

Assessment of prevalence and awareness regarding premenstrual syndrome and its coping techniques among the paramedical students – A research study

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ABSTRACT


Background: Menstrual cycle is the cyclical hormonal process in females, which occurs every month. Along with the menstrual bleeding, females may experience a group of symptoms 7–10 days before the actual bleeding starts. These symptoms are of unknown etiology and are not related to any organic lesions in the pelvic cavity but disturb the daily activities of female and affect her both mentally and physically. The aim of this study is to assess the prevalence and awareness regarding premenstrual syndrome (PMS) and its coping techniques among the paramedical students. **Objectives:** The objectives of the study were to assess the prevalence and knowledge of PMS among the paramedical students of 18–25-year old and to assess the awareness of various coping techniques. **Materials and Methods:** A total of 89 female paramedical students aged between 18 and 25 years were selected for the study by cluster sampling. A structured questionnaire was used to assess the prevalence, knowledge regarding PMS, and awareness of coping techniques. Descriptive statistical analysis was done using the SPSS software. **Results:** Of 84 participants, 81 (96%) reported having PMS. The most common physical (somatic) symptoms observed were acne (56%) and anger/irritability (60%) which were the most common psychological (affective) symptoms. About 57% of the participants were affected in their studies due to PMS. Drinking hot/cold beverages (46%) were the most commonly used coping technique. **Conclusion:** PMS is one of the most common disorders among female paramedical students in the age group of 18–25 years, which is considerably affecting their studies and lifestyle. The rate of the usage of faulty coping techniques is high. Hence, there is an intense need to carry out awareness programs for female students.

KEY WORDS: Premenstrual Syndrome; Prevalence; Awareness; Coping Techniques

INTRODUCTION

Premenstrual syndrome (PMS) is the most common condition among women of reproductive age group. It is a

psychoneuroendocrine disorder of unknown etiology, often noticed just before menstruation.^[1] These cyclical changes are associated with ovulatory cycles. The symptoms of PMS are divided into two types: mainly, the affective symptoms such as depression, anger outburst, irritability, anxiety, and social withdrawal and the somatic symptoms such as breast tenderness, abdominal bloating, and swelling.^[2] These symptoms start 7–10 days before the menstruation and suddenly get resolved after menses.^[3] It is a functional disorder and related with no organic lesions in the pelvis. However, few factors such as hormonal changes and chemical changes in the brain contribute to the formation

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of mood swings, depression, sleep disturbances, and food cravings.^[4] Increased level of progesterone and decreased level of estrogen cause some PMS symptoms.^[5] These changes usually occur during the luteal phase after the ovulation where the female experiences the physical and emotional changes. It is also affected by number of factors mainly socioeconomic status, dietary habits, stress, exercise, smoking, alcohol consumption, and menstrual factors such as age at menarche, duration since menarche, and menstrual patterns.^[6]

Up to 80% of women of childbearing age report having some symptoms before menstruation.^[7] The response of each individual is different to this imbalance of hormones which gets resolved as the menses appear.^[8] Sometimes, these symptoms are severe enough to disturb the day-to-day activities and affect the social life of a woman.

From ancient ages, menstruation is considered as a sign of reproductive health during the adolescence period of women. In India, about one-fourth (27.7%) of the female population falls in the age group of 15–29 years.^[9] This age group is associated with the physical, mental, emotional, and social developments. The occurrence of unwanted symptoms related to menstruation may hamper girl's social behavior and academic performance which may instill a negative approach toward menstruation. Apart from the medicinal treatment, educating women to improve their lifestyle is a very effective way in reducing the severity of the symptoms. Many studies have shown that educational interventions have improved the outcome measures.

Hence, this study was conducted among the paramedical students in the age group of 18–25 years, to assess the prevalence of PMS and their knowledge of the same. The study also focuses on the effect of PMS on their academic and social activities and different coping techniques used by them to combat the syndrome.

MATERIALS AND METHODS

This cross-sectional study was carried out among the students of a paramedical institute in Sangareddy, Telangana. The institutional ethical committee approval was taken before conducting the study. Eighty-nine female students were selected by the cluster sampling method. A structured questionnaire was used to assess the prevalence and awareness regarding PMS. All the questions were explained in the local language, and verbal consent was taken from the students. Inclusion criteria were age between 18 and 25 years. Girls were excluded, if they had (a) any organic pelvic lesion, (b) any generalized diseases such as hyper/hypothyroidism and diabetes, (c) psychiatric problem such as depression, and (d) undergone any hormonal therapy. A pilot study was conducted to improve the quality of questionnaire. It was divided into two parts. Part 1 consisted of questions regarding

the premenstrual symptoms. Part 2 had premenstrual coping measure (PMCM) scale used to assess various coping techniques used by students, in addition to that an open-ended questionnaire was also included to know if any other coping method is used which is not mentioned in PMCM. Statistical analysis was done using the SPSS software. Descriptive statistics such as percentage was calculated for reporting demographic data, prevalence of PMS, and prevalence of coping methods used.

RESULTS

Eighty-nine students in the age group of 18–25 years (mean = 19.73 years) from paramedical institutes, Sangareddy, participated in the study, of which five were excluded as per the criteria. Of 84 participants, 81 (96%) reported having PMS [Figure 1]. The prevalence was highest (90%), among the age group between 18 and 21 years. Family history was positive in 17 (21%) participants.

The most common physical (somatic) symptoms observed were acne (56%), decreased appetite (51%), and muscle pain (49%). Anger/irritability (60%), lethargy (58%), and decreased interest in daily activities (57%) were common psychological (affective) symptoms among the participants. However, symptom such as cramps in legs (4%) was least observed.

Of 81 participants, 46 (57%) were affected in their studies, 40 (49%) in routine life, and 31 (38%) could not carry out their hobbies during this period. Only 16 (20%) participants had consulted the physicians for their symptoms.

Among the various coping techniques used, the highest frequency was of “drinking hot or cold beverages” (46%) and less commonly used was “talked to family members” (11%). Another open-ended questionnaire was provided to participants to enquire about coping techniques used by them other than the ones mentioned in PMCM scale, and

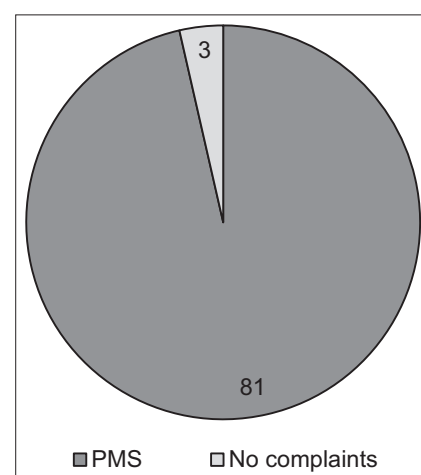


Figure 1: Prevalence of premenstrual syndrome

it was observed that “eating sweets” (37%) were the most commonly used technique. “Bunking classes/escape out of routine” (21%) and “self-medication” (10%) were also used by considerable number of population [Figure 2].

DISCUSSION

This study was planned to evaluate the prevalence of different symptoms of PMS among paramedical female students, its impact on their daily activities, and various coping techniques used to tackle the condition.

In the present study, the prevalence of PMS was reported to be 96%. The most frequent somatic symptom in this study was acne (56%) and affective symptom was irritability (56%). About 57% of the total participants were affected in their studies and academic activities due to PMS. In the present study, the assessment of coping techniques was done using PMCM scale. The highest frequency was for “drinking hot or cold beverages” (46%) and less commonly used was “talked to family members” (11%). An open-ended questionnaire was provided to participants to enquire about other coping techniques used which are not included in the scale; “eating sweets” (37%) were the most commonly used technique. “Bunking classes/escape out of routine” (21%) and “self-medication” (10%) were also used by considerable number of population.

Similar other studies were done in different parts of India. The prevalence of PMS in one such study done in Madhya Pradesh by Shamnani *et al.*, in 2018, is reported to be 65%.^[6] A study conducted in Tamil Nadu involving 500 health-care and non-health-care students aged 17–27 years reported 47.6% and 52.3% prevalence of PMS, respectively.^[10] In a study done in Madhya Pradesh, participants reported body pain (52%) as the most common somatic symptom and irritability (50%) as the most common affective symptom which coincides with the present study. A study done at Thrissur in 2016 reveals that academic performance of 70% of students was affected due to PMS^[11] which is higher than the present study (57%). In a similar study done at Chandigarh, most commonly used coping technique was, “do not blame themselves” (89%).^[12] Furthermore, in a study carried out at Tamil Nadu, “do not blame themselves” (90%) scored the highest percentage which is in contrast with the present study (25%).^[10]

Our study faced certain limitations. Due to the time constraint, daily record of severity of problem scale was not used; hence, there is no specific discrimination between mild, moderate, and severe PMS. There is also a chance of recall bias as daily diary or calendar method was not used for data collection. The strength of the study was an open-ended questionnaire which was used to assess coping techniques which are not included in PMCM scale. Responses to this questionnaire opened insights into the newer coping behavior adopted by students.

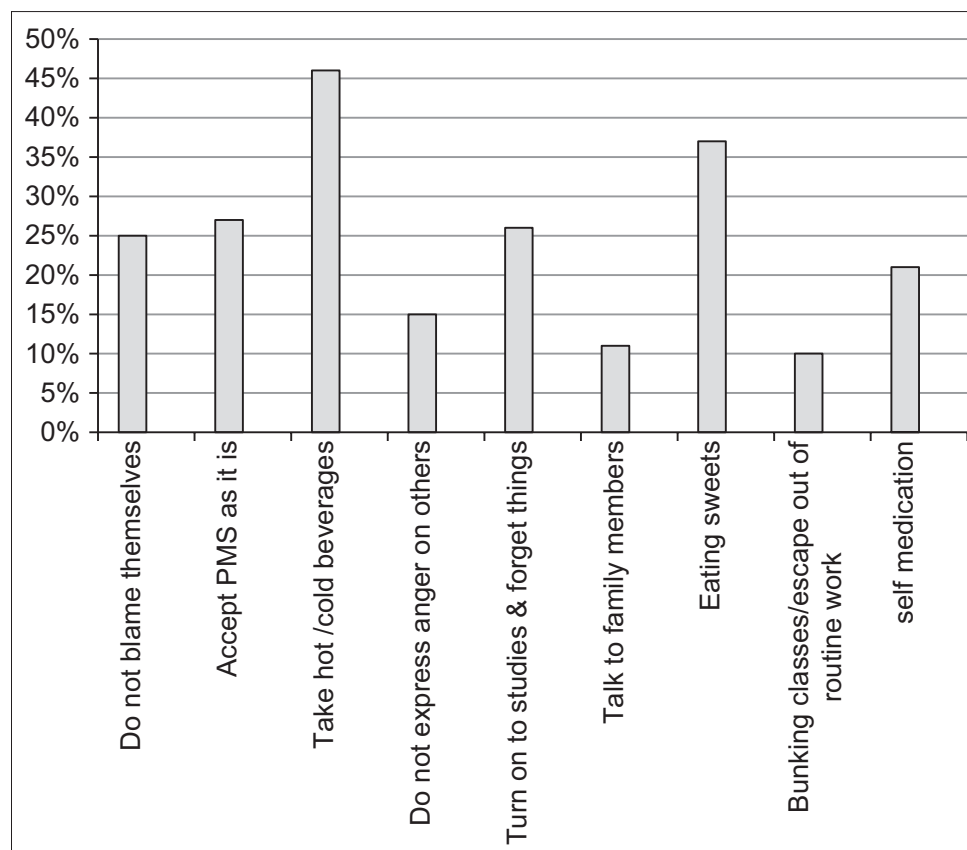


Figure 2: Coping techniques

CONCLUSION

From this study, it is concluded that the prevalence of PMS is high among the age group of 18–25-year-old paramedical students, which is affecting their social life as well as academic performance. The coping techniques followed by the students were found to be unhealthy. Hence, there is an intense need to educate female students right from their puberty regarding menstruation and related topics so they can adapt a healthy lifestyle.

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