

A Cross Sectional Study on Menstruation and Menstrual Hygiene among Medical Students in a University of Rajasthan

Garg Vineeta¹, Singhal Arpana^{2*}, Jain Nikita³, Kothari Aarti⁴Associate Professor¹, Assistant Professor², Senior Resident³, Senior Resident⁴, Department of Obstetrics and Gynaecology, Rajasthan University Health Sciences cum Medical College and Hospital, Jaipur Rajasthan India

DOI: 10.36347/sjams.2019.v07i09.038

| Received: 14.09.2019 | Accepted: 23.09.2019 | Published: 30.09.2019

*Corresponding author: Singhal Arpana

Abstract

Original Research Article

Introduction - Although menstruation is a natural process, it linked with several misconception and practice which sometime result in adverse outcome. Special health care needs and requirement of women during monthly cycle of menstruation are collectively given the term 'MENSTRUAL HYGIENE'. Menstrual hygiene is an issue that every girl and women has to deal with in her life but there is lack of awareness on the process of menstruation. **Method:** A cross sectional observational study conducted amongst MBBS, medical students of RUHS CMS, Jaipur, Rajasthan A total 180 girls of 1st, 2nd, 3rd, 4th MBBS medical student between age group of 17-22 years were participated in the study. Data was collected by using pre validated questionnaire. **Results:** In our study, majority of girls 70.56% were in the age group of 18-20 years, 58.59% students had already heard about menstruation before menarche, 62.22% of student's primary sources of information for menstruation knowledge were mother. 62.22% of girls were having regular menstruation. 92.77% were using sanitary napkins as absorbent material during menstruation, Majority (87.78%) of girls were reported to experience premenstrual symptoms, (83.33%) of girls practiced various type of restrictions during menstruation

Keywords: Menstruation, Menstrual Hygiene, Menarche.

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INTRODUCTION

According to WHO, the term adolescent refer to young people between the ages of 10 and 19 years and is transition period from childhood to adult life during which pubertal development and sexual maturation takes place [1].

The first menstruation (MENARCHE) determines the transition from being a child to being a teenager. It marks the beginning of multitude of physical, physiological and psychological changes in the level of adolescent girls. It is an indication of readiness for marriage or sexual activity [2]. Menstruation is the cyclical shedding of endometrium under the hormonal influence controlled by HPO axis [3].

Although menstruation is a natural process, it is linked with several misconceptions and practice which sometime result in adverse outcome [4]. Menstruation is still regarded as something unclear or dirty in Indian society and is strongly related with misconception and cultured restriction [5]. Menstrual

disturbances are the commonest presenting complaint in adolescent age group and unhygienic practices during menstruation can lead to untoward consequences like Pelvic Inflammatory disease and even Infertility [3]. Women with premenstrual syndrome tend to have a significantly lower quality of life, increased absenteeism from work, decreased work productivity, impaired relationships with others, and more frequent visits to health providers than those who do not experience premenstrual syndrome (PMS) [6].

Special health care needs and requirement of women during monthly cycle of menstruation are collectively given the term 'MENSTRUAL HYGIENE' [7]. Menstrual hygiene is an issue that every girl and women has to deal with in her life but there is lack of awareness on the process of menstruation.

Majority of the studies were conducted among adolescent school girls of different populations so the present study has been conducted among medical students.

AIM AND OBJECTIVE

The present study conducted among medical students with the

AIM

- To assess the knowledge, attitude and practice of menstruation and menstrual hygiene

OBJECTIVES

- To find the prevalence of college absenteeism during menstruation.
- To find the distribution of symptoms of premenstrual syndrome.

MATERIALS AND METHODS

This is an anonymous Questionnaire based survey. A pre validated questionnaire was used. A cross sectional observational study was conducted amongst 1st, 2nd and 3rd year, 4th year MBBS, medical students of RUHS CMS, Jaipur, Rajasthan for a period of 3 months after the approval of ethical committee.

The purpose of the study explained to the students and an informed consent obtained from the

girls for the participation in this study and they assured of confidentiality. The prior approval from Institutional ethical committee RUHS was done.

The complete information collected from MBBS students in Predesigned and Pretested Performa with the following -

INCLUSION CRITERIA

- Girls whose age is above 17 year.
- Girls who have had menarche.

SAMPLE SIZE

180 Medical students

STUDY DESIGN

Cross sectional study.

RESULTS

Total 180 girls from first year (46), second year (40), third year (50) and fourth year (44) MBBS girls of RUHS – College of Medical Student were participated in the study and the following observations:

Table No -1 Demographic profiles of medical students

Table-1A: Age wise distribution of medical students

Age of Students (Years)	Numbers (No-180)	Percentage (%)
17	15	8.33%
18	30	16.66%
19	59	32.77%
20	38	21.10%
21	18	10%
22	7	3.88%
23	9	5%
24	4	2.22%

Table-1B: A distribution of medical students on the basis of religion

Type of Religion	Number (No-180)	Percentage%
Hindu	168	93.33%
Muslim	10	5.56%
Others	2	1.11%

Table-1C: A distribution of medical students on the basis of residential area

Area of Residency	Number (No-180)	Percentage %
Urban	148	82.22%
Rural	32	17.78%

Table No -1 Shows Demographic profile of medical students Table1A all students were in age group 17-24 years of age and majority of girls (70.56%) were in 18-20 years of age and Table 1 B out of 180

girls (93.33%) were Hindu and Table 1C 82.22% of girls belong to urban area had premenarchal knowledge as compare to rural area 17.78%.

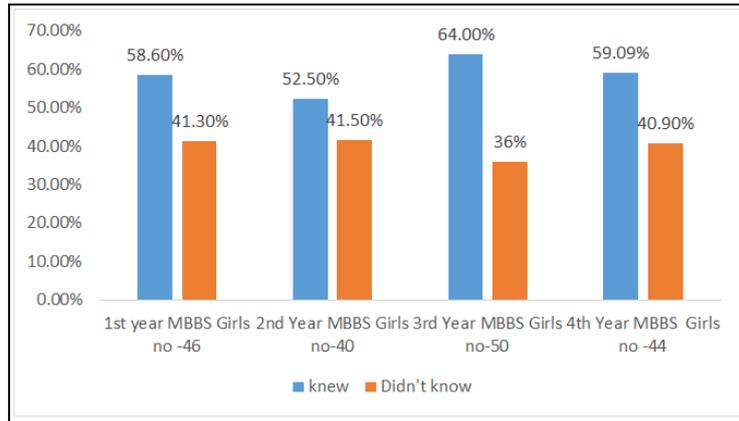


Fig-1: Distribution of medical students on the basis of pre- menarchal knowledge

Figure 1 shows that out of 180 girls, 58.60% (no-46) of first year , 52.50% (no-44) of second year, 64% (no- 50) of third year , 59 % (no-44) of fourth year

medical students had knowledge about menstruation before menarche . That is 58.59% (no-180) students had already heard about menstruation before menarche.

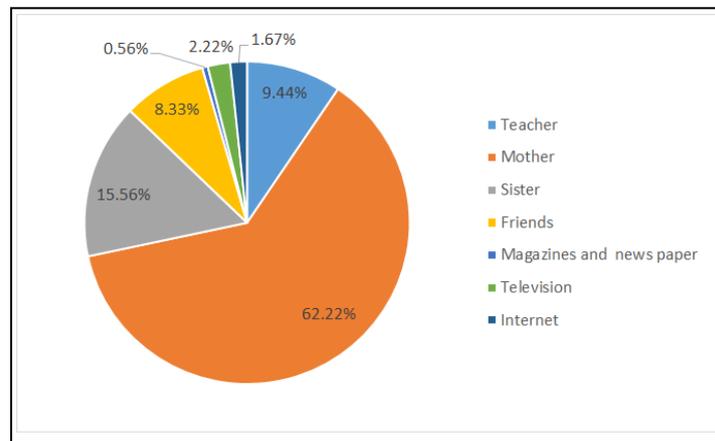


Fig-2: Distribution of medical students on the basis of main source of information

Figure 2 the primary source of information for menstruation knowledge was mother (62.22%) followed by sister (15.56%), teacher (9.44%), friends (8.33%),

and television 2.22%, internet (3%) and magazines and newspapers (0.56%).

Table 2 Distribution of medical students as per their menstrual history

Table-2A: Distribution on the basis of menstrual bleeding

Menstruation	Numbers (No -180)	Percentage %
Regular	112	62.22%
Irregular	68	37.78%

Table-2(B): Distribution on the basis of amount of blood loss during menstruation

Amount of Menstruation flow	Numbers (No -180)	Percentage %
Mild	40	22.22%
Moderate	118	65.60%
Heavy	12	6.60%
Spotting	10	5.58%

Table 2A and 2B shows 62.22% (no-112) of girls were having regular menstruation, irregular

menstruation were reported by 37.78% (n-68). 65.60% (no-118) of girls were having moderate menstrual flow.

Table3 Distribution of medical students as per menstrual hygiene

Table-3(A): Distribution of medical students as per type of absorbent use during menstruation

Type of absorbent used	Numbers (No -180)	Percentage %
Only Sanitary Napkins	167	92.77%
Both Sanitary Napkins and Cloth	13	7.23%

Table-3B: Distribution of medical students as per number of times absorbent changed in a day

Frequency of pads changed during menstruation	Numbers (No -180)	Percentage %
2-4 hrs	16	8.88%
4-6 hrs	109	60.55%
6-8 hrs	48	26.66%
Once a day	7	3.88%

Table-3C: Distribution of medical students as per number of times undergarments changed in a day

Change of undergarments	Numbers (No -180)	Percentage %
Once a day	151	83.88%
Twice a day	29	16.11%

Table 3A shows, out of 180 girls 92.77% were using sanitary napkins, 7, 23% were using tampons, or cloth or both during their menstrual period.

Table 3B shows, out of 180 girls 60.55% were needed to change 4-6 hrs absorbent during first 2 days .Of menstruation. Table 3C Majority of girls had habit of change of undergarments once a day (83.88%).

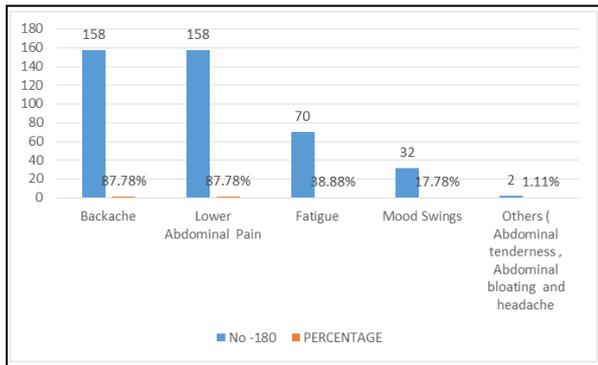


Fig-3A: Distribution of premenstrual symptoms among medical students

Out of 180 students 158 (87.78%) of girls were reported to experience premenstrual symptoms. Figure 3A: shows, shows out of 180 students majority of girls 158 (87.78%) reported to experienced backache and lower abdominal pain, 70 (38.88%) experienced fatigue, 32 (17.78%) experience mood swings other complain like abdominal tenderness, abdominal bloating and headache experienced 2(1.11%).

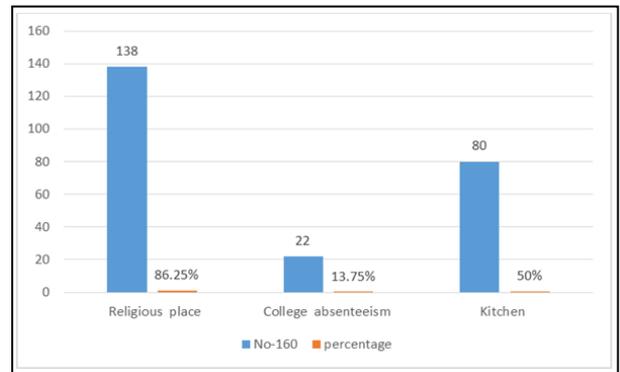


Fig-3B: Distribution of various presentations of premenstrual syndromes

Figure 3B: shows, out of 158, majority of girls had more than one complain 88 girls (55.70%) experienced both backache and lower abdominal pain, 38 girls (24.05%) had backache, lower abdominal pain and fatigue. 30 girls (18.99%) had backache, lower abdominal pain, fatigue and mood swings. 2 girls (1.265%) had all symptoms.

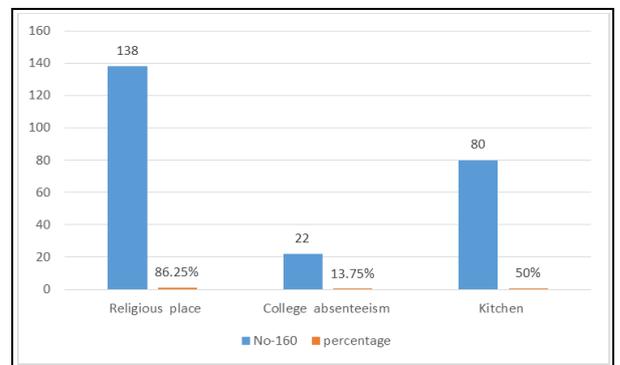


Fig-4: Distribution of medical student as per various restriction practices

Out of 180 students 160 (83.33%) of girls practiced various type of restrictions during menstruation. Figure 4 Shows, 138 (86.25%) of girls

not allow to attend religious place, 22 (13.75%) of girls did not attend college and (50%) of girls not allow to work in kitchen.

DISCUSSION

This study was based on medical students, therefore, majority of the participants were fairly aware of menstrual hygiene and also observed good menstrual hygiene practices.

In the present study all the students were aged between 17-24 years. Majority of girls were in the age bracket of 18-20 years (70.56%). Mean age of girls was 19 years. In the study done by Patel HR *et al.* [8] age range of girls was 16-22 years, mean age of girls being 19 years.

In the study conducted by Dr. Neelima Sharma *et al.* [9] age range of girls was 18-26 years and of this, 50-56% girls were in the age group of 18-20 years. In our study 93.33% were Hindus and 82.22% came from an urban area.

In our study 58.59% students had already heard about menstruation before menarche and this result is in accordance with the other studies done in medical students. In the study conducted by Dr. Neelima Sharma *et al.* [9] 67.71% students had knowledge of menstrual practices before menarche. According to the study by Adhikari P *et al.* [10] in 2007, the knowledge and practices were 40.6% and 12.9% respectively in rural adolescent girls of Nepal. According to Kalpana Katiyar *et al.* [11] 2013, awareness is only 38.5% among adolescent females in an urban area of Meerut.

In our study, primary sources of information for menstruation knowledge were - mother (62.22%) followed by sister (15.56%), teacher (9.44%), friends (8.33%), television 2.22%, internet (3%) and magazines and newspapers (0.56%) which is accordance with other study conducted by Patel HR *et al.* [8] and Dr. Neelima Sharma *et al.* [9] 2013. But according to Juyal R *et al.* [12] friends were the primary source of information in girls

In our study 62.22% of girls were having regular menstruation; irregular menstruation was reported by 37.78%. Majority of girls (65.60%) were having moderate menstrual flow. In the study by Patel HR *et al.* [8] 77.83% of girls were having regular menstrual cycle and 22.77% girls were having irregular menstrual cycle. As per Dr. Neelima Sharma *et al.* [9] 57% of girls were having regular menstrual cycle and 43% girls were having irregular menstrual cycle.

In our study 92.77% were using sanitary napkins, 7.23% were using sanitary napkins and cloth or both during their menstrual period which is similar to the results of studies by Patel HR *et al.* [8] and Dr.

Neelima Sharma *et al.* [9]. But studies done previously reported that cloths were used as main menstrual absorbent. Popularity of tampons has been decreased because of the risk of toxic shock syndrome with tampons.

In our study 60.55% girls needed to change the absorbent every 4 to 6 hours during the first 2 days of menstruation. Patel HR *et al.* [8] reported that 82.27% girls needed to change the absorbent every during first 2 days of menstruation. Dr. Neelima Sharma *et al.* [9] found that 72% girls needed to change the absorbent 6 hourly.

In our study out of 180 students 158 (87.78%) of girls were reported to experience premenstrual symptoms. Majority of girls had more than one complain 88 girls (55.70%) experienced both backache and lower abdominal pain, 38 girls (24.05%) had backache, lower abdominal pain and fatigue. 30 girls (18.99%) had backache, lower abdominal pain, fatigue and mood swings. 2 girls (1.265%) had all symptoms. Our results were similar to IPSA Mahapatra's [13] study.

In our study out of 180 students 160 (83.33%) of girls practiced various type of restrictions during menstruation. 138 (86.25%) of girls not allow to attend religious place, 22 (13.75%) of girls did not attend college and (50%) of girls not allow to work in kitchen. Our results are in contrast to Dr. Neelima Sharma's [9] study, in which only 34% girls had to practice restriction during menstruation. According to Ipsa Mahapatra *et al.* [13], 49% of girls agreed to college absenteeism during menstruation.

CONCLUSION

Menstruation is still a taboo in India and it is common for people across society to feel uncomfortable about the subjects. The taboos surrounding this issue in the society prevent girls and women from articulating their needs. Good menstrual hygiene is crucial for health education and dignity of girls and women. Menstrual hygiene is vital aspect of health education. Menstrual hygiene is important risk factors for reproductive tract infection. Today millions of women are sufferers of RTI and its complications and often the infection is transmitted to the offspring. The girls should be aware about the significance of menstruation and development of secondary sexual characteristics, selection of a sanitary menstrual absorbent and its proper disposal. There should be multi-dimensional approach through educational television programmes, compulsory sex education in school curriculum and the distribution of pads through machine and above all knowledgeable parents raise their confidence and self-esteem, and the received education would wipe away the old wrong ideas and make her to feel free to discuss menstrual matter without any inhibitions.

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