

STUDY OF MENSTRUAL PATTERN AND PROBLEMS AMONG RURAL SCHOOL GOING GIRLS IN RAICHUR DISTRICT OF KARNATAKA¹Dr. Rita D. and ^{2*}Dr. Vineela Pentyala¹Professor & HOD, Department of OBG, NMCH & RC, Raichur.²Junior Resident, Department of OBG, NMCH & RC, Raichur.***Corresponding Author: Dr. Vineela Pentyala**

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ABSTRACT

Background: Menstruation is a normal physiological process. The age of onset and the pattern of menstrual cycles vary on different factors. After menarche many girls face problems of irregular menstruation, excessive bleeding, dysmenorrhoea, premenstrual symptoms and many more. **Aims and Objectives:** To study the menstrual pattern and problems among Race Concept Co-education school in rural area of Raichur district of Karnataka. To study the incidence of various menstrual problems, its approach, and advice. **Materials and methods:** 1 year prospective observational study among 180 school going girls. The data regarding age of menarche, length and duration of cycle, menstrual flow, history of dysmenorrhoea, history of passage of clots. **Results:** Total 180 girls students had attained menarche. Mean age of menarche was 12.5 years. Most common menstrual morbidity seen in this study is dysmenorrhoea (41.66%) followed by heavy menstrual bleeding (25%) and irregular menstrual bleeding (13.33%) subsequently. Poor menstrual hygiene was associated with 30-35% of abdominal cramps and mood swings. **Conclusion:** Menstruation is a normal physiological process. This study revealed that majority of girls had attained menarche at appropriate age. Dysmenorrhoea was the commonest problem among girls in this study.

KEYWORDS: Dysmenorrhoea, Menstruation, Menarche, School going, Rural.**INTRODUCTION**

Menarche is defined as the first menstrual period, the most notable event during female puberty. Menstruation is a monthly endometrial shedding leading to discharge of blood from the uterus occurring in every 23+/- 7 days. The age of onset of the menstrual cycle varies from 10-19 years.^[1] The normal range for ovulatory cycles is between 24 to 38 days. While most periods last from 3 to 5 days, duration of menstrual flow normally ranges from 2 to 8 days.^[2] For the first few years after menarche, irregular and longer cycles are common. 75% of girls experience some problems associated with menstruation including delayed, irregular, painful, and heavy menstrual bleeding due to relative immaturity of hypothalamic-pituitary-ovarian axis. Menstrual patterns are also influenced by a number of host and environmental factors. However, few studies in India have described the lifestyle factors associated with various menstrual cycle patterns. Lack of menstrual hygiene was found to result in adverse outcomes like reproductive tract infections. Better knowledge about menstrual hygiene reduced this risk of reproductive tract infections. In rural India, where a female child and its problems are neglected, there is an urgent and unmet need to understand menstrual pattern and problems of adolescents and include it into primary health care program.^[3]

The commonest problems in school going girls are heavy menstrual bleeding, irregular menstrual bleeding, dysmenorrhoea, amenorrhoea and pre-menstrual syndrome.^[4] This often leads to anxiety, depression and other such psychological problems among the girl students. Take a proactive stance in adolescent health by recommending an initial visit to a gynecologist for health guidance, screening and the provision of preventative services around the age of 13-15 years.^[5] Knowledge of the length and variation of the menstrual cycle is necessary for patient education for identifying deviation from normal to guide clinical evaluation.^[6]

MATERIALS AND METHODS

Source of data: To study the menstrual pattern and problems among Race Concept Co-education School in rural area of Raichur district of Karnataka. To study the incidence of various menstrual problems, its approach, and advice.

Study design: 1 Year Prospective observational study was from 8-march-2019 to 7 march-2020.

Sample size: 180 school going girls. The sample size for this study was calculated by using the following formula: $N=4pq/L^2$.

Inclusion criteria: Girls who were between the age group of 10-15 years with any complaints of menstrual disorder.

Exclusion criteria: The girls who were suffering from any chronic medical disorder and not willing to participate.

Methodology: The prospective observational study was carried out among selected 180 school going girls between 8-march-2019 to 7 march-2020. The data regarding - Identification data, demographic characteristics, menstrual history (age of menarche, length and duration of cycle, menstrual flow, any history of dysmenorrhoea, passage of clots,) premenstrual syndrome, menstrual hygiene, past medical and treatment history has been analysed.

RESULTS

Total 180 girls students had attained menarche. Mean age of menarche was 12.5 years. Most common menstrual morbidity seen this study is dysmenorrhoea (41.66%) followed by heavy menstrual bleeding (25%) and irregular menstrual bleeding (13.33%) subsequently. Poor menstrual hygiene was associated with 30-35% of abdominal cramps and mood swings, heavy menstrual bleeding.

Table 1: Age wise distribution.

Age (years)	Number of girls	Percentage (%)
9-12 years	64	35.55 %
12-15 years	116	64.45 %
Total	180	100.00 %

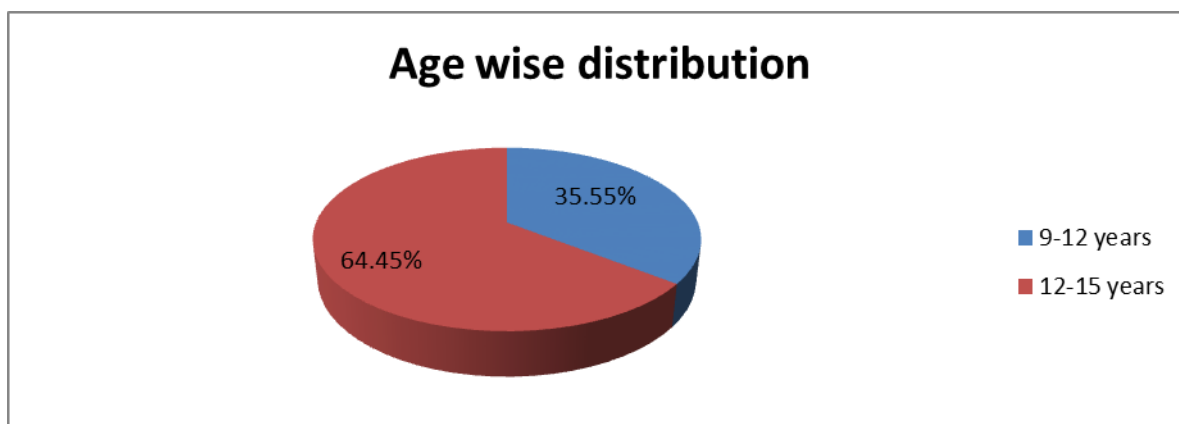
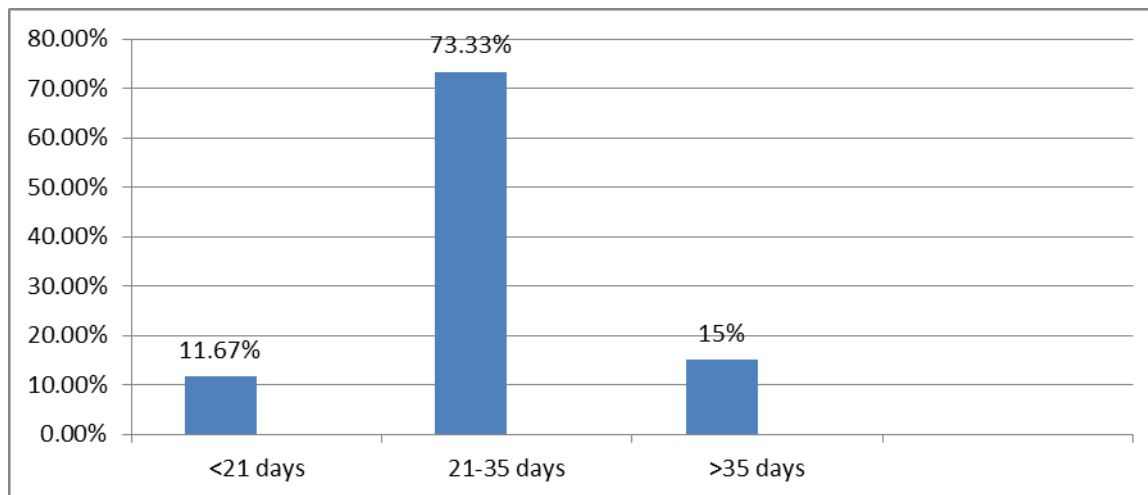
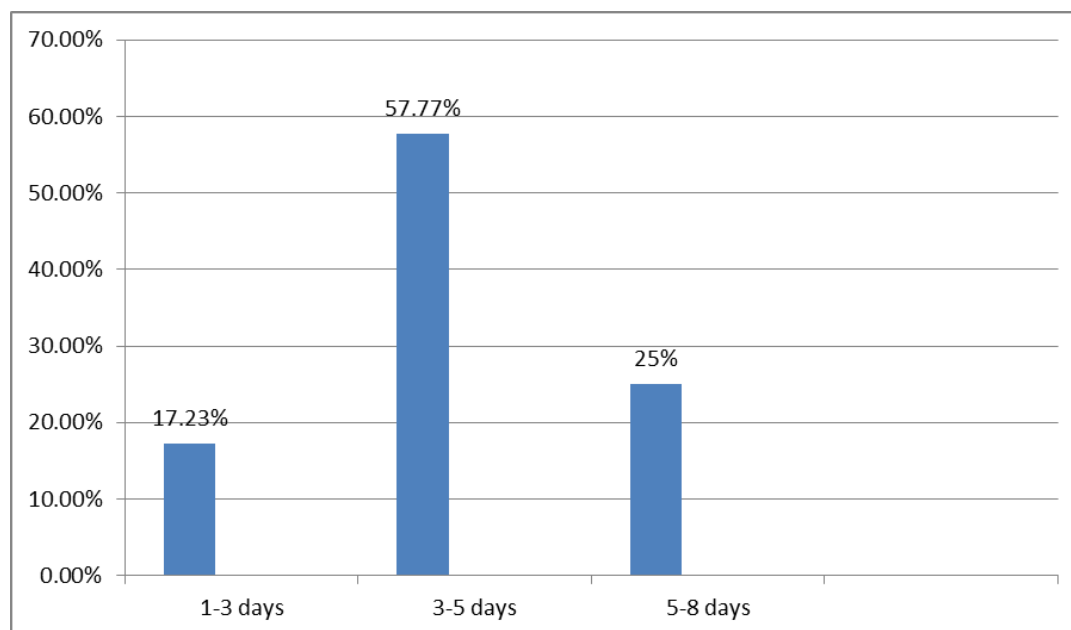


Figure 1: that maximum number of school going girls i.e ; 64.45% belong to 12-15 years of age which are in maximum number with menstrual morbidities and 35.55% belong to 9-12 years respectively.



Graph 1: Length of Menstrual Cycle.

Graph -1 –length of menstrual cycle –among 180 school going girls 11.67%(21)has <21 days of cycle,73.33%(153) has 21-35 days of cycle,15%(27) has >35 days of cycle.



Graph 2: Duration of menstrual cycle.

Graph -2 shown the duration of menstrual cycle among school going girls i.e ; 17.23% girls has duration of 1-3 days,57.77% (3-5 days),25%(5-8 days).

Table 2: Absorbent used during menstruation (N=120).

Practice	Number	Percentage (%)
Only cloth	120	66.54%
Only sanitary napkin	50	28%
Home made pads	10	5.46%
Total	180	100%

Table -2 shown that absorbent used during menstruation is old cloth by 66.54 % of girls and 28 % girls can afford sanitary napkins and only home made pads are used by 5.46%.

Table 3: Frequency of changing absorbent in 24 hours(N=120).

Practice	Number	Percentage (%)
1	80	44.44%
2	40	22.22%
>4	60	33.33%
Total	180	100%

Table-3 shown that frequency of changing absorbent is 33.33% when it comes to ≥ 4 per day,22.22%changes absorbent twice per day and 44.44% changes 1 pad per day.

Table 4: Washing of absorbent clothes.

Practice	Number	Percentage (%)
Washing with soap	40	40%
Washing without soap	60	60%

Table -4 shown that girls who are using reusable cloths are cleaning only with water (60 %) and with soap (40%).

Table 5: Drying of washed absorbent cloth.

Practice	Number	Percentage (%)
Without sunlight	70	70%
Under sunlight	30	30%

Table-5 shown that the washed cloth is dried under sunlight by only 30 % and 70% of girls are drying without sunlight.

Table 6: Reusable cloth number of cycles used.

Practice	Number	Percentage (%)
1 time	20	16.66%
2 times	42	35%
>3 times	70	48.33%

Table-6 shown that 48.33% of these girls are reusing the same cloth for 3 or cycles only 16.66 % girls are disposing after single use.

DISCUSSION

Menarche is the important landmark of the adolescence which prepares a girl for the future motherhood. H-P-O axis take around 18 months to become mature. School going girls have many problems regarding menstrual abnormalities and it was seen that they are shy to discuss their problems and to maintain proper hygiene during menstruation.^[7]

In our study the mean age group was 12.5 years.In the study done by L K Lee et al mean age was 13.4 +/- 1.2 years and in Rigon F et al study mean age group was 14.1 +/-1.1 years.^[8]

In this study Dysmenorrhea is most commonly seen i.e. 41.66% it may be either primary or secondary. Primary dysmenorrhea occurs in the absence of any identifiable pathology and is attributed to the production of prostaglandins during the menstrual cycle. Secondary dysmenorrhea occurs when there is an identifiable pelvic or hormonal pathology causing pain. The most common gynecologic causes of secondary dysmenorrhea are endometritis and pelvic inflammatory disease (PID). These conditions are associated to poor nutrition, poor menstrual hygiene practices and also lack of awareness.^[9] Similar findings were reported by Suresh K. Kumbhar *et al.* (65.02%), Sharma P, Malhotra C, Taneja DK *et al.* (67.2 %), Sharma M and Gupta S. (67%), McKay and Diem (67%).

In the present study heavy menstrual bleeding (25%) rate is higher as we performed this study in rural area and due to heavy menstrual bleeding moderate anemia is seen in 83% of adolescent females.^[9] A similar study of Bandkhadke *et al.* had 30.8% of adolescents had menorrhagia and anemia was the leading cause of morbidity.^[10] Menstrual morbidities can be controlled by improving nutrition level of adolescent females.

In the present study 120 girls were using clothes and out of these 100 girls were reusing the cloth by washing and drying inside the house only 30 adolescent females were drying under sunlight according to the guidelines given by ministry of health and family welfare i.e. cloth used during menstruation should be dried under sun and should be kept in clean bag during intermenstrual period.^[11] A study done by Sindhu S *et al.* 68.3% of the girls were using sanitary pads while cloth was used by 23.3% and cloth and pads both were used by 8.4% girls and 8.52% were reusing the cloth. 52% of illiterate adolescent females were using unhygienic practices during menstruation, while 20% of them were using hygienic practices as they were using sanitary napkins and disposing them properly. While 48% literate girls were using unhygienic practices as they were using same cloth pieces for next cycle.^[12]

Due to lack of sanitary latrines young girls were not able to change frequently and not getting enough space for disposal and this leads to reproductive tract infections and that can lead to future problems like infertility. So, if we will treat the basic problem we can achieve a good and healthy population of adolescent females. Lack of knowledge and awareness about menstrual hygiene has attributed to various factors seen in this study.^{[13],[14]}

The above findings reinforce the need to encourage safe and hygienic practices among the adolescent girls and bring them out of traditional beliefs, misconceptions and restrictions regarding menstruation. Use of sanitary napkins was promoted and various schemes regarding menstrual health were briefed to the students. Early awareness can prevent students from suffering from the various reproductive tract infections.^[15]

CONCLUSION

Menstruation is a normal physiological process. Menstrual disorders extremely common during the first few years following menarche due to immature HPO axis. The pre-menstrual symptoms and the menstrual problems affect their routine work and school abstinence. Girls with severe dysmenorrhoea needs medical treatment. The study findings throw insight that every girls in schools have to be screened for menstrual problems. All menstrual abnormalities does not need treatment except those suffering from pathological condition and for those girls can be treated either by non-hormonal and hormonal management. Due to unhygienic practices and lack of education and awareness about hygiene many of the girls were suffering from reproductive tract infections and poor nutrition leads to anemia. So we need to educate about hygiene, use of sanitary napkins, use of ferrous sulphate tablets provided by government.

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