Psychological Study in Women with Premenstrual Dysphoric Disorder

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ABSTRACT:
BACKGROUND:
Premenstrual dysphoric disorder (PMDD) is a somatopsychic illness triggered by changing levels of sex steroids that accompany an ovulatory menstrual cycle. It affects about 3% to 8% of women in their reproductive years. The symptoms of this disorder are primarily affective. The disturbance markedly interferes with work, school or with usual social activities and relationships with others.
OBJECTIVE:
Are to determine the prevalence and the sociodemographic factors in relation to PMDD and to find out the characteristic features of premenstrual symptoms and their impact on daily living.
METHOD:
145 women aged between 18 and 55 years with regular menstrual cycles who met the diagnostic criteria of PMDD out of 1792, were assessed regarding their premenstrual symptoms using the Premenstrual Symptoms Screening Tool (PSST). The study was conducted in 1st August 2009 until 31th December 2009.
RESULTS:
The study revealed that 8.1% of women met the diagnostic criteria of PMDD. It was found more common among younger females 36.5% (18-25years of age), the majority of them were married (71%).
CONCLUSION:
PMDD is relatively common in women especially younger age group.
KEYWORDS: premenstrual dysphoric disorder (PMDD).

INTRODUCTION:

Premenstrual dysphoric disorder is a somatopsychic illness triggered by changing levels of sex steroids that accompany an ovulatory menstrual cycle. It affects about 3% to 8% of women in their reproductive years [1]. A subset of symptoms comprises premenstrual dysphoric disorder, which is found in the fourth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and is classified as a mood disorder not otherwise specified. The symptoms of this disorder are primarily affective. The disturbance markedly interferes with work, school or with usual social activities and relationships with others [2].

Although the causes of premenstrual syndrome and premenstrual dysphoric disorder has yet to be conclusively elucidated but the current consensus seems to be that normal ovarian function (rather than hormone imbalance) is the cyclical trigger for premenstrual-related biochemical events within the central nervous system and other target organs [3]. On the other hand, in support of a pathophysiological role for ovarian hormones is work showing remission in women who are spontaneously anovulatory, anovulatory due to suppression ovulation, or anovulatory due to natural or surgical menopause [4].

Considerable evidence supports the involvement of the serotonergic system in the pathophysiology of premenstrual syndrome, not least the fact that SSRIs are effective in treating the symptoms. Inhibition of serotonergic activity by acute tryptophan depletion has been shown to aggravate symptoms of PMDD. Furthermore, metergoline, a serotonin-selective antagonist that blocks serotonin (5-HT) receptors (particularly 5-HT_{2A} and 5-HT_{2C}) also provokes a return of symptoms in women with PMDD treated with fluoxetine [5].

Early psychoanalytic formulations of premenstrual distress proclaimed that premenstrual depression was the result of a woman's grief over her failure to conceive. Also included in these interpretations was a woman's repressed hostility towards and

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envy of the more favored males, with the monthly menstrual cycle serving as a brutal reminder of her femininity. These theories hold no validity because the symptoms of PMDD begin to ameliorate with the onset of menses, contrary to the analytic theory [4].

The diagnosis of PMDD is dependent upon certain core features:

[1] A specific symptom constellation as outlined in DSMIV-TR. [2] The timing of symptom onset during the luteal phase of the cycle. [3] The absence of another underlying psychiatric or contributing general medical disorder. [4] The severity of the disorder and its association with functional impairment.

The symptoms of this disorder are primarily affective, with depressed mood constituting the most common symptom followed by anxiety or tension, mood swings, and anger or irritability; at least one of these four symptoms is required for the diagnosis. A minimum of five symptoms must be present and the other potential complaints, which are listed in DSMIV-TR diagnostic criteria, are somatic symptoms such as breast pain and bloating [2].

The syndrome has been widely treated with progesterone, and also oral contraceptives, bromocriptine, diuretics, and psychotropic drugs. There is no convincing evidence that any of these effective. Currently, the primary approaches to treating premenstrual dysphoric disorders include lifestyle changes, cognitive-behavioral therapy, and pharmacotherapy [6].

PATIENTS AND METHOD:

The study was conducted in 1st August 2009 until 31thDecember 2009 .the sample consist of 145 women aged between 18 and 55 years with regular menstrual cycles who met the diagnostic criteria of PMDD out of 1792, they were randomly selected,(the first step in randomization was to define the studied population and number it, then we choose every 5th one) , they were seen at Gynaecology & Obstetrics Clinic/AL-Hakeem General Hospital and Women Health Clinic/ AL-Karama Primary Health Care Centre in Najaf. Consents of the patients and their relatives were taken. Each patient was assessed individually using a structured interview that include the demographic characteristics and the Premenstrual Symptoms Screening Tool (PSST) which translated DSMIV criteria into a rating scale with degrees of severity[7]. Though the original DSM-IV diagnostic

criteria for PMDD do not check the degree of severity, the PSST asked women to rate the severity of premenstrual symptoms as .not at all, mild, moderate, or severe.

In order to meet DSM-IV criteria for the diagnosis of PMDD, women had to report at least one of the four core symptoms (irritability, dysphoria, tension, lability of mood) as severe and at least 4 additional symptoms (for a total of 5) as moderate to severe. They also had to report that their symptoms interfered severely with their ability to function in at least one of five domains (work efficiency=productivity, social life, home responsibilities, relationship at work, or relationships at home).

Inclusion criteria include the following:

1-Participants were required to be regularly menstruating.2-absence of another underlying psychiatric or contributing general medical disorders.

Exclusion criteria include the following:1-those who are uncooperative. 2- those who had irregular menstrual cycles.3-those who have no will to take part.

The number of women who were excluded from the study were 5.

RESULTS:

The study revealed that 8.1% of women attending hospital and Primary Health Care Centre in Najaf met the diagnostic criteria of PMDD. It was found more common among younger females 36.5% (18-25years of age), the majority of them were married (71%). Statistically significantly more females reported higher than secondary school education 37.9% (N=55) than secondary school 34.5% (N=50), primary school 15.9% (N=23) or illiterate 11.7 %(N=17).

Also significantly more women reported average family income 51.7 % (N=75) than either low income 29.0 %(N=42) or above average 19.3 %(N=28).

Additionally the majority of respondents stated urban residence 84.8 %(N= 123) more than rural 15.2% (N= 22). There was no statistical significance between women employed (54.5%) and unemployed (45.5%).

The percentage of each premenstrual symptom (classified according to severity) is shown in Table 7. The most prevalent symptoms among the respondents were severe anger or irritability 66.2% (N=96), severe anxiety or tension 60.7% (N=88), severe physical symptoms 59.3% (N= 86).

The symptoms of PMDD interfered severely with home responsibility 64.1 % (N=93), relationships with family 62.8% (N=91) and social life activities 60.7 % (N=88).

The results are shown in the following tables:

Table 1:Distribution of patients with PMDD according to age

Age distribution(year)	Number of patients	Percentage
18-25	53	36.5
25-35	34	23.5
35-45	39	26.9
45-55	19	13.1
Total	145	(100) %

X^2= 16.30   df = 3 $p \leq 0.005$
*Statistically significant using chi-square test.

Table 2:Number of patients with PMDD according to marital status.

Marital status	Number of patients	Percentage
Single	35	24.2
Married	103	71.0
Divorced or Widow	7	4.8
Total	145	(100) %

X^2= 101.5   df = 2 $p \leq 0.005$
*Statistically significant using chi-square test.

Table 3: Number of patients with PMDD according to job status

Job Status	Number of patients	Percentage
Employed	79	54.5%
Unemployed	66	45.5%
Total	145	(100)%

X^2= 1.17   df = 1 $p \leq 0.005$
*Statistically not significant using chi-square test

Table 4: Number of patients with PMDD according to level of education

Level of education	Number of patients	Percentage
Illiterate	17	11.7%
Primary school	23	15.9%
Secondary school	50	34.5%
Higher than secondary school	55	37.9%
Total	145	(100)%

X^2= 29.98   df = 3 $p \leq 0.005$
*Statistically significant using chi-square test.

Table 5:Number of patients with PMDD according to residence

Residence	Number of Patients	Percentage
Urban	123	84.8%
Rural	22	15.2%
Total	145	(100)%

X^2= 70.35   df = 1 $p \leq 0.005$
*Statistically significant using chi-square test.

Table 6:Number of patients with PMDD according to family income

Family income	Number of patients	Percentage
Low income	42	29.0%
Average	75	51.7%
Above average	28	19.3%
Total	145	(100)%

X^2= 24.27   df = 2   p ≤ 0.005

*Statistically significant using chi-square test.

Table 7:Premenstrual symptoms profile according to the severity in patients with PMDD (n= 145)

Symptoms	Not at all		Mild		Moderate		Severe		X^2.005,3
	No.	%	No.	%	No.	%	No.	%	
Anger or irritability	5	3.5	16	11.0	28	19.3	96	66.2	138.61
Anxiety or tension	6	4.1	15	10.3	36	24.8	88	60.7	111.58
Tearful	16	11.0	9	6.2	37	25.5	83	57.2	92.1
Depressed mood	7	4.8	12	8.3	41	28.3	85	58.6	106.01
Decreased interest in work activities	48	33.1	11	7.6	24	16.5	62	42.8	43.83
Decreased interest in home activities	43	29.7	19	13.1	27	18.6	56	38.6	22.59
Decreased interest in social activities	37	25.5	21	14.5	30	20.7	57	39.3	19.39
Difficulty in concentrating	39	26.9	34	23.5	26	17.9	46	31.7	5.85
Fatigue or lack of energy	14	9.6	29	20.0	31	21.4	71	49.0	49.18
Overeating or food cravings	36	24.8	20	13.8	42	29.0	47	32.4	11.39
Insomnia	56	38.6	13	9.0	37	25.5	39	26.9	25.90
Hypersomnia	51	35.2	10	6.9	29	20.0	55	37.9	36.16
Feeling overwhelmed	8	5.5	17	11.7	41	28.3	79	54.5	83.28
Physical symptoms	17	11.7	20	13.8	22	15.2	86	59.3	91.39

Table 8: Work, activities or relationships impairment according to the severity in patient with PMDD (N=145)

Variable	Not at all		Mild		Moderate		Severe		X^2.005,3
	No.	%	No.	%	No.	%	No.	%	
Work efficiency or productivity	77	53.1	9	6.2	16	11.0	43	29.7	78.86
Relationships with co-workers	83	57.2	11	7.6	13	9.0	38	26.2	92.88
Relationships with family	5	3.5	7	4.8	42	29.0	91	62.8	134.14
Social life activities	8	5.5	15	10.3	34	23.5	88	60.7	108.49
Home responsibility	7	4.8	14	9.7	31	21.4	93	64.1	126.86

*Statistically significant using chi-square test.

DISCUSSION :

This study which is the first one in Iraq revealed that the prevalence of PMDD in women attending Women Health Clinic and Gynaecology & Obstetrics Clinic was 8.1%. The results are consistent with several recent Western studies which report a prevalence of PMDD in a range of 4.6 to 8.1% [8,9] but were higher than those in Chinese, Japanese, or Indonesia population [10,11,12] We are aware of another similar study by Samia Tabassum et al (2005)from Pakistan, studying Premenstrual Syndrome: frequency and severity in

young medical college girls and this study has some interesting results: it shows that the prevalence of PMDD based on DSMIV criteria was 18.2% which does not conform with earlier reports[13]. The reason could be a stressful life of the developing world or may be that medical students are tenser.

In another study by Ova Emilia(2008) from Indonesia ,the rates of prevalence of PMDD were much lower 1.1% [12].The lower fat intake of Indonesian women may contribute to the low rate of prevalence of PMDD in contrast to higher prevalence in Iraqi women which may be due to high fat intake or samples recruited from clinical settings.

The PMDD was found to be more common in younger women age group (18-25 years), and this has also been found by other authors [14, 15], and so females in this age group are bearing most of the burden of illness.

According to marital status PMDD was most common in married patients, divorced or widow and this was consistent with Ova Emilia(2008) study[12] this serves to demystify the old concept that when the woman marries, she will get better. The reason may be due to fact that longstanding marital disharmony represent a significant stressful life event.

Statistically significant association between prevalence of PMDD & educational level was found, it was more common in females who had higher than secondary school education. The explanation may be that highly educated women had greater access to knowledge regarding their symptoms. Being knowledgeable about their symptoms, they would be more alert to the cyclical modifications in their bodies.

Depending on the information taken from patients and their relatives, significantly more women reported average family income than either low income or above average and this is concordant with Ziba Taghizadeh et al (2008) study [16].

Noteworthy, women with PMDD experience markedly compromised quality of life and ability to function in several settings, leading to higher direct medical costs for increased physician visits and laboratory tests, and higher indirect costs to employers through lower productivity at work [17].

In this study PMDD was more common in patients who live in urban areas than rural areas and this goes with Celene Maria et al (2006) study [18].

According to job status there was no difference between the women who worked home and those who did not and this serve to conform to Deuster PA et al (1999) findings [19].

During Premenstrual Dysphoria symptoms analysis, a range of emotional symptoms were reported. Among these, the most prevalent symptoms among the respondents were severe anger or irritability. Depressed mood, though also common, was less commonly reported than irritability. This is consistent with the findings that irritability has been identified as the most common premenstrual symptom than depressed mood or anxiety in US and European samples [14, 20]. Such concordant findings have implications for our further understanding of PMDD, and for appreciating the cross-cultural similarities in premenstrual experiences.

DSM-IV criteria for PMDD concentrated on premenstrual mood symptoms yet this study showed a high percentage of women complain from severe physical symptoms 59.3% (N= 86) , so physical symptoms may play a larger role in the burden of illness of PMDD.

Some cultures emphasize somatic rather than emotional premenstrual symptoms [21].

Additionally, statistically significantly more women reported that their premenstrual symptoms interfered severely with home responsibility, relationships with family and social life activities, this conform with Pearlstein et al (2000) study which revealed that levels of impairment in social and leisure activities, as well as marital and other family relationships, in women with PMDD are similar to that of major depressive disorder [22].

CONCLUSION:

The findings of the present study suggest that PMDD is relatively common in PHC and Gynaecology& Obstetrics Clinic attendant & this represent a significant problem if remained undetected.

We found a significant association between PMDD & married, younger women, moderate economic and higher schooling levels. Considerable number in the sample presented from urban area.

Recommendations

PMDD may be under diagnosed and untreated due to the lack of awareness of both patients and clinicians, so appropriate recognition of the disorder and its impact should lead to treatment of more women with PMDD.

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