

Original Research Article

A Study of Menstrual Hygiene Management and College Absenteeism among Female Medical and Dental Students in a University of East India

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Received: 21/10/2016

Revised: 19/11/2016

Accepted: 22/11/2016

ABSTRACT

Introduction: Menstrual Hygiene Management [MHM] has not received attention in reproductive health sectors of developing countries, exposing girls to RTIs. In India, practices are still poorer because of socio-cultural taboos. Doctors' being the main health care providers, their knowledge helps transform society.

Objectives: To assess the practices of menstrual hygiene among female Medical and Dental undergraduate students in Kalinga Institute of Medical Sciences & Kalinga Institute of Dental Sciences. To find associations of MHM practices with regards to their parents' education, SES, and religion. To assess the effect of menstruation on college absenteeism among them.

Materials and Methods: A cross-sectional study was conducted from 15th April-15th July, 2016. All students present on the day of data collection and giving consent were included. 441 students participated; a pretested self-administered, anonymous questionnaire was used. Data was analysed using EpiInfo (3.5.4). Chi-square test was used with p value <0.05 as significant.

Result: 67% were in the age group of 20-24yrs; 57% girls were ignorant about menstruation before menarche. In 80% of students, menstrual habits were inculcated by their mothers. 88% used sanitary napkins as absorbent material during menstruation, 96% of whom practiced vaginal washing. 90% of girls experienced premenstrual symptoms. A significant association was found between good menstrual hygiene and participants who had adequate knowledge about menstrual hygiene, parents' level of education.

Conclusion: Majority of the participants had adequate menstrual hygiene knowledge and practices. Different factors affect menstrual hygiene such as source of information, religion, and prior knowledge. Religious and cultural taboos caused a lot of restrictions in their daily routine.

Keywords: Practice, Menstrual Hygiene, Cross-Sectional

INTRODUCTION

Menstruation although a natural, normal biological process, yet is less spoken of, making around India's 113 million adolescent girls vulnerable at menarche [1]. The onset of menstruation represents a landmark event in pubertal development of an adolescent girl. Menstrual Hygiene Management [MHM] has not received adequate attention due to socio-cultural

taboos in developing countries, including India. Insufficient and incorrect information regarding menstruation is often a cause of unnecessary restrictions in the daily and normal activities of girls. MHM is defined as the (i) articulation, awareness, information and confidence to manage menstruation with safety and dignity using safe hygienic materials together with (ii) adequate water and agents and spaces for

washing and bathing with soap and (iii) disposal of used menstrual absorbents with privacy and dignity. ^[1]

MHM in spite of being a felt need was not acknowledged in the past the need to address the issue of menstrual health has been felt for quite some time now as it has important bearing on the health and development. An important phase of girls' "growing up", which has significant role in developing healthy self-esteem, positive self-image, responsible and clean habits for whole of life. The need for timely information given with a "personalized" caring attitude cannot be under-estimated in any manner. Besides, the lack of knowledge and awareness also lead to poor personal hygiene practices, during menstruation, leading to RTIs. MHM is now an integral part of the Swachh Bharat Mission Guidelines (SBM-G). ^[1]

Absenteeism is a term defined as "the practice of regularly staying away from work or school without good reason". ^[2] Dysmenorrhoea is seen to be associated with college absenteeism and restricted participation in various activities. Causes of absenteeism may be many, but here we will deal with the absenteeism that take place due to menstruation, among the medical and dental students

Menstrual taboos are still prevalent in today's modern world and society; menstruation and menstrual practices are still under their shadow. Doctors are the main healthcare providers of our society, thus their knowledge, attitude and practices of menstrual hygiene is the one that will help in bringing a change in the society. With this background our study was done with the following objectives:

- To assess the practices of menstrual hygiene among female Medical and Dental undergraduate students in KIMS& KIDS.
- To find associations of MHM practices with parents' education, SES and religion.
- To assess the effect of menstruation on college absenteeism among them.

MATERIALS AND METHODS

The present study was a cross-sectional study which was undertaken in Kalinga institute of Medical Sciences (KIMS) and Kalinga Institute of Dental sciences (KIDS), of KIIT University, Bhubaneswar, Odisha, India, among the female medical and dental undergraduate students. Study period was from 15th April to 15th July, 2016. All students present on the day of data collection and giving consent were included in the study. Data was collected using a pre-designed, pre-tested, semi-structured, self-administered anonymous questionnaire with the variables of age, age of menarche, knowledge about menstruation, regularity of cycles, use of sanitary pad, cloth or other absorbents during menstruation, practices and restrictions during menstruation.

Consent was taken from the study participants before the start of the study and they were assured of confidentiality. The prior approval from the Institutional Ethics Committee, KIMS was taken. The study participants were given health education about the importance of menstrual hygiene.

Operational definitions: ^[1,3]

Adolescent girls: Adolescence describes the transitional period between childhood and adulthood. Girls aged 10 to 19 are adolescents ^[1]

Menarche: The first occurrence of menstruation ^[1]

Menstruation: A biological process in a woman where each month blood and other material is discharged from the lining of the uterus. Menstruation occurs from the onset of puberty until the menopause, except during pregnancy. ^[1]

Knowledge of Menstrual Hygiene: To measure the respondent's knowledge of menstrual hygiene, we used twelve questions. Each correct response earned 1 point, whereas any wrong or don't know response attracted no mark; the total score of knowledge was calculated (12 points). Respondents that scored 0-3 points were adjudged as having poor knowledge; whereas those that scored 4-6 were

adjudged as having fair knowledge 7–12 points as good knowledge”. [3]

Statistical Analysis

Data was analysed using EpiInfo (software version 3.5.4). Chi-square test was used to identify the association with p value <0.05 as significant.

RESULTS

A total of 497 female medical and dental undergraduate students took part in the questionnaire, but 441 complete responses could be obtained. Incompletely filled questionnaire were excluded from the analysis [Fig 1].

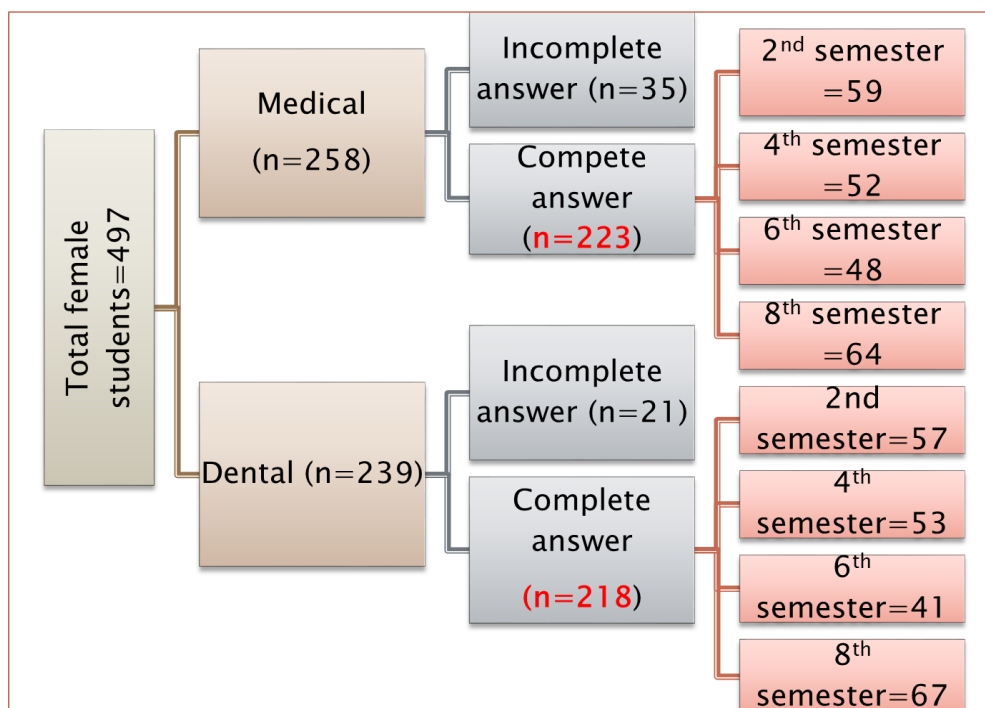


Figure 1. Total eligible female (medical and dental students)

Most of the girls (67%) were in the age group of 20-24yrs, 32% less than 19 yrs, followed by 6 girls who were above 25 years. 57% girls were ignorant about menstruation before menarche. Mean age of attaining menarche was 12.6yrs (SD ±1.08); ranges were 9-17yrs. In 80% of students, menstrual habits were inculcated by their mothers.

Majority of the participants (86%) practiced good menstrual hygiene and had

adequate menstrual hygiene knowledge. 390 (88%) girls used sanitary napkins as absorbent material during their menstruation. The participants’ knowledge of menstruation and its hygiene management was scored using a scoring system adopted from previous study [3]. Students’ menstrual knowledge score was calculated out of the 12 knowledge specific questions (Table 1 & 2).

Table 1: Participants’ knowledge about menstruation and its management

Variable	Numbers [n=441]	Percentage [100%]
Heard about menstruation before menarche	251	56.92
Feel comfortable to talk about menstruation	132	29.93
Knew common age range of menarche	397	90.02
Knew normal menstrual bleeding duration	326	73.92
Knew duration of a normal menstrual cycle	106	24.04
Knew disposable sanitary pad as menstrual soak up	427	96.83
Aware that menstruation is a physiologic process	180	40.82
Aware that menstruation is due to hormones	180	40.90
Aware that menstrual blood is from uterus	101	29.90
Aware that a girl cannot conceive during menstruation	221	50.11
Had learnt menstruation & its hygienic management in school	384	87.07
Aware that a girl can do normal routine work during menstruation	381	86.39

NB: Multiple responses

Table 2: Participant's knowledge grading on menstruation and its management.

Grading	Frequency (n=441)	Percentage (%)
Poor (0-3 points)	73	16.56
Fair (4-6 points)	184	41.72
Good (7-12 points)	184	41.72

Specific questions on menstrual hygiene management practices were asked to the study participants which has been given in details in Table 3.

Table 3: Practices of menstrual hygiene management.

Practices	Percentage of girls practicing.
Wash genitals daily	96%
Cleaning of genitals with soap or vaginal wash.	88.41%
Change of undergarments during the menstrual days.	95.72%
Washing of hands after changing absorbent (pad).	91.43%
Cleaning of pubic hair.	92.86%
Dispose of absorbent during menstruation.	100%

Questions on taboos practiced were also asked to the participants, and it was found that out of 441 participants, 356(80.72%) practiced some or the other taboos during menstruation, the most common being prohibition to go to religious places/ read religious texts/ offer prayers/ to keep fasts (54.4%).

Using bivariate analysis, a significant association was found between

good menstrual hygiene and participants who had adequate knowledge about menstrual hygiene, mother's and father's level of education and religion.

(Table 4)

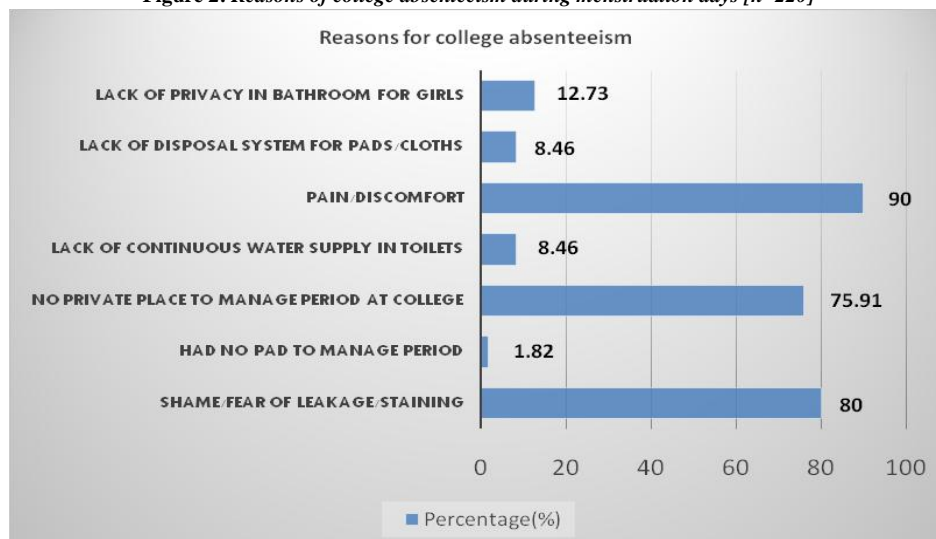
For the purpose of analysis, we clubbed fair + good together as adequate knowledge;

n= 441, poor=73, adequate=368

Table 4: Association of menstrual hygiene management knowledge with certain parameters.

Variables	Knowledge Regarding MHM		Chi Square test	P value
	Adequate	Poor		
Education of mother			$\chi^2 = 106.97$	P < 0.0001
Secondary	6	21		
Graduate	188	50		
Post-graduate	174	2		
Education of father			$\chi^2 = 120.77$	P < 0.0001
Secondary	4	9		
Graduate	61	49		
Post-graduate	303	15		
Religion			$\chi^2 = 92.2$	P < 0.0001
Hindu	353	44		
Muslim	6	20		
Christians	5	6		
Others	4	3		

Figure 2: Reasons of college absenteeism during menstruation days [n=220]



N.B. multiple responses.

Of the total number of study participants, nearly 220 [49.88%] reported college absenteeism during menstruation [Figure 2.]; 64% of whom said it upset their daily routine. The reasons for college absenteeism cited by more than 90% was pain and discomfort, followed by shame/fear of leakage or staining (80%).

Almost 90% (396) had experienced some or the other premenstrual symptoms. The most common premenstrual symptoms included backache (89.8%) and lower abdominal pain (50%). Other symptoms experienced by the girls included mood swings (2.94%), head ache (5%), fatigue and weakness (11.9%)

DISCUSSION

This study was done among the female medical and dental students, therefore, majority of the participants had fair or good level of menstrual hygiene knowledge and also practiced good menstrual hygiene practices.

The mean age group of the study population was around 21.09 years (SD ± 1.17) and 67% of the girls were in the age group of 20-24 years, the findings are similar to other studies. [4-6]

The mean age of attainment of menarche in our study was 12.6 ± 1.08 years which was almost similar to most other studies done in different populations all over India. [4-8]

In our study 56.92% students had already heard about menstruation before menarche, which was found to be almost similar to other studies like *Dasgupta A et al*, *Juyal R et al*, *Sharma N et al*, *Deo S et al* which were done in different study populations. [4,5,7,8]

More than 90% of the girls in our study had an idea about the common age range of menstruation and 96.83% girls knew that disposable sanitary pad was used as menstrual absorbent.

In this study 88% of the girls were using sanitary pads as menstrual absorbent material, other studies, [5] shows similar

results. But in old studies, a higher use of cloth as absorbent was found. [4,6]

In our study more than 80% of the girls were introduced regarding the menstrual habits by their mother, whereas in *Dasgupta A et al 2008*, 37.5% and in *Sharma N et al*, 35.22% mothers were the first informer which were also similar to *Thakre S. B. et al*. [4,6,7] In a study done in Urban adolescent like *Katiyar K et al*, in 66.9% girls menstrual habits were introduced by the mother. [9] In many other studies friends was also a big source of information regarding menstruation.

Backache and lower abdominal pain were reported as the most common premenstrual symptom in our study. Mood swings and headache were also found to be common among certain girls.

Unhygienic practices and taboos are highly practiced even now in our country. In our study, as high as 81% girls practiced some or the other taboos related to menstruation., taboos like prohibition to go to religious places, offer prayers etc. were found to be maximum (54.4%).

Such practice of taboos were also found in other studies like *Dasgupta et al*, *Thakre SB et al* *Sharma N et al* as well, [4,6,7] but in our study the number was found to be higher.

In our study 49% of the students agreed to have practiced college absenteeism during menstruation. Among them 90% said it was due to pain and discomfort and around 80% said it was due to fear of shame and leaking. In a study done in 7 schools of North eastern Ethiopia, *Tegegne T. K. et al 2014*, 40- 60% adolescents agreed to have practiced absenteeism from school during their menstruation. The reasons were very similar to our study, like shame or fear (82%), pain and discomfort etc. [3]

A large number of studies have been done on practices of menstrual hygiene, but there is a paucity of studies among health care professionals, hence we took this study.

Our study being a cross-sectional one, had the limitation of not being able to

establish a causal relationship between the practices and other variables. Due to the sensitive nature of the issue there may be social desirability bias.

CONCLUSION

Menstruation is still a taboo in India and it is common for people across society to feel uncomfortable about the subject. Coupled with it, is the fact that there is lack of information on the process of menstruation, and proper requirements for managing menstruation. The taboos surrounding this issue in the society prevents girls and women from articulating their needs and the problems of poor menstrual hygiene management have been largely ignored or misunderstood. Good menstrual hygiene is crucial for the health, education, and dignity of girls and women. Equipping adolescent girls with adequate information and skills on menstrual hygiene and its management helps in empowering them with knowledge which enhances their self-esteem and positively impacts academic performance.

However, menstrual hygiene management is a social issue that cannot be addressed by working in schools alone. In order to ensure that adolescent girls and women have the necessary support and facilities, it is important that the wider society, communities and families must challenge the status quo and break the silence around menstruation. There is a need to change family and community norms and beliefs in this regard. Not being able to talk about their experience and having limited information means that menstruation becomes something to be ashamed of and to hide, and is consequently ignored in families, schools and communities in many families, the mother has limited experience in explaining the management of menstruation with regard to schooling, mobility or outdoor activities.

It is therefore the responsibility of those with influence - including government officials and teachers, to find appropriate ways to talk about the issue and

take necessary actions.

ACKNOWLEDGEMENTS

To all the study participants for their cooperation and valuable time. The Principal, Kalinga Institute of Medical Sciences & the Principal Kalinga Institute of Dental Sciences for their permission for conducting the study. Dr. Shalini Ray, Assistant Professor, Department of Community Medicine, for her technical support.

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How to cite this article: Mohapatra I, Roy A. A study of menstrual hygiene management and college absenteeism among female medical and dental students in a university of East India. Int J Health Sci Res. 2016; 6(12):21-27.

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