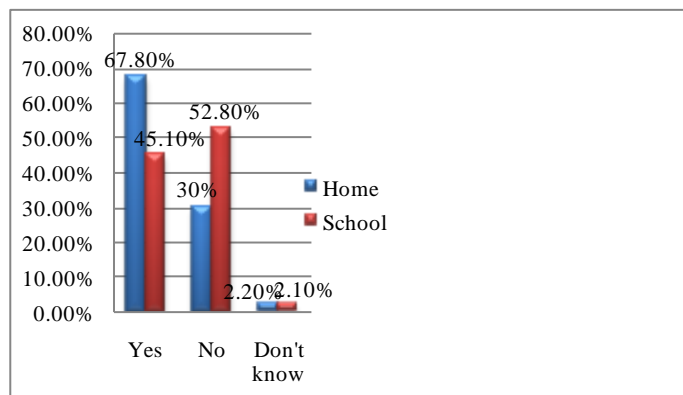


FIG.7. AVAILABILITY OF TOILET WITH ADEQUATE PRIVACY (N=1373)

### 4 RECOMMENDATIONS

From analysing the focus group discussions of 286 girls (almost 50% from urban and 50% from rural) and interviews of 39 girls some recommendations were made to overcome the existing problem regarding with menstrual hygiene.

- (i) Mother can play a significant role in the knowledge phase by providing adequate knowledge and share her experience with adolescent girls before their menarche.
- (ii) School female teachers can play a big role in knowledge phase and ensuring perfect hygiene practice by sharing relevant information. Teachers can break all the wrong beliefs and unnecessary shyness of girls and give idea about reproductive health.
- (iii) Through workshops and seminars school authority can ensure a perfect sanitation and hygiene practice among the menstrual girls.
- (iv) To maintain proper menstrual hygiene and retain the constant attendance, infrastructural development should be conveyed after analysing the lacking things.
- (v) Low cost napkin technology and availability of sanitary napkin as like as daily commodities should introduced. Local governments and local public health department should have sufficient stock at their health complex.
- (vi) Among all recommendations this recommendation is the most wide and big that, adequate amount of budget relocation as well as all NGO's should come forward to ensure the safe reproductive health of our upcoming mothers.

### 5 CONCLUSIONS

This study basically highlighted the needs of accurate information and materials for adolescent school girls. From this paper one can easily identify the real situation and problem of adolescent school girls of Chittagong Division. Lots of misconception and wrong beliefs were responsible for this poor and improper menstrual hygiene management. Socio economic condition, urban and rural beliefs, availability of absorbent materials, infrastructural school condition, water supply, solid waste management system, lack of support from teachers etc were the reason which was revealed from this vast study. These data can represent the whole Bangladesh indeed because survey was conducted not in small scale rather maximum different situation and geographical conditions were taken into account.

## 6 ACKNOWLEDGMENTS

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## 7 REFERENCES

- [1] Salem R and Shetty V (2006) Key facts about the menstrual cycle, INFO Reports No 7 Baltimore, Johns Hopkins Bloomberg School of Public Health, The INFO Project
- [2] H. Poor, "A Hypertext History of Multiuser Dimensions," *MUD Ten V TA* (2007) Menstrual hygiene: a neglected condition for the achievement of several millennium development goals, Europe External Policy Advisors.
- [3] El-Gilany A Badawi K and El-Fedawy S (2005) Menstrual hygiene among adolescent schoolgirls in Mansoura, Egypt in *Reproductive Health Matters*, pp-147-152, Vol.13(26)
- [4] Adhikari P et al (2007) Knowledge and practice regarding menstrual hygiene in rural adolescent girls of Nepal, *Kathmandu University Medical Journal*, pp 382-386, Vol 5, No 3, Issue 19
- [5] Dasgupta A and Sarkar M (2008) Menstrual hygiene: how hygienic is the adolescent girl in Indian, *Journal of Community Medicine*, pp77-80, Vol 33(2)
- [6] Adinma E and Adinma J (2008) Perceptions and practices on menstruation amongst Nigerian secondary school girls, *African Journal of Reproductive Health*, pp 74-83, Vol 12 (1)