

Original article:

Menstrual Hygiene Practice among Adolescent Girls in Selective Slum Areas of Dhaka City in Bangladesh

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Abstract

Background: Adolescence is the transition period from childhood to adulthood and is widely recognized as a time of great importance due to its vulnerabilities linked with biological, physical, social, and environmental considerations. **Objective:** To assess the experience of menstruation and menstrual hygiene practices among adolescent girls in selective slum areas of Dhaka city in Bangladesh. **Methods:** This cross-sectional, observational study was conducted between June and September of 2023 among 169 adolescent girls. A semi-structured questionnaire was used as tool for data collection through face to face interview. A total of 169 girls aged between 13 and 19 were included in this study. **Results:** The mean age of the girls was 15.33 years. Most of the girls (71.59%) were in 13-17 years age group. The mean age at menarche was 12.38 year. 136 (80.47%) by the age of 11-14 years and 127 (75.15%) had information on menstruation before menarche from mothers 98 (27.84%). During menstruation, 118(69.82%) were using sanitary pad, 60(50.85%) girls changed pad two times a day. The reuse of cloth material was practiced by only 39(76.47%) girls; among them, only 32(82.05%) girls were using soap (detergent) to clean the cloth material. 34(87.18%) girls were drying their used cloth in sunlight. All participants bathed during menstruation and of which 127(75.15%) girls were using soap to clean the external genitalia. 111(65.68%) discarding sanitary materials in public dustbin. The main cause of choosing cloth as absorbent material over sanitary pad is financial issue for 59% of the girls. **Conclusion:** The average population of females in urban slums practiced good menstrual hygiene. The findings of this study may aid governmental and non-governmental groups in developing programs to prevent health concerns during menstrual periods by improving education on menstrual hygiene habits.

Keywords: Adolescence girl, menstrual hygiene, slum areas, Dhaka city

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Introduction

Adolescence is the transition period from childhood to adulthood and is widely recognized as a time of great importance due to vulnerabilities linked with this period in terms of biological, physical, social, and environmental considerations. It has been regarded as a period of human growth and development which includes those persons between 10 to 19 years of age¹. However, scientifically,

menstruation is the ovulation followed by missed chance of pregnancy that results in bleeding. The first menstruation is frequently terrifying and distressing for an adolescent girl because it happens without her knowledge. Adolescent girls generally unaware about physiological changes associated with the onset of puberty². However, in most parts of the world, it is still considered taboo and is rarely discussed. Cultural practices

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and taboos around menstruation negatively impact the lives of adolescent girls and women, and also reinforce gender inequities and exclusion³. Inadequate menstrual hygiene is a very important risk factor for reproductive tract infections. Hence proper knowledge and practice is a vital aspect of health education for adolescent girls. Good hygienic practices such as use of sanitary pads and adequate washing of the genital area are some important aspect for adolescent girls during menstruation⁴. The usage of unsanitary materials during menstruation is likely to have a negative impact on women's health. A study conducted in India discovered that girls who used old cloths or other dangerous materials during menstruation were three times more likely to get reproductive tract infections than those who used safer materials such as sanitary napkins and new cloths. Cloth reusing has been linked to irregular vaginal discharge, skin irritations, and urogenital infections. A research conducted in the slums of Dhaka, Bangladesh's capital, discovered that almost 95% of women and 90% of adolescent girls reused rags after menstruation without appropriate cleaning, resulting in scabies in the vaginal area, urinary infections, and pregnancy difficulties. Furthermore, the usage of low-quality repurposed clothing, which is typically dyed with harmful ingredients, is likely to make women vulnerable to a variety of urogenital disorders⁵. A study conducted among adolescent girls in a rural area in Bangladesh reported that about 69% used an unhygienic cloth or even no protection during menstruation⁶. Hence, the study that assess the experiences of adolescent girls regarding menstruation and look for factors affecting their menstrual hygiene is crucial.^{6,7} The findings of such study could be useful in developing a program to raise awareness and improve the quality of life for adolescent females living in urban slums. We proposed the present with the objective to assess the experience of menstruation and menstrual hygiene practices among adolescent girls in selective slum areas of Dhaka city in Bangladesh.

Methods

A cross sectional, observational study was conducted, between June and September of 2023, among adolescent girls from selected slum areas (the BNP slum in Agargaon and Mehediabag slum

in Adabor) of Dhaka city in Bangladesh. A total of 169 adolescent slum girls (aged between 10 and 19 years) were included in the study. Both the study place and participants were selected purposively. The predesigned, pretested semi-structured questionnaire were used as tool for data collection through face-to-face interview. Menstrual hygiene related information was recorded through mobile phone after receiving informed consent. Only those girls who already had menarche were included in the study. Girls who were not available at the time of data collection were excluded. Data analysis were done by using scientific calculator after entering in an MS-Excel sheet. Quantitative variables were analyzed by mean, while qualitative variable were summarized by frequency and percentage.

Results

Among 169 respondents, most of the girls (71.59%) were from the 13-17 years age group. The mean age was 15.33 years. 150(88.76%) were unmarried, 154(91.12%) were Muslims, 91(53.85%) were educated up to the primary level (up to class V), while 31(18.34%) had no formal education. 118 (69.82%) had monthly family income of 10,001 to 20000 Taka (Table 1). The mean age at menarche was 12.38 year. 136(80.47%) by the age of 11-14 years. 127(75.15%) had information on menstruation before menarche – from their mothers 98(27.84%) and 9(2.56%) from mass media (TV). 97(57.40%) girls feels discomfort reaction towards (Table 2). During menstruation, 118(69.82%) were using sanitary pad, and 51(30.18%) used cloth materials. 60(50.85%) girls changed pad two times a day. The reuse of cloth material was practiced by only 39(76.47%) girls; among them, only 32(82.05%) girls were using soap (detergent) to clean the cloth material. 34(87.18%) girls were drying their used cloth in sunlight. All participants bathed during menstruation and of which 127(75.15%) girls were using soap to clean the external genitalia. 111(65.68%) discarding sanitary materials in public dustbin (Table 3). Figure 1 shows the main cause of choosing cloth as absorbent material over sanitary pad is financial issue for 59% girls, while 23% girls informed about unreadiness or out of stock at the time of menstruation and the rest 18% of the girls still feeling shame to purchase sanitary pads from shops.

Table 1: Sociodemographic information of the slum dwelling adolescent girls participated in the study (n= 169)

Variables	Frequency	Percentage
Age		
<13	17	10.06
13 to 17	121	71.59
>17	31	18.34
Religion		
Muslim	154	91.12
Non-Muslim	15	8.86
Education		
No formal education	31	18.34
Primary (0-5 class)	91	53.85
Secondary and above education	47	27.81
Marital status		
Unmarried	150	88.76
Married	19	11.24
Monthly Family Income		
<10000 Tk.	33	19.53
10001 to 20000 Tk.	118	69.82
>200000 Tk.	18	10.65
Total	169	100.0

Table 2: Information about menstruation experiences of adolescent girls in selected slums (n=169)

Variables	Frequency	Percentage
Age at menarche		
< 11 years	19	11.24
1-14 years	136	80.47
>14 years	14	8.28
Information about menstruation before menarche		
Yes	127	75.15
No	42	24.85
If yes, source of information* (n=127)		
Mothers	98	27.84
Sisters	75	21.30
Friends	83	23.58
Teacher	66	18.75
Relatives	21	5.97
Mass media (TV)	9	2.56
Reaction towards menarche		
Embarrass	21	12.43
Scared	39	23.08
Discomfort	97	57.40
No Difference	12	7.10
Total	169	100.0

*Multiple response

Table 3: Practice of menstruation hygiene of adolescent girls of selected slums (n=169)

Variables	Frequency	Percentage
Material used (n=169)		
Sanitary pads	118	69.82
Cloth	51	30.18

No. of pad/ day (n=118)		
2	60	50.85
3	39	33.05
>3	10	8.48
Re-use cloth (n=51)		
Yes	39	76.47
No	12	23.53
Washed with material (n=39)		
Water with soap/detergent	32	82.05
Only water	7	17.95
Drying of cloth (n=39)		
Outside house in sunlight	34	87.18
Hiding within other cloths	5	12.82
Bath during menstrual period (n=169)		
Yes	100	100%
No	Nil	Nil
Cleaning material of external genitalia (169)		
Soap	127	75.15
Antiseptic	13	7.69
Water only	29	17.16
Disposal of pads/cloths (n=169)		
Throw in public dustbin	111	65.68
Flush it	25	14.80
Indiscriminate through	33	19.53

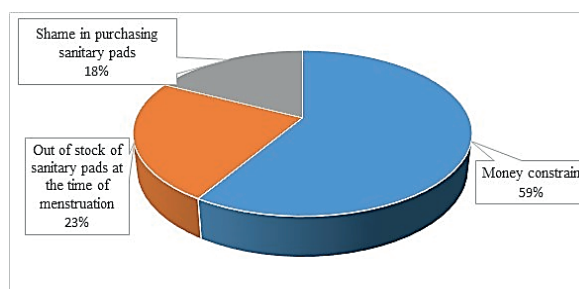


Figure 1: Reasons for choosing cloth (instead of sanitary pad) during menstruation (n=51)

Discussion

In this study, the majority of study subjects' were in the age between 10 to 19 years with mean age of 15.33 years similar to another study reporting of 15.3 years⁸. This could be related to dietary, general health, or age differences among study participants. Our study found that the mean age of menarche is 12.38 years, similar to the various studies reporting of 12.51 years⁷ and 12.8 years⁹. The similar studies from India found that the

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awareness of menstruation before menarche was only 36.1%², while in our study 75.15% knew about menstruation before their menarche. In our study, the predominant source of information regarding menstruation and menstrual hygiene was from family members, specifically from mothers (27.84%), sisters (21.30%), and friends (23.58%), with only 2.56% girls hearing it via mass media (TV). Similar findings has been reported from the study done in adolescent in rural Nepal in which 39.3% responded that mothers were their source of information followed by sisters and friends (each 18%)¹⁰.

The above finding could be attributed to close relationships and improved communication between female family members and adolescent girls. In this study, it is evident that out of total 169 interviewed girls, 69.82% were using sanitary pads as absorbent during menstruation; however, 30.18% were using household cloth materials. The sort of absorbent material used during menstruation is of key significance because reusable material might be a source of infection if not cleaned adequately. Higher percentage of girls, 50.85% were using 2 pads/day, 33.05% girls 3 times and 8.48% girls were changing their pads more than 3 times a day during their menstrual period. This findings are consistent with another study in India². The reuse of cloth material was practiced by only 76.47% girls and of which 32 (82.05%) girls were using soap (detergent) to clean the cloth material. Also, it was analyzed cloth using girls were drying it in sunlight and that small percent of girls in hidden way which can be potential infectious. The practices of personal hygiene including bath during menstruation was 100%. Only about 75.15% of the girls had the habit of washing their external genitalia with soap and water during their periods. During menstruation girl needs to practice a high level of personal hygiene during

her menstrual periods. Various disposal methods have been used by girls including throwing in dust bin (65.68%), and indiscriminate throwing (19.53%). If the absorbents are not properly disposed off, animals often dig it out which serves as a reservoir of infection and pollutant for environment. The most common reasons for choosing old cloth as absorbent material over sanitary pads include financial concerns in 59% of girls, being unreadiness or out of stock during the time of menstruation in 23% of girls, and the remainder of the girls still feeling embarrassed about purchasing sanitary pads. This finding is similar with findings from other studies in India².

Conclusion

According to the findings of the study, the average population of females in urban slums practiced good menstrual hygiene. Formal and informal channels of communication must be prioritized for the transmission of menstrual hygiene knowledge through organized community efforts. Also, every girl children should be aware of menstruation; a mother should be the primary informant at this age. The findings of this study may aid governmental and non-governmental groups in developing programs to prevent health concerns during menstrual periods by improving education on menstrual hygiene habits.

Conflict of interest: None declared.

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Ethical clearance: The research was approved by the Ethical Review Committee of International Medical College, Tongi, Gazipur, Bangladesh.

Authors' contribution: All authors were involved equally in study design, data collection, data analysis, literature review, manuscript writing, revision and finalizing.

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