

Original Research Article

## Menstrual Cycle and the Misconceptions Associated with It among Young Women in Delhi-NCR, India

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### ABSTRACT

**Background:** Girls and women in rural areas are not aware about the process of menstruation and hence are guided by several taboos associated with it. However, the data on menstruation and proscriptions associated with it in urban areas is lacking.

**Objectives:** The study was an attempt to find some parameters of menstrual health and proscriptions associated with menstruation in young women of Delhi-NCR, India.

**Methods:** This study was a cross-sectional study and the data was collected by purposive sampling. The respondents included 974 girls/women who were unmarried, 18-24 years age and who were pursuing various courses in various colleges/universities of Delhi-NCR. An informed written consent was taken from each respondent.

**Results:** The results showed that the majority of women (77.62%) have regular menstrual cycles, with most of their cycle duration being 4-6 days (50.72%). A significant number of families of girls asked them to follow restrictions on religious matters (57.39%) while a significant number did not impose restrictions on food (53.18%). However, a significant larger group of girls themselves do not believe in such restrictions (70.53%) and consider menstruation as a normal physiological process (83.86%) and by themselves did not want to follow the restrictions in their life due to menstruation (70.53%).

**Conclusion:** The urban girls are more aware about menstruations and irrespective of faith, do not want themselves to be isolated, from family or society, due to menstruation. They know the significance of the process and are more aware of their right of good menstrual health.

**Keywords:** Menstruation; Menstrual Hygiene Management (MHM); proscriptions; religious restrictions

### INTRODUCTION

Menstruation is an essential and significant event in a girl's life as it changes her overall perspective. Handling menstruation in the initial years and even later on is a challenge in itself in a woman's life. The overall reproductive health of a woman depends on the beliefs she carries regarding menstruation. The source of majority of the beliefs regarding menstruation is the mother and other female relatives, friends etc. In such a scenario, if the elder women of the family and society believe in some taboos, the same will be passed on to the future generations of girls

unless education about the menstruation is imparted to these girls at a younger age.

In India, as reported in Thomas's study, society considers menstruating women impure and the phenomenon as a curse. [1] In some societies, women are left in isolation during menstruation and are not allowed to comb or bathe. Moreover, as reported by Montgomery in some households they are not allowed to cook, participate in normal household chores and are given separate utensils. [1] Due to all these restrictions imposed on menstruating women, they develop negative attitude for menstruation and this affects their mental

health. [2,3] Almost all the religions forbid women to pray or touch Holy books during menstruation. [4]

In south India, several taboos are associated with menstruation, like various conclusions about the day of menarche, time of first menstruation, color of cloth wore by girl on day of menarche as reported by Ragavan. [1] Such taboos exist more in the developing countries as compared to developed countries. The main reason for such difference is the education about menstruation and resources to handle it. The knowledge and the way women handle their menstruation depends on the socio-economic status of the family. [5] The research on menstruation is also limited because of these taboos associated with it and also because many women themselves do not know the physiology of menstruation, hence they are not able to explain it to their daughters. [5, 6]

A good menstrual hygiene management (MHM) requires some basic resources like material to absorb menstrual blood, soap, water, facilities for privacy to change the absorbents, dry the re-usable absorbent material and proper disposal of the used absorbent material and the most important is the education about the physiology of menstruation. [7] Thus, to effectively manage menstruation, women should have access to water, sanitation, hygiene (WASH) facilities. [8]

Available literature shows that many proscriptions are associated with menstruation in rural areas in India and girls/women are not aware of the actual physiology of the process and its importance. This makes handling the menstruation a difficult task for them and deprives them of the right to good reproductive health. Hence, in this study we have attempted to find out if certain taboos exist among women in a metropolitan city as well i.e. Delhi-NCR, which is home to people of various faiths and cultures.

## **MATERIALS AND METHODS**

### **Study area:**

The study was conceptualized for the young women residing in Delhi-NCR. The emphasis was on the undergraduate and postgraduate female students of the University of Delhi and other colleges in National Capital Region (NCR), India. The study was an attempt to understand their handling of menstruation and the taboos associated with it. The survey was carried out from Sep, 2015 to June, 2016. All the girls who had started menstruating, were in the age group 18-24 years and were unmarried, were included in the study.

### **Sampling Method:**

The survey was a cross-sectional study which included 974 girls, age ranging from 18-24 years viz. those who were in their early years of attaining reproductive maturity, and included girls of graduation and post-graduation courses studying in various colleges of Delhi and National Capital region (NCR), India. The data was collected by purposive sampling i.e. the respondents who volunteered to provide correct information were selected. The respondents were asked to fill a pre-designed detailed questionnaire to elicit information about their religion, menstrual patterns, regularity of menstrual cycle, duration of menstrual cycle, taboos/proscriptions associated with menstruation etc. Along with collecting the information during the survey, the girls were also explained that menstruation is a normal and an essential process occurring in women and it is important to maintain good hygiene during the process. The questionnaire was anonymized and confidentiality of the participants was maintained. Informed written consent was obtained from each of the respondents before filling the questionnaire.

### **Statistical analysis:**

The data on religion, frequency of change of napkin was expressed as percentage. The data on regularity of menstrual cycle and duration of menstrual cycle was expressed as mean  $\pm$  SD. The data

on different proscriptions associated with menstruation was divided in five groups and was tested for normality using Kolmogorov-Smirnoff Test using statistical software, SPSS Version 22.0. Normality test confirmed its normal distribution and thereafter the data was subjected to one-way analysis of variance (ANOVA) using the statistical software SPSS 22.0 and the means were compared using Tukey's HSD Test with 95% confidence intervals.

## RESULTS

The respondents in the study belonged to different faiths with 87% being Hindus followed by 6% Muslims and 3% each of Christians and Sikhs (Figure 1). While  $151.2 \pm 10.62$  girls had regular periods,  $40.8 \pm 8.79$  did not have regular menstrual cycles (Figure 2).

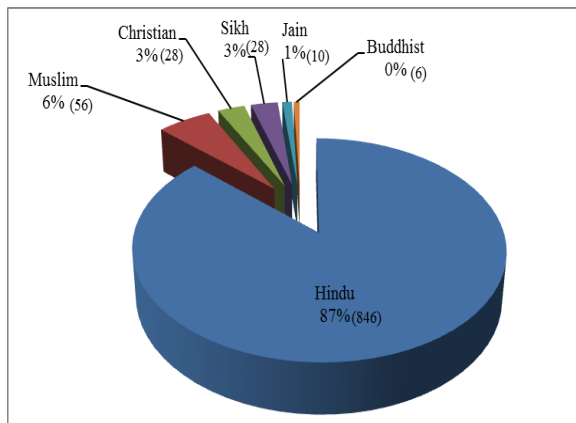


Figure 1: Religion of the respondents (N=974; Figures in parenthesis indicate actual numbers)

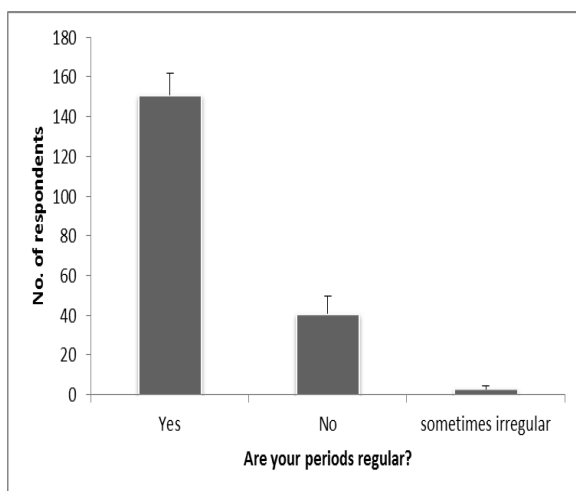


Figure 2: Regularity of the menstrual cycle (Numbers are expressed as mean  $\pm$  SD;  $p < 0.0001$ )

The menstrual cycle length was  $4-6$  days in  $98.8 \pm 9.26$  girls while  $64.4 \pm 10.36$  girls had menstruation for 3-4 days (Figure 3). While 30% girls said that they had to change the absorbent thrice during the day of highest discharge, 24% changed the absorbent four times (Figure 4).

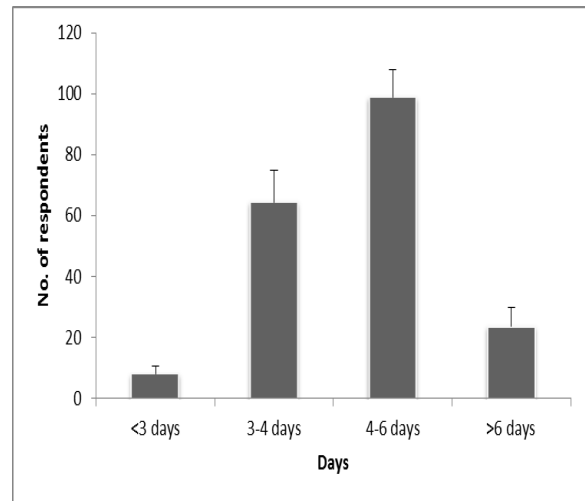


Figure 3: Duration of menstrual cycle (Numbers are expressed as Mean  $\pm$  SD;  $p < 0.0001$ )

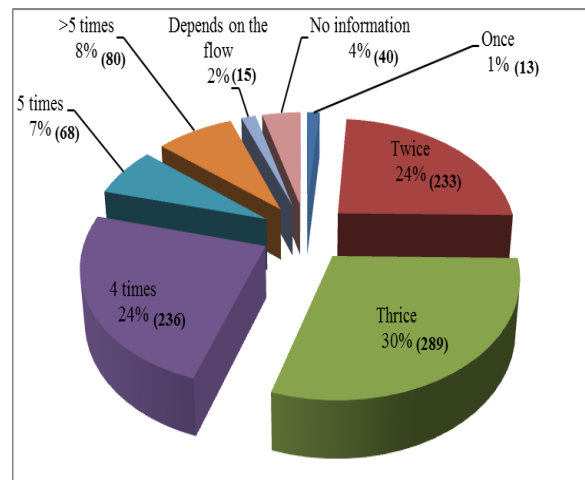


Figure 4: Frequency of change of napkin on day of highest discharge (N=974; Figures in parenthesis indicate actual numbers)

A significant number of girls (66.32%) did not miss classes during menstruation ( $F(2,12) = 785.898$ ;  $p = 0.0001$ ), did not think that menstruation makes women unclean (83.68%;  $F(2,12) = 10899.431$ ;  $p = 0.0001$ ), and did not think that a menstruating woman should not be part of the religious celebrations (70.53%;  $F(3,16) = 8507.959$ ;  $p = 0.0001$ ). However, the family members of a significant number of

girls discouraged them from praying during menstruation (57.39%;  $F(2,12)=5740.072$ ;  $p=0.001$ ) and a significant number of girls did not discuss their menstrual problems with their male friends (53.59%;  $F(3,16)=4874.251$ ;  $p=0.0001$ ). Further, while 53.18% said that there were no restrictions on the kind of food eaten

during menstruation, 46.82% said that there were restrictions on the kind of food consumed during menstruation ( $F(1,8)=8.638$ ;  $p=0.019$ ). The food that was most restricted to consume was spicy/pickles (32.02%) followed by cold food items (28.29%) ( $F(8,36)=109.015$ ;  $p<0.0001$ ) (**Table 1**).

**Table 1: Various taboos associated with menstruation in the society (N= 974)**

S. No.	Taboos	Response	n (%)	Mean $\pm$ SE	Results of ANOVA
1	Do you miss classes during menstruation?	Yes No Sometimes	276 (28.33) 646 (66.32) 52 (5.34)	55.2 $\pm$ 3.37 129.2 $\pm$ 1.46 10.4 $\pm$ 0.51	$F(2,12)=785.898$ ; $p=0.0001$
2	Do you think menses makes women unclean?	Yes No May be	150 (15.4) 815 (83.68) 9 (0.92)	30 $\pm$ 0.71 163 $\pm$ 1.22 1.8 $\pm$ 0.2	$F(2,12)=10899.431$ ; $p=0.0001$
3	Do you think a menstruating woman should not be part of religious celebrations?	Yes No Depends on celebration No comments	273 (28.03) 687 (70.53) 2 (0.21) 12 (1.23)	54.6 $\pm$ 1.03 137.4 $\pm$ 0.87 0.4 $\pm$ 0.24 2.4 $\pm$ 0.24	$F(3,16)=8507.959$ ; $p=0.0001$
4	Does your family discourage you to pray during menstruation?	Yes No No comments	559 (57.39) 403 (41.38) 12 (1.23)	111.8 $\pm$ 0.86 80.6 $\pm$ 0.93 2.4 $\pm$ 0.24	$F(2,12)=5740.072$ ; $p=0.001$
5	Do you share your menstrual problems with your male friends?	Yes No Depends No comments	433 (44.46) 522 (53.59) 7 (0.72) 12 (1.23)	86.6 $\pm$ 0.93 104.4 $\pm$ 1.21 1.4 $\pm$ 0.24 2.4 $\pm$ 0.24	$F(3,16)=4874.251$ ; $p=0.0001$
6	Are there any restrictions on food during menstruation?	Yes No	456 (46.82) 518 (53.18)	91.2 $\pm$ 2.48 103.6 $\pm$ 3.41	$F(1,8)=8.638$ ; $p=0.019$
7	Restrictions on various foods during menstruation	Sour Spicy/pickles Cold food items Coffee/eggs/hot items Rice Junk food Fruits/dairy products Oily foods Not specified	10 (2.19) 146 (32.02) 129 (28.29) 8 (1.75) 8 (1.75) 6 (1.32) 4 (0.88) 4 (0.88) 141 (30.92)	2 $\pm$ 0.45 29.2 $\pm$ 2.65 25.8 $\pm$ 1.49 1.6 $\pm$ 0.51 1.6 $\pm$ 0.68 1.2 $\pm$ 0.37 0.8 $\pm$ 0.37 0.8 $\pm$ 0.49 28.2 $\pm$ 1.93	$F(8,36)=109.015$ ; $p<0.0001$

\*Tukey HSD Test: The mean difference is significant at  $p < 0.05$  with 95% confidence intervals

## DISCUSSION

The study included girls from various faiths like Hindus, Muslims, Christians, Sikhs etc. The menstrual cycles were regular in 77.62% girls and irregular in 20.94% girls. The duration of menstrual cycle was 4-6 days in 50.72% girls and 3-4 days in 33.06% girls. As was evident from the survey that a significant number of girls spend approximately one week in menstruation every month, it becomes all the more necessary to keep a good physical and mental well-being in 'those' days. The physical hygiene can be maintained by the use of good absorbent and changing it frequently and depending on the menstrual flow. In the study it was found that 30% of the girls change the absorbent thrice a day during the day of highest discharge,

followed by 24% girls who change four times and two times each. Some girls even changed the absorbent five times in a day (7%). This indicates that every month girls have to spend one week in managing menstruation.

It is a challenge for the girls to handle menstruation and it becomes even more challenging when various types of taboos are associated with it, mainly due to lack of awareness. In the study it was found that 66.32% girls did not miss classes during menstruation while 28.33% missed the classes. The absenteeism of girls due to menstruation has been reported by other studies as well. Many girls miss the school as they do not have sufficient resources to manage menstruation, [9,10] the major cause being lack of sufficient sanitary pads. [11,12]

The lack of proper MHM facilities is also one of the main reasons for the absenteeism of girls in rural areas in Uganda. [7] Over 23% girls in India drop out of school when they start menstruating. [13]

In Delhi-NCR, 83.68% girls said that menses did not make them unclean while 15.4% said that menstruation made them unclean. In most parts of India, menstruation is considered to make women dirty and impure. [3] In India, some women also believe that menstruating women emits foul smell or rays which may spoil the pickles, hence they are not allowed to touch pickles. [14] However, this observation might be due to inability to maintain a proper hygiene and not due to menstruation. In certain parts of India, women are left in isolation when they are menstruating and are not allowed to participate in daily activities as a normal member of the family. [4]

In Delhi-NCR, families of 57.39% girls restricted them to pray during menstruation. This puts an unwanted mental stress on the girls for the duration of the menstrual cycle. The main reason of this stress is the prevalent misconception that women become impure when they are menstruating. Menstruating girls and women are not allowed to pray or enter the prayer rooms. [15-17] The practice of taboos related to menstruation confirms that it is an unclean and impure process occurring in women. [1] It is also believed that menstruating women are unclean and unhygienic, hence they will contaminate the food if they touch. [3] However, when girls were asked if a menstruating woman should be part of religious festivals, 70.53% answered in positive. This shows that in spite of the familial restrictions, the young women are more aware about menstruation and they no longer believe in the false beliefs as they consider it as a normal physiological process.

Further, discussion about menstruation with males is also a taboo which exists in society. In Delhi-NCR, 53.59% girls did not discuss menstrual

problems with their male friends as against 44.46 who discussed. This again confirmed that open discussion about menstruation or problems associated with it is still a taboo in India. [15,18] In Delhi-NCR, the families of 46.82% girls put restrictions on the kind of food they eat during menstruation while 53.18% girls reported no such restrictions. Various food items were included in the list of restricted food during menstruation like spicy/pickles (32.02%), cold food items (28.29%), sour foods (2.09%), rice and coffee (1.75% each) etc. In some places in India, girls and women are restricted from eating jaggery or papaya during menstruation. A study by Sadiq and Salih also revealed that sour and spicy food may be avoided during menstruation. [19] A study in west Bengal showed that 50% & 56% of the girls did not consume sour and spicy food respectively. [20,21] Food items such as curd, pickles, tamarind etc. are avoided during menstruation in India. [14]

## CONCLUSION

The results of the study indicated that every month girls have to spend approximately one week in managing menstruation. Absenteeism due to menstruation was not reported by 66.32% girls as they did not miss classes while 28.33% missed the classes. In Delhi-NCR, 83.68% girls said that menses did not make them unclean while 15.4% said that menstruation made them unclean. This observation suggested that girls are more aware that menstruation is a normal physiological process. In Delhi-NCR, families of 57.39% girls restricted them to pray during menstruation. Due to this women feel isolated from the family and society during menstruation. However, when girls were asked if a menstruating woman should be part of religious festivals, 70.53% answered in positive. This shows that young women don't want to follow religious restrictions due to menstruation. Further, discussion about menstruation with males is also a proscription which exists in society. In Delhi-NCR, 53.59% girls did not



discuss menstrual problems with their male friends as against 44.46 who discussed. To add to this, in Delhi-NCR, 53.18% girls did not face any restriction on the consumption of food during menstruation while 46.82% reported restriction.

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