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## Study to access gynaecological problems in adolescent girls attending the gynaecology OPD at a private teaching institute, Telangana state, South India

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### Abstract

**Introduction:** Adolescents constitute over 21.4% of the population in India. According to WHO, Adolescent age group is 10 to 19 years. During adolescence along with physiological changes, psychological and socio-behavioural changes also occur. It is essential to have knowledge of normal changes occurring in this age-group, and also of the demographic pattern of distribution and prevalence of specific gynaecological problems in order to offer medical services to this group of patients<sup>1</sup>.  
**Methodology:** Hospital based observational, prospective study, which was conducted in RVM Institute of Medical Sciences & Research Centre, Siddipet, Telangana State. Study was conducted from January 2019 to December 2019. A total of 50 adolescent girls attending the gynaecology OPD are selected based on the inclusion and exclusion criteria.

**Results:** Most of the girls belong to 17-19 years age group 28 (56%), followed by 14-16 years 17 (34%). Maximum number of girls attained menarche at the age of 10-13 years (66%) and 22% of girls didn't attain menarche. 22% of girls had menorrhagia, followed by ovarian cyst (18%), (16%) had irregular cycles, primary amenorrhoea (12%), oligo menorrhoea (10%), Dysmenorrhoea (8%), secondary amenorrhoea of (6%), PID (6%), teenage pregnancy (2%).

**Conclusion:** Health education on menstrual hygiene is essential along with healthy life style practices like games, meditation; yoga must be encouraged in adolescent girls. It must be part of the schools health programs.

**Keywords:** Adolescence, menarche, menorrhagia, gynaecology, teenage pregnancy, DUB (Dysfunction uterine bleeding), PCOD (Polycystic ovarian disease)

### Introduction

Adolescents constitute over 21.4% of the population in India. According to WHO, Adolescent age group is 10 to 19 years<sup>[1]</sup>. Gynaecological problems of adolescent girls has a special space in the spectrum of gynaecological disorders. This is because of the nature of problems which are unique, special and specific for the age group and with associated psychological factors which are very important in the growth and psychological development of any girl in the transition between childhood and womanhood. Yet adolescent gynaecology is a subspecialized area of Gynaecology, which is still not yet explored. With this study, we tried our best to review the gynaecological problems of the adolescent population attending the Gynaecological Outpatient Department (OPD) of RVM Institute of Medical Sciences & Research Centre, Siddipet, Telangana State. A total of 50 adolescent girls, belonging to age group of 10 to 19 years were studied. The aim of this study is to assess the types of gynaecological problem and their causative factors occurring in adolescent girls.

### Methodology

Hospital based observational, prospective study, which was conducted in RVM Institute of Medical Sciences & Research Centre, Siddipet, Telangana State. Study was conducted from January 2019 to December 2019. A total of 50 adolescent girls attending the gynaecology OPD are selected based on the inclusion and exclusion criteria. Prior to the study institutional ethical clearance was obtained and the study participants were also asked to give their consent to participate in the study.

**Inclusion Criteria**

1. Age group of 10 – 19 years.
2. Adolescent girls attending the OPD with primary amenorrhoea, menorrhagia and oligo menorrhoea, dysmenorrhoea, hirsutism, white discharge, imperforate hymen, unwanted pregnancy, teenage pregnancy were included.

**Exclusion Criteria**

1. Those not willing to participate and not given consent
2. Age less than <10 years and more than > 19 years

Detailed General and Systemic examination was done which includes pallor, BMI, breast, spine, hirsutism, secondary sexual characters, thyroid examination along with vitals and Systemic examination included per abdomen examination, Local examination of external genitalia and per rectal examination in un married girls. Speculum and vaginal examination in married girls. Investigations included, Blood grouping, typing, viral markers, CUE, Haemogram, Blood sugar levels, Hormonal assays, Coagulation profile, karyotyping and Ultra sonography of both abdomen and pelvis. MRI of abdomen, pelvis and brain (if required).

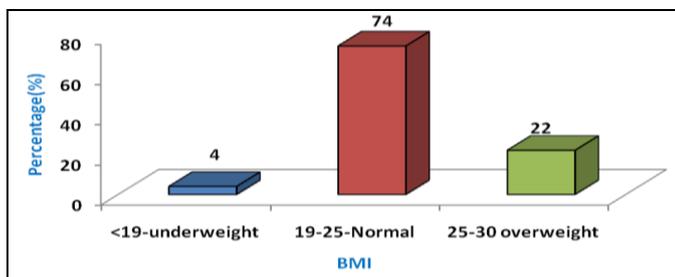
**Data Analysis:** Data entered in Excel sheet and Analysed. Results were expressed in tables and graphs using frequency and percentages.

**Results**

**Table 1:** Showing Age distribution among study participants

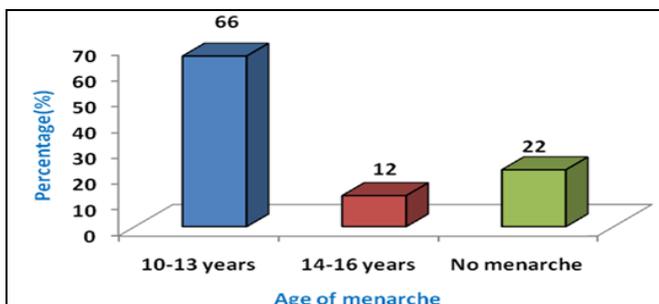
Age (In years)	Number	Percentage
10-13	5	10
14-16	17	34
17-19	28	56
Total	50	100

Most of the girls belong to 17-19 years age group 28 (56%), followed by 14-16 years 17 (34%).



**Fig 1:** BMI distribution among the study participants

Most of the girls fall in range of 19-25% they are having normal BMI 74%, except 22% were overweight.



**Fig 2:** Age wise distribution of girls attained menarche

Maximum number of girls attained menarche at the age of 10-13 years (66%) and 22% of girls didn't attain menarche.

**Table 2:** Showing Marital status of adolescent girls among study participants

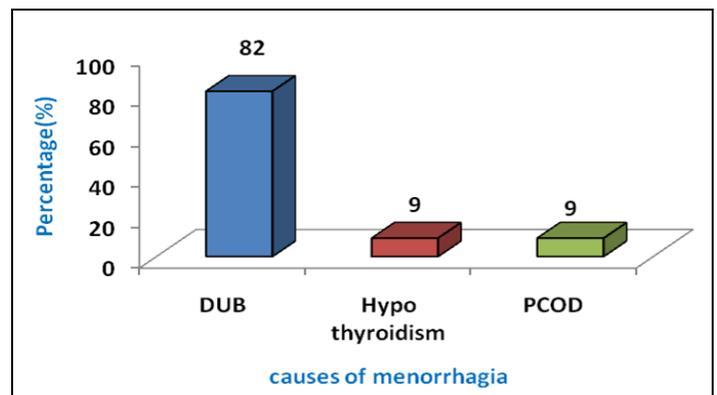
Marital Status	Number	Percentage
Unmarried	38	76
Married	12	24
Total	50	100

Most of the girls are unmarried 38 (76%), only few 12 among 50 were married before the age of 19 years (24%).

**Table 3:** Gynaecological Problems observed in the study participants

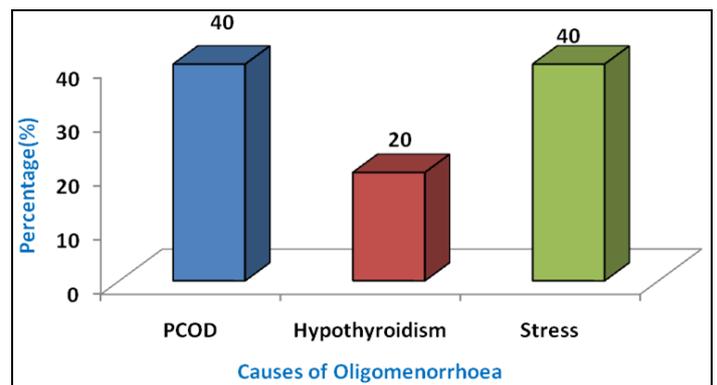
Gynecological problems	Number	Percentage
Menorrhagia	11	22
Primary amenorrhea	6	12
Irregular cycles	8	16
Ovarian cyst	9	18
Dysmenorrhea	4	8
Oligomenorrhoea	5	10
Secondary amenorrhea	3	6
PID	3	6
Teenage pregnancy	1	2
Total	50	100

22% of girls had menorrhagia, followed by ovarian cyst (18%), (16%) had irregular cycles, primary amenorrhoea (12%), oligo menorrhoea (10%), Dysmenorrhea (8%), secondary amenorrhoea of (6%), PID (6%), teenage pregnancy (2%)



**Fig 3:** Aetiology of menorrhagia

The primary cause of menorrhagia among the study population was Dysfunction uterine bleeding (DUB) (82%), followed by hypothyroidism and PCOD (9%).



**Fig 4:** Aetiology of oligo menorrhoea

PCOD and stress equally held responsible for oligo menorrhoea among the study population

**Table 4:** Aetiology of irregular menstrual cycles

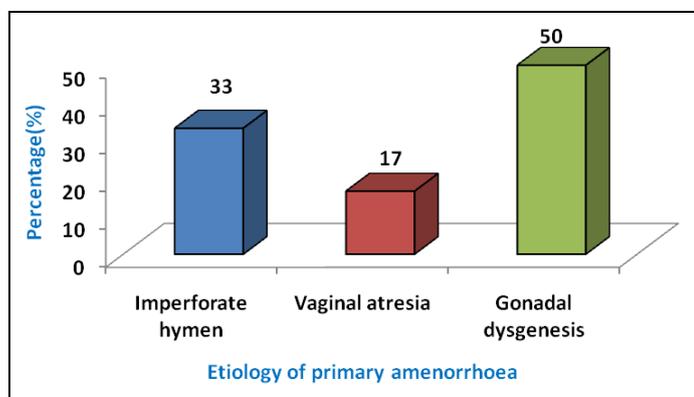
Etiology	Number	Percentage
HPO dysfunction	3	38
PCOD	4	50
Hypo Thyroidism	1	13
Total	8	100

The important cause for irregular cycles was PCOD i.e. 4 out of 8 participants (50%)

**Table 5:** Types of ovarian cysts among the participants

Types	Number	Percentage
Simple ovarian cyst	1	11
PCO	4	44
cyst	2	22
Dermoid cyst	2	22
Total	9	100

Many of the adolescent girls in this study were suffering with ovarian cysts which are of different types, out of all this the commonest one is Polycystic Ovary followed by simple cyst and dermoid cyst (22%) each.



**Fig 5:** Aetiology of primary amenorrhoea

The common cause of primary amenorrhoea was Gonadal dysgenesis among 50% participants followed by imperforate hymen (33%) and vaginal atresia (17%)

## Discussion

In the present study, 44% of adolescent girls belong to age group of 10-16 years, This is comparable to similar study conducted by Archana D. Rathod *et al.* [2] (35.3%), Prakriti Gowswami *et al.* [3] (43%). 56% Adolescent girls attending Gynaecological OPD had ages in the range of 17-19 years. This is less when compared to the study conducted by Archana D. Rathod *et al.* [2] (64.7%), and similar to the study conducted by Prakriti Gowswami *et al.* [3] (56%). The mean age of adolescent population was 16.80 years in this study. In present study (74%) adolescent girls were with normal BMI. (22%) girls are overweight. This is higher when compared with the study conducted by Prakriti Gowswami *et al.* [14] i.e. 10.66% adolescent are overweight. The mean age of attainment of Menarche was 12.04 years. This was near similar to mean age of menarche of 12.8 years as in Khanna *et al.* (2005) [4], 13.2 years was reported by Dasgupta A *et al.* (2008) [5] and Joshi *et al.* reported lesser mean age of menarche as 10.8

years. In present study 24% adolescent girls are married, 76% adolescent girls are unmarried, whereas Prakriti Goswami *et al.* [3], reported 13.30% adolescent girls are married, 86.7% adolescents are unmarried. Because of Adolescent marriages in our Country complications are seen due to early sexual activity and Teenage pregnancy. In present study 22% adolescent girls were having menorrhagia. This results are near similar with that of prakriti Goswami *et al.* (33.3%) [3], Archana D. Rathod *et al.* (14.8%) [2], Suresh kumar *et al.* (16%) [7]. In present study 8% adolescent girls had dysmenorrhoea; this comparable to study by Prakriti Gowswami *et al.* (10.6%) [7]. 10% adolescent girls had Oligomenorrhoea. This is approximately greater than the observation of Prakriti Goswami *et al.* (1.33%) [7]. 12% adolescent girls had Primary amenorrhoea. this is similar with the study by Suresh Kumar *et al.* [6] (12%). 6% adolescent girls had secondary amenorrhoea. 16% adolescent girls had Irregular cycle this is less than the study conducted by Archana D. Rathod *et al.* (29%). In present study 18% adolescent girls had ovarian cyst. In present study 2% adolescent girls had Teenage Pregnancy. This is very less compared to Prakriti Goswami *et al.* (10%). 82% of the study participants suffer with DUB which is the primary cause of menorrhagia which is comparable with studies conducted by Archana D. Rathod *et al.* (82%) and coagulation disorders reported in this study are 9% which is nearly similar to study by Archana D. Rathod *et al.* Oligomenorrhoea in this study was due to PCOD i.e. (40%) and stress (40%) which is near similar with study conducted by Shehal Samarth *et al.* [7] (43%). In this study primary amenorrhoea was due to developmental defect (89%) which is comparable with study reported by Prakriti Goswami *et al.* (99.90%). In the present study, ovarian tumors are seen in 9 adolescent girls out of 50 (18%) which is higher when compared with study conducted by Prakriti Goswami *et al.* (5.33%). In the present study Teenage pregnancy reported was 2% of adolescent girls. This study was comparable to study by Gowswami Sebanti *et al.* [8], Teenage pregnancy accounted for 4.03% of (5/124) cases. This study is comparable to Prakriti Goswami *et al.* [3] (10.66%).

## Conclusion

Changes in the academic curriculum is required to get a change in the personality, attitude and practices among the adolescent girls by including the social, reproductive health topics from the secondary school level onwards. Health education on menstrual hygiene is essential along with healthy life style practices like games, meditation; yoga must be encouraged in adolescent girls. It must be part of the schools health programs.

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