

EVALUATION OF WOMEN'S HEALTH DURING MENSTRUAL CYCLEJosna James^{*1}, Sneha Prabha¹, Merin Joseph¹, Unnimaya Premkumar¹, Merlin K. Jacob¹, T. Sivakumar²¹Pharm D Interns, Department of Pharmacy Practice, Nandha College of Pharmacy, Erode, Tamil Nadu, India.²Principal, Nandha College of Pharmacy, Erode, Tamil Nadu, India.***Corresponding Author: Josna James**

Pharm D Interns, Department of Pharmacy Practice, Nandha College of Pharmacy, Erode, Tamil Nadu, India.

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ABSTRACT

Menstruation is a natural, normal biological process experienced by adolescent girls and women. Premenstrual syndrome is a collection of psychological-behavioural and physical symptoms occur during the luteal phase and subsides after the menstrual flow. Menstrual cycle pattern is an important factor in menstruation. Now a days, abnormal cycles like shorter than 21 days, longer than 34 days are common in adolescent girls. During menstruation, use of sanitary pads and adequate washing of the genital area are essential for the proper hygiene. In our study we focused to evaluate the women health at different stages like pre-menstruation, menstruation and proper menstrual hygiene during menstrual cycle. In a total of 255 girls, 94.09% were had psychological-behavioural symptoms and 91.68% had physical symptoms respectively. About 62.2% were following good practises for maintaining menstrual hygiene. Proper health education improves the health and well being of girls and women.

KEYWORDS: Premenstrual syndrome, Menstrual cycle pattern, Menstrual hygiene.**INTRODUCTION**

Menstruation is a natural process in women's life with shedding of blood for 1 to 7 days every month from the time of maturity until menopause.^[1] Generally menarche, a central event of puberty attained between 12 and 13 years.^[2] Various factors influence the timing and progression of puberty, such as socio economic conditions, nutrition and life style changes.^[3]

Premenstrual syndrome (PMS) is a collection of predictable physical, cognitive, affective and behavioural symptoms that occur during the luteal phase or 7-14 days before the onset of maturation and subsides with the commencement of menstrual flow.^[4, 5] PMS impair daily life and estimated up to 40% of women of reproducing age. Premenstrual dysphoric disorder, a severe form of PMS occurs in 5% of women.^[6] More than 100 premenstrual symptoms are reported. Among them, major symptoms are mood swings, anxiety, irritability and physical conditions like fatigue, headache, bloating, sleep disturbances, nausea and breast tenderness.^[7, 8] PMS vary from cycle to cycle and include more than one category of symptoms. While evaluating the Premenstrual symptoms, it is easy to categorize symptoms into clusters like mood related (depression, sadness, tension, irritability), cognitive (mood swings, difficulty in concentrating, confusion) and physical (breast tenderness, weight gain, bloating, acne).^[9]

The most important changes occurring in the girls during the adolescence years is the onset of menstruation.^[10] In this age, menstrual cycles are irregular predominantly from the first cycle to second cycle. In most females bleeding prolongs for 2 to 7 days during their first menses. During the early years, after menarche immaturity of the hypothalamic- pituitary- ovarian axis occurs and it results in anovulation and long cycles. In healthy women, 60 to 80 % of menstrual cycles are 21 to 34 days long by the third year after menarche.^[11, 12, 13]

While we consider the health education for adolescence girls, menstrual hygiene is an important aspect. Lack of awareness, cleanliness and unavailability of sanitary and negligence leads to poor menstrual hygiene. Negligence in menstrual hygiene results in biological disorders like reproductive tract infections, vaginal scabies and abnormal discharge.^[14] Due to the socio- cultural trends of our society, awareness relating to this area is not highlighted. In our study we focused to evaluate the women health at different stages like pre-menstruation, menstruation and proper menstrual hygiene during menstrual cycle.

MATERIALS AND METHODS

This prospective observational study was carried out among college hostel girls in Tamil Nadu, India over a period of 3months from April 2016-june 2016. The data was obtained using specially designed questionnaire including demographic details, premenstrual symptoms,

menstruation and menstrual cycle patterns and menstrual hygiene.

Inclusion criteria

- Girls of age between 18 to 25 years.

Exclusion criteria

- Those who are not attain menarche.
- Those who are not willing to participate in the study.

RESULTS

A total of 255 girls were included in our study. Participants were in the age group of 18-25 with a mean age of 21. We categorize the questionnaire into three sections; premenstrual symptoms, menstruation patterns and menstrual hygiene.

Based on the psychological - behavioural symptoms and physical symptoms, we classify the premenstrual symptoms into three groups; asymptomatic, mild to moderate and severe symptoms. In total of 255 girls, 94.09% were had psychological and behavioural symptoms and 91.68% had physical symptoms. Among them, 15.29% and 5.8% had severe psychological-behavioural and physical symptoms during their menstrual cycle respectively (Table 1).

Table1: Premenstrual symptoms: psychological-behaviour & physical symptoms

Variables	Psychological And Behaviour Symptoms	Physical Symptoms
No symptoms	5.88%	8.2%
Mild -moderate	78.8%	85.88%
Severe	15.29%	5.8%

In our study, 69% of girls had normal cycle whereas 12.9% and 23.52% had irregular cycles with shorter than 21 days and more than 34 days in a cycle . Girls who were missed periods are about 22.35% (Fig.1).

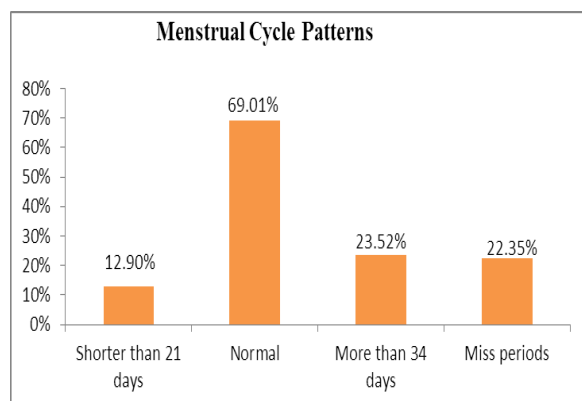


Fig 1: Menstrual cycle patterns

Table 2 shows that 38.82% had bleeding with brown colour turning to red after 1-2 days and about 49.41% had complaints of dark red blood with heavy blood flow during the menstruation. From the total population,

18.82% were menstruation last more than 5 days and 30.58% had heavy bleeding during the time of stress.

Table 2: Bleeding pattern during menstruation

During Menstruation	Percentage (%)
Brown colour turning to red after 1-2 days	38.82
Dark in colour with heavy blood flow	49.41
Periods last more than 5 days	18.82
Heavy bleeding during time of stress	30.58

During menstruation, 57.7% of subjects are complaining of severe dysmenorrhoea and about 35.4 % had tolerable pain (Fig 2). From the total subjects, about 37.64% reported presence of diarrhoea/loose stools in this period.

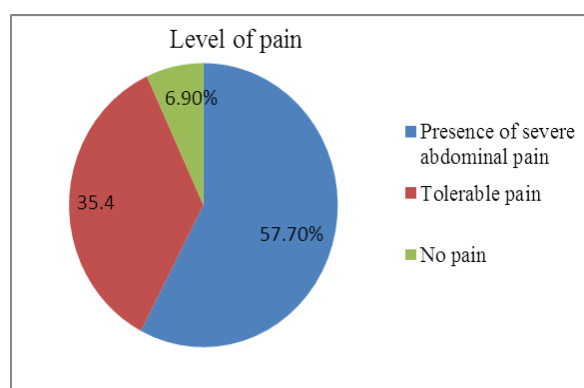


Figure 2: Level of pain

In our study, 89.2% of subjects states that the menstrual pain got cured by applying warmth and pressure, such as hugging a hot water bottle or taking hot water orally. Around 74.8% of participants took simple NSAIDs to overcome the menstrual pain. Out of 255 subjects, 12% of girls are doing exercise regularly and they reported a less severity of symptoms before and during menstruation.

Table 3: Practise of menstrual hygiene among adolescent girls

No. of pads used in a day	Percentage (%)
One	3.5
Two	8.2
Three	73.7
More	14.5
MODE OF DISPOSAL	
Refuse bin	62.7
Flush in toilet	19.6
Burn	11.7
Others	5.8

Most of our subjects (87.4%) were using disposable sanitary pads as absorbents. About 73.7% girls were using three pads followed by 14.5 % were using four pads in a day. Only 44% of girls are bathing twice daily during menstruation. Concerning the method of disposal

of absorbents, 62.7% threw them in the bins where they should be disposed. Only 62.2% were following good practises for maintaining menstrual hygiene.

DISCUSSION

In our study we observed that menstrual associated challenges pose a significant crisis for girls. Among young women, PMS and dysmenorrhoea are the common gynaecological problems. In our study, there were 92.8 % PMS cases and 60% of students reported pain during menstruation for the past three months. Proper measures should be taken to reduce the incidence of PMS which influences the quality of life in young girls.^[15]

In our evaluation, most of the girls reported that NSAIDs, applying warmth and pressure, such as hugging a hot water bag or taking hot water orally are effective for controlling pain. Girls who are doing exercise regularly also reported a less severity of symptoms before and during menstruation. Diet and lifestyle modification plays an important role in PMS and menstrual pain. Banikarim et al pointed out that treatment for Hispanic adolescents during dysmenorrhoea include rest, medications, heating pad, tea and exercise.^[16] And also Frackiewicz et al reported that treatment begins with 2 to 3 month trail of lifestyle. Women with proper exercise or jogging experienced a reduction in PMS compared to the women who don't exercise.^[6] Modification which includes reducing or eliminating intake of salty foods, sugar, caffeine, chocolate and dairy products also alleviate PMS symptoms.

Evaluation is required for menstrual abnormalities like cycles occur more frequently than every 21 days or less frequently than every 45 days, occur 90 days apart from last cycle, bleeding prolongs more than seven days, require increased number of pad changes and heavy bleeding.^[3]

In the present study about 87.4% of the respondents used disposable sanitary pads and only 12.6% of subjects used old piece of cloth. A similar study conducted in Tamil Nadu in the year 2012 reported that about 90.5% respondents used sanitary pads whereas only 9.5% girls used cloth.^[17]

For the sake of proper hygiene in girls, it is considered that the pads should be changed at an interval of 3-4 hours for the comfort and to prevent odour regardless of the extent of staining.^[18] In our study, 73.7% girls were using three pads and 14.5 % were using four pads in a day. Studies in the rural areas showed a reduced rate of menstrual hygiene and the reasons were lack of awareness and facilities.^[19] Narayana et al suggested that urban girls had better awareness about menstrual hygienic practices than their rural counterparts.^[20] Lack of awareness about the menstrual hygiene could be an important problem for poor practices.^[21]

In this present study, majority of the girls disposed their pads in concerned dust bin, changed pads on time and maintained proper hygiene. This fact was supported by many studies.^[1, 10, 20, 22]

CONCLUSION

The study assessed the premenstrual symptoms, menstruation patterns and menstrual hygiene among adolescent girls. During the reproductive age, girls need proper care and attention because they face many psychological and physical problems. For a certain extent, diet and lifestyle modification can reduce these symptoms and maintain a regular menstrual cycle pattern. Menstrual hygiene plays a crucial role in the women health. From the beginning of menarche, adolescent girls experience many changes and challenges. Proper health education in schools and colleges will help the girls to accept the changes they are experiencing and achieve self esteem to overcome the challenges during this period. Proper awareness ensures a future generation of educated and empowered women.

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