



## CASE REPORT

### A Case Report on Unfolding the Strange Mystery of PMS Triggering Extreme Behavior in Women

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#### Abstract

Reproductive health is a state of complete physical, mental, and social well-being during which the reproductive process is carried out. It is not just the absence of sickness or diseases of the reproductive process. Apart from the physical discomfort related to the menstrual cycle, most women suffer changes in mood and behavior. Although the cycle has both highs and lows, premenstrual syndrome (PMS) is a term used to describe the most difficult side of the menstrual cycle. The presence of PMS symptoms alone is typically not regarded as stressful or incapacitating, even though PMS reduces quality of life and social functioning. Nonetheless, this is a poorly understood health concern, particularly in the workplace setting. The aim of this article was to present a case on unfolding the strange mysteries of PMS and its effective management with mindfulness-based cognitive behavioral therapy.

**Keywords:** MBCT, PMS, Depression, Work, Social adjustment

#### Introduction

Menstruation is generally seen negatively, having an adverse effect on one's physical and mental health, including the ability to concentrate. Overall, it can affect the quality of life of women. Premenstrual syndrome (PMS) is a term used to describe a group of clinically significant physical and psychological symptoms that occur during the luteal phase of the menstrual cycle and cause severe distress and functional impairment. These symptoms fade completely within a few days following the start of menstruation.<sup>1</sup>

The global prevalence of women in reproductive age experiencing PMS is 47.8%. Of these, 20% or so women have symptoms that are severe enough to interfere with their everyday activities, while the remainder have mild to moderate symptoms.<sup>2</sup> Changes in appetite, weight

gain, back and low back pain, headaches, breast swelling and tenderness, nausea, constipation, anxiety, irritability, rage, exhaustion, restlessness, mood swings, and crying are all the signs of PMS.

Many women who are menstruating suffer with the symptoms of depression. The timing of symptoms is the primary factor that distinguishes depression caused by premenstrual syndrome (PMS) from other types of depression. More than 150 different symptoms have been linked to PMS, but the two-week window before the start of menstruation is the defining feature of PMS-related issues.<sup>3</sup>

PMS may also increase blood pressure and increase the chance of developing hypertension in the future. Hypertension has been linked to a number of processes, including micronutrient shortages and renin-angiotensin-

aldosterone system (RAAS) dysfunction. Women who have moderate to severe premenstrual syndrome are considerably more likely than other women to acquire high blood pressure during the following 20 years.<sup>4</sup>

An expanding collection of research is emphasizing how crucial it is to address premenstrual health in the workplace. Premenstrual symptom severity and absence, performance at work, and productivity rates have been the main topics of research so far. An important study subject concerns the potential influence of premenstrual symptoms on employment outcomes. Though understudied, there seems to be some evidence to support the idea that women with moderate or severe premenstrual symptoms may report impairment of performance and/or productivity as well as absence rates.<sup>5</sup>

The premenstrual symptoms are identified by investigating the screening history and the first admission could be based on either a luteal or follicular phase according to the menstrual cycle pattern of the subject. The onset of menses was considered day 1, and the presence of menstrual bleeding was used to determine the follicular phase; so, days 7 through 13 after the onset of menses were considered the follicular phase.

### Case Presentation

This is a case report of a 38-year-old married woman, an MSc MEd graduate working as head mistress in an urban private school. The duration of her menstrual cycle was 28 days. She had a strange craving for sweets and reported consuming coffee for at least eight times a day. While screening for the socio demographic variables, it was found that the woman had a mixed dietary pattern, with no history of past physical illness, mental illness and gynecological problems such as polycystic ovarian diseases, pelvic inflammatory diseases, menorrhagia and oligomenorrhagia. The history also revealed that the woman was not lactating and did not use any kind of contraceptives. According to the screening done to assess premenstrual symptoms using a modified daily record premenstrual screening tool for two consecutive months, it was found that the woman was suffering from severe premenstrual symptoms.

When a face to face interview was conducted, the woman revealed that during the previous two years, she experienced emotional instability, irritability, anxiety, low self-esteem, overvalued guilt ideas, insomnia, sweet cravings, poor concentration, breast tenderness and

swelling, abdominal bloating, hot/cold flashes, swelling of the extremities, and difficulty coping with her job. She consulted a gynecologist several times and was prescribed Tab fluoxetine 20 mg od, Tab Alprazolam 0.5 mg bd, Tab pyridoxine 100 mg bd, Tab Bromocriptine 25 mg od, but was not satisfied with the treatment protocols. She did not try or practice any form of home remedies, exercises, yoga, meditations to overcome these premenstrual symptoms.

She was unhappy due to her mood changes and relationship with her family started to deteriorate. Both her children were confused watching her behavior, as the symptoms recurred in a predictable way every two weeks. Her unstable mood, poor social skills and regular abstinence from work had led to her termination from her job a year ago. However, the woman chose to neglect seeking help from a gynecologist or psychiatrist since she perceived these changes to be normal, physiological and believed that these symptoms should be borne by every woman on this earth and tried self-medicating herself using over the counter pills which provided a temporary relief.

The woman was assessed for the severity of PMS with the Premenstrual screening scale which comprised of 40 questions with three subscales (Physical, Psychological and Behavioral symptoms). The measurements on the scale are set as per the following scoring system: 'never' was scored as 1, 'rarely' as 2, 'sometimes' as 3, 'very often' as 4 and 'always' as 5 points. The lowest score was 40 and highest was 200. A score of 80 or above indicates the presence of PMS. As the score increases, the severity of PMS also increases. The woman showed severe level of symptoms with a score of 180, which continuously affected her quality of life.

The woman was also assessed for prevalence of depression using a patient health questionnaire (PHQ9). It comprised nine statements of measurements on the scale such as, Not at all = 0; Several days = 1; More than half the days = 2; Nearly every day = 3. The overall interpretation of the scores were: 1-4 Minimal depression, 5-9 Mild depression, 10-14 Moderate depression, 15-19 Moderately severe depression, 20-27 Severe depression. In this assessment, the woman scored 19 indicating moderately severe depression.

The woman was also assessed for work and social adjustment using work and social adjustment scale. A score of above 20 suggests moderately severe or

worse psychopathology. Scores between 10 and 20 are associated with significant functional impairment, but less severe clinical symptomatology. Scores below 10 are associated with subclinical condition. In this case, the score was found to be 30 indicating moderately severe psychopathology.

After the pre-assessment, the woman was taught and made to practice mindfulness based cognitive behavioral therapy for eight weeks for managing the symptoms of PMS, depression, work and social adjustment. It was an approach to psychotherapy that used cognitive behavioral therapy methods in collaboration with mindfulness, meditation practices and similar psychological strategies which helped the woman to identify and accept negative thought pattern and respond in intentional ways to gain freedom from automatic reactions to thoughts, feelings and events. The main contents of interventions included were:

- Self-introduction and psycho education on PMS
- Assessment of premenstrual symptoms and associate thinking errors
- Cognitive restructuring
- Behavioral modification
- Effective coping mechanism
- Mindfulness techniques
- Meditation techniques
- Education on lifestyle modification

Intervention was carried out for a period of two months in eight sessions, with one session per week and a duration of 60 minutes per each session. To evaluate the effectiveness of mindfulness-based cognitive therapy (MBCT), the woman was re-evaluated for severity of PMS, depression, work and social adjustment during the follicular and luteal phases. There was a significant reduction in PMS score, depression score and improvement in work and social adjustment was observed after the intervention.

## Discussion

The management of PMS is often frustrating for both women and physicians. Initially, all women with PMS should be offered non-pharmacological therapy. These non-pharmacological interventions for PMS include patient education, supportive therapy and behavioral change. Several psychological programs have been used in the treatment of PMS so far and few of them

were reported effective. Support and consultation are imperative in assisting clients suffering from PMS. Nurses play a key role in informing women about premenstrual symptoms and providing consultations on how to improve their quality of life, as well as encouraging the recognition of this common condition and in helping women cope with these symptoms. It emphasizes a great need for research regarding awareness and effectiveness of planned psychosocial nursing intervention towards specific management of PMS and to develop practice guidelines. Nurses should be equipped with knowledge on management of PMS. This will help to promote a positive attitude, break their myths and encourage them to practice in their day-to-day activity.

It was found that no pharmacologic intervention as the first line of treatment is effective in reducing PMS symptoms. It has been proved that mindfulness-based cognitive behavioral therapy can be helpful for improving the quality of life of women with PMS.<sup>6,7</sup> Hence the investigator was motivated to undertake this study to enhance in-depth knowledge of PMS and impact of MBCT in managing premenstrual symptoms.

This case highlights the need for prospective evaluation of the occurrence of premenstrual symptoms, depression, work and social adjustments during the menstrual cycle. Moreover, it underlines the importance of proper education and focuses on practicing mindfulness based cognitive behavioral therapy which is highly effective in reducing the premenstrual symptoms and depression, aiding in improvement in work and social adjustments.

## Conflicts of Interest

Nil

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