



Journal Homepage: -[www.journalijar.com](http://www.journalijar.com)

## INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/18109  
DOI URL: <http://dx.doi.org/10.21474/IJAR01/18109>



### RESEARCH ARTICLE

#### ASSESSMENT OF AWARENESS OF MENSTRUATION AND MENSTRUAL HYGIENE PRACTICES AMONG WOMEN OF REPRODUCTIVE AGE GROUP- A CROSS SECTIONAL STUDY AT TERTIARY CARE CENTER, MAHARASHTRA

Dr. Munjal Asha Sopanrao<sup>1</sup>, Dr. Chavan Bharat<sup>2</sup>, Dr. Kuril Bina M.<sup>3</sup>, Dr. Palve Shailesh<sup>4</sup>, Dr. Ankushe R.T.<sup>5</sup>  
and Dr. Ingle Anushka<sup>6</sup>

1. Junior Resident, Department of Community Medicine, GMCH Aurangabad, India.
2. Professor and Head of Department, Department of Community Medicine, GMCH Aurangabad, India.
3. Associate Professor, Department of Community Medicine, GMCH Aurangabad, India.
4. Assistant Professor, Department of Community Medicine, GMCH Aurangabad, India.
5. Associate Professor, Department of Community Medicine, GMCH Aurangabad, India.
6. Junior Resident, Department of Community Medicine, GMCH Aurangabad, India.

#### Manuscript Info

##### Manuscript History

Received: 05 November 2023  
Final Accepted: 09 December 2023  
Published: January 2024

##### Key words:-

Menstruation, Menstrual Hygiene  
Practices, Reproductive Age Group

#### Abstract

**Background:** According to several studies, only 77.3% of Indian women follow menstrual hygiene practices.<sup>1</sup> Unaddressed menstrual hygiene is said to hamper the achievement of some of the sustainable development goals (3rd, 4th, 5th, and 6th), which are related to menstrual hygiene practices.<sup>1,2</sup> Since the last two decades, women's literacy and status in society have improved, so it is important to know whether menstrual hygiene has improved or not. The present study will assess the adequacy of menstrual hygiene knowledge and practice, which is directly related to SDG 6.25.

**Objectives:** 1.To assess the awareness and practices of menstrual hygiene.

2. To study socio-cultural factors associated with hygiene practices.

**Methodology:** A cross-sectional study was conducted among women of reproductive age who attended gynecology OPD. A non-probability convenience sampling method and a pretested, semi-structured questionnaire were used.

**Results:** In the current study, 100 women of reproductive age (15–45 years) were interviewed. 70% of the participants belonged to the 21–35 age group, 98% were from urban areas, 74% were married, and 6% were illiterate. About 59% of participants had information about menstruation before menarche; among them, 38% of participants' mothers were the source of information. Nearly 27% participants had miss-belief regarding menstruation. 17% study subjects used cloth as an absorbent material whereas 71% participant used less than two absorbent materials per day. Whereas 51% took hand wash after changing absorbent material. Nearly 12% of participants burned absorbent material, while 9% reused it and dried by sunlight. Nearly 78% of participants have been restricted activity during menstruation.

**Corresponding Author:- Dr. Munjal Asha Sopanrao**

Address:- Junior Resident, Department of Community Medicine, GMCH  
Aurangabad, India.

**Conclusion:** This study shows the vital role of a source of information for appropriate knowledge of menstruation. The awareness of menstruation was found to be significantly correlated with literacy status. Good hygiene behavior was positively correlated with informant, literacy level, and family type. Socio-cultural limitations were still present among married women from joint families.

*Copy Right, IJAR, 2024.. All rights reserved.*

.....  
**Introduction:-**

Only 77.3% of Indian women have hygienic ways throughout their menstrual period. The majority of young women have erroneous and insufficient knowledge regarding menstruation physiology and cleanliness, according to numerous studies. Several research studies have revealed this gap, and they showed that there was a low level of awareness about menstruation among the girls when they first experienced it<sup>1</sup>. Menstruation, a phenomenon specific to women, is the periodic vaginal bleeding that results from the loss of uterine mucosa. It happens one or two years after the emergence of secondary sexual characteristics and is one of the key indicators of puberty<sup>2</sup>. Unaddressed menstrual hygiene is said to hamper the achievement of some of the sustainable development goals (3rd, 4th, 5th, and 6th), which are related to menstrual hygiene practices<sup>1,2</sup>. The subject of menstruation hygiene is not well understood and has not gotten the attention it deserves<sup>1,3</sup>. During the menstrual cycle, it is necessary to follow good hygiene measures, such as using sanitary pads and properly washing the genital area. In order to safeguard their health from numerous illnesses over time, women and adolescents of reproductive age must have access to clean, soft, absorbent sanitary items<sup>3</sup>. Reproductive tract infections were three times more common in Indian women who used old cloths during their periods than in those who used new or safer materials, such as sanitary napkins. The types and frequencies of absorbent materials used, the methods of washing and drying reusable absorbent material, and other contextual factors, such as the location of menstruation-related changing and washing practices, are examples of menstrual hygiene practices that vary by socio-cultural context, educational background, and economic status. WASH (water, sanitation, and hygiene) facilities at the home level can affect these habits, and there are substantial differences in the quality and accessibility of these facilities between and within nations<sup>4</sup>. The traditional way, like reusing old clothes or rags, and the safer modern method, which use disposable sanitary pad.

Menstruation is linked to broader systemic elements like women's empowerment, rights, education, gender equality and well-being<sup>5</sup>. Unusual vaginal discharge, skin rashes, and urogenital infections have all been linked to cloth reuse. Due to poor menstrual hygiene could increase pregnancy risk such as delivery of low birth weight (LBW) infants, preterm delivery and clinical chorioamnionitis. This study will explore need of access to sexual and reproductive health care services (SDG-3.7 goal) also help to access adequate and equitable sanitation and hygiene according to SDG 6.25. There is a considerable correlation between women's health and their position, education, and menstrual hygiene. Women's low social position and lack of literacy throughout the previous two decades contributed to poor menstrual hygiene. Nonetheless, these variables have improved over the time, therefore it's critical to determine whether menstrual hygiene has improved. This study will assess the factors that are related to menstruation hygiene in this generation.

**Methods:-**

A cross sectional study was conducted among females of reproductive age group (15 to 45 years) attending routine gynecology OPD including the female relatives of the patients accompanying them who were reproductive age group. Approval from institutional ethical committee was taken prior to the start of study. A non-probability convenience sampling method was used. A pretested semi structured questionnaire which consisted of questions regarding the knowledge related to menstrual hygiene and the practices done in routine by the study subjects during their menstrual cycle. After taking their verbal consent, Interview method was used for data collection.

**Inclusion criteria:**

1. Women of reproductive age group of 15 to 45 years.
2. Subject willing to gave consent for participation in the study.
3. All women attending the outpatient gynaecology department

**Exclusion criteria:**

1. Women not willing to gave consent.
2. Patients with history of hysterectomy were excluded from the study.

**Operational Definition:**

1. **Menstrual Hygienic practices:** Menstrual hygiene is defined as the principle of maintaining cleanliness of the body during menstrual flow. It requires basic practices such as appropriate clothes, soakage material, water, soap, and toilet facilities with privacy, methods of disposal of absorbent material with frequency of changing the absorbent material. Menstrual hygiene also has an environmental impact like improper disposal of sanitary napkin or cloth like keeping them inside toilets and their indiscriminate
2. **Reproductive age group:** Population of womenof age group 15 to 45 years

**Statistical Analysis:**

Data was feed in master chart by using Microsoft excel office 2007 and expressed as frequency, percentage. Statistical associations between menstrual knowledge, cultural factors and demographic factors like age, education, occupation, family type, informant and type of absorbent material were assessed. Appropriate statistical test for qualitative data was used. Statistical significance was set at  $p < 0.05$  as statistical significant. All calculations were made using the SPSS V26.0 version.

**Results:-**

In current study 100 women of reproductive age group (15-45 year) were interviewed,70% of participant belonged to 21-35 years, 98% of study participants were residing at urban area, 74% study participants were married. While 54% were educated up to high school and intermediate where as 6% were illiterate. Nearly 54% study participants were housewife, 25% were student & only 21% were employed. Whereas 44% study participants were belongs from joint family & 56% from nuclear family.

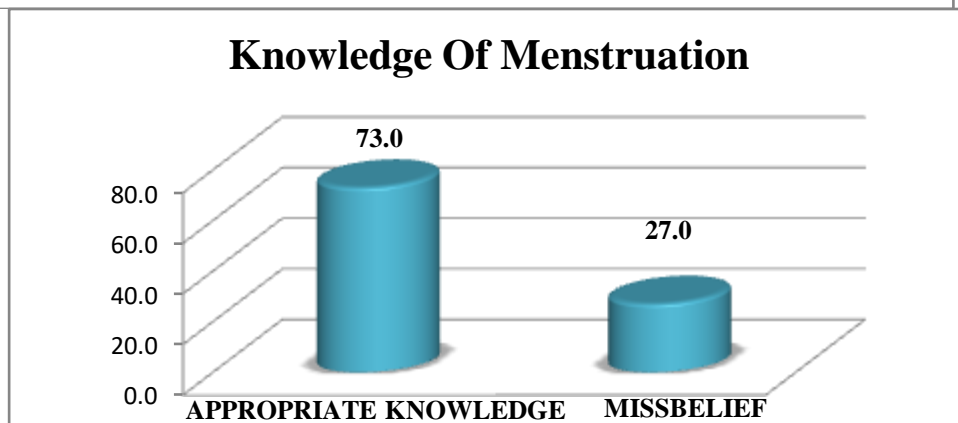
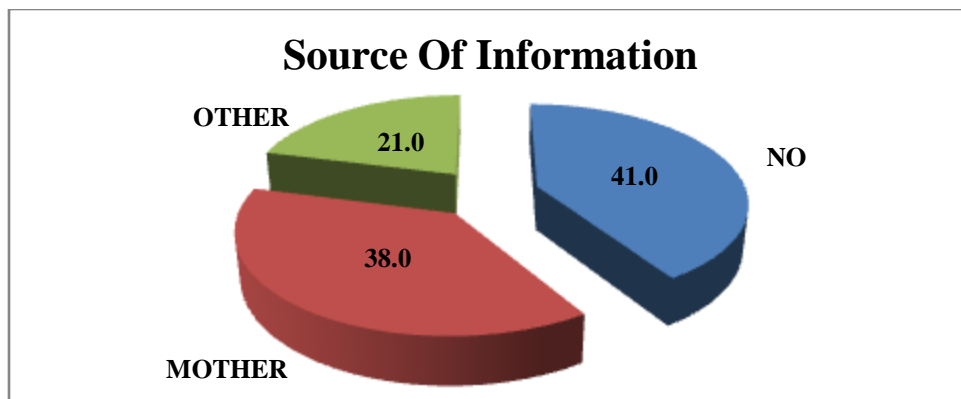
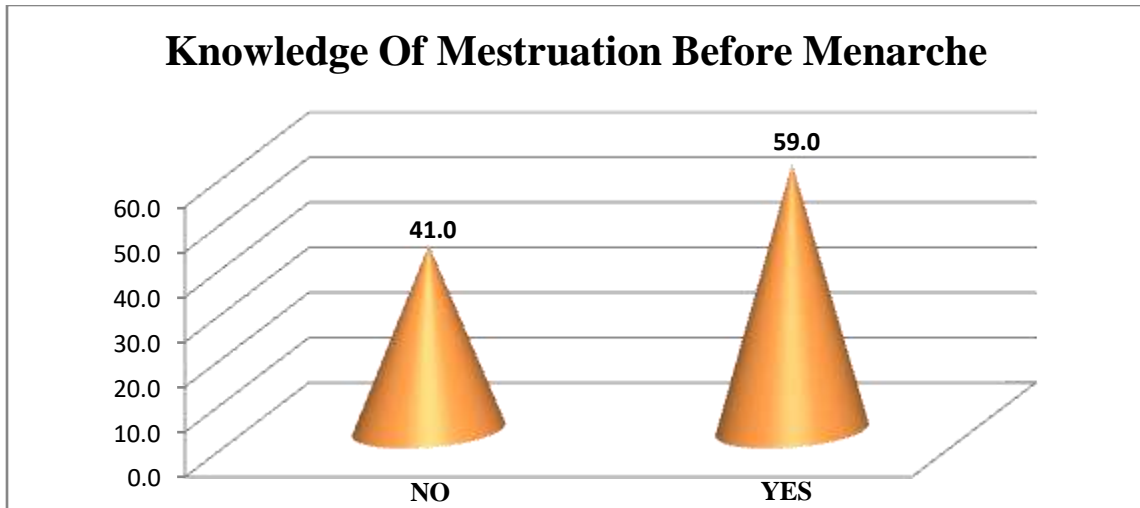
**Table 1:-** Socio-demographic characteristics of study subjects (N=100).

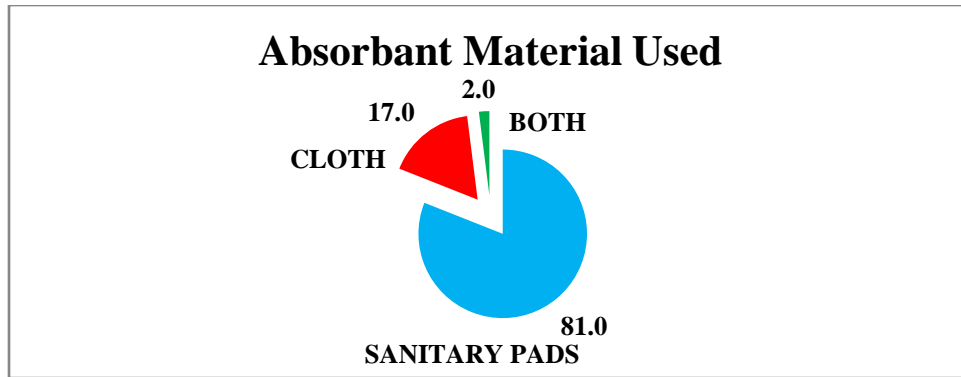
Variables	Frequency
1. Age Group	
≤20	12
21-35	70
>35	18
2. Religion	
Hindu	77
Muslim	23
3. Resident	
Urban	98
Rural	2
4. Occupation	
Housewife	54
Employed	21
Student	25
5. Education	
Illiterate	6
Primary school	2
Middle school	8
High school	26
Intermediate	21
Graduate	26
Post graduate	6
Professional	5
6. Marital status	
Married	74
Unmarried	26

7. Type of family	
Nuclear	56
Joint	44

Nearly 89% study participants had menarche before 15 years of age while 11% study participants had menarche after 15 years of age. According to table no. 2, nearly 59% study participant had information about menstruation before menarche among them, for 38% participant mother was the source of information. About 27% participants had miss-belief regarding menstruation, 17% used cloth as a absorbent material and 71% participant used less than two absorbent materials per day.

**Table 2:-** General information about menstruation.



**Table 3:-** Details about menstruation.

Variable	Frequency
1. Regularity of menstruation	
Regular	74
Irregular	26
2. Amount of flow	
Scanty	15
Moderate	72
Heavy	13
3. Duration of flow	
≤ 3 days	22
> 3 days	78

As shown in table 3, 26% study participant had irregular menstruation while 15% had scanty flow, 72% had moderate flow & 13% had heavy flow. About 78% study participants had more than 3 days of flow.

**Table 4:-** Menstrual hygiene practices.

Variable	Frequency
1. Cleaning of external genital	
Adequate and regular	100
2. Hand washing	
Before	2
After	51
Both	47
3. Method of disposal of absorbent material	
Burn	12
Bin	79
Washing and reuse	9

Nearly 59% had no knowledge about the bleeding organ in menstruation and 44% hadn't know the cause of bleeding. 51% study participants took hand wash after the changing absorbent material & 2% before while 47% on both the occasion. About 12% participant burned absorbent material while 9% reuse absorbent material and it is dried by sunlight while 79% disposed in bin.

**Table 5:-** Socio-cultural restrictions.

Variable	Frequency
1. Visiting religious place	
Yes	22
No	78
2. Sit separate	
Yes	24

No	76
3. Kitchen activity	
Yes	78
No	22

About 78% study participants were not visited religious place during the menstruation, 24% sit separate & 22% restricted from kitchen activity in menstruation.

**Table 6:-** Environmental condition.

Variable	Frequency
1. Water supply	
Continue	42
Intermittent	58
2. Toilet facility	
Public (common)	33
Separate	67
3. Type of house	
Katchha	22
Pukka	78

Nearly 58% study participants had intermittent water supply, 33% were using common public toilet for changing the absorbent material and 8% study participants had complaints.

### Discussion:-

In the present study, most of the individuals were in 21-35 years age group and were housewife. Nearly 59% women had idea of menstruation before menarche and the mother was the source of information in most of the cases. There was a significant correlation between the menstruation knowledge and source of information. Similar findings observed in Gupta et al and Sutanuka et al study<sup>1,2</sup>. Most of the participants opined that menstruation was physiological (73%). In this study 81% women used sanitary pad, 17% used cloth pieces and rest 2% used both. Study of Sutanuka et al found that 65% used sanitary pads, 30% used cloths rest 8% used both in Gunjan kumar et al study found that 91.3% used sanitary pads while rest used cloths during menstruation<sup>3</sup>. About 12% participant burned absorbent material while 9% reuse absorbent material and it is dried by sunlight. With increasing literacy status knowledge of menstruation increased. In this study age, education, occupation had significant influence on menstruation knowledge ( $P < 0.05$ ). Similar finding was observed in Awan et al study<sup>5</sup>. Most of the women disposed the used pad and cloth piece in municipal vat.

**Cross Table 1:-** Menstruation knowledge with informant.

		Menstruation knowledge		Total
		Appropriate	Miss-belief	
Source of Information	No	23	18	41
	Yes	50	9	59
Total		73	27	100

P-0.002 = significant

**Cross Table 2:-** Informant with knowledge of bleeding organ.

		knowledge of bleeding organ		Total
		no	yes	
Source of Information	No	32	9	41
	yes	27	32	59
Total		59	41	100

P-0.001 = significant

**Cross Table 3:-** Literacy with knowledge of menstruation before menarche.

--

		Menstruation knowledge prior to menarche		Total
		No	Yes	
literacy	1	6	3	9
	2	29	26	55
	3	4	27	31
	4	2	3	5
Total		41	59	100

P-0.001 = significant

Where as 1=illiterate, primary school

2=middle, high & intermediate school

3=graduate & PG

4=professional

**Cross Table 4:-** Occupation with knowledge of menstruation before menarche.

		Menstruation knowledge prior to menarche		Total
		No	Yes	
Occupation	HW	29	25	54
	Employed	10	11	21
	Student	2	23	25
Total		41	59	100

P-0.0001 = highly significant

Majority of study found that subjects availability of bathroom facility and water were adequate during menstruation. During their menstruation, the majority of the women were prohibited from attending any religious function, while some were prevented from cooking and were therefore seated separately<sup>1,2,3</sup>. Present study reported that Socio-cultural limitations were still present among married women from joint families.

**Table 7:-** Associated factors with hygiene practices.

Associations	p - value
<b>1. Between Informant &amp; menstrual knowledge</b>	<b>0.002</b>
<b>2. Between Informant &amp; knowledge of bleeding organ</b>	<b>0.001</b>
<b>3. Knowledge of menstruation before menarche with</b>	
<b>a. Literacy status</b>	<b>0.001</b>
<b>b. Occupation</b>	<b>0.0001</b>
<b>4. Knowledge of bleeding organ with</b>	
<b>a. Literacy status</b>	<b>0.0001</b>
<b>b. Occupation</b>	<b>0.0001</b>
<b>5. Literacy status &amp; hand washing practices</b>	<b>0.007</b>
<b>6. Informant &amp; absorbent material used</b>	<b>0.007</b>
<b>7. Family type with</b>	
<b>a. Absorbent material used</b>	<b>0.017</b>
<b>b. Material disposal method</b>	<b>0.036</b>
<b>8. Socio-cultural Attitude</b>	
<b>a. Marital status with</b>	
<b>i. Sit separate</b>	<b>0.024</b>
<b>ii. Kitchen activity</b>	<b>0.009</b>
<b>b. Family type</b>	
<b>i. Sit separate</b>	<b>0.01</b>
<b>ii. Kitchen activity</b>	<b>0.0001</b>

### Conclusion:-

This study shows the vital role of a source of information for appropriate knowledge of menstruation. The awareness of menstruation was found to be significantly correlated with literacy status. Good hygiene behavior was positively

correlated with informant, literacy level, and family type. Socio-cultural limitations were still present among married women from joint families.

**Recommendations:-**

Sensitization of the family members mostly mother should be done to educate about healthy menstrual practices.

**Limitation Of Study**

1. In this study, socio-economic status was not taken into consideration.
2. Only women attending gynaecology OPD were taken for study, so this study is not representative of the general population.

**Conflicts Of Interest**

There are no conflicts of interest.

**References:-**

1. 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 (M.P.). *Ntl J of Community Med* 2015; 6(2):141-144.
2. Santra S. 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. *Int J Community Med Public Health* 2017;4:708-12.
3. Kumar G, Prasuna JG, Seth G. Assessment of menstrual hygiene among reproductive age women in South-west Delhi. *J Family Med Prim Care* 2017;6:730-4.
4. Bhilwar M, Lal P, Sharma N, Bhalla P, Kumar A. Prevalence of reproductive tract infections and their determinants in married women residing in an urban slum of North-East Delhi, India. *J Nat Sc Biol Med* 2015;6:S29-34.
5. Afiaz A, Biswas RK. Awareness on menstrual hygiene management in Bangladesh and the possibilities of media interventions: using a nationwide crosssectional survey. *BMJ Open* 2021;11:e042134. doi:10.1136/bmjopen-2020-042134
6. Draft National Menstrual Hygiene Policy, 2023.
7. Deshpande TN, Patil SS, Gharai SB, Patil SR, Durgawale PM. Menstrual hygiene among adolescent girls - A study from urban slum area. *J Family Med Prim Care*. 2018 Nov-Dec;7(6):1439-1445. doi: 10.4103/jfmpc.jfmpc\_80\_18. PMID: 30613539; PMCID: PMC6293884.