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Obsessional Thoughts in Postpartum Females and Their Partners: Content, Severity, and Relationship With Depression

Jonathan S. Abramowitz,[1,2] Stefanie A. Schwartz,[1] and Katherine M. Moore[1]

Only a few studies have examined the development or exacerbation of obsessive–compulsive disorder (OCD) during pregnancy and the postpartum. Although the available literature suggests that OCD symptoms, particularly obsessional problems, develop at higher than expected rates among postpartum females, the overall prevalence of such symptoms in the postpartum remains unknown. Previous findings also suggest that intrusive distressing thoughts related to situational stressors are common in the general population. Therefore, the present study was designed to assess the presence and phenomenology of postpartum obsessive-like intrusive thoughts, images, and impulses in a large sample of parents with very young infants. Surveys were mailed to 300 childbearing women and their partners. Results were obtained from approximately one fifth of the sample; and 65% of respondents indicated the presence of obsessional intrusive thoughts. Intrusions were similar to "normal obsessions" as reported in previous research. Results are discussed in terms of the content of intrusive thoughts, their relationship to depression, and implications for etiological models of OCD and perinatal education.

KEY WORDS: postpartum; obsessive–compulsive disorder; obsessions; depression.

Obsessive–compulsive disorder (OCD) is an anxiety disorder characterized by (a) persistent unwanted thoughts, ideas or impulses that are experienced as senseless yet anxiety-evoking (obsessions); and (b) urges to respond to obsessional anxiety with overt and/or covert ritualistic behavior (compulsions; i.e., checking). Avoidance of situations associated with obsessions and compulsions is also common. The lifetime prevalence of OCD is approximately 2–3% in the general population, making it one of the more common psychiatric disorders (Angst, 1993; Karno, Golding, Sorenson, & Burnam, 1988). Moreover, symptoms typically interfere significantly with occupational, social, and family functioning. Although the presentation of OCD symptoms may vary (e.g., contamination, aggression; Baer, 1994), a common underlying theme is uncertainty and doubt concerning whether one may be (or may come to be) responsible for harm or the prevention of harm.

Diagnostic systems such as the *DSM-IV* (American Psychiatric Association [APA], 1994), and psychiatric nosology in general, presuppose that OCD is a distinct, categorical disorder that affects a rather small segment of the population. However, a number of studies now challenge this approach, suggesting instead that OCD is best conceptualized on a continuum of severity. Rachman and de Silva (1978) and Salkovskis and Harrison (1984) studied the form and content of unwanted obsessional thoughts, impulses and images among nonclinical individuals. In both of these studies about 90% of the respective samples reported experiencing such intrusive cognitions, the content of which was indistinguishable from that observed among patients with OCD (e.g., an unwanted urge to stab a loved one). Several subsequent studies have replicated these

[1]Department of Psychiatry and Psychology, Mayo Clinic, Rochester, Minnesota.
[2]Correspondence should be addressed to Jonathan Abramowitz, Mayo Clinic, 200 First Street SW, Rochester, Minnesota 55905; e-mail: abramowitz.jonathan@mayo.edu.

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findings (Brewin, Christodoulides, & Hutchinson, 1996; Freeston, Ladouceur, Thibodeau, & Gagnon, 1991; Purdon & Clark, 1993). Rachman and de Silva (1978) found that the main differences between "abnormal" and "normal" obsessions were that the former evoked more associated distress, were more frequent, and were of longer duration than the latter.

As with clinical obsessions, evidence suggests that current concerns and situations usually trigger unwanted intrusive obsessional thoughts among nonclinical individuals. Parkinson and Rachman (1980) found that the majority of such thoughts were evoked by an identifiable external stimulus. Other studies have found a heightened level of unwanted thoughts associated with various stressful situations (e.g., Horowitz, 1975; Wroe, Salkovskis, & Richards, 2000) or negative emotional states such as depression (Brewin, Hunter, Carroll, & Tata, 1996). For example, Jennings, Ross, Popper, and Elmore (1999) found that 41% of mothers with major depression reported unwanted intrusive thoughts of harming their infant, compared to only 7% of nondepressed mothers. In concert, these results indicate that unwanted intrusive thoughts, images, and impulses that are similar to clinical obsessions, occur with regularity in the general population, and that their occurrence is often precipitated by previous and current life experiences. In the present study, we examined the phenomenology of intrusive thoughts in parents subsequent to the birth of a child.

The small number of available studies published to date suggest that OCD symptoms develop at higher than expected rates among postpartum females (for a review see Abramowitz, Schwartz, Moore, & Luenzmann, 2003), yet the overall prevalence of postpartum onset OCD symptoms is unknown. There is also evidence that for those who already suffer with OCD, pregnancy or childbirth may be associated with an exacerbation in symptoms (Buttolph & Holland, 1990). The themes of postpartum OCD symptoms appear to be somewhat circumscribed, with the most commonly observed symptoms being repugnant obsessional thoughts about harm coming to the infant (Maina, Albert, Bogetto, Vaschetto, & Ravizza, 2000; Wisner, Peindl, Gigliotti, & Hanusa, 1999). For example, one woman we evaluated reported intrusive unwanted urges to push her child's stroller into oncoming traffic. She often tried to suppress the thought, yet had difficulty doing so and thus prayed repeatedly that she wouldn't give in to her urges to commit such an action. She often avoided being alone with her infant for fear that she might act upon the thought. If, as we discussed above, intrusive unwanted thoughts are linked to a person's current concerns, than given the responsibility parents have for protecting their young infants from harm, one would expect that the content of cognitive intrusions of new parents would concern the possibility of harm to their child.

In contrast to postpartum obsessional symptoms, postpartum depression is a well-studied condition (e.g., O'Hara, Zekoski, Philipps, & Wright, 1990). Two lines of evidence suggest that postpartum obsessions and depression may be related. First, clinicians and researchers have noted the substantial overlap between OCD (in general) and depressive symptoms, with comorbidity studies indicating that as many as a third of adults with OCD also meet criteria for major depressive disorder (e.g., Antony, Downie, & Swinson, 1998). Moreover, depression appears to be more strongly related to obsessions than to compulsions (Ricciardi & McNally, 1995). Second, with respect to postpartum symptoms Wisner et al., (1999) found higher rates of obsessions and compulsions among women with postpartum depression (57%) compared to those with nonpostpartum major depression (39%). Similarly, as reviewed above, Jennings et al. (1999) found increased rates of obsessional symptoms among women with postpartum depression compared to nondepressed postpartum women. Although these initial investigations indicate an association between postpartum obsessional and postpartum depressive symptoms, further study is warranted to elucidate the nature of this relationship.

As a result of the scarce research and limited clinical focus on postpartum obsessions, those in the fields of obstetrics and pediatrics may be less familiar with such symptoms. Moreover, they may (understandably) mistake such *unwanted* thoughts or impulses (which are by definition contrary to the individual's intentions) for more severe psychopathology; or worse, the intent to do harm to infants. Individuals, such as new mothers, experiencing unexpected obsessional intrusions are also at risk of exaggerating the importance of such cognitions since they are at once repugnant yet recurrent. This may lead to mistakenly believing that such *unwanted* ideas have implications for one's own moral character (e.g., "this thought means I am a bad person") or represent unconscious wishes (or intent) to engage in aggressive behavior toward the infant (e.g., "having this thought means I am likely to lose control of my behavior," "Since I think this, I must really want it to happen"). Moreover, research and clinical reports suggest that parents

with violent obsessional thoughts are often reluctant to describe such symptoms to others for fear of being misunderstood as malicious ("If others knew I was thinking this, they would think I was a terrible parent" (Newth & Rachman, 2001). When one considers the personal distress, relationship to depression, and potential for impairment in family functioning associated with postpartum obsessional symptoms, the need for additional research in this area is recognized.

In the current study we administered a mail survey designed to assess the presence of postpartum obsessive-like intrusive thoughts, images, and impulses among parents with young infants. We obtained data from a community sample of mothers and fathers and, in accord with Rachman and de Silva (1978), hypothesized that unwanted obsessional thoughts concerning harm to the child would be fairly common among both parents. We also obtained severity ratings and content descriptions of intrusive thoughts to better determine their phenomenology and impact on new parents. A second hypothesis was that more severe obsessional symptoms would be associated with increased discomfort in describing intrusions, as well as with more severe depressive symptoms.

METHOD

Participants and Procedure

Three hundred females who were at least 18 years of age and had given birth between December 2001 and April 2002, were identified from their obstetrics records. Each had had a full-term pregnancy and uncomplicated delivery as indicated by these records. Individuals with a history of delusional disorders, schizophrenia, or bipolar disorder were excluded. All women had given consent for their medical records to be used for clinical research purposes.

A packet containing two six-page surveys entitled "Survey on Thoughts," one labeled "for mothers" and the other "for fathers," was mailed to each of the participants. The two versions of the survey were identical. A cover letter that described the purpose of the research and included instructions for how to complete and return the materials accompanied the surveys. A self-addressed and stamped envelope was included to facilitate return of the materials to our site.[3]

The cover letter was approximately one-half page in length and introduced an anonymous survey about unwanted thoughts. The body of the letter presented information to normalize the experience of intrusive unwanted thoughts in the postpartum period. Specifically, participants were informed that it is common for healthy parents to experience unwanted senseless thoughts about their children. The letter also described the procedures for maintaining confidentiality of responses and provided the names and telephone numbers of the researchers for contact purposes. Finally, the letter included a check box for participants to indicate that they did not wish to complete the survey.

Following several demographic items, participants were provided with three examples of upsetting intrusive thoughts (e.g., "when I am burping the baby I sometimes think about what would happen if I hit her too hard") and instructed to write up to three intrusions they had experienced.

Measures

Severity of Intrusive Thoughts

Four items from the Yale-Brown obsessive–compulsive scale (YBOCS; Goodman, Price, Rasmussen, Mazure, et al., 1989a, 1989b) were used to assess the severity of intrusive obsessional thoughts. Participants first rated the amount of time per day taken up by such thoughts using the following scale: 0 = *none*; 1 = ≤1 hr; 2 = 1–3 hr; 3 = 3–8 hr; and 4 = ≥8 hr. The second item assessed the degree to which intrusive thoughts interfered with family, social, or occupational functioning, and was rated from 0 (*not at all*) to 4 (*severe*). The third item measured the degree of distress associated with having intrusive thoughts from 0 (*none*) to 4 (*severe*). The fourth item assessed the degree to which participants could control their intrusions from 0 (*completely*) to 4 (*not at all*). Although developed as a clinical interview, Steketee, Frost, and Bogert (1996) have demonstrated the usefulness of a self-report version of these items in detecting OCD symptoms in nonclinical samples. They also reported that the YBOCS item on *resistance* to obsessions was often answered unreliably. Thus, we chose to exclude this item from the present survey.

An additional question assessed the degree of comfort participants felt in completing the survey and disclosing the nature of intrusive thoughts concerning their infant. Responses to this item were coded as follows: 1 = *extremely uncomfortable*; 2 = *somewhat uncomfortable*; 3 = *neutral*; 4 = *somewhat comfortable*; 5 = *extremely comfortable*.

[3]Copies of all survey materials are available from the first author.

History of OCD and Depression

Participants indicated whether or not they had ever been diagnosed or treated for OCD or depression using a "yes–no" format.

Depressive Symptoms

Depressive symptoms were assessed with the Center for Epidemiological Studies Depression Scale (CES-D; Radoff, 1977). The CES-D consists of 20 items developed as a global measure to assess psychological distress or well being in general community samples. Participants are asked to rate how often they have felt (or behaved) in certain ways (e.g., "I felt sad"; "My sleep was restless") over the past week from 0 (*rarely*) to 3 (*most of the time*). Items are summed (4 are reverse scored) to obtain a total score ranging from 0 to 60. Scores of 16 or greater indicate the possibility of clinical depression.

RESULTS

Participant Characteristics

As is shown in Table I, approximately one quarter of the 600 surveys were returned, with about one fifth completed. The observed difference in completion rate for males and females was significant, $\chi^2(N = 156, df = 1) = 9.04, p < .01$. About two thirds of respondents reported the presence of intrusive unwanted thoughts, with no differences between males and females, $\chi^2(N = 117, df = 1) = 1.49, p > .05$. Table I also presents demographic characteristics of the participants who completed the survey. The typical participant (both male and female) was a college graduate in their early thirties without a history of OCD or depression. All males who completed the survey indicated that they were the biological father of the infant. Mothers reported spending significantly more time with the infant than did fathers, $t(113) = 7.76, p < .001$.

Content of Intrusive Thoughts

To examine the content of postpartum intrusions we compiled the descriptions of unwanted upsetting thoughts described by each participant. In all, descriptions of 121 thoughts were obtained from participants. Two of the authors with expertise in the assessment and diagnosis of OCD (JSA & SAS) independently examined the reported thoughts in order to judge their similarity to obsessional ideation and identify common themes. Seven categories of intrusions were identified and agreed upon. The two raters then independently classified each of the thoughts into one of the seven categories. Interrater agreement for the categorization of the 121 thoughts was 87%. The raters discussed any thoughts for which there was disagreement and made a final categorization decision. Several thoughts lacked obsessional qualities (i.e., were not senseless or unrealistic; for example "I'd be able to do more social activities if I didn't have the baby") and these were excluded from the categorization process.

The content of the seven categories of intrusions were (a) thoughts of suffocation or sudden infant death syndrome (SIDS; e.g., "maybe my baby rolled over and suffered SIDS"); (b) thoughts of accidents (e.g., "I think of the neighbor's dog attacking the baby"); (c) unwanted ideas or urges of intentional harm (e.g., "would she be brain damaged if I threw her out the window"); (d) thoughts of losing the infant (e.g., "someone stealing my baby in the grocery store"); (e) illness (e.g., "I was convinced she had cerebral palsy"); (f) unacceptable sexual thoughts (e.g., "a thought about the baby's genitals"); and (g) contamination (e.g., "I think often about microbiological contamination from people or objects"). Table II reports the number of intrusive thoughts identified in each of the seven categories.

Severity of Obsessional Symptoms and Relationship With Depression

Table III presents mean scores on the various measures of obsessional symptoms as well as the CES-D. On average, intrusions lasted for no more than 1 hr per day, yet mothers reported more time spent with such thoughts compared to fathers. Both groups reported that intrusions caused little interference in functioning. On average, participants reported mild distress from their intrusions, with mothers reporting significantly more distress compared to fathers. Both groups reported being able to control their intrusions fairly well. Neither mothers nor fathers felt especially comfortable describing the content of their intrusive thoughts. On average, CES-D scores fell within the subclinical range, with mothers scoring significantly higher than fathers.

To examine the relationship between postpartum obsessional thoughts and depressive symptoms, we computed correlation coefficients between the

Table I. Participant Demographic Characteristics

Variable	Mothers	Fathers	All
No. of surveys returned (%)	92 (30.7)	64 (21.3)	156 (26.0)
No. of surveys completed (%)	77 (25.7)	40 (13.3)	117 (19.5)
No. with intrusive thoughts (%)	53 (68.8)	23 (57.7)	76 (65)
No. prefer not to describe thoughts (%)	3 (3.9)	2 (5.0)	5 (4.3)
Mean age of respondent, years (*SD*)	30.8 (4.9)	32.4 (4.5)	
No. college graduates (%)	63 (82.9)	33 (82.5)	
No. with history of OCD (%)	1 (1.3)	0	
No. with history of depression (%)	13 (17.1)	3 (7.5)	
Mean hours spent with infant per day (*SD*)	15.34 (7.63)	5.26 (3.8)	
Mean age of infant, months (*SD*)			4.3 (1.14)
No. first born (%)			29 (38.2)

CES-D and the various measures of severity of intrusions. These results, presented in Table IV, reveal a small to moderate association between severity of intrusions and depressive symptoms among mothers, but not fathers. For fathers, more difficulty controlling intrusive thoughts was associated with less comfort disclosing such thoughts on the survey.

DISCUSSION

Our aim in the present investigation was to study the phenomenology of parents' intrusive obsessional thoughts about their young infants. Our findings are consistent with previous research on the prevalence of unwanted cognitions in nonclinical samples (e.g., (Rachman & de Silva, 1978) and support the hypothesis that senseless, intrusive, unacceptable thoughts, ideas, urges, and images about infants are common among healthy parents of newborns. Importantly, such intrusions do not occur exclusively among postpartum females, but are reported with similar prevalence among fathers with newborns. Furthermore, the content of these intrusions resembles that found in clinical obsessions as observed in OCD: they often focus on unfortunate or disastrous consequences (e.g., violence); yet are experienced as senseless, excessive, and incongruent with the person's belief system. The most common thoughts and images concerned the infant suffocating or dying of SIDS. Also prevalent were unwelcome thoughts or urges concerning accidental and/or deliberate harm coming to the child. Ideas of contamination, sex, and physical illness were somewhat less common.

What might account for the presence and distressing content of such unwanted thoughts coinciding with childbirth? Existing neurobiological theories propose that fluctuations in hormone levels during late pregnancy and delivery touch off postpartum obsessional symptoms in childbearing women (Williams & Koran, 1997). However, the presence of similar intrusive phenomena in fathers (who do

Table II. Content of Intrusive Thoughts of 76 Parents With Young Infants[a]

	n (%)		
Content of intrusion	Mothers ($n = 53$)	Fathers ($n = 23$)	All ($N = 76$)
Suffocation, SIDS	40 (44.4)	14 (45.2)	54 (44.6)
Accidents	24 (26.7)	8 (25.8)	32 (26.4)
Intentional harm	19 (21.1)	7 (22.6)	26 (21.5)
Losing baby	7 (7.8)	1 (3.2)	8 (6.6)
Illness	3 (3.3)	0	3 (2.5)
Sexual	2 (2.2)	0	2 (1.7)
Contamination	0	1 (2.3)	1 (0.8)

[a] Up to three intrusive thoughts were listed for each participant. The total number of intrusive thoughts for mothers was 90, and for fathers, 31. Numbers in parentheses indicate the percent of all intrusions.

Table III. Scores on Measures of Obsessional and Depressive Symptoms for Mothers and Fathers With Young Infants

	M (*SD*)		
Symptom	Mothers ($n = 53$)	Fathers ($n = 23$)	t^a
Obsessions			
Time	1.08 (0.33)	0.91 (0.29)	2.04*
Interference	0.30 (0.57)	0.22 (0.42)	0.63
Distress	1.28 (0.84)	0.87 (0.55)	2.16*
Control	0.38 (0.56)	0.22 (0.42)	1.22
Comfort disclosing	3.12 (1.50)	3.45 (1.22)	0.93
Depression—CES-D	8.92 (7.64)	5.43 (5.29)	2.00*

Note. CES-D = Center for Epidemiological Studies depression scale.

[a] Degrees of freedom for all *t* tests = 74.

* $p < .05$.

Table IV. Relationships Between Properties of Intrusive Thoughts, Depressive Symptoms, and Comfort Disclosing Thoughts for Mothers and Fathers of Young Infants

	Mothers ($n = 53$)		Fathers ($n = 23$)	
Intrusive thoughts	CES-D	Comfort disclosing thoughts	CES-D	Comfort disclosing thoughts
Time	.54**	.18	−.12	−.14
Interference	.30**	−.02	−.11	−.03
Distress	.34**	−.03	−.15	−.18
Control	.36**	−.05	.14	−.48*

Note. CES-D = Center for Epidemiological Studies depression scale.
* $p < .05$. ** $p < .01$.

not undergo such hormonal fluctuations) suggests the need to examine environmental factors in understanding the development of postpartum obsessions (and perhaps obsessions in general). To this end, Rachman and Hodgson (1980) proposed specific situational factors that may contribute to the origins of obsessional intrusions, some of which have relevance to the perinatal and postpartum period. Perhaps the most salient of these factors is stress, which is invariably present to some degree during this time. Horowitz (1975) demonstrated that exposure to stressful or threatening stimuli is likely to be followed by threatening ruminations. Moreover, the nature of the threatening material is likely to play a role in influencing the content of intrusive thoughts.

A second factor proposed to account for the presence of distressing intrusive thoughts is the degree to which individuals find such thoughts to be unacceptable. Specifically, Rachman and Hodgson (1980) suggested that people with high standards of conduct and morality would be at increased vulnerability for intrusive unwanted thoughts because they regard a larger proportion of their thoughts as unacceptable. Another related factor is sensitivity to external threat cues. That is, individuals who are hypervigilant to danger are more likely to encounter stimuli that evoke unwanted impulses, ideas, or images. Parents of infants, because of the substantial responsibility of caring for a helpless, defenseless baby, might be expected to have high standards for what they consider acceptable infant-relevant thoughts. This, as well as increased hypervigilance to danger during the postpartum period might increase their vulnerability to unacceptable intrusive thoughts. Our finding that mothers, compared to fathers, spent more time with their infants suggests that mothers might be especially susceptible. Moreover, it may explain our finding that mothers had significantly more frequent and distressing intrusive thoughts compared to fathers.

Although our sample did not experience their intrusions as highly distressing, our hypothesis that the severity of intrusive thoughts would be related to the severity of depressive symptoms received partial support. In particular, this association was found for mothers but not for fathers. Perhaps the assumption that one should be happy during the postpartum period places more pressure on childbearing mothers than on fathers. Thus, the occurrence of distressing intrusive thoughts is more upsetting for mothers than for fathers. Our results may also be understood in the context of the increased risk of depression among women relative to men (APA, 1994). Whereas the severity of intrusive thoughts was not related to increased depressive symptoms for fathers, we did find that more difficulty controlling intrusive thoughts was associated with less comfort disclosing the thoughts on the survey. Perhaps men respond to unwanted thoughts that they have difficulty controlling by suppressing or concealing such cognitions.

The study of intrusive unacceptable (obsessional) thoughts in parents of young infants may have important implications for understanding clinical OCD symptoms. The cognitive–behavioral model of OCD (e.g., Rachman, 1998; Salkovskis, 1999) assumes that OCD-related phenomena occur on a continuum from normal cognitive intrusions to persistent and highly distressing obsessions and compulsions, and specifies conditions under which normal intrusions might develop into clinical symptoms. Specifically, the model proposes that whereas most people dismiss their unwanted thoughts as insignificant, clinical obsessional problems arise as a consequence of misinterpreting such thoughts (i.e., their content and presence) as having implications for responsibility for harm or the prevention of harm. For example, if a mother mistakenly interprets an unwanted thought to drown her infant as a sign that she is an evil person or that such behavior is likely, even the thought of such behavior will elicit very high levels of distress.

According to this conceptualization, misappraisal of intrusive repugnant thoughts also motivates efforts to reduce obsessional distress and/or fears of disastrous consequences by attempting to suppress the thought, "neutralizing" (i.e., compulsive rituals), or avoiding situations that evoke the thought. Although such strategies temporarily reduce distress they also serve to prevent the natural correction of mistaken beliefs about the dangerousness of intrusive thoughts. That is, by routinely avoiding or neutralizing

obsessional thoughts, the individual misses the opportunity to learn that such thoughts do not portend disastrous interpersonal or moral consequences. Thus, these unproductive responses to intrusive thoughts lead to increased sensitivity to, or preoccupation with, the thought or idea; that is, the sense of repetitiveness that is characteristic of obsessions.

The cognitive–behavioral theory leads to several empirically testable hypotheses about postpartum intrusive thoughts that, if supported, may further advance our conceptualization and treatment of obsessional problems. Among the most interesting is the prediction that individuals who generally tend to appraise unwanted upsetting thoughts as highly significant will have increased difficulties with postpartum intrusive thoughts and images, and perhaps develop signs and symptoms of OCD. We are currently testing this hypothesis in a prospective design by administering measures of cognitive biases thought to underlie OCD (e.g., the thought–action fusion scale [Shafran, Thordarson, & Rachman, 1996]) to expecting parents. Following childbirth, responses on these measures are being used to predict the severity of newborn-related intrusions and associated neutralizing responses. Such research may lead to the identification of those at risk for developing obsessional problems, and thus prevention programs for such individuals.

A second implication of the present findings is that they provide further support for a dimensional perspective on psychopathology as opposed to a categorical approach in understanding OCD. It is likely that normal unwanted intrusive thoughts lie at one end of such a continuum and severe clinical obsessions at the other end. Indeed our results are consistent with clinical observations and empirical research demonstrating that many people display obsessional and compulsive symptoms that fall below diagnostic threshold (Gibbs, 1996). Our findings are at odds with neurobiological models of OCD which posit a dysfunctional brain or serotonin system in the development of this disorder.

Our finding that intrusive harm-related thoughts occur in many parents of new infants may be useful in perinatal educational settings. In particular, parents-to-be would likely benefit from being informed that the presence of such thoughts is common and not cause for alarm. Without such education, parents may be left believing (incorrectly) that such abhorrent ideas or urges represent true "evil" tendencies. It would also be important to clearly distinguish between obsessional thoughts and psychotic delusions: whereas the former are resisted because they are personally detestable and opposite of the individual's world view; the latter are accepted by the person as part of a larger context of persecutory, self-aggrandizing, or paranoid thinking.

The primary limitations of the present study concern the fact that our data were collected via a mail survey. Approximately one quarter of our sample returned the survey materials. As with any study relying exclusively on self-report data there is need for concern about response bias. Perhaps those individuals who responded recognized the senseless nature of their intrusive thoughts, understood that such thoughts do not portend disastrous consequences, and thus felt more comfortable disclosing them than those not responding to the survey. On the other hand, it is possible that individuals without intrusions did not return the survey thinking that it did not pertain to them. Thus the rate of intrusive thoughts in the postpartum population may be greater or less than what we report here. Additional interview studies are needed to more clearly assess the rate of postpartum obsessional intrusions. Mothers were more likely to return surveys than were fathers. Perhaps this was related to our finding that mothers spent more time with their infants than did fathers, and thus identified more with the topic of the survey. Alternatively, this difference in response rates may be an artifact of gender differences in the propensity to complete mail surveys.

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