

**Knowledge, Attitude and Practices of menstrual hygiene among married women
in reproductive age group residing in urban slums in Central India :
A Cross Sectional Study**

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ABSTRACT

Background: Reproductive tract infection, which has become a silent epidemic that devastates women's life is closely interrelated with poor menstrual hygiene. The aim and objective of the study was to know the knowledge, attitude and practice regarding menstrual hygiene among married females. **Methods:** A cross-sectional study was carried out in urban field practice area of a tertiary care centre in Central India, involving total 317 married females. Patients were interviewed on the basis of pretested and preformed questionnaire. **Results:** In the present study, majority of the study subjects had good knowledge regarding menstrual hygiene. 98.42% of study subjects had knowledge that lack of menstrual hygiene can lead to other health problems. 95.90% study subjects agreed that not taking care of hygiene during menstruation can cause disease. 85.8 % study subjects used sanitary pads as choice of menstrual hygiene material and 80 % of study subjects changed menstrual hygiene material 2 to 3 times a day. **Conclusions:** Health education and adequate information about menstruation and menstrual hygiene management should be addressed early on in schools to encourage for timely screening, awareness regarding menstrual hygiene and effective treatment.

Keywords: Menstrual Hygiene, Menstruation, Married Women, Knowledge, Practice.

Introduction

Reproductive health is a condition in which reproduction is accomplished in a state of complete physical, mental, and social well-being and not merely absence of disease or disorders of the reproductive process.

About one-third of the total disease burden among women aged 15–44 years in the developing countries is linked to pregnancy, childbirth, abortion, and reproductive tract infections.¹ The status of reproductive health of women has to be assessed in all the stages of her life cycle as women can develop any serious health problems like reproductive tract infections (RTI), sexually transmitted diseases (STI) and HIV/AIDS, if proper care and guidance is not provided at the right time as there is a paramount need in addressing reproductive health problems. Women have to be equally educated about family planning and use of correct hygienic practices.²

Menstrual hygiene and management is an issue that is insufficiently acknowledged and has not received adequate attention. Menstrual hygiene is a taboo subject; a topic that many women in South Asia are uncomfortable discussing in public.

Factors affecting Menstrual Hygiene Management in India are-

- Lack of awareness.
- Availability and affordability of appropriate to manage the menstrual flow.
- Lack of adequate facilities.³

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Naturally, topics that are excluded from public talks are most likely to be discarded without giving much importance. Hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI). The interplay of socioeconomic status, menstrual hygiene practices, and RTI are noticeable. Reproductive Tract Infections (RTIs), which have become a silent epidemic that devastate women's life, are closely interrelated to poor menstrual hygiene.⁴ Only in recent years has menstrual hygiene got the attention of researchers. Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTI and its consequences.⁵

With a culture of silence that surrounds menstrual hygiene, there is a need to study its knowledge, attitude and practice among women in urban underprivileged areas. Under the NHM/NRHM, both supply side and demand side interventions are implemented to improve access and utilization of RCH services by the urban population. These interventions have contributed in improving utilization of RCH services. However, utilization of RCH services and adverse health outcomes among slum population remains a cause of concerns. This is evident from the available data which indicates slower reduction in MMR in spite of availability of services. With this rationale, the following study was conducted.

Aims and Objectives: To study the knowledge, attitude and practices regarding menstrual hygiene in married women in reproductive age group in Central India.

Material and Methods

A descriptive cross-sectional study was conducted among Married Women in reproductive age group residing in Urban Field Practice area of Tertiary Health Care Centre in Central India. Study duration was from August 2020 to November 2022.

Inclusion criteria for study: Married Women of age group 18-49 years in urban field practice area of a tertiary care centre.

Exclusion Criteria for Study:

1. Subjects who did not give consent for the study.
2. Study subjects who have attained menopause.

Study sample:

- With reference to the study done by Ratnaprabha et al., assuming prevalence of reproductive tract infections among married women of reproductive age group as 29.15%, sample size is calculated as,

Absolute precision = 5

Desired Confidence Level (1- α) = 95%

$$n = \frac{Z_{1-\alpha/2}^2 p \times (1-p)}{d^2}$$

Calculated Sample size = 317

Ethical considerations: Approval was taken from the Institutional Ethics Committee (IEC).

- Title and synopsis approved from Board of Research Studies (BORS), MUHS, Nashik.
- Informed written consent in subject's vernacular language was taken after apprising them of the nature and purpose of study.

Data collection procedure

Data collection was started after obtaining clearance from Institutional Ethics Committee. House to house survey was done. Before starting the interview, study participants were well informed about the nature of the study and written informed consent for each study subject was taken.

The principal investigator interviewed the study subjects in local language (Marathi) using the predesigned proforma after establishing a good rapport with study subjects. Each study subject was interviewed for 20 minutes. In one day, 10-15 study subjects were interviewed and complete clinical examination were done. The participants were interviewed in their houses and if not available, then next house was visited.

Predesigned and Pretested Proforma was used.

Data management and analysis

- Collected data were checked, edited at the end of the day during the period of data collection.
- Data were entered in Microsoft Excel 2019 and was rechecked and cleaned after entry to ensure quality of data.
- Data analysis was done using Microsoft Excel, 2019.
- **Continuous variables:** Summarized as mean with standard deviation.
- **Categorical variables:** Summarized in terms of proportion, frequency and percentage.

Results

Table -1: Distribution of study subjects as per knowledge regarding menstrual hygiene

Distribution as per Knowledge	Study Subjects (N = 317)			
	Yes		No	
	No.	%	No.	%
Do you know any special hygiene is required in this time?	317	100.0	00	00
Did you have any knowledge about it before it started?	126	39.75	191	60.25
Can lack of menstrual Hygiene lead to other health problems?	312	98.42	5	01.58
Is there need of any social restriction during menstruation?	122	38.49	195	61.51

The above table-1 shows distribution of study subjects according to their knowledge regarding menstrual hygiene. In the present study, all the study subjects had knowledge regarding menstruation, age of menarche, menopause and age of attaining menopause. All of the study subjects knew that special hygiene is required during menstruation. Majority 312 (98.42%) of study subjects had knowledge that lack of menstrual hygiene can lead to other health problems. Only 126 (39.75%) study participants had knowledge regarding menstrual hygiene before onset of their menarche. 195 (61.51%) study subjects said that there was no need of any social restriction during menstruation. Participants who answered more than 3 questions correctly were termed to have good knowledge, 217 (68.45%) of the participants had good knowledge (**Table-1**).

Fig.-1: Distribution as per primary source of knowledge regarding menstrual hygiene before start of menstruation (n= 126).

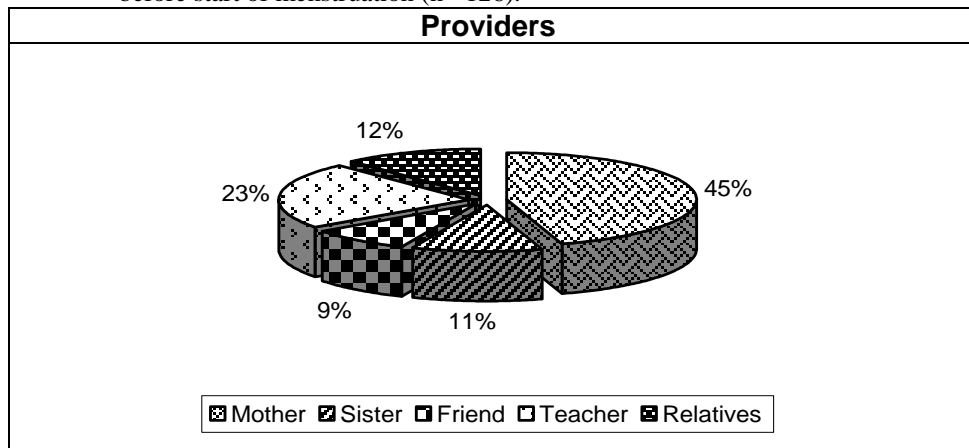


Figure 1, shows the distribution of study subjects as per as per primary source of knowledge regarding Menstrual hygiene. As per previous table, 126 study subjects had knowledge about menstrual hygiene before onset of their menarche. In the present study, majority of the providers were 57 (45%) mother, followed by 29 (23%) teacher, followed by 15 (12%) relatives, followed by 14 (11%) sister and 11 (9%) were friends.

Table- 2: Distribution of study subjects as per attitude regarding Menstrual Hygiene

Distribution as per attitude	Study Subjects					
	Agree		Disagree		No comment	
	No.	%	No.	%	No.	%
Do you feel that menstruation occurs because of disease?	18	5.68	297	93.69	02	0.63
Do you feel not taking care of hygiene during menstruation can cause disease?	304	95.90	10	3.16	03	0.94
Do you feel Cleaning panties using only water is enough as the blood disappear?	16	05.05	301	94.95	00	00
Do you feel Drying the panties inside room is enough as the panties dry?	16	05.05	301	94.95	00	00
Do you feel a woman needs to avoid any foods during menstruation?	93	29.34	211	66.56	13	4.10
Do you feel women should have restrictions during menstruation?	80	25.24	235	74.13	02	0.63

The above table-2, depicts distribution of study subjects as per attitude regarding menstrual hygiene. Majority of study participants had positive attitude regarding menstrual hygiene. 297 (93.69%) disagreed that menstruation occurs because of disease, 301 (94.95%) study subjects agreed that not taking care of hygiene during menstruation can cause disease, 301 (94.95%) study subjects responded that using only water to clean panties and drying the panties inside room respectively is not a positive attitude for menstrual hygiene. In the present study, 211 (66.56%) study subjects felt that there was no need to avoid any food during menstruation and 235 (74.13%) study participants felt that there was no need of any social restrictions during menstruation.

Figure 2, shows the distribution of study subjects as per choice of use of menstrual hygiene material. All of the participants took bath and used menstrual hygiene material during menstruation. Majority i.e. 272 (85.8%) study subjects used sanitary pads, followed by 42 (13.25%) study subjects who used cloth and 3 (0.95%) study subject used menstrual cup.

Fig.-2: Distribution of study subjects as per choice of use of menstrual hygiene material

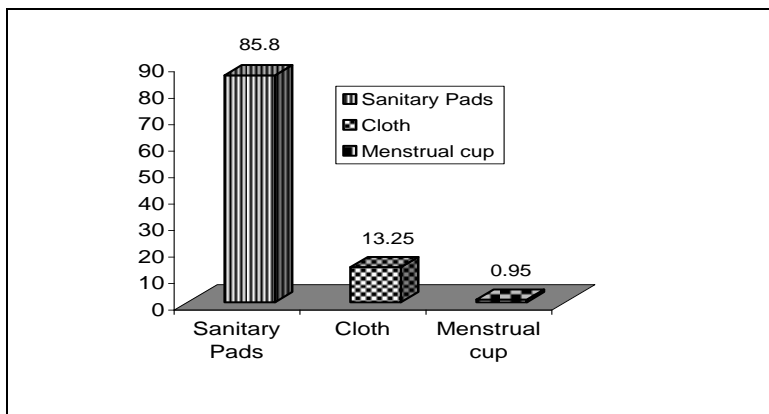


Figure-3, shows the distribution of study subjects as per frequency of change of menstrual hygiene material in first two days. Majority 254 (80 %) of study subjects changed menstrual hygiene material 2 to 3 times a day, followed by 36 (11%) study subjects who changed it less than 2 times and 27 (09%) study subject changed it more than 4 times in first two days.

Figure- 3: Distribution as per frequency of change of menstrual hygiene material in first two days

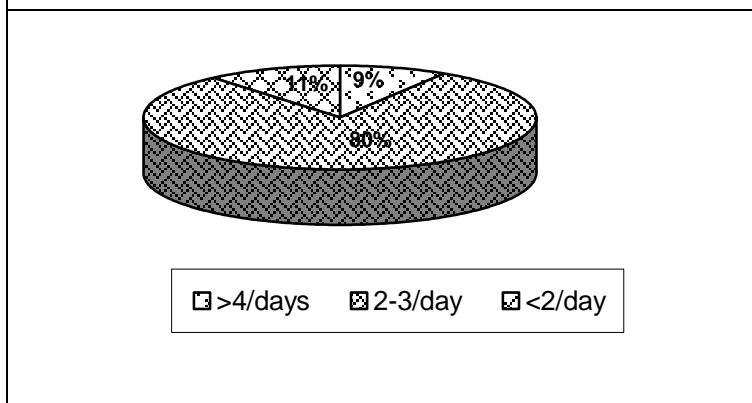


Figure-4, shows the distribution of study subjects as per method of disposal of menstrual hygiene material. Majority 254 (80%) of study subjects disposed menstrual hygiene material in the dustbin, followed by 35 (11%) study subjects who washed the menstrual hygiene material. 19 (6%) study subjects burned the menstrual hygiene material and 9 (3%) study subjects disposed the menstrual hygiene material by flushing in toilet.

Figure -4: Distribution of study subjects as per method of disposal of menstrual hygiene material

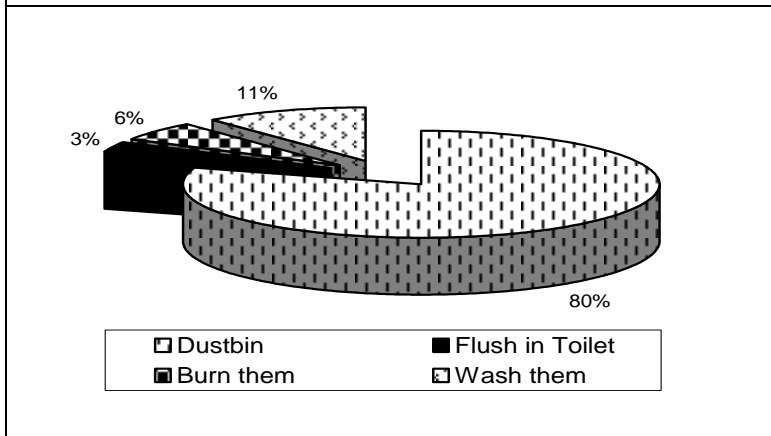


Table-3: Association of education with knowledge levels of menstrual hygiene

Knowledge level	Literate	Illiterate	Total	P value
Good	215	02	217	< 0.0342
Poor	95	05	100	
Total	310	07	317	

Table-3, shows there is positive association between education and knowledge levels of menstrual hygiene ($p < 0.0342$).

Discussion

The present cross-sectional study was conducted on 317 reproductive age women in the urban field practice area of a tertiary care centre in Central India. There is still presence of stigma associated with menstrual hygiene, RTI/STI, contraception and family planning. Hence to study health profile of reproductive age women, understanding their level of knowledge, attitude and practices regarding menstrual hygiene is essential. This will help in providing sound educational and policy strategies for reducing maternal and neonatal mortality and morbidity.

In the present study, we found that study subjects had good knowledge regarding menstrual hygiene. All of the study subjects knew regarding menstruation and that special hygiene is required during menstrual hygiene, Majority (98.42%) of study subjects had knowledge that lack of menstrual hygiene can lead to other health problems. Only (39.75%) study participants had knowledge regarding menstrual hygiene before onset of their menarche. Majority of the providers of this knowledge were (45%) mother, followed by (23%) teacher. 61.51% study subjects said that there was no need of any social restriction during menstruation. Similarly in a study done by Goel Palak et al.⁵ showed that among the study participants, majority of the women (59.4%) acquired knowledge regarding menstruation from their mother. Almost all (97.7%) women knew that menstruation is a physiological process.

Present study revealed that overall attitude of study subjects regarding menstrual hygiene was good. 93.97% disagreed that menstruation occurs because of disease. 95.90% study subjects agreed that not taking care of hygiene during menstruation can cause disease. 94.95% study subjects responded that using only water to clean panties and drying the panties inside room respectively is not a positive attitude for menstrual hygiene. In the present study, 66.56% study subjects felt that there was no need to avoid any food during menstruation and 74.13% study participants felt that there was no need of any social restrictions during menstruation. However study done by Goel Palak et al.⁵ showed that 95.1% of the study participants strongly disagreed that a woman can enter temple/pray during menstruation. Most of the women agreed that a woman can enter kitchen (82.9%) or take bath (89.1%) during menses. 54.6% subjects disagreed that a woman need not avoid any foods.

Practices of study subjects regarding menstrual hygiene in present study were good. All of the participants took bath and used menstrual hygiene material during menstruation. 85.8 % study subjects used sanitary pads as a choice of menstrual hygiene material followed by 13.25% study subjects who used cloth. 80% of study subjects changed menstrual hygiene material 2 to 3 times a day, followed by 11% study subjects who changed it less than 2 times. 80% of study subjects disposed menstrual hygiene material in the dustbin, followed by 11% study subjects who washed the menstrual hygiene material. However, study done by Goel Palak et al. showed that 74.3% of the women were using sanitary pads as menstrual absorbent.⁵ All personal hygiene practices were found to be satisfactory in more than 90% of women. Disposal of soakage material was satisfactory in 100% subjects. Study done by Patil Pushpa S et al.² showed that on the days of heavy flow, 79% of the study participants changed their absorbents twice daily.²

Conclusion

Present study showed that more than half of the participants in this study had good knowledge regarding menstrual hygiene but only few participants had knowledge regarding it before the onset of their menarche. Most of the subjects had positive attitude regarding menstrual hygiene and all the participants practiced good menstrual hygiene during menstruation. Health education and adequate information about menstruation and menstrual hygiene management should be addressed early on in schools to encourage for timely screening and effective treatment. There is need of community-based strategy to create awareness regarding reproductive tract infections, family planning methods and availability of their services by using IEC activities.

Limitations

- Since this study addressed the issue of menstrual hygiene which is still associated with taboo and various myths might have led to some social desirability bias.
- Study has all the inherent limitations of a cross-sectional study.

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