



## Menstrual Abnormalities Among Adolescent Females Attending a Tertiary Care Hospital in North India

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### Abstract

**Background:** To study the menstrual abnormalities among adolescent females attending a gynaecological outpatient department (OPD) in a tertiary care hospital. **Material & Methods:** It was a cross sectional study which was carried at outpatient department (OPD) of obstetrics and gynaecology, Government medical college Srinagar over a period of 6 months. A total of 90 adolescent females in the age group 10-19 years were included in the study. Along with the demographic profile, menstrual abnormalities were evaluated with the help of self-structured questionnaire. **Results:** The mean age of the study population was  $15.6 \pm 2.8$  years. Majority of the adolescent females were in the age group of 16-19 years (44.4%), literate with formal education above 10th class (37.8%) and from rural background (56.7%). Dysmenorrhea was the most common menstrual morbidity in 64.4% of adolescent females followed by menorrhagia (26.7%). Pain abdomen was the most common premenstrual symptom encountered by 62.2% of females. **Conclusion:** Menstrual abnormalities are common in the adolescent females with dysmenorrhea being the commonest.

**Keywords:-** Dysmenorrhea, Amenorrhea, Premenstrual symptoms.

## INTRODUCTION

The onset of menstruation represents a landmark event in pubertal development of the adolescent girl. Menstruation is an important and much valued event in the reproductive life of most women.<sup>[1,2]</sup> Menarche, the first menstrual period, is only a single event in the transition to reproductive capability that occurs at puberty; however, it is the most dramatic and therefore, more easily remembered than thelarche and puberache.<sup>[3]</sup>

Menstruation and the menstrual cycle are characterized by variability in volume, pattern

and regularity, which at the earlier stages of the development of the adolescent, can create emotional discomfort particularly to the poorly informed girl.<sup>[1]</sup> Puberty is a period of human development during which secondary sexual characteristics appear, skeletal growth spurt occurs, behavioral attitudes are modified, and the capacity for fertility is realized.<sup>[4]</sup>

Disturbances of menstruation, which includes dysmenorrhea, irregular menses and excessive menstrual bleeding, are the commonest presenting complaints in adolescent gynecology clinics. Of these, dysmenorrhea is

commonly experienced by most adolescent girls.<sup>[5]</sup> According to studies dysmenorrhea disrupts, the educational and social life of women, especially young girls. Due to dysmenorrhea, absenteeism (28-48%) and perceived quality-of-life losses are prevalent among adolescent girls. In the United States, dysmenorrhea has been estimated to be the greatest cause of time lost from work and school.<sup>[5]</sup>

Disturbances of menstruation, either actual or perceived, are the most common presenting complaint of adolescents attending gynecology clinics. Problems associated with menstruation actually affect 75% of adolescent females and are a leading cause of such visits to physicians. The aim of the current study is to assess the menstrual abnormalities among adolescent females attending a tertiary care hospital.

## MATERIAL AND METHODS

### Study design

The present study was a descriptive hospital based cross-sectional study.

### Study participants and settings

A total of 90 adolescent females were included in our study. The study population consisted of all the adolescent females who attended the outpatient Department of obstetrics and gynaecology, Government medical college srinagar over a period of 6 months from March 2019 to August 2019 who fulfilled the inclusion criteria of the study

### Inclusion Criteria

- 1) Those who consent.
- 2) Those who had attained menarche

### Exclusion Criteria

- 1) Those with serious comorbid medical illness

### Data Collection and Stastical Analysis

All the females were interviewed using self-administered structured questionnaires. The collected information included demographic profile, age of menarche, menstrual abnormalities and premenstrual symptoms. The data was entered into excel sheet and tabulated. The data was analyzed using SPSS Version 20.0. Categorical variables were summarized as frequency and percentage. Continuous variables were summarized as mean and standard deviation.

### Ethical Consideration

The study was approved by the Institutional ethical committee of Government medical college Srinagar.

## RESULTS

### Demographic profile

Majority of our study population and were in the age range of group of 16-19 years (44.4%), having formal education above 10th class (37.8) and from rural background (56.7%). [Table 1]

### Age of Menarche

62.7% of adolescent females attained there menarche between the age of 12-13 years. However 7.8% had menarche at the age of 11 years. [Table 2]

### Menstrual Abnormalities

Dysmenorrhea was the most common menstrual abnormality as reported by 64.4% of females followed by menorrhagia (26.7%) and primary amenorrhea (14.4%). [Table 3]



### Premenstrual Symptoms

Pain abdomen was the most common premenstrual symptom in 62.2% of adolescent

females, followed by backache (46.7%) and irritable mood (28.9%). [Table 4]

**Table 1:**

Variables		Number (%)
Age group (Years)	10-13	24(26.7)
	14-15	26(28.9)
	16-19	40(44.4)
Education	No formal education	10(11.1)
	Primary pass	16(17.8)
	8th pass	30(33.3)
	10th pass	34(37.8)
Residence	Rural	51(56.7)
	Urban	39(43.3)

**Table 2:**

Age(Years)	Number (%)
11	7(7.8)
12	24(26.7)
13	32(35.6)
14	16(17.7)
15& above	11(12.2)

**Table 3:**

Abnormalities	Number (%)
Dysmenorrhea	58(64.4)
Menorrhagia	24(26.7)
Primary Amenorrhea	13(14.4)
Scanty menses	21(23.3)
Inter menstrual bleeding	17(18.9)

**Table 4:**

Premenstrual Symptoms	Number (%)
Pain Abdomen	56(62.2)
Backache	42(46.7)
Irritable mood	26(28.9)
Headache	23(25.6)



## DISCUSSION

Earlier it would be thought that menstrual abnormalities were found higher in metropolitan cities as compared to small towns due to lifestyle pattern however this study highlights that lifestyle pattern changes has affected adolescent females in every part of country.

Our study highlighted that in majority of females the age of menarche was between 12- 13 years. Most of the studies showed the menarche age stabilized at the age of 12 to 13 year.<sup>[6,7]</sup> Datta (2013) mentions that menarche may occur between 10 and 16 years, the peak time being 13 years.<sup>[8]</sup> Recent data suggest that the mean age of menarche in Indian girls belonging to upper socioeconomic age group is 12.6 years.<sup>[9]</sup> Madhavan et al. (1965) mentions that the mean age of menarche for urban girls was lower than that for rural girls which might indicate a better socioeconomic and nutritional status at menarche and found that mean age at menarche was 12.76 years for urban and 13.24 years for rural.<sup>[10]</sup>

The results of our study suggested that the dysmenorrhea is the commonest menstrual abnormality in adolescent females, which is supported by the fact that dysmenorrhea is common among 70%-90% adolescent girls globally.<sup>[11,12]</sup> In a study conducted in Thiruvananthapuram, Kerala, India, dysmenorrhea stood out to be the commonest

menstrual morbidity at 74% followed by back pain, irritability, leg pain, and vulval pain.<sup>[13]</sup> In another study conducted in Maharashtra, India, 21% of the respondents suffered from dysmenorrhea.<sup>[14]</sup>

The most common premenstrual symptom reported in our study is pain abdomen followed by backache and irritable mood. Premenstrual symptom has been reported to be one of the most distressing problems associated with menstrual cycle. The complaints of the adolescent females in the present study were well within the range as reported by other studies.<sup>[15]</sup>

Dysmenorrhea and premenstrual symptoms were perceived as most distressing symptoms leading to school absenteeism. Dysmenorrhea and premenstrual symptoms has also been reported to be one of the most frequent causes of absenteeism from school and of days off work.<sup>[16]</sup> Women with premenstrual symptoms have reported a greater number of days with impairment in routine work, school and household activities.<sup>[17]</sup>

## CONCLUSIONS

The prevalence of menstrual abnormalities among adolescent females in our settings is very high. Adolescent females, almost always, silently suffer the pain by dysmenorrhea and the discomfort associated with it due to lack of knowledge about reproductive health.

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