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Original Research Article

## Assessment of knowledge and practice of menstrual hygiene among the female nursing students in a selected private nursing college in Dhaka City

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### ABSTRACT

**Background:** Adolescent females are often uninformed and inexperienced on most health-related issues including menstruation. The problems of menstrual hygiene are inadequately acknowledged and has not received any proper attention as well. This study was aimed to assess the level of knowledge and practice of menstrual hygiene among the female nursing students in Bangladesh.

**Methods:** A total of 106 female nursing students were selected from Grameen Caledonian College of nursing using purposive sampling technique. A descriptive cross-sectional type of study was used. Data were collected directly using self-administered semi-structured questionnaire developed and was analysed using SPSS version 22.0.

**Results:** In this study more than six-tenths (63.2%) of the respondents were 20 years and below and most of them (74.5%) were unmarried. About 60.4% of them were currently running diploma in nursing and the rest (38.6%) were B.Sc. nursing students. About 72.6% of the respondent's mothers had above HSC level of education and most of them (61.3%) were from nuclear family. Little above half (51.9%) of the respondents mentioned that menstruation is the uterine bleeding and the majority (67.0%) of the respondents were surprised during their first menstruation. Most of the respondents source of information about menstruation before menarche was sister (95.3%), followed by friend (92.5%), mother (67.9%) and the rest mentioned the teacher (62.3%). About 76.5% of the respondents mentioned that their mode of disposal of absorbents was dustbin and most of them (68.9%) used water and soap to clean their genital area after menstruation.

**Conclusions:** The study was concluded that more than half of the respondents had moderate level of knowledge and practice regarding the menstrual hygiene. Most of the (67.0%) of the respondents were surprised during their first menstruation and close to eight-tenths (79.2%) mentioned they had a regular usual menstrual cycle. There is need for more awareness regarding the information on good menstrual hygiene practices.

**Keywords:** Hygiene, Knowledge, Menstruation, Nursing-Students, Practice

### INTRODUCTION

Worldwide every year approximately about 10% of women are exposed to genital infections including

urinary tract infections and bacterial vaginosis, and more than seven-tenths of women have a history of a genital infection. Pregnancy and poor hygienic status both Perineal and menstrual hygiene are the common risk

factors for vaginal infections.<sup>1</sup> The issue of menstrual hygiene is inadequately acknowledged and has not received proper attention.<sup>2</sup> Good hygienic practices, such as use of sanitary pads and proper washing of the genital areas, are important during menstruation period. Women of reproductive age need access to clean and soft absorbent sanitary products which in the long run protect their health from various infections.<sup>3</sup> A study described a knowledge of the menstrual process which is part of sex education is often clouded with secrecy in some cultures, and these are not often discussed in public, because the topics related to sexual development are, therefore, avoided from school and colleges curriculum. Therefore, such knowledge is passed mostly from mothers, sisters, aunts, and grandmothers to daughters.<sup>4</sup> There is limited information regarding the menstrual hygiene among the Bangladeshi nurses. This study was aimed to assess the level of knowledge and practice of menstrual hygiene among the female nursing students in Bangladesh.

**METHODS**

A total of 106 female nursing students were selected from Grameen Caledonian College of nursing using purposive sampling technique. A descriptive cross-sectional type of study was conducted among the nursing students to identify their level of knowledge and practice regarding the menstrual hygiene. All the female nursing students who were currently studying in this college were included and male nursing students were excluded for participation.

An official request was made to the concern authority before starting the study in Grameen Caledonian Nursing College. Oral request were made to the students and the written informed consent was also taken. The study was approved by the Grameen Caledonian Nursing College, Dhaka Bangladesh.

**Statistical analysis**

All the data were collected directly using self-administered semi-structured questionnaire developed by the researchers. A written and verbal informed consent was taken from the students and all were given clear instructions on how to fill the questionnaires. The collected data were checked for completeness and correctness. All the information collected were coded numerically and entered into the SPSS version 22.0 software program for analysis.

**RESULTS**

**Socio-demographic characteristics of the respondents**

Table 1 showed that more than six-tenths (63.2%) of the respondents were 20 years and below and most of them (74.5%) were unmarried. About 81.1% of the respondents were Muslims and slightly above three-fifths (60.4%) were currently running diploma in nursing and

the rest (38.6%) were B.Sc. nursing students. Little above eight-tenths (80.2%) were from urban areas and most of their family monthly income was more than 15000 taka. About 72.6% of the respondent’s mothers had above HSC level of education and most of them (61.3%) were from nuclear family.

**Table 1: Socio-demographic characteristics of the respondents (n=106).**

Variables	Frequency	Percent
<b>Age (years)</b>		
≤20	67	63.2
≥21	39	36.8
<b>Marital status</b>		
Married	27	25.5
Unmarried	79	74.5
<b>Religion</b>		
Muslim	86	81.1
Non-Muslim	20	18.9
<b>Educational background (Presently Studying)</b>		
Diploma in nursing	64	60.4
B.Sc. in nursing	42	39.6
<b>Residence</b>		
Rural	21	19.8
Urban	85	80.2
<b>Family monthly income (Taka)</b>		
≤15000	30	28.3
>15000	76	71.7
<b>Mother’s educational level</b>		
Up to HSC	29	27.4
Above HSC	77	72.6
<b>Family type</b>		
Joint family	29	27.4
Nuclear family	65	61.3
Extended family	12	11.3

**Knowledge about menstrual hygiene**

Table 2 shows that little above half (51.9%) of the respondents mentioned that menstruation is the uterine bleeding, 28.3% of them mentioned that is the bleeding from stomach and the rest (19.8%) stated that menstruation is the white discharge. Regarding the causes of menstruation about 57.5% of the respondents mentioned that it occurs naturally, 23.6% mentioned that it is hormonal and 18.9% of them mentioned that it’s physical. About 67.9% of the study participants mentioned that their menarche age was 11-13 years and the rest mentioned it was 14-16 years. The majority (67.0%) of the respondents were surprised during their first menstruation, 54.7% of them mentioned that its normal for them and 44.3% were afraid during first menstruation. About 66% of the respondents mentioned that use of sanitary pad is the concept about menstrual hygiene and most of the respondents source of information about menstruation before menarche was sister (95.3%), followed by friend (92.5%), mother

(67.9%) and the rest mentioned the teacher (62.3%). Close to eight-tenths (79.2%) mentioned they had a regular usual menstrual cycle and the remaining (20.8%) had irregular menstrual cycle. A half (50%) of the respondents mentioned that they experienced inter menstrual interval for 25-28 days and 40.6% of them mentioned that the duration for menstrual cycle during each period was 3-5 days.

**Table 2: Knowledge about menstrual hygiene (n=106).**

Items	Frequency	Percentage
<b>Menstruation</b>		
White discharge	21	19.8
Uterine bleeding	55	51.9
Bleeding from stomach	30	28.3
<b>Belief regarding causes of menstruation</b>		
Hormonal	25	23.6
Natural	61	57.5
Physical	20	18.9
<b>Menarche Age</b>		
11-13 years	72	67.9
14-16 years	34	32.1
<b>Feeling about first menstruation (multiple response)</b>		
Surprised	71	67.0
Afraid	47	44.3
Got nervous	39	36.8
Normal	58	54.7
<b>Concept about menstrual hygiene</b>		
Taking rest	16	15.1
Taking supplementary food	20	18.9
Use sanitary pad	70	66.0
<b>Sources of information about menstruation before menarche (multiple response)</b>		
Mother	72	67.9
Sister	101	95.3
Friend	98	92.5
Teacher	66	62.3
<b>Usual menstrual cycle</b>		
Regular	84	79.2
Irregular	22	20.8
<b>Experience of inter menstrual interval</b>		
<25 days	22	20.8
25-28 days	53	50.0
28-35 days	19	17.9
>35 days	12	11.3
<b>Duration of menstrual cycle during each period</b>		
<2 days	14	13.2
2-3 days	28	26.4
3-5 days	43	40.6
>5 days	21	19.8

**Practice about menstrual hygiene**

Table 3 showed that about 64.2% of the respondent's mentioned that the material used during menstruation was

sanitary pad, followed by new cloth (29.2%) and the rest used old washed cloth (6.6%). More than half (55.7%) of them stated that they changed the material once a day and 27.4% of them mentioned they changed the material twice a day. About 55.7% of the respondents mentioned that adequate absorption was their perception regarding sanitary pad and 46.2% of them mentioned that comfortability was their perception regarding use of sanitary cloth.

**Table 3: Practice about menstrual hygiene (n=106).**

Items	Frequency	Percentage
<b>Material use during menstruation</b>		
Sanitary pad	68	64.2
Old cloth	7	6.6
New cloth	31	29.2
<b>Frequency of changing material used</b>		
Once a day	59	55.7
Twice a day	29	27.4
More than three times	18	16.9
<b>Perception regarding sanitary pad</b>		
Comfortable	26	24.5
Adequate absorption	59	55.7
Do not stain clothes	21	19.8
<b>Perception regarding sanitary cloth</b>		
Comfortable	49	46.2
Adequate absorption	35	33.0
Do not stain clothes	22	20.8
<b>Reason for not using sanitary pad</b>		
Cost	33	31.1
Difficulty in disposal	36	34.0
Lack of knowledge	11	10.4
Other reason	15	24.5
<b>Mode of disposal of absorbents</b>		
Burn	17	16.0
Bury	8	7.5
Dustbin	81	76.5
<b>Material used for Genital Cleaning</b>		
Water only	11	10.4
Water and soap	73	68.9
Water and anti-septic	22	20.7
<b>Excess bleeding during menstruation</b>		
Yes	29	27.4
No	77	72.6
<b>Excess pain during menstruation</b>		
Yes	38	35.8
No	68	64.2
<b>Feel weak and unable to take food during menstruation</b>		
Yes	31	29.2
No	75	70.8

Most of the respondents (34.4%) mentioned that difficulty in disposal was their reason for not using sanitary pad, followed by cost as mentioned by 31.1%, other reason as mentioned by 24.5% and the rest

mentioned lack of knowledge (10.4%). About 76.5% of the respondents mentioned that their mode of disposal of absorbents was dustbin and most of them (68.9%) used water and soap to clean their genital area after menstruation. Less than three-tenths (27.4%) of the respondents had excess bleeding during menstruation and only 35.8% of them had excess pain during menstruation. About 29.2% of the study participants mentioned they feel weak and unable to take food during menstruation.

#### **Level of knowledge and practice on menstrual hygiene**

Table 4 showed that about 57.5% of the respondents had moderate level of knowledge regarding the menstrual hygiene, 22.6% of them had good level of knowledge and 19.9% of them had poor level of knowledge on menstrual hygiene. On the other hand about 53.4% of the study participants had moderate level of practice on menstrual hygiene, 28.7% of them had good level of practice and the rest had poor level of practice regarding the menstrual hygiene (17.9%).

**Table 4: Level of knowledge and practice on menstrual hygiene.**

Score	Level of knowledge on menstrual hygiene	Level of practice on menstrual hygiene
Good	24 (22.6)	41 (38.7)
Moderate	61 (57.5)	46 (43.4)
Poor	21 (19.9)	19 (17.9)
<b>Total</b>	<b>106 (100.0)</b>	<b>106 (100.0)</b>

#### **DISCUSSION**

In this study little above half (51.9%) of the respondents mentioned that menstruation is the uterine bleeding. 28.3% of them mentioned that is the bleeding from stomach and 19.8% stated that menstruation is the white discharge. Regarding the causes of menstruation about 57.5% of the respondents mentioned that it occurs naturally, 23.6% mentioned that it is hormonal and 18.9% of them mentioned that it's physical. A study reported that 1 out of every 3 girls in South Asia knew nothing about menstruation before attaining menarche and another study from India reported that 10% of the girls believed that menstruation is a disease.<sup>5</sup>

The majority (67.0%) of the respondents were surprised during their first menstruation, 54.7% of them mentioned that its normal for them and 44.3% were afraid during first menstruation. A study presented that menstruation is a normal process; but in most parts of the world, it remains a taboo and is rarely talked about.<sup>6</sup>

Most of the respondents source of information about menstruation before menarche was sister (95.3%), followed by friend (92.5%), mother (67.9%) and the rest mentioned the teacher (62.3%). This findings is

consistent to that of similar study conducted in neighboring country India.<sup>7</sup>

About 64.2% of the respondent's mentioned that the material used during menstruation was sanitary pad, followed by new cloth (29.2%) and the rest used old washed cloth (6.6%). A similar study reported the following practices during menstruation - 11.25% of the girls used sanitary pads during menstruation, 42.5% of them used old cloth pieces and 6.25% of the girls used new cloth pieces.<sup>8</sup>

About 57.5% of the respondents had moderate level of knowledge regarding the menstrual hygiene, 22.6% of them had good level of knowledge and 19.9% of them had poor level of knowledge on menstrual hygiene. This is similar to the findings of another study conducted in northern part of Nigeria.<sup>9</sup>

On the other hand about 53.4% of the study participants had moderate level of practice on menstrual hygiene, 28.7% of them had good level of practice and the rest had poor level of practice regarding the menstrual hygiene (17.9%). This finding is lower than that of similar study conducted in Ethiopia were they found 90.9% had good practice regarding the menstrual hygiene.<sup>10</sup>

#### **CONCLUSION**

The study was concluded that more than half of the respondents had moderate level of knowledge and practice regarding the menstrual hygiene. Most of the (67.0%) of the respondents were surprised during their first menstruation and close to eight-tenths (79.2%) mentioned they had a regular usual menstrual cycle. About 64.2% of the respondents stated that the material used during menstruation was sanitary pad and more than half (55.7%) of them changed the material once a day. There is need for more awareness regarding the information on good menstrual hygiene practices. Schools and colleges should add more effort in provision or creating awareness about the important of good menstrual hygiene among the students and the community as a whole.

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