



AWARENESS OF MENSTRUATION AND MENSTRUAL HYGIENE IN MEDICAL STUDENTS

Obstetrics & Gynaecology

Dr. K. V. L. Anusha	Postgraduate Department of Obstetrics and Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences Eluru, West Godavari District Andhra Pradesh 534005 India
Dr. D. Murmu	Professor Department of Obstetrics and Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences Eluru, West Godavari District Andhra Pradesh 534005 India
Dr. K. Vandana*	Professor & HOD Department of Obstetrics and Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences Eluru, West Godavari District Andhra Pradesh 534005 India *Corresponding Author

ABSTRACT

Background: Menstruation and menstrual hygiene practices are still shadowed by taboos and socio-cultural restrictions. Special health care needs and requirements of women during monthly cycle of menstruation are collectively given the term "Menstrual hygiene." Millions of women face significant barriers in menstrual hygiene management due to inadequate awareness, misconceptions and erroneous practices. The objectives of the study were to assess the awareness and the practices of menstruation and menstrual hygiene and also the restrictions practiced by Medical students during menstruation. **Methods:** A cross-sectional study was conducted among both male and female students studying in 28th September 2019 to 28th December 2019 in ALLURI SITHA RAMARAJU ACADEMY OF MEDICAL SCIENCES, ELURU. A pre-designed, structured questionnaire was administered to all students present on the day of the study. **Results:** Of the 150 students, 57 (38%) were males and 93 (62%) were females. Awareness levels were significantly better among females than males. All the female students, were aware of sanitary napkins and majority preferred use of sanitary napkins. Among the female students, 42.6% were expected to follow some social and cultural restrictions during menstruation. Main source of information regarding menstruation was mother. Positive attitude towards menstruation was low both among male students (21.5%) and female students (48.4%). Negative attitude to menstruation was higher among young men 45 (78.94%) compared to 42 (50.6%) young women. **Conclusions:** Awareness levels were poor among males than females. Practices regarding menstrual hygiene were adequate. However, misconceptions were widely prevalent among both genders indicating the need for health education regarding menstruation and menstrual hygiene practices.

KEYWORDS

Menstruation, Menstrual hygiene, Awareness, Attitude.

INTRODUCTION:

Menarche is the first menstruation of a girl. The age of menarche is between 10-16 years (average age 13.5 years) in India. Menstruation is the cyclical shedding of endometrium under the hormonal influence controlled by the hypothalamopituitary axis.^{2,3} Menstruation and menstrual hygiene practices are still shadowed by taboos and socio-cultural restrictions. Special health care needs and requirements of women during monthly cycle of menstruation are collectively given the term "Menstrual hygiene"⁴ Menstrual hygiene is an important aspect of reproductive health, which if not handled appropriately can cause infections of the urinary tract, pelvic inflammatory diseases and vaginal thrush, as well as bad odor, soiled garments and ultimately shame, leading to infringement on the girl's dignity.⁵ There is a need for creating the right awareness in communities, especially among girls and women, to reinforce the understanding that menstruation is a normal physiological process.

AIMS & OBJECTIVES: (1) To assess the knowledge and the practices of menstrual hygiene among medical students (2) To assess the restrictions practiced by Medical students during menstruation

MATERIALS AND METHODS:

The study was a cross-sectional study conducted in 28th September 2019 to 28th December 2019 among both male and female students studying 1st year in a medical college—ASRAM Medical College Eluru, Andhrapradesh. All the students of 1st year MBBS in the college were included in the study. The students were informed regarding the need for the study and a written informed consent was taken from all the students included in the study. Data was collected using a questionnaire which included details on socio-demography, knowledge, attitude, practices and social restrictions regarding menstruation.

RESULTS:

SOCIO-DEMOGRAPHIC DETAILS

The study included a total of 150 students of which 57 (38%) were male students and 93 (62%) were female students. The mean age of the students was 18.35 yrs $\pm$ 1.43. Majority of the students stayed in a nuclear family which constituted 117 (78%) students. 94 students

(62.66%) belonged to urban population. Most of the students were Hindu by religion 110 (73.33%). The mean age of menarche was 13.68 yrs $\pm$ 1.238 yrs.

KNOWLEDGE ABOUT MENSTRUATION:

Majority of the students, 124 (82.66%) think that menstruation is a normal physiological process and their primary source of information had been their mother. Majority of the students, 110 (73.3%) knew that menstruation takes place once in 28 to 30 days, 102 (68%) knew that menstrual bleeding occurs for 2 to 7 days. 40 students (26.67%) thought that menstrual blood originated from the urinary bladder. 62 (41.3%) students did not know that menstruation is due to hormones. 101 (67.3%) students are not aware that Special hygiene is required during menstruation. 52 (34.67%) students were not aware of pre-menstrual symptoms. There was a significantly higher knowledge regarding menstruation among the young women as compared to the young men. Out of 93 girls, only 52 (55.9%) had knowledge regarding menstruation before attaining menarche and their reaction at the time of menarche is irritated in 46 (49.4%) and scared in 36 (38.7%) girls. The mean number of days of bleeding among the female students was 4.92 $\pm$ 1.765 days and almost 75 (80.64%) girls had regular periods. Severe abdominal pain was experienced by 46 (49.4%) girls during menstruation and symptoms of Urinary tract infection in 32 (38.55%) girls.

PRACTICES DURING MENSTRUATION:

The use of cloth as sanitary protection was reported in 10 (10.7%) of female students, the rest were all using sanitary napkins. 77 (92.7%) girls changes absorbents 2-3 times a day. Among those using sanitary napkins, 36 (43.3%) disposed the napkins wrapped in paper and in a separate container, 38 (45.7%) disposed the used napkins in a common bin and 9 (10.8%) flushed the used napkins in the toilet. 78 (93.9%) girls took bath during menstruation and 81 (97.5%) washed their private parts after changing their sanitary product. In majority 67 (80.7%) of the girls, Clipping of pubic hair was done once in a month.

ATTITUDE TOWARDS MENSTRUATION:

Almost 85 (91.39%) girls had a traditional celebration after their first periods. Majority of them, 66 (70.9%) girls had some sanitary product

to manage during their first periods. 70 (75.2%) girls have restrictions at home during menses. Participants were asked whether girls should follow restrictions during menstruation such as should not be allowed to enter outside the house; to college/work, should not be allowed to eat certain food items, cannot attend functions/ temple, not allowed to touch others/ cannot touch regular items. Negative attitude to menstruation was higher among young men 45 (78.94%) compared to 42 (50.6%) young women.

Table 1: knowledge about menstruation in all the 150 students (boys and girls)

KNOWLEDGE	n=150	%
Normal physiological phenomena	124	82.66
Frequency-once in 28-30days	110	73.3
Duration of menses-2-7 days	102	68
Menstruation is due to hormones	38	58.7
Special hygiene is required during menstruation	49	32.7
Awareness of premenstrual symptoms	98	65.33

Table 2: Menstrual history in 93 girls

MENSTRUAL HISTORY	n=93 (girls)	%
Knowledge of menstruation before menarche	52	44.1
Reaction at the time of menarche		
a. irritated	46	49.4
b. scared	36	38.7
Traditional celebration after first period	85	91.39
Sanitary product to manage first periods	66	70.9
Restrictions during menses	70	75.2
Regular periods	75	80.64
Associated complaints		
a) Pain abdomen	46	49.4
b) UTI	32	38.55
Sanitary napkin as absorbent	83	89.3
Disposal of sanitary napkin		
a. Wrapped in paper	36	43.3
b. Common bin	38	45.7
c. Flushed in toilet	9	10.8
Changes 2-3 times a day	77	92.7
Bath during menstruation	78	93.9
Washing private parts after changing pad	81	97.5
Pubic hair clipping(once a month)	67	80.7

Table 3: Restrictions during menstruation in all the 150 students

RESTRICTIONS	n=150	%
Should not enter the house	15	10
Separated from the rest of the family	10	6.67
Should not go out of the house/ college / work	11	7.33
Should not go to temples / functions	102	68
Cannot eat certain food items	44	66
Not allowed to touch others/ regular items	54	36

DISCUSSION:

The mean age of menarche was 13.68 yrs $\pm$ 1.238 yrs. This was similar to the mean age of the study population found in other studies. 6,7,8 In our study 55.9% had knowledge regarding menstruation before attaining menarche In 2013, in a study by Nelima et al in medical students, 67.61 % of students had previous knowledge of menstrual practices before attaining menarche.in a study performed among adolescent school girls in (Nagpur) Maharashtra by Subhash B. Thakre et al 2011 only 36.95% of the girls were aware of menstruation before menarche.⁹

It was also found that the awareness levels were low among girls who attained menarche at an earlier age. The mean age of menarche in girls is decreasing and it might have an effect on the awareness levels, which will also eventually affect the attitudes and practices related to menstruation⁹. In a study done by Shanbhag et al, in a similar setting, 99.6% students had heard of menstruation. 79.7% knew that menstruation is a normal physiological process.⁷ In another study done in Gandhinagar by August et al, it was found that Only 33.1% girls have knowledge that menstruation is a physiological process

while 59.1% did not know about cause of menstruation¹⁰ In our study it was found that awareness levels were lower among males when compared to females. India is largely a patriarchal society where men have greater power in decision-making. Women do not generally share information about menstruation with men and boys, and there are cultural taboos in speaking about menstruation. This leads to culmination of misconceptions and practices which may not be right.¹¹ Millions of women face significant barriers in menstrual hygiene management due to inadequate awareness, misconceptions and erroneous practices.

Hence adequate knowledge and the right attitude aiming at both males and females will cause major significant changes in the menstrual hygiene management. In our study the main source of information regarding menstruation was found to be mother similar to many other studies, but they also got information regarding menstruation and menstrual products from internet. A study done in Haryana reported that internet was one of the main sources of information.¹²

89.3% medical students were using sanitary napkins as absorbent material, while 10.7% were practicing cloth during their menstrual cycle as we found during our study which is in accordance with; Adhikari P et al 2007, Juyal et al 2012, Neelima et al 2013 and Srinivasan et al in 2018.6,13,14,15,16 But in studies done previously completely different scenario was seen where cloth was used mainly as menstrual absorbent. Popularity of tampons has been declined tremendously because of more incidences of toxic shock syndrome with tampons. 1497.5% washed their private parts after changing their sanitary product in our study, while only 42% girls were doing vaginal wash daily in a study by Neelima et al in 2013 in Indore. 1594% of girls used to wash their genitalia as seen in a study in Uttarakhand.¹³

Severe pain abdomen was experienced by 46 (49.4%) girls during menstruation and symptoms of Urinary tract infection in 32 (38.55%) girls which is similar to the study by Srinivas et al⁶ which shows that 5.6% of the girls had experienced atleast one episode of urinary tract infection and 31.3% of the female students experienced severe abdominal pain during menstruation. In our study, Negative attitude to menstruation was higher among young men 45 (78.94%) compared to 42 (50.6%) young women which is similar to a study by Srinivas et al that Negative attitude was found among 78.5% of the young men and 48.4% young women. Compared to our study, in a study done in Indore 23.8% were not following any of these restrictions and rest of them were following atleast one of them and in a study done in West Bengal, 64.72% were following some restrictions and a study done in Gujarat among school children showed that 48.85% of them were not following any restriction. Menstruation is associated with deep rooted taboos and misconceptions in many countries and especially in our country, India.

CONCLUSION:

Awareness levels were poor among males in comparison to females. Practices regarding menstrual hygiene were adequate. However, misconceptions were widely prevalent among both genders. It was also found that the attitude regarding menstruation was poor in both males and females which indicate the need for the right knowledge and the right attitude to be instilled in these young minds. This can be achieved through educational television programmes, compulsory sex education in school curriculum and knowledgeable parents and the received education would indirectly wipe away the age old wrong ideas and also make her to feel free to discuss menstrual matters without any inhibitions.

References:

1. Annamma Jacob, "A Comprehensive Textbook of Midwifery", 2nd Edition, Jaypee Publications, New Delhi, 2008. Page 63
2. Deo DS, Ghattargi CH. Perceptions and practices regarding menstruation. A comparative study in urban and rural adolescent girls. Indian Journal of Community Medicine. 2005;30:33-34.
3. El-Gilanya A, Badawi K, EL-Fedawy S. Menstrual hygiene among adolescent school girls in Mansoura, Egypt. Reproductive Health Matters. 2005;13:147-152.
4. Lawan UM, NafisaWali Yusuf, Aisha Bala Musa. Menstruation and menstrual hygiene amongst adolescent school girls in Kano, northwestern Nigeria. African journal of reproductive health. 2010; 14(3):201-208
5. Oche M. O., Umar A. S., Gana G. J., Ango J. T. Menstrual Health: The Unmet Needs of Adolescent Girls' in Sokoto, Nigeria. Sci.Res.Essays.2012; 7(3): 410-418
6. Srinivasan D, Agrawal T, Attokaran T, Fathima FN, Johnson AR. Awareness, perceptions and practices regarding menstruation and menstrual hygiene among students of a college in Bengaluru Urban district, South India: a cross sectional study. Int J Community Med Public Health 2019;6:1126-32.
7. Shanbhag D, Shilpa R, D Souza N, Josephine P, Singh J, Goud BR. Perceptions regarding menstruation and practices during menstrual cycles among high school going adolescent girls in resource limited settings around Bangalore city, Karnataka, India. Int

- J Collab Res Intern Med Public Heal. 2012;4(7):1353–62.
8. Srivastava S, Chandra M, Srivastava S, Contracept JR, Gynecol O. Study on the knowledge of school girls regarding menstrual and reproductive health
 9. Subhash B. Thakre, Sushma S. Thakre, Monika Reddy. Menstrual hygiene: knowledge and practice among adolescent school girls of Saoner, Nagpur district. Journal of Clinical and Diagnostic Research. 2011; 5:1027-103
 10. August J, Prajapati J, Patel R. Menstrual hygiene among adolescent girls : A cross sectional study in urban community of Gandhinagar. J Med Res. 2015;1(4):122–5
 11. Mason L, Nyothach E, Alexander K, Odhiambo FO, Eleveld A, Vulule J, et al. We Keep It Secret So No One Should Know – A Qualitative Study to Explore Young Schoolgirls Attitudes and Experiences with Menstruation in Rural Western Kenya. PLoS One. 2018;(2):1–15
 12. Bachloo T, Kumar R, Goyal A, Singh P, Yadav SS, Bhardwaj A, et al. A study on perception and practice of menstruation among school going adolescent girls in district Ambala Haryana, India. Int J Community Med Public Health. 2016;3(4):931–7.
 13. Juyal R, Kandpal SD, Semwal J, Negi KS. Practices of menstrual hygiene among adolescent girls in a District of Uttarakhand. Indian Journal of Community Health. 2012 April-June 2012; 24(2): 124-128.
 14. Adhikari P, Kadel B, Dhungel SI. Knowledge and practice regarding menstrual hygiene in rural adolescent girls of Nepal. Kathmandu Univ Med J (KUMJ). 2007 Jul-Sep;5(3): 382-6.
 15. Dr. Neelima Sharma, Dr. Pooja Sharma, Dr. Neha Sharma, Dr. R.R. Wavare, Dr. BishalGautam, Dr. Madan SharmaA cross sectional study of knowledge, attitude and practices of menstrual hygiene among medical students in north India. The Journal of Phytopharmacology 2013; 2(5): 28-37
 16. S B Salve, R K Dase, S M Mahajan. Assessment of knowledge and practices about menstrual hygiene amongst rural and urban adolescent girls- A comparative study. Internat J recent Trends Science Technology 2012;3(3):65-70.