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Original Article

School Absenteeism of Adolescent Girls during Menstruation in Khagrachari, Bangladesh

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Abstract

Background: *Adolescent girls in underdeveloped nations often struggle with menstrual hygiene, especially when they are in school. Poor menstrual hygiene in impoverished nations has not received enough attention up until now. This study aimed to find the state of adolescent girls who miss school when menstruating and the association between school absenteeism and various factors related to menstruation.*

Materials and methods: *A descriptive type of cross-sectional study was conducted during the period January to December 2019 with 300 adolescent school girls in a rural hilly area in Bangladesh. A self-administered questionnaire was used to collect data and analysis of results was done according to standard statistical analysis by using SPSS version 22.*

Results: *Among 300 students, only 82 (27.3%) respondents remained absent during menstruation, among those 27.3% respondents, more than two-thirds of the students (74.4%) were absent from school/college due to physical discomfort or lower abdominal pain. One seventy-four (58%) girls used other than sanitary pads (cloth or rags) during menstruation. Out of 174 non-pad users, 118(67.8%) were of (the 16-18) years group.Among the respondents who used sanitary pads, 36.5% were Hindu, 95.2% were unmarried and 20.6% were from the upper class.The chi-square test revealed menstrual hygiene was strongly associated with ethnicity, religion and SES but school absenteeism was not influenced by menstrual hygiene (χ^2= 0.410, $p_{0.522}$).*

Conclusion: *School authorities implementation of school health programs for adolescents should emphasise menstrual hygiene, which is especially related to the use of sanitary pads, not unhygienic rags or clothes.*

Key words: Adolescent; Hygiene; Menstruation; School absenteeism.

INTRODUCTION

Progress towards Sustainable Development Goals-3,4,5 may be hampered by obstacles to menstrual hygiene management among Bangladeshi girls. In Bangladesh, the relationship between managing menstrual hygiene and absenteeism from school is not sufficiently recognised. Adolescent girls' attendance and academic performance are negatively impacted by menstruation-related issues, particularly in rural areas.[1] According to estimates from the UN Children's Fund, approximately 10% of African girls within school age do not attend during their menstruation or drop out when they reach puberty due to a lack of private, hygienic restrooms.[2] Lack of privacy in latrine facilities to change the menstrual absorbent is an important factor which promotes prolonged retention of absorbents.[3] In Uganda's Rukungiri district 61.7% of respondents said they missed school every month due to menstruation-related reasons.[4] Furthermore, according to 39% of the girls, getting menstruated harmed their academic performance or caused their performance to decline from before to during their menstrual period.[5]

In developed countries, there is easy access to different types of products, used during menstruation, available at a reasonable cost. But in developing countries for too many women this is not happen. Studies have shown that girls are forced to use rags, pieces of old clothes, part of old saris, cotton wool, and toilet paper.[6] Most of the time, the same piece of cloth is re-used for several months or years. Not only are these practices unhygienic but they also cause severe embarrassment, along with problems of blood leaking causing feelings of shame and discomfort.[7,8] Rags and old clothes that are used repeatedly increase the chances of Reproductive Tract Infections (RTI) including urinary, vaginal, and perineal infections.[9]

Females of rural Bangladesh have little choice about menstrual hygiene products due to minimal options in the market, which are often focused to urban and elite people. Furthermore, girls, women and even the male members of rural communities have no or very little idea about improved menstrual products. Most of the rural shop owners have no or little knowledge of menstrual materials and they keep very limited stock as there is no or less demand. However, fewer products can be found in pharmacies that are located in rural marketplaces. For menstruating girls and women, the accessibility of the rural market is not so smooth. Sometimes, the distance of the market from schools and remote villages is far away. As girls and women usually do not visit market areas, they get few opportunities to buy those menstrual products. To have the product, they have to rely on male members of their family as males generally visit outside and the market areas. At the same time, the girls and women feel hesitant to buy the products from male storekeepers as all the grocery shops and medical stores are run by men. In Bangladesh, around 72% of people live in rural places and 28% of people live under poverty line.[10] Girls and women are more susceptible in terms of economic conditions. They have a few income-generating activities. They generally depend on a male member of their family to get any financial support. So, the rural girls have limited affordability to get their menstrual absorbents.[5,11]

Proper management of menstrual hygiene is a multi-faceted issue that must be addressed at individual, family, community and school levels.[12] Involvement of various stakeholders to address issues of menstrual hygiene management ranges from addressing knowledge regarding menstruation, improving access to sanitary materials, access to sanitary facilities, privacy and general support at school.[13] Menstrual hygiene and self-care information should be provided to all relevant parties to ensure the needs of adolescent girls, to safeguard their health and ensure their pursuit of a sound education goes unhindered.[14] Female sanitary materials and menstrual hygiene management have been identified as a major concern that has the great potential to affect school attendance and academic performance of adolescent girls.[15] A study was carried out in the Khagrachari Hill district of Bangladesh to find the state of adolescent girls who miss school when menstruating and the association between menstrual hygiene with different sociodemographic factors and school absenteeism.

MATERIALS AND METHODS

It was a cross-sectional, descriptive type of study.The study was conducted in Khagrachari which is one of the south-eastern hill districts of Bangladesh. The study was carried out between January to December of 2019 for 12 months. The study places were Khagrachari Technical School and College and Khagrachari Government Women's College. Participants were selected by Convenient sampling according to the inclusion and exclusion criteria. The inclusion criteria were female students aged 11 to 19 years old, who already had their menarche and were willing to participate. Female students below or above 11 – 19 years, had been suffering from any diseases at the time of the interview and all male school students were excluded.

A pre-designed, pretested and semi-structured questionnaire was used to collect data.

Upon receiving clearance from the school authorities, the class teachers of the 9th to 12th grades were provided with an explanation of the study's objective. A connection was established with the female students and their verbal permission was acquired. Detailed study-related information was read out and explained to the students in the local language. Around a one-hour briefing session was conducted every day before data collection regarding the questions in the questionnaire. The research participants were provided with a clear explanation of the study's goal and the kind of information they were required to provide. Then the questionnaire was given to the students to fill it up. They were instructed to ask questions, if any, regarding their queries to the researcher. All data collections were supervised by the researcher to minimize errors in data collection.

Using the Leslie Fischer formula (n=Z2PQ/d2) sample size calculation was done with a confidence interval of 95%, 0.05 precision and 0.84 prevalence rate of school absenteeism revealing a sample size of 255.[16] However, a total of 300 participants were selected for this research work. Collected data were checked, rechecked, edited, coded, and recorded for quality management. Data were cleaned, compiled, and categorized according to objectives and variables. The results were analysed according to standard statistical analysis using SPSS version 22. Appropriate statistical methods were followed for the analysis of results.

The participants were not influenced or insisted on responding. They were briefed about the purpose, procedure and implications of the study. Appropriate consents were taken from all participants. Confidentiality and anonymity of data were ensured. Withdrawal rights of respondents were preserved. There was no scope for breach of dignity, social or professional reputation, emotional trauma, or financial loss caused by the researcher.The study was conducted according to the protocol approved by the Institutional Review Board of Chittagong Medical College. Memo no- CNC/PG/2019/603.

RESULTS

Among 300 responding girls, 126 (42%) were used sanitary pad and the remaining 174(58%) did not use sanitary pad. Among the non-pad users 7 (58.3%) were 12-14 years age group. Among the 126 pad users, 73 (57.9%) were of 16-18 years age. On pad use or no pad use, age did not play any role ($\chi^2 = 3.352$, $p_{0.187}$).

In educational status of respondents, it was found that 28(22.2%) girls from class nine used pad and those from HSC (2nd year) used pad were 16.7% while 73 (42%) respondents from HSC (1st year) and 36 (20.7%) respondents from class ten did not use pad. Education level of the students had no role on pad use (χ^2=0.280, $p_{0.964}$).

It was found that 42.5% tribal and 57.5% non-tribal were not using sanitary pad while 70.6% tribal and 29.4% non-tribal had use sanitary pad. There is significant role of ethnicity on pad use (χ^2=23.267, $p_{0.000}$).

In marital status it was found that 163(93.7%) unmarried women and 11(6.3%) married women used items other than sanitary pad. Where 6(4.8%) married women and 120(95.2%) unmarried women used sanitary pad. Marital status did not show any influence on pad use by the girls (χ^2= 0.333, $p_{0.564}$).

Table I Association between socio-demographic characteristics and menstrual hygiene

Socio-demographic Characteristics	Menstrual Hygiene n=300		Total	Remarks
	Other than sanitary pad (Cloth/Rags) 174(58%)	Use only Sanitary pad 126(42%)		
Respondents age				
12-14 years	7(58.3%) (4%)	5(41.7%) (4%)	12 (4%)	χ^2 = 3.352 p = 0.187
14-16 years	49(50.5%) (28.2%)	48(49.5%) (38.1%)	97 (32.3%)	
16-18years	118(61.85) (67.8%)	73(38.2%) (57.9%)	191 (63.7%)	
Educational Status of Respondents				
Class Nine	35 (55.6%) (20.1%)	28 (44.4%) (22.2%)	63 (21%)	
Class Ten	36 (57.1%) (20.7%)	27 (42.9%) (21.4%)	63 (21%)	χ^2 =0.280 p=0.964
HSC First Year	73 (59.3%) (42%)	50 (40.7%) (39.7%)	123 (41%)	
HSC 2nd Year	30 (58.8%) (17.2%)	21 (41.2%) (16.7%)	51 (17%)	
Ethnicity				
Tribal	74(45.4%) (42.5%)	89(54.6%) (70.6%)	163 (54.3%)	
Non-Tribal	100(73%) (57.5%)	37(27%) (29.4%)	137 (45.7%)	χ^2=23.267 p=0.000
Marital Status				
Unmarried	163(57.6%) (93.7%)	120(42.4%) (95.2%)	283 (94.3%)	
Married	11(64.7%) (6.3%)	6(35.3%) (4.8%)	17 (5.7%)	χ^2= 0.333 p= 0.564
SES				
Lower Class	73(59.3%) (42%)	50(40.7%) (39.7%)	123 (41%)	
Middle Class	83(63.4%) (47.7%)	50(37.6%) (39.7%)	133 (44.3%)	χ^2= 6.428 p= 0.040
Upper Class	18(40.9%) (10.3%)	26(59.1%) (20.6%)	44 (14.7%)	
Type of Family				
Nuclear	140(59.8%) (80.5%)	94(40.2%) (74.6%)	234 (78%)	
Joint	30(51.7%) (17.2%)	28(48.3%) (22.2%)	58 (19.3%)	χ^2= 1.469 p= 0.480
Extended	4(50%) (2.3%0	4(50%) (3.2%)	8 (2.7%)	

It was found that 20.6% respondents from upper class were used sanitary pad and remaining of the respondents was from middle and lower class. From middle class 47.7% respondents and from lower class 42% respondents did not use sanitary pad. It is noteworthy that girls of upper socioeconomic status were habituated for using sanitary pad in comparison to other classes (χ^2= 6.428, $p_{0.040}$)

Considering the association between type of family and menstrual hygiene, it was found that, 140 (80.5%) respondents from nuclear family used items other than sanitary pad. 28 (22.2%) respondents from joint family and 4(3.2%) respondents from extended family used sanitary pad. The chi square test revealed that there was no significant association between family type and menstrual hygiene (χ^2= 1.469 $p_{0.480}$).

Table II Information regarding the absence from school during menstruation

A. Regularly attend school/college during menstruation (n=300)

School attendance	No.	Percent (%)
Yes	218	(72.7%)
No	82	(27.3%)
B. Absence duration during menstruation (n=82)		
Days	No.	Percent (%)
One	39	47.6
Two	32	39
Three	10	12.2
>Four	1	1.2C.
C. Reason for not attending school during menstruation (n=82)		
Cause	No.	Percent (%)
Fear of leakage or staining in the dress	4	4.9
Physical discomfort or lower abdominal pain	61	74.4
Shyness	17	20.7

Majority of the respondents 218 (72.7%) regularly attended school/colleges during menstruation, only 27.3% respondents did not attend school/colleges. Out of 82 respondents who did not attend school/colleges during menstruation, 47.6% of them remain absent from school for one day and 12.2% of them remain absent for three days. More than two third of the respondents 74.4% were absent from school/colleges due to physical discomfort or lower abdominal pain and only 4.9% were absent for fear of leakage or staining in the dress.

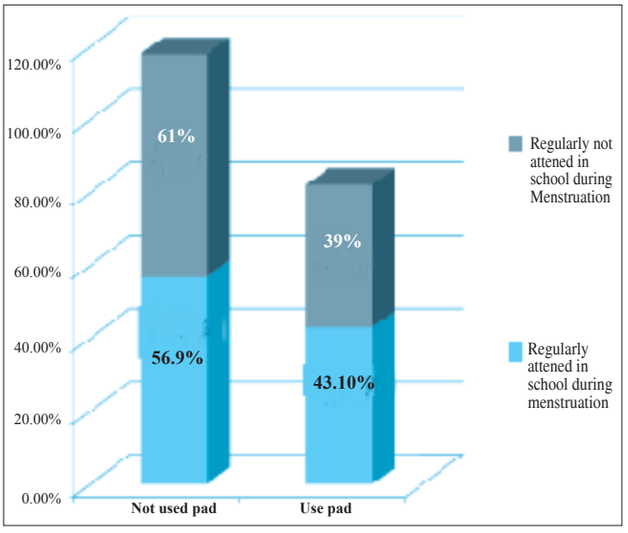

Figure 1 Relationship between absorbent use and school absenteeism

It was found that 94 (43.1%) respondents, who used pads, regularly attended school/college during menstruation and 32(39%) respondentsdid not attend school /college during their menstruation. Whereas 50 (61%) respondentswho use other than sanitary pads remain absent in school/college and 124(56.9%) respondents remain present in school/college during their menstruation.School absenteeism was not influenced by absorbent use ($p_{0.410}$).

DISCUSSION

Menstrual hygiene management in school/college is a matter of thinking. School/college in low-income countries often does not provide sufficient facilities for menstrual management. Negligence of good menstrual hygiene is hampering not just women or girls directly but also for schools/colleges performance attendance. This study found that 42% students maintain menstrual hygiene by using sanitary pad and that is not very impressive. Similar to this finding, the GHANA study found about 47% students who use sanitary pad.[16] But study done in Indonesia they found a very high percentage (98%) of sanitary pad users which mean a good menstrual hygiene practice.[17] No significant association between age group and menstrual hygiene (χ^2 = 3.352 $p_{0.187}$) were found in this study and this finding was similar with the study done by Fehintola et al.[18] There were 123 girls of H.S.C 1st year. Out of them 50(40.7%) used sanitary pad and remaining 73(59.3%) did not use it. Chi-square test revealed no significant association in between educational status of respondents and menstrual hygiene management ($p_{0.964}$). Among 163 tribal- pad users were 89 (54.6%). But Bengali girls who were 137, 73% did not use pad. As this study was done in a hill district of Bangladesh so it's very necessary to find out the association between ethnicity and menstrual hygiene. Chi-square test revealed there was highly significant association between ethnicity and menstrual hygiene (χ^2=23.267, $p_{0.000}$). Non-tribal's lack behind tribal's in this aspect. Regarding marital statusgirls who used sanitary pad 95.2% were unmarried and rest of themwere married and there were no significant association is found with menstrual hygiene and marital status.

The price of sanitary pads is one of the leading obstacles to maintaining good menstrual hygiene practicesin low- and middle-income countries. During the choice of menstrual product family socioeconomic status plays a very great role. But in this study,it seems that of girls who used sanitary napkins, 20.6% were from the upper class, 39.7% were from the middle class and 39.7% were from the lower class. The chi-square test revealed a significant association between socioeconomic class and menstrual hygiene management (χ^2=6.428, p0.04). Itdiffers from the findings found by Vashisht, et al, where they did not find any association between a socioeconomic factor and menstrual hygiene.[19] Considering family type, 234 were nuclear category andout of this more than half (59.8%) were sanitary pad non-users. In the case of 8 extended families half of them were sanitary pads users. The chi-square test for statistical association also does not support between menstrual hygiene and type of family. School absenteeism due to menstrual problems was seen among 27.3% in this study.This is contrary to the study done in Egypt, India, and North Ethiopia where school absenteeism due to menstrual problemswas about 44%, 43% and more than 50%.[20,21,22] Most of the girls (47.6%) remain absent during menstruation for one day, 39% for two days, 12.2% for three days and only 1.2% for more than four days. The most common reason as described for absenteeism was physical discomfort or lower abdominal pain (74.4%) and other reasons were shyness (20.7%) and fear of leakage/staining in the dress (4.9%). In a Nigerian study similar findings has found that the main cause of school absenteeism during menstruation was abdominal pain or discomfort.[23] In the current study, none of the respondents mentioned about any facilities on hygiene management at school/colleges. Some studies show that improvement in the sanitation facilities at school will improve enrolment of adolescent girls and reduce their absenteeism.[21,22,24] Less than half (39%) girls who were regularly not attend school/colleges during menstruation were used pad and 43.10% girls who used pad regularly attend school/colleges during menstruation. Among girls who did not practice pad use, majority 61% remain absent from school during menstruation. Chi-square test revealed there was no significant association in between school absenteeism and

menstrual hygiene management (χ^2= 0.410, $p_{0.522}$). This finding similar with the study done by Fehintola et al. but differ from the studiesdone in India wherea significant association was found in between school absenteeism and menstrual hygiene management.[18,21,25]

CONCLUSION

Less than one-third of respondents missed school during menstruation due to physical discomfort and lower abdominal pain, and only half used sanitary napkins. Families, educators, policymakers and other stakeholders must understand menstruation and menstrual hygiene to empower and prepare girls for reproductive behaviours. It will reduce academic and daily life obstacles. If Bangladeshi adolescents had ample sanitary facilities, pain treatment, menstrual hygiene instruction and sanitary goods, their school performance would improve.

DISCLOSURE

All the authors declared no competing interest.

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