Perception of menstrual hygiene and complications related to it among medical students.

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Abstract

Background: Menstrual hygiene is an issue that is insufficiently acknowledged. Menstruation and menstrual practices are still clouded by taboos and socio-cultural restrictions resulting into adverse health of females. The present study was designed to assess the knowledge, attitude, practice, and health related issues regarding menstruation among medical students, which will add up to the lacking data regarding menstrual hygiene among medical students.

Objectives: To assess knowledge, attitude and practice of menstrual hygiene among medical students and prevalence of health-related issues related to menstruation.

Methodology: A cross-sectional study was conducted in May-June 2020, online data is collected through questionnaire from 118 medical students studying in Karnataka Institute of Medical Sciences, Hubli, Karnataka, India.

Results: From our analysis, we have found that there is adequate knowledge, good attitude, and practice of menstrual hygiene among medical students. There is also positive correlation between menstrual hygiene practice and its related health issues.

Conclusion: This study highlights the need for more intensified methods to generate a population who are more aware and complaint to practice and participate in spreading hygiene menstrual practices.

Key words: Menstruation, medicos, health problems, KAP, prevalence.

Introduction

Menstruation is a regular biological process that a woman undergoes during the most important stage of her life. Every woman spends around 20 to 25 years in menstruating throughout her lifetime. Although menstruation is a natural process, it is a topic of discomfort for many ladies and so is the discussion regarding menstrual hygiene. Due to which it is not well acknowledged and neglected.

Problems associated with menstruation are rarely discussed, this burdens young girls by keeping them ignorant of this biological function. Substantial lack of knowledge regarding menstruation and menstrual hygiene has linked this crucial topic with several misconceptions and taboos, especially among adolescent girls[1].

Around the world, women have developed their own personal strategies to cope with menstruation. Increased knowledge about menstruation escalates safe hygienic menstrual practices, which makes them less vulnerable to genital and urinary tract infections and its other long-term consequences[2]. It is worthwhile to mention that poor menstrual hygiene comes in the way of achieving the several Sustainable Development Goals like good health and well-being, quality of education, gender equality, and environmental sustainability. According to NFHS-4 sate report, around 70% of the women aged 15-24 years use hygienic methods of protection during their menstrual period[3].

In a quantitative survey conducted in rural Uganda, it was mentioned that adequate menstrual hygiene management would require the following: clean absorbents, adequate frequency of absorbent change, washing the body with soap and water, adequate disposal, and privacy for managing menstruation[4].

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Such information is lacking especially among medical students and as future care providers, their knowledge helps in transforming community practice. Imparting appropriate information about menstruation may influence a girl's beliefs and attitude towards menstruation in later years[5]. This study was an attempt to fill out such a gap, by studying perception of menstrual hygiene and complications related to it among medical students.

Objectives:

1. To assess knowledge, attitude, and practice regarding menstrual hygiene among medical students.
2. To estimate prevalence of menstrual hygiene related problems among medical students.

Materials and methodology:

Study design: A Cross Sectional study was conducted on 118 medical students of Karnataka institute of medical sciences, Hubli, Karnataka, India between 11th May 2020 to 7th June 2020 (1month)

Method of data collection:

A questionnaire was prepared using Google form which was circulated among medical students through WhatsApp. The questionnaire could be accessed only after the participant signed the informed consent form and then subsequently the data entered was recorded and used to generate information after thorough analysis using Microsoft Excel sheet. Each of the responses was given a weighted score and the study group was assessed based on the total scores. Statistical analysis was done using SPPS software version 17.

Questionnaire consists of:

Section A - Social demographic data.

Section B - Knowledge based questions on menstrual hygiene

Section C - Attitude based questions

Section D - Practice based questions

Section E - Health related questions

Results:

Table 1: Sociodemographic details of the study participants.

Attributes	Number (N=118)	Percentage
Age in years		
17-19	20	17.09%
20-22	79	67.52%
23-25	19	15.38%
MBBS year		
First year	15	12.82%
Second year	34	29.08%
Third year	52	44.44%
Fourth year	8	6.83%
Interns	9	7.63%
Religion		
Christian	6	5.13%
Hindu	93	78.81%
Muslim	18	15.38%
Others	1	0.9%
Education status of participants mother		
Illiterate	2	1.70%
Primary school	2	1.70%
Middle school	2	1.70%
High school	27	23.07%
Intermediate	25	21.37%
Graduate	35	29.91%
Professional degree	25	21.19%
Type of family		
Joint	11	9.40%
Nuclear	104	88.88%
Three generation	3	1.70%
SES according to modified B G Prasad classification		
Lower middle class	1	0.86%
Upper middle class	2	1.86%
Upper class	115	98.29%

Table 1 shows that 67.52% (79) of the study participants belonged to the age group of 20 to 22 years, and were studying third year of MBBS (44.44%, 52). Among our study participants 78.63% (92) had faith in Hindu religion and belonged to nuclear family (88.88%,104) and 98.29% (115) were belonging to upper class of socioeconomic status by modified BG Prasad scale. Among our study participants, 98.3% (115) of their mothers were literate among whom 20.51% (24) were professional degree holders.

Results on knowledge:

In this study it was observed that 98.3% (116) had an understanding that menstruation is discharge of blood

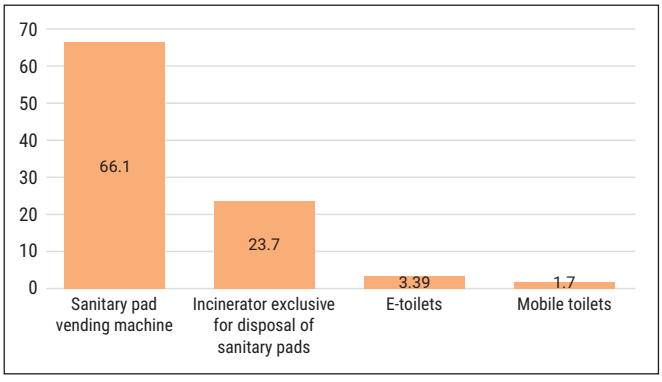
from vagina, information regarding menstruation was obtained from mother of the participant (83.9%,99) and other sources were, friends (6.78%,8), health care worker (0.85%,1), television/ media (4.14%,5) and others. There were 72.9% (86) of the participants who had knowledge of menstruation before attaining menarche.

Table 2: Types of absorbents known to study participants.

Types of absorbents	Frequency (N=118)	Percentage
a. Sanitary towel/cloth	71	60.17
b. Sanitary napkin/ Pad	116	98.31
c. Tampons	71	60.17
d. Menstrual cup	73	61.9

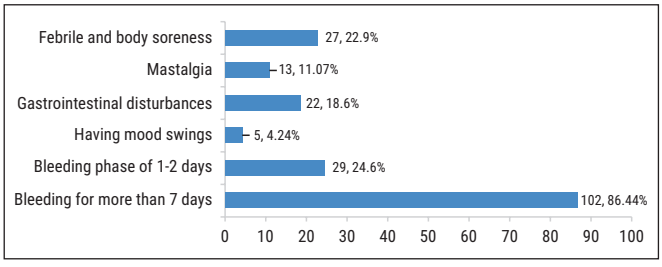
As the Table 2 depicts, 98.31% (116) participants were aware of sanitary napkin/ Pad and were also using the same. Some of the other absorbents known to the participants were sanitary towel/ cloth (60.17%, 71), tampons (60.17%,71), menstrual cup (61.9%,73).

Figure 1: Distribution according to knowledge about the services related to menstrual hygiene.



They were also aware of some of the services to ease the use and disposal of sanitary pads depicted in Figure 1.

Figure 2: Distribution of participants according to knowledge regarding conditions not perceived as normal during menstruation.



The above figure 2, represents the some of the conditions which were not perceived as normal during menstruation by the study participants.

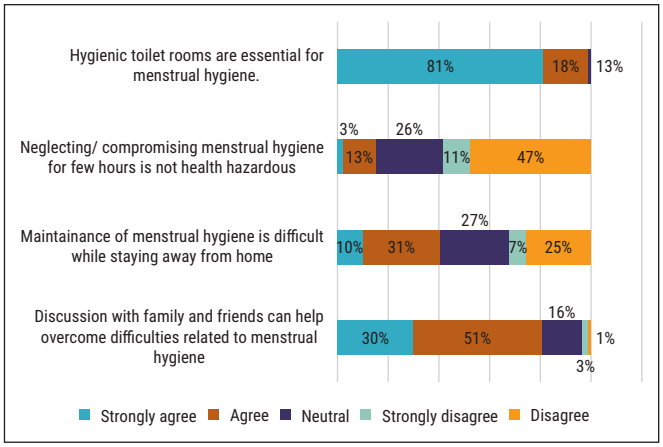
In this study it was noted that about 97.45% (115) of the participants agree that maintaining menstrual hygiene will eventually improve health of female and reduces morbidity and mortality among them. They also were aware that washing hands before cleaning genital area can prevent local infection (98.3%,116). Among the study participants 92.4% (109) believed that access to clean water and use of soap for cleaning genitals is important to prevent local infection.

There were about 99.14% (117) participants who believed that maintenance of hygienic toilet rooms is essential for maintaining menstrual hygiene as well, 56.46% (69) believed that neglecting/compromising menstrual hygiene for a short span of time could be health hazardous. In this study it was also observed that about 68.65% (81) of the participants believed that changing type or brand of absorbent frequently was important. 91.5% (108) of the participants had an understanding that washing undergarments used during menstruation with water was not enough and that, improper menstrual hygiene can lead to Reproductive tract infections (95.8%,113).

On further analysis using scoring for the responses on knowledge-based questions, by allotting 1 point to the appropriate response, it was found that majority of respondents 110 (94.01%) had adequate knowledge regarding menstrual hygiene.

Results on attitude:

Figure 3: Distribution of study participants according to their response for attitude-based questions.



The above figure shows that there were 95 (81%) participants who were open to share their difficulties related to menstrual hygiene and seek solutions, whereas 19 (16%) were neutral regarding helpful opinion from family and friends. About 48 (41%) participants found it difficult to maintain required

menstrual hygiene when away from home, but 32 (27%) were neutral regarding it. Though 31 (26%) of the study participants had neutral opinion but the majority i.e., 69 (58%) of the participants believed that neglecting or compromising menstrual hygiene for few hours too can be health hazardous. Almost all the participants (117,99%) agreed to the statement that hygienic toilets are essential for menstrual hygiene practice.

Study participants also expressed the need of sanitary vending machine at hostel (80.50%, 95), college (72.03%, 85) and at hospital (71.18%, 84); only 3.38% of the participants claimed of having no such need. And about 93.22% (110) of the study participants would feel disgusted to see used sanitary pads thrown openly.

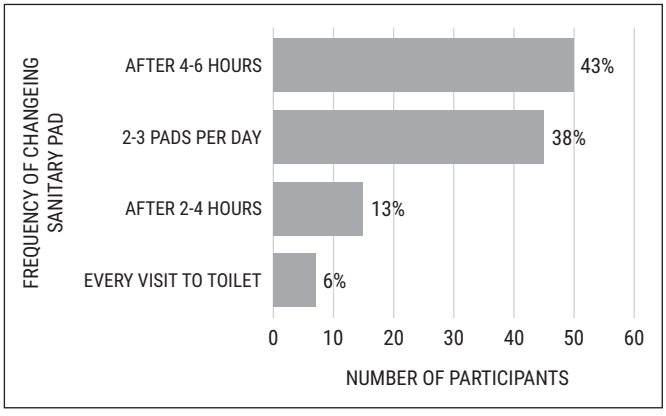
The various responses from the participants also represents the **positive** attitude of study participants (99, 84.6%) regarding sharing good menstrual hygiene practices and being open for suggestions when in need. They also encourage imparting knowledge regarding menstruation among school going children.

This study also shows that 55% (65) of the participants would get influenced by advertisements for their choice of type of sanitary pads.

Results on practice:

Among the participants 28.8% (34) have ever used a sanitary vending machine and an incinerator for discarding used sanitary pad (93.2%, 110).

Figure 4: Distribution of study participants according to their frequency of changing sanitary pads during menstruation.



In this study it was observed that approximately 98.31% of the participants use disposable sanitary pads/ napkins, whereas 1.69% of the participants use reusable napkins.

Almost all (98.3%, 116) of the participants preferred taking bath daily even during menses, but 0.8% of the participants bath on 1st day of menstrual cycle only. This study observed that there were 60.1% (71) participants who used water and soap for cleaning genitals during menstruation whereas 30.5% (36) would use only water, there were also 10% (12) participants who use vaginal wash for the same.

In this study it was also found that majority (91,77%) of the study participants would discard the used sanitary pads in pad disposal bin and around 15% would discard it in bin for routine

Table 3: Various habits of the participants during menstruation.

Habit during menstruation	Number (N=118)	%
a. Medication	19	16.1
b. Thoroughly involve in activities	33	27.9
c. Taking rest	91	77.1
d. Yoga/meditation	12	10.1
e. Herbal drink	16	13.5
f. Chocolate/coffee	31	26.2
g. Ice cream	24	20.3
h. Others	5	4.2

Though there were 61% (72) participants whose academic activities were not affected by menstruation but about 33% (39) of the participants who's academic was affected for at least 1 to 3days per cycle, and there were just 51.6% (61) who could perform their activities like any other day.

In this study it was also observed that about 22% (26) of the participants had to follow traditional restrictions during menstruations like not entering kitchen or prayer room, wearing old clothes and restriction from prayers.

Overall, it was found that 73% (85) of the study participants had good practices whereas 32 (27%) of the study participants had health hazardous habits related to menstrual hygiene.

Health related issues related to menstruation:

Regarding the health-related issues of the participants during menstruation, about 86.44% (102) considered themselves of having moderate type of bleeding phase during menstruation whereas 8.47% (10) had heavy bleeding phase. And participants of the study revealed history of premenstrual symptoms, which would begin at least 3-4 days before onset of menstruation and relieve either with onset or during the bleeding phase. Figure 5 depicts some of the premenstrual symptoms experienced by the participants.

Figure 5: Distribution of participants according to their experience of premenstrual symptoms.

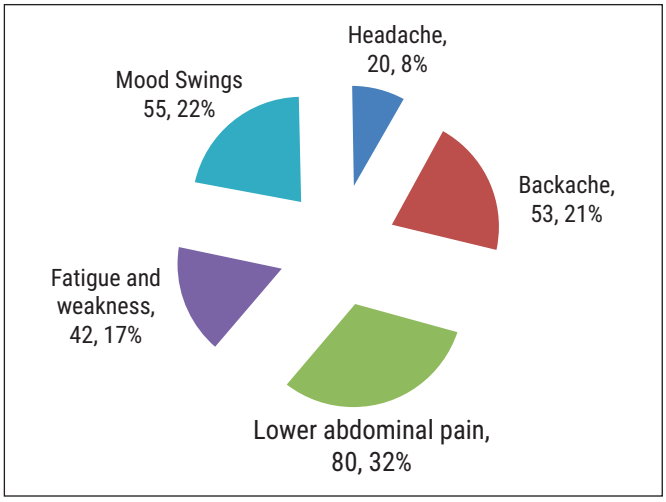


Table 4: Distribution of participants according to their experiences during menstruation.

Sl. No	Health conditions during menstruation	Number of participants (N=118)	%
1	Rashes due to use of sanitary pads	45	19.31
2	Burning sensation during menstruation	9	3.86
3	Foul smelling vaginal discharge	14	6.00
4	Frequent urge for micturition	19	8.15
5	Pruritus in vagina	2	0.85
6	Passage of clots	36	15.45
7	Pelvic pain	44	18.88

In this study apart from the above findings, there were about 5.93% (7) participants who would have fever for at least one day during every menstruation cycle, fungal infection in genital area during menstruation (2.53%,3).

Thus, among the study participants, 62.7% (74) had no health issues during menstruation.

Table 5: Overall assessment of the Knowledge, Attitude, and practice of the study group.

Parameter	Response	Scores	Number (%)
Knowledge	Adequate	>8	110 (93.2%)
	Inadequate	<8	8 (6.8%)
Attitude	Positive	>6	99 (83.9%)
	Negative	<6	19 (16.1%)
Practices	Satisfactory	>5	85 (72%)
	Unsatisfactory	<5	33 (27.9%)

Significant association was found between knowledge and practice of the study participants (df=1, p = 0.006) by using Pearson's chi square test at 95% of confidence.

Discussion:

In this study, it was noted that more than half (72.9%, 86) of the participants were aware of menstruation before attaining menarche, which is comparable to most of the studies, but some studies have also reported less than half of the girls being aware of menstruation before menarche[6,7].

A cross sectional study on menstruation and menstrual hygiene among medical students of Valsad reports sanitary napkins to be the preferred absorbents but there were 13.3% of the girls who preferred using reusable cloths.[8] Similar findings were observed in our study wherein 98.31% of the participants preferred using disposable sanitary pads/ napkins, whereas 1.69% of the participants use reusable napkins.

A review article by Kaur has discussed the various practices and challenges faced by girls, it also mentions requirement of basic sanitation facilities, along with soap and menstrual absorbents to manage menstruation hygiene[9]. In our study it was observed that 43.2% of respondents changed sanitary pads after 4-6hrs irrespective of type of menstrual flow, whereas in a study titled Knowledge, attitude and practices of menstrual hygiene among medical students in North India by Neelima Sharma showed 72% of the respondents changed pads 6hrly on first 2 days[1] and a study by Sanhita Shyam Pokle reported that 59.69% of the participants changed pads 2 times or less per day.[5] Regarding the menstrual hygiene, in the current study approximately 10% of the participants used specific vaginal wash, the usage of which is also found in study conducted by Neelima Sharma wherein 42% of the study participants used vaginal wash[1].

In our study, we also observed that 20.99% of respondents were found to have mood swings and 12.01% of respondents had urinary problems which is comparable with study by Sanhita Shyam Pokle wherein 74.42% had mood swings and 6.98% had urinary problems[5].

In this study participants revealed various health issues they experienced as premenstrual or during menstruation despite of which most of them positive attitude (99, 84.6%) towards the sharing and caring regarding menstruation, this is similar to findings of the study conducted by staffs of St. John's Medical college, which also reported positive attitude towards the process of menstruation[6].

Recommendations:

In this study as well as many other studies it was observed that most common source of information was Mother, friend or any other family member. Thus, educational institutes like schools, health care workers should also play a role in creating awareness regarding menstrual hygiene and menstruation to eliminate the myths and taboos regarding menstruation as well as to cultivate good menstrual hygiene.

Conclusion:

It was evident from our study that there is adequate knowledge regarding menstrual hygiene and a positive attitude towards menstrual hygiene. There was an association between knowledge and practice ($p = 0.006$), adequate knowledge resulted in good and better menstrual hygiene practice among medical students. Fortunately, many did not suffer from health-related issues. Since most of the students belonged to higher socio-economic status and had educated mother, they were aware of hygienic measures. It was also found that not many were aware of sanitary pad vending machine and very few had ever used it.

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