Premenstrual Dysphoric Disorder – A Neglected Diagnosis? Preliminary Study on a Sample of Croatian Students

Martina Rojnić Kuzman and Ljubomir Hotujac

Department of Psychiatry, University Hospital Center Zagreb, Zagreb, Croatia

ABSTRACT

The aims of this study were to assess prevalence and symptom profile of premenstrual dysphoric disorder (PMDD) in a sample of Croatian students and young university graduates. We obtained data for 87 healthy women, aged 18–30, at their regular gynecologic outpatient visits over the period of 2003 to 2004. The severity of premenstrual symptoms were assessed daily, during two cycles, with the Daily Record of Severity of Problems (DRSP) and criteria for PMDD according to DSM-IV were applied. Fifteen out of 87 women fulfilled PMDD criteria and reported statistically significantly higher prevalence of co morbid disorders in their medical history compared to non-PMDD group. The most common symptoms in the PMDD group were psychological, while in non-PMDD group were vegetative. Overall, relatively high prevalence of PMDD in studied group indicates the need to continue the study.

Key words: Croatia, psychiatry, women's health, premenstrual syndrome, mood disorders, prevalence

Introduction

Premenstrual syndrome (PMS) includes a broad group of emotional and physical symptoms that occur in luteal phase of the menstrual cycle for ten to 14 days before menses and subside following the menstrual period. Approximately 50–80% of women will experience at least a few premenstrual symptoms that may vary from mild to severe[1,2]. However, a smaller proportion of women in general population have very severe premenstrual symptoms which cause distress, social and occupational impairments and may need treatment[3]. When premenstrual symptoms are severe enough to cause marked disruptions in women's everyday life, the syndrome is known as premenstrual dysphoric disorder (PMDD). In contrast to PMS which is characterized mostly by somatic complaints, PMDD is rather characterized by mental symptoms and is included in the Diagnostic and Statistic Manual of Mental Disorders (DSM-IV) as a variant of mood disorders[4]. Also, the antidepressant medications from the group of selective serotonin reuptake inhibitors (Saris), which are the first line of treatment for PMDD, appear to reduce most premenstrual complaints, but seem to be more effective for mental symptoms than for somatic complaints[5].

Results from epidemiological studies pointed out that prevalence of premenstrual dysphoric disorder or severe premenstrual symptoms is rather consistent in different population groups[1,6], although may vary from 3% to 30% depending upon studied age groups, usually with increasing prevalence amongst aging cohorts[7,8]. Also, the results depend upon the diagnostic criteria and methodology applied[4,7], and in some studies the number of symptoms may not meet the arbitrary number of 5 symptoms on the PMDD list. When more rigorous criteria are applied, as according to the DSM-IV, the prevalence of women who meet criteria for PMDD is 3–8%[3].

According to numerous epidemiological studies, a significant proportion of women who suffer from PMDD also suffer from other co morbid disorders, especially from depressive and anxiety spectrum[9,10]. Certain lifestyles and exposure to greater stress or stressful life events can also influence the severity of PMDD symptoms[11]. Also, several studies reported opposite results concerning the relationship between education and employment, and the prevalence of PMDD[1,2,11].

In clinical settings, diagnosis of PMDD is usually made based on an interview, with symptom rating scales made on monthly, weekly or daily basis. However, monthly or weekly scales, along with retrospective scales usually provide insufficient and perhaps unreliable data reflecting just an average experience, without showing the relationship between the symptoms and the menstrual cycle[12]. Therefore, daily patient reports on the symptoms during two to three cycles remain the most useful diagnostic tool, and provide comparable and replicable data, suitable for research purposes[13].

Despite the prevalence of the disorder and the availability of its treatment, PMDD still remains unrecognized by many lay people and health care professionals and therefore is rarely diagnosed and adequately treated in our community. As to our knowledge, this is the first study of PMDD performed in Croatia. Our hypothesis is that a significant proportion of women in our community suffers from PMDD. We believe they might be unaware of the treatment options, despite their educational level.

Therefore, we conducted a preliminary study, with the aims to asses the possible prevalence of PMDD among students and young university graduates and identify some potential factors that could have some influence on the prevalence itself. Also, we inquired participant's attitude toward potential treatment options.

Materials and Methods

We recruited 200 healthy women, aged 18–30, students and university graduates, at their regular gynecologic outpatient visits during the period from 2003 to 2004. The women were offered to participate in our study, and were explained the purpose and aims of the study, as well as what was expected from their participation. All participants gave the informed consent. Women with serious somatic diseases including anemia, endometriosis, chronic pain syndrome, diabetes, per menopause, thyroid disorders and malignant illness were not included in the study.

TABLE 1
SOCIODEMOGRAPHIC DATA, EVALUATION OF CURRENT LIFE SITUATION AND STRESS LEVEL OF »RESPONDERS«,
»NON-RESPONDERS«, AND TOTAL SAMPLE

		Responders		Non-responders		Total	
		n	%	n	%	n	%
Marital status	Single	78	87%	99	90%	180	90%
	Married	12	13%	11	10%	20	10%
	Total	90	100%	110	100%	200	100%
Number of children	None	84	93%	103	94%	178	94%
	1 and more	6	7%	7	6%	12	6%
	Total	90	100%	110	100%	200	100%
Education	Students	71	79%	85	77%	154	77%
	University graduates	19	21%	25	23%	46	23%
Total		90	100%	110	100%	200	100%
Marital problems	Not married	78	87%	99	90%	180	90%
	Without	4	4%	3	3%	6	3%
	Average	8	9%	8	7%	14	7%
	More then average	0	0%	0	0%	0	0%
	Total	90	100%	110	100%	200	100%
Financial problems	Without	25	28%	16	15%	36	18%
	Average	59	66%	88	80%	154	77%
	More then average	6	7%	6	5%	10	5%
Total		90	100%	110	100%	200	100%
Problems at work/school	Without	5	6%	7	6%	12	6%
	Average	75	83%	90	82%	164	82%
	More then average	10	11%	13	12%	24	12%
Total		90	100%	110	100%	200	100%
Participant feels under stress	No	47	52%	51	46%	84	47%
	Yes	43	48%	59	54%	106	53%
Total		90	100%	110	100%	200	100%

Responders vs. Non-responders were analysed with χ^2, all p=n.s.

The study was performed in two steps. First, all participants filled in a questionnaire which included general data (age, marital status, number of children, education), evaluation of current life situation and stress level, psychiatric anamnesis, gynecologic anamnesis (duration of menstrual cycle, duration of menstrual bleeding, premenstrual pain, use of non steroidal anti-inflammatory drugs (NSAID), use of contraceptive pills, complaints about premenstrual symptoms) and family anamnesis (psychiatric illnesses, PMS). Also, all participants were asked about their attitude towards first line medications for PMDD, the antidepressants. After they filled in the first questionnaire, they were asked to assess the severity of their premenstrual symptoms daily during two cycles, with the Daily Record of Severity of Problems (DRSP). Severity of symptoms was ranged from 1 to 6 (1 – not at all, 2 – minimal, 3 – mild, 4 – moderate, 5 – severe, 6 – extreme). DRSP includes 11 symptoms: four »major« symptoms (depressed mood, anxiety/tension, mood swings, anger/irritability) and seven »minor« (decreased interest in usual activities, subjective poor concentration, lethargy/lack of energy, change in appetite/ overeating, insomnia/sleeping too much, feeling overwhelmed or out of control, physical symptoms).

Diagnostic criteria according to DSM-IV were applied. To be able to diagnose PMDD according to the DSM-IV, at least 5 of the 11 symptoms (one of which must be »major«) at a severe level (4 or more) during premenstrual period and low level (3 or less) during postmenstrual period must be met. At least one of the problems noted above causes severe impairment (4 of more) at work, avoidance or less participation in hobbies or social activities and impaired relationships with others. Also, differentiation from other disorders and confirmation by a least two cycles of prospective daily symptom ratings is required (4). Statistical differences were tested by chi-square test (χ^2 test) and ANOVA, p=0.05 or less was considered statistically significant.

Results

In total, we collected all data from 87 participants. Both questionnaires were completed by 90 out of 200 participants, but 3 of them were not valid for complete statistical analysis because of the uncompleted data in the DRSP. Because of a large drop out, we compared the group of participants who filled in and returned both

TABLE 2
CHARACTERISTICS OF THE GYNECOLOGIC, PSYCHIATRIC AND FAMILY ANAMNESIS OF »RESPONDERS«, »NON-RESPONDERS«, AND TOTAL SAMPLE

		Responders		Non-responders		Total	
		n	%	n	%	n	%
Menstrual pain	No	34	38%	46	42%	82	41%
	Yes	56	62%	64	58%	108	59%
Total		90	100%	110	100%	200	100%
Participant complain of premenstrual symptoms	No	36	40%	54	40%	80	40%
	Yes	54	60%	66	60%	120	60%
Total		90	100%	110	100%	200	100%
Uses oral contraceptives	No	65	72%	70	73%	146	73%
	Yes	25	28%	30	27%	54	27%
Total		90	100%	110	100%	200	100%
Uses non steroidal anti-inflammatory drugs	No	55	61%	134	67%	132	66%
	Yes	45	49%	36	33%	68	34%
Total		90	100%	110	100%	200	100%
PMS in family	No	44	49%	66	51%	100	50%
	Yes	46	51%	54	49%	100	50%
Total		90	100%	110	100%	200	100%
Psychiatric disorders in family	No	80	89%	95	86%	174	87%
	Yes	10	11%	15	14%	26	13%
Total		90	100%	110	100%	200	100%
Co morbid psychiatric disorder	No	88	98%	107	97%	194	97%
	Yes	2	2%	3	3%	6	3%
Total		90	100%	110	100%	200	100%

Responders vs. Non-responders were analysed with χ^2, all p=n.s.

questionnaires (we will refer to this group as »responders«) with the group of participants who filled in only the first questionnaire, and didn't fulfill DRSP (»non-responders«). We found no statistically significant differences in each item analyzed (general data, evaluation of current life situation and stress level, gynecologic, psychiatric and family anamnesis) (Table 1 and 2).

Subsequently, we analyzed the group of »responders«. Each participant reported at least one premenstrual symptom. Fifteen out of 87 women fulfilled PMDD criteria (PMDD group). Women who didn't fulfill PMDD criteria or fulfilled PMDD criteria only in one menstrual cycle were included in the non-PMDD group. Major complaints of subjects with premenstrual dysphoric disorder included depressive mood, physical symptoms, anxiety/tension, mood swings and anger or irritability while major complaints of subjects without PMDD included physical symptoms, change in appetite or overeating and lethargy/lack of energy followed by affective symptoms (Table 3a and 3b). Mean values of severity of each of eleven symptoms were significantly higher in the PMDD group when compared to non-PMDD group (data not shown).

We found no statistical difference comparing general data between the PMDD and the non PMDD groups: age (M_{PMDD} 25.47, SD 4,207 vs. $M_{Non-PMDD}$ 24.08, SD 3,183, p=0.152), marital status, number of children, years of education and evaluation of current life situation and stress level (data not shown). No statistical difference between groups was found when comparing the length of menstrual cycle (M_{PMDD} 27.95 ± SD 2,12 vs. $M_{Non-PMDD}$ 30.54 ± SD 7,23, p=0.863), the length of menstrual bleeding (M_{PMDD} 5.07 ± SD 1,03 vs. $M_{Non-PMDD}$ 5.14 ± SD 0,98, p=1.000), the frequency of menstrual pain, use of NSAID and oral contraceptives or positive family anamnesis of PMS. Interestingly, there were no statistically significant differences between groups concerning frequency of premenstrual complaints reported in the first questionnaire, as in both groups about two thirds of women noticed the occurrence of their premenstrual symptoms. The PMDD group reported more often co morbid disorders (depressive and anxiety spectrum disorders) in their medical history compared to non-PMDD group (p=0.028, Table 4).

Analyzing attitude toward treatment, we found that about 80% of all participants would accept treatment with psychiatric medications if they suffered from severe premenstrual syndrome and about 20% of participants would refuse the medical treatment. About 10% would refuse treatment because of fear of side effects (including fear of becoming addicted to drugs), about 50% stated preference for alternative treatment options (defined as »natural« medication, »alternative« medication, herbal drugs) and about 40% would refuse of all available medications for premenstrual symptoms. Furthermore, we found no statistically significant difference between the PMDD group and the non-PMDD group in percentage of women who had positive attitude toward antidepressant treatment, nor did we found it in analyzing reasons for negative attitude with χ^2 test.

TABLE 3A

SYMPTOM FREQUENCIES AND PORTIONS FOR SUBJECTS WITH PREMENSTRUAL DYSPHORIC DISORDER (N=15)

Symptom	N	Portion
Depressed mood	15	1
Physical symptoms	15	1
Anxiety, tension	13	0.87
Mood swings	12	0.8
Anger or irritability	12	0.8
Lethargy, lack of energy	11	0.73
Change in appetite, overeating	9	0.61
Insomnia or sleeping too much	9	0.61
Subjective poor concentration	8	0.56
Decreased interest in usual activities	5	0.33
Feeling overwhelmed or out of control	2	0.14

TABLE 3B

SYMPTOM FREQUENCIES AND PORTIONS FOR SUBJECTS WITHOUT PREMENSTRUAL DYSPHORIC DISORDER (N=72)

Symptom	N	Portion
Physical symptoms	72	1
Change in appetite, overeating	33	0.47
Lethargy, lack of energy	30	0.42
Mood swings	28	0.39
Anxiety, tension	26	0.36
Anger or irritability	25	0.35
Insomnia or sleeping too much	22	0.3
Depressed mood	16	0.22
Decreased interest in usual activities	9	0.12
Feeling overwhelmed or out of control	9	0.12
Subjective poor concentration	8	0.11

Discussion

Study results indicate that prevalence of PMDD is about 17%, which is higher then could be expected according to results of many prevalence studies in other countries[1–3,6]. Considering reports of prevalence with aging cohorts[6,7,14], it is interesting to observe the younger age of our subjects. Also, some authors pointed out the possibility that women with dysphoric premenstrual syndrome are underestimated in epidemiological studies that follow DSM-IV criteria. Thus, they may need treatment although do not meet DSM-IV criteria for PMDD due to a smaller number of symptoms reported[4]. Therefore, considering the restrictive nature of the criteria we used, we could expect even higher prevalence of women who may need treatment when applied less restrictive PMDD criteria as is usually done in clinical settings.

Although participants in our study were students or university graduates and considering the possibility that their higher level of education or specific personality

TABLE 4
CHARACTERISTICS OF THE GYNECOLOGIC, PSYCHIATRIC AND FAMILY ANAMNESIS IN THE PREMENSTRUAL
DYSPHORIC DISORDER (PMDD) AND NON-PMDD GROUP

		PMDD		Non-PMDD		Total		PMDD vs. Non-PMDD		
		N	Portion	N	Portion	N	Portion	χ^2	df	p
Total		15	0.17	72	0.83	87	1.00			
Menstrual pain	No	6	0.33	26	0.36	32	0.37	0.081	1	1.000
	Yes	9	0.66	46	0.64	55	0.63			
Participant complain of premenstrual symptoms	No	5	0.33	29	0.40	34	0.39	0.251	1	0.774
	Yes	10	0.66	43	0.60	53	0.61			
Uses non steroidal anti-inflammatory drugs	No	7	0.47	30	0.43	37	1.00	0.081	2	1.000
	Yes	9	0.53	42	0.57	51	1.00			
Uses oral contraceptives	No	12	0.8	49	0.69	61	0.71	0.725	1	0.537
	Yes	3	0.2	22	0.31	25	0.29			
Premenstrual symptoms in family (mother, sister)	No	6	0.4	35	0.49	41	0.47	0.369	1	0.583
	Yes	9	0.6	37	0.51	46	0.53			
Psychiatric disorders in family	No	13	0.87	64	0.9	77	0.9	0.690	1	1.000
	Yes	2	0.13	7	0.1	9	0.1			
Co morbid psychiatric disorder	No	13	0.87	72	0.98	85	1.00	9.826	1	0.028
	Yes	2	0.13	0	0.2	2	1.00			

traits (i.e. ambitiousness) somehow influence the prevalence of PMDD, reported prevalence is still high comparing to other studies[1,2,14]. However, considering the low response rate of the participants it is possible that high prevalence of PMDD found in group of »responders« (participants who filled out both questionnaire and DRSP) does not truly reflect the prevalence of the whole sample. Although when comparing those two groups in each item we found no statistically significant differences among them, we point out that they could have differed somehow in other non analyzed items, i.e. may be highly motivated or have specific personality traits.

Post-war period in Croatia is characterized with numerous social, economic and cultural consequences that could be expected to increase the prevalence of the disorder[15,16]. Lower socioeconomic status and transitional changes in a postwar society put additional social requirements that could have influenced our results[17,18]. Indeed, about half of participants reported that they felt under stress. Also, high prevalence of traumatic war events and their consequences, such as anxiety, depression and PTSD were shown to influence premenstrual symptoms[19,20]. That is consistent with our finding which clearly show that co morbid psychiatric disorders (anxiety and depressive spectrum disorders) are significantly more common in PMDD group, when compared to the group of participants who didn't fulfill PMDD criteria (13% vs. 0%). These findings are consistent with previous research results[9,10]. However, regardless of co morbid disorders, all women in the PMDD group reported premenstrual depressive mood, followed by other psychological symptoms (anxiety/tension, mood swings and anger

or irritability) while women in non-PMDD group mostly reported vegetative symptoms (physical symptoms, change in appetite or overeating and lethargy/lack of energy), followed by mood swings. Although all women in PMDD group also reported premenstrual physical symptoms, the mean value of severity of physical symptoms was significantly higher in this group, than compared to non-PMDD group. Similarly, previous studies reported that the most common premenstrual symptoms in general population are physic symptoms, swelling or weight gain[18], or mild psychological discomfort[11], while depressive mood is more common in severe PMS[3]. Although many researchers emphasized similarities between PMDD and anxiety disorders, others believe that PMDD is a variant of mood disorders[19,20]. Since we found that depression is far more common in PMDD group, while vegetative symptoms, followed by mood swings (but not depression) are more common in non-PMDD group, we believe that our findings support the DSM-IV's concept of PMDD as a mood disorder.

Our study showed that only about two thirds of women reported the occurrence of their premenstrual symptoms in the first questionnaire, regardless of PMDD diagnosis. However, when they assessed the severity of their premenstrual symptoms daily during two cycles with DRSP, each subject noted at least one premenstrual symptom. Thus, it is possible that one third of all women, either suffering from PMDD or not, don't actually relate their symptoms to the menstrual cycle and thus are unaware of the disorder itself and the need for treatment. Indeed, previous studies showed that women who seek treatment for severe premenstrual symptoms more often

have other co morbid disorders (depression, obsessive compulsive, phobia, personality disorder)[9–11] but also more often visit a doctor[19], compared to women who also suffer from severe premenstrual symptoms but don't seek treatment.

Our study shows that about 80% of participants would accept treatment with psychiatric medication, if they suffered from severe PMS. However, our results indicate that none of the participants relieves their premenstrual symptoms with any psychiatric medication. Since antidepressants are the first line treatment for severe PMS, it appears that many women are left without proper care[5]. One previous study showed that fluoxetine, used for severe premenstrual symptoms is usually proscribed by family medicine specialist (52%), gynecologist (40%) and psychiatrist in only 6% of cases. The same study showed that the most of women use NSAID (50%) or alternative methods (2%)[21]. Our participants also use NSAID (50%) over the counter and oral contraceptives (although proscribed for other reasons) (about 20 %). Furthermore, about half of those who refuse treatment stated their preference for alternative methods, what could indicate a potentially higher percentage of women prone to relieving their symptoms by alternative methods. Lifestyles and self medication provide only partial explanation for the small number of women seeking treatment for premenstrual symptoms from family medicine specialist, gynecologist or psychiatrist. A question arises whether that fact reflects the lack of information about the disorder and its treatment, both among lay men and professionals, especially since we studied population of students and university graduates, which were expected to be the best informed young population group. Also, it indicates

the lack of awareness of other problems which are consequence of untreated PMDD, as the increased use of health care and impaired working productivity[17]. Therefore we stress out the need for a more active and coordinated approach of the professionals, including family medicine specialists, gynecologists and psychiatrists. Our results point out the possibility that there could be a substantial proportion of symptomatic women who have premenstrual impairment and distress, and may seek treatment, but are unaware of treatment options. As efficacious treatments are available, we believe that recognition, clinically relevant diagnosis, and adequate treatment should provide relief many women and also have positive social impact.

We believe the results of our preliminary study indicate the need to further continue the study, with a representative population sample and greater impact on psychiatric co morbidity and perhaps stressful events. We also untraced a potential problem for our future study, which is a large drop out that could greatly influence the study results. We are not able to explain it considering that we could not differentiate the group of »responders« and the group of »non-responders« by any item analyzed. However, other items such as motivation or specific personality traits, could be significant, and should be taken into consideration for future studies.

Acknowledgements

REFERENCES

1. HALBREICH U, BORENSTEIN J, PEARLSTEIN T, KAHN LS, Psychoneuroendocrinology, 28 Suppl 3 (2003) 1. — 2. RAMCHARAN S, LOVE EJ, FICK GH, GOLDFIEN A, J Clin Epidemiol, 45 (1992) 377. — 3. CHAWLA A, SWINDLE R, LONG S, KENNEDY S, STERNFELD B, Med Care, 40 (2002) 1101. — 4. AMERICAN PSYCHIATRIC ASSOCIATION: Diagnostic and Statistic Manual of Mental Disorders, 4th edn. (American Psychiatric Press INC, Washington DC, 1987). — 5. RAPKIN A, Psychoneuroendocrinology, 28 Suppl 3 (2003) 39. — 6. ANGST J, SELLARO R, MERIKANGAS KR, ENDICOTT J, Acta Psychiatr Scand, 104 (2001) 110. — 7. SVEINDOTTIR H, BACKSTROM T, Acta Obstet Gynecol Scand, 79 (2000) 405. — 8. HYLAN TR, SUNDELL K, JUDGE R, J Womens Health Gend Based Med, 8 (1999) 1043. — 9. LANE T, FRANCIS A, Arch Womens Ment Health, 6 (2003) 127. — 10. ROSS C, COLEMAN G, STOJANOVSKA C, J Psychosom Obstet Gynaecol, 22 (2001) 165. — 11. HSIAO MC, LIU CY, CHEN KC, HSIEH TT, Acta Psychiatr Scand, 106 (2002) 150. — 12. BLOCH M, SCHMIDT PJ, RUBINOW DR, Am J Psychiatry, 154 (1997) 1741. — 13. FREEMAN EW, Psychoneuroendocrinology, 28 Suppl 3 (2003) 25. — 14. TABASSUM S, AFRIDI B, AMAN Z, TABASSUM W, DURRANI R, J Park Med Assoc, 55 (2005) 546. — 15. FRANCISKOVIC T, MORO L, TORIC I, URLIC I, RONCEVIC-GRZETA I, TIC-BACIC T, Coll Antropol, 24 (2000) 579. — 16. LONCAR C, DEFINIS-GOJANOVIC M, DODIG G, JAKOVLJEVIC M, FRANIC T, MARCINKO D, MIHANOVIC M, Coll Antropol, 28 (2004) 377. — 17. ROBINSON RL, SWINDLE RW, J Womens Health Gend Based Med, 9 (2000) 757. — 18. MCHICHI ALAMI KH, TAHIRI SM, MOUSSAOUI D, KADRI N, Encephale, 28 (2002) 525. — 19. PERKONIGG A, YONKERS KA, PFISTER H, LIEB R, WITTCHEN HU, J Clin Psychiatry, 65 (2004) 1314. — 20. LANDEN M, ERIKSSON E, Depress Anxiety, 17 (2003) 122. — 21. SINGH BB, BERMAN BM, SIMPSON RL, ANNECHILD A, Altern Ther Health Med, 4 (1998) 75.

M. Rojnić Kuzman

Department of Psychiatry, University Hospital Centre Zagreb, Kišpatićeva 12, 10000 Zagreb, Croatia
e-mail: mrojnic@net.hr

PREDMENSTRUALNI DISFORIČNI POREMEĆAJ – NEPRAVEDNO ZANEMARENA DIJAGNOZA? PRELIMINARNO ISTRAŽIVANJE U POPULACIJI STUDENTICA U HRVATSKOJ

S A Ž E T A K

Ciljevi istraživanja su bili odrediti prevalenciju i najčešće simptome predmenstrualnog disforičnog poremećaja (PMDD) u populaciji studentica i mlađih fakultetski obrazovanih žena u Hrvatskoj. Prikazujemo rezultate istraživanja 87 zdravih žena, u dobi od 18–30 godina, koje su obavljale redoviti ginekološki pregled u razdoblju 2003–2004. godine. Ispitanice su na skali »Daily Record of Severity of Problems« (DRSP) svakodnevno ocjenjivale stupanj težine svojih predmenstrualnih simptoma kroz dva menstrualna ciklusa. Dijagnoza PMDD-a se postavljala prema kriterijima DSM-IV. Od 87 ispitanica, 15 je zadovoljilo kriterije za postavljanje dijagnoze PMDD-a. Te ispitanice su statistički značajno češće navodile podatak o postojanju drugog psihijatrijskog poremećaja u komorbiditetu, u odnosu na grupu ispitanica koje nisu zadovoljavale kriterije za PMDD. Najčešći predmenstrualni simptomi u grupi ispitanica s PMDD-om su bili psihološki, dok su u grupi ispitanica koje ne zadovoljavaju kriterije za PMDD bili vegetativni. Zaključno, relativno visoka prevalencija PMDD-a u ispitivanom uzorku ukazuje na potrebu nastavka istraživanja.