FREQUENCY OF PREMENSTRUAL SYNDROME IN WORKING WOMEN VS HOUSEWIVES IN PESHAWAR

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ABSTRACT

Objective: To find out the frequency of premenstrual syndrome (PMS) in working women Vs housewives/women working in their own houses in Peshawar.

Material and Methods: This prospective study was carried out at Postgraduate Medical Institute, Peshawar in the year 1995-1996, on 200 women (100 working women and 100 house wives/women working in their own houses) meeting the criteria. Their daily prospective symptoms were recorded on a menstrual chart administered to them for three consecutive months. One housewife withdrew by the third month from the study because she got pregnant. Diagnostic and Statistical manual criteria (1994) was used for the diagnosis of PMS.

Results: In this study, 53% (53/100) of working women and 25.25% (25/99) of housewives had PMS. In working women the predominant symptoms were tension and irritability (45.28%) followed by fatigue (41.5%) and depression (39.62%) while in house wives fatigue was at the top i.e. 76%, followed by depression (52%) and anxiety (36%). More severe symptoms occurred in 43.9% of working women and in 24% of house wives. About 69.8% (n=37/53) of working women and 16% (n=4/25) housewives/women working in their own houses were unmarried. Around 84.9% of working women and 84% of house wives had dysmenorrhea. Analgesics and antidepressants were the most commonly used drugs.

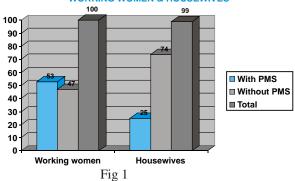
Conclusion: The frequency and severity of PMS is more common in working women as compared to housewives, probably due to more stressful life.

Key words: Premenstrual Syndrome, Working Women, Housewives.

INTRODUCTION

Premenstrual syndrome (PMS) is defined as the recurrence of psychological and physical symptoms in the luteal phase, which remit in the follicular phase of the menstrual cycle. Somatic symptoms of premenstrual syndrome include bloating, fluid retention, weight gain, mastalgia, abdominal discomfort, pain, lack of energy, headache, and exacerbations of chronic illnesses such as asthma, allergies, epilepsy, or migraine. Commonly reported affective changes are dysphoria, irritability, anxiety, tension, aggression, depression, feelings of being unable to cope, and a sense of loss of control.^{2,3} PMS is a common cyclic disorder of young and middle-aged women.4 Up to 85 percent of menstruating women report having one or more premenstrual symptoms, and 2 to 10 % report disabling, incapacitating symptoms.⁵ The severe form of premenstrual syndrome is called as premenstrual dysphoric disorder (PMDD). PMDD has been classified in the Diagnostic and Statistical Manual (D.S.M.) of Mental Disorders (4th ed) as "depressive disorder not otherwise specified," emphasizing emotional and cognitivebehavioral symptoms. For the symptoms to be considered to represent the premenstrual syndrome, it is necessary that some impediment be reported with regard to routine activities at work, at school or in social activities. 6 It is estimated that up to 1.5 million women in the United Kingdom experience such severe symptoms that their quality of life and interpersonal relationships are greatly affected. Over 35% of these women will seek medical treatment. As the non-specific symptoms of PMS may overlap with psychiatric, endocrine, medical or gynecologic disorders, therefore it is necessary to differentiate PMS from other major mood and physical disorders. Etiology of PMS is not clearly known and is probably multifactorial and speculative, attributing to hormonal changes,

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neurotransmitters (Serotonin, dopamine, the endorphin and cofactor for their production --- pyridoxine), prostaglandins, diet, drugs, and lifestyle. This may be the reason that there were as many as 327 different treatments for PMS available. Research is going on to study the causes and various management options of PMS.

PMS leads to substantial impairment in normal daily activities and occupational productivity and significantly increased work absenteeism. As working women are under immense physical and psychological pressures, there is a possibility that various effects of PMS may be more common in working women as compared to housewives. This study was conducted to find out the frequency of premenstrual tension syndrome in working women Vs housewives/women working in their own houses in Peshawar.

MATERIAL AND METHODS

This prospective study was carried out in the Department of Obstetrics and Gynaecology A Unit of Post Graduate Medical Institute, Peshawar (NWFP) in the year 1995-1996.

Total of 200 educated women were included in this study, 100 from women working in offices while 100 women, were house wives/women working in their own houses. Women who agreed were counseled for the study in OPD, Gynae wards and in their houses. Patients

were entered in the study in a random order without stratification of date.

Inclusion criteria;

Apparently healthy woman with history of no major medical or surgical illness, with regular menstrual cycles, both married or unmarried and ranging in age from 18-45 years.

Exclusion criteria:

Women were excluded from the study if they were pregnant, lactating, desired a new pregnancy, or were taking contraceptive pills or injections, if they had irregular menstrual cycles or if their cycles were beyond 24-35 days in length.

Women were also excluded if they met diagnostic criteria for a major psychiatric illness other that late luteal phase dysphoric disorder or were taking psychoactive medications.

Patients were not accepted for the study if they were unwilling to take adequate alternative precautions to prevent pregnancy occurring during the study.

A proforma along with a menstrual chart was prepared in which all the detail of history, general biodata of the patient and premenstrual symptoms were carefully recorded.

Their daily prospective symptoms were recorded on a menstrual chart which was given to them for three consecutive months. By the end of third month, all the proformas, which had been distributed among the women, were collected and statistical analysis was made. The patients kept daily record of their symptoms on the menstrual chart. Apart from the pre-study visit, women were advised to visit the O.P.D. twice during each menstrual cycle, thus a total of seven visits were made by the patients. No biochemical test was performed on the patients. D.S.M criteria (Diagnostic and Statistical manual of mental disorders. 4th ed from American Psychiatric Association (1994) was used for the diagnosis of PMS in this study. The number of patients with PMS and severity of their symptoms, from both the groups were compared, assessed and statistical data was prepared.

STATUS OF EDUCATION IN WOMEN WITH PREMENSTRUAL SYNDROME (PMS)

Level of Education	Working Won	nen with PMS	House Wives with PMS		
	Frequency (n=53)	%age	Frequency (n=25)	%age	
Matric	10	18.86%	6	24%	
F.A / F.Sc	16	30.18%	10	40%	
B.A / MBBS or equivalent	24	45.28%	8	32%	
M.A. / Post Graduate	3	5.66%	1	4%	

Table 1

ASSOCIATED DYSMENORRHEA IN THE PATIENTS WITH PREMENSTRUAL SYNDROME

Dysmenorrhea	Working	g Women	House Wives		
	Frequency (n=53)	%age	Frequency (n=25)	%age	
No Dysmenorrhea	8	15.09%	4	16%	
Mild Dysmenorrhea	31	58.40%	14	56%	
Moderate Dysmenorrhea	8	15.09%	4	16%	
Severe Dysmenorrhea	6	11.32%	3	12%	

Table 2

RESULTS

This study was conducted on 200 women, 100 from working class while 100 women were house wives/ women working in their own houses. One patient withdrew by the third month from the study because she got pregnant. She was a housewife and was practicing barrier method for contraception for the last 2½ yrs. Thus the data was made between 100 working women and 99 house wives/ women working in their own houses.

Out of total 100 working women 53% (53/100) were diagnosed as cases of PMS while only 25.25% (25/99) housewives had premenstrual syndrome (Figure 1). The ratio between these two groups of patients is approximately 2:1.

In this study, 28.3% (n=15/53) of working women and 28% (n=7/25) of house wives were in the age group of 18 - 25 Years, 45.28% (n=24/53) of working women and 44% (11/25) of housewives were from 26 - 35 years of age while 26.46% (14/53) of working women and 28% (7/25) of house wives were in the age group 36-45 years.

Out of 53 working women, 16 (30.18%) were married and 37 (69.8%) were unmarried. Out of 25 housewives/women working in their own houses, 21 (84%) were married and 4 (16%) were unmarried. Hence PMS was more common in unmarried working women and married housewives/women working in their own houses.

Out of 16 married working women, 10 (62.5%) women had satisfactory marital relationship and 4 (25%) had unsatisfactory marital relationship while 1 (6.25%) woman was widow and 1 (6.25%) woman was divorced. Similarly, out of 21 married house wives/ housewives/women working in their own houses, 16 (76.19%) women had satisfactory marital relationship and 4 (19.09%) had unsatisfactory marital relationship while 1 (4.76%) woman was widow. So amongst the married women, 62.5% of working women and 76.19% of the house wives were living satisfactory lives. In unsatisfactory women, those women were included whose husbands had other wives or multiple partners. The percentage of divorced women was 6.25% in working class, which is quite high while no divorced patient was found in the house wives, but we could not know exactly whether they got divorced during their working period or they started jobs after getting divorced.

No significant difference was noted amongst the patients regarding their level of education (table 1). In this study women below matriculation were not included so that they could fill the menstrual chart properly which were given to them for 3 months. Around 84.9% of working women and 84% of house wives had dysmenorrhea as well, although the dysmenorrhea was of mild severity in majority of cases (Table 2). Mean length of the cycles of working women was 25

HISTORY OF CONTRACEPTION IN PATIENTS WITH PREMENSTRUAL SYNDROME

Types of Contraception	Working	g Women	House Wives		
	Frequency (n=53)	%age	Frequency (n=25)	%age	
No Contraception	17	32.07%	15	60%	
Safe Method	10	18.867%	3	12%	
Withdrawal	7	13.20%	3	12%	
Barrier	6	11.32%	1	4%	
I.U.C.D.	9	16.98%	2	8%	
Permanent	4	7.547%	1	4%	

Table 3

SYMPTOMS IN PATIENTS WITH PREMENSTRUAL SYNDROME

Working Women (n=53)			House Wives (n=25)		
Symptoms	No.	%Age	Symptoms	No.	%Age
Tension or Irritability	24	45.28%	Fatigue	19	76%
Fatigue	22	41.50%	Depression	13	52%
Depression	21	39.62%	Anxiety	9	36%
Difficulty in Concentration	14	26.40%	Bloated feeling	6	24%
Bloated feeling	14	26.40%	Decreased Efficiency	5	20%
Anxiety	13	24.50%	Pain, Headache, Backache	3	12%
Decreased efficiency	9	16.98%	Tension	3	12%
Pain, Headache, Or Backache	5	9.43%	Difficulty in concentration	1	4%

Table 4

days and mean length of the cycles of house wives was 26 days. It can be seen that only 40% women were using contraception among house wives while 78.1% working women were on contraception (Table 3). Patients who were using hormonal contraception were not included in the study because of the interference of hormones with ovulation.

Hypertension was the most common (13.2%, n=7/53) associated illness in the family among working women group, followed by epilepsy (1.886%) and schizophrenia (1.886%). In house wives, hypertension (12%) and heart diseases (12%) were the commonest associated family illnesses, followed by cirrhosis (4%) and neurosis (4%).

Table 4 shows that in working women the predominant symptoms were tension and irritability (45.28%) followed by fatigue (41.5%) and depression (39.62%) while in house wives fatigue was the commonest symptom (76%), followed by depression (52%) and anxiety (36%). But most of the patients had more than one symptom.

Patients were divided on symptoms severity into 4 groups as

Mild with one dysphoric symptom

Moderate with two dysphoric symptoms

Severe with three dysphoric symptoms

Extreme with more than three dysphoric symptoms

Symptoms were of mild severity in 32.07% of working women and in 24 % of housewives (Table 5). More severe symptoms occurred in 43.9% of working women with PMS and in 24% of house wives with PMS. Overall 23% of working women and 6.1% of housewives had severe PMS.

Out of the 78 patients, majority was using analgesics to alleviate their aches and pains but a few patients from working class were found to be on danazol and diuretics also. Most of the patients from both the groups were using antidepressant therapy also as 37% from working group and 24% from house wives were taking anxiolytic and antidepressant (Table 6). Majority of the patients were taking multiple drugs e.g. patients were taking analgesics as well as antidepressants at the same time.

DISCUSSION

Premenstrual syndrome is characterized of various emotional and physical symptoms in young females. In our study 53% of working women and

DISTRIBUTION OF PATIENTS ACCORDING TO SYMPTOMS SEVERITY

Severity of Symptoms	Working	Women	House Wives		
	Frequency (n=53)	%age	Frequency (n=25)	%age	
Mild	17	32.07%	6	24%	
Moderate	13	24.52%	13	52%	
Severe	20	37.73%	5	20%	
Extreme	3	5.66%	1	4%	

Table 5

TREATMENT MODALITIES AMONGST THE PATIENTS FROM BOTH CLASSES

Medication	Working	g Women	House Wives		
	Frequency (n=53)	%age	Frequency (n=25)	%age	
No - Treatment	2	3.76%	1	4%	
Analgesics	50	94.33%	20	80%	
Anxiolytics/antidepressants	20	37.73%	6	24%	
Diuretics	2	3.77%	0	0	
Danazol	1	1.88%	0	0	
Multivitamin +	0	0	5	20%	
Calcium supplement					

Table 6

25.25% of housewives/women working in their own houses had premenstrual syndrome. These figures are favouring other Pakistani studies reporting PMS in 33-66% of women. 10-13 However our study was a hospital based study and the results are not representative of population. Population based studies have shown different prevalences of PMS in the world, ranging from 5 to 35%, according to the diagnostic criteria utilized and the place where the study was conducted. 14,15 A number of valid and reliable diagnostic instruments are available to document symptoms in PMS and PMDD, including the Calendar of Premenstrual Experiences, 16 the Premenstrual Syndrome Diary 17, and the Daily Record of Severity of Problems.¹⁸ We used the daily diary record of the symptoms for three consecutive months so that cycle-to-cycle variability can be examined. The diary of symptoms is helpful in proper diagnosis of PMS as many women may be found to have nonluteal symptom patterns. 19 The three key elements of the diagnosis are symptoms consistent with PMS, consistent occurrence of symptoms only during the luteal phase of the menstrual cycle, and negative impact of symptoms on function and lifestyle.⁶

In this study PMS was more common in women working in offices (53%) as compared to housewives or women working at home only (25.25%). This observation is negating findings from Deuster PA et al20 who reported that there was no difference in symptoms of PMS between the women who worked outside of the home and those who did not. However there is no doubt that women working in offices in our set up are under great social and cultural pressures which may affect the health status of the working women. Hourani LL found that a high level of job stress is the most significant predictors of premenstrual symptoms.²¹ Generally stressful life context is more influential in the experience of perimenstrual symptoms than episodes of stressful experiences during a particular menstrual cycle phase.22

Similarly symptoms of PMS have adverse effects on work output as well, putting more pressure on the working women. Women with PMS have reported reduced work productivity and greater number of work days missed for health reasons. 9,23

In our study, 23% of working women and 6.1% of housewives had severe PMS. If we analyze women with PMS only, more severe symptoms occurred in 43.9% of working women with PMS and in 24% of house wives with PMS. Tabassum S et al¹¹ had severe symptoms in 31.7% of cases. Premenstrual dysphoric disorder, the severe form of premenstrual syndrome affects 3 to 8 percent of women of reproductive age.²⁴ It can be seen in our study that patients with severe degree of symptoms were from the working class. Perhaps this class can report their symptoms well than the house wives who experience the same symptoms but are unable to report them properly. Severity of PMS is also related with the general ill health and poor work output. Lustyk MKB et al reported that women with high PMS had significantly more stress and poorer quality of life than women with low PMS.25

Premenstrual syndrome is a common disorder of women of reproductive age. In our study, 45.28% of working women and 44% of housewives were from 26 35 years of age. Although there was no significant age difference in the two groups, these findings support the evidence that PMS symptoms typically beginning between the ages of 25 and 35 years. Freeman EW et al²⁶ reported that the younger women reported more symptoms while seeking medical treatment for PMS. This may be due to the fact that the younger women are experiencing a time when PMS is discussed to a much greater extent.²⁷

In this study, no significant difference between the two groups was noted regarding age, socioeconomic condition, level of education, history of contraception, dysmenorrhea and marital relationship etc. However, PMS was more common in unmarried working women as 69.8% of working women with PMS were unmarried and only 16 % of housewives/women working in their own houses, with PMS were unmarried. It might be that due to carrier building, working women get married later than the house wives and perhaps this may be the real cause of increased frequency in the working class because it has been reported that mentally unstable and unsatisfied women are more prone to the cyclical ovarian hormone changes.²⁸

In working women the highest incidence was of tension or irritability (45.28%) followed by fatigue (41.5%) and depression (39.62%), while in house wives fatigue (76%) was at the top followed by depression (52%) and then anxiety (36%). More than 200 symptoms have been associated with PMS, but irritability, tension, and dysphoria are the most prominent and consistently described²⁹. In a local study, order of frequency of symptoms occurring in PMS was general body discomfort, anxiety, backache, fatigue and depression.1 Cramps, backaches, fatigue, and tension are most prevalent during the menstruum; weight gain, skin disorders, painful breasts, swelling, irritability, mood swings, and depression are more prevalent in the premenstruum.30

Dysmenorrhea is a common menstrual disorder in working women³¹ although dysmenorrhea is not considered a part of PMS. However in our study there was no significant difference regarding dysmenorrhea between working women and housewives. Almost all the patients from both groups had dysmenorrhea also, and perhaps the most common misdiagnosis of PMS is that of dysmenorrhea but the actual reason for this confusion is the inadequate history of the patient, otherwise they are different entities.

The commonest drugs used by both groups were analgesics followed by anxiolytics /antidepressants. Treatment goals for PMS are to ameliorate or eliminate symptoms, reduce their impact on activities and interpersonal relationships and minimize adverse effects of treatment.4 Nonpharmacologic measures and dietary supplements have been tried for relieving the symptoms of PMS. The American College of Obstetricians and Gynecologists (ACOG) recommends selective serotonin reuptake inhibitors (SSRIs) as initial drug therapy in women with severe PMS and PMDD. Anxiolytic agents such as alprazolam is not recommended because of addictive potential, tolerance, and significant side effects.6 Analgesic like Naproxen sodium and Mefanamic acid improves various physical symptoms and headache in women with PMS.

Various hormonal and nonharmonal agents are being used in PMS and many more agents are being evaluated for the future use in PMS.

CONCLUSION

The frequency and severity of PMS is more common in working women as compared to housewives. In this study, no significant difference between the two groups was noted regarding age, socioeconomic condition, level of education, history of contraception, dysmenorrhea and marital relationship. Symptoms of PMS are more common from 26-35 years of age in both groups. However, PMS was more common in unmarried working women as compared to unmarried women confined to houses. The common most symptoms of PMS in working women were tension/irritability, fatigue and depression and in house wives were fatigue, depression and anxiety.

Limitation of study: This was a hospital based study and the findings are not the true representation of the population. A large scale population based study is required to identify the prevalence of PMS in working women and housewives.

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