

STUDY OF MENSTRUAL PATTERNS AMONG SCHOOL GOING ADOLESCENT GIRLS OF URBAN INDIAVaruna Pathak¹, Madhuri Chandra², Mamta Paraste³**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: This study was undertaken to assess the changing age of menarche and the magnitude of menstrual/gynecological problems amongst school going adolescent girls. A total of 1000 girls were interviewed by asking them to fill up a questionnaire which included questions related to the age of menarche, their menstrual behavior, impact of knowledge, refrainment from work and need for medical help. It was concluded that mean age of menarche is 13 years and dysmenorrhea is the commonest associated complaint (18%), mean duration of flow is between 4 to 5 days (57% and 56% respectively), with majority reporting moderate flow (97%). Mother is the main source of information regarding menstruation (87.5%). Most of these girls (97%) cope up well with this new change in their life and do not seek medical help. The commonest gynecological problem is leucorrhoea and premenstrual syndrome. Only two girls complained of primary amenorrhoea and one girl was diagnosed with ovarian cyst.

KEYWORDS: Adolescent girls, Menstrual problems, age at menarche.

INTRODUCTION: She is an adolescent today and a mother tomorrow. Issues related to menstruation continue to affect women of all strata's of society more so when they are associated with young, teenage menarchal girls. Well established national, and western, data suggest that the mean age of menarche appears to be coming down. Moreover teenage girls face a number of health problems related to growth, nutrition, psychology, sex and menstruation. Attitude of teenagers towards sexuality and menstruation also appears to be changing largely. Despite of that, sex education in the Indian society still remains a taboo, to the extent that such sessions when taken in schools are often not welcome by guardians making the job of health care providers slightly difficult.

The responsibility of the society is not consistent, at one end are the families which due to their various rituals and practices attached to menstruation make it more than obvious and open to these young minds in their families, on the other end, are families which ensure complete secrecy on issues of reproductive process. As a result these young adolescent girls are often shy and embarrassed to come up with these issues and their problems. Therefore, the present study was conducted with the aim to evaluate the present age of menarche, patterns and magnitude of menstrual problems among the urban teenage girls attending school.

AIMS AND OBJECTIVES:

1. To study the mean age of menarche.
2. To study the menstrual patterns in adolescent age group.
3. To study various gynaecological problems in this age group.
4. To study the impact of menstruation on young girls.

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MATERIAL AND METHOD: The present cross sectional study was conducted in five government schools of Bhopal, India over a period of 2 years. Girls between 10-18 years were included in the study. Using systematic sampling method a total of 1000 girls were interviewed by asking them to fill up a questionnaire which included questions like the age of menarche, pattern of menstruation, i.e. duration of flow, amount of flow, cycle length, impact of menstruation, knowledge about menstrual cycle and from where they acquired this knowledge. They were also asked whether menstruation affected their day to day work and if they consulted any doctor for their problems. A general examination was done on all the girls and any one requiring further evaluation were referred to our hospital. For the purpose of classification of severity of menstrual symptoms or dysmenorrhea the following grading was used:

- Grade 1: Those who continued to work but with lowered efficiency.
- Grade 2: Those who continued to work but had to rest occasionally or had to abstain from hard work, exercise and games.
- Grade 3: Those who had to stay at home for one day or more.

OBSERVATION:

Age of Menarche in Years	No. of Girls	%
10 years	2	0.2
11 years	10	1
12 years	40	4
13 years	530	53
14 years	390	39
15 years	20	2
16 years	6	0.6
Not attained 18 years	2	0.2
Total	1000	100%

Table 1: Age of menarche

Duration of Flow in days	No. of Girls	%
3	20	2
4	560	56
5	387	38
6	10	1
7	5	0.5
>7	8	0.8
Total	1000	100

Table 2: Duration of Menstrual flow among study population

Nature of Flow	No. of Girls	%
Scanty flow<2 days	12	1.2
Moderate flow	978	97.8
Moderate flow with clots	6	0.6
Profuse flow	2	0.2
Total	1000	100

Table 3: Amount of blood loss per cycle

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Menstrual Disorder	No. of Girls	%
Dysmenorrhea	186	18.6
Oligomenorrhea	32	3.2
Polymenorrhea	43	4.3
Hypomenorrhea	12	1.2
Menorrhagia	6	0.6
Amenorrhea	2	0.2
Puberty menorrhagia	2	0.2
Total	1000	100

Table 4: Menstrual disorders/Problems among study population

Knowledge of Menstruation	No. of Cases	%
Acquired from mother	875	87.5
Relative/friend	5	0.5
Media/Television	6	0.6
Newspaper	2	0.2
No knowledge	112	11.2
Impact	No. of Cases	%
Absence from play/strenuous activity	20	0.2
Interference with routine activity	10	0.1
No change in routine	970	97
Total	1000	100

Table 5: Knowledge and Impact of menstruation on young girls

Symptom	No. of Girls	%
Nausea	15	1.5
Vomiting	10	1
Giddiness	20	2
Fainting	03	0.3
Depression	40	4
Backache	20	2
Irritability	88	8.8
Constipation	06	0.6
Bodyache	15	1.5
Headache	50	5
Muscle cramps	30	3
Acne	40	4
Lethargy/Fatigue	30	3
Total	367	

Table 6: Associated symptoms

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DISCUSSION: The present study was done to establish the average age of menarche and to know the various menstrual disorders in adolescent school going girls. The mean age of menarche as reported in our study is 13 years, which is almost around the age reported by other authors, S Rokade,¹ have reported mean menarchal age as 12.6 ± 1.05 years in Indian Maharashtrian girls, while Ban Al-Sahab report 12.72 years (SD 1.05) in the National Longitudinal survey of Canada.²

Most of the girls report the length of cycle between four days and five days (57% and 56% respectively) Table 2. Rest 1% girls reported length of cycle as six days while only 0.8 % reported a cycle of >7 days. This collaborates with the study of other authors as well Adinma ED from Nigeria report duration of flow ranging from two to eight days, although a four day flow occurred most commonly (53.6%).³ Flow of blood (Table 3) reported in our study shows moderate flow in 97% and moderate flow with clots in 12%. Scanty flow less than 3 days was found in 1% while profuse flow was reported in 0.2% girls.

The various menstrual disorders as reported in Table 4, highlight dysmenorrhoea as the commonest symptom, reported in 18% of girls followed by polymenorrhoea in 4.3% and hypomenorrhoea/oligomenorrhoea in 1.2%/3.2%. African girls⁴ also report PMS (75.4%) and dysmenorrhea (72%) as commonest complaints. Though not all the other authors find dysmenorrhea as the commonest symptom, but yet they agree that even a mild abdominal discomfort or PMS makes these girls perceive their cycles as unpleasant and distressing.⁵ As for the source of information, mother seems to play a vital role in imparting this knowledge, being the main source in 87.5% in our study. Other authors also agree with this data and believe that mother daughter communication with correct and thorough knowledge would be the right place to tap upon these problems.^{3,5}

Other sources of information do exist, though not as loud as mothers, with friends, relatives and media/newspaper sharing a minimal role. It is indeed disappointing to notice that 11.2% of girls had no knowledge about menstruation till it actually started and caught them unprepared. This highlights the need to change our social system of mystifying puberty, sex, marriage and aspects of child birth from our youth. The impact of menstruation is also shown in table 5. It shows that most of these girls i.e. 97% are able to cope up with this change in their life, and only a small percentage 0.2% have to refrain from strenuous/routine activity. This study also shows that the commonest gynecological symptoms are leucorrhoea and premenstrual symptoms.

Also included in the study was the evaluation of how many girls required consultation of doctor for their symptoms. Though 36.7% girls do complaint of some or the other symptom associated with menstruation, it was only 3.5% girls who consulted a medical practitioner while majority of 965 girls never consulted a doctor for any complaint related to menstruation. This finding also compels us to think that, it is our social system which tutors these small girls to quietly bear or ignore problems related to reproductive health. This further emphasizes the need for increasing awareness and further attention to the subject of Adolescent gynecology⁶. Majority of girls (3%) taking antispasmodics and anti-inflammatory drugs were in the age group of 16-18 years. Two girls in the study, i.e. 0.2% had not attained menarche till 18 years.

CONCLUSION: The health status of the adolescent girl truly reflects the health status of her family. It is indeed a painful fact that over the ages the health issues of young girls has been largely neglected and overlooked by families and medical science. It is high time we recognize that the foundation for good reproductive health actually begins in adolescence. Knowledge of the length and variation of the menstrual cycle is necessary for patient education and for identifying deviations from normal to

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guide clinical evaluation. As a clinician, gynecologists should be well aware of the different menstrual disorders in adolescents, their first aid and final management, so that we all can look forward to a healthy India tomorrow.

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