

Diagnostic Persistence and Clinical Variables of Premenstrual Dysphoric Disorder

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ABSTRACT

Objective: To examine the diagnostic continuity in patients diagnosed with Premenstrual dysphoric disorder (PMDD) by prospective symptom grading of patients with a provisional diagnosis of PMDD.

Methods: The study included 95 women with a provisional diagnosis of PMDD who applied to Çukurova University Faculty of Medicine Hospital, Department of Mental Health and Diseases Outpatient Clinic, and 64 women with similar sociodemographic characteristics as the control group. Sociodemographic data form, Premenstrual Syndrome Scale, Psychache Scale, and Anxiety Sensitivity Index-3 were applied to the participants. Individual calendars were prepared for those with a provisional diagnosis of PMDD, and they were asked to fill them out for 3 months.

Results: In this study, 65.3% of patients with a provisional diagnosis of PMDD met the criteria for permanent PMDD. Psychache scale total score averages of those diagnosed with PMDD were significantly higher than the control group ($P < .001$). The mean anxiety sensitivity total score and subscales of those with a provisional diagnosis of PMDD were significantly higher than the control group; both the total score ($P = .04$) and the physical sensitivity subscale ($P = .01$) were significantly higher in those with a permanent diagnosis of PMDD. Dysmenorrhea was significantly more frequent in those with a provisional diagnosis of PMDD ($P = .03$); this relationship was not found in those with a permanent diagnosis of PMDD.

Conclusion: Approximately two-thirds of those with a provisional diagnosis of PMDD met the criteria for a permanent diagnosis, indicating that prospective evaluation is necessary for those with a provisional diagnosis of PMDD. It has been shown that those with higher PMDD severity have more intense psychological pain severity and more severe anxiety sensitivity.

Keywords: Clinical variables, premenstrual dysphoric disorder, premenstrual syndrome, prospective

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Received: July 17, 2024
Revision Requested: September 3, 2024
Last Revision Received: September 8, 2024
Accepted: November 25, 2024
Publication Date: December 20, 2024

INTRODUCTION

Premenstrual syndrome (PMS) or premenstrual dysphoric disorder (PMDD) is one of the most common psychiatric clinical conditions in women of reproductive age. Symptoms of PMS and PMDD are associated with impaired functioning, impairment in personal relationships and activities, and disability as a result of the chronic occurrence of symptoms throughout the menstrual cycle.¹ The pathophysiology of menstruation-related symptoms is complex and no specific treatment that is effective

Cite this article as: Saygılı D, Tamam L, Demirkol ME, Yeşiloğlu C. Diagnostic persistence and clinical variables of premenstrual dysphoric disorder. *Neuropsychiatr Invest.* 2024;62(4):128-134.



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for all women with PMS or PMDD has yet been identified.² Hormonal changes during the late luteal phase are known to influence the occurrence of both emotional and physical symptoms.¹ However, although all women experience hormonal changes, the fact that some of them experience symptoms that affect their functioning is not clearly explained. Social, economic, biological, and cultural factors are effective in the emergence of PMDD.³

PMDD is the most severe form of PMS, characterized by emotional and behavioral symptoms that are not predominantly due to another psychiatric disorder.⁴ As the severity of PMS, along with other painful or emotional states, is largely subjectively defined, the assessment is heavily influenced by the individual's perception, personality, tolerance, and individual measurement of what is "severe."^{5,6} For a reliable diagnosis of PMDD, the cyclicity of symptoms needs to be confirmed by prospective daily documentation of symptoms for at least 2 menstrual cycles, taking into account interpersonal variability in symptoms between menstrual cycles.⁷

Although the exact prevalence of PMS and PMDD is unknown, it is observed that up to 80% of women experience some physical and emotional changes before the onset of menstruation, 20%-40% experience physical and emotional changes just before menstruation, and 2.5%-5% have impaired functioning.⁸ It is reported that more than 40 million women worldwide have PMS symptoms.⁹ Numerous physical, psychological, emotional, behavioral, and social symptoms other than DSM-5 diagnostic criteria have been shown to be associated with PMS.⁹ Symptoms significantly affect daily life in 20% of women and appear as mild premenstrual symptoms in 80%.¹⁰ Recent prevalence studies report that 80%-95% of women experience physiologic premenstrual symptoms, 30%-40% have PMS and 3%-8% have PMDD.¹¹ In studies conducted in our country, the prevalence of PMS in women aged 15-49 years was reported between 6% and 76% and Alpaslan et al reported that the prevalence of PMS in Türkiye was 66.6%.^{12,13}

Prevalence studies have found that PMS is usually highest in the late 20s and early 30s.¹⁴ There are conflicting results in studies on married, single, separated or widowed women. These studies show that marital status has no clear effect on the frequency and severity of PMS.¹⁵ Women with PMDD have been reported to have more lifetime comorbidities, higher hospitalization in psychiatric clinics and a higher likelihood of suicide in the premenstrual period. It has been reported that 12%-25% of those diagnosed with PMDD have major depression, 25% have panic disorder, 19%-23% have social phobia, 11%-23% have obsessive-compulsive disorder, and 19%-23% have generalized anxiety disorder.¹⁶

Although PMDD has been associated with many risk factors and clinical variables in the literature, the data obtained are generally limited to studies on "transient diagnosis." The study aimed to examine the relationship of clinical variables, sociodemographic variables, psychiatric comorbidities, anxiety sensitivity, and psychological pain with both transient and permanent PMDD (P-PMDD) in patients with PMDD. Our hypothesis is that PMDD is associated with menstrual variables, psychiatric comorbidities, psychological pain, suicide and anxiety sensitivity.

MATERIAL AND METHODS

Data Collection

Our study included 238 women aged 18-49 years. All participants were examined by a specialist in psychiatry during each visit. With

their consent, medical records and documents were reviewed during the examination. After conducting a psychiatric evaluation and reviewing the medical records, the presence of any psychiatric or physical disorders in the cases was determined. In this longitudinal study, patients who met the DSM-5 diagnostic criteria for PMDD were regularly monitored, and the continuity of their symptoms was assessed. Throughout the study, the pattern of emotional and physical symptoms related to the menstrual cycle was recorded. It was observed that in patients diagnosed with PMDD, symptoms intensified during the luteal phase of the menstrual cycle and diminished with the onset of menstruation. These patients were found to experience emotional lability, irritability, depressed mood, and anxiety, all of which negatively impacted their quality of life. During the follow-up, distinguishing features between premenstrual dysphoria and PMDD were carefully tracked. Cases presenting with milder symptoms were monitored as premenstrual dysphoria, while those with severe symptoms leading to functional impairment were followed with a preliminary diagnosis of PMDD. The regular cyclical pattern of symptom presentation also provided supportive evidence for differentiating between PMDD and premenstrual dysphoria. No statistically significant differences were found between the patient group and the control group in terms of age, marital status, education level, or income level. This finding eliminated the risk of sociodemographic variables acting as confounding factors when comparing PMDD patients with healthy controls. Written informed consent was obtained from all participants. Exclusion criteria included having mental retardation, having amenorrhea due to additional medical illness, having a diagnosis of dementia and delirium, being under 18 and over 49 years of age, and being illiterate. 15 women were excluded from the study because they were in menopause, 13 women were menstruating due to hysterectomy, 9 women filled out the scales incompletely, 32 women stated that they could not fill out the individual calendar, and 5 women answered the questions randomly. Participants who were illiterate were excluded from the study due to the inability to complete the self-report scales used in the study design. The study continued with 95 women diagnosed with T-PMDD according to DSM-5 and 64 control group women without a diagnosis of PMDD.

Sociodemographic data form, anxiety sensitivity index-3 (ASI-3), psychache scale (PS), premenstrual syndrome scale (PMSS) were administered to all participants by a psychiatrist. The diagnosis of T-PMDD was confirmed with DSM-5 diagnostic criteria and a diagnostic psychiatric examination was performed to identify comorbid psychiatric diagnoses for PMDD. Women who met the DSM-5 diagnostic criteria for PMDD were diagnosed with "transient PMDD" and were placed on clinical follow-up. For each participant, an individual calendar was prepared by evaluating the date of the last menstrual period and the average length of the menstrual cycle, and they were asked to rate the symptoms in the DSM-5 diagnostic criteria on a day-by-day basis from 1 to 4 for 3 consecutive cycles and to make an individual symptom rating. These calendars were analyzed and the diagnosis of "persistent PMDD" was determined by the presence of symptoms in the luteal phase in at least 2 consecutive cycles and the absence/absence of symptoms in the follicular phase.

Power analysis of the study was performed with G Power 3.1 program. With a medium effect size (Cohen's $d=0.50$), a power of 0.95 and a margin of error of 0.05 ($P=.05$), the minimum sample size required in a single group was calculated as 64 and a total of 128 participants for the 2 groups. Sufficient power was reached by including 159 participants in the study.

Study Design

The study was conducted at Çukurova University Faculty of Medicine Hospital, Department of Mental Health and Diseases, between August 2021 and April 2022. Among all female patients presenting to the hospital, those exhibiting symptoms of PMS and meeting the preliminary diagnostic criteria for PMDD were included. After the purpose and methodology of the study were explained to the participants, their contact information was collected, and they were invited for follow-up examinations to confirm the diagnosis. The ethical approval for our study was granted by the Non-Interventional Clinical Research Ethics Committee of Çukurova University Faculty of Medicine (Approval no: 110, Date: April 2, 2021).

Data Collection Tools

Sociodemographic Data Form: Information on age, years of education, marital status, employment status, family of residence, income level, place of residence, presence of mental illness in the family, duration of marriage, history of medical illness, coffee/tea use, smoking, alcohol and substance use, history of dysmenorrhea, age at menarche, duration of menstruation, and menstrual cycle was obtained using the sociodemographic data form.

Premenstrual Syndrome Scale: The PMSQ is a 5-point Likert-type scale consisting of 44 questions developed by Gencdogan et al¹⁷ and aims to measure the severity of premenstrual symptoms based on DSM III and DSM IV-R diagnostic criteria. Depressed affect (items 1-7) (7-35 points), anxiety (items 8-11, 13, 15, and 16) (7-35 points), fatigue (items 12, 14, 17, 18, 25, and 37) (6-30 points), irritability (items 19-23) (5-25 points), depressive thoughts (items 24, 26-30, and 44) (7-35 points), pain (items 31-33) (3-15 points), appetite (items 34-36) (3-15 points), sleep (items 38-40) (3-15 points), (26-30 and 44th items) (7-35 points), pain (31-33rd items) (3-15 points), appetite (34-36th items) (3-15 points), sleep (38-40th items) (3-15 points), and bloating (41-43rd items) (3-15 points). The minimum score is 44 and the maximum score is 220.¹⁸ High scores indicate that symptoms are intense. A score of 132 and above is considered as having PMS and below 132 as not having PMS. The Cronbach's alpha (α) coefficient of the original scale was found to be 75.¹⁷

Psychache Scale: The PAQ is a self-report scale developed by Holden et al. It is a 5-point Likert-type scale consisting of 13 questions that are answered as "1—Strongly Disagree, 2—Disagree, 3—Undecided, 4—Agree, 5—Strongly Agree."¹⁹ In the original scale, Cronbach's α value was found to be 0.92. The Turkish validity and reliability of the scale was conducted by Demirkol et al and Cronbach's α value was found to be 0.98.²⁰

Anxiety Sensitivity Index-3: The Turkish validity and reliability of the ASI developed by Reiss et al was performed by Ayvaşık et al under the name of ASI.^{21,22} The sub-dimensions of anxiety sensitivity were determined after the 3-factor structure of the scale was reported to be more reliable. The ADI-3 is a self-report scale developed by Taylor et al in order to evaluate anxiety sensitivity more effectively in a multidimensional manner and consists of 3 sub-dimensions: physical (ADI-F), cognitive (ADI-B), social (ADI-S), and 18 items.²³ Anxiety arising from physical complaints is evaluated as physical sensitivity; anxiety arising from thinking and attention is evaluated as cognitive sensitivity; and anxiety in social environments is evaluated as social sensitivity. The scale is a 5-point Likert scale, with a score of 0 meaning "very little" and a score of 4 meaning "very much." The Cronbach's α value of the scale is 0.93. The Cronbach's α value for the sub-dimensions was 0.89 for the physical dimension, 0.88 for the cognitive dimension and 0.82 for the social dimension. The lowest

score that can be obtained from the scale in total is 0 and the highest score is 72. The Turkish validity and reliability of the scale was conducted by Mantar and no cut-off score was determined. As the total score increases, anxiety sensitivity also increases.²⁴

Statistical Analysis

The Statistical Package for Social Sciences version 25.0 software (IBM Corp.; Armonk, NY, USA) was used as the program for data analysis. When the data were examined, it was observed that there were no values left blank by the participants, it was examined whether there were any out-of-range values, and if there were any incorrectly coded values, they were corrected. The assumption of normality was accepted when the Skewness and kurtosis values of the variables were between -1.5 and $+1.5$. Histogram graphs were also analyzed. The independent samples t -test was used to examine whether the variables showing normal distribution differed according to the groups in terms of their averages, and the means and SDs were written according to the groups with mean \pm SD notation. The Mann-Whitney U test was used to examine whether the variables that did not show normal distribution differed according to the groups in terms of their medians. Median and quartiles were used as notation and shown as median (first quartile-third quartile). Fisher's exact was used if the expected number of observations was less than 5, Yate's statistic was used if the expected number of observations was between 5 and 25, and chi-square test was used in other cases.

RESULTS

Sociodemographic data of the patients diagnosed with T-PMDD and the control group are shown in Table 1. There is no statistically significant difference between the groups.

Table 1. Sociodemographic Variables in Groups With and Without T-PMDD

Variables	T-PMDD		
	No M(Q1-Q3)/ Frequency (%)	Yes M(Q1-Q3)/ Frequency (%)	
Age	29.69 \pm 8.48	30.39 \pm 9.68	$t = -0.47$ $P = .64$
Education	12.53 \pm 3.85	11.73 \pm 4.30	$t = 1.21$ $P = .23$
Occupational status			$\chi^2 = 0.61$ $P = .44^a$
Unemployed	41 (64.1)	55 (57.9)	
Employee	23 (35.9)	40 (42.1)	
Income			$\chi^2 = 0.34$ $P = .56^b$
Less than the monthly minimum wage	26 (40.6)	33 (34.7)	
More than the monthly minimum wage	38 (59.4)	62 (65.3)	
Marital status			$\chi^2 = 0.13$ $P = .72^a$
Single	36 (57.1)	51 (54.3)	
Married	27 (42.9)	43 (45.7)	

Independent samples t -test was used to compare age and education level between the groups. PMDD, premenstrual dysphoric disorder; M (1Q-3Q), median and quartile values; T, transient. ^aChi-square. ^bYate's statistic.

Table 2. Percentages of Those Diagnosed With P-PMDD Converting to Permanent Diagnosis

P-PMDD	Number	Percentage (%)
No	33	34.7
Yes	62	65.3

Table 2 shows individuals diagnosed with T-PMDD (n = 95) were evaluated for 3 consecutive cycles. After scoring the individual calendars, 65.3% (n = 62) of the participants were also diagnosed with P-PMDD according to DSM-5. It was determined that 62 (65.3%) of 95 patients with a provisional diagnosis of PMDD were converted to a permanent diagnosis of PMDD.

Table 3 shows the frequency of psychiatric comorbidity in patients with T-PMDD, P-PMDD, and in the control group. There was no significant difference in the frequency of psychiatric comorbidity in those with a diagnosis of CMDD compared to those without a diagnosis of CMDD. Psychiatric comorbidity was statistically significantly higher in patients with T-PMDD.

In Table 4, the menstruation characteristics of those diagnosed with P-PMDD, T-PMDD, and the control group are presented. Age at menarche, menstrual duration, and menstrual pattern variables were not statistically significantly different between the 2 groups. Dysmenorrhea was significantly more frequent in patients with T-PMDD compared to the control group.

Table 5 shows the participants' PAQ, ADI-3 total score, and sub-dimensions scores. The ADI-3 total score and the scores of all sub-dimensions were found to be statistically significantly higher in those diagnosed with T-PMDD compared to the control group.

DISCUSSION

Premenstrual dysphoric disorder is a common gynecological and psychological disorder that has negative effects on women's work

life, academic performance, and psychosocial status. The clinical features, prevalence, and severity of PMS and PMDD are often determined by analyzing retrospective records.^{7,25} Evaluation of past records is effective in determining a preliminary diagnosis and in field studies, but memory bias decreases the accuracy of the data when retrospective symptom questioning is performed without recording from the first day of menstruation.^{5,21} To the best of our knowledge, our study is the first to evaluate the conversion of a provisional diagnosis of PMDD to a permanent diagnosis of PMDD. In our study, cases with a provisional diagnosis of PMDD were followed up with a symptom diary, and it was determined that 65.3% met the diagnosis of permanent PMDD.

Premenstrual dysphoric disorder is frequently comorbid with psychiatric disorders, especially depressive disorders and anxiety disorders.^{16,22,26} Veeninga et al reported that anxiety and depression were more severe in those with PMDD than those without.²⁷ When PMDD and depression are observed together, the severity of both diseases increases, and the prognosis is adversely affected.²⁴ It has been reported that tolerance to psychological and physical symptoms of PMS may be lower in patients with depression, PMS may increase the severity of existing depression, women with PMS may have increased sensitivity to hormonal changes, and depression may occur with hormonal changes seen during the menstrual cycle.²⁴ Our results showed that depression was diagnosed more frequently in women with a provisional diagnosis of PMDD than in those without. Comorbid psychiatric disorders were not found to be significantly associated with a permanent PMDD diagnosis. The lack of variability of depressive symptoms throughout the cycle or the absence of a symptom-free interim period may lead to these results.²⁷

The relationship between sociodemographic variables and PMS and PMDD is contradictory in the literature. Tschudin et al²⁷ reported a higher prevalence of PMDD in women of advanced reproductive age, those with a lower education level, and those who were not working. Güneş et al²⁸ found that the frequency of PMS was higher in working women than in housewives. Demir et al²⁹ reported a higher

Table 3. Presence of Psychiatric Comorbidity in Those With and Without a Permanent Diagnosis of PMDD

Variables	PMDD Permanent Diagnosis		Statistic	T-PMDD		Statistic
	No Frequency (%)	Yes Frequency (%)		No Frequency (%)	Yes Frequency (%)	
Psychiatric disorder			$\chi^2 = 2.33$ $P = .13^b$			$\chi^2 = 0.36$ $P = .55^b$
No	28 (28.9)	26 (41.9)		24 (37.5)	30 (31.6)	
Yes	69 (71.1)	36 (58.1)		40 (62.5)	65 (68.4)	
Diagnosis of psychiatric disorder			$P = .41^c$			$P = .02^c$
Depression	14 (21.9)	9 (25.7)		4 (11.1)	19 (30.2)	
Anxiety	32 (50)	21 (60)		20 (55.6)	33 (52.4)	
OCD	4 (6.3)	3 (8.6)		1 (2.8)	6 (9.5)	
Psychosis	5 (7.8)	0		4 (11.1)	1 (1.6)	
Bipolar disorder	4 (6.3)	1 (2.9)		4 (11.1)	1 (1.6)	
Conversion	4 (6.3)	0		2 (5.6)	2 (3.2)	
Attention deficit and hiperactivity disorder	1 (1.6)	1 (2.9)		1 (2.8)	1 (1.6)	

OCD, obsessive compulsive disorder; PMDD, premenstrual dysphoric disorder; T, transient.

^aChi-square.

^bYate's statistic.

^cFisher's exact test.

Table 4. Menstruation Characteristics of P-PMDD, T-PMDD, and Control Group

Menstruation Features	T-PMDD		Statistic	P-PMDD		Statistic
	No (Mean ± SD)/M(Q1-Q3)/Frequency (%)	Yes (Mean ± SD)/M(Q1-Q3)/Frequency (%)		No (Mean ± SD)/M(Q1-Q3)/Frequency (%)	Yes (Mean ± SD)/M(Q1-Q3)/Frequency (%)	
Menarche age	13 (12-14)	13 (12-14)	$U=3007.5$ $Z=-0.12$ $P=.91$	12.81 ± 1.39	12.82 ± 1.30	$t=-0.04$ $P=.97$
Menstrual duration	6 (5-7)	6 (5-7)	$U=2689$ $Z=-1.26$ $P=.21$	6 (5-7)	6 (5-7)	$U=2987$ $Z=-0.07$ $P=.94$
History of dysmenorrhea			$\chi^2=4.61$ $P=.03^a$			$\chi^2=0.65$ $P=.42^a$
No	36 (56.3) ^a	37 (38.9) ^b		47 (48.5)	26 (41.9)	
There is	28 (43.8) ^a	58 (61.1) ^b		50 (51.5)	36 (58.1)	
Menstruation pattern			$\chi^2=0.17$ $P=.68b$			$\chi^2=0.19$ $P=.67^b$
Irregular	21 (32.8)	27 (28.4)		31 (32)	17 (27.4)	
Regular	43 (67.2)	68 (71.6)		66 (68)	45 (72.6)	

Mann-Whitney *U* test was used to compare age at menarche and menstrual duration, and *t*-test was used for the comparison of mean menarche age. M (1Q-3Q), median and quartile values; P, permanent; PMDD, premenstrual dysphoric disorder; T, transient.

^aChi-square.

^bYate's statistic.

prevalence of PMS in health workers than in non-health workers. On the contrary, many studies reported that there was no significant relationship between the frequency and severity of PMDD and educational level, occupational groups, economic status, and employment status.²⁹⁻³¹ Similarly, in our study, no significant relationship was shown between the frequency and severity of PMDD and educational and working status, economic status, age, and occupational groups.³⁰

It has been shown that 73.5% of women have different levels of pain during the menstrual cycle.³² Premenstrual symptoms accompany dysmenorrhea in many women, and the symptoms are replaced by dysmenorrhea with the onset of menstruation.³³ Tomruk³⁴ reported that dysmenorrhea and PMS exacerbate each other's symptoms. In our study, a history of dysmenorrhea was found more frequently in

individuals diagnosed with G-PMDD. No significant correlation was shown between dysmenorrhea and whether the diagnosis of PMDD was permanent or not. Poyrazoğlu et al³² reported that the mean age at menarche was 13.3 years and the mean duration of menstruation was 5.7 days in patients with PMDD. Önal,²⁹ Erbil et al,³⁵ and Çelik³⁶ showed that there was no relationship between menarche age and PMS. Deuster et al³¹ reported that PMS symptoms were more common in women who started menstruation at or before 12 years of age. In a study conducted in Poland, no significant relationship was shown between PMDD and menstrual duration.³⁶ Deuster and Potter reported that PMDD was more common in women with a menstrual period longer than 6 days.^{31,37} Drosdozol et al reported that sociodemographic characteristics were not risk factors for PMS and PMDD when stress factors and urban age were excluded. In our study, the mean age at menarche (13 years) and menstrual duration (6 days) of women were found to be compatible with the literature, and no significant association of sociodemographic variables with PMSD was found, similar to the study of Drosdozol et al. Similarly, Pinar et al³⁸ reported that PMDD severity of students with regular menstruation was higher than that of students with irregular menstruation. In the literature, there are studies reporting that there is no significant relationship between menstrual pattern and PMDD severity.^{39,40} Our results do not show a significant relationship between menstrual pattern and PMDD, similar to previous studies reported that suicidal thoughts may be observed more frequently in patients with PMDD than in the general population.⁴¹ In a prospective study in which 10 women with PMDD were evaluated, it was reported that 4 patients had suicidal ideation in the late luteal phase.⁴² One of the most important factors for suicidal behaviour is psychological pain⁴³. In our study, it was shown that psychological pain was more severe in women with permanent PMDD or transient PMDD compared to those without PMDD. Our results suggest that the risk of suicide may be higher in women with PMDD.

It is known that women with high anxiety sensitivity experience more intense symptoms during menstruation.⁴⁴ Nillni et al⁴⁵ reported

Table 5. Comparison of Mean Scale Scores in Patients With T-PMDD and Control Group

	T-PMDD		Statistic
	No (Mean ± SD)	Yes (Mean ± SD)	
PS	26.78 ± 10.87	36.17 ± 12.16	$t=-4.98$ $P<.001$
ASI-T	22.13 ± 11.97	33.34 ± 16.85	$t=-4.82$ $P<.001$
ASI-P	7.02 ± 4.70	11.78 ± 6.75	$t=-5.14$ $P<.001$
ASI-C	9.17 ± 5.21	12.47 ± 6.75	$t=-3.40$ $P=.001$
ASI-S	6.10 ± 4.43	8.84 ± 5.30	$t=-3.37$ $P=.001$

Fisher's exact test was used.

t-test was used to compare the scale scores between the groups.

ASI-C, Anxiety Sensitivity Index Cognitive Sensitivity score; ASI-P, Anxiety Sensitivity Index Physical Sensitivity score; ASI-S, Anxiety Sensitivity Index Social Sensitivity score; ASI-T, Anxiety Sensitivity Index Total score; PMDD, premenstrual dysphoric disorder; PS, psychache scale.

that women with severe premenstrual symptoms had high anxiety sensitivity. Sigmon et al⁴⁶ showed that women who experienced PMS symptoms intensely had high anxiety sensitivity. In our study, the total score of anxiety sensitivity and the scores of all subscales (physical, cognitive, and social) of the group with a diagnosis of G-PMDD were higher than the group without a diagnosis of PMDD. In addition, the mean anxiety sensitivity scores of individuals with a permanent diagnosis of PMDD were higher than those of individuals with a temporary diagnosis of PMDD and no permanent diagnosis. This may be explained by the fact that women with high anxiety sensitivity focus on and report bodily sensations more than normal.⁴⁷

The study has some limitations. The inclusion of patients with psychiatric comorbidities or using psychiatric medication and the lack of separate evaluation according to comorbidities may be a confounding factor on the results. Especially in selective serotonin reuptake inhibitor (SSRI) users, suppression of symptoms and false negative diagnosis may occur. In patients with a diagnosis of depressive disorder or anxiety disorder, it is difficult to distinguish whether the symptoms are caused by PMDD or psychiatric comorbidity. The fact that most of the scales used are based on self-report and include special questions may cause patients to give false information.

In this study, although no significant relationship was found between most of the sociodemographic variables and PMDD, clinical findings such as anxiety sensitivity and increased psychological pain were determined to be strongly associated with PMDD. On the other hand, approximately two-thirds of the patients with a preliminary diagnosis of PMDD met the permanent diagnostic criteria. This situation emphasizes the importance of monitoring premenstrual symptoms. These findings reveal that psychological factors such as anxiety sensitivity and psychological pain should be given importance in the PMDD diagnosis and treatment process.

Due to the limitations of our findings, such as being based on self-report scales and excluding those with additional psychiatric diseases, it is necessary to investigate the psychological and biological factors that play a role in the development of PMDD. It is recommended that a larger and more diverse sample be used in future studies and that objective measures be added to verify the symptoms.

Availability of Data and Materials: The data that support the findings of this study are available on request from the corresponding author.

Ethics Committee Approval: Ethics committee approval was received for this study from the Non-Interventional Clinical Research Ethics Committee of Çukurova University Faculty of Medicine (Approval no: 110, Date: April 2, 2021).

Informed Consent: Written informed consent was obtained from individuals who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – D.S., M.E.D.; Design – L.T.; Supervision – L.T.; Resources – D.S.; Materials – C.Y.; Data Collection and/or Processing – D.S.; Analysis and/or Interpretation – M.E.D., L.T.; Literature Search – C.Y.; Writing Manuscript – D.S., C.Y.; Critical Review – M.E.D.

Declaration of Interests: The authors have no conflict of interest to declare.

Funding: The authors declared that this study has received no financial support.

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