

Hygienic practices during menstruation among adolescent school girls

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Abstract

Objective : To assess the hygienic practices during menstruation among adolescent school girls in selected secondary rural schools.

Methods : This descriptive, cross-sectional study was conducted from November to December, 2015. Study area was selected on choice were four upazilas of Kishoreganj, Lakshmipur, Barguna and Sirajganj District. From the study area 15 schools were selected on the basis of convenience and accessibility. Data were collected from 438 purposively selected adolescent unmarried school girls aged 15-18 years and studying in class IX and X, through face to face interview by pretested questionnaire. Data were analyzed by using software SPSS version 20.

Results : The result of the study revealed that majority (52%) participants were using cloths and 48.4% were using sanitary napkin for menstrual hygiene management. About half of the participants got the information about menstrual and reproductive health from family members. Thirty five percent (35%) girls do not attend school during first two days of menstruation. Majority (69%) of the girls never change pad and 45% complained about unavailability of water at school. However, knowledge of reproductive health issues like minimum age at marriage (18yrs, 85.8%), minimum age of child birth (20yrs, 89%) and need for extra nutrition during pregnancy (99.0%) was quite satisfactory. The level of maternal education and economic condition were significantly associated with sanitary napkin use.

Conclusion : The study revealed that higher percentage of participants was not using sanitary napkins, although their knowledge regarding menstrual and reproductive health issues is satisfactory. Implementation of school health programs for adolescents should emphasis on menstrual hygiene management.

Keywords : Adolescent girls, Menstruation, Menstrual hygiene management (MHM)

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Introduction: World Health Organization defines adolescents as people between 10 and 19 years old¹. It is a unique period of age characterized by significant physical, cognitive, emotional and social changes². It is a time when development sets the course for either a healthy or unhealthy adulthood³. Adolescence is marked in girls with the onset of menstruation. Adolescent school girls who are experiencing menstruation for the first time, menstrual hygiene management (MHM) is constrained by environmental, social, economic and cultural factors such as expense of commercial sanitary napkins, lack of water and latrine facilities, lack of private rooms for changing sanitary pads, limited education about the facts of menstrual hygiene and an estimated 1.3 million adolescents died in 2012, mostly from preventable or treatable causes^{6,4}.

Many girls are not even aware of

menstruation before their menarche. The lack of access to reliable sources of information on reproductive health means that girls and even adult women may hold misconceptions about the physiology of menstruation and its management. Due to unavailability of sanitary products, large number of female population in Bangladesh has to rely mostly on old cloths to manage their menstrual bleeding⁷. Poor menstrual management is a major cause of absenteeism from school. When a school girl misses significant days of academic lessons, it affects her performances which in turn may cause her to drop out from school.

As a taboo topic in many cultures, the process and management of menstruation is often shrouded in mystery. Cultural restriction and discriminatory gender roles exacerbate women's difficulties during

menstruation.^{6,4} In schools, there is usually a lack of education regarding menstrual and reproductive health. Menstrual hygiene management directly contributes to improving maternal health. Due to its indirect effect on school absenteeism and gender discrepancy, poor menstrual hygiene and management may seriously hamper the achievement of SDG-4 on quality education and SDG-5 on gender equality. MHM is an issue that is inadequately addressed in Bangladesh.

Misconceptions, lack of information and adverse attitudes towards menstruation may lead to a negative self-image among girls who are experiencing menstruation for the first time and the culture of silence around menstrual hygiene further increases the perception of menstruation as shameful event that needs to be hidden.³ Thus, to break the silence of taboo and successfully manage menstrual hygiene, adolescents need to understand the biologic change they are experiencing and be equipped with the skills to cope with it.

However studies addressing awareness of hygienic practices during menstruation is limited in Bangladesh. Thus the objective of this study is to assess the awareness and knowledge related to menstrual hygiene management among adolescence school girls at rural setting.

Materials and methods

This descriptive cross-sectional study was conducted from November to December, 2015. From fifteen rural girl's schools four on choice selected upazilas of Kishoreganj, Lakshimpur, Barguna and Sirajganj District (Kuliarchar, Ramgoti, Barguna Sadar and Sirajganj Sadar upazilas respectively). The schools were selected based on convenience and accessibility by the study team members. Prior informed consent was taken from the schools Headmaster or Mistress and the participating girls. Data were collected from 438 adolescent unmarried school girls aged 15-18 years and studying in class IX and X selected purposively. A pretested questionnaire was administered for obtaining information related to menstrual hygiene management practices and knowledge and treatment seeking behavior about menstrual and reproductive health problems.

Data processing and analysis

The data were analyzed by preparing master sheet. Tables of descriptive statistics were prepared to present and analyze the major findings as per the study objectives by using soft ware SPSS version 20.

Results

Socio-demographic characteristics of participants

Four hundred thirty eight female students participated in the study. The mean age of the study participants was 15.74 (SD ±

0.858). Among the participants, 45.4% were 14-15 years of age and 54.6% were from class X. The mean age of menarche of the participants was 12.02(SD ± 3.215) years. Majority of the participants 85.8% reported of having regular cycle. The fathers of majority students 33.8% were businessmen and mothers 89.7% were housewives. Majority of mother's education was primary level 47%. (Table-I)

Table-I: Distribution of socio-demographic characteristics; N=438

Age group	No of respondents	Percent
14-15 years	199	45.4
16-17 years	221	50.4
18 years and more	18	4.1
Mean=15.74; (SD ± 0.858)		
Attending Classes		
Class IX	199	45.4
Class X	239	54.6
Age at menarche		
<10 years	14	3.2
10-11 years	171	39.0
12-13 years	230	52.5
Mean=12.02; (SD = ± 3.215)		
Menstrual cycle		
Regular	376	85.8
Irregular	62	14.2
Mother's education		
Illiterate	68	15.5
Primary level	206	47.0
Secondary level	121	27.6
Higher secondary	40	9.1
Degree and above	3	0.7
Father's occupation		
Agriculture worker	90	20.5
Day labourer	78	17.8
Service holder	91	20.8
Business	148	33.8
Others	31	7.1
Mother's occupation		
House wife	393	89.7
Agriculture worker	10	2.3
Day labourer	11	2.5
Service holder	16	3.7
Others	8	1.8
Monthly family income		
4000	96	21.9
5000	4	9
7000	5	1.1
8000	164	37.4
9000	12	2.7
10000	157	35.8

Majority of the students informed that they got advice on menstrual hygiene management (MHM) from family members (mother, sister) 48.4%, whereas 14.4% from school teachers. About 18% told they do not consult anyone.

Table-II : Source of information about MHM

Source of information regarding menstrual hygiene

Family members (Mother, sister)	212	48.4
School teachers	63	14.4
Friends	52	11.9
Relatives	10	2.3
Do not consult any one	79	18.0

About 51.6% respondents informed about using cloths during menstruation, whereas 48.4% were using sanitary napkins. When asked about the reason for not using sanitary napkins 42.5% told they were suggested by family members; 36.7% said sanitary napkins are costly. Other reasons were ignorance 11.9% and unavailability 8.8%. Most of the respondents 76.5% dry washed sanitary cloths in room and shaded places. Majority of the students 68.9% never change sanitary napkin/cloths during school time. About 60.3% respondents clean themselves with plain water during sanitary napkin changing and 45% complained about unavailability of water in school. Regarding disposal used materials during menses 50.7% dispose to a specific site, whereas 5.7% throw anywhere. (Table-III)

Table-III: Information regarding menstrual hygiene management

Materials used during menstruation	No of respondents	Percent
Sanitary napkin	212	48.4
Cloths/rag	226	51.6
Reasons for not using sanitary napkins		
Ignorant	27	11.9
Costly	83	36.7
Not available	20	8.8
Suggested by family members to use cloth	96	42.5
Habit of drying washed sanitary clothes		
Open place	53	23.5
Shaded place/ in the room	173	76.5
Frequency of changing napkins at school		
Once	115	26.3
Twice/Thrice	21	4.8
None	302	68.9
Habit of cleaning during sanitary napkin changing		
Plain water	264	60.3
Warm water	110	25.1
Warm water with salt	6	1.4
Water mixed with savlon /dettol	58	13.2
Disposal of used sanitary napkin/cloth		
Throw anywhere	25	5.7
Dispose to a specific dumping site	222	50.7
Wash clothes and reuse it	191	43.6

Majority of the respondents told about unusual feeling like unclean sensation, irritability during menstruation 78.3% and

35.2% do not attend school during the first 2 days of menstruation. Regarding menstrual problems 65.5% respondents complained about dysmenorrhoea. When asked about other reproductive health problems majority 47.0% complained about lower abdominal pain. (Table-IV)

Table-IV: Information regarding menstrual and reproductive health problems

Menstrual and reproductive health problems	No of respondents	Percent
Feeling during menstruation		
Feel irritable/ unclean	343	78.3
Feel as usual	95	21.7
School attendance during menses		
Don't attend school during 1st 2 days of menses	154	35.2
Attend school during 1st 2 days of menses	284	64.8
Suffering from any of the menstrual disorders		
Amenorrhea	15	3.4
Menorrhagia	65	14.8
Dysmenorrhoea	287	65.5
2-3 times bleeding in one month	6	1.4
Having no problem	36	8.2
Suffering from other reproductive health problems		
Excessive vaginal discharge	116	26.4
Itching of the genitalia	26	5.9
Ulceration of genitalia	8	1.8
Lower abdominal pain	206	47.0
Have no problem	82	18.7

Majority of the respondents 40% receive treatment from health workers, whereas 37% from village doctors. Only 9.8% receive treatment from M.B.B.S doctors. (Table: V)

Table V : Treatment seeking pattern for menstrual or other reproductive health problems

Homeopathic Doctor	26	5.9
Kabiraj	5	1.1
Health workers	177	40.4
Upazila Health Complex	20	4.6
MBBS doctor	43	9.8
Village doctor	162	37.0

Mothers education and family income were found to have highly significant association ($p < 0.0001$) with sanitary napkin use. (Table-VI)

Table-VI : Association of maternal and sanitary napkin use

	Sanitary napkin user; N=212(%)	Sanitary napkin non-user; N=226(%)	Total N=438	Significance test
Maternal education				
Illiterate	100(36.5)	174(63.5)	274 (62.6%)	$p < 0.0001$
Literate	112(68.3)	52(31.7)	164 (37.4%)	
Monthly family income (Tk)				
Taka 8000	32(30.5%)	73(69.5%)	105 (24%)	$p < 0.0001$
Taka >8000	180(54.1)	153(45.9)	333 (76%)	

Discussion : This school based cross-sectional study tried to assess hygienic practices during menstruation and menstrual hygiene management. The present study revealed that the mean age of menarche was 12.02 ± 3 . It was lower than the findings among school girls of Amhara Province, Ethiopia and rural girls in Nagpur, India where it was 14.7 and 13.5 respectively.^{8,9} This difference could be attributed to the influence of both heredity and socio-economic conditions, mainly nutrition. Above 50% of the respondents received the information about menstrual and reproductive health from mothers and close family members, whereas around 14% from school teachers; only 5% get the informations from media like radio and television According to Bangladesh National Hygiene Baseline Survey, 2014; over 90% of women and girls surveyed across households get these informations from female relatives, which indicate there was lack of formal information and mass media was playing a limited role regarding these issues.⁷

The study revealed that 52% of the participants were using cloths and 48% were using sanitary napkins for menstrual hygiene management; whereas in the National Baseline survey, using of cloths during menstruation was as high as 80%.⁷ The present study finding has similar finding as that among high school girls of Ethiopia which may be due to education, accessibility and ability to utilize the reproductive health information.⁸ Majority of the participants were suggested by family members for using cloths for MHM. Forty seven percent girls using cloths used today in hiding and shaded places, which almost corresponds with the result of Bangladesh National Hygiene Baseline Survey, 2014.⁷ Majority of the students never change pads during school time due to lack of privacy and proper sanitary facilities, and 45% complained about unavailability of water.

Majority dispose of used sanitary materials to a particular place and According to National Hygiene Baseline Survey, 2014; only 11% of school had separate toilet for girls with water facilities and 3% had facility to dispose of sanitary products. Our study finding showed that, majority of participants felt unclean and irritable during their menses, which corroborate with findings of study done on adolescent school girls in India¹⁰. About 35% of the girls did not attend school during first two days of menstruation, which almost substantiate with the findings of National Hygiene Baseline Survey, where the percentage was 40. The absenteeism due to menstruation interferes with the school performances. Instead of menstruation being a monthly event to be managed easily and comfortably, it was a source of difficulty and discomfort for a large number of students, with possible long term impact on learning. In the present study, large number of girls complained about dysmenorrhoea (about 65%) as a menstrual problem and lower abdominal pain (47%) as reproductive health problem. Less complained problems was menorrhagia, unusual vaginal discharge etc. The findings were more or less similar to study done on adolescent school girls in India.¹⁰

Regarding treatment seeking pattern for menstrual or other

reproductive health problems, it was found that majority (40%) of the girls seek advice from health workers (e.g. FWA or HA); 37% go to the village doctors. Very few (only 9.8%) consult M.B.B.S doctors. In a study done by Kabir et al among unmarried female adolescents, 40% female adolescents sought treatment from qualified physicians¹¹. The treatment seeking behaviors by adolescents for menstrual problem was explained by individual levels of comfort and familiarity of the providers as well as with accessibility of services. The current study showed strong association of maternal education and use of sanitary napkins by the respondents, which means proper menstrual hygiene management. Students whose mother had attended elementary school or higher education showed good knowledge about menstrual hygiene management as compared to students whose mothers had never attended formal education. Similarly higher economic condition showed positive association with sanitary napkin use and better menstrual hygiene management. These findings are comparable with findings from Ethiopia, Mumbai and Nigeria.^{8,12,13}

Conclusion : Based on the findings of the present study, it can be concluded that use of sanitary products for MHM is related to maternal education and economic conditions. A large scale study including all the variables related to hygienic practices during menstruation is required to obtain further information to find out the real situation.

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