

## The Relationship between Premenstrual Syndrome and Women's Marital Satisfaction

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### ABSTRACT

**Background & aim:** Premenstrual Syndrome (PMS) includes different symptoms that appear periodically throughout the luteal phase of the menstrual period. The PMS has not been properly investigated as an influencing factor of marital satisfaction in Iran. Thus the purpose of this study was to assess the relationship between PMS and its symptoms with women's marital satisfaction.

**Methods:** This cross-sectional study was conducted on 246 women referred to health centers in Yazd, Iran who selected using random sampling. The data were collected through the Index of Marital Satisfaction and Premenstrual Syndrome Screening Tool and analyzed in SPSS software (version 18) using the Chi-Square test.

**Results:** Somatic symptom disorders including "mastalgia, headache, muscle pain, arthritis, bloating, and weight gain" (%22.8) and also "anger and irritability" (%21.5) obtained the highest frequency in terms of syndrome frequency. With regard to the effect of symptoms on the daily life, the strongest impact was on "the relationship with the family" (%10.6). The results showed that the levels of marital dissatisfaction among women with PMS ( $P=0.013$ ) were higher, compared to the non-affected population.

**Conclusion:** Premenstrual syndrome could disrupt family relationship leading to marital dissatisfaction. Therefore, women and their families are required to receive appropriate training for better communication in this period.

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### Introduction

Premenstrual disorders also known as Premenstrual Syndrome (PMS) or Premenstrual Dysphoric Disorder (PMDD), include a wide range of symptoms that develop before the menstrual cycle and resolve after bleeding begins (1). According to the American College of Obstetricians and Gynecologists reports, PMS is a mild form of symptoms; however, PMDD is a severe form of PMS (2). Totally, 80% and 5% of women suffer from PMS and PMDD, respectively

(3). In a study conducted in Iran on 430 participants, 44% of women had PMS, 16% of them met the diagnostic criteria for PMDD, and 40% of females were in General Population group (4). The PMS is characterized by irritability, emotional lability, headache, anxiety, depression, and somatic symptoms, such as edema, weight gain, Mastalgia, and syncope. These symptoms which lead to distress, interpersonal relationship interruption, and daily

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function disturbance are significantly associated with social and professional problems (4-7). Premenstrual syndrome disrupts the physical, psychological, and social functions of women (8). According to women's opinion, PMS causes uncontrollable and uncomfortable conditions during the premenstrual phase which can be alleviated through communication between female and male partners (9).

In total, 72% of women believe that the quality of the marital relationship is adversely affected by PMS (10). Moreover, marital satisfaction has strong effects on the stability or failure of couples lives (11). Marital satisfaction refers to positive opinions couples have about their marital relations (12). The marital relationship is affected by men's awareness about PMS; therefore, women's satisfaction with the marital relationship would increase when their husbands gained knowledge about the physical and psychological effects of PMS on women (9).

The PMS has not been properly investigated as an influencing factor of marital satisfaction (13). The results of a study conducted by Ryser et al. revealed that the marital relationship during the luteal phase of menstruation was reduced among partners with women suffering from premenstrual syndrome (14). Morowati et al. and Hoga et al. studies have shown the association between premenstrual syndrome and marital dissatisfaction (9, 13). Although the relationship between premenstrual syndrome and marital satisfaction has been mentioned in many studies, the symptoms of this syndrome and their effects on marital satisfaction are not clearly known.

Educational professionals can provide women and their families with training to increase marital satisfaction. Therefore, the purpose of this study was to assess the relationship between PMS and its symptoms with women's marital satisfaction.

## Materials and Methods

This cross-sectional study was performed on 246 females referred to health centers in Yazd, Iran. According to a study (15), the level of confidence and the prevalence of PMS were obtained as 0.95 and P=80%, respectively. The sampling was done randomly in the second half

of 1396 based on participants' file numbers with the sample mean of  $d=0.5$ . The inclusion criteria were: 1) age range of 15-49 years (women's reproductive age), 2) the state of being married, and 3) willingness to participate in the study.

The informed consent was obtained from the cases and they were asked to complete the self-reporting questionnaires. The data were collected through the Index of Marital Satisfaction (IMS), Premenstrual Syndrome Screening Tool (PSST), and Demographic form.

The IMS designed by Walter W. Hudson was used for the measurement of marital satisfaction levels (16). This questionnaire consisted of 25 questions with 13 and 12 positively and negatively worded items, respectively. The respondents had to answer the questions on a 5-point Likert scale (very rarely or never=1, rarely or never=2, occasionally=3, very frequently=4, and always=5). The positively worded items were scored in a reverse manner (i.e., questions 1,2,3,4, and 5 scored as 5, 4, 3, 2 and 1, respectively).

The number of positively worded questions were 1, 3, 5, 8, 9, 11, 13, 16, 17, 19, 20, 21, and 23. Afterward, all the scores were summed up and the marital satisfaction level was obtained following the subtraction of 25 from the total score. A score less than 30 were considered satisfaction with the relationship; however, a score of more than 30 showed dissatisfaction (12). The reliability coefficient of IMS was 0.96 and its concurrent validity has been established. The split-half reliability was reported to be 0.98. In addition, the construct validity for marital satisfaction index as well as convergent and discriminant validations were approved.

The PSST, which was designed by Canada's McMaster University and Siahbazi et al. (17), consisted of two sections with 19 items and was used to screen women with PMS. The first section included 14 items regarding mood, somatic, and behavioral symptoms and the second part considered the measurement of the effects of PMS on people's lives through 5 items. The PSST was standardized for the Iranian population and its Cronbach's alpha, content validity ratio, and content validity index were obtained as 0.9, 0.7, and 0.8, respectively. The three following criteria should be met to diagnose moderate or severe PMS: (i) with regard to items 1 to 4, at least one should be

moderate or severe, (ii) in terms of items 1 to 14, at least four questions should be moderate or severe, and (iii) with respect to the last five items, at least one should be moderate. The three essential diagnostic criteria for PMDD are: (i) for items 1 to 4, at least one should be severe, (ii) for items 1 to 14, at least four questions should be moderate or severe and (iii) for the last five items, at least one item should be severe. The data was analyzed in SPSS software (version 18) using descriptive statistics and Chi-Square test. P value less than 0.05 was statistically significant.

**Results**

This study was conducted on 246 females referred to health centers in Yazd, Iran. The mean age of the participants was 30.92±6.18 years. In total, 50 (20.3%), 123(50.0%), and 73 (29.7 %) cases were in the age ranges of 17-25, 26-34 , and 35- 42 years, respectively. The mean duration of marriage was obtained as 9.86 ± 6.77 years. The majority of the respondents

(n=208, 84.6%) had more than two children. According to the results, the most frequent symptoms reported by the participants were "somatic symptoms, such as Mastalgia, headache, muscle pain, arthritis, bloating, and weight gain" (n=56, 22.8%) and "anger and irritability" (n=53, 21.5%).

The other symptoms reported by the cases with regard to the frequency were "fatigue, lack of energy" (n=49, 19.9%), "less interest in indoor activities" (n=38, 15.4%), "anxiety and stress" (n=32, 13.0%), respectively.

In terms of the effects of the symptoms on daily life, "relationships with family" obtained the highest level of impact (n=26, 10.6%). The other items with regard to the effects of symptoms on daily life were "family responsibilities" (n=22,8.9%), "connection with colleagues and friends" (n=11,4.5%), "efficiency at work/school" (n=7,2.8%), and "social activities" (n=4,1.6%).

Table 1 presents the frequency of PMS symptoms.

**Table 1.** Frequency of symptoms of premenstrual syndrome in participants

The symptoms of premen-strual syndrome	Never Number (%)	Mild Number (%)	Moderate Number (%)	Severe Number (%)	Total Number (%)
somatic symptoms, such as Mastalgia, headache, muscle pain/arthritis, bloating, weight gain	(12.6)31	(23.5)58	(41.1)101	(22.8)56	246(100)
Nervousness / irritability	(7.3)18	(22.4)55	(48.8)120	(21.5)53	246(100)
Fatigue / lack of energy	(11.4)28	(29.3)72	(39.4)97	(19.9)49	246(100)
Lack of interest in indoor activities	(20.7)51	(28.5)70	(35.4)87	(15.4)38	246(100)
Anxiety / Stress	(18.3)45	(32.9)81	(35.8)88	(13.0)32	246(100)
Crying / Hypersensitivity against negative response	(27.2)67	(32.5)80	(28.5)70	(11.8)29	246(100)
Sleep (increased need for sleep)	(29.7)73	(30.5)75	(28.5)70	(11.4)28	246(100)
Depressed mood / depression	(32.1)79	(35.0)86	(22.8)56	(10.2)25	246(100)
Lack of interest in indoor activities	(27.2)67	(36.2)89	(27.2)67	(9.3)23	246(100)
Lack of interest in social activities	(24.8)61	(35.8)88	(30.1)74	(9.3)23	246(100)
Insomnia	(42.7)105	(26.8)66	(22.4)55	(8.1)20	246(100)
Feel turmoil Or Uncontrollability	(32.9)81	(37.4)92	(21.5)53	(8.1)20	246(100)
Difficulty in concentrating (such as lack of focus on the lesson or anything else)	(22.0)54	(39.8)98	(30.9)76	(7.3)18	246(100)
Overeating / food cravings	(43.1)106	(32.1)79	(20.3)50	(4.5)11	246(100)
<b>Impact of Signs on Life</b>	<b>Never Number (%)</b>	<b>Mild Number (%)</b>	<b>Moderate Number (%)</b>	<b>Severe Number (%)</b>	<b>Total Number (%)</b>
Communication with family	(23.2)57	(32.9)81	(33.3)82	(10.6)26	246(100)
Family responsibilities	(26.4)56	(31.3)77	(33.3)82	(8.9)22	246(100)
Efficiency at Work/School	(41.1)101	(36.6)90	(19.5)48	(2.8)7	246(100)
Connection with colleagues and friends	(28.5)70	(37.4)92	(29.7)73	(4.5)11	246(100)
Social activities	(29.3)72	(43.5)107	(25.6)63	(1.6)4	246(100)

**Table 2.** Results of Chi-Square test for the marital satisfaction among women with PMS, PMDD and non-affected population

Variable		Non-affected population	Women with PMS	Women with PMDD	P-value
		N (%)	N (%)	N (%)	
Marital Satisfaction	Satisfied	61 (61.6)	33 (33.3)	5 (5.1)	0.013*
	Dissatisfied	63 (42.9)	69 (46.9)	15 (10.2)	

\* Chi-Square test

The results of the Chi-Square test showed that the marital dissatisfaction among women with PMS was more than the non-affected females ( $P=0.013$ , table 2).

## Discussion

The purpose of this study was to investigate the relationship between PMS symptoms and marital satisfaction among women referred to health centers in Yazd, Iran. According to the results, "somatic symptoms, such as Mastalgia, headache, muscle pain, arthritis, bloating, and weight gain" and "anger and irritability" had the highest frequency and were considered the most severe symptoms. Moreover, the other symptoms reported as "fatigue, lack of energy", "less interest in indoor activities", and "anxiety and stress".

In a study, Morowatisharifabad et al. (2014) showed that somatic symptoms obtained the highest scores in terms of severity followed by "anger and irritability", "fatigue and lack of energy", "crying", "increased sensitivity to the negative answer", "oversleeping", and "anxiety and stress" (18).

In a study conducted by Taghizadeh (2003), somatic symptoms (91.7%) and malaise (84.3%) reported being the most prevalent symptoms (19). Tabassum et al. (2005) reported that "general discomfort", "anxiety", "back pain", "fatigue", and "depression" were the most frequent symptoms (20). According to a study carried out by Kiani Asiabar et al. (2009), it was revealed that "physical signs" (87.2%), "reduced levels of energy and tiredness" (84.3%) were the most common symptoms among women with PMS (7).

The findings of this survey were consistent with the results of the aforementioned studies. Most studies showed that women with PMS suffered from somatic symptoms, anxiety, and irritability. The observed varieties may be due to race, ethnicity, and cultural differences regarding the expression of symptoms in other

societies (7). The differences in symptoms measurement tools could be explained by the varieties in terms of statistical methods. However, the provision of proper education and planning systems can pave the way for taking the suitable therapeutic approaches to these symptoms.

With regard to the effect of symptoms on daily life, "relationship with the family" obtained the highest score in terms of severity.

Morowatisharifabad et al. study (2014) also showed the strongest effect of symptoms on "connection with family" (21). In a study performed by Bakhshani et al. (2011), 28.2% and 26.2% of the females reported that PMS and PMDD interfered with their compatibility function, respectively (5).

Firoozi et al. emphasized the importance of a precise assessment of coexisting psychiatric disorders among women with PMS and PMDD (22). In a study conducted by Lete et al., it is revealed that women experiencing PMS or PMDD did not usually seek medical assistance and many of those seeking medical care, did not obtain an appropriate response to their demands (2).

Physical or mental symptoms of PMS or PMDD affect the relationship between the female and male partners. According to these findings, the effects of symptoms on daily life, family, and social relationships cannot be ignored. With regard to the recognition of symptoms and their impacts, educational programs should be carried out to help partners with their lives.

According to the obtained results regarding the relationship between PMS and marital satisfaction, it was found that women with the premenstrual syndrome were more dissatisfied, compared to the non-affected individuals. Most women with PMS syndrome complain that men do not realize their psychological and physical health conditions in the premenstrual period. Therefore, this lack of knowledge leads to

impatience, stress, and contradiction that ultimately results in relationship disruption (9).

A similar study conducted on the relationship between PMS and relations between spouses. The results showed the seriousness of the severity of the disorder that affected the women's social performance and interfered with the relations (23). The comparison of the relationship between couples before and after menstruation showed decreased levels of marital satisfaction in the premenstrual period. Accordingly, the intensification of symptoms resulted in the higher levels of dissatisfaction (23). Zarei et al. also showed a direct correlation between stress and premenstrual syndrome (24).

According to the obtained results, the effect of symptoms on life was inevitable and PMS/PMDD affected the relationship between females and their male partners leading to marital dissatisfaction. Educational professionals should raise people's awareness of the challenging nature of this syndrome using discussions about gender relations. These ideas should be developed in positive and constructive ways both for individuals and community members (9). With regard to the importance and prevalence of PMS, the need for counseling and training courses in this area is highly felt in order to enhance knowledge and reduce the adverse impact of this condition on various aspects of life (25).

## Conclusion

One of the limitations of the study is that the results have poor generalizability due to the research design applied (i.e., cross-sectional) and the limited research community in the city border of Yazd. Moreover, marital satisfaction is a self-reporting and multi-dimensional variable which can be affected by various factors; therefore it is difficult to take all the factors into account. The lack of cooperation and control of confounding variables was observed in some cases. The marital satisfaction affects both male and female partners; therefore, further studies are required to investigate marital satisfaction with regard to the male partners. Another limitation of the study was the PSST instrument that was used to evaluate and confirm the premenstrual syndrome only once. It is

suggested that the above limitations considered in future studies to obtain impressive results.

According to the results, somatic symptoms, as well as anxiety and irritability, are the most severe symptoms. Therefore, the women with PMS and PMDD require more knowledge and training to take steps of the necessary treatments.

The symptoms of this syndrome interrupt the relationship with family and others leading to women's marital dissatisfaction. Therefore, it is imperative that families and male partners also receive the necessary training for better communication with females during these periods. Future research plan, educational interventions based on the results of this study, and measurement of the impact of interventions are recommended to improve women's marital satisfaction.

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## Conflicts of interest

The authors declare no conflicts of interest.

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