

Premenstrual Tension Syndrome Among Degree Students in Selected Colleges, Kerala

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Abstract: This paper presents an overview on premenstrual tension syndrome among degree students in selected colleges, Kerala

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1. Introduction

In the luteal phase of the menstrual cycle of a combination of distressing physical, psychological and behavioral changes of sufficient severity to result in deterioration of inter- personal relationships and / or interference with normal activities; which remit upon onset or immediately after menstruation. In some cases, into menstruation, some females have clearly defined manifestation of certain symptoms with both somatic and psychological components. Such symptoms. include mood swings, tension, anger mastalgia, abdominal discomfort, irritability, headache, bloating, and increased appetite with food cravings. Others are, lack of energy, feelings of being unable to cope, a sense of loss of control and exacerbation of chronic illnesses such as asthma, allergies epilepsy or migraine. PMS has been reported in 40-95% of menstruating women. For most of these women, PMS is a minor problem while some even report positive features such as increased industriousness, energy, creativity and sexual interests

The aetiology of the syndrome is controversial, and has been extensively reviewed. These include, a combination of low zinc and copper retention, abnormal serotonin function deficiency of progesterone, some neurotransmitters, nutrients such as vitamin E, B vitamins, calcium, linolenic acid, magnesium manganese, etc. Treatment of PMS aims to relief symptoms and restore function, and often requires a combination of lifestyle modifications and drug therapy (Pray, 1998). Frequently used remedies include oral contraceptives, serotonin reuptake inhibitors, antidepressants, anxiolytics, progesterone, diuretics, vitamins B6 and E, calcium magnesium herbal products, exercise, eating smaller, more frequent meals and reducing consumption of sugar, salt, caffeine alcohol, etc. PMS has been referred to as late luteal dysphonic disorder and is included as a diagnosis in the revised third edition of the Diagnostic and Statistical manual of Mental Disorders, published by the American Psychiatric Association. Patients who suffer from five or more symptoms including one mood disorder are classified as having premenstrual dysphoric disorder (PMDD),

a more severe form of the disease that is associated with such severe symptoms that the lives of the sufferers are completely disrupted. This study seeks to establish the prevalence of the syndrome in degree students of the selected arts colleges in Kerala. It will also document the pattern and severity of the symptoms in this population.

2. Methodology

Descriptive survey design was used for conducting this study. The sample consist of 200 female studying selected arts colleges in Kerala, was selected for this study. The settings were selected colleges in pathanamthitta dist., Kerala state. PMS was diagnosed using standard criteria (WHO International Classification of Diseases, 1996). The inclusion criteria were that the subjects should have experienced on a regular basis both somatic and psychological symptoms which occur in the luteal phase, peak before menses, remit during or shortly after the onset of menses, with a symptom-free period before ovulation every month. Those who reported dysmenorrhoea, menstrual distress (occurrence of PMS symptoms at the follicular phase) and use of intrauterine device and or medications were excluded from the study.

A self-administered questionnaire was developed for assessing the PMS symptoms from students. The questionnaire was given to each subject to indicate if her experience of abdominal discomfort during the premenstruum is mild, moderate, severe or totally absent. Responders were also to tick the other symptoms of PMS which they have during their premenstruum. Columns were also provided for demographic data. The questionnaires were analyzed and the frequencies of the symptoms experienced by the subjects were calculated for each group. A chi-square test was then done. The mean temperatures and weights for each group in the second part of the study were computed. One-way analysis of variance (ANOVA) was used to find out if there was an association between the means.

3. Results

The result revealed that representing that the age range was 16-22 years with a mean of 24.3years. The mean weight was 60kg with a range of 40- 72kg. 188 (94%) of the population studied admitted experiencing varying degrees of symptoms

consistent with PMS. Of the 17 symptoms included in the questionnaire, asthma was not reported by our subjects. About 90%, 77%, 82% and 56% of respondents reported experiencing lower abdominal pain, pimples/puffy face, tender/painfully engorged breast and depression/tension respectively.

Of these, 73 (36.5%) had severe abdominal pain, 71 (35.5%) moderate, 49(24.5%) mild, while 56 (28%) had no abdominal discomfort. Most of those who reported severe lower abdominal pain have depression/tension (76%). Less than half of those who reported mild, moderate and no lower abdominal discomfort have depression/tension (48.6-51.3%). Pimples/puffy face (79.8%) and tender/painfully engorged breast (76.9%) were the most prevalent symptoms in those reporting moderate and mild abdominal discomfort respectively.

The least symptom reported was the common cold which was 18.4%, 8.85, 19.8% and zero in mild, moderate severe and nil abdominal discomfort groups. There appears to be an association between the severity of lower abdominal discomfort and symptoms experienced by subjects ($p=0.0011$).

In the second part of the study; those with severe lower abdominal discomfort, compared to the other groups, did not show much variation in weight during the premenstruum. There is an association between the mean weight of subjects and the severity of lower abdominal discomfort ($p=0.0145$). This association is absent between the mean basal body temperatures and the severity of lower abdominal discomfort

4. Discussion

This study reveals that PMS is not uncommon in degree students in Kerala. 85.5 % of the subjects reported experiencing symptoms of PMS with varying degrees of intensity. Subjects in this study were aged between 16-22 years with a mean of 19.3 years. Studies show that PMS symptoms may occur at any age, but onset usually begins around the mid-20s, and women who seek treatment are usually in 22 yrs.

Using Questionnaire, body temperature monitoring, and baseline weight change as the tools in the understanding of female students presenting with typical symptoms of PMS, 13 symptoms were recorded, ranging from severe abdominal pain which was most common, followed by pimples/puffy face, tender/painful breasts, depression/tension, tiredness, joint/muscle pain increased appetite, headache, weight gain, backache, and common cold, in descending order. Although PMS has been associated with increased comorbidities such as asthma, allergies, epilepsy or migraine, asthma was not reported by any of our subjects.

Subjects were brought under sub-groups of mild, moderate and severe based on the intensity of lower abdominal discomfort experienced during the premenstruum. Comparisons were made as to the influence of the various intensities of lower abdominal discomfort on the other symptoms. By our classification, the group with severe abdominal discomfort would qualify to be classified as having

PMDD. The result obtained in this study for PMDD appears to be high, considering the previous reports of prevalence of PMDD of 3-9%. Abdominal discomfort topped our list of symptoms, the frequency of students reporting the psychological symptoms of depression/tension, aggression, tiredness, etc., tended to increase with severity of abdominal pain and may be a psychological influence of pain on these affective symptoms. The course of basal body temperature has been a useful clinical quantitative tool in correlating symptoms of PMS. Body temperature was not significantly different between the groups studied. Mean body weight, on the other hand, showed a distinct correlation to the severity of abdominal pain ($P=0.0199$). Thus those with mild-moderate abdominal discomfort had higher body weights and also reported more somatic complaints. Subjects with no abdominal discomfort had the least body weight and showed no fluctuation in weight during the premenstruum. Whether this is due to dietary habits or lesser alterations in hormone metabolism contributing to PMS remains to be seen. Of particular note is the increase in weight in subjects with severe abdominal discomfort. This was associated with an increased severity of somatic and psychosocial symptoms.

5. Conclusion

In conclusion, we report a prevalence of PMS of 94% in female degree students of selected colleges in Kerala. Abdominal pain and depression were the most frequently presenting symptoms. Severity of symptoms was associated with body weight but not temperature.

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