

Menstrual hygiene practices: Is it practically impractical?

Abstract

Research question: How hygienic are the female population during menstruation?

Background: Menstruation is the physiological process, but its physiology and nature are very poorly understood among the female population due to many sociocultural factors which make them to adapt certain practices unknowingly whether it is correct or false. This study was done with the objectives of exploring the menstrual practices followed among urban and rural female population. **Materials and Methods:** This study was done as a community based – cross-sectional study at the outskirts of Chennai, among the randomly selected females in the reproductive age (15-44) group from both rural and urban field practice areas using questionnaire and interview method. The results were expressed in percentages, and appropriate test of significance was performed. **Results:** Approximately, a total of 212 from the rural area and 206 from urban slum were randomly selected for the study of which 9% (19) from rural and 5.3% (11) not aware of sanitary pads that can be used during menstruation. Among the study participants, 42.5% (90) of rural and 40.3% (83) of urban were unaware from which organ menstruation is from. The prevalence of better menstrual hygienic practices using the menstrual hygiene index was found to be 63.6% (131) in urban slum and 35% (75) in a rural area which was found to be statistically significant ($P < 0.0001$). **Conclusion:** Our study has revealed that most of the females are still unaware menstrual hygienic practices which suggest that appropriate health promotive measures to be implemented for their reproductive well-being.

Key words: Knowledge and attitude on menstrual process and practices, menstrual hygiene, menstrual hygiene index, menstrual practices, rural and urban slum, sociocultural restrictions

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Access this article online

Website: www.ijmedph.org

DOI: 10.4103/2230-8598.144120

Quick response code:



INTRODUCTION

Menstruation is the physiological process which starts at menarche at or before sexual maturity, in females and ceases at or near menopause. But its physiology and nature are very poorly understood among the female population due to many sociocultural factors which make them to adapt certain practices unknowingly whether it is correct or false. All women, whether rural or urban, irrespective of their socioeconomic status have their own beliefs and practices concerning menstrual hygiene. It is well-known that cultural factors are deeply involved in all the affairs of man and women. Some of these cultural factors, followed years together without any scientific background and for which they have their own explanation in relation to their cultural practices. These sociocultural factors like myths and taboos concerning menstruation and health and disease were explored by many studies like.^[1,2] Although many studies were conducted to assess the menstrual practices, the diversity of cultural practices in India, mandates to investigate more and more on menstrual hygiene. This study was done with the objectives of exploring the menstrual practices and addressing the knowledge, cultural beliefs, and experiences regarding menstrual practices among the female population residing in urban slum and rural areas.

MATERIALS AND METHODS

The study was conducted as a community-based cross-sectional study among women reproductive age group residing in the field practice areas namely Adayalampattu and Parivakkam of ACS Medical College and Hospital, Chennai in between June and July, 2013. Urban field practice area has approximately

2000 houses, and rural field practice area has approximately 2500 houses. "House to house survey" was done in both the areas. During the survey, the women who were aged (15-44 years) were selected as our study participants after getting informed consent. The study tool which we had used was preformed pretested questionnaire which had two parts, one with general information such as sociodemographic profile, menstrual history, knowledge, attitude, and practices on menstrual hygiene, sociocultural environment such as role of family and school, food habits, embarrassing moments, and health problems faced by them during menstruation. The second part of the questionnaire was menstrual hygiene index^[5] developed by Tamil Selvi and Ramachandran. It was developed using nine questions. Almost all the questions are dichotomous in nature (Yes or No type). While the answers relating to maintaining menstrual hygiene are given the score 1, other alternative answer is given score "0."

Outcome measure

For all the questions considered for this index, a respondent can obtain a score ranging from 0 to 9 which can arbitrarily be classified into three level as poor (1-3) moderate (4-6) and better menstrual hygiene (7-9).

Statistics

The data were analyzed with Epi-info software Version 3.5.1(2008) and Chi-square test was used as a test of significance.

RESULTS

Our study was done as a community-based cross-sectional study with 212 study participants from the rural area and 206 from urban slum, with the mean age of 29.72 and 28.52, respectively. Mean age at menarche was 13.5 (13.32 and 13.67) among the total study population from both the areas. Among 212 study participants from rural area, 193 (91%) belonged to Hindu by religion, 89 (42%) were in Class IV socioeconomic status, and 154 (73%) were from the nuclear family, similarly among 206 study participants from urban slum 163 (79%), 90 (43.7%), and 145 (70.4%) were belonged to Hindu religion, Class IV socioeconomic status and nuclear family, respectively. Among the total population, 157 (76%) from urban and 158 (74.5%) from rural were married. Majority of them from both urban slum and rural areas belonged to Class III and IV socioeconomic status, and most of them belonged to the nuclear family [Table 1].

Knowledge aspect

Majority 384 (92%) of the study participants from both areas were aware that menstruation is a normal process, but surprisingly most of them not aware about the cause and the exact anatomical organ involved. Among the women, 9% (19) from rural and 5.3% (11) not aware about sanitary pads that can be used during menstruation and also 42.5% (90) of rural and 40.3% (83) of urban were unaware from which organ menstruation is from [Table 2].

Table 1: Sociodemographic profile of the study participants

Variable	Urban slum (n = 206) (%)	Rural (n = 212) (%)
Age (mean)	28.52	29.72
Age at menarche	13.32	13.67
Religion		
Christian	41 (20)	15 (7)
Hindu	163 (79)	193 (91)
Muslim	2 (1)	4 (2)
Marital status		
Married	157 (76)	158 (74.5)
Single	49 (24)	54 (25.5)
Socioeconomic status		
Class I	6 (3)	14 (6.6)
Class II	17 (8.3)	25 (11.8)
Class III	32 (15.5)	26 (12.2)
Class IV	90 (43.7)	89 (42)
Class V	61 (29.5)	58 (27.4)
Joint	61 (29.6)	58 (27.4)
Nuclear	145 (70.4)	154 (72.6)

Table 2: Knowledge aspect (urban slum versus rural)

Variable	Urban slum (206) (%)	Rural area (212) (%)
Menstruation a normal process?		
No	14 (6.8)	20 (9.4)
Yes	192 (93.2)	192 (90.6)
Cause of menstruation?		
Don't know	108 (52.4)	67 (31.6)
Others	6 (3)	9 (4.3)
Physiological	92 (44.6)	136 (64.1)
Menstruation is from???		
Anal canal	2 (1)	4 (1.9)
Don't know	83 (40.3)	90 (42.5)
Others	5 (2.4)	2 (1)
Urethra	42 (20.4)	41 (19.3)
Vagina	74 (35.9)	75 (35.3)
Awareness of menstruation before menarche		
No	166 (80.6)	144 (68)
Yes	40 (19.4)	68 (32)
Aware of sanitary pads		
No	11 (5.3)	19 (9)
Yes	195 (94.7)	193 (91)

Attitude aspect

Most of them (202) 48.3% were scared when they attained menarche, 147 (35%) of them were worried or disgusted about the forthcoming menstruation, 232 (56%) felt that the girls should know about the menstruation before they attain menarche. 309 (74%) realized that education about menarche is mandatory in the school and also in the family [Table 3].

Practice aspect

Totally 303 (72.5%) of the study participants use sanitary pads during menstruation, regarding the disposal of the absorbent the methods

followed were burial, burning, flushing it in the toilet, just outside the house indiscriminately. As far as the cleaning and washing the genitalia, 238 (57%) wash with only with water, 154 (37%) clean with soap and water, 26 (6%) clean water and antiseptics [Table 4].

Sociocultural practices

The sociocultural practices or restrictions faced by the study participants during menstruation were varied and still predominantly seen in rural areas and urban slum. The restrictions were not to go to the temple, not to see the god images, not to go to school, not to touch flowers, not to touch males, not to enter kitchen or pooja room and to sleep separately during menstruation. But the trend in urban areas is decreasing when compared to the rural population in this study. The overall extent of religious and social restrictions was high in both areas during menstruation which was found to be 85% and 80% in rural and urban, respectively [Figure 1]. Many of the study participants felt embarrassing moments in school, work places, in the public during menstruation [Figure 2]. Most of them felt embarrassing to purchase napkins from the shops, to carry the napkins to schools or workplaces, worried about men or even other woman seeing napkins, fear of wearing light colors, and fear of staining.

Dietary habits and beliefs

Some of the study participants 86 (21%) and 81 (19%) from both areas consumed less food and not eating at all during menstruation, instead 141 (34%) participants replied that they craved for food. 243 woman (58%) and 74 (17.8%) believed that certain food items can hasten or delay the menstruation of which 158 (37.8%) of them tried some food items to hasten or delay it [Table 5].

Menstrual hygiene index

The prevalence of better menstrual hygienic practices using the menstrual hygiene index was found to be 63.6% (131) in urban slum and 36.8% (78) in a rural area which was found to be statistically significant ($P < 0.0001$) [Figure 3].

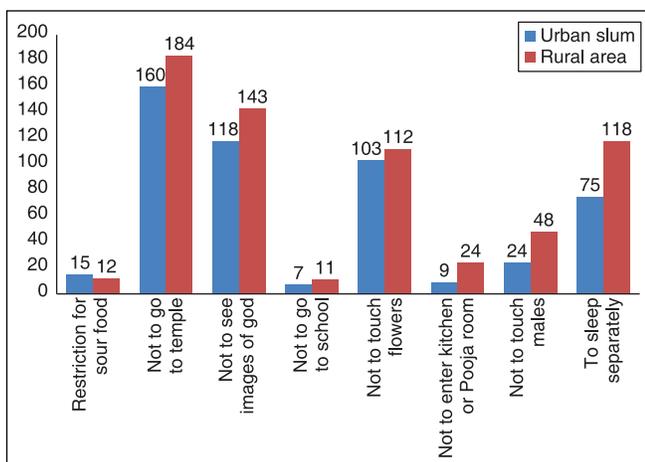


Figure 1: Sociocultural practices (restrictions faced by the women during menstruation)

Table 3: Attitude aspect (urban slum versus rural)

Variable	Urban slum (206) (%)	Rural area (212) (%)
What did you feel when you attained menarche?		
Disgusted	36 (17.5)	44 (20.7)
Scared	100 (48.5)	102 (48.1)
Discomfort	53 (25.7)	54 (25.5)
Indifferent	17	12 (5.7)
How do you feel when you don't get your periods?		
Happy	15 (7.3)	20 (9.4)
Never bothered	68 (33)	94 (44.3)
Scared	39 (19)	35 (16.6)
Worried	84 (40.7)	63 (29.7)
Better to know about menarche earlier		
No	62 (30)	124 (58.5)
Yes	144 (70)	88 (41.5)
Opinion - about educating girls about menarche		
Girls might get spoiled	1(0.4)	7 (3.3)
No, it's not necessary	39 (19)	62 (29.2)
Yes, it is of prime importance	166 (80.6)	143 (67.5)

Table 4: Practice aspect (urban slum versus rural)

Variable	Urban slum (%)	Rural area (%)
Use of sanitary pads during menstruation	170 (82.5)	133 (62.7)
Disposal of absorbent		
Burial	33 (16)	39 (18.3)
Burning	65 (31.6)	90 (42.4)
Dust bin	79 (38.3)	50 (23.7)
Flush it in the toilet	2 (1)	14 (6.6)
Outside the house	27 (13.1)	19 (9)
Washing the genitalia		
Only with water	106 (51.5)	132 (62.2)
With both soap and water	79 (38.3)	75 (35.4)
Water and antiseptics	21 (10.2)	5 (2.4)

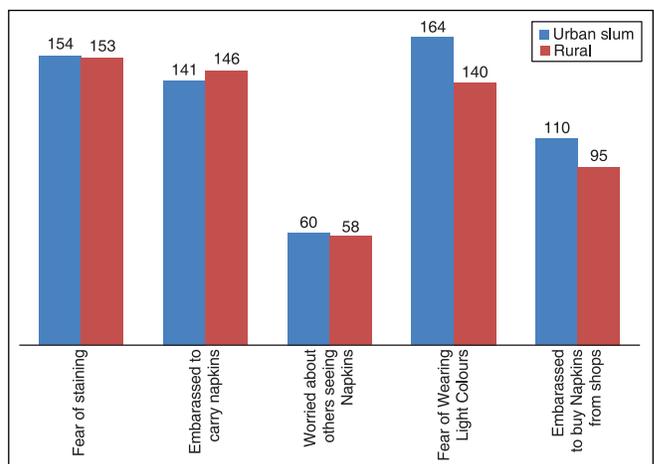


Figure 2: Embarrassing moments faced by the women during menstruation

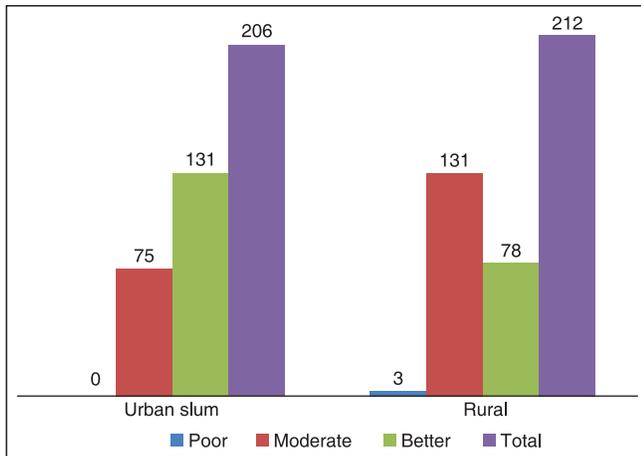


Figure 3: Menstrual hygiene index urban slum versus rural

DISCUSSION

Our study reflected that the menstrual hygiene awareness and its practices are still an issue among the various age group women either from urban slum or rural area. Dr. Varina Tjon A Ten^[4] has stated that menstrual hygiene, a neglected condition for the achievement of several millennium development goals in developing countries. This study was done with the aims of exploring the neglected areas and sociocultural factors related to menstrual hygiene practices. In this study, the mean age at menarche was 13.5 which is comparable to several studies 13.2^[5] and 12.8.^[6]

Knowledge and attitude

Unfortunately 14% and 42% of the study participants in this study were not aware of sanitary pads, the anatomical organ from which the menstruation process occurs and most of them were scared or worried on first menstruation. In a study conducted in Nepal among school girls, 92% had heard about menstruation before menarche, 81% recognized menstruation as normal physiological process, only little more than half (55%) recognized the cause of menstruation to be hormones. Very few respondents (2%) mentioned disease or curse/sin as the cause of menstruation. In the survey, majority of the respondents (73%) identified vagina, and only 13% identified uterus, as where the menstrual blood comes from. Similarly to our study, the girls in this study also replied the onset of menarche as a shocking and fearful event. Information about the use of cloth, the practice of rituals in the form of restrictions on their movements and behavior were given as soon as they got menarche.^[7] In our study, the women felt that the knowledge about the menstruation should be instilled to them before the menarche, and it should be done both in the school and the family. The study conducted by Deo and Ghattargi^[8] reported that 40 (42.5%) urban and 41 (55.4%) were aware of menstruation prior to attainment of menarche. However, a study conducted by Khanna *et al.*^[5] in Rajasthan, nearly 92% of the girls were not aware of the natural phenomenon of menstruation.

Table 5: Food habits/false beliefs/customs practiced during menstruation

Variable	Urban slum (n = 206) (%)	Rural area (n = 212) (%)
Dietary/food habits during menstruation		
Eat less	48 (23.3)	38 (18)
I choose my food	34 (16.5)	19 (9)
I do not eat at all	38 (18.4)	43 (20.2)
I eat more	1 (0.5)	11 (5.2)
Normal diet	85 (41.3)	101 (47.6)
Craving for food		
No	146 (71)	131 (61.8)
Yes	60 (29)	81 (38.2)
Do you think certain food items can hasten your periods?		
No	94 (45.6)	81 (38.2)
Yes	112 (54.4)	131 (61.8)
Do you think certain food items can delay your periods?		
No	181 (88)	163 (77)
Yes	25 (12)	49 (23)
Consume food items that hasten menstruation	57 (28)	81 (38.2)
Consume food items that delay menstruation	7 (3.4)	13 (6.2)

Practices

In this study, 72.5% of the women use sanitary pads during menstruation and 37% clean the genitalia with soap and water, 26 (6%) clean water, and antiseptics. In the West Bengal, study conducted by Dasgupta and Sarkar,^[6] only 11.25% of the girls use sanitary pads during menstruation and the Khanna *et al.*^[5] study stated that only one-fifth of the girls use sanitary pads. A study done by Singh *et al.*^[9] among married women in Dehradun reported that only 13% of the women use sanitary pads, 13.5% used homemade pads, whereas the remaining the 73.5% used cloth during menstruation. Analogous study by Roy *et al.*^[10] at rural Wardha observe that 83.6% women used “reused cloth” during menstruation, followed by 15.6% using “fresh cloth,” and a mere 0.7% using “homemade pads” and “sanitary pads”. These figures are comparable with other studies in Nepal^[11] and India^[6,12] where large majority of the participants used re-usable cloth during menstruation. When compared to these studies, our study had shown majority use the sanitary pads, which could be due to more awareness, better socioeconomic status and the higher age study participants and sociocultural groups. The menstrual hygiene index score was favorable to urban slum women rather than the rural women which was statistically significant in this study.

Role of family

Majority of constrains faced by an individual either gets aggravated or diminishes only based upon the role of the family. During menstruation, the female undergoes both physical and emotional changes due to hormones, where she needs additional support to keep her balanced. Thus, we enriched our study with a new aspect

Table 6: Role of family

Variable	Urban slum (%)	Rural area (%)
Status in the family is changed in a positive manner	77 (37.4)	101 (47.6)
More importance in the family	26 (12.6)	39 (18.4)
Sharing of the personal problems to the family members	145 (70.3)	174 (82)
Need of emotional support during menstruation provided by the family	95 (46.1)	129 (60.8)
Are constraints during menstruation understood by your family members	177 (86)	169 (80)
Feeling of isolation during menstruation from the family members	52 (25.2)	66 (31.1)
Fear of parents after attained menarche	42 (20.4)	56 (26.4)

of “family’s role” in which we elicited the factors which support her and also the factors, which suppress her – this is a unique feature of our study when compared with other studies. We found that need of emotional support during menstruation provided by the family was 95 (46.1%) in the urban area and 129 (60.8%) in a rural area. Surprisingly, in the modern world though women have achieved wonders in various fields, they are being isolated during menstruation from the family members 52 (25.2%) in urban and 66 (31.1%) in rural areas [Table 6].

Sociocultural factors

The sociocultural practices or restrictions during menstruation were varied and still predominantly seen in rural areas and urban slum. However certain practices were common like to sleep alone during menstruation, religious practices like restriction to go to temple and pooja room irrespective of religion, residence, socioeconomic status, various cultural backgrounds from different states. This was elicited by various studies like Dasgupta and Sarkar^[6] Narayan *et al.*^[12] In our study, many dietary habits and beliefs were noted among the women, like eating less food is good during menstruation, certain foods will hasten or delay periods, and most of them tried those food items during menstruation. These observations indicate that our sociocultural, dietary practices are still more prevalent in spite of improvement in literacy status in our country.

CONCLUSION

An attempt was made to study and compare the menstrual hygiene practices between the women from urban slum and rural area, and the results showed that their hygienic practices were far better in urban slum women than the rural women. As far as the sociocultural

practices and restrictions were concerned both the places showed a similar picture as well as with the other studies. These scenarios suggest that we have to go a long way in educating and creating awareness among the rural women in relation to improve the knowledge, behavior change, and practices.

ACKNOWLEDGMENTS

I/We truly acknowledge the support and enthusiasm given by Dr. Daisy Dharmaraj (Prof. and HOD – Department of Community medicine) and Dr. Dutta Gupta (Dean) ACS Medical College and Hospital.

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How to cite this article: Arumugam B, Nagalingam S, Varman PM, Ravi P, Ganesan R. Menstrual hygiene practices: Is it practically impractical?. *Int J Med Public Health* 2014;4:472-6.

Source of Support: Nil, **Conflict of Interest:** None declared.