

# Practices Regarding Menstrual Hygiene Among Adolescent Girls in Railway Slum Area of Khulna City

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## ABSTRACT

Menstruation, despite being a normal occurrence, is still seen as unclean or dirty in Bangladeshi society, and is associated with a number of myths and practices that lead to negative health outcomes. A descriptive cross sectional study was conducted from December, 2020 to August, 2021. Data was collected from adolescent girls of age group (10–19) years in railway slum area of Khulna city. Sample size was 121 adolescent girls. More than half 55.4% respondents had moderate knowledge on menstruation and menstrual hygiene and 17.4% respondents had good knowledge on menstruation and menstrual hygiene. On the other hand, 71.1% respondents had poor practice about menstruation and menstrual hygiene and 10.7% respondents had good practice on menstrual hygiene. The source of information regarding menstrual hygiene where the highest percentage carried out by friend is about 34.2%. Age had significant association (Pearson's chi-squared test was 0.000, where a degree of freedom was 33 and the probability was 74.27, which was  $P < 0.05$ ) with the level of knowledge about menstruation and menstrual hygiene. Significant association showed between the level of knowledge and practice of adolescent about age, education religion, use of absorbent, disposal of absorbent, change of absorbent and washing process of absorbent (where P value was  $< 0.05$ ). It can be concluded that risk factors for developing urinary tract infection due to poor menstrual hygiene can be reduced by providing proper health education among the adolescent.

**Keywords:** Adolescent Girl; Menstrual Hygiene Management; Knowledge Level; Practice Level; Socio-Cultural Factor; Menarche

## Introduction

Menstrual hygiene management (MHM) is not adequately handled and habits are still surrounded by socio-cultural limitations and taboos in many Bangladeshi societies, resulting in negative health outcomes for adolescent girls. Women and girls of the slum areas struggle to maintain the appropriate hygiene during their menstruation as a result of different constraints, lack of knowledge and facilities. This causes discomfort and increases the risk of infection, putting women's sexual and reproductive health at jeopardy. Menstruation is a natural biological function and an important indicator of reproductive health, yet it is stigmatized and humiliated in many societies. Menstrual rituals and taboos have a severe impact on the lives of adolescent girls and women, as well as perpetuating gender

inequity and marginalization [1]. It is the process of removing the thicker uterine lining from the body through the vaginal canal. The blood, cells from the uterine lining (endometrial cells), and mucus are all found in menstrual fluid [2].

The cyclic phenomenon leading to the discharge of blood from the uterus occurring in every 28 days on average, although it can last from 21 to 35 days and continue almost 7 days. It concerns women and men alike as it is among the key determinants of human reproduction and parenthood. For the first year or two after menstruation begins, the cycle is generally erratic [3]. Girls normally begin menstruating ('menarche') between the ages of 10 and 19, usually during puberty or adolescence. Menstruation continues until they achieve menopause, which occurs between the late forties and the mid-fifties [4].

Menstruation is sometimes called as 'menses' or a 'menstrual period'. The age of menarche varies by geographical region, race, ethnicity and other characteristics. Adolescent girls are a particularly vulnerable population, particularly in Bangladesh, where the sex ratio indicates that female children are neglected. Menstruation, despite being a normal occurrence, is still seen as unclean or dirty in Bangladeshi society, and is associated with a number of myths and practices that lead to negative health outcomes. Proper cleanliness during menstruation is very much important in a woman's life as it minimizes adverse health effects [5].

Menstrual practices are viewed as a big limitation for menstrual hygiene management because of these social stigmatic, cultural, and religious restrictions [6]. Despite the fact that menstruation is a typical physiological occurrence in females, maintaining excellent hygiene is not easy for every adolescent girl. Using unclean napkins or cloth napkins during menses results in the harboring of microorganisms that cause reproductive and urinary tract infections [7]. As regards the practices, most of the girls do not use sanitary napkins or boiled and dried cloth as menstrual absorbent. The use of unhygienic materials during the menstruation is likely to have negative impacts on women's health [8]. The reuse of cloth has been associated with abnormal vaginal discharge, irritations and genitourinary infections [9].

Furthermore, women using reusable absorbent material were more than twice as likely to be diagnosed with one or more genitourinary infections (bacterial vaginosis (BV) or urinary tract infection). BV due to poor menstrual hygiene could increase pregnancy related complications such as delivery of low birth weight (LBW) infants, preterm delivery of low birth weight (LBW) infants, and clinical chorioamnionitis [10]. Premature births, stillbirths, miscarriages, infertility issues, and cervical cancer are linked to poor menstrual hygiene. (Sapkota and Sharma 2013 [11]. Due to demographic diversity and cultural norms, data on menstruation behaviors among adolescent females in Bangladesh is scarce. In Bangladeshi country settings, adolescent girls' social aspects are hidden and ignored public health issue [12,13].

In impoverished nations, menstrual hygiene management (MHM), menstrual habits are still surrounded by socio-cultural limitations and taboos in many Bangladeshi societies, resulting in negative health outcomes for adolescent girls [14]. While many of these rituals are harmless, common ideas that menstrual blood is contaminating and hazardous, as well as that the menstruation body is weak and humiliating, lead to behaviors that put women at risk [15-18] As a result, the primary goal of this research was to determine menstrual hygiene

practices and the socio-demographic and socioeconomic characteristics related with good menstrual hygiene among adolescent girls in Khulna railway slum regions. Furthermore, the outcomes of this study will serve as a benchmark for future research.

### Justification of the Study

Menstrual hygiene practices and management (MHM) has received increasing attention as a public health issue. However, quantitative studies of the associations between MHM and health, education and psychosocial outcomes are scarce. Few research in Bangladesh have focused on the relationship between good menstrual hygiene and socioeconomic determinants among adolescent girls in slum areas. In Bangladesh's slum communities, this is a hidden and ignored public health issue [19]. The findings of this study could be useful to health-care practitioners, administrators, and policymakers in creating effective intervention programs. Furthermore, the results of this study will be used as a baseline for future research.

### Ethical Consideration

The approval letter for the conduction of research on specified topic was taken from Ethical Review Board of AIUB. Informed consent was taken from each respondents, that would include objective of the study, time duration, privacy and confidentiality of information taken and information about participant can withdraw anytime.

### Findings and Results

Socio-demographic findings: In the present study, the most (59.5%) 72 of the respondents were from 13-15 years of age group, (33.9%) 41 respondents were from 16-18 years of age group (4.9%) 6 respondents were from 10-12years of age group and (1.7%) 2 respondents were from 19 years of age group (Table 1). Out of total respondents, 52.9% respondents were secondary; Again 22.2% completed below primary level and 20.7% respondents were primary level (Figure 1). But only 4.3% of respondents completed the higher secondary or above level of education (Figure 2).

**Table 1:** Distribution of the respondents by age (n=121).

Age (in year)	Frequency	Percent
10-12years	6	4.9
13-15 years	72	59.5
16-18 years	41	33.9
19 years	2	1.7
Total	121	100.0
Mean $\pm$ SD	12.32 $\pm$ 0.596	

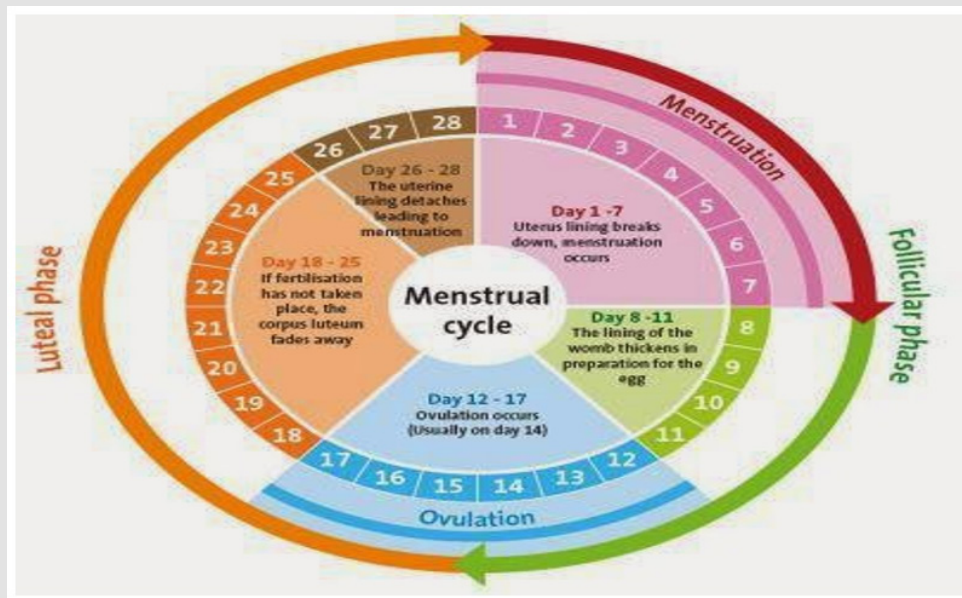


Figure 1: Menstrual Cycle.

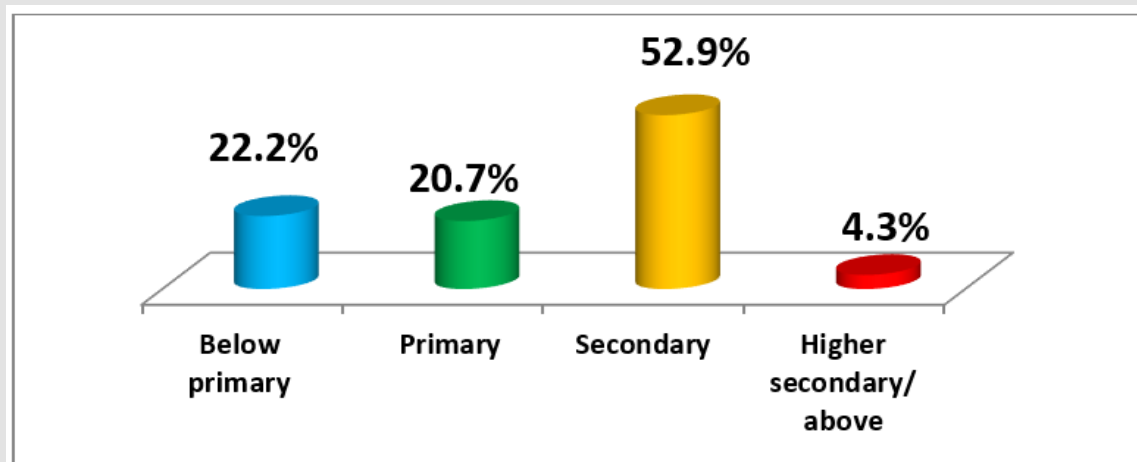


Figure 2: Distribution of the respondents by educational status (n=121).

### Knowledge and Practice Related Findings

It was observed that, out of total respondents, 59.1% didn't know physiological changes takes place both sex at certain age and 40.9% knew physiological changes takes place both sex at certain age. (Table 2) shows that most of the respondents 68.6% didn't know only 31.4% of the respondents knew about menstruation before it occurs, among them 18.4% knew from mother, 10.5% knew from sister and only 7.9% knew from teacher. Here most of the 34.2% respondents

knew about menstruation from friend and 28.9% respondents knew about menstruation from others (Book, Grandmother, Sister-in-law). Majority 64.5% of the respondent's first menstruation occur at 12 years, 19.1% of the respondent's first menstruation occur 13 years, 6.6% of the respondent's first menstruation occur 11 years, 4.9% first menstruation occurs at 14 years, 3.3% first menstruation occur 10 years and only 1.7% 8 years (Table 2).

**Table 2:** Distribution of the respondents by first menstruation occur (n=121).

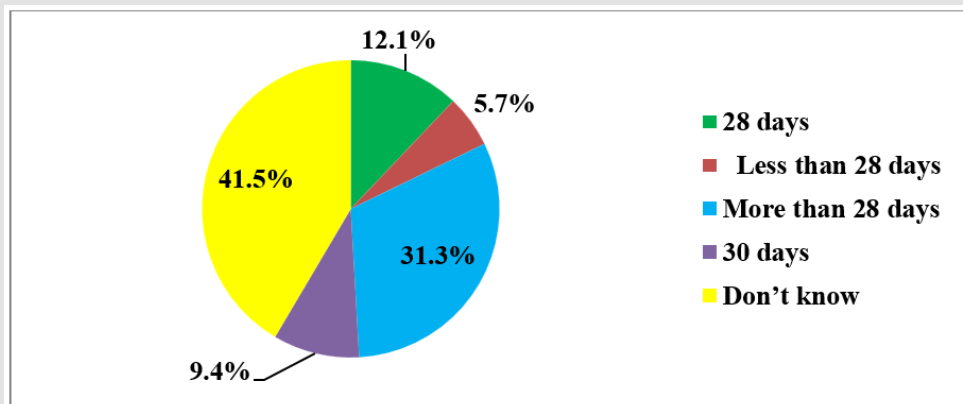
First menstruation occur	Frequency	Percent
8 years	2	1.7
10 years	4	3.3
11 years	8	6.6
12 years	78	64.5
13 years	23	19.1
14 years	6	4.9
Total	121	100.0

Most 41.5% of the respondents didn't know duration of normal menstrual cycle, 31.3% of the respondents said duration of normal menstrual cycle more than 28 days, 12.1% of the respondents said duration of normal menstrual cycle 28 days, 9.4% of the respondents said duration of normal menstrual cycle 30 days and only 5.7% of the respondents said duration of normal menstrual cycle less than 28 days (Figure 3). It revealed that, among total respondents, 36.4% respondents had duration of menstrual flow was 5 days, 30.1% respondents duration of menstrual flow was 3 days, 27.9% respondents

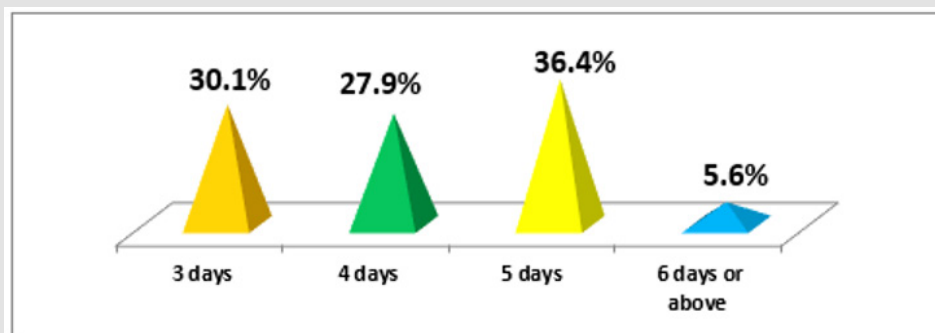
duration of menstrual flow was 4 days and only 5.6% 6 days or above (Figure 4). Out of the total respondents, majority 55.4% of the respondents suffer from pain during menstruation, among them 47.9% take medication to manage pain during menstruation, 32.2% take hot water to manage pain during menstruation, 8.3% pani pora take to manage pain during menstruation, 8.3% nothing to do to manage pain during menstruation and 3.3% take cold water to manage pain during menstruation (Table 3).

**Table 3:** Distribution of the respondents by pain during menstruation (n=121).

Pain during menstruation	Frequency	Percent
Yes	67	55.4
No	54	44.6
If yes, how you manage the pain? (n=67) Multiple Answer		
Medication	58	47.9
Hot water	39	32.2
Cold water	4	3.3
Pani pora	10	8.3
None	10	8.3



**Figure 3:** Distribution of the respondents by knowledge on duration of normal menstrual cycle (n=121).



**Figure 4:** Distribution of the respondents by duration of your menstrual flow (n=121).

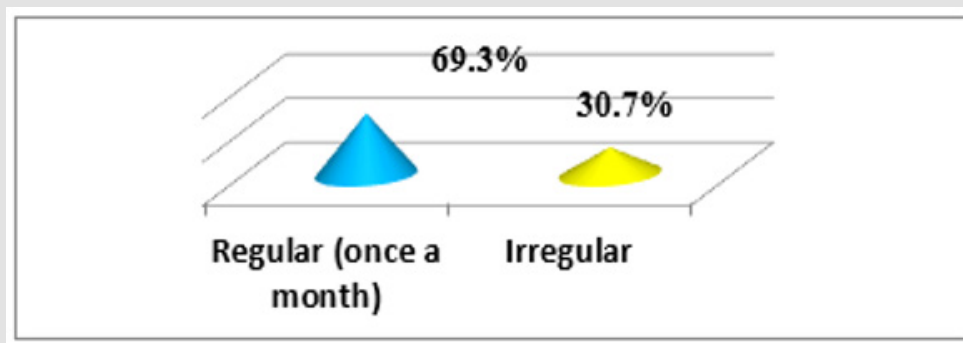
Almost, 47.1% of the respondents used sanitary pads during menstruation, 33.6% used cloths during menstruation, and 13.6% used tissue paper during menstruation and only 5.7% used others type of absorbent during menstruation, among them 87.8% respondents clean menstrual cloths with soap and water, 60.9% respondents clean menstrual cloths with only water and 9.8% respondents clean menstrual cloths with antiseptic with water. (Table 4) shows out of the total respondents, 46.3% two times change absorbents per day, 33.1% three times change absorbents per day, 12.4% change absorbents once a day and 8.3% four times or more than change absorbents per day.

**Table 4:** Distribution of the respondents by absorbent used during menstruation (n=121).

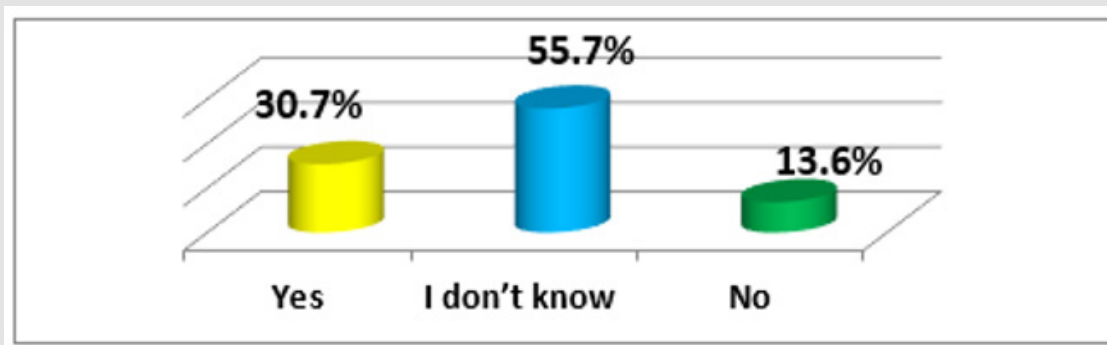
Absorbent used during menstruation	Frequency	Percent
Sanitary pads	56.9	47.1
Cloths	41	33.6
Napkins	17	13.6

Tissue paper	7	5.7
If you use Cloth, how do you clean it? (n=41) Multiple Answer		
Only water	25	60.9
Soap and water	36	87.8
Antiseptic with water	4	9.8

(Figure 6) showed that, out of the total respondents, 55.7% of the respondents didn't know that important of menstruation for reproduction, 30.7% respondent knew that important of menstruation for reproduction and only 13.6% respondents said menstruation isn't important for reproduction. It showed that, majority 82.9% of the respondents taken bath during menstrual and 17.1% of the respondents didn't take bath during menstrual (Figure 6). (Table 5) reveals that, most 98.3% of the respondents washed private part regularly, among them 85.9% respondents washed private part by soap & water, 7.4% respondents washed private part by plan water and only 4.9% respondents washed private part by antiseptic & water and 1.7% of the respondents didn't wash private part regularly.



**Figure 5:** Distribution of the respondents by pattern of menstrual cycle (n=121).



**Figure 6:** Distribution of the respondents by menstruation important for reproduction (n=121).

**Table 5:** Distribution of the respondents by wash private parts/genital organs regularly (n=121).

Wash private part regularly	Frequency	Percent
Yes	119	98.3
No	2	1.7
If you, what do you use for it? (n=119) Multiple Answer		
Plan water	9	7.4
Soap & water	104	85.9
Antiseptic & water	6	4.9

Out of the total respondents, majority 71.1% of the respondents had practice poor menstrual hygiene, 18.2% of the respondents had practice moderate menstrual hygiene and 10.7% of the respondents had practice good menstrual hygiene (Table 6). (Table 8) shows out of the total respondents 42.9% of the respondents facing some restriction during menstruation, among them 92.3% didn't allowed to go temple, mosque, 80.8% didn't allowed to go to kitchen, 75.1% didn't allowed to cook food, 67.3% didn't allowed to go outside to play, 59.6% didn't allowed to eat sour and 23.1% didn't allow to eat protein contain foods (fish, meat etc) and 57.1% of the respondents didn't faced some restriction during menstruation. It reveals that out of the total respondents 82.9% of the respondents said lack of menstrual hygiene

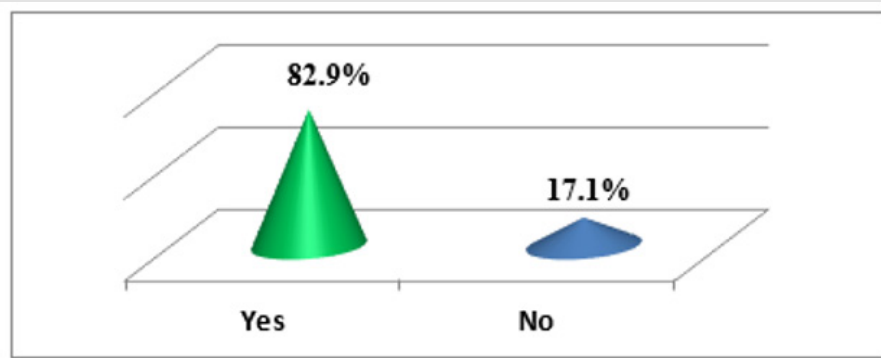
can lead to other health problems and 17.1% respondents said lack of menstrual hygiene can't lead to other health problems. Figures 7 & 8 shows most 74.3% of the respondents sad UTI were associated with maintain poor menstrual hygiene and 25.7% of the respondents sad UTI weren't associated with maintain poor menstrual hygiene.

**Table 6:** Distribution of the respondents by level of practice on menstrual hygiene (n=121).

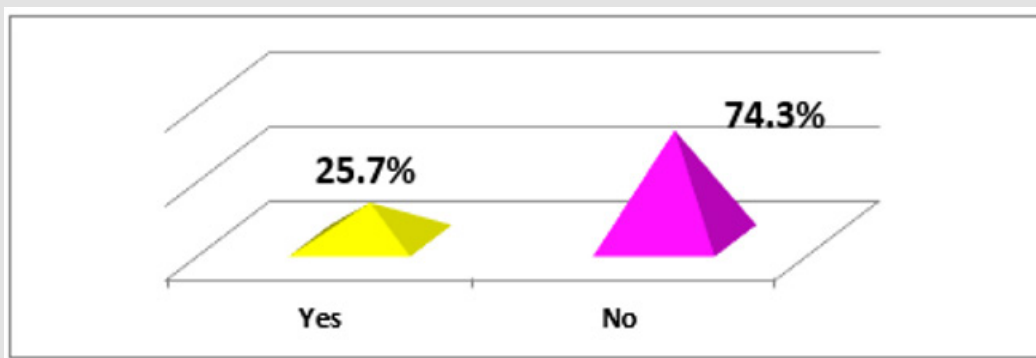
Level of practice on menstrual hygiene	Frequency	Percent
Excellent	0	0.0
Good	13	10.7
Moderate	22	18.2
Poor	86	71.1
Total	121	100.0

**Table 7.**

Key Score	
Excellent	≥80
Good	60-79
Moderate	50-59
Poor	≤49



**Figure 7:** Distribution of the respondents by take bath during menstrual (n=121).



**Figure 8:** Distribution of the respondents by UTI associated with maintain poor menstrual hygiene (n=121).

(Table 9) shows out of the total respondents, most 52.9% of the respondents were consulting with doctors when severe pain during menstruation, 37.2% consulting with doctors when menstrual cycle is less than 21 days, 37.2% consulting with doctors when menstruation lasts more than seven days, 15.7% consulting with doctors when

bleeding is so severe that pads or clothes have to be changed every hour, 11.6% consulting with doctors when irregular menstruation and 3.3% consulting with doctors when menstruation is off for more than six weeks (Tables 9+).

**Table 8:** Distribution of the respondents by facing some restriction during menstruation (n=121).

Facing some restriction during Menstruation	Frequency	Percent
Yes	52	42.9
No	69	57.1
If you, what are those? (n=52) Multiple Answer		
Do not allowed to go to kitchen	42	80.8
Do not allowed to cook food	39	75.1
Do not allowed to go outside to play	35	67.3
Do not allow to eat protein contain foods (fish, meat etc).	12	23.1
Do not allowed to go temple, mosque	48	92.3
Do not allowed to eat sour	31	59.6

**Table 9:** Distribution of the respondents by diseases or sign/symptoms related to menstruation that you need to consult a doctor (n=121).

Diseases or sign/symptoms related to menstruation that you need to consult a doctor	Frequency	Percent
During Severe pain	64	52.9
Irregular menstruation	14	11.6
If menstruation is off for more than six weeks	4	3.3
If the menstrual cycle is less than 21 days	40	33.1
If menstruation lasts more than seven days	45	37.2
If the bleeding is so severe that pads or clothes have to be changed every hour	19	15.7
I don't know	40	33.1

**Table 10:** Association between age and level of knowledge about menstrual hygiene (n=121).

Level of knowledge	Age				Total	P-value Chi-square
	10-12years	13-15years	16-18 years	19 years		
Excellent	0	0	0	0	0	
Good	0	9	11	1	21	P=0.000
Moderate	2	55	9	1	67	X <sup>2</sup> =2.034
Poor	4	8	21	0	33	
Total	6	72	41	2	121	

## Discussion

In this present study total more than half 55.4% respondents had moderate knowledge on menstruation and menstrual hygiene and 17.4% respondents had good knowledge and 23.7% had poor or no knowledge on menstruation and menstrual hygiene. Considering local context within different cities and information gap between urban slum dwellers and other urban dwellers, we consider the self-report of adolescent slum girls of Khulna city in my survey to be a credible assessment of their experience (Table 11). Again, the rate found in present study that 31.4% of the respondents knew about menstru-

ation before it occurs, is lower than the rate quoted in National Hygiene survey, 2018, where only 36% of the adolescent girls heard about menstruation before the occurrence of period for the first time [9,20,21]. According to National Hygiene survey, 2018, less than 20% of those who use old clothes follow the recommended cleaning and drying practices. It is found in my study that 9.8% of those who use clothes, clean menstrual cloths with antiseptic with water. Again, on another criteria, there is a rising pattern for using sanitary pads, which is consistent with present study findings (47.1% used sanitary pads during menstruation).

**Table 11:** Association between age and level of practice about menstrual hygiene (n=121).

Level of practice	Age				Total	P-value Chi-square
	10-12years	13-15years	16-18 years	19 years		
Excellent	0	0	0	0	0	
Good	0	4	9	0	13	P=0.000
Moderate	2	7	12	1	22	X <sup>2</sup> =13.034
Poor	4	61	20	1	86	
Total	6	72	41	2	121	

On another criteria, it shows that 47.1% of the respondents used sanitary pads during menstruation, 33.6% used cloths during menstruation, and 13.6% used tissue paper during menstruation and only 5.7% used others type of absorbent during menstruation. The difference in the rates of sanitary pad using urban adolescent girls in this two studies is mainly due to the local context within different cities and context of different time periods [19,22,23]. The source of information regarding menstruation and menstrual hygiene where the highest percentage carried out by friend is about 34.2%. Age had significant association (Pearson's chi-squared test was 0.000, which was  $P < 0.05$ ) with the level of knowledge about menstruation and menstrual hygiene. This study revealed that menstrual hygiene was unsatisfactory among adolescent girls and study findings show there were significant association between the level of knowledge and practice of adolescent about age, education, use of absorbent, disposal of absorbent, change of absorbent and washing process of absorbent ( $P$  value  $< 0.05$ ).

## Conclusion and Recommendation

The study results found that, very closed to sixty (59.5%) respondents were age group 13-15 years and 52.9% educational qualification were secondary level. It can be concluded that risk factors for developing urinary tract infection due to poor menstrual hygiene can be reduced by providing proper health education among the adolescent girls [24,25] [9] The recommendations for maintaining proper MHM by reducing factors which affect the adolescent's girls Health and Empowerment: Firstly, need to provide proper education about menstruation and MHM to increase awareness among the adolescent girls; to maintain proper facilities and services availability like, water facilities, provision of providing pad facilities and maintain waste disposal management system [26-28]. 20,22, 23 The health care provider and social media can play a vital role in health education by providing scientific and accurate knowledge regarding menstrual hygiene [26,29,30].

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