

International Journal of Clinical Obstetrics and Gynaecology



ISSN (P): 2522-6614
ISSN (E): 2522-6622
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www.gynaecologyjournal.com
2020; 4(4): 227-229
Received: 20-05-2020
Accepted: 26-06-2020

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To study the menstrual pattern and various menstrual problems among adolescent girls

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DOI: <https://doi.org/10.33545/gynae.2020.v4.i4d.650>

Abstract

Background: Adolescence is the period of rapid physical growth, psychological and social changes. This period is marked by the onset of menarche in the girls. Menstruation is a natural biological process experienced by all adolescent girls and women in reproductive age. The objective of the study was to know the menstrual pattern and disorders among adolescent females visiting OPD of our tertiary care center.

Method: A cross sectional study was carried out in which a total of 100 adolescent girls who attended gynaecological OPD were included. Pre-designed structured questionnaire was used for data collection.

Result: Majority of girls (59%) had menarche between 10-13 years of age. Dysmenorrhea was the most common menstrual problem (56%) followed by oligomenorrhea (48%). Dysmenorrhea was also the most common reason for absenteeism from school (14%) followed by menorrhagia and dysmenorrhea (8%).

Conclusion: This study highlights the need of awareness of menstrual problems among adolescent girls to avoid future reproductive health problems. Educating students about menstrual health by trained health professionals and teachers can help in reducing their psychological and physical stress.

Keywords: Adolescent, menarche, menstruation

Introduction

Adolescence is a period between childhood and adulthood, a transition phase marked by development in secondary sexual characteristics and reproductive maturity^[1]. According to World Health Organization (WHO), adolescence is a period between 10 and 19 years and adolescents in India comprise 19.3% of the total Indian population^[2].

Menstruation is a natural, normal biological process experienced by all adolescent girls and women in reproductive age. Amongst the entire developmental milestones associated with the adolescent years, menarche is the most important. Menarche is the onset of first menstruation among girls. Menstruation is a continuous process and occurs once a month as a regular rhythmic period. Throughout the childbearing years of the women, it remains as a normal physiological phenomenon and discontinues permanently at menopause approximately between the ages of 45-55 years^[3, 4]. The menstrual cycle is often irregular during first few years after menarche. These are generally anovulatory cycles. Although at the age of 17-18 years, regular menstrual cycle becomes established^[5, 6].

Menstrual disorders are leading causes of academic and work absenteeism among young females resulting in greater loss of income and decreased quality of life. Despite their high prevalence and the associated ill effects, many female are reluctant to use medical care for these conditions^[7, 8]. This study was conducted with the aim to evaluate the various menstrual problems among adolescent girls. The information obtained will thus help in educating girls in India and organizing health programs to improve the reproductive health of reproductive health of women.

Material and Methods

A Cross-sectional study was conducted among 100 adolescent females attending gynaecological OPD of SMGS hospital, Jammu from January to March 2020.

Pre-designed structured questionnaire was used for data collection. The purpose and objectives of the study was explained to the students and written consent was taken. The girls filled up the forms in privacy. They were made aware about their right to withdraw from the study at any time and were instructed not to write their names on the questionnaire for confidentiality. Data was collected, compiled and analyzed.

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Results

This study shows that majority of adolescent girls (59%) attained their menarche between 10-13 years of age and 40% belonged to the age group of 14-16 years of age. (table 1). Majority of girls (48%) had normal menstrual cycle length of 28-35 days and only 7% had cycle length less than 28 days. (table 2). 14% girls had excessive menstrual flow and 20% had scanty flow during menstruation. Most common menstrual problem manifested by them was dysmenorrhea (56%) followed by oligomenorrhea (48%) (table 3)

Table 1: Distribution of girls according to age at menarche

Age at menarche	Percentage
10-13	59
14-16	40
17-19	1
	100

Table 2: Pattern of menstrual cycle

Duration of Blood Flow (DAYS)	
<2	5
3-5	70
>5	25
Length of Cycle (DAYS)	
<28	7
28-35	48
>35	45
Quantity of Blood Flow	
Normal	66
Excessive	14
Scanty	20

Table 3: Common menstrual problems

Menstrual problems	Percentage
Dysmenorrhea	56
Oligomenorrhea	48
Menorrhagia	18
Premenstrual symptoms	20
Leucorrhea	5

Dysmenorrhea was the main reason for absenteeism from school (14%). Menorrhagia along with dysmenorrhea was second most common reason (8%) for absenteeism followed by menorrhagia alone (3%) and Premenstrual symptoms (3%). (Table 4)

Table 4: Reasons for absenteeism from school related to menstrual problem (n=30)

Menstrual problem	Number	Percentage
Dysmenorrhea	14	14
Menorrhagia + dysmenorrhea	8	8
Menorrhagia	3	3
Premenstrual syndrome	3	3
Fear of leakage	2	2

Discussion

Menstrual cycle is an inevitable part of a woman's life and an important indicator of normal sexual and reproductive health. The age of menarche is influenced by nutritional status, socioeconomic condition, health status and genetic factors. Our study shows majority of adolescent girls had menarche between 10-13 years of age (59%) similar to the study conducted by Rokade S *et al.* [9] (12.6+1.05 years), Kural M *et al.* [10], Sanhwan G *et al.* [11] and Patil MS *et al.* [12]. The mean cycle length of the girls in our study was 30.2±5.8 days.

Majority of students (48%) had normal cycle between of 28-35 days, which was similar to other studies [13, 15]. 70% had normal menstrual blood flow between 3-7 days, comparable with study by Nabila HAA10 in which 71.6% of students reported normal duration of blood flow [14].

Dysmenorrhea (56%) and oligomenorrhea (48%) are the most common menstrual disorders among adolescents. Our results revealed high percentage of girls suffering from different kinds of menstrual disorders; 48% were suffering from oligomenorrhea consistent with other similar studies [14, 16, 17]. Premenstrual Syndrome was seen in 20% girls. Nabila HAA *et al.* also reported high prevalence of PMS in their study, which affects on day to day activities of adolescent girls [14]. These findings make it necessary to educate adolescent girls about the menstrual health to improve their mental and physical activities during menstrual periods.

In the present study about half students (56%) reported incidence of dysmenorrhea, out of which only 15% required treatment, comparable to findings shown by Keda K *et al.* [15]. Severity of dysmenorrhea was significantly associated with class absenteeism in our study ($p < 0.05$), which is consistent with study results shown by various researchers like Shete JS *et al.* [8], Sharma S *et al.* [13].

Conclusion

Menstrual problems are frequent among adolescent girls. Dysmenorrhea was the commonest problem among the adolescents. Attainment of menarche at correct age is an important milestone during adolescence, which signifies the normal functioning of the female reproductive system. Study revealed that majority of adolescent girls had attained menarche at appropriate age. Due to lack of awareness, poor hygiene, various cultural taboos and practices in India, these problems are usually ignored. The study provides an indication to implement educational activities among adolescent girls regarding menstrual awareness, associated problems and early consultation to health care centers.

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