

## Awareness & Practices Regarding Menstrual Abnormalities in Adolescents

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### Abstract

*Objective:* This study was carried out to determine the menstrual abnormalities experienced by adolescents to know their awareness and health seeking behaviour regarding the same. *Methods:* All the adolescents attending or accompanying the patients in the OPD of the institute were enrolled after an informed written consent. Data was collected on pre-designed questionnaire to assess their level of awareness on menstrual abnormalities. *Results:* A total of 200 adolescents were included in the study. There was a complete lack of knowledge about menstrual problems in 160(80%) respondents. Knowledge of irregular cycle, prolonged and short cycle were more in participants who were of between 15-19 year of age. There was a statistically significant relationship between the age and knowledge of irregular, prolonged and short cycle ( $p=.001$ ). There was statistically significant association found between age and dysmenorrhea ( $p=0.004$ ). *Conclusion:* The results reveal that the majority of respondents were unaware of menstrual problems and suffered from reproductive health morbidities, which include dysmenorrhea, menorrhagia and irregular menstruation. Reproductive information programs that currently refer to menstruation in explanations of reproductive functions could easily incorporate more information

about menstrual disorders and help break factors that prevent women from obtaining timely and appropriate care for menstrual dysfunction.

**Keywords:** Menstrual Abnormalities; Adolescents; Awareness.

### Introduction

Menstruation is a normal physiological process that begins during adolescence in females. The normal menstrual cycle relies on action and interaction of hormone released from hypothalamus-pituitary and ovaries and their effect on the endometrium. The normal menstrual pattern is such that age of menarche is less than 16 years, length of menstrual cycle 24-32 days, length of flow 3-7 days and amount of flow  $\leq 80$ ml.

Common menstrual disorders include heavy flow (menorrhagia), unusually light (hypo menorrhoea), unusually frequent (poly menorrhoea), unusually infrequent (oligo menorrhoea) and unusually painful (dysmenorrhoea). Menstrual disturbances are common among the adolescents & are a major social and medical problem for women accounting for high percentage of gynaecological visit.

Although it is a normal physiological process, many adolescents have little or no information about normal and abnormal menstruation. (1) There is a lack of current information concerning the knowledge and attitudes of adolescents regarding menstruation. For e.g., In a review carried out among girls in Middlesex County by Governor's Task force showed that information received in the health education classes do not include information on normal

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and abnormal menstrual cycle. (2) Studies have shown that most of what they know is often information obtained from their mothers and their peers. (3) The report of a study conducted amongst rural adolescents in India showed dysmenorrhea and irregular menses as the commonest menstrual problems of which only 5.3% consulted a doctor and 22.4% took over counter medications. (4) Cultural belief may affect attitude towards menstruation. (5) There are only limited number of studies on the level of information and understanding of bleeding disorders in women; although, there is dearth of information in the medical community about normal vs. abnormal menstrual bleeding.

This study was carried out to determine the menstrual abnormalities experienced by adolescents and their awareness and health seeking behaviour. This information will be useful in modifying health promotion, improving reproductive health of females. and education activities for young females in this environment with a view to improving reproductive health services.

**Methodology**

This cross-sectional study was conducted at a tertiary care hospital in Ahmednagar, Maharashtra from August 2016 to October 2016. All the adolescents attending or accompanying the patients in the OPD of the institute were enrolled. Informed consent was taken from each participant after explaining the study purpose. Those who were currently pregnant or on hormonal contraception were excluded from the study. Data was collected on pre-designed questionnaire which included demographic variables, like age, age of menarche, variation in menstrual pattern which included regularity of cycle, amount of bleeding, duration and rhythm of cycle. Respondents were also

asked about dysmenorrhea and consultation for menstrual problems. The impact of menstrual disorders on daily activities and absenteeism from college were also asked. The factors were also addressed in detail that lead to avoidance of health seeking behaviour. Further questions were asked to assess their level of awareness on menstrual abnormalities. The data analysis was done using SPSS-14. Descriptive statistics were used for all variables in the study. Chi-square test was applied and a p-value <0.005 was considered as statistically significant.

**Results**

A total of 200 adolescents were included in the study, out of which 66 (33%) participants were of up to 15 years of age and 134 (67%) were between 15-19 years. Mean age of participants was 16.34 years (Table 1). Mean age of menarche was 13.35 years. Age of menarche was less than 13 year in 134 (67%) subjects, between 13-15 years in 62 (31%) and more than 15 years in 4 (2%) (Table 2). Out of the total, 50 (25%) participants were uneducated (Table 3). Twelve (6%) girls belonged to upper class, 148 (74%) to lower class and remaining 40 (20%) to middle class (Table 4). There was no statistically significant association found between the socioeconomic class and awareness about medical treatment (p=.016).

About the characteristics of menstrual cycle, 136 (68%) girls had normal cycle length, while 24 (12%) and 40 (20%) had short and prolonged cycles respectively (Table 5). Heavy bleeding was reported in 46 (23%) subjects while irregular cycle was found in 28 (14%) girls. Duration of flow in 134 (67%) participants was 3-6 days, 30 (15%) had less than 3 days and 36 (18%) greater than 6 days (Table 6).

Of the total, 148 (74%) experienced dysmenorrhea,

**Table 1:** Age Pattern of the respondents

N = 200

Age - in years	Number	%age
<15	66	33
15-19	134	67
Mean Age - years		16.34

Abbreviations: N: Number of Respondents

**Table 2:** Menstrual Patterns of the respondents

N=200

Age at Menarche - in years	Number	%age
<13	134	67
13 - 15	62	31
>15	4	2
Mean Age - years		13.35

Abbreviations: N: Number of Respondents

**Table 3:** Education Pattern of the respondents

N = 200

Education	Number	%age
Uneducated	50	25
Educated	150	75

*Abbreviations:*

N: Number of Respondents

**Table 4:** Income Levels Patterns of the respondents

N=200

Income Strata	Number	%age
Upper Class	12	6
Middle Class	40	20
Lower Class	148	74

*Abbreviations:*

N: Number of Respondents

**Table 5:** Menstrual Cycle Lengths of the respondents

N=200

Menstrual Cycle Length	Number	%age
Normal	136	68
Short	24	12
Prolonged	40	20

*Abbreviations:*

N: Number of Respondents

**Table 6:** Menstrual Flow Duration Patterns of the respondents N=200

Duration of Flow	Number	%age
<3 days	30	15
3-6 days	134	67
>6 days	36	18

*Abbreviations:*

N: Number of Respondents

of which 30 (15%) stayed at home due to discomfort from pain and heavy vaginal bleeding. The mean age was 17 year in participants with dysmenorrhea (n=148- 74%) and 14.9 year in those without dysmenorrhea (n=52 - 26%).

Daily activities and academic activities were affected in 138 (69%) and 146 (73%) subjects respectively. Of total, 126 (63%) respondents believed in home remedies, 154 (77%) believed in taking advice from family members and 70 (35%) used self-medication. Majority (n=122, 61%) of the participants considered the menstrual abnormality as a problem. Only 84 (42%) adolescents were aware of the fact that medical treatment was available for menstrual abnormalities.

There was a complete lack of knowledge about menstrual problems in 160(80%) respondents. Knowledge of irregular cycle, prolonged and short cycle were more in participants who were of between 15-19 year of age. There was a statistically significant relationship between the age and knowledge of irregular, prolonged and short cycle (p=.001). There was statistically significant association found between age and dysmenorrhea (p=0.004).

## Discussion

Mean age of adolescents was 16.34 year in our study. The study conducted by Demir SC et al reported mean age of 14 years [7]. Mean age of menarche was 13.35 years in this study. Study conducted by Verma PB et al found the mean age of menarche as 13.9 years [8].

Out of 200 participants in current study 67% had duration of flow between 3-6 days. Study conducted in Singapore showed that 88% adolescents had duration of cycle for 3-7 days [9]. The report of 5 to 17% women experiencing irregular cycles in a survey carried out in developing countries [10] was consistent with the report of irregular cycle occurring in 9% of the female students in this present study. The differences observed in the prevalence of menstrual abnormalities might be due to factors such as anthropometric factors, which were influenced by diet as a function of the present socioeconomic situation of the country.

As might be expected, many women experience pain during menstruation, such pain was reported in 74% of the young female respondents, only 15% reported interference with academic activities. These

finding was consistent with the report of 16-58% of adult women and 35-78% of adolescent experiencing pain during menstruation and about 3-20% reporting it as severe enough to interrupt daily activities [10].

Results of the current study revealed that 63% participant believed in home remedies. These results were consistent with the study conducted by Banikarim et al [11]. About 10.5% of the respondents decided to seek medical attention for menstrual abnormalities in the present study. This was far above the report of 5.3% rural young adolescent consulting doctors while 22.4% took over-the-counter medications in a previous study. This finding was in keeping with the previous report of women not seeking medical attention for menstrual-related symptoms because menstruation is considered personal and highly secretive, or because of fear they prefer self-medication as alternative technique [12]. Seventy-seven per cent participants took advice from family member about menstrual problems in our study. This is close to study conducted in Tehran, in which 61% took advice from mother [13]. In current study by Tan NC et al, 10% of study subjects consulted doctor for their menstrual problems. In another study rate of consultation ranged between 6-14% [14].

Awareness of the students on menstrual abnormalities was poor in the study; this was consistent with a report of poor awareness about the process of menstruation in a previous study carried out amongst rural adolescent girls [12].

### Conclusion

The results revealed that majority of respondents were unaware of menstrual problems and suffered from reproductive health morbidities, which include dysmenorrhea, menorrhagia and irregular menstruation.

Women's lack of knowledge about expected changes in menstrual function across the life course often make it difficult for them to separate normal age-related changes in bleeding patterns from menstrual morbidity. Reproductive information programs that currently refer to menstruation in explanations of reproductive functions could easily incorporate more information about menstrual disorders and help break factors that prevent women from obtaining timely and appropriate care for menstrual dysfunction.

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