



Menstrual pattern in medical students and their knowledge and attitude towards it

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Abstract

Background: The onset of menstruation is one of the most important changes occurring among girls during the adolescent years. Menstruation and menstrual practices are associated with taboos and socio-cultural restrictions. Poor personal hygiene and unsafe sanitary conditions during menstruation increase susceptibility to reproductive tract infections and gynecological problems.

Objective: To evaluate the menstrual pattern among medical students and to assess their knowledge and attitude towards it.

Material and Methods: A cross sectional study was conducted among 100 girls of MBBS students. A questionnaire having thirty questions was designed to acquire information about knowledge and attitude towards it. The data was collected on the anthropometric measurements, menstrual history, lifestyle and psychosocial stress and was correlated with menstrual abnormalities.

Results: The mean age and standard deviation of girls included in the study were 19.14 years \pm 1.136. The Mean age of attaining menarche was 12.96 years ranges were 9-17 years. 52% girls had correct response about actual age of menarche while 45% students have the correct knowledge of duration of blood flow and length of menstrual cycle. The mean duration of menstrual bleeding was 4.5 days with SD of 1.12 days. 75(75%) respondents reported that menstruation lasted for 3-5 days. The most common menstrual disorder was found to be dysmenorrhoea (74%) with premenstrual symptoms accounting for the second most common disorder seen in 49%.

Conclusion: The menstrual attitude of girl students can be improved by increasing the menstrual knowledge of them with the help of mothers and teachers. Students should be educated on menstruation and menstrual hygiene and their importance.

Keywords: menstruation, medical students, knowledge, attitude, menstrual pattern

Introduction

The onset of menstruation is one of the most important changes occurring among girls during the adolescent years^[1]. According to WHO, the term 'adolescents' refers to young people between the ages of 10 and 19 years^[2]. Menstruation is the cyclical shedding of the inner lining of the uterus, the endometrium, under the control of hormones of the hypothalamo pituitary axis^[3]. It is monthly bleeding for 3-5 days coming regularly every 28 days from puberty till menopause in the women's reproductive life. Menstrual cycle starts at the age of 13-15 years which marks the onset of puberty. Menstrual cycle ceases at the age of 45-50 years^[4].

The first menstruation also called as 'MENARCHE' is an indicator of developmental maturation in women whose arrival determines the transition from being a child to being a teenager. Menarche is characterized as one of the few rites of passage that is still valued in modern societies for all adolescents, regardless of their social group^[5].

Menstruation and menstrual practices are kept under wraps and accompanied by taboos and socio-cultural restrictions, which sometimes result in adverse health outcomes^[6].

Poor personal hygiene and unsafe sanitary conditions during menstruation increase susceptibility to reproductive tract infections (RTI) and gynecological problems^[7-9]. Though many females experience some degree of pain and discomfort during their menses, several physical, psychological and emotional symptoms also occur before and during menstruation^[10].

Medical students are at high risk for developing menstrual

irregularities due to stressed lifestyle, irregular food and exercise habits. Medical students need to study harder and are vulnerable to stress, which may lead to dysfunction of hypothalamo-pituitary ovarian axis causing menstrual abnormalities. More than 90% of menstrual problems are preventable just by early detection and appropriate treatment. With this in mind we conducted a planned survey of medical students to evaluate the menstrual pattern among medical students and to assess their knowledge and attitude towards it.

Material and Methods

A cross sectional descriptive questionnaire based study was conducted after approval of the Institutional Ethics Committee on female undergraduate medical students enrolled for the Bachelor of Medicine, Bachelor of Surgery (MBBS) course in S N Medical College Jodhpur, Rajasthan to evaluate the menstrual pattern and to assess their knowledge and attitude towards it. One hundred female medical students who gave consent to participate in the survey were included in this study. The only exclusion criterion was unwillingness of the student to participate in the study. A questionnaire having thirty questions was designed to acquire information about knowledge and attitude towards it. The data was collected on the anthropometric measurements, menstrual history, lifestyle and psychosocial stress and was correlated with menstrual abnormalities.

Results

A total of 100 MBBS students were participated in this study. Among that 45(45%) were of MBBS first year, 30(30%) were of second year and 25 (25%) were of third year student. Their age ranges between 18-25 years with a mean age of 19.14 years \pm 1.136. All of them were unmarried. The Mean age of attaining menarche was 12.96 years ranges were 9-17 depicted in table 1

Knowledge

52% girls had correct response about actual age of menarche while 45% students have the correct knowledge of duration of blood flow and length of menstrual cycle. 50% girls do not know that girls get cranky during their periods. However 52% girls do not know that due to blood loss during their periods, they become weak. (Table 2)

Menstrual pattern

The mean duration of menstrual bleeding was 4.5 days with SD of 1.12 days. 75 (75%) respondents reported that menstruation lasted for 3-5 days. Overall 92% reported mild to moderate menstrual bleeding but nearly one-half complained of passing clots. 59% reported cycle length of 21-35 days. 49% girls reported to experience pre-menstrual symptoms headache, backache, lower abdominal pain, fatigue, weakness and mood swings. (Table 2)

Menstrual problems

In this study the most common menstrual disorder was found to be Dysmenorrhoea (74%) with premenstrual symptoms accounting for the second most common disorder seen in 49%. Out of 74% students, who experienced dysmenorrhoea, 25.6% revealed occasional use of analgesics. Polymenorrhoea was seen in 33% whereas oligomenorrhoea seen in 08%. (Table 2)

Table 1: Menstrual Patterns of the Medical student (Girls)

| No | Features | Number of subjects | Percentage % |
|----|----------------------|--------------------|--------------|
| 1 | Mean age at menarche | 12.96 | |
| 2 | Type of cycles | | |
| A | Regular | 86 | 86 % |
| B | Irregular | 14 | 14 % |
| 3 | Duration of flow | | |
| A | < 2days | 2 | 2 % |
| B | 3-5 days | 75 | 75 % |
| C | 5-7 days | 22 | 22 % |
| D | > 8 days | 1 | 1 % |
| 4. | Amount of flow | | |
| A | Mild | 52 | 52 % |
| B | Moderate | 40 | 40 % |
| C | Severe | 8 | 8 % |
| 5. | Cycle length | | |
| A | < 20 days | 33 | 33 % |
| B | 21-35 days | 59 | 59 % |
| C | > 35 days | 8 | 8 % |

Table 2: Distribution of Menstrual disorders

| No | Characters | Number of subjects | Percentage % |
|----|---------------------------|--------------------|--------------|
| 1 | Dysmennorhea | 74 | 74 % |
| 2 | Polymenorrhoea | 33 | 33 % |
| 3 | Oligomenorrhoea | 08 | 08 % |
| 4 | Severity of Dysmenorrhoea | | |
| | a) Mild | 45/ | 60.8% |
| | b) Moderate | 25/74 | 33.7 % |
| | c) Severe | 4/74 | 5.4 % |
| 5 | Required analgesics | 19/74 | 25.6 % |
| 6 | Premenstrual symptoms | 49 | 49 % |

Discussion

A lot of studies have been done on practices of menstrual hygiene but most of them have been done on rural population or in school girls. There is paucity of this study in medical students to the best of author's knowledge. This study has tried to fill this huge gap. In this study the mean age of menarche was 12.96 year which is consistent with the study of Malekshahi *et al* who obtained 12.8 years^[11].

In this study, 14 (14%) respondents reported irregular menstrual cycles. This finding compares with that of a Kerala-based study wherein irregular menstrual cycles were reported by 12.4% respondents^[12]. However study done by Singh MM *et al* reported 43% of medical students having irregular menses^[13]. In a study done in Meerut, 72.7% of menstruating girls suffered from at least one menstrual disorder^[14].

In a study among nursing students at Egypt, over 85% of the students were aware of menarche, length of the menstrual cycle, and duration of menstrual bleeding. These findings are similar to that of the present study, where 82% respondents were aware about menstruation during menarche^[15].

Our study revealed that majority 75% of the respondents had menstrual duration between 3 to 5 days, followed by 5-7 days 22% which is in accordance with the study conducted in Gujjar pointed out that of total 131 subjects who were having menstruation, 78.6% subjects reported their duration of menstruation between 0 to 6 days while rest of them reported their duration between 7 to 12 days^[16]. Another study conducted in Nigeria reported that majority (62%) of the respondents were having menstrual duration between 2-4 days followed by 33% between 5-7 days^[17].

In this study menstrual pain in the lower abdomen and back were the most common problem (83.2%) among adolescents which is partially consistent with the study of Chen *et al.*, that that reported the most common symptoms including crampy pain, fatigue, back pain, abdominal swelling and breast tenderness^[18].

In this study 74% girls were reported dysmenorrhoea which is consistent with the studies conducted in a Nigerian study^[19] among university students, who 72% reported dysmenorrhoea. In another study conducted in Thiruvananthapuram, Kerala, 72.4% respondents complained of dysmenorrhoea^[12]. However a study conducted in east Delhi showed Dysmmenorrhea was present only in 3.75%^[20]. Risk factors for dysmenorrhoea

include young age^[21, 22], nulliparity, earlier age at menarche, heavy menstrual flow, and positive family history^[23, 24].

In this study we found that 86% of girls had to practice restrictions during menses like they cannot go to religious places, not allowed to attend religious ceremonies, cannot enter kitchen and not allowed to make food which is in accordance to study conducted by Abhay *et al.*^[25] noted that 87% girls were restricted to worship during menstruation. According to Shanbag *et al.*^[26] restrictions to go to the place of worship (94.2%) was greater than what was observed in this study. Most restrictions were laid down by the force of the family showing a poor attitude in management of menstruation.

In this study 25.6% revealed occasional use of analgesics which is less than Nigerian study where self medication with analgesics was comparatively more frequent (75%) among the respondents (school girls)^[27] The knowledge and attitude about menstruation and menstrual hygiene of medical student girls was found to be unsatisfactory although the practices were noted to be good.

Conclusion

In the medical institutions, students should be educated on menstruation and menstrual hygiene and the importance of physical, social and mental health as well as the importance of preventive care. Since undergraduate medical students have access to health information, menstrual practices and problems divulged by the respondents could be the proverbial tip of the iceberg.

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