

# A Cross Sectional Study of Knowledge, Attitude and Practices about Menstruation and Menstrual Hygiene among Medical Students in Ranchi, Jharkhand

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## Abstract

**Introduction:** Menstruation and menstrual practices are associated with taboos and sociocultural restrictions. Misconception and unhygienic practices associated with menstruation may cause adverse health outcomes. Undergraduate medical students are the future main health-care providers, and thus, their knowledge helps in transforming the community practices.

**Aims and Objectives:** This study aims to assess the knowledge, attitude, and practices of menstrual hygiene of undergraduate medical students of Ranchi, Jharkhand.

**Materials and Methods:** A cross-sectional study was conducted on 110 girls of the 1<sup>st</sup> and 2<sup>nd</sup> year MBBS students of Rajendra Institute of Medical Sciences, Ranchi.

**Results:** Out of 120 girl students of first and second year MBBS 110 students were participated in the study. Most girls 60% ( $n = 66$ ) were in the age group of 17–20 years. Surprisingly, 36% of girls were ignorant about menstruation before menarche. We also found that 60.9% ( $n = 67$ ) of students menstrual habits was inculcated by their mother. Almost all girls experienced premenstrual symptoms. 81.18% ( $n = 90$ ) of girl students were forced to practice restrictions during menses.

**Key words:** Menstrual hygiene, Menstruation, Premenstrual symptoms

## INTRODUCTION

The reproductive system of women shows regular cyclic changes that teleologically may be regarded as periodic preparations for fertilization and pregnancy. In human and other primates, the cycle is a menstrual cycle and its most conspicuous features are the periodic vaginal bleeding that occurs with the shedding of the uterine mucosa (menstruation).<sup>[1]</sup>

Menstruation has been surrounded by taboos and myths that prohibit woman from many aspects of sociocultural life. Many cultures hold on different belief and myths

that restrict women from daily activities and hygienic health practices, which lead to adverse outcomes such as infections.<sup>[2,3]</sup>

Studies reported that many girls had lots of misconceptions about the physiological changes during menstrual period. Most of these information acquired from their mothers, television, friends, and teachers.<sup>[4]</sup> Such taboos affect girl's and women's emotional states, mentality, lifestyle, and most importantly health.

In India, even mere mention of topics was a taboo in the past and even this state the cultural and social influences appear to be a hurdle for advancement of the knowledge of subject. Many girls and women are subject to restriction in their daily lives simply because they are menstruating. Not entering the puja room is the major restriction among the urban girls, whereas not entering the kitchen is the main restriction among the rural girls during menstruation. Menstruating girls and women are also restricted from offering prayers and touching holy books.<sup>[5,6]</sup> The underline

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**Month of Submission :** 10-2018  
**Month of Peer Review :** 11-2018  
**Month of Acceptance :** 12-2018  
**Month of Publishing :** 12-2018

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basis of this myth is also the cultural beliefs of impurity associated with menstruation. It is further believed that menstruating women are unhygienic and unclean, and hence, the food they prepare or handle can get contaminated. According to the study by Kumar and Srivastava, in 2011,<sup>[7]</sup> participating women also reported that during menstruation the body emits some specific smell or rays, which turns preserve food bad. Moreover, therefore, they are not allowed to touch sour foods like pickles. However, as long as general hygiene measures are taken in account, no scientific test has shown menstruation as the reason for spoilage of any food making.

Menstrual disturbances are the most common presenting complaint in adolescent group and unhygienic practices during menstruation can lead to untoward consequences such as pelvic inflammatory disease and even infertility.<sup>[8]</sup> Special health-care needs and requirement of women during monthly cycle of menstruation are collectively given the term “menstrual hygiene.”<sup>[9]</sup>

Medical students are the future main health-care providers; hence, their knowledges help in transforming the community practices. This is the reason for taking the medical students in this study.

### Aims and Objectives

The objectives of this study were as follows:

1. To assess the knowledge, attitude, and practices of menstrual hygiene of medical students.
2. To find out the beliefs, perceptions, and sources of information regarding menstruation among the medical students.

## MATERIALS AND METHODS

### Study Design

The study was a cross-sectional questionnaire-based study. A self-developed, prevalidated questionnaire was used. Data are expressed as count and percentage.

### Study Area

This study was conducted in Rajendra Institute of Medical Sciences, Ranchi, in the Department of Physiology, from August 2018 to December 2018.

### Study Population

First and second year MBBS girl students of RIMS Ranchi.

### Inclusion Criteria

Those girl students who shown willingness to participate in the study. Informed consent was taken from each and every student. A preform pre-tested questionnaire

was used. Some question had multiple options to choose from; therefore, the sum total of percentages is not always hundred percent.

### Exclusion Criteria

Incompletely filled questionnaire was excluded from the study.

### Statistical Analysis

Data were analyzed statistically by simple percentage.

## RESULT

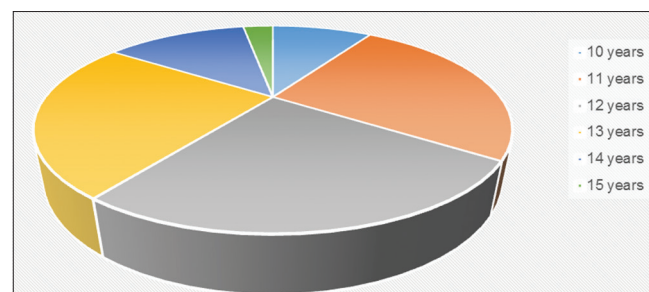
A total of 120 girl students of the 1<sup>st</sup> and 2<sup>nd</sup> years MBBS took part in questionnaire, but only 110 responses were obtained. Incompletely filled questionnaire was excluded from the study. Most girls 60% ( $n = 66$ ) were in the age group of 17–20 years followed by 40% ( $n = 44$ ) of girls in the age group of 21–24 years.

In spite of the fact that most girls having well-educated family background, only 66.73% ( $n = 74$ ) of girls have knowledge of menstruation before menarche, while 32.73% ( $n = 36$ ) of girls were ignorant about it. We found that the mean age of menarche was 12.5 years ranged from 10 to 15 which is shown in Table1 and Figure 1.

In our study, we found that 60.90% ( $n = 67$ ) of girl students have taken information for menstrual habits from their mother while friends are the main source of information in 13.63% ( $n = 15$ ) as shown in Table 2 and Figure 2.

**Table 1: Age of the attainment of menarche**

Age (years) of attainment of menarche (years)	Number of girls (%)
10	10 (9.09)
11	28 (25.45)
12	28 (25.45)
13	27 (24.55)
14	14 (12.73)
15	3 (2.73)



**Figure 1: Age of the attainment of menarche**

Almost all girls used sanitary napkin as absorbent material during their menstrual cycle. 100% of girls were reported to have the habit of washing hands after changing the pad, but only 48% (*n* - 53) were doing vaginal wash daily.

Our result shows that most of the girls have moderate menstrual flow 88.18% (*n* - 97) followed by mild menstrual flow 9.09% (*n* - 10), then heavy flow 1.8% (*n* - 2) and spotting only in 0.9% (*n* - 10) as shown in Table 3.

About 14.54% (*n* - 16) of girls used to change their pads 4 hourly during first 2 days of their menstrual cycles followed by 6 hourly 50% (*n* - 55), then 8 hourly and least was once a day 1.8% (*n* - 5).

All girls reported that they experienced premenstrual symptom with a variation in the symptom such as headache, backache, lower abdominal pain, fatigue, weakness, and mood swings. We also found that 34.5% have menses that disturb their daily routine while 76.2% have no disturbances at all.

About 81.18% (*n* - 90) of female were forced to practice restriction during menses and 18.18% (*n* - 20) were not forced to practice restriction as shown in Table 4 and Figure 3.

**Table 2: First informer about menstrual habits**

1 <sup>st</sup> informer	<i>n</i> (%)
Mother	67 (60.90)
Friend	15 (13.64)
Teacher	10 (9.09)
Magazine	8 (7.27)
Newspaper	2 (1.82)
Television	3 (2.73)
Internet	5 (4.55)

**Table 3: Categorization of the menstrual flow**

Categorization of menstrual flow	<i>n</i> (%)
Mild	10 (9.09)
Moderate	97 (88.18)
Heavy	02 (1.82)
Only spotting	01 (0.91)

**Table 4: Restriction followed by medical student in study**

Type of restriction	<i>n</i> (%)
Cannot go to religious place	69 (62.73)
Cannot enter into puja room	02 (1.82)
Cannot touch pickle	12 (10.90)
Cannot consume sour food	07 (6.36)
Not any restriction	20 (18.18)

## DISCUSSION

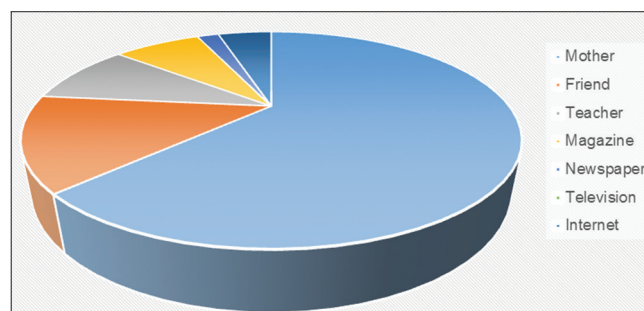
This study shows that the age of menarche ranged from 10 to 15 years with maximum number of girls falling between 11 and 12 years of age, almost similar study was conducted by Deo *et al.*<sup>[10]</sup>

In our study, 67.2% of students had previous knowledge of menstrual practices attending the menarche and this result is more than other studies done on medical students by Sharma *et al.*<sup>[11]</sup> Mother was main source of information, but only 9.09% obtained information from possible authentic sources like teachers. Mother was also the main source of information in Nigerian study.<sup>[12]</sup> However, in a study done by Juyal *et al.*, in Uttarakhand, friends were the first source of information in 31.8% of girls.<sup>[12]</sup>

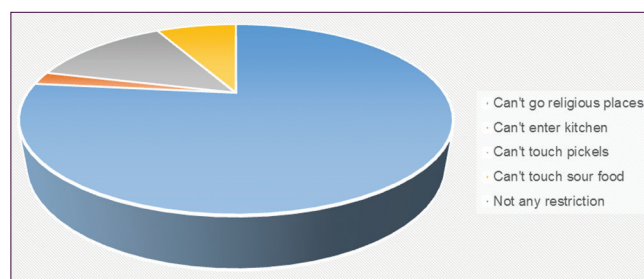
In our study, we found, almost all medical students were using sanitary napkin as absorbent material during their menstrual cycle, which is in accordance with Pokle *et al.* study.<sup>[13]</sup> However, in a study done by Sharma *et al.*,<sup>[11]</sup> only 86.36% of medical students were using sanitary napkin as absorbent material.

In the present study, 21.81% (*n* - 24) of students reported irregular menstrual cycle. This finding is more if it is compared with Pokle *et al.*<sup>[13]</sup>

We found that 80% of girls were forced to practice restriction during menses like they cannot go to religious places, not allowed to attend the religious ceremony, cannot touch pickle, and cannot consume sour food. Similar types



**Figure 2: First informer**



**Figure 3: Restriction followed by medical student**

of restrictions were reported by other studies also.<sup>[11]</sup>

## CONCLUSION

Despite being medical students, many respondents did not change their absorbent pad more frequently during menses and lack proper knowledge of information relevant to menstruation. This included the importance of increasing awareness and giving accurate information using scientific sources such as school, colleges, or health team members. It is recommended that the menstruation be discussed in courses such as science to increase the level of knowledge of female students and consequently to improve their attitude toward this physiological process.

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**How to cite this article:** Kumari A, Bara MP, Soreng IA. A Study of Knowledge, Attitude, and Practices of Menstrual Hygiene among Undergraduate Medical Students of Ranchi, Jharkhand. *Int J Sci Stud* 2018;6(9):38-41.

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