

Original Research Article

Assessment of knowledge regarding menstruation and practices related to maintenance of menstrual hygiene among the women of reproductive age group in a slum of Kolkata, West Bengal, India

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ABSTRACT

Background: Menstruation is a normal biological process and a key sign of reproductive health. Unfortunately, the taboo surrounding menstruation prevents women from articulating their needs. There is lack of awareness on the process of menstruation and hygienic management of the same. So, the problem of poor menstrual hygiene still persists in society. Objectives: 1) To elicit the knowledge regarding menstruation among the women of reproductive age group 2) To find out the practice of menstrual hygiene among them.

Methods: A community based, observational, cross-sectional study was conducted at Baghbazar slum, Kolkata. A total of 160 menstruating women of the age group between 15-45 years were included. The data were analysed using IBM SPSS version 20.

Results: Only 32 women (20%) had idea before menarche regarding menstruation. 65% women used only sanitary pad and 30% used only cloth pieces where as 5% used both pad and cloth piece. Prevalence of sanitary pad use was significantly higher among those aged <25 years ($p < 0.05$). With increasing literacy status as well as socio economic status, use of sanitary pad was also found to be increased and this difference was statistically significant ($p < 0.05$). About 42% of the cloth piece users reused cloth piece. All those, who reused cloth pieces, washed the used cloth pieces with soap and water and 50% of them dried those under sunlight. All the women practised some kind of restriction during menstruation. About 4% individuals did not take regular bath during their bleeding period. Some women (37.5%) suffered from reproductive tract infection during or just after menstruation. Most of the study subjects (95.6%) disposed used napkins in municipal vat.

Conclusions: Awareness should be increased regarding maintenance of good menstrual hygiene through health education programme.

Keywords: Hygiene, Practice, Reproductive age group, Sanitary pad, Slum

INTRODUCTION

Menstruation is a phenomenon unique to the females. Menstruation, the periodic vaginal bleeding that occurs with the shedding of the uterine mucosa, is one of the important signs of puberty and occurs one or two years following appearance of secondary sexual

characteristics.¹ The first menstruation (menarche) occurs between 11 and 15 years with a mean age of 13 years.² Once established, every mature female menstruates on the average 3-5 days (minimum 2 days, maximum 7 days) each month until menopause. Menstrual hygiene deals with the special health care needs and requirements of women during menstrual cycle.³ Menstrual hygiene

and management will directly contribute to the Millennium Development Goal (MDG-2) on Universal Education and MDG-3 on Gender Equality and Women Empowerment.⁴

Menstruation is still regarded as something unclean or dirty in Indian society. Isolation of the menstruating girls/women and restrictions being imposed on them in the family, have reinforced a negative attitude towards this phenomenon.⁵ Menstrual practices are clouded by taboos and socio-cultural restrictions even today, resulting ignorance of the scientific facts and hygienic health practices, necessary for maintaining positive reproductive health.⁶ During menstruation period, shedding of the blood leaves the genital tract moist and lowered acidity of the vagina making it vulnerable for infections by bacteria and other organisms in reproductive tract. This in turn may lead to discomfort, pain, foul smelling discharge and sense of embarrassment among them. In developing countries like India and other third world countries it is reported that many of the menstruating women/girls do not follow healthy measures for maintaining the menstrual hygiene. Women belonging to lower socio-economic strata, who cannot afford to buy sanitary napkins, use a cotton cloth which is usually a torn piece of cloth from their old sarees or other dresses and use them throughout their periods with infrequent changing. Sometimes scarcity of water adds up to them depriving them of washing the cloth. Such unhealthy menstrual practice is associated with many complications of recurrent reproductive tract infections like premature births, stillbirths, miscarriages, infertility problems, carcinoma of cervix, etc.⁷

Technology offers sanitary pads, tampons etc. to the women to decide what suits her best. Very few mothers are ready to share the information regarding menstruation which is of paramount significance of their daughters. A key priority for women and girls is to have the necessary knowledge, facilities and the cultural environment to manage menstruation hygienically and with dignity.⁸

So, it becomes an important area of study to assess the knowledge and the menstrual hygiene practices that the women follow and rectify them by educating them so that the habit of healthy practices would be continued in the future and would prevent the complications as mentioned above. In this background, the present study was conducted among the menstruating women living at Baghbazar slum, Kolkata which is the urban field practice area of R.G. Kar Medical College, Kolkata. Objectives of present study is to elicit the knowledge regarding menstruation among the women of reproductive age group and to find out the practice related to maintenance of menstrual hygiene among them.

METHODS

A community based, observational, cross-sectional study was conducted at Baghbazar slum, Kolkata which is the

field practice area of R.G. Kar Medical College, Kolkata from 6th March, 2013 to 5th April, 2013. At the time of conduction of this study, there were 429 women in the reproductive age group i.e. 15-45 years age group in the slum. Prevalence of sanitary pad use among women of reproductive age group was 21% in a study conducted by Bathija et al.⁷ With 95% confidence limit and 5% absolute error, the sample size was 255 by using the formula Z^2PQ/L^2 (where $Z=1.96$, $P=0.21$, $Q=(1-P)=0.79$, $L=0.05$). By considering finite population correction formula $n_0 N / \{n_0 + (N-1)\}$ the sample size was derived as 160 ($n_0=255$, $N=429$). Simple random sampling method was used to select the study subjects. All the girls who had not attained menarche and all the women those had attained menopause were excluded. A predesigned and pretested schedule was applied for data collection. After pretesting, necessary modifications were made in the schedule. The data were collected by house to house visit of the study subjects. Each study subject was briefed about the purpose of the study. The participants were assured of confidentiality and a verbal consent was sought from each of them before initiating the interview. During the interview, efforts were made for building a rapport with the study subjects. This was followed by collection of data by interviewing study subjects regarding different socio demographic variables, awareness about menstruation, source of information regarding menstruation, practices followed related to maintenance of menstrual hygiene, etc. At the end of the data collection all queries of the study subjects were answered satisfactorily by the research worker.

Data analysis

The data were analysed using IBM SPSS (version 20). The results were expressed mostly in frequencies, percentages and means. Associations between some variables were tested using Chi square statistical tests.

RESULTS

Most of the individuals were in 15-24 years age group (50.0%). The mean age was 26.2 ± 6.4 years. Majority of the women were homemaker (76.9%) and were married (84.4%). Illiterate women were 13.8%. Only 6.2% women belonged to class I socio-economic status (modified B.G. Prasad socio-economic scale, 2013) (Table 1).

Only 32 (20%) women had idea before menarche regarding menstruation.

The source of information on menstruation was mother in most of the cases (53.1%) (Table 2). About 97% women opined that sanitary pad is the ideal absorbent to be used during menstruation. Most of the study subjects told that menstruation occurred to clear impure blood from body (55.6%) (Table 3). A total of 51 (31.9%) women believed that heavy menstrual bleeding is good for health.

Table 1: Socio-demographic characteristics of study subjects (N=160).

Variables	Frequency (%)
Age groups (in years)	
15-24	80(50.0)
25-34	61(38.1)
≥35	19(11.9)
Religion	
Hindu	160(100.0)
Occupation	
Homemaker	123(76.9)
Student	19(11.9)
Maid Servant	9(5.6)
Others	9(5.6)
Education	
Illiterate	22(13.8)
Primary	41(25.6)
Middle school	41(25.6)
Secondary	38(23.8)
Higher Secondary	13(8.1)
Graduate and above	5(3.1)
Marital status	
Married	135(84.4)
Unmarried	25(15.6)
Socio economic status (modified B. G. Prasad scale)	
Class I	10(6.2)
Class II	19(11.9)
Class III	32(20.0)
Class IV	68(42.5)
Class V	31(19.4)
Type of Family	
Nuclear	45(28.1)
Joint	115(71.9)

Most of the women (65%) used only sanitary pad and 30% used only cloth pieces (Figure 1). Out of total study subjects, 8 women used both sanitary pad and cloth piece during menstruation. Over all prevalence of sanitary pad use was higher (75.0%) among those aged <25 years than those aged ≥35 years (33.3%). This difference was statistically significant (p=0.003) (Table 4).

With increasing literacy status prevalence of sanitary pad use was found to be increased (36.4% among illiterate vs 88.9% among those educated higher secondary and above) and this difference was statistically significant (p=0.001). With increasing socio economic status prevalence of sanitary pad use was also found to be increased (36.7% among class V vs 85.7% among those belonged to class I and II) and this difference was also statistically significant (p=0.000) (Table 4). Most of the study subjects did not use sanitary pad because of high cost (62.5%) (Figure 2). About 42% of the cloth piece users reused cloth piece. All who reused cloth pieces washed those with soap and water and 50% of them dried

those under sunlight. Mean amount of money spent per month by sanitary pad users was Rs.27.90±8.82.

All of the women were barred from participating in any religious event during menstruation whereas, 18.4% avoided sour food and 10.4% compelled to sleep on floor during menstruation.

Table 2: Distribution of study subjects according to source of information on menstruation before menarche (n=32).

Source of information	Frequency (%)
Mother	17(53.1)
Sister	5(15.6)
Relative	3(9.4)
Friend	5(15.6)
Television/Magazine	2(6.3)
Total	32(100.0)

Most of the study participants (98.8%) told that available water was sufficient as per requirement during menstruation.

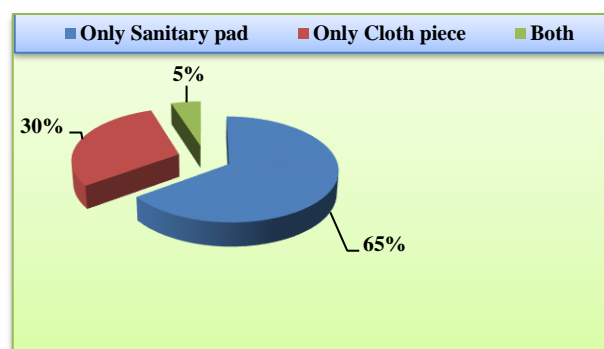


Figure 1: Distribution of study subjects according to type of napkins used by them (N=160).

About 74% women said that they had adequate bathroom facility and privacy especially during menstruation.

Table 3: Distribution of study participants according to idea about causes of menstruation (N=160).

Causes of menstruation	Frequency (%)
Physiological	16(10.0)
To clear out impure blood	89(55.6)
To maintain reproduction	19(11.9)
To maintain good health	26(16.2)
To maintain good vision	3(1.9)
No idea	7(4.4)
Total	160(100.0)

Table 4: Relation of some socio-demographic variables with type of napkins used (n=152).

Variables	Type of Napkins		Total	
	Only Sanitary Pad	Only Cloth Piece		
Age groups (in years)	Frequency (%)	Frequency (%)	Frequency (%)	
15-24	57(75.0)	19(25.0)	76 (100.0)	$\chi^2= 11.92, df =2, p=0.003$
25-34	41(70.7)	17(29.3)	58 (100.0)	
35 and above	6(33.3)	12(66.7)	18 (100.0)	
Education level				
Illiterate	8(36.4)	14(63.6)	22(100.0)	$\chi^2= 18.94, df =4, p=0.001$
Primary	24(63.2)	14(36.8)	38(100.0)	
Middle	27(67.5)	13(32.5)	40(100.0)	
Secondary	29(85.3)	5(14.7)	34(100.0)	
Higher secondary and above	16(88.9)	2(11.1)	18(100.0)	
Socio economic status(modified B. G. Prasad scale)				
Class I & II	24(85.7)	4(14.3)	28(100.0)	$\chi^2= 19.17, df =3, p=0.000$
Class III	23(76.7)	7(23.3)	30(100.0)	
Class IV	46(71.9)	18(28.1)	64(100.0)	
Class V	11(36.7)	19(63.3)	30(100.0)	

Only 4% individuals did not take regular bath during menstruation. More than half of the women (53.4 %) told that they changed napkins ≥ 3 times per day in first 4 days of menstruation and 87.1% women changed napkins only once/day during scanty bleeding period.

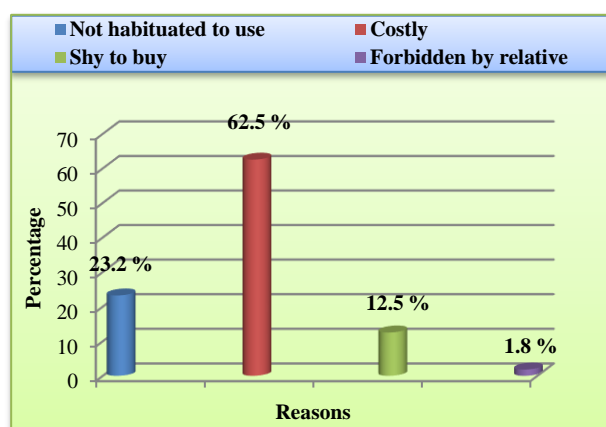


Figure 2: Reasons for not using sanitary pad only (n=56).

Some women (37.5%) suffered from reproductive tract infection (RTI) during or just after menstruation. Out of those 60 women suffering from reproductive tract infection, most of them complained of only itching (48.3%), whereas, 18.3% complained of itching and rash and 16.7% complained foul smelling discharge per vagina.

Prevalence of reproductive tract infection was 43.8% among the cloth piece users and 34.6% among the

sanitary pad users but this difference was not statistically significant ($p=0.28$). Reproductive tract infection was also found more among those who washed their external genitalia < 4 times/day (78.3%) than those who washed ≥ 4 times/day (21.7%) and this difference was found statistically significant ($p=0.000$).

Prevalence of RTI was significantly less ($p=0.000$) among those who used soap and water (18.8%) during washing than those who used only water (81.2%). Most of the women (95.6%) disposed used napkins in municipal vat.

DISCUSSION

In the present study, it was observed that most of the individuals were in 15-24 years age group and were homemakers. Only 20% women had idea before menarche regarding menstruation. The source of information regarding menstruation was mother in most of the cases. This finding is comparable with the findings of the studies conducted by Dasgupta et al, Jaiswal et al and Gupta et al.^{2,6,9} Most of the participants opined that menstruation occurred to clear impure blood from body (55.6%). Though 97% women opined that sanitary pad is the ideal absorbent to be used during menstruation, only 65% women used sanitary pad and 30% used cloth pieces.

Gupta et al also found that during menstruation 67.7% used sanitary pads while rest used cloths.⁹ About 42% of the cloth piece users reused cloth piece. Sanitary pad use was significantly more prevalent in younger age group ($p<0.05$). Individuals belonged to lower socioeconomic

status mostly used cloth piece as the poor individuals could not afford sanitary pad. With increasing literacy status and socioeconomic status, prevalence of sanitary pad use was also found to be increased. In this study, literacy status and socio-economic status had significant influence on use of sanitary pad during menstruation ($p < 0.05$). Similar type of findings was observed in a study conducted by Balamurugan et al.¹⁰ Prevalence of reproductive tract infection was more among the cloth piece users (43.8%) than sanitary pad users (34.6%).

Bathija et al also found that Prevalence of Reproductive Tract Infection and Urinary Tract Infection was more among cloth users.⁷ Prevalence of RTI was also found significantly higher among those who washed their external genitalia less frequently and used only water for washing than those who used soap and water ($p < 0.05$). Out of those having reproductive tract infection, most of the individuals complained of itching only (48.3%). Whereas, some complained of itching and rash, foul smelling white discharge per vagina. According to most of the study subjects availability of bathroom facility and water supply were adequate during menstruation. Most of the women disposed the used pad and cloth piece in municipal vat. All the women were barred from participating in any religious event during menstruation whereas 18.4% avoided sour food.

CONCLUSION

Reproductive tract infection, which has become a silent epidemic that devastates women's life, is closely interrelated with poor menstrual hygiene. Correct knowledge and proper menstrual hygienic practices can protect the women from this suffering. Unhygienic practices and social taboos followed during menstruation are issues need to be addressed at all levels.

Sustained public health awareness programme should be promoted regarding physiological basis of menstruation and adoption of proper hygienic practices with selection of disposable sanitary pads. Formal as well as informal channels of communication such as mothers, sisters and friends need to be emphasized for the delivery of such information. All mothers should be taught to break their inhibitions about discussing with their daughters regarding menstruation much before the age of menarche. Sanitary pad should be provided to the all women especially to the poor at subsidised rate at health facilities and the women to be encouraged to use it. Social marketing system may be utilised for promotion of menstrual hygiene and sanitary pad use.

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REFERENCES

1. Sapkota D, Sharma D, Budhathoki SS, Khanal VK, Pokharel HP. Knowledge and practices regarding menstruation among school going adolescents of rural Nepal. *J Kathmandu Medical College*. 2013;2(5):122-8.
2. Dasgupta A, Sarkar M. Menstrual hygiene: How hygienic is the adolescent girl? *Indian J Comm Med*. 2008;33:77-80.
3. Lawan UM, Yusuf NW, Musa AB. Menstruation and Menstrual Hygiene amongst Adolescent School Girls in Kano, Northwestern Nigeria. *Afr J Reprod Health*. 2010;14(3):201-7.
4. Thakre BS, Thakre SS, Reddy M, Rathi N, Pathak K, Ughade S. Menstrual hygiene: knowledge and practice among adolescent school girls of saoner, Nagpur district. *Journal of Clinical and Diagnostic Research*. 2011; 5:1027-33.
5. Patavegar BN, Kapilashrami MC, Rasheed N, Pathak R. Menstrual hygiene among adolescent school girls: an in-depth cross-sectional study in an urban community. *Int J Health Sci Res*. 2014;4(11):15-21.
6. Jaiswal AA, Balki S. A study on awareness regarding menstrual hygienic-practices amongst school going adolescent girls in rural area. *J Res Obs, Gynae Infer*. 2015;1(1):1-4.
7. Bathija GV, Bant D, Itagimath SR. Study on usage of woman hygiene kit among menstruating age group in field practice area of KIMS, Hubli. *IJBR*. 2013;04(02):94-8
8. Salve SB, Dase RK, Mahajan SM, Adchitre SA. Assessment of knowledge and practices about menstrual hygiene amongst rural and urban adolescent girls -a comparative Study. *Inter J Recent Trends Sci Techn*. 2012;3(3):65-70.
9. Gupta M, Tiwari S, Wavare RR. Awareness and Practices Regarding Menstrual Hygiene among Women of Reproductive Age Group Attending a Tertiary Care Hospital of Indore, India. *Ntl J of Community Med*. 2015;6(2):141-4.
10. Balamurugan SS, Shilpa SS, Shaji S. A community based study on menstrual hygiene among reproductive age group women in a rural area, Tamil Nadu. *J Basic Clin Reprod Sci*. 2014;3:83-7.

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