

Research Article

Menstrual Pattern And Problems Among Rural Adolescent Girls

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Abstract

Background: Onset of menstruation is considered as a landmark in the growth and development of an adolescent girl. The age of onset and the pattern of menstrual cycles vary on different factors. Present study was conducted to find out the menstrual pattern and problems among adolescent school going of rural area.

Materials and Methods: A total of 323 girl students in the age group of 15 to 19 years from 3 different secondary schools were asked to complete a pretested and validated questionnaire anonymously. Data regarding age of menarche, menstrual pattern, menstrual hygiene, menstrual complaints, source for information about various aspects of menstruation and menstrual hygiene were elicited.

Results: Mean age of the subjects at menarche was 14.02 years with a range being 11 to 19 years. Majority of them (92.9%) had intermenstrual interval of 28 – 35 days. Mean duration of menstrual flow was 4.28 ± 1.06 days. The most prevalent menstrual symptoms were mental irritability (47.9%), backache (38.3%), and nausea (14.5%). Prevalence of menstrual irregularity and dysmenorrhea was 5.6 and 18.3% respectively. Mothers (94.6%) and friends (4.6%) were the main sources of information for adolescents regarding menstruation.

Conclusion: The majority of adolescents attained menarche at appropriate age. Dysmenorrhoea was the commonest symptom that interfered with the routine of the school girls. Majority of girls were aware about the importance of menstrual hygiene and were using sterile sanitary pads as absorbents. Mother and the friends were the primary sources of information about menstruation. Inclusion of topics related to reproductive health during secondary schooling has been beneficial in improving knowledge and awareness of girls regarding menstruation and menstrual hygiene.

Keywords: Adolescence, Menarche, Menstrual pattern, Menstrual hygiene, Reproductive Health education.

1. Introduction

Adolescents in India constitute around 21.4% of the total population¹. Attainment of menarche is considered as an important mile stone of adolescence period, which assures normal physical, endocrinal and physiological development. In the general population, menarche or onset of menstruation usually occurs between 11 and 14 years of age (average age 12 years, 6 months). Overall, after 15 years of age, 98% of girls have usually attained their menarche. The age at menarche is influenced by socioeconomic, geographical, nutritional and environmental factors. The length of the menstrual cycle is

usually of 21 - 35 days, measured from the first day of the menstrual period. The duration of bleeding is about 3-5 days and blood loss averages between 30 – 80 ml. The menstrual cycle is often irregular during first few years after menarche due to an ovulatory cycle. By the age of 17-18 years, menstrual cycle usually become regular.² According to a multicounty survey, menstrual disturbances were among first and fourth most commonly reported causes of morbidity among adult women^{3,4} In rural India, where a female child and its problems are neglected, there is an urgent and unmet need to understand menstrual pattern and problems of adolescents and include it into the primary health care program. The present prospective observational study was planned with the following objectives.

1. To study the menstrual patterns among adolescent girls.
2. To study the incidence of various menstrual problems among them & their approach towards that.
3. To assess the type of materials used as absorbant during menstruation.
4. To evaluate knowledge level of mothers of adolescent girls regarding menstrual hygiene.
5. To assess knowledge about various aspects of menstruation among adolescent girls within age group of 15-19 years.

2. Material and Methods

Prospective observational study was conducted in secondary schools situated in rural area in Maharashtra. Information on various aspects of menstruation was obtained from adolescent girls in the age group of 15 to 19 years, with the help of pretested and validated questionnaire. The information about personal details, age of menarche in years, menstrual cycle pattern and whether they experience any menstrual problems was collected. They were also asked to indicate whether they had sought medical advice or treatment for their menstrual problems. They were also asked to indicate the materials they use as absorbent and the average number of days absent from school during menstruation. Their mother's level of knowledge about various aspects of menstruation was also noted. All the data was collected and compiled in MS Excell. The data was analyzed using percentages and proportions through tables.

3. Results

A total of 323 menstruating adolescent girls in the age group of 15 to 19 years were interviewed. The mean age of menarche was 14.02 years with 11 and 18 years being the lowest and highest age for attaining menarche respectively. Maximum number of girls (68.7%) had attained menarche at 14 – 16 years of age, followed by 29.1% at the age of 11-13 years and 2.2% at 17 – 19 years of age. (Table no. 1) Majority of them (92.9%) had intermenstrual interval of 28 – 35 days, 6.2% had inter-menstrual interval of 35-40 days with only 0.9% had inter-menstrual interval of >40 days. (Table no. 2)

Table no. 1 -Distribution of adolescents according to age of menarche

Age of Menarche (years)	No. Of Cases	(%)
11-13	94	29.1
14-16	222	68.73
17-19	07	2.16

Table no. 2- Distribution of adolescents according to inter - menstrual interval

Inter-Menstrual Interval (days)	No. Of Cases	(%)
28-35	300	92.88
35-40	20	06.20
>40	03	0.92

Table no. 3- Distribution of adolescents according to duration of blood flow

Duration Of Blood Flow	No. of Cases	(%)
<5 Days	311	96.28
>5 Days	12	3.71

Duration of blood flow was within 5 days in 96.3% of girls with 3.7% having prolonged menses (>5 days). (Table no.3). Out of 323 adolescent girls 94.4% had regular cycles and 5.6% had irregular cycles (Table no.2.3). The most prevalent menstrual symptoms were irritability (47.9%), backache (38.3%), and nausea (14.5%). Anxiety was the most common symptom of PMS observed in 7(2.2%) of the girls with two girls complaining of mood changes and only one girl

complaining of depression. Dysmenorrhoea was the most common menstrual complaint reported by 59 (18.3%) girls, with menorrhagia, oligomenorrhoea and premenstrual syndrome being reported by 12(3.7%), 7(2.2%), 10(3%) of the adolescent girls respectively. More than 50% girls used oral antispasmodic medication for pain relief as per the advice of doctors, mothers or friends. Most of the girls (76.6%) with dysmenorrhoea reported that their working ability was adversely affected.

It was observed that, 289 (89.5%) girls used hygienic sanitary pads, whereas 34 (10.5%) girls used cloth as an absorbant during menses. Maternal education was only upto 10th class in 31(91.2%) among cloth users (34 girls) and only 3(8.8%) mothers were educated upto 12th class. It was further observed that out of 323 girls—majority (94.4%) had their mothers as a primary source of information regarding menstruation and menstrual hygiene .Other sources being friends (4.6%) teachers (0.6%) and books (0.2%).

4. Discussion

Adolescence is a period of transition from puberty to early adulthood. Transition phase involves major physical and emotional changes in the individual .In a traditional family setting in developing countries, mothers are usually the care takers of their daughters during these critical phase of physical and emotional development. In a conservative society and in rural population, the subject of menstruation and its hygiene is still considered a taboo subject for discussion. In the present study, it was observed that the mean age of menarche was 14.02 years. Chaturvedi *et al*⁵ reported 13.7 years as the mean age of menarche, which is comparable to the findings of the present study. Patil M S⁶ and Durge PM⁷ have reported mean age at menarche as 13.45 and 13.5 years respectively. In the present study 68.7% adolescents had attained menarche between 11-13 years, 29% in 14-16 years and 2.2 % in 17 - 19 years of age. Patil M S⁶ in her study reported that, 41.9% adolescent attained menarche at 11-13 years, whereas, 58.1% had attained menarche at 14-16 years. The differences observed could be related to environmental, geographical and nutritional variations of study population.

On studying the menstrual pattern of these 323 adolescent girls, it was observed that 94.4% had regular menstrual cycles and 5.6% had irregular cycles. In a recently conducted study on adolescent girls in rural area of Bijapur in Karnataka state, by Patil M S⁶ on 440 adolescent girls showed comparable results with 92.5% girls having regular cycles and only 7.5 % having irregular cycles' Kulkarni⁸ reported 88.84% regular and 88.84% irregular cycles among adolescent girls in his study. Intermenstrual interval was 28-35 days in 92.9%, >35 days in 7.1% in the present study. The results are comparable with study done by. Patil M S⁶ with 92.7% having intermenstrual interval 28-35 days and 6.8% having >35 days intermenstrual interval. The present study showed that duration of blood flow was <5 days in 96.3% and >5days in 3.7% of the girls which is again comparable to study by Manjula S. Patil⁶.

Dysmenorrhoea (18.3%). was the most common menstrual complaint in the study population. Nearly similar incidence was reported by Durge PM⁷ (20.4%) and Patil M S⁶ (27.9%). M Kulkarni⁸ and Mohite R V *et al*⁹ had reported 53.6% and 49.13% incidence of dysmenorrhoea .The difference may be due to better tolerance of pain in rural girls compared to urban girls. Other menstrual problems in adolescent population were menorrhagia (3.7%), oligomenorrhoea (2.2%) and premenstrual syndrome (3%). Similar incidence of menorrhagia (4%) and oligomenorrhoea (1.1%) was reported by Fakeye O¹⁰ in a study carried out in Nigeria.

Present study revealed that 89.5% of girls were using sterile sanitary pads as absorbant, whereas 10.5% used old home cloth as absorbant. It was noted that only 8.8% of mothers of cloth users were educated upto 12th class, whereas 91.2% were educated up to 10th class only. This highlights the role of maternal education influencing the menstrual practices among adolescent girls. The major source of knowledge about menstruation and related problems was mothers in 94.4% of adolescents, friends in 4.6%, teachers (0.6%) or books (0.3%) in only few of them. This further signifies the role of educated mother for better understanding of menstruation and hygiene.

5. Conclusion

Attainment of menarche at right age is an important milestone during adolescence ,which signifies the normal functioning of the female reproductive system. Study revealed that majority of adolescent girls had attained menarche at appropriate age. The duration of bleeding and the cycle interval was normal in majority of girls. Dysmenorrhoea was the commonest problem among the adolescents. Mother was the commonest source of information for adolescents regarding knowledge about menstruation and hygiene. The use of hygienic sanitary pads as absorbant was prevalent in majority of adolescent girls. In rural areas, inhibitions still exists that prohibit adolescents from discussing their queries related to menstrual and problems with their parents, teachers or peers. There is strong need of education to adolescent population related to reproductive health. It will help in their development as healthy and responsible adults.

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