



Awareness, Attitude and Performance of Men Regarding Premenstrual Syndrome

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Abstract

Objectives: Premenstrual syndrome (PMS) is among the most widely recognized conditions affecting the women of childbearing age and includes a set of physical and mental symptoms. It can also affect the relationship between couples. The purpose of this study was to determine awareness, attitude, and performance of men regarding PMS.

Materials and Methods: As a cross-sectional study, it targeted a sample of 150 men from Urmia. To gather data, awareness and performance questionnaire (Morowati Sharifabad, 2013) and a researcher-made attitude questionnaire were employed. The collected data were analyzed using SPSS version 19.0. Descriptive statistics, t-test, and Pearson correlation coefficient were used to analyze the data.

Results: Twenty-two percent of the wives of the surveyed men had PMS and during the premenstrual stage, they had experienced most of the emotional symptoms (84%) and fluid retention (60.7%). The mean scores of awareness, attitude, and performance of men regarding PMS were 24.2 ± 4.45 , 23.93 ± 5.35 , and 43.10 ± 5.23 , respectively. Men whose partners had PMS recorded a higher awareness and performance scores while getting lower than average scores regarding attitude. Thus, the difference in attitude between the 2 groups was statistically significant ($P=0.04$). Besides, there was a significant relationship among awareness, attitude and the performance of men compared to each other ($P<0.001$).

Conclusions: Men with wives who had PMS recorded a higher awareness and performance scores while they got lower than average scores regarding attitude in comparison with the ones whose wives did not suffer from PMS. In addition, there was a significant relationship between and among awareness, attitude, and performance of men concerning PMS of their wives.

Keywords: Awareness, Attitude, Performance, Premenstrual syndrome, Men

Introduction

Premenstrual syndrome (PMS) is thought to be a standout amongst the most widely recognized disorder among the women of reproductive age (1). It consists of a series of physical and psychological symptoms that start at the end of the premenstrual period and disappears with the onset of menstrual bleeding or the first few days after menstruation. The prevalence of PMS was estimated to be close to 80% in women of reproductive age (2). Symptoms of PMS include depression, hopelessness, emotional instability, irritability, loss of interest in usual activities, difficulty concentrating, loss of energy, changes in appetite or excessive desire for food, changes in sleep habits along with physical symptoms such as breast tenderness, headache, feeling bloated and edema (3). The cause of PMS remains unknown and research findings suggest that it is multi-factorial (3). Several factors such as fluctuations in estrogen and progesterone hormones, endocrine disorders and a variety of estrogen receptors, prostaglandin synthesis and environmental factors such as alcohol consumption and stress are involved in its etiology (4). Typically, PMS is a disruptive and often a debilitating factor in the lives of many women (5) in a way that it

might disrupt interpersonal relations and daily activities. Moreover, in case of exacerbations, it could affect the lifestyle and well-being of the individual. Behavioral changes made in this period have a noteworthy effect on the performance of families. These effects might lead to child abuse, criminal behavior as well as incompatibility with the spouse and a decrease in the quality of marital relationships (6,7).

While men do not experience the effects of premenstrual physical and emotional changes directly, premenstrual changes might affect men by changing the dynamics of relationships (6) which could result in frustration, confusion, and helplessness (8-10). Although the PMS is a serious condition, it has received scant attention so far. Due to the absence of research on the subject and considering the high prevalence of PMS among married women of reproductive age and men's insufficient awareness of the subject along with the impact of this disorder on their lives and marital satisfaction, the need for the present investigation seems evident. The purpose of this study was to determine awareness, attitude, and performance of men regarding PMS among the patients who referred to the selected health centers of Urmia in 2016.

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Materials and Methods

This is a cross-sectional study that was conducted among the husbands of the women who kept referring to some of the health centers of Urmia in 2016.

Sampling

The study population was the husbands of the women who referred to health centers of Urmia in which the sample size of the study was considered to be 150 based on the study conducted by Morowati Sharifabad et al (11). After obtaining the necessary permits and authorization from 4 different regions of Urmia, 4 health centers were randomly selected based on economic and social perspectives. Then, the available husbands of the women referring to those health centers were contacted. The inclusion criteria for the study consisted of literacy, at least 6 months of marriage, and not being pregnant.

Tools

The present study used awareness and performance questionnaire (11) designed to estimate the awareness and performance of men regarding PMS. This questionnaire consisted of 3 parts. The first part targeted demographic information, the second part focused on PMS awareness (including 18 items concerning the mental indications of PMS, 18 questions regarding physical symptoms of PMS, and 15 items on preventing or reducing PMS symptoms ranging from zero score to 51 based on the answers), and the third part included 8 questions about men’s performance regarding PMS (options comprised never, rarely, sometimes, or always ranging from 8 to 32 score based on the answers). The attitude questionnaire contained 12 questions based on the options of strongly disagree, disagree, unsure, agree and strongly agree (ranging from 1 to 5), and the minimum to maximum scores were set 12 to 60, respectively. The validity and reliability of the awareness and performance questionnaires in the present study were verified by Morowati Sharifabad et al and Cronbach α for the awareness and performance was found to be 0.83 and 0.78, respectively (11). The content validity of the attitude questionnaire was assessed by 5 members of the Faculty of the Department of Obstetrics and Gynecology, Urmia University of Medical Sciences, Urmia, Iran. Based on their comments, the necessary adjustments were made to the questionnaire. In addition, its reliability was estimated using the test-retest method and the Cronbach α was 0.72.

Data Analysis

The collected data were analyzed using SPSS version 19.0. Pearson correlation coefficient and *t* test were utilized to determine the relationship between factors.

Results

Data analysis showed that the mean age of the studied subjects was 33.82 ± 7.41 while their wives’ age was

29 ± 7.71 and the mean length of marriage was 7.42 ± 2.24 (Table 1).

In this study, 22% of the women have had at least one mood or physical symptoms of PMS in 3 of their previous menstrual cycles.

In response to questions regarding awareness of psychological symptoms, most of the correct answers belonged to fatigue while the least correct answers were about overeating and food cravings. Regarding awareness of the physical symptoms, most of the correct answers belonged to breast pain and tenderness, whereas the least correct answers were about backache. In response to questions regarding strategies for prevention of PMS, most of the correct answers comprised affection towards the husband whereas the least correct answers were about weight loss. The frequency and percentage of correct and wrong answers concerning awareness of psychological and physical symptoms as well as prevention strategies for PMS are presented in Table 2.

The overall mean score of men for prevention strategies, psychological, and physical symptoms of PMS was found to be 25.2 ± 4.45 . This mean score was reported to be 25.36 ± 5.36 in men whose wives had PMS while it was

Table 1. Demographic Characteristics of Men Participated in the Study

Variable	Category	No. (%)
Education of Man	Cycle	19 (12.7)
	High school	13 (8.7)
	Diploma	35 (23.3)
	Associate degree	7 (4.7)
	Bachelor's degree or higher	76 (50.7)
Education of women	Unlettered	3 (2)
	Cycle	27 (18.8)
	High school	15 (10)
	Diploma	35 (23.3)
	Associate degree	10 (6.7)
Employment status of men	Bachelor's degree or higher	53 (39.3)
	Employee	68 (45.3)
	Self-employed	72 (48)
	Working	9 (6)
Employment status of women	Unemployed	1 (0.7)
	Practitioner	52 (34.7)
	Housewife	98 (65.3)
The economic situation	Income more than spending	5 (3.3)
	Income to spend	108 (72)
	Less income to spend	37 (24.7)
Number of children	No	60 (40)
	1	37 (24.7)
	2	27 (19.3)
	3	16 (10.7)
	4	8 (5.3)

Table 2. Frequency of Awareness of Men Regarding Psychological and Physical Symptoms as well as Prevention Strategies of PMS

	False No. (%)	Correct No. (%)
Psychological Symptoms		
1. Fatigue	23(15.3)	127(84.7)
2. Irritability	53(38.7)	92(62.3)
3. Hope for the future	(39.3) 59	91(60.7)
4. Cried attacks	50(33.3)	100(66.7)
5. Increased libido	73(48.7)	77(51.3)
6. Socialize	71(47.3)	79(52.7)
7. Forgetfulness and loss of concentration	88(58.7)	62(41.3)
8. Sleep disorder	90(60)	60(40)
9. Oversleeping	57(38)	93(62)
10. Social isolation	42(28)	108(72)
11. Decreased libido	138(92)	12(8)
12. Increased power	31(20.7)	119(79.3)
13. Suicidal thoughts	86(57.3)	64(42.7)
14. Depression	53(35.3)	97(64.7)
15. Masochism	80(53.3)	70(46.7)
16. Overeating/food cravings	141(94)	9(6)
17. Happiness	32(21.3)	118(78.7)
18. Feel upset	103(68.7)	47(31.3)
Physical Symptoms		
1. Headache	72(48)	78(52)
2. Hair loss	83(55.3)	67(44.7)
3. Bruises nails	78(52)	72(48)
4. Acne	86(57.3)	64(42.7)
5. Mastalgia	34(22.7)	116(77.3)
6. Loss of appetite	124(82.7)	26(17.3)
7. Back ache	140(93.3)	10(6.7)
8. Increased appetite	136(90.7)	14(9.3)
9. Flatulence	89(59.3)	61(40.7)
10. Blurred vision	81(54)	69(46)
11. Joint and muscle pain	67(44.7)	83(55.3)
12. Weight Gain	125(83.3)	25(16.7)
13. Gastrointestinal disorder, constipation / diarrhea	73(48.7)	77(51.3)
14. Feeling cold	122(81.3)	28(18.7)
15. Dizziness	120(80)	30(20)
16. Hot flashes/sweats	72(48)	78(52)
17. Heart beat	68(45.3)	82(54.7)
18. Eye irritation	51(34)	99(66)
Prevention Methods From PMS		
1. Walking or aerobic exercise	87(52)	72(48)
2. Hot drinks and herbal	22(14.7)	128(85.3)

Table 2. Continued

	False No. (%)	Correct No. (%)
3. Red meat	140(93.3)	10(6.7)
4. Eating fresh vegetables and fruits	57(38)	93(62)
5. Lack of mobility and exercise	90(60)	60(40)
6. Seafood consumption	125(85.3)	22(14.7)
7. Weight Loss	132(88)	18(12)
8. Attention and support from wife	11(7.3)	139(92.7)
9. Prevention of discussions and fights	24(16)	126(84)
10. Ignoring symptoms	71(47.3)	79(52.7)
11. Enough rest	28(18.7)	122(81.3)
12. The woman left alone to improve symptoms	85(56.7)	65(43.3)
13. Eat snacks between main meals	78(52)	72(48)
14. Female companionship in leisure and work that helps improving	23(15.3)	127(84.7)
15. See a doctor and treat symptoms	34(22.7)	116(77.3)

24.92 ± 4.18 in men whose wives did not suffer from PMS. This difference was not statistically significant (Table 3; $P=0.61$).

The frequencies of responses regarding questions about the performance and attitude of PMS are presented in Tables 4 and 5, respectively.

The mean score of performance in men with wives suffering from PMS was higher compared to the other men, but this was not statistically significant ($P=0.52$). The mean scores of attitude in men with wives suffering from PMS and other men were found to be 41.34 ± 6.10 and 43.59 ± 4.88, respectively. This difference was statistically significant ($P=0.04$) (Table 6).

Pearson correlation coefficient revealed a significant relationship among awareness, attitude, and performance of men regarding PMS (Table 7).

Discussion

In the present study, 22% of the surveyed women suffered from PMS. In the study conducted by Bokaie et al, the frequency of PMS was estimated to be 91.3% (12). Abbasi et al found that 86% of teenage girls showed the symptoms (13). Cheng et al revealed that 39% of the university students were diagnosed with PMS (14). The statistical differences observed in these studies are probably due to the age groups of the studied subjects in this investigation compared to the above-cited ones.

Most of the symptoms observed in the wives of the men who participated in the study were emotional symptoms of PMS. In the study of Acikgoz et al, there was a significant relationship between PMS and risk of depression. Students with PMS showed symptoms of depression (15). Yamazaki also showed that at the end of the Luteal cycle, women's

Table 3. The Mean Scores of Prevention Strategies, Psychological, and Physical Symptoms of PMS in Men Whose Wives Had PMS Compared to Men Whose Wives Did not Suffer From PMS

Awareness	PMS - (n=117, 78%)	PMS + (n=33, 22%)
Psychological	9.47±2.56	9.57±2.62
Physical	7.16±2.08	7.30±2.41
Prevention of PMS	8.28±2.05	8.48±2.16
Total	24.92±4.18	25.36±5.36

Note: *P* value = 0. 61, *t* test.

emotions are more affected and they had longer reaction times to all emotional stimuli and a significantly reduced response to happy faces (16). Bokaie et al (12) conducted an investigation on the frequency of the symptoms of PMS in which the most common symptoms reported by women were physical symptoms. This finding was also verified by Kiani et al (17).

In the present study, most of the correct answers regarding awareness were recorded about depression,

social isolation, fatigue, and bouts of crying. The finding of a study by Morowati Sharifabad et al (11) was in line with the results of the present study revealing that the most correct answers dealt with fatigue, lethargy, and irritability. Makuch et al also found that 55% of men showed a good percentage of awareness regarding psychological symptoms of PMS (18). Fifty to 60% of men in an investigation conducted by Christensen and Oei believed that PMS appears with negative emotional symptoms in women such as instability, anger, anxiety, and fatigue (19). Furthermore, Brooks-Gunn and Ruble revealed that most of the men think women tend to get irritated in the pre-menstrual period (20). The results of the mentioned studies are all in line with the present investigation.

The current study found that the highest awareness of men regarding physical PMS symptoms was about breast pain and tenderness. Moreover, 60.7% of the wives of these men complained about fluid retention including weight gain, swelling of extremities, breast tenderness,

Table 4. Frequency of Men's Responses to Performance Questions

Items	Always No. (%)	Sometimes No. (%)	Rarely No. (%)	Never No. (%)
1. I pay more attention to my wife when symptoms of premenstrual are observed	66(44)	64(42.7)	17(11.3)	3(2)
2. I prefer not to argue with my wife during the premenstrual period	58(38.7)	65(43.3)	24(16)	3(2)
3. I control myself and try not to get angry when symptoms of premenstrual are observed.	52(34.7)	69(46)	25(16.7)	3(2)
4. I attend to my wife the most, express my love, and reassure her during her premenstrual period	46(30.7)	71(47.3)	28(18.7)	4(2.7)
5. I call my wife from the work every few hours and remind her to eat something during her premenstrual period	24(16)	63(42)	49(32.7)	14(9.3)
6. At the end of this period, I talk about these issues with my wife and assure her that I am on her side	24(16)	65(43.3)	52(34.7)	8(5.3)
7. I keep the house warm and intimate so as she remain calm during her premenstrual period	41(27.3)	69(46)	37(24.7)	3(2)
8. I go along with my wife's exercise and diet schedule in this period	37(24.7)	63(42)	41(27.3)	9(6)

Table 5. Frequency of Men's Responses to Attitude Questions

The Attitude Towards PMS	I strongly Disagree	I oppose this idea	I don't know	I agree	I unequivocally concur
1. Premenstrual symptoms are a natural phenomenon for women.	3(2)	14(9.3)	25(16.7)	85(56.7)	22(14.7)
2. Women with premenstrual mental symptoms stay at home.	22(14.7)	81(54)	18(12)	24(16)	1(0.7)
3. Symptoms are related to menstrual fiction.	16(10.7)	84(56)	37(24.7)	11(7.3)	1(0.7)
4. Compatibility with my wife's PMS is easy.	0(0)	24(16)	17(11.3)	88(58.7)	21(14)
5. Training is essential in controlling premenstrual symptoms.	2(1.3)	8(5.3)	20(13.3)	90(60)	30(20)
6. Any activity can control premenstrual symptoms.	11(7.3)	76(50.6)	43(28.7)	15(10)	3(2)
7. The women are just making excuses when claim to have PMS.	20(13.3)	89(59.3)	34(22.7)	5(3.3)	1(0.7)
8. Women worry should if they get emotional symptoms a few days before menstruation.	14(9.3)	96(64)	26(17.3)	12(8)	1(0.7)
9. PMS could be cured only with drugs.	9(6)	67(44.7)	29(19.3)	37(24.7)	3(2)
10. The only thing women can do enduring PMS?	5(3.3)	86(57.3)	33(22)	24(16)	1(0.7)
11 Only a doctor can treat premenstrual symptoms.	8(5.3)	48(32)	43(28.7)	47(31.3)	3(2)
12. Women have to inform their relatives of the occurrence of premenstrual symptoms.	3(2)	33(22)	14(9.3)	79(52.7)	21(14)

Table 6. Comparison of the Attitude and Performance of 2 Groups of Men Regarding Women's PMS^a

	PMS + (n = 33, 22%)	PMS - (n = 117, 78%)	Total	P Value ^b
Attitude	41.34±6.10	43.59±4.88	43.10±5.23	0.04
Performance	24.48±5.09	23.79±5.43	23.93±5.35	0.52

^a Men's score with wives suffering from PMS was higher from the others.

^b t test.

Table 7. Relationship Among Awareness, Attitude, and Performance of Men Regarding PMS

	Awareness	Attitude	Performance
Awareness		P = 0.000*	P = 0.000*
Attitude			P = 0.000*
Performance	P = 0.000*		

*Pearson Test.

and bloating. It could be deduced that the most correct answers of men in the present study were the most frequent physical symptoms of PMS in women.

The most correct answers concerning prevention of PMS belonged to hot drinks and herbal, expression of affection to one's wife, argument and fight avoidance, and taking care of women in these situations. Likewise, in the study done by Morowati Sharifabad et al (11), the most correct answers regarding prevention of PMS were categorized as spousal support, attention to her, and not leaving her alone which are in accordance with the finding of the present research. As most of the PMS symptoms reported by men's wife participating in this study were emotional and fluid retention, it seems that this high level of awareness has given good strategies to men for keeping their wives under control. In addition, as the results indicate, the husbands of the women with PMS got a better score in comparison to others.

Men whose wives had PMS recorded a better awareness score compared to those whose wives did not suffer from PMS, but this difference was not statistically significant. It could be concluded that PMS symptoms in women were the reason for the increase in men's awareness of the matter.

In the present research, 71% of the surveyed men believed that PMS is a natural phenomenon for women while Makuch et al found that only 34% of men had such a conviction (18). Brooks-Gunn and Ruble found that most of the men think PMS has debilitating effect on women's life and affects it negatively (20). The difference in the results might have occurred due to the fact that, in the reported studies, all the wives of participating men had PMS, while in the present study this number was only 22%. As the comparison of the attitudes in the 2 groups demonstrated, men whose wives suffer from PMS got a lower attitude score than the others. This difference was statistically significant. It could be concluded that

symptoms cause problems in the marital relationship, undermine the quality of life, and change the attitude of people toward the problem.

There was a significant correlation among awareness, attitude and performance of men meaning that the increase of awareness results in a more positive attitude and a better attitude leads to better performance regarding their wives PMS which is theoretically rational.

Conclusions

In the present study, men whose wives had PMS got a better awareness and performance score but a lower attitude score once compared to other men. Equally, there was a critical connection between and among awareness, attitude, and performance of men regarding their wives' PMS. Besides, men reported emotional symptoms in their wives more frequently and showed a higher level of awareness in this area than they did for physical symptoms. This proves that emotional symptoms affect men more in the premenstrual period.

Limitations

The main limitation in the present study was lack of similar research studies regarding awareness, attitude, and performance of men regarding their wives' PMS to get a better perspective in discussion and conclusion of this article. In this investigation, not all of the wives of the participating men suffered from PMS, and this might affect the awareness, attitude, and performance of men regarding PMS. Thus, it is suggested that another study be conducted with men whose spouses suffer from PMS.

Conflict of Interests

Authors declare that they have no conflict of interests.

Ethical Issues

The present study was approved by the Research Ethics Committee of the Urmia University of Medical Sciences (IR.UMSU.REC.1393.36). All information about individuals was kept completely confidential and the research units were assured that the results are to be reported collectively.

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