Postpartum-Onset Obsessive-Compulsive Disorder: Incidence, Clinical Features, and Related Factors

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Objective: The aims of this study were to investigate the incidence rate and symptomatology of postpartum-onset obsessive-compulsive disorder (PPOCD), to investigate the factors associated with PPOCD, and to compare clinical characteristics of obsessive-compulsive disorder (OCD) with and without postpartum onset.

Method: The study data were collected from 302 women who delivered at a child and maternity hospital in Turkey from August 2005 to November 2005 and a control group of 33 women who were admitted to the psychiatric outpatient clinic of a university hospital during the same time period and who met DSM-IV criteria for OCD. The 2 clinical interviews with women who delivered were performed face-to-face on the first day after childbirth and at 6 weeks postnatally. OCD and comorbid Axis II disorders were diagnosed by means of the Structured Clinical Interview for DSM-IV and the Structured Clinical Interview for DSM-III-R Personality Disorders, respectively. Obsessive-compulsive symptomatology was assessed with the Yale-Brown Obsessive Compulsive Scale.

Results: The incidence of PPOCD was 4% at 6 weeks postnatally. The most common obsessions in women with PPOCD were contamination (75%), aggressive (33.3%), and symmetry/exactness (33.3%), and the most common compulsions were cleaning/washing (66.7%) and checking (58.3%). The patients with PPOCD had significantly more frequent aggressive obsessions ($p = .039$) and less severe obsessive-compulsive symptoms ($p = .013$) than the OCD patients without postpartum onset. The predictors of PPOCD were avoidant ($p = .000$) and obsessive-compulsive ($p = .004$) personality disorders.

Conclusions: This study suggests that the puerperium is a risk period in terms of new-onset OCD and that avoidant and obsessive-compulsive personality disorders predict PPOCD.

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In recent years, there has been growing interest regarding relationships between psychiatric disturbances and female reproductive events (e.g., menarche, pregnancy, delivery) during which gonadal steroids exhibit fluctuations influencing emotional status.[1]

Childbirth is one of the most important life and reproductive events for women. The majority of new mothers have transient emotional symptoms (e.g., irritability, anxiety, sadness, weeping), termed "baby blues."[2] In addition, the puerperium has been associated with higher prevalence and an increased risk of worsening or recurrence of mood and anxiety disorders.[3–6]

Obsessive-compulsive disorder (OCD) is a relatively common psychiatric disorder, with lifetime prevalence rates of 1.6% to 3.2% in the community,[7–9] and the disorder generally begins in the childbearing years in females.[10] Several studies suggest that women may have a greater risk of initial onset of OCD during the puerperium.[11–13] Maina et al.[11] noted that 50% of female OCD patients with children mentioned "birth of a child" as a precipitating event for onset of OCD, and this was the only life event that was described significantly more frequently by OCD patients compared to healthy subjects. More recently, Labad et al.[12] found that OCD had a postpartum onset in 3 (18%) of 17 patients with children. However, when compared with the research on postpartum-onset depression, the number of studies regarding postpartum-onset OCD (PPOCD), which is a frequently seen clinical entity, has remained inadequate,[14] and the data on incidence rates of PPOCD are very limited. Moreover, the limited available data are generally based on case reports, case series, or retrospective reports by female patients with OCD.[12,13,15,16] OCD generally has a chronic course[17,18] and leads to reduction in quality of life and to disability in occupational and social areas.[19,20] Additionally, similar to depression, maternal anxiety may have a negative developmental influence on children, and when undiagnosed and untreated, PPOCD can cause marked disruptions in mother-baby bonding.[14,21] For this reason, it is important to gain an understanding of the incidence rates of PPOCD and which women are at high risk of developing PPOCD.

The principal objectives of this study were to investigate the incidence rate of, symptomatology of, and factors

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associated with PPOCD. Another aim of the study was to examine whether there is any difference between clinical features of OCD with and without postpartum onset.

METHOD

Subjects

The incidence study was conducted among randomly selected women who delivered from August 2005 to November 2005 at Faruk Sukan Child and Maternity Hospital. Roughly three fourths of the total annual deliveries in the metropolis of Konya, Turkey, occur in this hospital. A control group was included in the study to compare clinical features of OCD with and without postpartum onset. The control group comprised 33 female outpatients matched to the study group for age and education level who delivered at least 1 live-born child, were married, had received no psychotropic medication within the last 4 weeks, and had OCD diagnosed according to DSM-IV criteria[22] by means of the Structured Clinical Interview for DSM-IV (SCID-I).[23] These women were admitted to the Psychiatry Outpatient Clinic of Selcuk University Hospital in Konya during the same time period as the study group, and all of the women gave written informed consent. We did not examine comorbid Axis I diagnoses in controls.

Procedures

Initially, 580 women were visited at the maternity hospital on the first day after childbirth. The objectives and procedures of the study were explained to all women who were visited for this first interview. One hundred twenty-seven women refused to participate in the study. Written informed consent was obtained from all participating subjects. Subjects with mental retardation that would make administration of the psychiatric interview difficult (N = 4), current diagnosis of any depressive disorder (N = 27), current clinical or subclinical OCD (N = 15), a history of OCD that improved prior to pregnancy or delivery (N = 2), a history or existence of any psychotic disorder (N = 1), serious health problems in the baby (N = 9), or a history of neurologic disorder (N = 1) were excluded from the study. The sociodemographic characteristics and obstetric histories of the other 394 women were gathered, and they were screened for personality disorders. The second interview was performed at the same hospital at 6 weeks postnatally. Both interviews were carried out face-to-face by the same psychiatrists. Ninety-two subjects refused to participate in a second interview. Thus, the study data were collected from 302 women out of the total women visited.

Measures

During the first interview, diagnoses of OCD and depressive and psychotic disorders were ascertained by means of the SCID-I,[23] and comorbid Axis II disorders were assessed with the Structured Clinical Interview for DSM-III-R Personality Disorders (SCID-II).[24] These diagnostic instruments have been standardized for the Turkish population.[25,26] During the second interview, new-onset OCD was determined by means of the SCID-I. The Yale-Brown Obsessive Compulsive Scale (YBOCS)[27] was used to determine the severity and types of obsessions and compulsions in patients with PPOCD and nonpostpartum OCD. Patients' degree of insight regarding their OCD symptoms was assessed using the specific item on the YBOCS (item 11). Poor insight was defined as a score of 3 or more on this item of the YBOCS. The reliability and validity of the Turkish version of the YBOCS have been examined and found to be as high as those of the original version.[28] A semistructured interview form developed by the investigators was used to determine sociodemographic features and obstetric information.

Statistical Analysis

All statistical analyses were made using the Statistical Package for the Social Sciences, version 12.0 for Windows (SPSS Inc.; Chicago, Ill.). For comparisons between the groups, we used the Student t test for continuous variables, the χ^2 test for 3 (or more) × 2 categorical variables, and the Fisher exact test for 2 × 2 categorical variables. Predictors of PPOCD were examined with logistic regression analysis. Statistical significance was defined as $p < .05$.

RESULTS

The mean ± SD age of the final sample (N = 302) was 25.25 ± 4.88 years. All subjects were married. Most of the women (95.0%) were housewives. One hundred thirty-seven women (45.4%) were primiparous, and 165 women (54.6%) had 2 or more children. The proportion of unplanned pregnancy was 20.9%. Sixty-two subjects (20.5%) had experienced gestational complications during their most recent pregnancy (Table 1).

The frequency of any personality disorder in the final sample was 12.9%. The most common Axis II disorders were avoidant (6.0%), obsessive-compulsive (3.3%), and dependent (3.0%). Passive-aggressive (1.3%), histrionic (1.0%), and borderline (0.7%) Axis II disorders were less frequent. None of the women met criteria for paranoid, schizotypal, schizoid, narcissistic, or antisocial personality disorders.

Twelve (4.0%) of 302 women met criteria for OCD according to SCID-I 6 weeks after delivery. Nine (75%) of the PPOCD cases developed in primiparous women, and 3 (25%) developed in multiparous women. OCD onset occurred following the second childbirth in these 3 multiparous women. The incidence rates of PPOCD were

Table 1. Sociodemographic Characteristics and Obstetric Histories of Women With and Without PPOCD

Characteristic	Total Sample (N = 302)	Women With PPOCD (N = 12)	Women Without PPOCD (N = 290)	p Value
Age, mean ± SD, y	25.25 ± 4.88	24.83 ± 5.28	25.26 ± 4.87	.763[a]
Education, N (%)				.586[b]
Primary school	224 (74.2)	8 (66.7)	216 (74.5)	
Secondary school	69 (22.8)	4 (33.3)	65 (22.4)	
University	9 (3.0)	0 (0)	9 (3.1)	
Employment status, N (%)				.464[c]
Employed	15 (4.9)	1 (8.3)	14 (4.8)	
Housewife	287 (95.0)	11 (91.7)	276 (95.2)	
Duration of matrimony, mean ± SD, mo	59.36 ± 52.48	47.00 ± 48.95	59.87 ± 52.64	.406[a]
Planned pregnancy, N (%)	239 (79.1)	10 (83.3)	229 (79.0)	1.000[c]
No. of children, mean ± SD	1.80 ± 0.89	1.41 ± 0.66	1.82 ± 0.89	.122[a]
Primiparity, N (%)	137 (45.4)	9 (75.0)	128 (44.1)	.043[c]
History of abortion, N (%)	76 (25.2)	1 (8.3)	75 (25.9)	.370[c]
Gestational complications, N (%)				.638[b]
Imminent abortion	36 (11.9)	2 (16.7)	34 (11.7)	
Preeclampsia	8 (2.6)	1 (8.3)	7 (2.4)	
Placenta previa	10 (3.3)	0 (0)	10 (3.4)	
Others	8 (2.6)	0 (0)	8 (2.8)	
Type of delivery, N (%)				.523[c]
Vaginal	220 (72.8)	10 (83.3)	210 (72.4)	
Surgical	82 (27.2)	2 (16.7)	80 (27.6)	
Term of delivery, N (%)				.095[b]
Preterm	28 (9.3)	1 (8.3)	27 (9.3)	
Term	270 (89.4)	10 (83.3)	260 (89.7)	
Postterm	4 (1.3)	1 (8.3)	3 (1.0)	
Presence of breastfeeding, N (%)	286 (94.7)	11 (91.7)	275 (94.8)	.486[c]
Gender of baby, N (%)				.258[c]
Female	153 (50.7)	8 (66.7)	145 (50.0)	
Male	149 (49.3)	4 (33.3)	145 (50.0)	
Cigarette smoking, N (%)	30 (9.9)	2 (16.7)	28 (9.7)	.633[c]

[a]t Test.
[b]χ^2 test.
[c]Fisher exact test.
Abbreviation: PPOCD = postpartum-onset obsessive-compulsive disorder.

6.57% and 1.81%, respectively, in primiparous and multiparous women. OCD symptoms began within the first 2 weeks in 7 (58.3%) of the patients and at 2 to 4 weeks in 5 (41.7%) of the patients. The most common obsessions in PPOCD were contamination (75.0%), aggressive (33.3%), and symmetry/exactness (33.3%), and the most common compulsions were cleaning/washing (66.7%), checking (58.3%), and ordering/arranging (33.3%). None of the women with PPOCD had poor insight. The mean ± SD YBOCS total score was 23.58 ± 3.80.

There were no significant differences between women with (N = 12) and without (N = 290) PPOCD in terms of age, education level, employment status, duration of matrimony, planned or unplanned pregnancy, numbers of children, gender of baby, type of delivery, history of abortion, presence or absence of breastfeeding, gestational complications, term of delivery, or cigarette smoking. The rate of primiparity was significantly higher in women with PPOCD than in women without PPOCD (Table 1). Women with PPOCD had significantly higher rates of any Axis II disorder and of avoidant and obsessive-compulsive personality disorders compared to women without PPOCD (Table 2). To analyze the predictors of PPOCD, the variables of primiparity and avoidant and obsessive-compulsive personality disorders were entered into a logistic regression model. The presence of avoidant (B = 2.84, Wald $\chi^2 = 15.71$, df = 1, p = .000) and obsessive-compulsive (B = 2.57, Wald $\chi^2 = 8.42$, df = 1, p = .004) personality disorders was significantly associated with PPOCD, whereas primiparity was not a significant predictor (B = –1.01, Wald $\chi^2 = 1.93$, df = 1, p = .164).

The PPOCD group and the control group of patients with nonpostpartum OCD had similar mean ages and education levels. The PPOCD group had significantly less severe obsessive-compulsive symptoms compared with the control group. The most common obsessions and compulsions in the control group were contamination (84.8%) and cleaning/washing (84.8%), respectively. Aggressive obsessions were significantly more frequent in the PPOCD group compared to the control group. The differences in frequencies of other obsessions and compulsions, percentage of subjects with poor insight (Table 3), and frequencies of comorbid personality disorders (Table 4) were nonsignificant between the groups.

Table 2. Personality Disorders in Women With and Without PPOCD, N (%)

Personality Disorder	Women With PPOCD (N = 12)	Women Without PPOCD (N = 290)	p Value[a]
Avoidant	5 (41.7)	13 (4.5)	.000
Dependent	1 (8.3)	8 (2.8)	.309
Obsessive-compulsive	3 (25.0)	7 (2.4)	.005
Passive-aggressive	1 (8.3)	3 (1.0)	.150
Paranoid	0 (0)	0 (0)	…
Schizotypal	0 (0)	0 (0)	…
Schizoid	0 (0)	0 (0)	…
Histrionic	1 (8.3)	2 (0.7)	.115
Borderline	0 (0)	2 (0.7)	1.000
Narcissistic	0 (0)	0 (0)	…
Antisocial	0 (0)	0 (0)	…
Any Axis II disorder	10 (83.3)	29 (10.0)	.000

[a]Fisher exact test.
Abbreviation: PPOCD = postpartum-onset obsessive-compulsive disorder.

DISCUSSION

In this study, we found the incidence of OCD to be 4% during the postpartum 6 weeks. The 12-month prevalence and incidence rates of OCD have been reported to be 1.8% to 3.3%[9,29] and 0.05% to 0.39%,[30,31] respectively, for women in the general population. Moreover, Bijl et al.[31] reported the incidence rates of OCD in the general population as 1.28% in women aged 18 to 24 and 0.73% in women aged 25 to 34. Therefore, our incidence rate is higher than these incidence and prevalence rates, which supports the belief that the puerperium may be a period of risk for emergence of OCD in at least certain individuals.[11,13]

The etiology of PPOCD is unknown,[14] although some authors have proposed that the onset and exacerbation of OCD during reproductive events such as menarche, the premenstruum, and the puerperium may be associated with changes in gonadal steroids.[12,13,32] Indeed, the most dramatic hormonal alteration in the postpartum period is the marked fall in estradiol and progesterone.[33] Steroid hormones can modulate neuronal transmission by affecting synthesis and/or release and receptor function of neurotransmitters.[1] Animal studies have shown that estrogen has an anxiolytic property and a regulatory effect on the serotonergic and dopaminergic systems,[34,35] which are 2 important neurotransmitter systems in the neurobiology of OCD.[36] For this reason, sudden decrease in levels of gonadal steroids, particularly estrogen, during the early postpartum period may comprise a biological predisposition to development of OCD by influencing activities of these neurotransmitter systems in some subjects. The previous reports[11–13] and our findings suggesting that symptoms of PPOCD occur within the 4 weeks after childbirth may also support a relation between changes in gonadal steroids and onset of OCD after delivery. However, to our knowledge, there is no study exploring this association biologically.

Table 3. Sociodemographic and Clinical Characteristics of Female Patients With PPOCD and Nonpostpartum OCD

Characteristic	PPOCD (N = 12)	Nonpostpartum OCD (N = 33)	p Value
Age, mean ± SD, y	24.83 ± 5.28	25.74 ± 5.99	.643[a]
Education, N (%)			.784[b]
Primary school	8 (66.7)	23 (69.7)	
Secondary school	4 (33.3)	9 (27.3)	
University	0 (0)	1 (3.0)	
Employment status, N (%)			1.000[b]
Employed	1 (8.3)	3 (9.1)	
Housewife	11 (91.7)	30 (90.9)	
Obsessive-compulsive symptoms, N (%)			
Obsessions			
Aggressive	4 (33.3)	2 (6.1)	.039[c]
Contamination	9 (75.0)	28 (84.8)	.661[c]
Symmetry/exactness	4 (33.3)	15 (45.5)	.517[c]
Sexual	0 (0)	1 (3.0)	1.000[c]
Religious	2 (16.7)	7 (21.2)	1.000[c]
Hoarding/saving	1 (8.3)	2 (6.1)	1.000[c]
Somatic	1 (8.3)	2 (6.1)	1.000[c]
Miscellaneous	3 (25.0)	8 (24.2)	1.000[c]
Compulsions			
Cleaning/washing	8 (66.7)	28 (84.8)	.219[c]
Checking	7 (58.3)	22 (66.7)	.728[c]
Ordering/arranging	4 (33.3)	15 (45.5)	.517[c]
Repeating	2 (16.7)	10 (30.3)	.466[c]
Counting	1 (8.3)	13 (39.4)	.070[c]
Hoarding/collecting	1 (8.3)	2 (6.1)	1.000[c]
Miscellaneous	3 (25.0)	7 (21.2)	1.000[c]
Poor insight, N (%)	0 (0)	5 (15.2)	.303[c]
YBOCS score, mean ± SD			
Obsession	11.75 ± 2.37	13.84 ± 2.99	.034[a]
Compulsion	11.83 ± 1.64	14.03 ± 2.97	.020[a]
Total	23.58 ± 3.80	27.96 ± 5.36	.013[a]

[a]t Test.
[b]χ^2 test.
[c]Fisher exact test.
Abbreviations: OCD = obsessive-compulsive disorder, PPOCD = postpartum-onset obsessive-compulsive disorder, YBOCS = Yale-Brown Obsessive Compulsive Scale.

In the previous reports, most of the women with PPOCD had aggressive obsessions, including particularly images or thoughts of harming the newborn.[11,13,16] Labad et al.[12] also reported contamination obsessions with compulsions related to the newborn. In contrast, we observed aggressive obsessions in only 4 (33.3%) of 12 PPOCD cases, and similar to those in women with nonpostpartum OCD, the most common obsessions and compulsions were contamination and cleaning/washing, respectively. Aggressive obsessions included fear of harming the newborn in 3 (75%) of 4 patients, and none of the contamination obsessions were associated with the baby in our sample.

These contradictions could be due to differences in methodology between our study and other studies. Whereas the results of previous studies have been based on retrospective chart reviews or semistructured interviews of females with OCD who were admitted to psychiatry clinics,[11,13] our data were based on prospective obser-

Table 4. Personality Disorders in Female Patients With PPOCD and Nonpostpartum OCD, N (%)

Personality Disorder	PPOCD (N = 12)	Nonpostpartum OCD (N = 33)	p Value[a]
Avoidant	5 (41.7)	12 (36.4)	.743
Dependent	1 (8.3)	1 (3.0)	.467
Obsessive-compulsive	3 (25.0)	9 (27.3)	1.000
Passive-aggressive	1 (8.3)	4 (12.1)	1.000
Paranoid	0 (0)	1 (3.0)	1.000
Schizotypal	0 (0)	2 (6.1)	1.000
Schizoid	0 (0)	0 (0)	…
Histrionic	1 (8.3)	2 (6.1)	1.000
Borderline	0 (0)	3 (9.1)	.553
Narcissistic	0 (0)	0 (0)	…
Antisocial	0 (0)	0 (0)	…
Any Axis II disorder	10 (83.3)	18 (54.5)	.096

[a]Fisher exact test.
Abbreviations: OCD = obsessive-compulsive disorder, PPOCD = postpartum-onset obsessive-compulsive disorder.

vations of women who delivered. In addition, sociocultural factors may affect the content of OCD symptoms.[37] For example, in the study by Maina et al.,[11] the frequencies of aggressive and contamination obsessions were 100% and 75% in PPOCD and 54.2% and 54.2% in nonpostpartum OCD, respectively. Our rates of the same obsessions were 33.3% and 75.5% in PPOCD and 6.3% and 84.8% in nonpostpartum OCD. These discrepancies may result from differences between the cultural characteristics of the societies in which the studies were conducted. However, aggressive obsessions were more frequent in our cases of PPOCD than in OCD without postpartum onset. This finding is consistent with those of Maina et al.[11] Thereby, although the frequencies of obsession and compulsion types in PPOCD may be influenced by the sociocultural characteristics of the community similarly to nonpostpartum OCD, there is a tendency toward aggressive obsessions in PPOCD compared to nonpostpartum OCD.

Avoidant and obsessive-compulsive personality disorders were predictors of PPOCD in our sample. Moreover, the OCD groups with and without postpartum onset did not differ with respect to frequencies of Axis II comorbidities. Most of the research has reported Axis II comorbidities in 40% to 60% of patients with OCD.[38–41] Cluster C personality disorders such as avoidant and obsessive-compulsive appear to be the most common comorbid Axis II disorders in OCD.[39,41,42] The relationship between personality disorders and PPOCD is unclear. Approximately two thirds of patients with OCD report significant life events, which are frequently undesirable, in relation to the onset of OCD.[43] Moreover, the majority of new mothers experience distressing intrusive thoughts about their newborns.[44] Avoidant and obsessive-compulsive personality disorders may be predisposing factors in the development of new-onset OCD by negatively influencing new mothers' strategies of coping with intrusive thoughts and significant life events after childbirth.

Six (75%) of 8 women with PPOCD were primiparous in the Maina et al. study,[11] and all PPOCD cases developed following the first gestation in the Labad et al. study.[12] Similarly, 9 (75%) of 12 patients were primiparous in the current study, and the incidence rate of PPOCD was 6.57% in primiparous women and 1.81% in multiparous women. Although women with PPOCD had a significantly higher proportion of primiparity than women without PPOCD, the difference did not reach significance in logistic regression analysis; this may result from the relatively small size of our sample. In addition, some multiparous women who developed OCD after the birth of their first child were excluded because of current clinical or subclinical OCD or a history of OCD reported during the first interview. Therefore, we may be underestimating the incidence of PPOCD in multiparous women.

Labad et al.[12] found no association between PPOCD and type of delivery or complications during pregnancy, which is consistent with our findings. Moreover, in our study, PPOCD was unrelated to the other variables shown in Table 1.

In our sample, all of the women with PPOCD had good insight regarding their OCD symptoms, and there were no subjects with a psychotic picture, in accordance with the cases reported by Sichel et al.[13] Our outcomes also suggest that women with PPOCD have a degree of insight similar to that of women with nonpostpartum OCD.

We found that YBOCS severity scores were lower in PPOCD than in nonpostpartum OCD. This finding may be related to the fact that the OCD group without postpartum onset consisted of patients who sought psychiatric care at the psychiatric clinic. It is not surprising that the severity of symptoms in a clinic population seeking help is greater than in a community population. Likewise, Beşiroğlu et al.[45] reported more severe symptoms in health care seekers compared to those not seeking health care. Maina et al.[11] reported no significant difference in severity of obsessive-compulsive symptoms between OCD patients with and without postpartum onset who were admitted to a psychiatric clinic. In addition, in the current study, OCD was new onset in women with PPOCD, but not in women with nonpostpartum OCD. For these reasons, it is difficult to generalize our results regarding differences in symptom severity between the groups.

The main limitations of the present study are as follows. (1) Our sample size is relatively small, and it may not be representative of all women who delivered, although subjects were randomly selected. (2) We did not examine OCD in subjects who were excluded from the study due to current depressive disorder. Some patients with PPOCD may have been excluded from the study. (3) We could not provide data on diagnoses of those who re-

fused the second interview, which may have affected the incidence rate of the study. (4) We did not examine family history of OCD or other psychiatric disorders, because there is not a structured diagnostic instrument assessing family history that is standardized for the Turkish population. (5) The possible effects of stressful life events, degree of social support, and quality of life on PPOCD were not explored in this study. (6) Although our incidence rate of PPOCD is higher than those in previous studies based on community samples, the absence of healthy control subjects followed for 6 weeks is a limitation. (7) The nonpostpartum OCD group was obtained from OCD patients who were admitted to a psychiatry clinic. This may represent a limitation and complicate interpretation of the results with regard to comparison of clinical features, particularly severity of symptoms, between PPOCD and nonpostpartum OCD. Ideally, the clinical comparison between PPOCD and nonpostpartum OCD should be performed for cases of new-onset OCD in women who delivered and who did not deliver during 6 weeks. (8) Our observation time (6 weeks) may be considered short.

In conclusion, despite some limitations, this study demonstrates that women have an increased risk of new-onset OCD in the postpartum period, and avoidant and obsessive-compulsive personality disorders predict PPOCD. For this reason, all women, and particularly women with these 2 Axis II disorders, should be carefully screened for OCD in the postpartum period. Further research that avoids the limitations of this study is needed to confirm our findings.

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Editor's Note: We encourage authors to submit papers for consideration as a part of our Focus on Women's Mental Health section. Please contact Marlene Freeman, M.D., at marlenef@email.arizona.edu.