



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 8.4  
IJAR 2021; 7(9): 112-115  
[www.allresearchjournal.com](http://www.allresearchjournal.com)  
Received: 26-07-2021  
Accepted: 28-08-2021

**Jeyanthi Shanmugam K**  
Professor, Vanniaperumal  
Nursing College for Women,  
Virudhunagar, Tamil Nadu,  
India

**Lakshmi Devi J**  
Vanniaperumal Nursing  
College for Women,  
Virudhunagar, Tamil Nadu,  
India

**Shahera banu SA**  
Vanniaperumal Nursing  
College for Women,  
Virudhunagar, Tamil Nadu,  
India

**Supriya A**  
Vanniaperumal Nursing  
College for Women,  
Virudhunagar, Tamil Nadu,  
India

**Corresponding Author:**  
**Jeyanthi Shanmugam K**  
Professor, Vanniaperumal  
Nursing College for Women,  
Virudhunagar, Tamil Nadu,  
India

## Prevalence and coping strategies regarding premenstrual syndrome among women in selected educational institutions

**Jeyanthi Shanmugam K, Lakshmi Devi J, Shahera banu SA and Supriya A**

### Abstract

Premenstrual syndrome is one of the most common disorders of reproductive age that can be seen in different intensities in women. PMS is defined as the group of symptoms occurring only during the luteal phase of a woman's menstrual cycle that occurs 14 days before menstrual period. Premenstrual syndrome typically occurs between the ages of 25-45 years.

**Aim:** The aim of the study was to assess the prevalence and coping strategies regarding premenstrual syndrome among women in selected educational institutions.

**Materials and Methods:** Descriptive survey design was used. By using non probability purposive sampling technique 100 women in the age group of 25 - 45 years in selected educational institutions were selected.

**Results:** The study findings revealed that, 63% of the study subjects had mild PMS, 34% had moderate PMS, and very few (3%) had severe PMS. Premenstrual syndrome was commonly found in women between 30 – 35 years. The most common physical symptoms experienced by women were back ache, joint & muscle pain (81%), abdominal heaviness and discomfort, fatigue (65%), increased appetite (10%) and diarrhea (8%). With regard to coping strategies, 57% of women have accepted that PMS is a natural phenomena, 40% have adopted taking adequate rest as a coping strategy.

**Conclusion:** This study concludes that premenstrual syndrome was prevalent among women between the age group of 25-45 years & women employ wide range of coping strategies to manage PMS.

**Keywords:** Premenstrual syndrome, coping strategies, women of reproductive age group

### Introduction

Menstruation is a normal physiological phenomenon in a woman's reproductive life. Among the gynecological problems, menstrual problems are said to be the major ones especially among adolescent females. Premenstrual syndrome (PMS) is used to describe physical, cognitive, affective and behavioural symptoms that occur cyclically during the luteal phase of the menstrual cycle and resolve quickly at or within a few days of the onset of menstruation. Previous studies in India reported a prevalence of premenstrual syndrome to be 20% in a general population and severe symptoms in 8%. American College of Obstetrician and Gynaecologist (ACOG) put forward a criteria which consists of any one of the Affective symptoms (Depression, Angry outbursts, Irritability, Anxiety, Confusion and Social withdrawal) and Somatic symptoms (Breast tenderness, Abdominal bloating, Headache and Swelling of extremities). These symptoms should occur in the three prior menstrual cycles during the 5 days before the onset of menses and the symptom must resolve within 4 days of onset of menses and not recur until after day 12 of the cycle. The symptoms must adversely affect social or work related activities. These conditions are not life threatening but they can seriously decrease the quality of life of many women and affect their mental health and their productivity<sup>[1]</sup>.

Several factors including genetic, environmental, psychological, biological, and social factors are documented to play a role in occurrence of PMS. Genetics plays an important role. Women with a history of PMS in mothers are more likely to report PMS (70%) in comparison to women with negative family history (37%). Moreover, reporting of PMS in monozygotic twins is 93% while in dizygotic twins is 44%<sup>[2]</sup>. Women employ a range of coping strategies and behaviors in order to manage and reduce premenstrual distress.

Life style modification for the treatment of premenstrual syndrome include dietary changes, exercise, cognitive behavioral therapy & complementary and alternative medication, and may be all that is necessary to lessen mild to moderate symptoms. Dietary recommendation include premenstrual decreases in caffeine, salt and refined sugar and smaller, more frequent meals to help diminished irritability, insomnia, fluid retention, breast tenderness and weight gain. Exercise has been shown to significantly improve mood and decrease lethargy. Vitamins and herbal supplementation decreases the premenstrual syndrome. Alternative therapies include massage therapy and acupuncture also decrease the premenstrual symptoms [3]. Despite the presence of studies which focused to reveal women’s symptoms during the premenstrual period, little studies concentrated on coping of these women during this period. Since the researcher has planned to conduct a research to assess the prevalence and coping strategies regarding premenstrual syndrome among women at Virudhunagar.

**Aim**

The present study aimed at identifying the prevalence and coping strategies regarding premenstrual syndrome among women in selected educational institutions of virudhnagar district.

**Methodology**

Descriptive study design was used to collect data. By using Non-probability purposive sampling 100 women in the age group of 25 - 45 years in selected educational institutions of Virudhunagar district were selected. Formal permission was obtained from the school authority and oral consent was obtained from the study subjects.

**Tool:** Instrument for data collection consisted of three parts

- A. Demographic Performa with includes age, religion, marital status, number of parity, number of children, age at menarche, educational status, occupation, family’s monthly income, place of residence and previous knowledge regarding premenstrual syndrome.
- B. Checklist to assess the prevalence of premenstrual syndrome which consisted of 30 possible symptoms experienced by women during premenstrual syndrome.

- C. Checklist to assess the coping strategies pertaining to premenstrual syndrome which consisted of list of 20 coping strategies which may be adapted by women to cope up with premenstrual syndrome.

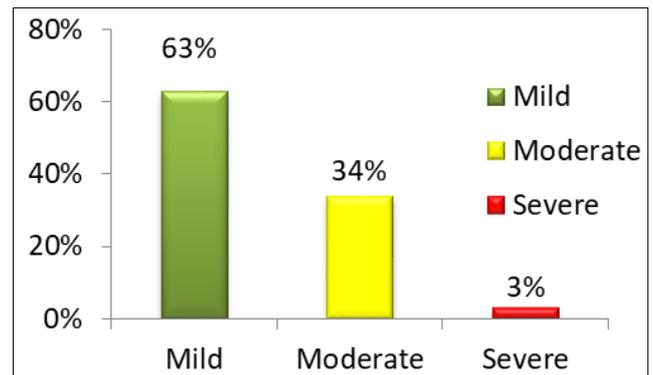
**Results**

**Demographic characteristics of the subjects**

Age of study subjects ranged between 25 years to 45 years. Majority of the subjects (90%) were Hindus, Most of the subjects (86%) were married, nearly half of the subjects (42%, 47%) attained menarche between 12 -13 years and 14-15 years respectively. Nearly half of the subjects (42%) had two pregnancies. With regard to number of children 43% subjects had two children and 5% of subjects had three children. Large portion of subjects (70%) were post graduates. Maximum subjects (72%) were teaching staffs. With regard to frequency of menstrual cycle, nearly ¼ of the subjects (26%) had 30 days cycle, 38% of subjects had 28 days cycle. A small number of subjects (8%) have irregular menstrual cycle. Maximum subjects (67%) had 3-5 days of menstrual flow. More than half of the subjects (56%) had previous knowledge regarding PMS.

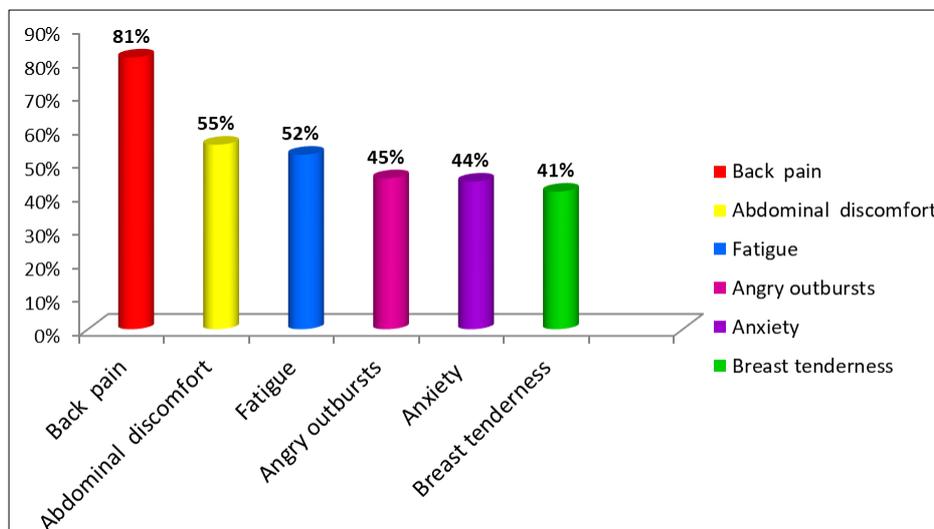
**Prevalence of premenstrual syndrome**

More than half of the subjects (63%) had experienced mild PMS, 34% had experienced moderate PMS and very few (3%) had experienced severe PMS (Fig 1).



**Fig 1:** Prevalence of premenstrual syndrome

**Common symptoms of PMS experienced by subjects**



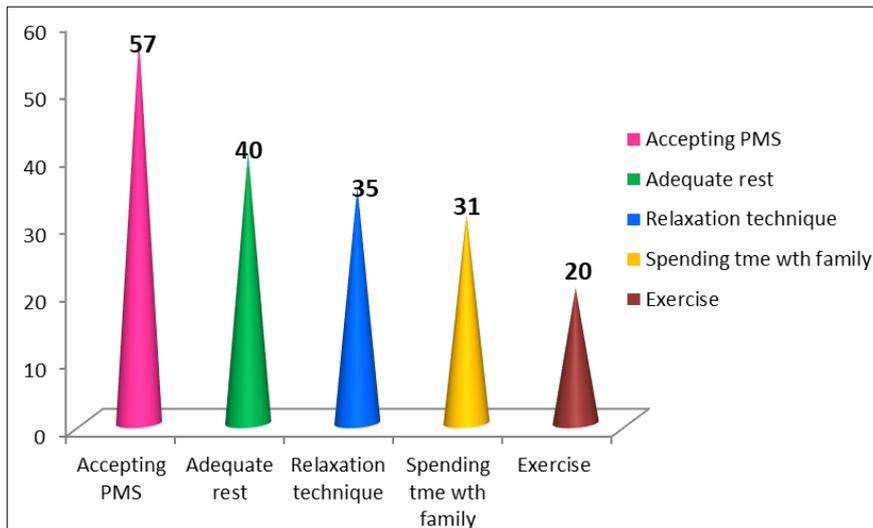
**Fig 2:** Common symptoms of PMS experienced by subjects

The commonest symptom (81%) experienced by the subjects was back ache, joint and muscle pain. More than half of the subjects (55%, 52%) have experienced abdominal heaviness and discomfort and fatigue respectively. 45%, 44% of subjects have experienced angry outbursts and anxiety respectively. 41% of the subjects had pain and tenderness in the breast (Fig 2).

**Positive coping strategies adapted by subjects**

More than half of the subjects (57%) have often accepted

PMS as a natural phenomenon. The second most common positive coping strategy adopted by the subjects was taking adequate rest(40%). 35% subjects practiced relaxation technique like watching TV, taking a warm shower and reading books.31% subjects have spent time talking to family members. 12% of the subjects often used alternative system of medicine like Ayurveda, Yoga, Unani, Acupressure, Naturopathy, Siddha & Homeopathy. It was found that only 11% of subjects seek medical attention for severe symptoms (Fig 3).

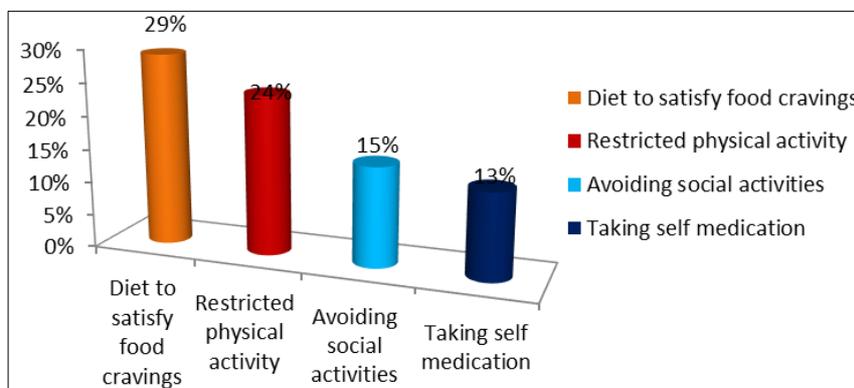


**Fig 3:** Positive coping strategies adapted by subjects

**Negative coping strategies adapted by subjects**

The commonest negative coping strategy often adopted by the subjects was taking diet to satisfy food craving(29%).

24% of subjects expressed that they restrict their physical activity, 15% have avoided social activities and 13% subjects are taking self-medication for symptoms (Fig 4).



**Fig 4:** Negative coping strategies adapted by subjects

**Table 1:** Association of premenstrual syndrome with selected demographic variables

S. No	Demographic variables	X <sup>2</sup>
1	Age	16.403*
7	Educational status	27.38*

There was a significant association found between premenstrual syndrome and selected demographic variables such as, age (16.403\*) and Educational status (27.38\*) (Table 4).

**Discussion**

Different studies have reported a wide range of PMS in various countries. The prevalence of premenstrual syndrome rate has been reported as 10% in Switzerland and 98% in

Iran. Epidemiologic surveys have estimated that as many as 80% of women of reproductive age experience some symptoms attributed to the premenstrual phase of the menstrual cycle<sup>[4]</sup>.

Similar study conducted by, Nageeb *et al.*, (2010) among adolescent girls of secondary nursing schools at Dakahlia, Egypt in which findings showed that 55.8% had experienced mild PMS, 34.2% had experienced moderate PMS, 9.6% had experienced severe PMS<sup>[5]</sup>. The findings of the above studies support the current study findings<sup>[6]</sup>.

Joseph T, Nandini M, Sabira K A (2016) studied PMS among adolescent girls in a selected college. The study finding revealed that, 70% were having mild PMS, 15 % were having moderate PMS and no one experienced severe PMS<sup>[6]</sup>. The findings of the above study contradicts the

current study findings since none of the subjects in the above mentioned study experienced severe PMS.

Hafez AAA, Ahmed SM, Makhoulf EM (2015) studied the premenstrual symptoms and coping behavior among 120 female nursing students in Nursing College at Minia University. The predominant mild degree symptom was confusion (70%), followed by difficulty concentration and weight gain with a percent of (65%), while the moderate degree symptoms; vomiting represented the highest percentage (58%), followed by depressed mood, low abdominal pain and backache in 35% of study objects. Regarding severe degree symptoms; low abdominal pain had the highest percent (36 %) followed by fatigue (28%) and weakness (25 %). The highest frequency reported symptom was headache and backache (91.7%), followed by low abdominal pain (90%). In the current study also the commonest symptom (81%) experienced by the subjects was back ache, joint and muscle pain, followed by abdominal heaviness and discomfort (55%).

With regard to the coping strategies, 82 % of them took hot or cold drinks followed by not expressing anger on others (62 %) [7] Whereas in the current study 22% took hot or cold drinks to manage PMS and 18% expressed anger without blaming others.

Longo da Silva CM, Gigante DP, Carret MLV. Fassa AG (2006) studied association of PMS with selected demographic characteristics among 1,395 women aged 15 to 49 years old in Southern Brazil, It was found that PMS was most prevalent among the women of higher economic level, higher family income, longer schooling and in the younger age groups. Marital status, parity, work outside the home, physical activities during leisure time, health perception, religious observance and smoking were not shown to be associated with the outcomes [8]. The current study found that there was a significant association between premenstrual syndrome and selected demographic variables such as age (16.403\*) and Educational status (27.38\*)

It was found in the literature that the current study findings are supported by similar studies conducted in different settings.

### Conclusion

The study findings shows that, most of the study subjects had experienced mild form of PMS & very few of them experienced severe PMS. Subjects have adopted both positive and negative coping strategies. Preventive and treatment strategies for premenstrual disorders are also highly recommended. Health education program are necessary to provide women with required information for coping in a healthy way with premenstrual syndrome.

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