

Knowledge, Attitude and Practice of Menstrual Hygiene among Women Slum Dwellers of Taimoor Nagar in South Delhi: A Cross Sectional Study

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Abstract

Background: Menstrual health and menstrual hygiene management of women in reproductive age group is a topic of immense importance. Approximately half of the female population in the world is of reproductive age and are likely to menstruate each month, yet menstruation has often been ignored in research and in policy (House Sarah, 2012).

Objective: To study the Knowledge, Attitude and Practice of Menstrual Hygiene of women aged 18-49 years among reproductive age group in urban slum in Delhi.

Method: A community based cross sectional study was conducted in Taimoor Nagar slum in South-east Delhi. 253 women chosen by purposive sampling were interviewed using a pre-existing, structured interviewer administered questionnaire. Questions covered different socio demographic features, knowledge and attitude about menstruation and practices related to menstrual hygiene along with common menstrual symptoms. Menstrual Hygiene Knowledge and Practice scores were devised out of knowledge and practice specific questions to assess the existing overall status among respondents.

Results: Almost 2/3 rd respondents knew about menstruation before menarche, mainly from mothers. Less than 40 percent knew of RTIs related to poor hygiene. Less than 1/3rd women felt that menstruation was dirty and restriction from prayers was commonest during periods. Almost 79 percent women used sanitary pads and 44percent used cloth during menstruation; a majority bathed and cleaned external genitalia regularly during periods. Pain in back and abdomen were common menstrual symptoms experienced by the women. 60.1 percent women had a good Menstrual Hygiene Knowledge Score and 44.3 percent had a good Menstrual Hygiene Practice Score.

Conclusion: Menstrual hygiene Management among women is an issue of public health importance .Women need better awareness and education on menstruation and risk of related RTIs, adequate water, sanitation and access to sanitary pads, freedom from social taboos and confidence to maintain good reproductive health. In India, Menstrual hygiene management needs consistent multisectoral attention for an improved status and healthier and empowered women.

1. Introduction

Menstruation (also called the monthly period) in women is the cyclic physiological shedding of the uterine lining in response to the actions of the hormones produced by the hypothalamus, pituitary, and ovaries(Reed and Carr, 2000).

For demographic purposes, reproductive age is usually defined as 15 to 49 years of age. (Thakur et al.,2014). Menstrual health and menstrual hygiene management of women in reproductive age group is a topic of immense importance. Approximately 52 percent of the female population (26 percent of total population) in

the world is of reproductive age and are likely to menstruate each month, yet menstruation has often been overlooked in research and in policy (House Sarah, 2012).

Women and girls in different countries have developed their own strategies for menstrual hygiene management (MHM) depending on individual's personal preferences, available resources, economic status, local traditions and knowledge or education.

At least 500 million women and girls worldwide lack adequate facilities for Menstrual Hygiene Management (MHM). Inadequate WASH (water, sanitation and hygiene) facilities, particularly in public places, such as in schools, workplaces or health centers, can pose a major obstacle to women and girls. Numerous studies, particularly from low-income countries, show that a high number of girls start menstruating without having any idea about it (Fehintola et al., 2017). Poor MHM can increase a woman's chances to suffer from reproductive tract infections (RTI) (Das et al., 2015).

According to recent research, the lack of menstrual hygiene in many countries in Africa and Asia is perceived as an urgent problem and several grass roots initiatives are trying to find solutions (Ten, 2007).

According to the National Family Health Survey (NFHS) 4 (2015 -16) in India, only 57.6 percent of women (Urban 77.5, Rural 48.2) in the age group of 15 to 24 years use hygienic methods of protection during their menstrual period. Sanitary napkins, tampons and locally prepared napkins are considered as hygienic methods of protection.

Menstrual hygiene management is affected by contextual factors like access to places where women can manage menstruation-related washing in privacy and comfort. These factors are dependent on having access to water, hygiene and sanitation facilities at their household and at public places as well as the economic power of the women to prioritise their own needs (Das et al., 2015). This paradox is well illustrated in women living in urban slums in metropolitan cities in developing countries like India.

Government of India has incorporated MHM into different national programs for improving health status of adolescent girls and women as well as for reducing school absenteeism of adolescent girls. The Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) - Sabla, Kishori Shakti Yojana, Adolescent Reproductive and Sexual Health (ARSH) and Menstrual Hygiene Programme are some programmes in that direction.

Our study aims to study knowledge, beliefs and practice of menstrual hygiene among women of an urban slum in South-east Delhi as these women maybe maintaining paradoxical levels of menstrual hygiene resulting from lack of awareness, overcrowding, sanitation and several other issues. The study will help us to understand the existing condition and highlight the importance of good menstrual practices, proper health education and counseling regarding menstruation in the woman's early years and support in her later years.

Objectives of the Study

1. To study the knowledge level regarding menstrual hygiene of women aged 18-49 years among reproductive age group living in urban slums of Delhi.
2. To study the attitude and myths and misconceptions regarding menstrual hygiene among these women.
3. To study the practices regarding menstrual hygiene followed by these women.

2. Methodology

A community based, observational, cross-sectional study was carried out among women aged 18-49 years among the reproductive age group women, residing in Taimoor Nagar slum area located adjacent to New Friends Colony in South Delhi.. The study was conducted in the period from December 2018 to March 2019.

Prevalence of 81.7 percent of good practices of menstrual hygiene was found in a study conducted by Kumar et al. (Kumar et al, 2017). Assuming the expected proportion to be 81.7 percent ,taking an absolute precision of 5 percent, desired confidence level of 95 percent and adjusting for 10 percent non- response rate the final sample size was $n= 253$.

Purposive sampling method based on convenience was followed. A pre existing open source structured questionnaire used in a study carried out by National Institute of Public Cooperation and Child Development (NIPCCD) was adapted according to our objective and study setting (Paul et al., 2016) .The researcher asked questions from the questionnaire by personal interviews of the participants. Questions covered different socio demographic characteristics, knowledge and attitude about menstruation, source of information, practices followed related to maintenance of menstrual hygiene and common menstrual symptoms.

Data analysis --The data were analysed using MS Excel 2007 and IBM SPSS (version 20). The results were expressed mostly in frequencies, percentages and proportions.

Ethical considerations

Ethical approval for the study was taken from Institutional Ethics Committee of Indian Institute of Public Health, Delhi (ECR/124/Inst/HR/2014).

3. Results:

Keeping in mind the research objectives of the present study data was collected from $n=253$ women aged 18-49 years among the reproductive age group women, residing in Taimoor Nagar slum area located adjacent to New Friends Colony in South Delhi. The key results from the study are:

Socio demographic Characteristics of Respondents

A total of $n = 253$ women aged 18-49 years participated in the study. 40 percent of the women belonged to the age group 18-25 years. 19.8 percent women were illiterate and the rest had varying levels of literacy almost evenly distributed in the categories. 64percent of the mothers of the participants were illiterate. 71.3 percent of the women were married and 53 percent of the total numbers were housewives. A little over 50 percent used private toilets and 5.5percent used public toilets. The municipal supply was the major source of water followed by the borewell.

Knowledge of Menstrual hygiene among Respondents

About 83.4 percent of the girls believed that menstruation is a natural phenomenon; 89.3percent felt that it was a normal physiological process occurring in females, only 2.8percent felt it was a pathological event. Almost $2/3^{\text{rd}}$ of the respondents had menarche at 12-14 years of age and 67percent knew about menstruation before menarche. Their source of knowledge was chiefly from their mothers (62.4 percent) and from friends and school teachers.

Despite fair amount of awareness a mere 47 percent of the women correctly identified uterus as source of the menstrual blood. More than $2/3^{\text{rd}}$ of the women felt that sanitary pads were the ideal absorbents for menstrual blood but almost 83.5 percent of them said that they found pads expensive to use. A favorable 86.2 percent of women felt that daily bathing during menstruation was necessary.63.2 percent women had not heard of the reproductive tract infections and sexually transmitted infections which may also occur due to poor menstrual hygiene; however 89.3 percent had observed or heard advertisements on TV.

Attitudes, myths and misconceptions for menstrual hygiene among Respondents

The reported attitude and beliefs of women towards menstrual hygiene was a mixed lot. 55.7 percent women felt that getting the periods changed or disturbed their life in some way or the other largely in their equation with other family members. 18.6 percent were not allowed to meet visitors, 9.9 percent were restricted in house hold activities, 12.6 percent were not allowed to wear dress of choice, 26.1 percent were not allowed in kitchen and a mere 1.2 percent missed college or school/work during their periods. The most common restriction reported by the women (61.7 percent) was not being allowed in the Pooja home or at the prayers..

Less than 1/3rd women felt that menstruation was dirty and 26.9 percent women felt that menstruation made them impure/polluted. 2/3rd women did not think that talking about menstrual health was embarrassing and more than half of them had no reaction seeing sanitary pad advertisements on TV. Television (TV) was the major source of information/media available at the homes of these women.

Table 1: Attitude, myths and misconceptions of menstrual hygiene among Respondents (n=253)

	Number (%)
Change/Disturbing of life by getting periods	
Yes	141 (55.7%)
No	112 (44.3%)
Changes if any	
Mother got more strict	29 (20.6%)
Hiding menstrual period from male family members	91 (64.5%)
Father does not talk	15 (10.6%)
Any other	6 (4.3%)
Restrictions followed during periods	
Not allowed to meet visitors	29 (11.4%)
Restricted in house hold activities	25 (9.9%)
Not allowed to wear dress of choice	32 (12.6%)
Not allowed in kitchen	66 (26.1%)
Not allowed in Pooja Home	198 (78.3%)
Not eat sour foods	73 (28.9%)
Missing school / college / work	3 (1.2%)
Any other	4 (1.6%)
Thinking menstruation as dirty	
Yes	83 (32.8%)
No	170 (67.2%)
Feeling of menstruation as impure / Polluted	
Yes	68 (26.9%)
No	185 (73.1%)
Thought of embarrassment of talking about menstrual health	
Yes	84 (33.2%)
No	169 (66.8%)

Practice of menstrual hygiene among respondents

Almost 93 percent women got their menstruation every month. During their periods, 52.2 percent women used sanitary pad only, 17.4 percent used only cloth, 26.9 percent used both cloth and sanitary pad, 2 percent used cotton and 1.5 percent used other absorbents like menstrual cup, tampons etc. 62.5 percent of women who used pads changed their pads 2-3 times a day. 96.4 percent threw the used menstrual absorbent in the regular dustbin. Among the cloth users, 54.5 percent women threw the used cloth, 8 percent washed and reused the cloth and around 35 percent sometimes threw or washed and reused it .63.3 percent of the 49 women who washed the cloth washed it outside their home and 28.6 percent women washed the cloth at home in a clean place .

Table 2 : Practice of Menstrual Hygiene of Respondents (n=253)

	Number (%)
Absorbent used during periods	
Sanitary pad only	132 (52.2%)
Cotton	5 (2.0%)
Cloth only	44 (17.4%)
Both (Sanitary pad + cloth)	68 (26.9%)
Any other	4 (1.5%)
Frequency of changing pad during periods	
2-3 times a day	125 (62.5%)
Once a day	60 (30.0%)
2-3 times during period	11 (5.5%)
Once during whole period	1 (0.5%)
Any other	3 (1.5%)
Disposal of sanitary pad, cloth or cotton	
In the regular dustbin	244 (96.4%)
Burn it	1 (0.4%)
Flush it in toilet	2 (0.8%)
Bury it	3 (1.2%)
Any other	3 (1.2%)
Reuse of cloth if any	
Throw it	61 (54.5%)
Wash and reuse it	9 (8.0%)
Any other	2 (1.8%)
Throw it+ Wash and reuse it	40 (35.7%)
Frequency of bath during periods	
Daily	219 (86.6%)
Weekly	5 (2.0%)
Sometimes	27 (10.7%)
After completion of period	2 (0.8%)
Cleaning of external genitalia during periods	

Yes	235 (92.9%)
No	18 (7.1%)
Hand washing after visiting toilet during periods	
Yes	245 (96.8%)
No	8 (3.2%)

The bathroom (30.6percent), place inside the house (40.8 percent) and outside in sunlight (28.6 percent) were mostly used places to dry the washed cloth.75.5 percent of women stored the dried cloth in a clean dry place at their homes.

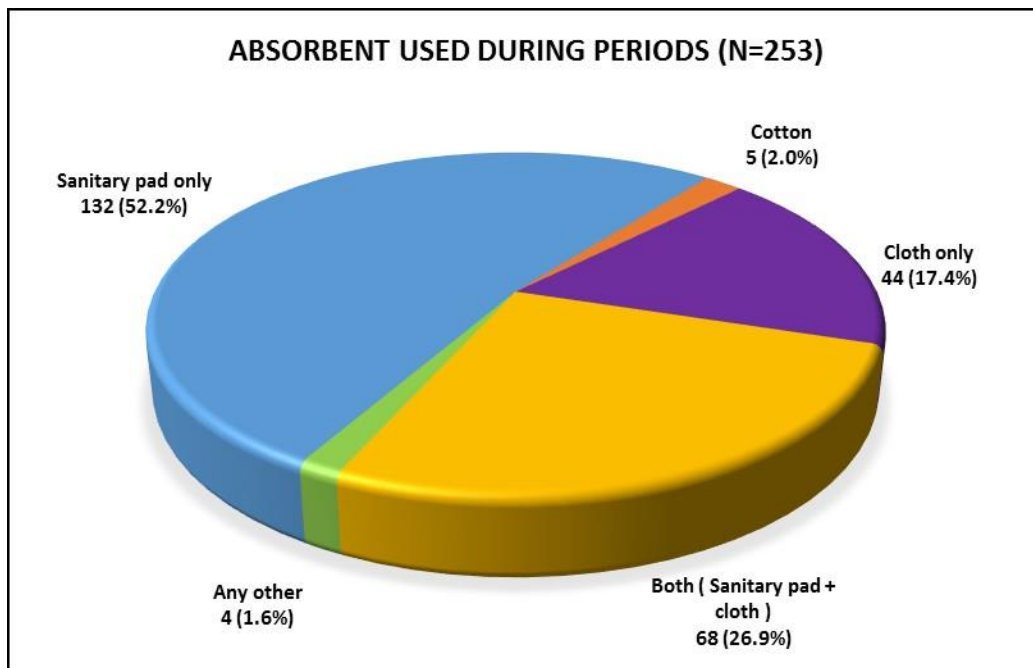


Figure 1: Types of absorbents used by Respondents during periods (n=253)

86.6 percent of the women took a bath daily and 10.7 percent bathed sometimes during their periods. Almost 93 percent women cleaned their external genitalia during periods and 73.9 percent used soap and water for doing so. 96.8 percent women washed their hands after visiting toilet during periods and almost 90 percent used soap and water to wash their hands.

Pain in back was the commonest symptom experienced during periods reported by 58.1 percent women followed by feeling of fatigue reported by 40.3 percent women. Among the 253 women participants, the Menstrual Hygiene Knowledge Score was found to be Good in 152 (60.1 percent) women, Intermediate in 49 (19.4percent) women and Poor in 52 (20.6 percent) women. Regarding hygiene practices during menstruation, Menstrual Hygiene Practice Score was found to be Good in 112 (44.3 percent) women, Intermediate in 124 (49.0 percent) women and Poor in 17(6.7 percent) women.

Discussion

The study helped us in our efforts to understand the status of menstrual hygiene in the minds of women of heterogeneous backgrounds of religion, education levels, and places of origin, marital status, employment and socio economic independence. The setting of an urban slum was useful as it provided an intersection of

perspectives of the women from low to average socio economic backgrounds yet very sure of their wants and needs in general.

Most of the women participating in our study were in the age group 18-25 years (40 percent) and one-fifth of them were illiterate, the rest having varying literacy levels. Findings were similar to a study by Santra where half of the study subjects were in age group 15-24 years and only few women were illiterate(Santra,2017). Almost three –fourth of the women were married and around half of them were housewives.

Some cross sectional studies carried out in India have reported that a mere one-third of girls had awareness about menstruation before menarche and mother was their main source of information(Kitesa et al., 2016).

Almost two-third of the respondents in the present study had menarche at 12-14 years of age and almost the same number reported that they knew about menstruation before menarche. Their source of knowledge was chiefly from their mothers (in almost two-thirds) followed by friends and school teachers. In a similar study by Santra, mother was the source of information on menstruation in half of the cases (Santra, 2017).

The reported attitude and beliefs of women towards menstrual hygiene was a mixed lot as noted in our study. A little over half the women felt that getting the periods changed or disturbed their life in some way or the other and some of them felt they had to hide about menstruation from male family members.

More than half of the women did not attend prayers and stayed away from the Pooja home and almost a fourth of the women did not eat sour foods and were not allowed in kitchen. Living in nuclear small families in slums, these women mostly carried out their kitchen work, household activities and social meetings as they perhaps did not enjoy the luxury of other family members pitching in for them. Garg et al found that only 2 out of the 52 women in their study refrained from kitchen work during menstruation (Garg et al., 2001).

Most of the women got their menstruation every month in our study. During their periods, around 52 percent women in our study used sanitary pad only and half of this number used both cloth and sanitary pad .Some women (18.2 percent) still used only cloth, the rest used cotton and a minor number used other absorbents like menstrual cup and tampons .

The number of sanitary pad users in our study was less than the number in a similar study by Kumar et al. where over ninety percent women used sanitary pads(Kumar et al., 2017).

Santra found that a little less than half of the cloth piece users in his study reused the cloth piece and washed the used cloth pieces with soap and water; 50 percent of them dried these under sunlight(Santra,2017).

In our study majority of the women took a bath daily and cleaned their external genitalia during periods many using soap and water for doing so. Almost all the women washed their hands with soap and water after visiting toilet during periods.

Regular bathing in almost all the participants was similarly reported in a study by Santra (Santra, 2017) and another study by Sharma . (Sharma et al.,2017).

Several menstrual symptoms were reported as experienced by the respondents in our study. Over half of them complained of pain in the back followed by feeling of fatigue, heavy bleeding in periods and long duration of periods and pain in lower abdomen. In a study in Bangladesh, the common health problems faced by both rural and urban women of Bangladesh were reported as lower abdominal pain accompanied by heavy bleeding, white discharge and irregularity of the menstrual cycle. The major concern was that the women never discussed these problems as they did not consider them normal illnesses (Haque et al., 2015).

Our study worked with few limitations. There is lack of qualitative data inputs. The results reflected the behaviours of women in urban slums and are not generalisable for inferring the knowledge, awareness and

practice levels of Indian women. It was difficult for a few older menstruating women to remember the exact age of menarche causing recall bias. Social desirability may have led to more positive responses to the questions, resulting in response bias. The study also had its own strengths. Data was collected from primary sources.

The data was collected with researcher administered questionnaire by single researcher hence less chance of interobserver bias. The study focussed on reproductive age group women, an important subset with regards to menstrual hygiene issues and related morbidity. Post data collection, study participants were educated about steps of menstrual and personal hygiene to minimise chances of reproductive tract infections. The study results can also be used by programme implementers for planning MHM interventions under the umbrella of RMNCH+A Strategy, Swachh Bharat and similar schemes of the Government for welfare of women.

4. Conclusions and Recommendations

Despite a lot of attention and work done on MHM in India, a lot still needs to be done to ensure that women overcome social and economic barriers and consistently maintain better menstrual hygiene. Strengthening of MHM programmes in India for increasing the awareness, access to hygienic absorbents, and disposal of MHM items for women should be a continual agenda for the health department of the Government.

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