

# Frequency of Premenstrual Symptoms and Its Impact on Quality of Life in our Society

SADIQA BATOOL<sup>1</sup>, UMBREEN AKRAM<sup>2</sup>, ADILA ANWAR<sup>3</sup>, TANZEELA AFTAB<sup>4</sup>, SHAHNAWAZ ATTEQUE<sup>5</sup>, SYED SABEET RAZA<sup>6</sup>

<sup>1</sup>Classified Gynecologist, CMH Hospital Multan.

<sup>2</sup>Assistant Professor, CMH Kharian.

<sup>3</sup>Classified Gynecologist, PAF Hospital Masroor Base Karachi.

<sup>4</sup>HITEC institute of Medical Science Taxilla.

<sup>5</sup>Associate Professor Community Medicine, CMH Medical College Multan.

<sup>6</sup>Data Analyst, CMH Medical College Multan.

Correspondence to Dr. Sadiqa Batool E-mail ID: commprojpafmsr@gmail.com, Mobile No: 0300-4570544

## ABSTRACT

**Aim:** To determine the frequency of premenstrual Symptoms in our society and its impact on quality of life.

**Methods:** In this cross-sectional study, three hundred and fifty patient included in the study. The study was conducted at Department of gynecology, Combined Military Hospital Multan from June 2017 to June, 2018. The demographic information was noted. Various symptoms included Weight Gain, Mood changes / irritability, Depression, Anger, Negative thoughts, Bloating, Breast Pain, Appetite Changes, Sleep Changes, Headache, Tiredness, Lack of Concentration or poor work performance were asked from patients through questionnaire and their impact on quality of life interpreted as routine life unaffected, difficult to cope with these symptoms and symptoms making routine life impossible without medication was computed.

**Results:** There were 350 patients in the study group mean age of the patients were 30.29±2.94 years. Weight gain was reported in 285(81.4%) of patient, Mood changes / irritability in 298 (85.1%) patient, depression 263(75.1%), Anger 277(79.1%), Negative thoughts 198(56.5%), Bloating 313(89.4%), Breast Pain 269(76.8%), Appetite Changes 258 (73.7%), Sleep Changes 311(88.8%), Headache 243(69.4%), Tiredness 315(90%), and lack of concentration or poor work performance 302(86.2%), were reported. The effect of these symptoms, or their impact on quality of life was further analyzed on SPSS22.

**Conclusion:** Premenstrual Symptoms are frequently encountered by females. But as gynaecological problem it is neither given importance nor consideration for treatment. As the symptoms are usually ignored or mixed with social taboos, it is better to make awareness among women regarding diet, exercise and life style changes for mild symptoms. But significant physical,

**Keywords:** PMS (Premenstrual Syndrome) PMDD (Premenstrual Dysphoric Disorder) DLA (Daily Life Activities),

## INTRODUCTION

Exact cause of P.M.S is uncertain. But there is abundance of theories. Some theories are entirely opposite to each other but it is agreed that fluctuation levels of ovarian hormones, especially Progesterone has a fundamental role. 60 years after it was first described, it remained an unsolved mystery. Andrea Rapkin, MD, assistant professor of gynecology and obstetrics at ULCA said that there is no single cause and no single treatment to cure PMS<sup>1</sup>. Premenstrual syndrome [PMS] is a condition which manifests with distressing physical, behavioral and psychological symptoms, in the absence of organic or underlying psychiatric disease, which regularly recurs during the luteal phase of each menstrual cycle and which disappears or significantly regresses by the end of menstruation<sup>2,3</sup>.

PMS is a common gynaecological problem with somatic and psychological symptoms. It is not given importance in our society and these symptoms are usually taken non seriously, often correlated with social taboos or physical diseases. PMS can progress to serious disease and its impact is as much as major depressive disorder<sup>4,5</sup>. A patient should be labelled as PMS, fulfilling the criteria laid down by ACOG<sup>6,7</sup>. PMS occurs in luteal phase of

Menstrual cycle and can be mild, moderate or severe. At times patient with psychological or psychiatric problems are misattributed as PMS. This should be assessed by psychiatrist as well because this has serious impact on the management of patient<sup>8</sup>. It usually occurs in women of reproductive age group. Variable symptoms from physical symptoms as bloatedness, weight gain, breast tenderness to more severe symptoms causing anxiety, lack of concentration and low work performance can occur<sup>9</sup>.

Different etiologies have been proposed to treat the condition or etiological factors but none is proven. Likely cause for PMS is hormonal imbalance but even treatment in the luteal phase does not abolish the symptoms<sup>10</sup>. Another etiological factor labelled for PMS is enhanced sensitivity to progesterone in women with serotonin deficiency<sup>11</sup>. Suppression of ovulation with GnRh analogue (gonadotrophin releasing hormone analogue) or following bilateral oophorectomy, eliminates the symptoms<sup>11</sup>. Enhanced sensitivity to hormone progesterone in women with serotonin deficiency is also thought as contributing factor [12]. Current treatment methods are empirical. Clinician should provide best support especially for patient's emotional and physical distress as described<sup>13</sup>. (a). Careful evaluation of patient with understanding, explanation and reassurance. (b) Daily record of all symptoms for 2 – 3 months. If symptoms occur throughout the month, then she may be depressed. (c) Regular exercise & Jogging will decrease depression anxiety.

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ety and fluid retention in several studies. (d) Fluoxetine 20 mg per day will decrease tension, irritability and dysphoria. (e) Danazol on day 14 – 28 is effective for treatment of mastalgia. (f) T.H.H. + B.S.O is needed in cases resistant to any treatment.

There is poor awareness regarding this problem, so counseling and treatment both should be suggested. As there is great overlap between symptoms of PMS and psychiatric disorder, evaluation of such patients should be done by psychiatrist and medical specialist to rule out medical problems, before embarking upon treatment of such a common gynecological problem<sup>14</sup>.

## MATERIALS AND METHODS

This cross sectional study was conducted at Gynae Department C.M.H, Multan from June 2017-June 2018. All non-pregnant women between 18 – 45 years of age were included in the study. Patients with organic diseases and psychiatric illness were excluded from the study. Non pregnant patients reporting in gynae OPD clinic were given questionnaire Performa. Their age, parity and education, status were specified in the Performa. Various symptoms almost 12 including weight gain, mood changes, irritability, sadness, negative thoughts, bloatedness, breastpain, appetite changes, sleep changes, headache, tiredness and lack of concentration with low work performance were mentioned in the Performa. The patients with organic disease like thyroid disorder, any chronic illness and anemia were excluded from the study group. Patients with history of psychiatric disorder or already taking treatment for some psychiatric problems were also excluded from the study group. Patient were labelled as a case of PMS according to ACOG criteria. All the data collected was analyzed using SPSS 22. Relative descriptive statistics like demographic variables, different symptoms, education level and diagnosis were computed. Data was analyzed with SPSS 22. Frequency and Percentage were used to analyze various symptoms.

## RESULTS

A total 350 women of reproductive age group with PMS symptoms were included in the study group. The age group

ranges between 21 to 40 years. Overall mean age group was 30.29±2.94 years. Education status include uneducated (62.8%) with primary level education (17.1%) with graduate level or more are (20%). Various symptoms including mood changes/irritability, depression, anger, negative thoughts, bloatedness, breast pain, appetite changes, sleep changes, headache, tiredness and lack of concentration or poor work performance were assessed on questionnaire Performa. Each parameter was judged, whether the symptom is not affecting quality of life, whether symptoms experienced making life difficult or these symptoms making life impossible unless medication are given. Tiredness was experienced in 90% of cases, while bloatedness (89%), sleep changes (88%) lack of concentration and mood changes (86%) were also experienced in the same frequency when enquired how much the symptoms were affecting the quality of life, it was very significant. All of the data was interpreted by applying P-Value and Chi Square test. Details of the results are mentioned in Table 1.

Fig. 1; Frequency of Mood Changes in Studied Patients.

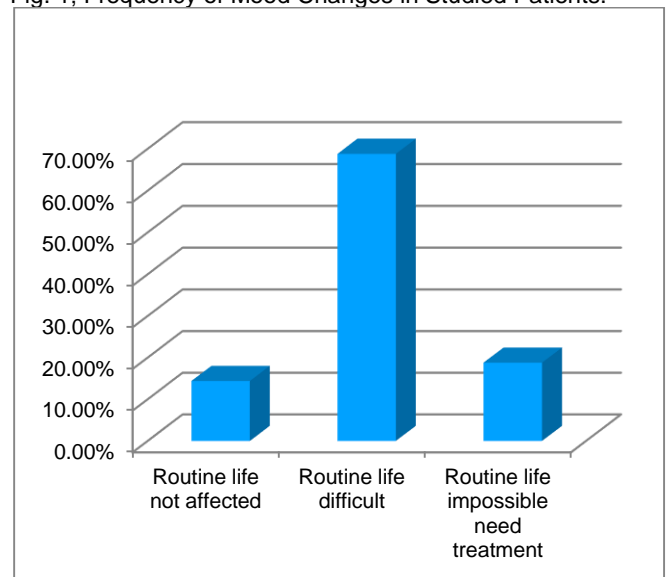


Table 1: Association of Pre-menstrual Symptoms with Quality of Life

Symptoms	n	%age	Routine life not affected	Difficulty coping with routine life	Routine life almost	P Value	Chi Square
Weight Gain	285	81.4	260 (74%)	60 (17.4%)	30 (8.5%)	0	266.874
Mood Changes / Irritability	298	85.1	43 (12.2%)	241 (68.8%)	66 (18.8%)	0	278.306
Depression	263	75.1	22 (6.2%)	259 (74%)	69 (19.7%)	0.001	308.006
Anger	277	79.1	18 (5.1%)	260 (74.2%)	72 (20.5%)	0.001	40.679
Negative Thoughts	198	56.5	43 (12.2%)	213 (60.85%)	94 (26.8%)	0	330.229
Bloteness	313	89.4	52 (14.8%)	273 (80.8%)	15 (4.2%)	0.001	87.216
Breast Pain	269	76.8	160 (45.7%)	125 (35.7%)	65 (18.5%)	0	135.96
Appetite Changes	258	73.7	126 (36%)	195 (55.7%)	29 (8.2%)	0	174.153
Sleep Changes	311	88.8	54 (15.4%)	168 (48%)	128 (36.5%)	0.001	135.966
Headache	243	69.4	68 (19.4%)	211 (62.5%)	71 (20.2%)	0	175.953
Tiredness	315	90	44 (12.5%)	242 (69.1%)	64 (18.2%)	0	450.612
lack of concentration poor work performances	302	86.2	50 (14.2%)	190 (54.2%)	110 (31.4%)	0.001	81.982

## DISCUSSION

PMS is an important gynaecological problem, can present with wide range of mild cyclical symptoms to moderate and severe physical and psychiatric symptoms. This has great impact on quality of life, making routine life difficult or impossible to cope with routine activities, necessitating treatment. Many disorders have been attributes to PMS. The essence of diagnosis is the cyclicity of the symptoms. If they are not relieved by the end of menstruation, then an alternative explanation must be sought. Our study revealed a very high frequency of premenstrual symptom 88.9% in our society. Other studies conducted internationally at Iran, China and Thailand and Pakistan are having less PMS symptom<sup>15,16,17,18,19,20</sup>. Association of PMS with migraine has been found in our study, similarly migraine headache has been found in study conducted by Martin VT et al<sup>21</sup>. Fatigue, lack of concentration and anxiety were reported in our studies as reported by Macleod DR<sup>22</sup>. Various appetite symptoms, eating disorders have been reported in our study, study conducted by Verr et al have also mentioned eating disorder in his study.[23] Premenstrual exaggeration of symptoms like sadness, depression has been found in our patient (75%), comparable with international studies<sup>24</sup>. The extreme form of PMS that is PMDD, not only difficult to diagnose but is difficult to manage as well<sup>25</sup>. SSRI are the treatment of choice for severe symptoms and ovarian suppression should be restricted to woman who do not respond to other forms of therapy<sup>26</sup>. The most important part of these symptoms is their impact on life but sometimes these symptoms are so severe that they disrupt normal functioning, but at the other end these are nonspecific symptoms and could be ignored. Mood cyclicity in women with or without other symptoms has been reported in PMS, also found in International studies. SSRI is recommended for minor symptoms and GnRh/ oophorectomy has been proposed for severe form of PMS. Studies have confirmed premenstrual syndrome in hysterectomies, although low in luteal phase. Personality disorders are also labelled in women with severe PMS<sup>27</sup>. Influence of premenstrual syndrome on daily psychological state has been assessed in various studies<sup>28</sup>. Overlapping of symptoms are so much common in both disorders that influence of PMS may exaggerate the psychiatric symptoms. Variable physical symptoms identified in our study group is comparable in international studies<sup>29</sup>. In our study the frequency of headache was 78.4%, fatigue 89.2% and breast tenderness was 76% these symptoms were same as found in other international studies. Frequency of irritability & mood swings were 85.1% as Marvan ML has found similar symptoms in his study<sup>30</sup>.

## CONCLUSION

The conclusion after collecting and computing the data was surprising. As a gynaecological problem which is neither given importance nor considerable for treatment, is affecting the quality of women life. Minor symptoms can be addressed with diet, exercise & life style changes, although significant physical, behavioral & psychological symptoms should be properly assessed & treated. Awareness and education of women in reproductive age group is essential

to produce good mothers so that they can support their family in a better way.

## REFERENCES

1. Connolly M. Premenstrual syndrome: an update on definitions, diagnosis and management. *Adv Psychiatr Treat*. 2001;7(6):469-77.
2. Lolas J. Premenstrual syndrome: A neglected public health problem (spanish). *Rev Med chip*. 1993;121:560-62.
3. World Health Organization (WHO). International Classification of Diseases. 10th revision. Geneva: WHO; 1996.
4. Wittchen HU, Becker E, Lieb R, Krause P. Prevalence, incidence and stability of premenstrual dysphoric disorder in the community. *Psychol Med*. 2002;32(1):119-32.
5. Endicott J, Amsterdam JA, Eriksson E, Frank E, Freeman E, HIRSCHFELD R, et al. Is premenstrual dysphoric disorder a distinct clinical entity?. *J Womens health* *Prim Care Med*. 1999 Jun;8(5):663-79.
6. American College of Obstetricians & Gynaecologists (ACOG). Premenstrual syndrome. Washington (DC): National Guideline Clearinghouse; 2000.
7. American Psychiatric Association (APA). Diagnostic & statistical Manual of mental disorders. 4th edition, Washington (DC): APA; 1994; pp 714-8.
8. Epperson CN, Haga K, Mason GF. Metal cortical gamma amino butyric acid levels across the menstrual cycle in healthy women and those with premenstrual dysphoric disorder; a proton magnetic resonance spectroscopy study. *Arch gen psychiatry*. 2002;59:851-8.
9. Sternfeld B, Swindle R, Chawla A, Long S, Kennedy S. Severity of premenstrual symptoms in a health maintenance organization population. *Obstet Gynecol*. 2002;99:1014-24.
10. Shinniga KU, KenKYu. Influence of premenstrual syndrome daily psychological levels and salivary cortisol levels. 2005;76(5):426-35.
11. Freeman EW, Sondheimer SJ, Rickels K. Gonadotropin-releasing hormone agonist in the treatment of premenstrual symptoms with and without ongoing dysphoria: a controlled study. *Psychopharmacol Bulletin*. 1997;33(2):303.
12. Dennerstein L, Lehert P, Bäckström TC, Heinemann K. The effect of premenstrual symptoms on activities of daily life. *Fertil Steril*. 2010;94(3):1059-64.
13. Kessel B. Premenstrual syndrome: Advances in diagnosis and treatment. *Obstet Gynecol Clin North Am*. 2000;27(3):625-39.
14. Campbell EM, Peterkin D, O'grady K, Sanson-Fisher R. Premenstrual symptoms in general practice patients. Prevalence and treatment. *J Reprod Med*. 1997;42(10):637-46.
15. Bakhshani NM, Mousavi MN, Khodabandeh G. Prevalence and severity of premenstrual symptoms among Iranian female university students. *J Pak Med Assoc*. 2009;59(4):205-8.
16. Myint TH, Edersa Oq, Sawhsarkepaw. Premenstrual syndrome among female university students Thailand. *AV JT* 2006;9(3):158-62
17. Lee AM, So-Kum Tang C, Chong C. A culturally sensitive study of premenstrual and menstrual symptoms among Chinese women. *J Psychosom Obstet Gynaecol*. 2009;30:105-14.
18. Nisar N, Zehra N, Haider G, Munir AA, Sohoo NA. Frequency, intensity and impact of premenstrual syndrome in medical students. *J Coll Physicians Surg Pak*. 2008;18:481-4.
19. Shershah S, Morrison JJ, Jafarey S. Prevalence of premenstrual syndrome in Pakistani women. *J Pakistan Med Assoc*. 1991;41:101-3.
20. Tabassum S, Afridi B, Aman Z, Tabassum W, Durrani R. Premenstrual Syndrome: Frequency and severity in young college girls. *J Pak Med Assoc*. 2005;55:546-9.

21. Eisenlohr-Moul TA, Schmalenberger KM, Owens SA, Peters JR, Dawson DN, Girdler SS. Perimenstrual exacerbation of symptoms in borderline personality disorder: evidence from multilevel models and the Carolina Premenstrual Assessment Scoring System. *Psychological Med.* 2018;48(12):2085-95.
22. Martin VT, Wernke S, Mandell K, Ramadan N et al. Symptoms of premenstrual syndrome and their association with migraine headache. *J Head Face Pain.* 2006;46(1):125-37.
23. Macleod DR, Hoehn-saric r, Foster Gv, Hipsley PA. Influence of premenstrual syndrome on rating of anxiety in omen with generalized anxiety disorder. *Acta psychiatric scan.* 1993;88(4):248-51.
24. Verria, nappi R E, Vallero E, Gallic et al. Premenstrual dysphoric disorder and eating disorder *Cephalalgia* 1997;17(Suppl-20):25-8.
25. Hartlage SA, Brandenburg DL, Kravitz HM. Premenstrual exacerbation of depressive disorders in a community-based sample in the United States. *Psychosomatic Med.* 2004;66(5):698-706.
26. Johnson SR. Premenstrual syndrome, premenstrual dysphoric disorder, and beyond: a clinical primer for practitioners. *Obstet Gynecol.* 2004;104(4):845-59.
27. Shinniga KU Ken KYu. Influence of premenstrual syndrome daily psychological levels and salivary cortisol levels. 2005;76(5):426-35.
28. Steiner M, Steiner DL. Validation of a revised visual analog scale for premenstrual mood symptoms: results from prospective and retrospective trials. *Can J Psychiatr.* 2005;50:327-32.
29. Dennerstein L, Lehert P, Bäckström TC, Heinemann K. Premenstrual symptoms - severity, duration and typology: an international cross-sectional study. *Menopause Int.* 2009; 15:120-6.
30. Marvan ML, Cortes-Iniestra S. Women's beliefs about the prevalence of premenstrual syndrome and biases in recall of premenstrual changes. *Health Psycho.* 2001;20:276-80.