



**ORIGINAL RESEARCH PAPER**

**Obstetrics & Gynaecology**

**A STUDY OF PATTERN OF MENSTRUAL PROBLEMS IN ADOLESCENT GIRLS IN A TERTIARY CARE HOSPITAL**

**KEY WORDS:**

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**ABSTRACT**

**Introduction:** Many adolescent girls with menstrual disturbances never present to their family doctor or gynaecologist due to embarrassment about discussing menstruation and fear of disease. This may lead to delayed presentation. The objective of the current study was to evaluate the socio-demographic aspects of adolescent girls having menstrual problems as well as type of menstrual problems and its management. **Materials and Methods:** This retrospective study was carried out at the department of obstetrics and gynaecology of tertiary care teaching hospital from June2022 to Nov2022. **Head Results:** Total of 184 adolescent girls visited our hospital with menstrual problems. Amongst them 117(63.5%) belonged to the late adolescent group, 176(96.6%) were residing at urban areas, 93(50.54%) were from middle socio-economic class and 164(89.13%) were unmarried. Dysmenorrhoea, menstrual irregularities and amenorrhoea were present in 49(26.63%), 99(53.8%) and 23(12.5%) respectively. Patients were managed either medical and/or surgical management along with proper counselling. **Conclusion:** Majority of the adolescent girls in our study were anaemic. Hence, prevention and management of anaemia along with health education regarding normal physiology, various menstrual problems and importance of nutrition is necessary. In India attempts and success to develop adolescent friendly health services in public and private systems have met with partial success. Hence, counselling and management of menstrual problems in adolescents needs to be provided in existing health and medical care services.

Adolescence is a transitional stage extending from 10-19 years characterized by rapid physical, psychological and sexual changes.<sup>1</sup> It is characterized as thelarche, adrenarche, pubarche and menarche.

Menstruation is a natural phenomenon and an important indicator of women's health reflecting their reproductive function. As girls attain puberty at this age, they have various problems associated with menstruation. Menstrual problems of adolescents occupy a special space in the spectrum of gynaecological for the age group. 75% of girls have one or more problems associated with menstruation.<sup>2</sup>

**2. MATERIALS AND METHODS**

After due permission from institutional review board of our institute, this retrospective study was carried out at department of obstetrics and gynaecology of tertiary care teaching hospital during June2022 to November2022 and data was collected from the OPD books, case papers and also from records of the hospital. Data was analysed by appropriate statistical tools.

The study population included emergency as well as registered ones. Patients' Socio-demographic details like age, education, residence, socio-economic class, presenting complaints, type of menstrual problems and details of management were collected.

**2.1. Inclusion criteria**

1. All the adolescent girls aged 10-19 years who attended OPD and/or were admitted under the gynaecology department for menstrual problems.

**2.2. Exclusion criteria**

1. Adolescent girls having other gynaecological problems were excluded.

**3. RESULTS**

We have collected data of 184 adolescent girls, who had presented with menstrual problems at our tertiary care hospital during the study period.

**Table 1: Socio-demographic details (N=184)**

Socio-demographic details	Numbers	Percentage(%)
Age (years)		
Early adolescent (10-13)	18	9.7
Mid adolescent (14-16)	49	26.6
Late adolescent (17-19)	117	63.5
Residential area		
Urban	176	96.6
Rural	8	4.34
Socio-economic class		
Low	80	43.47
Middle	93	50.54
High	11	5.9
Marital status		
Unmarried	164	89.13
Married	20	10.87

As shown in Table 1 the maximum percentage of adolescent girls, 117(63.5%) having menstrual problems belonged to the late adolescent age group of 17-19 years. Majority of adolescent girls 176(96.6%) having menstrual problems were from urban background. The proportion of adolescent menstrual problems was highest, 93(50.54%) among middle socio-economic class and lowest, 11(5.9%) among high socio-economic classes. Majority of them 164(89.13%) were unmarried.

As shown in Table 2, menstrual problems were in the form of menstrual irregularities in 99(53.8%), dysmenorrhoea in 49(26.63%), amenorrhoea in 23(12.5%) and white discharge in 13(7.06%). Menstrual irregularities was more prevalent amongst all the menstrual problems. As shown in Table 3, out of 49 adolescent girls who had dysmenorrhoea, primary dysmenorrhoea and secondary

**Table 2: Types of menstrual problems (N=184)**

Menstrual Problems	Numbers	Percentage (%)
Menstrual irregularities	99	53.8
Dysmenorrhoea	49	26.63
Amenorrhoea	23	12.5
White discharge	13	7.06
Total	184	100

Dysmenorrhoea were present in 21(42.8%) and 28(57.14%) girls respectively. The causes of secondary dysmenorrhoea were ovarian cyst in 14(28.5%) PCOS in 7(15.2%), PID in 28(57.14%).

As shown in Table 4, out of 99 adolescent girls having menstrual irregularities, heavy menstrual bleeding was present in 56(56.56%), infrequent menstrual bleeding was present in 20(20.20%), light menstrual bleeding was present in 15(15.15%) and frequent menstrual bleeding was present in 8(8.08%) adolescent girls.

As shown in Table 5, out of 23 adolescent girls, who had amenorrhoea, primary amenorrhoea was present in 10(43.47%) adolescent girls. Out of these, 1(4.34%) had Mayer Rokitansky Kuster Hauser syndrome (MRKH), 9(39.13%) had PCOS. Secondary amenorrhoea was present in 13(56.52%) adolescent girls. Out of them, Polycystic Ovarian Syndrome (PCOS) was present in 10(43.47%) girls, and 3(13.04%) girl was diagnosed with hypothyroidism.

As shown in Table 6, out of 184 adolescent girls, 117(63.58%) were anaemic. Mild, moderate and severe anaemia were present in 60(51.28%), 45(38.5%) and 12(10.2%) respectively. Out of these 83(91.2%) were from middle and low socio-economic class.

**Table 3:** Types of dysmenorrhoea in adolescent girls (N=49)

Dysmenorrhoea	Numbers	Percentage(%)
Primary	21	42.8
Ovarian cyst	14(28.5)	57.14
Polycystic Ovarian Syndrome (PCOS)	7(14.2)	
Secondary		
PID	28(57.14)	
Total	49	100

**Table 4:** Types of menstrual irregularity in adolescent girls(N=99)

Menstrual Irregularity	Numbers	Percentage (%)
Heavy menstrual bleeding (HMB)	56	56.56
Infrequent menstrual bleeding	20	20.20
Light menstrual bleeding	15	15.15
Frequent menstrual bleeding	8	8.08
Total	99	100

**Table 5:** Causes of amenorrhoea in adolescent girls (N=23)

Amenorrhoea	Number	Cause	Numbers Percentage (%)
Primary	10(43.47%)	Mayer Rokitansky Kuster Hauser syndrome (MRKH)	1(4.34%)
		PCOS	9(39.13%)
Secondary	13(56.52%)	PCOS	10(43.47%)
		Hypothyroidism	13.04%)
Total	23		100

**Table 6:** Severity of anaemia in adolescent girls(N=117)

Severity of Anaemia	Total Numbers(%)
Mild	60(51.28%)
Moderate	45(38.5%)
Severe	12(10.2%)
Total	117(100%)

**4. DISCUSSION**

In the present study, the majority of the adolescent girls, 117 (63.5%) having menstrual problems were in the late adolescence age group of 17-19 years, majority of girls were residing in the urban area 176(96.6%) and 93(50.54%)were

from middle socio-economic class. Varghese L et al<sup>3</sup> has reported that the maximum number that is 177(50.5%) of adolescent girls having menstrual problems were in the mid adolescent group of 15-16 year, 266(76%) girls were residing in urban area and 275(78.6%) girls belonged to middle socio-economic class.

In present study, out of 184 girls, 117 (63.58%) adolescent girls were anaemic. Mild, moderate and severe anaemia were 60(51.28%), 45(38.5%) and 12(10.2%) respectively. Thaker RV et al<sup>4</sup> had reported anaemia in 62.7% adolescent girls and mild, moderate and severe anaemia was present in 51.7%, 32.6% and 15.7% respectively. According to NFHS- 5 the prevalence of anaemia in adolescent girls aged 15-19 residing in urban and rural area were 63% and 72.3% respectively.<sup>5</sup>

In present study, menstrual problems were in form of dysmenorrhoea in 49(26.63%), menstrual irregularity in 99(53.8%), and amenorrhoea in 23(12.5%) Goswami P et al<sup>6</sup> has reported menstrual problems in 60%. Thaker RV et al<sup>4</sup> had reported menstrual problems in 95.8% girls. Archana R et al<sup>7</sup> have reported dysmenorrhoea in 32.5%.

In the present study, out of 49 adolescent girls who had dysmenorrhoea, primary dysmenorrhoea and secondary dysmenorrhoea were present in 21(42.8%) and 28 (57.14%) girls respectively. The causes of secondary dysmenorrhoea were ovarian cyst in 14(28.5%) PCOS in 7(14.2%), PID in 28(57.14%). Multidisciplinary approach is required to treat adolescent girls having PCOS such as weight reduction, exercise, lifestyle changes and medication.<sup>8</sup> PID was present in 28(57.14%) adolescent girls who were treated by antibiotics, analgesics and were advised to maintain personal hygiene.

In present study, menstrual irregularities were present in 99(53.8%) adolescent girls. Out of these 56 (56.56%) had heavy menstrual bleeding, 20(20.20%) had infrequent menstrual bleeding, 15(15.15%) had light menstrual bleeding and 8(8.08%) had frequent menstrual bleeding. Goswami P et al<sup>6</sup> have reported HMB in 55.6% and light menstrual bleeding in 2.2% girls. Hormonal treatment was given to 30(78.9%) in addition to tranexamic acid/NSAID and correction of anaemia. Bhalerao-Gandhi A et al<sup>9</sup> reported that hormonal treatment was required in 66% girls.

In the present study, out of 23 adolescent girls, who had amenorrhoea, primary amenorrhoea was present in 10(43.47%). 1(4.34%) girl had MRKH syndrome, 9(39.13%) girl had PCOS.

In the present study, out of 13 adolescent girls of secondary amenorrhoea, 10(43.47%) adolescent girls had PCOS and 3(13.04%) girl had hypothyroidism. Goswami P et al<sup>6</sup> have reported secondary amenorrhoea in 8(72.7%) adolescent girls, out of these 6(75%) adolescent girls had PCOS, 1(12.5%) girl had hypothyroidism and 1(12.5%) had TB abdomen. Adolescent girls, who had PCOS, were counselled regarding lifestyle modification and weight reduction. 3 girls presented with stress of exam were managed by counselling and one girl who had hypothyroidism was referred to the physician and treatment was started.

**5. CONCLUSION**

The commonest menstrual problems in adolescent girls are menstrual irregularities, dysmenorrhoea and amenorrhoea. Management of menstrual problems along with proper counselling and education regarding anatomy and physiology of the human reproductive tract should be done. Many adolescent girls are still shy and unwary of attending the adult outpatient clinic. Special clinics, specialized in adolescent counselling and health education, may go a long way in taking care of their needs. In India attempts and

success to develop adolescent friendly health services in public and private systems have met with partial success. Hence, counselling and management of menstrual problems in adolescents needs to be provided in existing health and medical care services. Majority of the adolescent girls in our study were anaemic. Hence, prevention and management of anaemia along with health education regarding importance of nutrition is necessary.

#### REFERENCES

1. Available from: [https://www.who.int/health-topics/adolescent-health#tab=tab\\_1](https://www.who.int/health-topics/adolescent-health#tab=tab_1).
2. Thaker RV, Madiya AB, Chaudhari HD, Maru JD, Baranda SB. Health Profile of Adolescent Girls Visiting Obstetrics and Gynaecology Department of Tertiary Care Hospital. *Int J Reprod Contracept Obstet Gynecol*. 2018; 7(11): 4678-683.
3. Available from: [http://rchiips.org/NFHS/NFHS-5\\_FCTS/FactSheet\\_GJ.pdf](http://rchiips.org/NFHS/NFHS-5_FCTS/FactSheet_GJ.pdf).
4. Archana R, Rohidas C. Gynaecological problems of adolescent girls attending outpatient departments at tertiary care centres with evaluation of cases of puberty menorrhagia requiring hospitalization. *J Obstet Gynaecol India*. 2016;66(S1):400-6.
5. Varghese L, Prakash PJ, Vishwanath L. A Study to Identify the Menstrual Problems and Related Practices among Adolescent Girls. *J South Asian Fed Obstet Gynaecol*. 2019;11(1):13-6.
6. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6132001/>.
7. Dutta DC. Amenorrhoea. In: Textbook of Gynaecology. New Delhi: Jaypee Brothers Medical; 2016. p. 382.
8. Bhalerao-Gandhi A, Vaidya R, Bandi F. Managing Gynaecological Problems in Indian Adolescent Girls-A Challenge of the 21st Century. *Obstet Gynecol Int J*. 2015;3(1):70.
9. Goswami P, Airward G, Mishra P, Agrawal V. Adolescent Gynaecological Problems: A Prospective Study. *J Evol Med Dent Sci*. 2015;102(4):16709-12.