

## Study of Menstrual Patterns in Degree College Students of Visakhapatnam

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### Abstract

**Introduction:** Onset of menstruation is considered as a landmark in the growth and development of an adolescent girl. The age of onset and pattern of menstrual cycle depend on a number of factors. Present study was undertaken to find out the menstrual patterns and problems among degree college students of Visakhapatnam

**Aims:** To find out menstrual patterns, problems and practices in degree students.

**Methodology:** A total of 100 students in the age group of 16-20 years studying in a degree college were asked to answer a pretested and validated questionnaire. Data regarding age of menarche, menstrual hygiene, menstrual patterns, complaints were elicited.

**Results:** Mean age of menarche was between 12-14 years in 83% of the study group. Most of them (45%) had information regarding menses from their mother. Cycles were regular in 65% of the girls. Majority (82%) of them had a cycle interval of 21-35 days. Average duration of flow was 3-7 days in 87%. Flow was graded as moderate by 56% and heavy by 36% of the girls. 21% experienced dysmenorrhoea and 76% reported symptoms of premenstrual syndrome. Only 11 out of 41 sought consultation for menstrual problems.

**Conclusions:** Most of the girls attained menarche at an appropriate age (83%). Cycles were regular with normal intermenstrual interval and duration of flow in majority (65%, 82% and 87% resp.). Menorrhagia (36%) and dysmenorrhoea (21%) were the common problems reported. There is a need to develop strategies to improve communication among girls, their parents and teachers regarding menstrual abnormalities as these can have impact on adolescents' physical and mental wellbeing.

**Keywords:** Adolescents, Menstrual problems, Premenstrual syndrome.

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### I. Introduction

Onset of menstruation is considered as a landmark in the growth and development of an adolescent. Adolescents in India constitute around 21.4% of total population. (1) In general population menarche occurs in 11-14 years of age. The length of cycle is 21-35 days, duration will be 3-5 days and blood loss averages 30-80ml. By the age of 17-18 years, periods become regular. (2) According to a multicentered survey, menstrual problems are the first and foremost causes of morbidity among adult women. (3,4) Healthy adolescent girls of today are tomorrow's healthy women, future of every society and great resource of the nation. (5)

### II. Materials And Methods

A cross sectional study was undertaken in a Degree college of Visakhapatnam. 100 unmarried girls in the age group of 16-20 years who attained menarche were included in the study. All were given a prestructured and pretested questionnaire and information was gathered on menarcheal age, menstrual patterns and practices and menstrual problems. Results were analysed.

### III. Results

**Table I:** Distribution of students according to age of menarche

S.No.	Age of Menarche	No. of cases
1	<11 years	9
2	11-14 years	83
3	≥15 years	8

Majority members of the study group attained menarche at the normal age of 11-14 years (83%). 9% had earlier menarche and 8% had attained it at a later age.

**Table II :** Distribution of patients according to their Source of information regarding menstrual cycle

Informant	No
Mother	45
Teacher	17
sister	2
Friend or relatives	3
Books and others	5

Only 72% had knowledge about menstruation before they achieved menarche. Mother was the source of information in 45%, 17% had this knowledge from teacher. Other sources were sister (2), friends (3) and books (5).

**Table III :** Distribution of students according to cycle length

S.No.	Cycle length	No
1	<21days	6
2	21-35days	82
3	>35days	12

Cycle length was within normal limits (21-35days) in 82% of the girls, long cycles were noted in 12% and 6% had short cycles.

**Table IV:** Distribution of students according to Duration of menstruation

S.No	Duration of flow	No of students
1	<3 days	6
2	3 --7 days	87
3	>7days	7

Majority of girls (87%) reported flow for 3-7 days, 7% reported prolonged periods and 6% had flow for <3 days.

**Table V :** Amount of bleeding

S.No	Amount of flow	No of students
1	moderate	56
2	scanty	8
3	heavy	36

56% graded their flow as moderate, heavy flow was reported by 36% of girls and 8% had scanty flow.

**Table VI :** Pain during menstruation

Dysmenorrhoea	No of students	mild		severe	
positive	21	6		15	
negative	79				

Majority of the girls (79%) had no pain during periods and out of 21 girls with dysmenorrhoea, 15 had it in severe form, interfering with their daily activity.

**Table VII :** Menstrual disorders

S.No.	Menstrual disorder	No of students
1	Menorrhagia	36
2	Dysmenorrhoea	21
3	Oligomenorrhoea	12
4	polymenorrhoea	6
5	Premenstrual syndrome	76
6	Hypomenorrhoea	8

Menorrhagia was the abnormal flow pattern reported by (36%) of the study group. Next frequent problem was dysmenorrhoea (21%), Headache and irritability (45%), breast fullness ((12%), abdominal cramps(6%) tension (9%) and insomnia (4%) were the more frequent premenstrual symptoms reported by 76% of the girls having premenstrual syndrome. Infrequent cycles were present in 12% of students and short cycles in 6% and scanty flow was reported in 8% of students.

**Table VIII :** Menstrual practices

Users of sanitary pad	77
Users of cloth	15
Users of both	8

Though all of the girls in the study group were studying degree course in a college, 77% were using sanitary pads and 15% reported using a cloth as absorbant material and 8 students reported using both sanitary pads and cloth. 2 out of 15 cloth users reported allergy to pads and heavy flow necessitated use of cloth in 5 girls.

#### **IV. Discussion**

A total of 100 students of a degree college who attained menarche were included in the study. Most of the girls were in the age group of 17-20 years (92%). Majority (83%) had attained menarche by appropriate age of 12-14 years. 9% had it before 11 years and 8% later than 15 years. Kendre VV et al reported 62.5% of their study group attaining menarche at the age of 13 years. (6) Kanotra K.S. et al reported 68.7% of their study group attaining menarche between 11-13 years which is similar to our observations. (7) In the present study, 72% had knowledge about menstruation before menarche, Verma PB et al from Gujarat reported similar observation (63.4% had knowledge of menarche). (8) Mother was their source of information in 45% of the study group. Keerthi Jagdand et al reported mother as the informant in 61.29% girls in their study which is higher than our study. (9)

In the present study 82% had a cycle length between 21-35 days. Sheethu MK et al reported that majority of their study group (78.7%) had cycle length of 21-35 days, which is concurrent with our result. (10) Kanotra et al reported 28-35 days cycles in 92.9% of their study group, which is comparable to our observation. (11) In the present study, duration of flow was 3-7 days in 87% of students, Kendre VV et al reported 3-5 days flow in 85.42% of their study population (6); Lee LK from Malaysia reported 3-7 day flow in 88.2% of his study group which is comparable to our observations. (12) In the present study, 56% had graded their flow as moderate and 36% had heavy flow. Kendre VV et al in their study reported moderate flow in 88.6% girls and heavy flow in 10.23% (6). Sheethu MK et al reported moderate flow in 60.1% of their study group which is similar to our result. (10)

Dysmenorrhoea was reported in 21% of our study group, Kanotra VV et al reported similar results (18.3%) in their study group (7). However Dharampal et al and Verma PB et al reported dysmenorrhoea in 60.77% and 50.6% in their studies respectively (11). Premenstrual syndrome was seen in 76% of our study group and Lee LK et al reported similar results (PMS in 74.6%). (12) In the present study, 77% reported usage of sanitary pads and 15% were using cloth and 8% reported using both. 5 reported heavy flow necessitated usage of cloth. Kendre VV et al reported usage of sanitary pads in 97.73% in non slum girls and 95.8% of slum girls using cloth in their study. Sheethu et al reported pads usage in 41.1% of their study group. Shanbag D et al reported pad usage in 44.1% in their study group. (13) Out of all girls having menstrual problems like Premenstrual syndrome, dysmenorrhoea and menorrhagia, only 11 out of 41 had some consultation. Of them, 30% consulted doctor and rest sought advice from mother and relatives.

#### **V. Conclusions & Recommendations**

Out of the study group, 83% had menarche between 12-14 years, 45% had information regarding menstruation from their mother, 65% had regular cycles. 82% had normal cycle length and 87% had normal duration of flow and 56% had moderate flow. Regarding menstrual problems, 21% had dysmenorrhoea, 76% had symptoms of premenstrual syndrome and 36% had menorrhagia. 79% were using sanitary pads and 15% used cloth and 8% used both. Prevalence of menstrual problems is significant and it may affect their study performance, physical health and daily activities. Their knowledge regarding these problems is poor and only a minority are seeking advice. As mother is the source of their information regarding menstruation in majority, proper health education should be provided for adolescents and their mothers. Causes of avoidance of health seeking behaviour should be evaluated and interventions should be implemented to address these causes. All mothers should be informed of the importance of free communication with their daughters regarding menstruation in early age itself. All women in the family should be counselled regarding hygienic menstrual practices. Ashaworkers, voluntary groups and local self help groups should actively participate in discussions to break religious and cultural barriers for the use of sanitary napkins. In schools sanitary napkin vending machine should be available and proper disposal mechanisms should be in place for soiled napkins. Menstrual hygiene should be a part of curriculum and teachers should be trained to impart knowledge of reproductive health to students. This goes a long way in removing unnecessary taboos and unhealthy practices and negative image associated with menstrual problems and identification of menstrual morbidity and proper management of it.

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