

# Perinatal Timing of Obsessive-Compulsive Disorder Onset

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## Abstract

**Objectives:** The purpose of this research was to assess the timing and characteristics of the onset of perinatally occurring obsessive-compulsive disorder (OCD). OCD is a potentially disabling anxiety-related mental health condition for which the perinatal period represents a time of increased risk for onset, recurrence, and exacerbation.

**Methods:** This was a prospective cohort study conducted in British Columbia, Canada. Recruitment took place from January 23, 2014, to September 9, 2016. Participants provided information on reproductive and demographic questionnaires and diagnostic interviews (using the Structured Clinical Interview for *DSM-5*) in late pregnancy and

at 2 postpartum time points. Only participants who reported symptoms meeting full criteria for OCD during their current perinatal period were included in this report of findings ( $N = 97$ ). Analyses were primarily descriptive in nature, with  $\chi^2$  tests employed to test differences in onset (pregnancy vs postpartum) and perinatal OCD development based on age first symptom onset (childhood/adolescence vs adulthood).

**Results:** Over two-thirds (71%) of participants whose symptoms met full criteria for OCD at some point in their most recent perinatal period reported perinatal disorder onset. The majority of these (74%) reported onset during their first perinatal period. Perinatal disorder onset was much more likely to occur in the postpartum (83%), compared with in pregnancy (17%),  $\chi^2$  (1,

$N = 69$ ) = 29.3,  $P < .001$ . Symptom exacerbations were more likely to occur in the postpartum (77%) compared with prenatally (35%). Further, the lag time from symptom onset to disorder onset was shorter among participants who experienced a perinatal compared with a nonperinatal onset of their OCD.

**Conclusion:** Findings contribute to our understanding of perinatal OCD onset, emphasize the vulnerability to OCD during the perinatal period, and provide one of the first assessments in which symptom onset is distinguished from disorder onset. This work underscores the importance of recognizing the distinct nature of perinatal OCD.

*J Clin Psychiatry* 2024;85(3):24m15266

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Obsessive-compulsive disorder (OCD) is an anxiety-related condition characterized by recurrent, distressing, unwanted, intrusive thoughts, images and impulses (obsessions), and repetitive behaviors carried out in response to an obsession (compulsions).<sup>1-3</sup> Outside of the perinatal period, OCD has a lifetime prevalence of 2.3% and a 1-year prevalence of 1.2%.<sup>4</sup> Until recently, data suggested that OCD affected approximately 2% of perinatal people.<sup>5</sup> More recent findings suggest that OCD may be experienced by as many as 17% of perinatal people.<sup>6</sup> In the only true study of postpartum OCD incidence, the cumulative incidence of postpartum OCD was 5% by 4 weeks postpartum and 9% by 6 months postpartum.<sup>6</sup> It is likely that a proportion of pregnant and postpartum people also report symptoms meeting criteria for subclinical OCD.

Perinatally occurring OCD is typically characterized by a number of distinctive features, frequently

characterized by a rapid onset and obsessions related to one's infant.<sup>6,7</sup> Obsessions of infant-related harm, including harming one's infant on purpose, are common, especially postpartum, whereas cleaning-related obsessions are less common.<sup>8</sup> Due to the taboo nature of harming obsessions, parents are often highly motivated to conceal them from others, with potential negative consequences for their mental health.<sup>9</sup> Some have suggested that because of the distinctive features of perinatally occurring OCD (ie, rapid onset, obsessions focused on the infant, and frequent harming obsessions), assessments of perinatal OCD should include perinatal-specific examples and that without these, underdiagnosis may occur as a result of perinatal people failing to recognize their perinatal-specific OC symptoms in the context of standard OCD diagnostic assessments.<sup>6</sup> For the above reasons, it has been suggested that it should be considered a separate subtype or minimally a form of OCD with a distinctive clinical picture.<sup>7</sup>

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## Clinical Points

- This study reports on obsessive-compulsive disorder (OCD) symptom and disorder onset in relationship to perinatal events. This includes assessing onset in first and subsequent perinatal periods as well as the time between symptom and disorder onset. Studies have investigated perinatal events in relation to OCD onset, but, to our knowledge, no published studies have investigated the onset of both symptoms and disorder in relation to perinatal events.
- Findings show that OCD is most likely to begin in the early postpartum, with a rapid transition from symptoms to disorder. People with preexisting OCD are vulnerable to symptom exacerbation postpartum, and, among those without preexisting OCD, onset can occur up to 8 months postpartum, and possibly beyond.
- Perinatal people would benefit from screening from pregnancy through the first postpartum year with particular attention paid to the early postpartum. The findings also add to evidence that perinatal OCD is a unique form of OCD and that diagnostic assessments should take into account not only the timing but also the unique presentation (eg, obsessions of infant-related harm) of perinatally occurring OCD.

## ONSET IN PREGNANCY AND POSTPARTUM

While incidence studies can tell us how likely a person is to experience OCD onset in a particular perinatal period, they do not tell us how likely a person is to experience OCD onset in any perinatal period. This is most easily ascertained by assessing perinatal onset retrospectively, among OCD sufferers who have experienced a perinatal period. A total of 6 studies have done this.<sup>10–15</sup> Among the 5 studies to assess onset across pregnancy and the postpartum,<sup>10–13,15</sup> OCD onset occurred during a perinatal period for an average of 15.6% (range = 8.5%–30.8%) of participants who had experienced a perinatal period. Across these studies, the onset of OCD occurred fairly evenly in pregnancy (49.2%; range = 22%–100%) and the postpartum (50.8%; range = 0%–78%). With 1 exception,<sup>11</sup> these studies employed small samples (ie, N = 35–82).

## ONSET IN FIRST PREGNANCY OR POSTPARTUM

Only 2 studies (across 3 samples) of perinatal OCD have assessed whether OCD began during a first or subsequent perinatal period.<sup>11,14</sup> Among these, prenatal OCD onset occurred in a first pregnancy in 52%, 55%,<sup>11</sup> and 100%<sup>14</sup> of cases and in a first postpartum period in 50% and 67%<sup>11</sup> of cases. These findings suggest that when OCD begins perinatally, it frequently begins during one's first perinatal period.<sup>11,14</sup>

## PERINATAL OCD ONSET TIMING

Five studies have documented the timing of OCD onset within perinatal periods (ie, when in pregnancy and the postpartum).<sup>10,12,16–18</sup> Across the 3 studies to report prenatal OCD onset timing, involving a total of 26 participants, OCD onset occurred in the first 2 trimesters in 24 of 26 cases (ie, 92% of the time).<sup>12,17,18</sup> Three studies report postpartum onset timing for OCD.<sup>10,12,16</sup> In one, 7 of the 10 participants stated that their OCD began “right away” following the birth. In another,<sup>12</sup> all 3 indicated that their OCD began within a month of the birth. In the final study,<sup>16</sup> 7 of 12 reported onset in the first 2 weeks postpartum, with the remainder 5 of 12 reported onset between 2 and 4 weeks postpartum. Together, these findings indicate strongly an early (ie, within a month postpartum) and often abrupt postpartum onset.

To our knowledge, no studies of perinatal OCD onset have reported both the onset of symptoms (ie, when OC symptoms first began) and the onset of disorder (ie, when one's OC symptoms began taking a significant amount of time, significantly interfering in one's life, or causing significant distress). This is significant for a number of reasons. For example, it would be helpful to know if, among people who develop OCD during a perinatal period, it is more common for them to have experienced symptoms prior to the perinatal period (eg, in childhood, adolescence, or early adulthood) or if it is more common for symptoms and disorder to both begin during the same perinatal period, or perhaps across more than 1 perinatal period (eg, symptoms beginning in one's first perinatal period followed by disorder onset in a subsequent perinatal period). If symptom onset and disorder onset occur close together during the perinatal period, this suggests that perinatally occurring OCD may have unique characteristics that distinguish it from nonperinatally occurring OCD. In the absence of documenting both symptom onset and disorder onset, key aspects of perinatally occurring OCD development may be missed.

Although most publications in this area have reported on disorder onset, a number also failed to distinguish between symptom onset and disorder onset. By focusing on disorder onset only, some aspects of the relationship between OCD and the perinatal period may go undetected. For example, if it is common for OC symptoms to begin in pregnancy with disorder onset following in the postpartum, only documenting disorder onset would fail to identify this. Further, if participants are simply asked “when did your OCD begin,” it would not be possible to know if they are answering with respect to their earliest symptoms or only when those symptoms became problematic. Consequently, estimates of perinatally occurring OCD onset may be imprecise or biased. Disambiguating symptom and disorder onset will

facilitate a more precise knowledge of when perinatally occurring OCD begins.

## PERINATAL OC SYMPTOM CHANGE

Pre- and postnatal changes in OC symptoms, among people with preexisting OCD, have been reported across a total of 8 samples.<sup>10–12,15,18–20</sup> In the studies assessing symptom changes in pregnancy, exacerbations were reported by an average of 29% of cases, ranging from 8 to 46%, whereas, improvements were reported by an average of 19% of cases.<sup>11,12,15,18–20</sup> In the 5 samples for which postpartum symptom changes were assessed, exacerbation was reported by an average of 44% of cases, ranging from 29 to 50%, with improvement reported by an average of 9%. Overall, it appears that exacerbations of preexisting OCD occur fairly frequently, and in particular, in the postpartum.

Although, based on the literature summarized above, it is clear that much is known about perinatal OCD, significant gaps remain. Specifically, as sample sizes have been small, findings involve significant variability. Further, to date, no studies have reported separately on the onset of symptoms and disorder, including the time from symptom to disorder onset. Finally, most studies of perinatal OCD consist of samples of OCD sufferers who have previously experienced a perinatal period. Our sample differs in that it consists of currently pregnant and postpartum individuals who are experiencing OCD. In some cases, perinatal OCD resolves within a few months postpartum, so it is advantageous to sample from currently perinatal individuals in order to accurately capture its onset and characteristics. The purpose of the current report of findings was to respond to these gaps in the literature pertaining to perinatal OCD onset and exacerbation. Specifically, we report the following:

1. the frequency of OCD onset in pregnancy and the postpartum:
  - a. first perinatal period;
  - b. any perinatal period;
2. the timing of OCD onset in pregnancy and the postpartum;
3. changes in OC symptoms during pregnancy and the postpartum, among people with preexisting OCD; and
4. the time elapsed between first occurrence of symptom and full disorder onset, among participants with both perinatal and nonperinatal onset.

## METHODS

### Study Design

The current report of findings is based on a large, prospective, cohort study. Only those study methods

relevant to this portion of the work are reported here. The complete study protocol has been published in *BMC Psychiatry*.<sup>21</sup>

### Ethics

Ethics approval for this province-wide study was granted by the University of British Columbia Behavioural Research Ethics Board, the Vancouver Island Health Authority, the Vancouver Coastal Health Authority, and the Fraser Health Authority. Participant consent was obtained prenatally and again at the time of the first postpartum assessment. Consent to record study interviews was provided orally at the beginning of each interview.

### Inclusion Criteria

Pregnant people over the age of 18 years and fluent in English were eligible to participate. British Columbia (BC) was selected as the geographical boundary for the research, so only those living in BC at the time of recruitment were eligible to participate. Although recruitment was geared toward pregnant people, given that a number of our study objectives required postpartum data specifically, postpartum entry was also allowed to ensure a sufficiently large sample for these specific research questions.

### Recruitment

Recruitment took place from January 23, 2014, to September 9, 2016, and included hospital-based recruitment, community-based recruitment, and rurally focused approaches. Direct-approach recruitment (ie, approaching pregnant people as they waited for their hospital appointments) was emphasized. Indirect recruitment involved sending letters and study pamphlets to midwives, family physicians, and obstetricians and the placing of posters and pamphlets in places where pregnant people would frequent. To maximize sample representativeness, recruitment was carried out proportionally across the 9 hospitals in BC with >1,500 infant deliveries annually.

### Participants

Data were collected from February 9, 2014, to February 14, 2017. The full sample included 767 participants. Timing of onset questions were administered to all participants who reported symptoms meeting full criteria for OCD during the perinatal period in which the assessments took place ( $N = 97$ ). This report of findings pertains to these participants only. OCD prevalence and incidence findings have been detailed elsewhere.<sup>6</sup>

### Procedures

Pregnant people who met the study eligibility requirements at intake were invited to participate. Consenting participants completed online

questionnaires and diagnostic interviews in late pregnancy and at 2 postpartum time points. For this report of findings, only demographic and reproductive information was taken from questionnaire data. All other data were derived from the study interviews. Interviews were administered by telephone at mean = 37.0, SD = 2.0 weeks' gestation, mean = 9.2, SD = 2.0 weeks postpartum, and mean = 21.8, SD = 4.0 weeks postpartum. Interview timing did not differ significantly for the full sample and participants included in this analysis of data. Participants who missed the prenatal questionnaires were asked to complete questions pertaining to demographic and birth information at their first postpartum assessment. Paper copies of the questionnaire packages were available via mail to those who requested them.

## Assessment tools

**Demographic, pregnancy, and birth-related information.** Demographic information (ie, age, marital status, occupation, education, income, race/ethnicity, and language), pregnancy information (ie, medical and pregnancy complications, and reproductive history), and birth-related information (ie, baby's date of birth, mode and location of delivery, birth weight, pregnancy and birth complications, neonatal health, and infant feeding) were collected via self-report, using forms developed by our team and used extensively in our work.<sup>21</sup>

**The Structured Clinical Interview for DSM-5 (SCID-5)<sup>22</sup>.** The SCID-5 is a psychometrically sound semistructured interview designed for the assessment of *DSM-5* mental health disorders. The OCD and major depression sections of the SCID-5 were administered. In this report of findings, we report only on the OCD data. Interviewers were trained to a strict criterion by the principal investigator.<sup>21</sup> Symptom severity was rated on a 0 (none) to 8 (very severe/disabling) scale and was assessed for the past 2 weeks at each of the 3 interviews. During the prenatal interview, OCD was also assessed for the most intense 2-week period in pregnancy. During the final interview, OCD was also assessed for the most intense 2-week period since the baby's birth. This allowed us to document OCD for the full prenatal and postpartum periods. Perinatal-specific OC symptoms were included in the assessments (ie, obsessions involving infant-related harm). Specifically, the interview began by asking participants about both perinatal (eg, infant-related harm) and nonperinatal intrusive thoughts separately. They were then asked to include both together when responding to subsequent interview questions about OCD. This applied to questions about obsessions and compulsions.

**Timing of onset.** Timing of the onset of symptoms and disorder for OCD was collected via a supplementary sheet added to the SCID-5 interview. Details regarding age and perinatal timing of the onset of OC symptoms and disorder

as well as the participants' history of OCD were documented using this form.<sup>21</sup> Participants were asked the following 2 questions: "When did these symptoms of OCD first begin?" "When was your OCD first at a level that interfered significantly with your life or caused you significant distress?" The purpose of the first question was to ascertain symptom onset and the second to ascertain disorder onset. The framing of these questions was suggested by a colleague who has significant experience assessing disorder and symptom onset and who recommended the wording used in their research.

Perinatal symptom and disorder onset information was collected specific to within 1 week, whereas nonperinatal symptom and disorder onset information was specific only up to 1 year. Consequently, symptom to disorder onset can be specified to within (a) 1 week for perinatal symptom and disorder onset and (b) to 1 year for nonperinatal symptom and/or disorder onset. For those participants with OC symptom and disorder onset occurring within a single year and outside of a perinatal period ( $n = 10$ ), the time elapsed between symptom and disorder onset was approximated to 0.5 years.

## Data Analysis

Data analysis for this report of findings was primarily descriptive and was performed using IBM SPSS Statistics (version 28).<sup>23</sup> Chi-square tests were employed to test the association between the life stage of OC symptom onset and subsequent perinatal disorder onset, and whether disorder onset was more likely to occur in the postpartum vs pregnancy. Three participants were removed due to missing demographic and outcome variables, yielding a total of  $n = 97$  participants included in the analysis.

## RESULTS

### Participant Demographics, Reproductive History, and Current Pregnancy and Birth

Overall, the majority of our sample was partnered, well educated, and of European or Asian descent. Over half were primiparous and gave birth vaginally. Approximately one-third of the sample experienced complications in pregnancy or during labor. See Table 1 for detailed demographic, reproductive history, and current pregnancy and birth information.

### OCD Age of Onset

For the majority (67.0%) of the 97 participants who met criteria for OCD during the perinatal period under investigation, full criteria for OCD were first met in adulthood. Among participants who reported OC symptom onset in adulthood, full criteria for OCD

Table 1.

**Demographic Information, Reproductive History, and Current Perinatal Period (N = 97)<sup>a</sup>**

Demographic characteristics	n	%
<b>Relationship status</b>		
Single	6	6.2
Married or living with romantic partner	90	92.8
<b>Education</b>		
Did not complete high school	4	4.1
High school	7	7.2
Undergraduate education	57	58.8
Master's or PhD	28	28.9
<b>Cultural heritage</b>		
European	53	54.6
Asian	20	20.6
Indigenous	4	4.1
Latin, Central, and South America	2	2.1
Mixed heritage and other	15	15.4
<b>Age, y</b>	Mean = 31.4 (SD = 5.0)	Range = 18–43
<b>Reproductive history</b>	n	%
Primiparous	61	62.9
Prior history of miscarriage	28	28.9
<b>Current pregnancy, birth, and postpartum</b>	n	%
Mode of delivery		
Vaginal delivery	55	56.7
Cesarean delivery—before labor began	37	38.2
<b>Pregnancy complications</b>	36	37.1
<b>Labor complications</b>	37	38.1
<b>Episiotomy performed</b>	11	11.3
<b>Parent readmission to the hospital</b>	9	9.3
<b>Baby admitted to intensive or special care unit</b>	16	16.5

<sup>a</sup>Small amounts of data (n = 1–5) were missing for some variables.

Table 2.

**Perinatal OCD (Disorder) Onset by Age Category at the Time of Symptom Onset (N = 97)**

Age category	Perinatal disorder onset	
	%	n
Childhood (n = 17)	17.6	3 of 17
Adolescence (n = 15)	46.7	7 of 15
Adulthood (n = 65)	90.8	59 of 65

Abbreviation: OCD = obsessive-compulsive disorder.

were more often met in a perinatal period (90.8%; n = 59 of 65) compared with those for whom symptoms began in childhood or adolescence (31.3%; n = 10 of 32),  $\chi^2$  (1, N = 97) = 34.2,  $P < .001$ . Details are provided in Table 2.

**Onset in Pregnancy and Postpartum**

Among participants who experienced more than 1 perinatal period (n = 34; minimally the current perinatal period and 1 other), OC disorder onset occurred in the first perinatal period for 26.5% of

Table 3.

**Frequency of Perinatal OC Symptom and Disorder Onset (First or Subsequent) Among Multiparas (n = 34)<sup>a</sup>**

	OCD onset			
	First perinatal % (n)	Subsequent perinatal % (n)	Nonperinatal % (n)	Total % (n)
<b>Symptom onset</b>	29.4 (10)	38.2 (13)	32.4 (11)	100 (34)
<b>Disorder onset</b>	26.5 (9)	50.0 (17)	23.5 (8)	100 (34)

<sup>a</sup>This table is limited to multiparous participants who met full criteria for OCD during the current perinatal period (n = 34).

Abbreviation: OCD = obsessive-compulsive disorder.

participants, whereas disorder onset occurred in a subsequent perinatal period for 50.0% of participants. See Table 3 for details.

Over half of our sample (60.8%) reported perinatal OC symptom onset, and more than two-thirds (71.1%) reported perinatal disorder onset (ie, OC symptoms causing clinically significant distress and/or impairment). Overall, disorder onset was more likely to



Table 4.

**Perinatal Timing of OCD (Disorder) Onset (n = 69)<sup>a</sup>**

Perinatal period	First % (n)	Subsequent % (n)	Any % (n)
Pregnancy	11.6 (8)	5.8 (4)	17.4 (12)
Postpartum	62.3 (43)	20.3 (14)	82.6 (57)
All perinatal	73.9 (51)	26.1 (18)	100.0 (69)

<sup>a</sup>This table includes only those participants who first met full diagnostic criteria for OCD during a perinatal period (n = 69). For these, we report on the proportion for whom the disorder began in the first or any pregnancy and in the first or any postpartum period. Abbreviation: OCD = obsessive-compulsive disorder.

occur in the postpartum compared with in pregnancy (ie, 82.6% vs 17.4%),  $\chi^2$  (1, n = 69) = 29.3,  $P < .001$ . See Table 4 for details.

**Perinatal OCD Onset Timing**

When symptoms began in pregnancy (n = 24), they began between 2 and 29 weeks' gestation, on average at 22 weeks' gestation (mean = 22.1, SD = 10.5; data missing for 3 of 24). When disorder onset occurred in pregnancy (n = 12), it began between 7.5 and 35 weeks' gestation, on average at 22 weeks' gestation (mean = 22.8, SD = 8.9; data missing for 1). Among those with postpartum OC symptom onset (n = 35), symptoms began between 0 and 32 weeks postpartum, and on average, within a month of the birth (mean = 3.5 weeks, SD = 7.2; data missing for 1). Disorder onset (n = 57) occurred between 0 and 34 weeks postpartum, with a slightly later average onset at approximately 5 weeks postpartum (mean = 5.2, SD = 6.8; data missing for 1).

**Perinatal OC Symptom Change**

Among participants with OC symptom onset prior to the current pregnancy (n = 40), symptoms increased in pregnancy for 35%, remained the same for 55%, and decreased for 10%. An additional 24 participants reported OC symptom onset this pregnancy (ie, 64 participants reported prenatal OC symptoms). Of these, symptoms increased postpartum for 77%, remained the same for 6%, and decreased for 17%.

**Lag Time Information**

Of the participants who reported perinatal symptom and disorder onset (n = 59; we have complete data for 47), the average time from symptom to disorder onset was 3 weeks (mean = 3.2, SD = 5.8, range = 0–32.5). For participants who reported a nonperinatal onset for both symptom and disorder (n = 23), the average time from symptom to disorder was approximately 3 years (mean = 3.0, SD = 4.0). Among those who reported nonperinatal symptom onset but perinatal disorder onset (n = 6), the average time between these was 10 years (mean = 10.0, SD = 3.3). None reported

perinatal symptom onset with nonperinatal disorder onset.

**DISCUSSION**

The purpose of this research was to document the timing of OCD onset (symptom and disorder) and changes in OC symptoms during the perinatal period, among people experiencing OCD during a perinatal period (ie, in pregnancy and the postpartum). Our report of findings contributes new and unique information to our understanding of perinatally occurring OCD. To our knowledge, this is the first such study to distinguish OC symptom and disorder onset among perinatal people. In some areas, our sample is significantly larger than others, allowing for greater confidence in findings. Our sample is also unique in that it is comprised exclusively of people who reported symptoms meeting criteria for OCD in a current perinatal period.

**Perinatal OCD Onset**

Among participants suffering from full criteria OCD in the current perinatal period, over half reported a perinatal onset (ie, 61% for symptoms and 71% for disorder). When OCD began during a perinatal period, for approximately half, it began during a first perinatal period (ie, among 47% for symptom onset and among 53% for disorder onset). Although our findings suggest a higher frequency of perinatal onset compared with previous research in which perinatal onset has been found to occur (on average, for 15.6% of people), this may at least in part be an artifact of a number of methodological factors unique to this study.<sup>10–15</sup> Specifically, because we assessed OCD onset among people suffering from OCD during their current perinatal period, they may be people for whom pregnancy and the postpartum represent a time of particular vulnerability to OCD, and for whom symptoms of OCD sufficient for a diagnosis may be transient. However, we may also have been more likely to detect these cases because our assessments included questions about perinatal-specific OC symptoms (eg, infant-related harm thoughts). Future research in which all perinatal people are asked about their history of OCD (irrespective of current diagnostic status) may help to clarify the frequency of perinatal onset of OCD.

**OCD Age of Onset**

Full criteria for OCD were first met in adulthood for the majority of study participants (ie, >75%). Few reported symptoms first meeting full criteria for OCD in childhood or adolescence. Among those who reported a perinatal onset of OCD, all but one indicated onset in adulthood. Although OC symptoms were somewhat less likely to begin in adulthood and during a perinatal

period, compared with disorder onset, overall, both symptoms and disorder frequently began during a perinatal period. This is in contrast with studies of nonperinatally occurring OCD in which onset in childhood and adolescence is common.<sup>4,24</sup> Further, approximately one-quarter to one-third reported that their OC symptoms and disorder began during their first perinatal period. It is worth noting, however, that because we did not assess OCD history among all participants (ie, we assessed this only among participants who experienced full criteria OCD during their current perinatal period), it is probable that OC symptom and disorder onset occur more frequently during a first perinatal period than is evident in our findings. Taken together, these findings suggest a distinct character to perinatally occurring OCD. We know that the perinatal period is a time of increased risk for OCD onset, and it may be that the risk factors for perinatally occurring OCD differ from those for nonperinatal OCD.

### Perinatal OCD Onset Timing

Prenatal OC symptoms and disorder both began in the second and third trimesters for the majority (ie, 81%) of participants who reported prenatal OCD onset, with disorder onset in pregnancy occurring at an average at 22 weeks' gestation (mean = 22.8, SD = 8.9; data missing for 1). This is somewhat later than what has been reported in previous research.<sup>12,16,17</sup> The only other study providing prenatal OCD onset timing by number of weeks' gestation<sup>17</sup> reported an average onset of  $13.3 \pm 6.35$  weeks' gestation for  $n = 20$  participants, and across the 3 studies reporting by onset by trimester, OCD began in the first 2 trimesters for 92% of cases.<sup>12,16,17</sup> Given that much of the OCD we assessed was current OCD, and when retrospective, only by several months, our participants may have been able to report onset timing more accurately. As noted above, our sample may also differ from studies of clinical samples of OCD sufferers.<sup>12,17,18</sup>

With respect to postpartum OCD onset, symptom onset occurred for our participants on average within 1 month postpartum, with disorder onset beginning within 2 months postpartum. This is very similar to previous research in which OCD onset occurred within 1 month postpartum for 88% (22 of 25) of participants (across 3 studies) and within 6 months postpartum for the remainder.<sup>10,12,16</sup> Our findings, along with previous, support the idea that postpartum occurring OCD has an abrupt onset.<sup>25</sup>

### Perinatal OC Symptom Change

OC symptom exacerbation occurred much more frequently postpartum (77%), compared with in pregnancy (35%). This is similar to but higher than findings by others where exacerbations in OC symptoms were reported on average prenatally by 33%<sup>19,20</sup> of participants and postpartum by 46%.<sup>20</sup> The tendency for the postpartum period to be characterized by OC

symptom exacerbation further supports the idea that the postpartum represents a time of particular risk for OCD onset, exacerbation, and recurrence.

In contrast, during pregnancy, over half of participants with preexisting OCD reported that their OC symptoms either remained the same (55%) or improved (10%). This is consistent with the finding that the postpartum period represents a particular risk for OCD onset, exacerbation, and recurrence.<sup>26,27</sup> The psychological factors which may increase the risk of OCD (eg, increased responsibility and threat) likely increase postpartum. For example, although pregnant people likely feel responsible for their unborn baby, these feelings likely intensify postpartum. Further, the risks of harm to the infant and the need to actively avoid these greatly increase when caring for a newborn. Finally, one's feelings of attachment to the infant and the perception of the infant as precious are likely more intense following the birth. These factors together increase the risk of threatening intrusions and the possibility of strong reactions to them.

Given our emphasis on perinatal-specific OC symptoms (eg, postpartum harm thoughts), it is not surprising that we noted a higher prevalence of postpartum exacerbations compared with others. As previously noted in our own work,<sup>6</sup> it is very likely that when perinatal-specific examples are not included in diagnostic assessments of OCD, some instances of the disorder are missed.

### Lag Time

Among participants who experienced a perinatal OC onset of both symptoms and disorder, the average time from symptoms to disorder was 3 weeks. Conversely, among participants who reported a nonperinatal onset of OC symptoms and disorder, the time from symptom onset to disorder onset was 3 years.

As this is one of the first studies of perinatal OCD in which symptom onset has been distinguished from disorder onset, our findings provide more concrete support for perinatally occurring OCD being characterized by rapid onset. It suggests that the intrusive thoughts which are typical among perinatal people (ie, thoughts of harm related to one's infant) may be particularly provocative and vulnerable to quickly developing into diagnosable OCD. Given the high prevalence (ie, 17%) and incidence (10%) of perinatal OCD, and the rapid transition from symptoms to disorder, in clinical settings, OC symptoms should be closely monitored. These findings also further reinforce the idea that perinatal OCD represents a distinct subtype of this condition.<sup>7,8,28</sup>

### Study Strengths

A unique aspect of this study is that, from among pregnant and postpartum people, we identified those

experiencing OCD in their current perinatal period. Most studies have instead begun with samples of OCD sufferers and retrospectively investigated perinatal events in relation to their experience of OCD. Although there are some disadvantages to our approach, there are notable advantages. Specifically, there is evidence that for some people, postpartum OCD may be transient and resolve within a few months postpartum.<sup>6,29</sup> Our design allows us to capture the experience of these people. It also ensures that, for the most recent perinatal period, participants were required to rely less on retrospective recall than is typical in such studies. Of significance, we are the first to report the life stage (ie, childhood, adolescence, and adulthood) of OCD onset among perinatal people with current OCD. Additional strengths include the fact that this is the first study of perinatally occurring OCD in which the onset of both symptoms and disorder has been assessed. We are also the first to document time from symptom onset to disorder onset.

## Limitations and Future Directions

Despite having significant strengths, the study has a number of limitations. The most significant is that we assessed OCD onset only for participants who reported symptoms meeting criteria for OCD during their most recent perinatal period (ie, we assessed participants during their pregnancy and postpartum and assessed history of OCD only for those who reported symptoms meeting full criteria OCD at some point during that perinatal period). Consequently, our sample may overestimate the prevalence of perinatally occurring OCD compared with nonperinatal OCD. Conversely, an advantage of this is that it may also prime recall for perinatal-related experiences. Further, findings may also underestimate the proportion of people for whom OCD (symptoms and disorder) begins during a first perinatal period.

Most other research in this area has focused on sample of people with OCD (eg, clinic samples) and has then assessed perinatal events and OCD onset among them. This risks missing perinatal people with OCD due to a failure to conduct perinatally oriented assessments and the potentially transient nature of perinatally occurring OCD. Consequently, neither methodology is ideal. Although our own recent publication provides this for the postpartum, data for OCD incidence in pregnancy are lacking.<sup>6</sup> Future research should endeavor to assess OCD onset via a large sample of perinatal people, followed from the beginning of pregnancy through the postpartum period.

Further, although our sample is larger in some areas than others (ie, timing of OC symptom and disorder onset in postpartum), it is nevertheless smaller than would be ideal to draw conclusions with confidence (ie,  $N = 97$ ). Our sample also consisted primarily of white and Asian individuals, the majority of whom are college educated,

and all of whom reside in a single province in Canada. This limits the generalizability of our findings, and future research directions should include testing the replicability of these findings in diverse participant populations.

## Clinical Implications

Findings from this study indicate that perinatal OCD can occur across the perinatal period but is most likely to occur postpartum. Further, when OCD begins postpartum, it occurs quickly. OCD onset in pregnancy appears to occur throughout the pregnancy and possibly more often later in pregnancy, but this will require additional research to fully clarify. Postpartum OCD onset however tends to occur early in the postpartum period. Our earlier publication from this dataset indicated that OCD incidence is most likely to occur in the first 10 weeks postpartum but may continue to develop up to and including the first 6 months after the birth.<sup>6</sup>

For these reasons, we recommend screening for OCD to begin in pregnancy and continue throughout the first 6 months postpartum. Ideally, prenatal screening would be conducted once at the end of the first trimester and again during the third trimester, whereas postpartum screening should begin within the first few weeks postpartum and be repeated at least once before 6 months postpartum. Our findings also reinforce the idea that perinatal OCD represents a distinct form of OCD and diagnostic assessments should take into account not only the timing but also the unique symptom profile (ie, infant-related obsessions frequently characterized by thoughts of harm) of perinatally occurring OCD.

## CONCLUSIONS

In conclusion, this study provides valuable insights into the complex and unique nature of perinatal OCD, in particular details regarding the timing and characteristics of both symptom and disorder onset. This study adds unique information regarding OC symptom onset, distinct from disorder onset. Of particular importance is the fact that OCD is a common occurrence for perinatal people, has a rapid onset (ie, the time from symptom to disorder onset among perinatal people is short), and is most impactful (ie, begins and/or is exacerbated most often) in the postpartum. Our findings suggest that one's first perinatal period may be a time of particular vulnerability for the onset of OCD. This research, together with previous research on this topic, emphasizes the need to attend to the presence of OC symptoms among pregnant and postpartum people, understanding that OCD commonly occurs, begins, and worsens during this time.



## Article Information

**Published Online:** August 28, 2024. <https://doi.org/10.4088/JCP.24m15266>

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**Submitted:** January 31, 2024; accepted June 6, 2024.

**To Cite:** Fairbrother N, Beck QM, Keeney CL. Perinatal timing of obsessive-compulsive disorder onset. *J Clin Psychiatry*. 2024;85(3):24m15266.

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**Relevant Financial Relationships:** None.

**Funding/Support:** This work was supported by a Project Grant from the Canadian Institutes of Health Research (award number 123442).

**Role of the Sponsor:** The sponsor had no role in the design, analysis, interpretation, or publication of this study.

**Previous Presentation:** Poster presented at the BC Children's Hospital Research Institute, Healthy Starts Research Day; February 2023; Vancouver, Canada.

**Acknowledgments:** We would like to express our gratitude to all the participants in our study who made this research possible.

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