Cheryl Tatano Beck, DNSc, CNM, FAAN

PERINATAL MOOD AND ANXIETY DISORDERS: RESEARCH AND IMPLICATIONS FOR NURSING CARE

The publication of this practice monograph was supported by a sponsorship from Pampers.

The words "woman" and "women" are used herein as general terms and may include those who do not self-identify as women or exclusively as women. To provide culturally appropriate, respectful, and sensitive care, the maternity care provider should always ask individuals what words they use to describe themselves, their bodies, and their health care practices.

AWHONN
PROMOTING THE HEALTH OF WOMEN AND NEWBORNS

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Headquartered in Washington, DC, the Association of Women's Health, Obstetric and Neonatal Nurses is a leader among the nation's nursing associations, serving more than 22,000 health care professionals in the United States, Canada, and abroad and representing more than 350,000 nurses in our specialty.

AWHONN advances the nursing profession by providing nurses with critical information and support to help them deliver the highest quality care for women and newborns. Though its many evidence-based education and practice resources, legislative programs, research, and coalition work with other organizations and associations, AWHONN has firmly established itself as the leading association of women's health, obstetric, and neonatal nurses.

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ISBN: 978-1-938299-79-7

 doi: 10.1016/j.jogn.2021.02.007

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Disclosure: Dr. Beck receives a royalty from Western Psychological Services, publisher and distributor of the Postpartum Depression Screening Scale.

AWHONN thanks the reviewers of this resource:
Theresa Breslin, DNP, RNC-OB, C-EFM, RNC-NIC
Sarah Copple, MSN, RNC- MNN
Catherine M. Hill, MSN, FNP-BC

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doi: 10.1016/j.jogn.2021.02.007

Table of Contents

AWHONN
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Perinatal Mood and Anxiety Disorders: Research and Implications for Nursing Care

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INTRODUCTION

Undiagnosed and untreated mental health disorders related to childbirth represent a silent health crisis in the United States (Postpartum Support International, 2020). Perinatal mood and anxiety disorders are dangerous thieves that rob mothers of precious time with their infants and can have lasting effects for the mother, her infant, older children, and significant others. The purpose of this practice monograph is to inform and alert nurses to the gravity of perinatal mood and anxiety disorders for women and their families. In this monograph, the following topics are addressed: mood and anxiety disorders during pregnancy; postpartum anxiety disorders, including postpartum obsessive-compulsive disorder (OCD), postpartum onset panic disorder, and posttraumatic stress disorder (PTSD) related to childbirth; postpartum mood disorders, including postpartum psychosis (PPP), bipolar II disorder, and postpartum depression (PPD); and PPD and posttraumatic stress response in fathers. Primary and secondary prevention interventions, such as antidepressants and psychotherapy, are described, and screening scales to identify women with perinatal mood and anxiety disorders are reviewed. Throughout the monograph, nursing interventions are suggested, and sample cases are used to illustrate women's and men's experiences with perinatal mood and anxiety disorders.

ANXIETY DISORDERS IN PREGNANCY

Anxiety disorders in pregnancy are different from regular pregnancy-related worries because of their intensity, persistence, and negative effect on everyday life. During pregnancy, some women may experience anxiety disorders for the first time, and women who have pre-existing anxiety disorders may experience changes. A risk factor for anxiety in pregnancy is a prior history of an anxiety disorder. In a meta-analysis of 102 studies from 34 countries (N = 221,974), Dennis et al. (2017) reported that the prevalence of self-reported anxiety symptoms was 18.2% in the first trimester, 19.1% in the second trimester, and 24.6% in the third trimester. When focusing on a clinical diagnosis of any type of anxiety disorder during pregnancy, the prevalence was 15.2% for generalized anxiety disorder. In a sample of 310 Canadian women, Fairbrother et al. (2016) reported the prevalence of an anxiety disorder during pregnancy and the early postpartum period as 15.8% and 17.1% respectively. In a meta-analysis of 36 studies on anxiety disorders during pregnancy, Viswasam et al. (2019) reported that the prevalence of general anxiety disorders ranged from 0.9% to 22.7%, and the pooled data analysis yielded an overall prevalence of 3%.

Prenatal anxiety is significantly related to an elevated risk of PPD. In a meta-analysis of 13 studies, Grigoriadis et al. (2019) found that prenatal anxiety was significantly related to an increased risk of PPD during the first 6 months after birth. When examining the prevalence of comorbidity of anxiety in the prenatal period, Falah-Hassani et al. (2017) conducted a meta-analysis of 66 studies from 30 countries (N =162,120). They reported that the overall prevalence for co-morbid anxiety symptoms and moderate to severe symptoms of depression was 6.3% when combining all three trimesters. For clinically diagnosed co-morbid anxiety and depression for all three trimesters, the rate was 9.3%.

Anxiety during pregnancy has implications for preterm birth and low birth weight, as demonstrated in a meta-analysis of 29 studies (Grigoriadis et al., 2018). Prenatal anxiety was related to negative reactivity or self-regulation in children during the first two years of life (Korja et al., 2017). Identification and treatment for prenatal anxiety disorders are important because of the possible effect of untreated anxiety disorders on maternal, fetal, and child outcomes. Non-pharmacological treatment includes psychotherapy, cognitive behavioral therapy, and interpersonal therapy. For pharmacological interventions, selective serotonin reuptake inhibitors (SSRIs) are the first line of treatment for pregnant and lactating women.

doi: 10.1016/j.jogn.2021.02.007

Panic Disorder in Pregnancy

Among the articles included in their systematic review, Viswasam et al. (2019) found that the prevalence of panic disorder during pregnancy ranged from 0.4% to 7.5%. No specific pattern of the course of panic symptoms during pregnancy was found: some symptoms improved, some worsened, and some stayed the same. Among the 146 pregnant women who participated in Uguz et al.'s (2018) study, 44 had panic disorder and were treated with antidepressants, 52 had untreated panic disorder, and 50 did not have panic disorder. Participants with untreated panic disorder were at increased risk of giving birth to infants at earlier gestational ages and lower birth weights than those who received treatment. Infants born to mothers who were not treated had an increased rate of hospitalizations in the NICU (Uguz et al., 2018).

Obsessive-Compulsive Disorder in Pregnancy

In the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), the American Psychiatric Association (APA, 2013, p. 237) defined obsessions as "recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress." Compulsions were defined as "repetitive behaviors (e.g., hand washing, ordering of objects, re-checking) or mental acts (e.g., praying, counting, repeating words silently) that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly" (APA, 2013, p. 237). With compulsive acts, a person attempts to decrease anxiety or prevent a dreaded event. The obsessions and compulsions are distressing and occur more than 1 hour per day.

Pregnancy is a risk factor for the onset or exacerbation of OCD; pregnant women are 1.5 to 2 times more likely to experience this disorder than the general population of women (Russell et al., 2013). The prevalence of OCD reported during pregnancy ranged from 0.2% to 29.1%, while pooled analysis revealed an overall rate of 3% (Viswasam et al., 2019), and just as with panic disorder, there was no consistent pattern of course of symptoms. In a sample of Canadian women, the prevalence of OCD during pregnancy was 1.0% (Fairbrother et al., 2016). In a systematic review of 14 studies, Starcevic et al. (2020) examined the frequencies of obsessions and compulsions in women during pregnancy. The most frequent obsessions involved contamination and the need for exactness, and the most frequent compulsions were hand washing/cleaning and checking.

Viswasam and colleagues (2019) also compared prevalence rates during pregnancy to lifetime prevalence rates in women in the general population. Panic disorder and OCD were more common during pregnancy, but rates of general anxiety disorder and PTSD during pregnancy were lower than lifetime rates for women in the general population. Viswasam et al. (2019) cautioned against generalization of their meta-analytic findings because of variability of the times when data were collected and the instruments used to measure anxiety symptoms in the 36 included studies.

Biaggi et al. (2016) performed a systematic review of 97 studies to identify risk factors for women who develop anxiety and depression during pregnancy. The following were the significant factors: lack of partner social support, history of mental illness, history of abuse or domestic violence, pregnancy that was either unplanned or unwanted, prior pregnancy with fetal/infant loss, complications with prior or present pregnancy, and experiencing adverse life events. Women can be screened during pregnancy for these relevant risk factors so that women who may be struggling with anxiety or depression can be identified early and interventions started.

Interventions. Marchesi et al. (2016) performed a systematic review of 18 studies on pharmacological and non-pharmacological interventions for perinatal anxiety and depression. Results of the included studies supported the use of cognitive behavioral therapy and SSRIs, which significantly decreased the symptoms of obsessive-compulsive and panic disorder during pregnancy and the postpartum period without any side effects for infants.

Anxiety Among Men during Their Partners' Pregnancies

Anxiety in men during their partners' pregnancies has not been researched in depth. However, in a systematic review of 43 studies, Leach et al. (2016) reported that prevalence rates for any type of anxiety disorder ranged from 4.1% to 16.0% in the perinatal period. Cameron et al. (2020) assessed the psychometric properties of the Pregnancy-Related Anxiety Scale (PRAS) for use with fathers during pregnancy. The researchers concluded this was an important first step in evaluating its use with men. The PRAS is a 10-item self-report Likert scale originally developed for women that was adapted for men. For example, the item "I think my labor and delivery will go normally" was modified to "I think my partner's labor and delivery will go normally". The PRAS is used to assess six areas of importance to fathers: fetal health, loss of fetus, childbirth, partner's well-being, parenting, and control/confidence. Both partners should be included in discussions and interventions regarding their mental health during the perinatal period.

MOOD DISORDERS IN PREGNANCY

Prenatal Depression

In a review of 22 studies ($N = 4{,}543$), Stevens et al. (2019) found a wide variation in the recurrence rates of major depression during pregnancy; the mean recurrence rate was 8%. Stevens and colleagues (2019) also examined whether maintenance pharmacotherapy decreased the risk of recurrence of major depression in pregnancy and found that the recurrence rate was 31% with maintenance and 68% without. Because of the heterogeneous samples and designs of the studies included in this systematic review, generalization is limited. Shamblaw et al. (2019) meta-synthesized the findings of 70 studies and reported that a history of sexual, emotional/verbal, or physical abuse had a significant positive relationship with depression during pregnancy.

Children's socioemotional development may be affected long-term by their mothers' perinatal depression. Madigan et al. (2018) conducted a meta-analysis of 71 studies and found that prenatal depression was associated with an increased risk of socioemotional problems among the children of affected mothers. In a longitudinal study, Srinivasan et al. (2020) investigated the association between

Case 1: Rosa

Rosa is 22 years old, has a high school diploma, is married, and is pregnant with her second child. Her son is 2 ½ years old. Rosa was born in Mexico and gave birth to her first child there. One year ago, she, her husband, and child crossed the border from Mexico to the United States. Rosa knows very little English and has difficulty communicating with the maternity care providers at the prenatal clinic. As a child, Rosa was sexually abused by her uncle in Mexico. At times Rosa and her family experience food insecurity. When this occurs, Rosa gives what food they have to her toddler.

Rosa's husband is very supportive and tries to help as much as he can. However, he is not home much of the time because he holds two jobs. Rosa misses her mother and grandmother who are in Mexico and who supported her after the birth of her first child. She is sad because these important women will not be present for this birth. As a result, Rosa feels isolated and alone. Complicating her pregnancy is her fear of deportation since she, her husband, and toddler are undocumented.

Rosa's first pregnancy was uncomplicated and she gave birth vaginally at 39 weeks gestation. She is now in her third trimester. All physical indicators, including fundal height and movement, suggest that the developing fetus is fine. She has no signs of preeclampsia or gestational diabetes. However, her diet is problematic because of food insecurity. Since physical indicators suggest that Rosa and her fetus are doing fine, maternity care providers should concentrate on Rosa's mental health. She has risk factors for developing PPD and for current depression during her pregnancy: low socioeconomic status, undocumented immigration status, history of childhood sexual abuse, lack of extended family social support, poor English language skills, and fear of deportation.

Questions Related to Rosa's Case

- For what mood disorders is Rosa is at risk?
- What interventions should be initiated for Rosa?

Rosa should be screened for symptoms of prenatal depression and anxiety, and appropriate referrals should be made to mental health professionals as necessary. Rosa should be directed towards resources to help with food insecurity and to provide a more nutritious diet for Rosa and her developing fetus. She also needs information on support groups in her local area for Latina mothers. Rosa should be monitored for PPD after she gives birth.

Comprehensive assessment of the cultural and contextual stressors that can contribute to Rosa's mental health is essential. In the best-case scenario, an intervention can be initiated before she gives birth to help prevent PPD or some other postpartum mood or anxiety disorder. Rosa should also be assessed for PTSD because of her border crossing experience, threat of deportation., and childhood sexual abuse.

women's symptoms of depression during the prenatal period and psychotic experiences in their children at 18 years of age. Symptoms of depression were measured using the Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987). Adolescents completed the Psychosis-Like Symptom Interview (Zammit et al., 2013). Prenatal symptoms of depression were significantly associated with adolescents' psychotic experiences after adjustment for confounding variables.

Interventions

A meta-analysis of 28 pharmacological interventions for depression during pregnancy revealed that cognitive behavioral therapy and interpersonal psychotherapy had robust benefits (van Ravesteyn et al., 2017). Body-oriented treatment, such as yoga and massage, had a medium decrease in symptoms while bright light therapy and food supplements did not show any significant effects on lowering symptoms of depression. In a meta-analysis of eight randomized placebo-controlled trials ($N = 638$ women), Zhang et al. (2020) examined the efficacy of omega-3 fatty acids on symptoms of depression the perinatal period. Among the included studies, omega-3 fatty acids had a significant effect on reducing symptoms of depression.

Letourneau et al. (2017) reviewed 36 studies to determine which interventions for prenatal depression were most effective to improve parenting and child development. Results revealed interpersonal psychotherapy, cognitive behavioral therapy, and massage had the most beneficial effects to parents (attention to the infant and adjustment) and child development.

Depression Among Men during Their Partners' Pregnancies

Rao et al. (2020) examined PPD symptoms in men ($N = 20,728$) during the first 12 months after the birth of their children. During the entire time, the prevalence rate was 8.75%. For the first 3 months, the rate was 7.8%, between 3 and 6 months the rate was 9.23%, and between 6 and 12 months the rate was 8.40%.

Bipolar Disorder during Pregnancy

Based on a meta-analysis of 22 studies, Stevens et al. (2019) reported that the mean rate of recurrence for bipolar disorder in pregnancy was 8%. The recurrence rate in pregnant women who had maintenance therapy was 24%; the rate in pregnant women who did not have maintenance therapy was 71%.

Treatment for bipolar disorder during pregnancy and the postpartum period needs to balance the benefits and risks for the mother and the fetus/infant. Should medication be continued through pregnancy and risk harm to the fetus? Or should medication be discontinued but increase the risk of recurrence and maternal morbidity, which could endanger the woman and her fetus? In a meta-analysis of 13 studies, lithium prescribed during pregnancy was associated with higher odds of congenital and cardiac anomalies among infants and a significantly increased risk of spontaneous abortion (Fornaro et al., 2020). Psychotropic medications used during pregnancy and their potential risks to the developing fetus and/or neonate are described in Table 1. Raffi et al. (2019) and Betcher and Wisner (2020) recently conducted systematic reviews of psychotropic treatment during pregnancy.

doi: 10.1016/j.jogn.2021.02.007

TABLE 1 PSYCHOTROPIC TREATMENT DURING PREGNANCY AND POTENTIAL RISKS TO THE DEVELOPING FETUS AND/OR NEONATE/INFANT

Class of Medication	Potential Risks[a]
Antidepressants (Selective Serotonin Reuptake Inhibitors)	
Fluoxetine (Prozac)	Small for gestational age
Sertraline (Zoloft)	Preterm birth
Paroxetine (Paxil)	Pulmonary hypertension in infants
Fluvoxamine (Luvox)	Neonatal toxicity and or/ withdrawal
Escitalopram (Lexapro)	Withdrawal (jitteriness, tremors, tachypnea)
Mood stabilizers	
Lithium (Lithobid)	Fetal cardiac defects
Lamotrigine (Lamictal)	Cleft lip/palate
Antipsychotics	
Risperidone (Risperdal)	Malformations

Note. Information from Betcher & Wisner (2020) & Raffi et al. (2019).
[a]Use caution because confounding factors have not been taken into account in studies; no consistent findings to support specific teratogenic effects.

Case 2: Amanda

Amanda is a 28-year-old married Black woman who gave birth by cesarean 12 weeks ago to her third child with no complications for herself or the infant. Since the birth, Amanda has been having severe anxiety and disturbing thoughts regarding the infant, which she did not experience with her first two births. She has become obsessed about the infant's sleeping position and the possibility of sudden infant death syndrome. Amanda is obsessed with watching the infant to make sure she never sleeps on her stomach. She becomes extremely worried when visitors come to the house and fears they have germs that will make the infant sick. Amanda washes her hands every hour on the hour to prevent transmission of any germs to the infant. She is always anxious, worries about the infant's safety, and has horrific thoughts about something bad happening to the infant, including dropping her on the floor and harming her with a fork. To her horror, Amanda has even envisioned the infant's fingers being cut like niblets of corn. Amanda's husband hid all the knives where she could not find them to ensure that she would not harm the infant.

Questions Related to Amanda's Case

- What type of anxiety disorder does Amanda have?
- What interventions should be initiated for Amanda?

The nurse should reinforce to Amanda that women with OCD are aware that their obsessions about harming their infants are unreasonable, and they do not act on these intrusive thoughts.

It is important to provide positive feedback to Amanda for being willing to share her intrusive thoughts with her health care providers. The nurse should start the initial request for referral to a mental health specialist.

POSTPARTUM ANXIETY DISORDERS

Each mood and anxiety disorder has its own pattern of symptoms and unique risk for disrupting the newly developing family. In their meta-analysis, Dennis et al. (2017) reported that during the first 6 months after birth, the prevalence of symptoms of postpartum anxiety was 15%, the prevalence of symptoms of any anxiety disorder was 9.9%, and the prevalence of symptoms of generalized anxiety disorder was 5.7%. In a meta-analysis, Falah-Hassani et al. (2017) reported that the prevalence of comorbid anxiety symptoms and moderate to severe depression symptoms in the first 24 weeks after birth was 5.7%. Using the stricter measure of clinical diagnoses of comorbid postpartum anxiety and depression, the prevalence was 4.2%. See Figure 1 for a comparison of postpartum mood and anxiety disorders.

Postpartum Obsessive-Compulsive Disorder

In a meta-analysis of 17 studies ($N = 24{,}877$), Russell et al., 2013 reported an increase in the prevalence of OCD during the postpartum period. The lowest prevalence of OCD was in the general female population (1.08%) compared to 2.43% of women in the postpartum period. Risk analysis indicated that during the postpartum period, women are approximately 1.5 to 2 times more likely to have OCD than women in the general population. In their prospective cohort study of 461 women, Miller et al. (2013) reported that the rate of postpartum OCD was 11% at 2 weeks after birth and that almost half of the participants experienced persistent OCD symptoms at 6 months postpartum. In a review of five studies of community samples, Wenzel (2011) reported that the prevalence of OCD was 0.7% to 4.0% at 6 to 8 weeks postpartum, 4.0% at 6 months postpartum, and less than 1.0% at 1 year postpartum.

The most common obsessions in new mothers with OCD are related to contaminants, such as germs on their hands that can harm the infant, and thoughts of aggression toward the infant: What if I throw my baby down the stairs? or What if I drown the baby when I am giving him/her a bath? (Fang et al., 2018). Women may experience obsessive thoughts related to the infant dying while asleep. In response to the obsessions, women exhibit compulsive behaviors, such as ritualistic handwashing and repeatedly checking to make sure the infant is breathing. Intrusive thoughts can be accompanied by avoidance behaviors, and women may distance themselves from their infants to avoid acting on these thoughts and harming their infants.

It is important to differentiate postpartum OCD from PPP. In both disorders, women can have intrusive thoughts of harming the infant. In postpartum OCD, these intrusive thoughts are ego-dystonic or not considered within the woman's reality (Wenzel,

FIGURE 1 COMPARISON OF POSTPARTUM MOOD AND ANXIETY DISORDERS

Note. From "Postpartum Mood and Anxiety Disorders," by C.T. Beck, 2020, *AWHONN Compendium of Postpartum Care* (3rd ed.), P. D. Suplee and J. Janke (Eds.). p. 184. Copyright 2020 by the Association of Women's Health, Obstetric and Neonatal Nurses. Reprinted with permission.

2011). The thoughts cause great distress and women are uncomfortable talking with others about them. In PPP, however, intrusive thoughts of harming the infant are ego-syntonic or consistent with the woman's reality. Women with PPP do not experience distress surrounding these thoughts, and they feel comfortable discussing them with others. Because they experience delusions and hallucinations (Spinelli, 2005), there is an increased likelihood that psychotic women will act on such thoughts.

Women with OCD are often afraid of being left alone with their infants and are hypervigilant in protecting them. Most women with postpartum OCD are terrified of revealing their thoughts of harming their infants to anyone because of shame, guilt, and fear that the

 doi: 10.1016/j.jogn.2021.02.007

infant will be taken away from them (Wenzel, 2011). When women finally share their thoughts, they often tell clinicians they would never act on them. In fact, women usually describe elaborate plans to avoid situations in which the intrusive thoughts might occur. For example, if a woman experiences repetitive thoughts of cutting her infant with a knife, she may have all the sharp objects and knives removed from her home and kept in a location unknown to her. Unlike women with PPP, women with OCD are aware that their obsessions are unreasonable and feel that intrusive thoughts are unwanted.

Researchers are beginning to investigate the effects of postpartum OCD on the interactions of women with their infants. Challacombe et al. (2016) observed mother-infant interactions with two groups: 37 women with OCD and their 6-month-old infants and 37 women without OCD and their 6-month-old infants. Participants with postpartum OCD were distressed by their symptoms for a mean of 9.6 hours per day. In comparison with the control group, women with OCD were rated by observers as less sensitive in their interactions with their infants.

Interventions. Cognitive-behavioral therapy is recommended as a first line of treatment for OCD. It includes the components of psychoeducation, cognitive restructuring, and exposure with response prevention (Fang et al., 2018). Peer support and group therapy are also beneficial, and pharmacotherapy is a treatment option. Selective serotonin reuptake inhibitors are the most commonly prescribed pharmacologic treatment for OCD (Namouz-Haddad & Nulman, 2014). Examples of SSRIs include sertraline (Zoloft), paroxetine (Paxil), and fluoxetine (Prozac).

Postpartum Onset Panic Disorder

In 1988, Metz et al. first described panic disorder that presented initially in the early postpartum period. This anxiety disorder is characterized by frightening panic attacks that include acute onset of anxiety, fear, rapid breathing, palpitations, and a sense of doom. Additional symptoms can include dizziness, choking feeling, chest pain, sweating, numbness, derealization, and fear of dying (APA, 2013). Findings from a summary of five community based studies indicated that the prevalence of panic disorder in women 6 to 10 weeks after birth ranged from 0.5% to 2.9% (Wenzel, 2011). In women with preexisting panic disorder, the course of panic disorder throughout pregnancy and the postpartum period has been reported as inconsistent. For example, Martini et al. (2020) conducted a longitudinal study with 306 women with panic disorder during the course of pregnancy and the postpartum period. Participants reported heterogeneous courses of their panic disorder and panic attacks, and most indicated that panic disorder or panic attacks increased in early pregnancy but decreased in the postpartum period. Panic disorder in pregnancy may also be a significant predictor of PPD. Rambelli et al. (2010) found that women with panic disorder in pregnancy were 4.2 times more likely to develop PPD than women without panic disorder.

Posttraumatic Stress Disorder Due to Traumatic Childbirth

According to the *DSM-5*, four symptoms are present: intrusion, avoidance, arousal, and negative alterations in cognitions and mood, they last for more than 1 month, and that they cause significant distress or impairment in the person's functioning. In *DSM-IV*, the definition of an extreme traumatic stressor necessary for a diagnosis of PTSD was "an event that involves actual or threatened death or serious injury, or the threat to the physical integrity of self or others" (APA, 1994, p. 44). The emotional response of the individual is extreme fear, helplessness, or horror. In the *DSM-5* (APA, 2013), the emotional responses to the trauma were deleted, and the stressor necessary for a diagnosis of PTSD was revised to "exposure to actual or threatened death, serious injury, or sexual violence" (APA, 2013, p.271). Though the *DSM-5* does not specifically list childbirth as an example of an extreme traumatic stressor, childbirth certainly can be considered a traumatic event (Beck, 2004a).

In a meta-analysis of 28 studies (N =9,053) on postpartum PTSD, Yildiz et al. (2017) reported a mean prevalence of 4.0% in community

ANTICIPATORY GUIDANCE FOR POSTTRAUMATIC STRESS DUE TO TRAUMATIC CHILDBIRTH

Nurses should be aware of the following risk factors and symptoms for PTSD following traumatic birth so that they can recognize women who may be at risk and initiate timely intervention.

Prenatal Risk Factors

- History of psychopathology
- Prenatal depression
- Fear of childbirth
- Prenatal complications
- History of PTSD
- History of trauma
- Counseling during pregnancy

Postpartum Risk Factors

- Negative subjective birth experiences (lack of caring, lack of communication, lack of respect)
- Instrumental vaginal birth
- Cesarean birth
- Lack of support
- Postpartum depression

Symptoms of PTSD

- Intrusions, including nightmares and flashbacks of the birth
- Avoidance of reminders of the birth
- Negative cognitions and mood, including self-blame, strong negative feelings about the birth, loss of interest in activities that used to bring enjoyment, and feeling detached from other persons (even the infant)
- Arousal and reactivity, including irritability, anxiety, difficulty sleeping and concentrating
- Self-destructive actions, e.g., use of alcohol

samples and 18.5% in high-risk groups. In a 2014 meta-analysis of 78 studies on the prevalence of PTSD after birth, Grekin and O'Hara reported similar results with a mean prevalence of 3.1% in community samples and 15.7% in at-risk samples. Grekin and O'Hara (2014) also identified significant risk factors for postpartum PTSD, the most significant of which was symptoms of PPD. Other risk factors had medium effect sizes: perceived quality of interactions with medical staff during labor and birth, pregnancy psychopathology, and history of psychopathology.

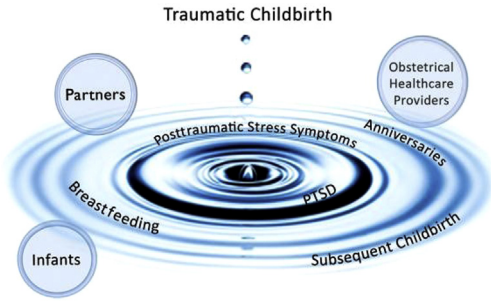
In a meta-analysis of risk factors for PTSD following childbirth, Ayers et al. (2016) included 50 studies from 15 countries ($N = 21,429$) on birth-related PTSD. Significant pre-birth risk factors included depression in pregnancy, fear of childbirth, poor health or complications in pregnancy, history of PTSD, and counseling for pregnancy or birth. Risk factors during birth for postpartum PTSD included negative subjective birth experiences, instrument assisted vaginal or cesarean birth, lack of support, and dissociation. In addition, Ayers et al. (2016) reported that postpartum PTSD was highly comorbid with depression. In a systematic review of 11 studies, Benton et al. (2019) found that emergency cesarean birth was a contributing factor for elevated posttraumatic stress symptoms and PTSD after childbirth.

Survivors of sexual abuse are at risk of perceiving their births to be traumatic and developing PTSD. In a qualitative study of the childbirth experiences of these survivors, LoGiudice and Beck (2016) described how childbirth held the potential for revictimization. Participants shared that no one asked them about their histories or discussed how their histories would affect childbirth. Flashbacks of past abuse occurred especially during vaginal exams and epidural placement. Participants felt they had no voices, and nothing was explained to them throughout the childbirth process. They did not feel respected and had limited support during labor. Feeling they had some control during labor and birth was crucial to them.

THEORY OF TRAUMATIC CHILDBIRTH: THE EVER-WIDENING RIPPLE EFFECT

Beck (2015) developed a middle range theory of the long-term consequences of traumatic childbirth from her series of qualitative studies. She entitled this theory, "The Ever-Widening Ripple Effect" to highlight the far-reaching negative effects of traumatic childbirth. In the same manner that ripples spread across the water after a stone is dropped in a pond, a few minutes or hours in labor and delivery can be viewed as a stone that can have ripple effects in a woman's life (Figure 2). Each ripple represents a negative consequence: elevated posttraumatic stress symptoms, full-blown PTSD, the anniversary of the birth trauma, breastfeeding difficulties, and subsequent childbirths. In her work as a licensed mental health counselor who specializes in maternal mental health, Beschen (2017) uses a framework of the "3 Es" to help lessen the risk of traumatic birth: explain, encourage, and empathize. During labor, the maternity care provider should always explain options and procedures to the woman to ensure that she is an active participant in the discussion of her own care. Encouraging a woman during childbirth can increase connection and offer a sense of control, and support and empathy are critical components of nursing care.

FIGURE 2 *MIDDLE RANGE THEORY OF TRAUMATIC CHILDBIRTH: THE EVER-WIDENING RIPPLE EFFECT*



Note. From "Middle Range Theory of Traumatic Childbirth: The Ever-Widening Ripple Effect," by C. T. Beck, 2015, *Global Qualitative Nursing Research*, 2, 2333393615575313, p. 9 (https://doi.org/10.1177/2333393615575313). Copyright 2015 by Sage Publishing. Reprinted with permission.

First Ripple: Posttraumatic Stress Disorder

Beck and Casavant (2019) conducted a mixed research synthesis of 59 studies (55 quantitative and four qualitative; ($N = 26,491$) on posttraumatic stress related to birth trauma in women. The range of prevalence of elevated posttraumatic stress symptoms was .8 to 26% in the included studies. The most significant predictors of posttraumatic stress before labor were prior trauma and history of psychiatric disorders. During labor and birth, significant predictors included low levels of support from clinicians and partners, cesarean birth, and a negative birth experience. The authors identified four themes from the qualitative studies: *Distressing Symptoms, Detrimental Effect of Posttraumatic Stress on Women's Relationships With Their Infants and Partners, Critical Influence of* Support, and *Debriefing* (Beck & Casavant, 2019).

In a mixed research synthesis of 25 quantitative and five qualitative studies on posttraumatic stress related to giving birth prematurely ($N = 2,008$), Beck and Harrison (2017) reported prevalence rates that ranged from 14% to 79%. Through qualitative data synthesis of women's narratives, the authors identified five themes: *Shocked and Horrified, Consuming Guilt, Pervasive Anxiety and Hyper-Vigilance, Intrusive Thoughts and Numbing,* and *Avoiding Reminders* (Beck & Harrison, 2017). Beck and Woynar (2017) conducted a mixed research synthesis on posttraumatic stress in mothers during their infants' NICU stays that included 25 quantitative and 12 qualitative studies with a total of 2,688 participants. They found that in the United States, the prevalence of elevated posttraumatic stress symptoms while infants were in the NICU was 18%. Content analysis of the findings of the qualitative studies revealed five themes: *Stark Contrast to Images of Joyous Motherhood, Cultural Overlay, Issues of Ownership and Control; Support, and Learning to be a NICU Mother*. To identify symptoms of depression and/or PTSD, NICU nurses should remain alert to women who give birth prematurely. Once identified, these women

 doi: 10.1016/j.jogn.2021.02.007

can be given appropriate referrals. Routine screening should be incorporated in the NICU with a screening tool per facility protocol.

To better understand mothers' experiences of PTSD due to traumatic childbirth, Beck (2004b) conducted a qualitative study via the internet with 38 women: 22 from New Zealand, seven from the United States, six from Australia, and three from the United Kingdom. Five themes emerged from the participant's stories that described the essence of living with PTSD as a new mother. *Going to the Movies: Please Don't Make Me Go!* During the day, participants were bombarded with flashbacks of their birth traumas, and at night, terrifying nightmares interrupted their much-needed sleep. *A Shadow of Myself: Too Numb to Try and Change.* Women felt numb and detached. *Seeking to Have Questions Answered and Wanting to Talk, Talk, Talk.* Traumatized participants wanted to talk excessively about their childbirths but soon discovered clinicians and family members became tired of listening. *The Dangerous Trio of Anger, Anxiety, and Depression: Spiraling Downward.* Participants experienced anger, anxiety, and depression at heightened levels. *Isolation from the World of Motherhood: Dreams Shattered.* Participants' PTSD isolated them from their infants and from the support of other mothers.

Implications for nursing practice. De Graaff et al. (2018) conducted a systematic review of treatment for PTSD following traumatic childbirth and found no studies on primary prevention. However, the themes described above can be used to remind clinicians how important it is to provide optimal, safe, and supportive nursing care during labor and birth. The woman and her support person should be treated with dignity and considered part of the maternity care team. On admission, the woman and her support person should be told that everything is expected to go smoothly, but sometimes labor and birth do not go as expected. Invasive assessments and treatments should not be treated as normal and routine. The nurse and other team members may need to act quickly and should clearly communicate needed actions and care and the reasons why. If the woman and support person feel that communication does not meet their needs or they do not understand, they should be encouraged to speak up. The woman and support person are present and should be included as much as possible in the conversation; care providers should not talk to each other as if they are not present. After a difficult birth, it is important to acknowledge that the woman's and her support person's experience may have been distressing. A good outcome for the newborn does not negate the stressful experience for the woman and her support person.

Church and Scanlan (2002) urged health care providers to be vigilant in observing women during the postpartum period for any early trauma symptoms, such as a dazed look or withdrawal. When women are admitted to the labor and delivery unit, clinicians should take careful histories and focus on any fears they may have about giving birth. For multiparous women, admission histories should include questions about whether previous births were perceived as traumatic. Debriefing sessions may be helpful to reduce trauma symptoms in women who perceive their births to have been traumatic. Debriefing refers to a structured psychological interview conducted shortly after a traumatic event. Persons who experienced the trauma are asked to describe their experiences, cognitions, and emotional reactions to the trauma. The purpose of a debriefing is to reduce the initial psychological distress and help prevent PTSD. Sometimes debriefing is used loosely to describe discussion between a nurse and a woman about her birth experience. The formal structured debriefing, however, is led by mental health clinicians. Table 2 provides online resources for women and clinicians related to postpartum mood and anxiety disorders.

Case 3: Lisa

Lisa is a 19-year-old Asian woman who gave birth to her first child 4 weeks ago by instrumental vaginal delivery with forceps. She lives with the infant's father, who is very supportive and took 2 weeks off from work after Lisa and the infant were discharged from the hospital. Once he went back to work, Lisa became more and more anxious about taking care of the infant by herself, and these feelings have not gone away. One day Lisa needed to do some errands. She got the infant ready and put her in the car seat. As Lisa started to drive, she began to sweat, her heart pounded, she felt tightness in her chest, and then she felt dizzy and light-headed. She was afraid she would pass out while driving so she parked the car by the side of the road. She turned off the engine and tried to calm herself down. When she did not feel like she would pass out any longer, Lisa drove back home and never did any of her errands. Once she was home, she again experienced heart palpitations, chest discomfort, sweating, and hyperventilation. So began Lisa' panic attacks. She experiences two to three panic attacks per day and is terrified to go outside of her home for fear of having an attack and potentially placing the infant in harm's way.

Questions Related to Lisa's Case

- What type of anxiety disorder does Lisa have?
- What interventions should be initiated for Lisa?

The nurse should explain to Lisa that panic attacks are treatable with medication and suggest that she takes another person with her on errands in case she experiences a panic attack. The nurse may suggest that Lisa keeps a diary to help her identify any triggers to her panic attacks and make an initial referral to a mental health clinician.

Second Ripple: Effect of PTSD due to Childbirth on Mother-Infant Interaction

Researchers are currently studying the ways that PTSD due to birth trauma may affect the mother-infant relationship, infant behavior, and cognitive development. In 2018, Cook et al. conducted a systematic review of 11 studies on mother-infant relationship and interaction and four studies on cognitive development. Findings were mixed and inconclusive. Regarding infant cognitive development, Parfitt, Ayers et al. (2014) and Parfitt, Pike, et al. (2014) reported a moderate association between postpartum PTSD and poor cognitive development in children at 17 months postpartum. However, Feeley

TABLE 2 WEBSITE RESOURCES FOR POSTPARTUM MOOD AND ANXIETY DISORDERS

Postpartum Support International	www.postpartum.net
Marce of North America	www.marcenortham.org
International Marce Society for Perinatal Mental Health	www.marcesociety.com
Trauma and Birth Stress	www.tabs.org.nz
Birth Trauma Association UK	www.birthtraumaassociation.org.uk
Solace for Mothers: Healing After Traumatic Birth	www.solaceformothers.org
Postpartum Health Alliance	www.postpartumhealthalliance.org
Baby Blues Connection	www.babybluesconnection.org
Mother to Baby	www.mothertobaby.org
Prevention & Treatment of Traumatic Birth (PATTCh)	www.pattch.org

Note. From "Postpartum Mood and Anxiety Disorders," by C.T. Beck, 2020 *AWHONN Compendium of Postpartum Care* (3rd ed.), P. D. Suplee & J. Janke (Eds.). p. 184. Copyright 2020 by the Association of Women's Health, Obstetric and Neonatal Nurses. Reprinted with permission.

et al. (2011) did not find a significant relationship between postpartum PTSD symptom scores and infant cognitive development. The evidence on the relationship between postpartum PTSD and mother-infant bonding was also inconsistent. Davies et al. (2008) found that at 6 weeks after birth, mothers with PTSD reported that their infants were significantly less warm toward them and had more difficult temperaments. By contrast, Ayers et al. (2007) did not find a significant relationship between postpartum PTSD and mother-infant bonding. In their longitudinal study of 1,472 women, Garthus-Niegel et al. (2017) reported that PTSD due to birth trauma at 8 weeks postpartum was significantly related to poor social-emotional development at 2 years, especially in boys and children with difficult early temperaments.

What can qualitative research tell nurses about how traumatic birth affects the way mothers interact with their infants? Beck and Watson (2019) conducted such a qualitative study via the internet with 18 women from six countries. Participants recalled feelings of numbness and detachment, and crying, anger, and anxiety occurred when they cared for their infants. Participants shared that they experienced cognitive changes that affected their interactions with their infants. Some recounted that their brains confused everyday things with life threatening things regarding their infants. The effect of a traumatic birth led them to limit outside social interactions, which reduced external stimuli for their developing infants.

Third Ripple: Anniversary of Birth Trauma

Olde et al. (2006) called for more research to focus on the chronic nature of birth trauma, especially childbirth-related posttraumatic stress that persisted for more than 6 months postpartum. Beck (2006) investigated experiences regarding the anniversaries of their birth traumas using an internet-based sample of 37 women who perceived their births as traumatic. The study included 20 women from the United States, eight from New Zealand, four from Australia, four from the United Kingdom, and one from Canada. About half of the sample ($n = 18$, 49%) reported that they were diagnosed with PTSD due to birth trauma. Four themes emerged from the participants' stories. *The Prologue: An Agonizing Time*. For weeks and months before the anniversary, women were plagued with distressing thoughts and emotions. *The Actual Day: A Celebration of a Birthday or the Torment of an Anniversary?* The anniversary of birth trauma was even more distressing because of the extra burden the participants felt to enjoy the celebrations of their children's birthdays. *The Epilogue: A Fragile State.* Managing to survive the anniversary of traumatic birth took a heavy toll on the participants, and they needed time to recuperate and heal old wounds that had been freshly opened. *Subsequent Anniversaries: For Better or Worse***.** Participants who experienced multiple anniversaries did not describe one consistent pattern. For some, each successive anniversary was slightly easier to manage, but others did not experience any improvement with subsequent anniversaries.

Implications for nursing practice. Nurses should be vigilant around children's birthdays for any signs that women may be in distress. Clinicians can screen women for traumatic stress symptoms using instruments such as the Posttraumatic Diagnostic Scale (PDS-5; Foa et al., 2016). Depending on the severity of symptoms, referral for mental-health care follow-up may be appropriate.

Fourth Ripple: Subsequent Childbirth after a Previous Traumatic Birth

Is there a chronic nature of childbirth-related posttraumatic stress that lasts more than 6 months? Does a previous traumatic birth affect subsequent births? In a qualitative study of the experience of a subsequent childbirth following a previous birth trauma of 35 women, Beck and Watson (2010) reported four themes that described the essence of this experience. *Riding the Turbulent Wave of Panic During Pregnancy.* Participants frequently described the 9 months of pregnancy as being full of fear, panic, dread, terror, and denial. *Strategizing: Attempts to Reclaim Their Bodies and Complete the Journey to Motherhood.* Participants shared various strategies they used to help them survive pregnancy and help ensure that their

 doi: 10.1016/j.jogn.2021.02.007

upcoming births were not traumatic. Some examples of these strategies include writing a detailed birth plan, hiring a doula, and practicing yoga. *Bringing Reverence to the Birthing Process and Empowering Women.* For most participants, the subsequent birth was a healing experience. Women were treated with respect and communicated with. However, some participants said that as healing as their subsequent births were, they mourned what they missed with the previous traumatic birth. This healing birth could never change the past. *Still Elusive: The Longed-for Healing Birth Experience.* Sadly, not all participants experienced positive subsequent childbirths. For example, one tried for a home birth but experienced postpartum hemorrhage and needed to be transported to the hospital via ambulance.

Implications for nursing practice. Subsequent childbirth after a traumatic birth provides nurses with an opportunity to help traumatized women reclaim their bodies and transition to motherhood. First, however, nurses need to identify women with previous birth trauma. Part of the initial prenatal visit should include a discussion with multiparous women about their prior labors and births. Giving traumatized women permission and encouragement to share their birth traumas is the start to helping them heal and prepare for their upcoming births. Pregnancy is a perfect time for nurses to help traumatized women deal with unresolved trauma issues. Nurses can share some of the strategies that women in this study used to help them through the 9 months of pregnancy. Women who have subsequent births following birth trauma can be healed or be retraumatized. Nurses are a key factor determining in which direction the subsequent birth will lead.

Fifth Ripple: Effect of Birth Trauma on Breastfeeding

Does a traumatic childbirth affect breastfeeding? In a qualitative study (N =52), Beck and Watson (2008) described two different pathways: one promoted breastfeeding and the other impeded breastfeeding. Eight themes described the experiences of women who breastfed after birth trauma. In Figure 3, these themes are depicted as weights that could tip the breastfeeding scale in one direction or the other. The participants' breastfeeding experiences were unique and complex, and each experienced a different constellation of factors. Beck and Watson (2008) identified eight themes, three of which represented factors that promoted breastfeeding. *Proving Oneself as a Mother: Sheer Determination to Succeed.* Participants often perceived that they had "failed" at giving birth since their births were so traumatic. These participants felt the need to "prove" themselves as mothers by successfully breastfeeding. *Making Up for an Awful Arrival: Atonement to the Baby.* Some participants had an unyielding resolve to atone to their infants for the "sin" of their traumatic births. *Helping to Heal Mentally: Time Out from the Pain in One's Head.* For some participants, breastfeeding their infants was soothing. Breastfeeding helped them heal and restored their faith in their bodies. It also helped them feel connected to their infants.

The following five themes represented factors that impeded breastfeeding following traumatic birth. *Just One More Thing to Be Violated: Mothers' Breasts.* Participants became vigilant in protecting

Case 4: Nancy

Nancy is a 32-year-old, White, married, women with no previous pregnancies. She has a master's degree in business and worked until 1 week before her due date. Nancy was sent home once from the hospital in early labor because she was only 2 centimeters dilated. She labored at home for 7 hours until her contractions were regular and strong. When she went back to the labor and delivery unit, she was 7 centimeters dilated. After 3 hours of pushing, the obstetrician examined Nancy and said the baby was in a persistent occiput posterior position and he needed to perform a forceps delivery. He told her that if three attempts of using forceps failed, he would perform a cesarean. With two forceful pushes and "a lot of tugging with the forceps," Nancy's 9 pound 6 ounce daughter was born. Suddenly Nancy felt faint and very weak, and the delivery room filled with doctors and nurses. Her obstetrician told Nancy she had torn quite badly, had a fourth-degree perineal laceration, and had lost a lot of blood. Nancy struggled to breathe and kept going in and out of consciousness. Nancy said she kept asking if she was going to die, but no one would answer her. Everyone kept telling her to relax. Nancy remembers a nurse squeezing a bag of blood into her. At one point Nancy looked towards her husband to find him on the floor having a panic attack. The nurses took him out of the delivery room to calm him down.

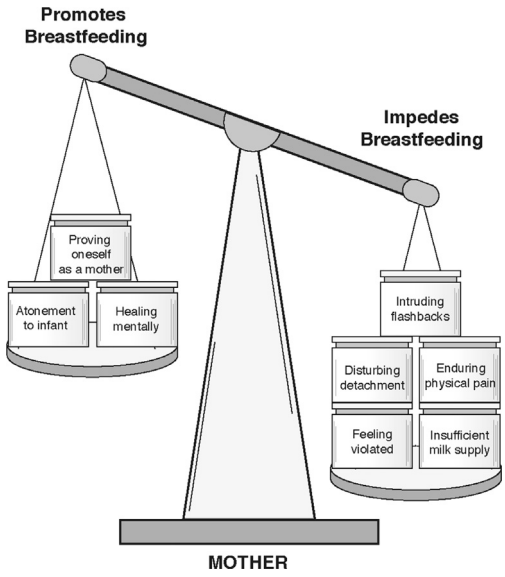
Nancy's mouth was dry from the oxygen, and to this day, she hates the feeling of a dry mouth. The obstetrician worked on her for 1 ½ hours, and when he was finished, Nancy looked around. She saw a lot of blood, some of which covered the obstetrician. She was moved to the recovery room and went into shock. Two and a ½ hours later Nancy finally got to see her daughter and hold her for the first time. Her obstetrician explained what happened: her daughter got stuck on her pelvic bone, and the obstetrician tore her rectum when he used the forceps. He made a large episiotomy that tore badly, and Nancy lost 2.5 liters of blood. Three days later Nancy was discharged from the hospital. Most nights she found it difficult to go to sleep because she was afraid she would not wake up. She always felt like her mouth was dry, which would scare her, and she began to have flashbacks and nightmares of her traumatic birth.

Questions Related to Nancy's Case

- What mental health disorder is Nancy experiencing?
- What interventions should be initiated for Nancy?

Nancy is experiencing PTSD. The nurse should suggest to Nancy that she shares her flashbacks, nightmares, and difficulty sleeping even when the infant is asleep with her husband. A referral should be made for a mental health counselor to help her deal with the aftermath of her traumatic birth. Finally, the nurse should ensure that Nancy has follow-up medical care for her fourth-degree perineal laceration.

FIGURE 3 BREASTFEEDING SCALE



Note. From "Impact of Birth Trauma on Breast-Feeding: A Tale of Two Pathways," by C. T. Beck and S. Watson, 2008, *Nursing Research, 57*, p. 232. Copyright 2008 by Lippincott Williams & Wilkins. Reprinted with permission.

their bodies from being violated again and did not want nurses or lactation consultants to touch their breasts. *Enduring the Physical Pain: Seeming at Times an Insurmountable Ordeal.* Participants who suffered severe physical trauma, such as a shoulder dystocia birth, shared that the pain tipped the scale in their decisions to stop breastfeeding early on. *Dangerous Mix: Birth Trauma and Insufficient Milk Supply.* Some participants believed that birth trauma resulted in an inadequate milk supply. *Intruding Flashbacks: Stealing Anticipated Joy.* Some participants shared that intrusive flashbacks of the birth trauma would occur when they tried to breastfeed, which caused them great distress. *Disturbing Detachment: An Empty Affair.* Traumatic childbirth left participants at times feeling detached and distanced from their infants. Providing participants with support and education to continue breastfeeding is only part of the health care providers' responsibility. Women should know that it is their right to choose not to breastfeed without any judgment.

PTSD screening instruments. Screening instruments are available with which to assess posttraumatic stress symptoms in women related to birth trauma. One such scale based on the diagnostic criteria for PTSD in the DSM-5 is the Posttraumatic Diagnostic Scale (PDS-5; Foa et al., 2016). This 24-item self-report measure is used to assess the severity of PTSD symptoms during the preceding month. Items are based on the *DSM-5* symptom clusters of intrusion, avoidance, arousal, and negative alterations in cognitions and mood. Foa et al. (2016b) assessed the psychometric properties of the PDS-5 using a sample of 242 veterans, college students, and urban community residents. The PDS-5 had excellent internal consistency reliability and test-retest reliability and good convergent validity with the PTSD Symptom Scale-Interview Version for DSM-5 (PSSI-5; Foa et al., 2016). Ayers, Wright, and Thornton (2018) recently developed the City Birth Trauma Scale to specifically measure birth-related PTSD. The scale consists of 29 items based on the *DSM-5* criteria. The scale consists of two subscales: Birth Related Symptoms, such as distressing memories of the birth, and General Symptoms, such as irritability and negative mood. Its psychometric properties were assessed by Ayers et al. (2018) in a sample of 950 women who were recruited online during the postpartum period. It demonstrated excellent reliability but needs further testing by other researchers and clinicians.

Interventions. Research on the treatment of PTSD following traumatic childbirth is limited. de Graaff et al. (2018) conducted a systematic review and located 13 studies in which researchers evaluated the effects of secondary prevention interventions to decrease PTSD and its symptoms during the postpartum period. The interventions included debriefing, structured psychological treatment of exposure and psychoeducation, expressive writing interventions, skin-to-skin contact immediately after birth, and seeing or holding a stillbirth infant. Heterogeneity of the study characteristics prevented pooling the findings in a meta-analysis. The only intervention with significant results was expressive writing about their traumatic birth. An important finding was that no research had been done on primary prevention of traumatic childbirth experience.

Francine Shapiro (2001) developed eye movement desensitization and reprocessing (EMDR) treatment for PTSD. Shapiro explained that traumatic events can seem to get locked in the nervous system with the original feelings and thoughts from when the trauma occurred. While the person focuses on the distressing trauma event, bilateral stimulation such as eye movements back and forth seem to help unlock the nervous system and permit the brain to process the trauma. These eye movements help to process unconscious material. Negative cognitions of self are replaced by positive cognitions of self when the traumatic experience is thought of. Eye movement desensitization and reprocessing has been successfully used for years with PTSD in the general population. However, limited research exists on the effectiveness of EMDR treatment with women who suffer from PTSD due to childbirth (Stramrood et al., 2012). In a review of the management of PTSD after childbirth, Lapp et al. (2010) concluded that debriefing was inconclusively effective, but EMDR and cognitive behavioral therapy may improve posttraumatic stress symptoms. Randomized controlled trials are needed.

Posttraumatic growth after birth trauma. For mothers with PTSD due to childbirth, there is some encouraging news. Some persons who have been traumatized go on to experience posttraumatic growth. Such growth is defined as the "positive psychological change experienced as a result of the struggle with highly challenging life circumstances" (Tedeschi & Calhoun, 2004, p.1). During posttraumatic growth, the individual can improve problem areas in their lives that were present before their trauma. Tedeschi and Calhoun (1996) identified five dimensions of posttraumatic growth: *Appreciation of Life*, *Relating to Others*, *Personal Strength*, *New Possibilities*, and *Spiritual Change*. An individual does not necessarily experience growth in all five

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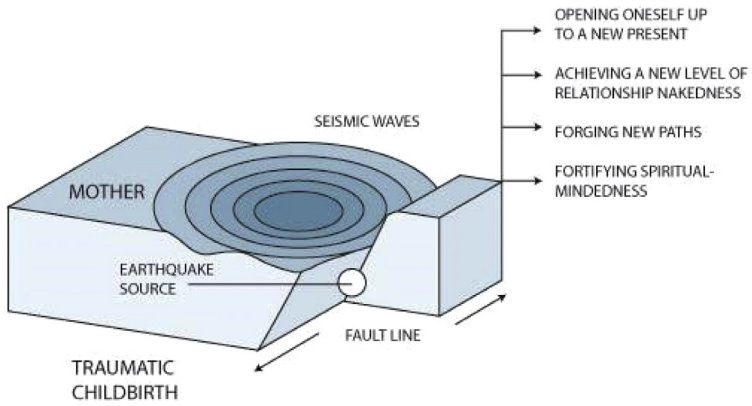
FIGURE 4 EARTHQUAKE MODEL OF MOTHERS' POSTTRAUMATIC GROWTH AFTER BIRTH TRAUMA



Note. From "Posttraumatic Growth After Birth Trauma: 'I was Broken, Now I am Unbreakable,'" by C. T. Beck and S. Watson, 2016, *MCN: The American Journal of Maternal Child Nursing, 41,* p. 268. Copyright 2016 by Wolters Kluwer. Reprinted with permission.

dimensions. Also, not all persons who experience trauma will achieve posttraumatic growth.

In Beck and Watson's (2016) phenomenological study, participants described the personal growth in their lives that resulted from their traumatic births. The dimensions of their growth are illustrated in Figure 4 and are captured in four themes: *Opening Oneself Up to a New Present*, *Achieving a New Level of Relationship Nakedness*, *Forging New Paths*, and *Fortifying Spiritual-Mindedness*. In the first theme, participants shared that achieving posttraumatic growth was a process with potentially immense personal rewards.

The second theme captured the role that posttraumatic growth played in improving participants' relationships with others including their partners, family and friends. Theme 3 represented how for some participants, posttraumatic growth involved strengthening of their faith and an improved understanding of spiritual and religious issues in their daily lives. The fourth theme showed how some participants established new professional and personal goals.

In a quantitative study, Beck et al. (2018) investigated whether there were any positive changes in women's lives after traumatic birth. Thirty women participated in the electronic survey by completing the Posttraumatic Stress Disorder Symptom Scale-Self Report (Foa et al., 1993), the Core Beliefs Inventory (Cann et al., 2010), and the Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996). Beck et al. (2018) tested the components of the posttraumatic growth model (Tedeschi & Calhoun, 2004). Two variables predicted 38% of the variance in posttraumatic growth: type of birth and length of time since the birth trauma occurred. Cesarean birth and the longer the time since the traumatic birth occurred were related to greater posttraumatic growth.

PTSD in fathers. A limited number of researchers have examined prevalence rates of PTSD in fathers. When assessing posttraumatic stress symptoms in couples, Ayers et al. (2007) found that 5% of couples reported elevated levels of posttraumatic stress symptoms. Likewise, Iles et al. (2011) found that posttraumatic stress levels were significantly related within couples. Stramrood et al. (2013) also reported the concurrence of posttraumatic stress symptoms in couples when pregnancies were complicated by preterm preeclampsia or preterm premature rupture of membranes. This evidence highlights the need for nurses to evaluate mothers and fathers for posttraumatic stress symptoms. Early identification and intervention may help prevent worsening of symptoms.

In two meta-ethnographies, researchers synthesized qualitative studies on fathers during traumatic births. Elmir and Schmied (2016) included eight studies ($N = 100$) published between 2000 and 2013. Using Noblit and Hare's (1988) meta-ethnographic approach, they identified four main themes: *The Unfolding Crisis, Stripped of My Role: Powerless and Helpless, Craving Information,* and *Scarring the Relationship*. These themes reflected the fear and anxiety participants experienced when they witnessed their partners' traumatic births. They felt helpless because all they could do was watch. Lack of information and support from obstetric clinicians increased participants' distress and anxiety. Participants reported experiencing posttraumatic stress symptoms, including nightmares of the birth, feeling physically and emotionally distant from their partners, and avoidance of sexual intimacy.

In 2019 Vallin et al. conducted a meta-ethnography of 10 qualitative studies ($N = 929$) published between 2014 and 2017 on fathers' experiences related to complications during childbirth. They generated three major themes from the synthesis of the studies. The first theme focused on how clinicians often failed to communicate with fathers and did not support them while the traumatic birth was occurring. Some participants shared that they valued support and information from health care providers. The second theme was related to the emotional journeys of the participants, who described the traumatic birth as a surreal experience. They experienced feelings of helplessness, pain, and shock and spoke of hiding their distress from their partners to be strong for them. The physical environment

Case 5: David

David's case relates to witnessing his wife's traumatic birth and severe postpartum hemorrhage. He vividly portrayed the harrowing birth of his son:

> I turned back to my wife; she was very pale and her eyes were struggling to stay open. She went lifeless. Her blood pressure had dropped once again, and she was no longer conscious. A nurse brought my son over to me just as my wife was regaining consciousness. He was so small and delicate. His face was so perfect with his mommy's nose. I leaned over with our baby so his mommy could see him. I remember my wife's only concern was that our son had a good suck. Through all this, she was still more concerned for her baby than for herself. The anesthesiologist took my camera and snapped a few photos of all of us. I wanted to make sure there was at least one of my son and his mommy, just in case. The anesthesiologist released one of my wife's arms so that she could touch our son. I saw huge tears roll from my wife's eyes as she reached out for her son. To me, I knew this was her acknowledgement of her final moments with him and her sorrow that she will not be there for her son as he grew. I was counting the moments. I heard more individuals coming into the OR. They knocked the screen back to make room for the extra people that just came rushing in. I had been aware that a newborn was only presented to the father for 5 minutes or so. Then they would take the baby back to ensure he stayed warm. Five, 10, 20, 30 minutes came and went. I still had my son. I knew something was not going right. I heard a doctor ask what else they had that would stop the bleeding and clot. Then I heard someone run out of the OR. A couple of minutes passed, and that person came running back into the OR. I was sitting near the suction jug and could see all the blood that had been removed from my wife's stomach. My toes were numb from forcing them into the floor as I tried to maintain my composure. I did not want to be removed from the OR, especially not now. I felt myself weeping uncontrollably. Over an hour had passed and I still had my baby in my arms. My wife was still alert and I began to hear a different chatter from the other side of the screen. I was beginning to believe everything was going to work out. But I still had my doubts; shortly after our doctor came around to our side of the curtain. She told my wife about the surgery and said she would be by in the morning to see how she was doing. I was asked for the baby and handed him off to one of the nurses. I told my wife I didn't want to leave her side. We made it into recovery. I spent the next few minutes crying uncontrollably. I could not get it together. I could not understand what I was feeling. Any thought of what had just happened threw me back into an emotional nightmare. I found it hard to sleep that night.

(From *Traumatic childbirth* (1st ed.), by C. T. Beck, J. W. Driscoll, and S. Watson, p. 208–209. Copyright 2013 by Taylor & Francis. Reprinted with permission.)

Questions Related to David's Case

- What mental health disorder could David develop from witnessing his wife's postpartum hemorrhage?
- What interventions should be initiated for David?

David could develop elevated symptoms of posttraumatic stress. The nurse should give David positive feedback for sharing his perceptions and experience of his wife's birth. He should be offered one-on-one time to debrief more about his reactions to the birth and be referred for mental health follow up to help him deal with the traumatic experience. The nurse may suggest that he and his wife share with each other what they are feeling since their infant's birth.

in the delivery room was the focus of the third theme. Overcrowding occurred as more clinicians came to help, and the room had a chaotic feel to it. Being separated from their partners contributed to feelings of anxiety and fear among participants. Sometimes they were removed from the birthing room because of their partners' complications, and other times they were separated from their partners to accompany their newborns to the NICU.

The findings of Vallin et al. (2019) confirmed those of Elmir and Schmied (2016), but Vallin et al. reported two new findings: fathers tried to hide their true feelings to protect their partners, and the physical environment in the birthing room affected fathers' experiences. Improved support and communication between fathers and obstetric health care providers can help to decrease fathers' mental health difficulties related to witnessing their partners' traumatic births.

Beck et al. (2013) conducted a qualitative study of the experiences of fathers who were present at their partners' traumatic births. Helplessness was the most prominent factor in the narratives of the participants: "I am on an island watching my wife drown, and I don't know how to swim" (p. 211). In another qualitative study of the experiences of fathers who found childbirth to be traumatic, Etheridge and Slade (2017) described findings from 11 fathers. After witnessing the birth, participants experienced feelings of intense fear, helplessness, and horror. Because of the speed and unexpectedness

 doi: 10.1016/j.jogn.2021.02.007

of the traumatic birth, the participants described a "rollercoaster of emotions" (p. 4) and recalled their attempts to "keep it together" (p. 7) as they felt helpless simply watching the traumatic birth happen. Participants felt that the staff abandoned them, and that they were not informed about their partners' situations. Nurses on the postpartum unit must remember that fathers may also be struggling.

Fathers' stress related to the NICU stay. In a mixed research synthesis of 11 qualitative and 10 quantitative studies, Beck and Vo (2020) focused on father's stress related to their infants' NICU hospitalizations. The studies were undertaken in 11 different countries, and in each study, participants experienced small to moderate stress while their infants were in the NICU. Upon synthesis of the qualitative findings, four themes were identified: *Charting Unfamiliar Waters: One Day at a Time; Back Bone of the Family: A Heavy Responsibility to Bear Alone; Torn Between Two or More: It Takes A Toll;* and *Unexpected Journey: No Longer a Passive Bystander* (Beck & Vo, 2020). Participants described how they had to learn to trust the nurses and other clinicians who were strangers who cared for their fragile infants. As primary support persons for their partners, infants, and any other children, participants carried a heavy burden and felt that they needed to stay strong for their families. Some participants expressed that a fathers' support group would be helpful; this would allow them to share honestly what they were feeling. Being pushed and pulled between maintaining the home front, wanting to visit their infants and partners in the hospital, and working their regular jobs added to the participants' stress. In the NICU, participants began to bond with their infants, and skin-to-skin contact was a critical turning point in their transitions to fatherhood.

Sixth Ripple: Secondary Traumatic Stress and Vicarious Posttraumatic Growth in Labor and Delivery and NICU Nurses

The ever-widening ripple effects of traumatic childbirth can also spread to perinatal nurses. Nurses who care for women during traumatic births can experience secondary traumatic stress (Beck & Gable, 2012). Figley (1989) warned that this type of stress is an occupational hazard for clinicians who care for patients who are traumatized. Secondary traumatic stress is "the natural consequent behaviors and emotions resulting from knowledge about a traumatizing event experienced by a significant other. This stress results from helping or wanting to help a traumatized or suffering person" (Figley, 1995, p. 10).

Beck and Gable (2012) conducted a mixed methods study via electronic survey of secondary traumatic stress in 464 labor and delivery nurses who were members of the Association of Women's Health, Obstetric and Neonatal Nurses. Participants completed the Secondary Traumatic Stress Scale (Bride et al., 2004) in the quantitative strand of the mixed methods study. In the qualitative strand, they described their experiences of being present at traumatic births. In this sample, 35% of the participants scored in the moderate to severe level of secondary traumatic stress. Analysis of the qualitative data revealed six themes: *Magnifying the Exposure to Traumatic Births, Struggling to Maintain a Professional Role While with Patients who are Traumatized, Agonizing Over What Should Have Been, Mitigating the Aftermath of Exposure to Traumatic Births, Haunted by Secondary Traumatic Stress Symptoms,* and *Considering Foregoing Careers in Labor and Delivery to Survive.*

NICU nurses also experience secondary traumatic stress when they care for critically ill infants. Beck et al. (2017) reported that in a sample of 175 nurses, 49% scored moderate to severe secondary traumatic stress on the Secondary Traumatic Stress Scale (Bride et al., 2004). Five themes developed from the NICU nurses' qualitative description of their traumatic experiences caring for critically ill infants: *Multiple Scenarios Intensified NICU Nurses' Traumatic Experiences; Parents Insisting on Aggressive Treatment: So Distressing; Baby Torture: Performing Painful Procedures; Questioning Their Skills: Did I Do Enough?* and *The Grief Of The Family: It Is Contagious*.

Interventions. Nurses need to be educated on their vulnerability to secondary traumatic stress when they care for women who experience traumatic birth and for infants in the NICU. Continuing education programs are needed to help increase nurses' resilience to this stress. Interventions for secondary traumatic stress and to support nurses' wellness and professional satisfaction are needed. The Community Resiliency Model is one such newly developed intervention (Grabbe et al., 2020). This model consists of a 3-hour nurse wellness and well-being class. The model is a variation of mindfulness, which focuses on awareness of bodily sensations as a vehicle for regulation of emotions. In a randomized controlled trial, Grabbe et al. (2020) tested the model with 196 nurses, and those in the model group reported improved resilience and well-being and less secondary traumatic stress.

Other interventions to help nurses deal with secondary traumatic stress include the Accelerated Recovery Program developed by Gentry (2002). This program includes self-regulation, intentionality, perceptual maturation, social connection, and self-care. Bloom and Farragher's (2013) Sanctuary Model provides a method to create an organizational culture in which those who are traumatized have opportunities to heal though the support of co-workers. This Sanctuary Model consists of seven principles: nonviolence, emotional intelligence, social learning, democracy, open communication, social responsibility, and growth through change (Bloom & Farragher, 2013). Administrators need to support interventions to decrease anxiety and negative sequelae related to secondary traumatic stress for all obstetric and neonatal nurses. Nurses should be encouraged to find balance in their lives and to find outlets for dealing with their stress. If the obstetric and neonatal workforce is to be maintained, we need to care for our caregivers.

Vicarious Posttraumatic Growth

Tedeschi and Calhoun (2004) defined posttraumatic growth as the "positive psychological change experienced as a result of the struggle with highly challenging life circumstances" (p.1). When this growth occurs in indirect victims of trauma or clinicians who care for patients who are traumatized, it is called vicarious posttraumatic growth (Arnold et al., 2005). Beck et al. (2016) investigated this growth by means of a mixed methods study with 467 labor and delivery nurses who were members of the Association of Women's Health, Obstetric and Neonatal Nurses. Participants reported a moderate amount of

vicarious posttraumatic growth (Beck et al., 2016) as indicated by their scores on the Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996). The dimension that reflected the highest growth was Appreciation of Life, followed by Relating to Others, Personal Strength, Spiritual Change, and New Possibilities. NICU nurses ($N = 109$) also reported a moderate degree of vicarious posttraumatic growth (Beck & Casavant, 2020) as indicated by their scores on the Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996). The dimension that reflected the highest growth was Appreciation of Life while Spiritual Change had the smallest growth as a result of caring for critically ill infants.

Posttraumatic growth in maternity care nurses needs to be nurtured through specific strategies such as the intervention developed by Calhoun and Tedeschi (2013). This intervention consists of five components: psychoeducation about trauma, emotional regulation training, constructive self-disclosure, creation of new narratives that have posttraumatic growth themes, and exploration of new life principles.

POSTPARTUM MOOD DISORDERS

Maternity Blues

Maternity blues, also known as "baby blues," is usually a mild, transient condition that occurs during the first few days after childbirth and that lasts approximately 10 days. One of the hallmarks of maternity blues is emotional lability. Women may experience abrupt mood swings, weepiness, "feeling let down," irritability, and over-sensitivity. Because no standardized criteria have been established, the prevalence rate is difficult to determine. However, in one systematic review of 26 studies ($N = 5{,}667$), the mean prevalence rate of maternity blues was 39% (Rezaie-Keikhaie et al., 2020). The range was 13.7% to 76% with higher prevalence rates in low and middle-income countries.

According to Buttner et al. (2012), the abrupt drop in ovarian hormones (specifically estradiol and progesterone) that occurs with the delivery of the placenta is thought to contribute to postpartum blues. Risk factors for more severe postpartum blues include relationship difficulties, history of depression, and history of premenstrual symptoms. Postpartum blues can be exacerbated by a number of issues, such as when a woman feels insecure, over stimulated, fatigued, is in pain, or lacks a strong support system. It is appropriate for nurses to suggest the following comfort measures to help mothers minimize these exacerbations: sleeping when the infant sleeps; creating a quiet, calm environment; eating nutritious foods; controlling pain; accepting help when it is offered; ignoring chores; and focusing on themselves and the infant. Because postpartum blues is a self-limiting condition that does not interfere with functioning, no active intervention is necessary, except for support and reassurance (Rai et al., 2015).

The negative mood swings associated with postpartum blues tend to peak during days 3 to 5, after which the condition gradually resolves (Kennerley & Gath, 1989). Thus, it is important for nurses to educate the woman and her family before discharge about the causes, signs and symptoms, coping methods, and self-limiting nature of the condition. Because the occurrence of postpartum blues is a risk factor for developing PPD, a more serious disorder, families should know to seek medical attention if postpartum blues get worse or do not resolve.

Case 6: Shannon

Shannon is a 24-year-old White woman who is divorced. No complications occurred during her spontaneous vaginal birth. The first day after giving birth, Shannon was euphoric and could not stop talking to her family and friends about her childbirth experience; she was too excited to sleep while on the postpartum unit. Once she got home with her newborn, she started to feel exhausted and strange, and photos of Shannon during this time showed what she called her "wild eyes." Her sister came to stay with her to help care for the newborn. Shannon started to hear voices, and at times they came out of the baby monitor. The voices told her to hurt the newborn, for example, to put him in the microwave and watch him go round and round or to bang his head against the wall.

Shannon was paranoid and kept thinking her sister was spying on her and reporting what she was doing to the police. At night, Shannon saw shadowy figures in her bedroom that seemed to be watching her. As her psychosis worsened, Shannon thought the newborn was evil and was the devil who needed to be killed. Her sister became more and more concerned about Shannon's behavior. Through the night, Shannon paced back and forth and did not sleep for days. Her sister took her to the hospital where she had given birth just 1 week earlier. There Shannon was truthful about her hallucinations and delusions and was admitted to the closest psychiatric mother-baby unit for treatment.

Questions Related to Shannon's Case

- What mental health disorder is Shannon experiencing?
- What nursing interventions should be initiated for Shannon?

Shannon is experiencing PPP. The nurse should provide a trusting environment in which Shannon can feel safe enough to share her hallucinations or delusions. The nurse should encourage mother-infant bonding and explain to Shannon that new mothers recover from PPP. This will help to give her hope during her stay in the mother-baby unit.

Postpartum Psychosis

According to the *DSM-5*, "brief psychotic disorder with peripartum onset" is the official diagnosis for PPP (APA, 2013, p. 94). Onset occurs during pregnancy or within the first 4 weeks after birth. Diagnostic criteria include the presence of at least one or more of the following symptoms: delusions, hallucinations, disorganized speech, and grossly disorganized or catatonic behavior. The *DSM-5* (APA, 2013) further specified that the length of the psychotic episode is at

 doi: 10.1016/j.jogn.2021.02.007

least 1 day but no more than 1 month after which the person returns to full premorbid functioning.

VanderKruik et al. (2017) reviewed the global incidence of PPP in five studies in the United States, Sweden, Denmark, Nigeria, and India; the reported incidence ranged from .89 to 2.6 per 1,000 women. It is a rare but serious disorder that requires urgent attention because it puts the mother and her infant in grave danger. The onset of psychosis is sudden: usually within a few days after birth, in most cases within the first 3 weeks (Blackmore et al., 2013; Heron et al., 2008). Sleep loss is a major precipitant of PPP and mania. Hamilton et al. (1992) wrote, "The disorder is remarkable for its mercurial changeability, and lucid intervals may give a false impression of recovery" (p. 35).

The biggest risk factor for PPP is a personal history of bipolar disorder (Osborne, 2018). Since PPP can have a rapid onset, nurses may be the first clinicians to identify these symptoms in women before discharge. If nurses suspect PPD, they should also pay attention to the following indicators: extreme agitation, confusion or exhilaration; inability to sleep or eat; difficulty maintaining a coherent conversation; and hallucinations, delusions, or rapid mood swings.

In a meta-analysis of six studies ($N = 645$, Gilden et al., 2020) examined the long-term outcomes of first-onset PPP. In this sample, 36% of the participants had no recurrences during the first year after birth; 6.1% of the participants had recurrences after their next pregnancies but not outside of the perinatal period. In three of the six included studies, suicide rates were between 4% to 11% after hospital discharge.

Suicide and infanticide are predominant concerns, and clinicians need to be vigilant to the possibility of an increased risk of suicidality following discharge from the hospital. In the Confidential Enquiries into Maternal Deaths in the United Kingdom report (Knight et al., 2017), suicide was identified as the leading cause of maternal deaths that occurred during pregnancy or up to a year after birth. Most women died violently by hanging or jumping rather than by medication overdose. The Confidential Enquiries into Maternal Deaths includes surveillance data on women who died during or up to 1 year after the end of pregnancy in the UK. Psychotic women can have command hallucinations to kill their infants or delusions that the infant is possessed by the devil. These women require careful monitoring during the postpartum period.

Chandra et al. (2006) examined the delusions of women with postpartum psychotic disorders about their infants. Of 105 participants, 53% reported delusions that included someone would kill or harm the infant, the infant was the devil, the infant was God, and the infant was someone else's infant. Women who had delusions that their infants would be harmed or killed were more likely to display affectionate behavior toward their infants. Women with delusions that their infants were the devil or someone else's were more likely to hit or smother their infants. The effect of PPP on observed quality of mother-infant interaction was the focus of a systematic review of 12 studies (Ramsauer & Achtergarde, 2018). Compared to mentally healthy mothers, women with PPP were less sensitive to their infants, and their infants displayed more negative behaviors and fear towards strangers.

Forde et al. (2020) synthesized the results of 15 qualitative studies on women's experiences of PPP and their recovery and identified four main themes. The first theme, *Experiencing the Unspeakable*, represented how participants felt trapped in insane minds and experienced fear and hopelessness and difficulty in caring for and bonding with their infants. In the second theme, *Loss Disruption*, participants experienced guilt because they lost time with their infants. A sense of powerlessness permeated their lives. In the third theme, *Realigning Old Self and New Self*, participants tried to make sense of their experiences, identify personal strength, and adjust to a new sense of self in the context of being a mother. *Social Context*, the fourth theme, focused on factors that influenced recovery from PPP, including family relationships and interactions with health care professionals, which could be positive or negative. Because of the public's limited understanding of PPP, participants felt that their symptoms were dismissed or minimized. Participants felt stigmatized by having mental illness and by being mothers with mental illness.

Action on Postpartum Psychosis is a national charity hosted by the University of Birmingham that provides support services and promotes increased public awareness. Beck (2020a) conducted a narrative analysis of eight stories of women's experiences of PPP in the United Kingdom that were posted on this website. She analyzed the data using Burke's (1969) pentad of key terms of a story: act, scene, agent, agency, and purpose and examined different pairs of ratios between these terms for imbalances to highlight problematic areas in women's narratives. The ratio imbalance that appeared most often in the eight narratives was agent to act. Here the agent was the woman who experienced PPP, and the act involved her delusions and hallucinations. Women heard voices telling them, for instance, to put bleach in the baby's bottle. One woman recalled that while still on the postpartum unit, one night all of her dead relatives came by her bed to say hello and see her baby. The second most frequently recounted ratio imbalance was agent to scene. The woman was the agent, and the scene was the frightening admission to a psychiatric hospital or the electroconvulsive room where some women went for treatment. The third most frequently reported ratio imbalance was act to agency. Agency was how an act was done. Uncaring and unsupportive acts by clinicians and by their partners during women's PPP were highlighted.

Interventions. Once a woman is diagnosed with PPP, immediate treatment is necessary. In one of the largest studies on treatment for PPP ($N = 68$), results demonstrated the effectiveness of a stepwise sequence of short-term benzodiazepines, antipsychotics, and lithium, which resulted in remission in 98.4% of the sample (Bergink et al., 2015). Electroconvulsive therapy is also used to treat PPP and PPD when other treatments are not successful (Rundgren et al., 2018).

Bipolar II Disorder with Peripartum Onset

The following criteria from the *DSM-5* (APA, 2013) are necessary for a diagnosis of bipolar II disorder: at least one hypomanic episode and at least one major depressive episode. To meet the criteria for a hypomanic episode, there must be a distinct period of increased mood irritability that is persistent and not normal for the individual. Also present in hypomania is an increased activity or energy level that lasts at least 4 consecutive days and is present for most of the day. During this period of increased activity and irritability, at least three of the following symptoms must persist to a significant degree:

- Increased self-esteem or expressions of grandiosity
- Lesser need for sleep
- Increased talkativeness
- Onset of racing thoughts
- Increased propensity to be easily distracted
- Increased activity that is goal-directed
- Increased activity in areas that have a high potential for negative consequences

A hypomanic episode is not severe enough to lead to marked impairment or to require hospitalization. Delusions or hallucinations are not present in hypomania. Because of the challenge in differentiating bipolar disorder in general from unipolar PPD, bipolar II disorder is focused on the postpartum period. Often hypomania is not diagnosed as it is mistaken for the normal joy that accompanies childbirth. The *DSM-5* (APA, 2013) includes the specifier for bipolar disorders with peripartum onset, which indicates that the onset of mood symptoms occurs during pregnancy or during the first 4 weeks after birth.

According to the *DSM-5*, childbirth can be a specific trigger in new mothers for hypomanic episodes, and this occurs in 10% to 20% of women in nonclinical populations (APA, 2013). The most typical time for a hypomanic episode is early in the postpartum period. Accurate detection of bipolar II disorder in new mothers is necessary to reduce the risk of suicide and infanticide.

Sichel and Driscoll (2000) first coined the term "postpartum depression imposter" in reference to bipolar II. In clinical practice, they found that women went from physician to physician seeking relief from symptoms without responding to any of the medications prescribed. These women appeared to have treatment-resistant depression, but in reality they had undiagnosed bipolar II disorder (Beck & Driscoll, 2006). Women with bipolar II disorder often report a hypomanic phase immediately after giving birth followed by severe depression a few weeks later. Many new mothers do not see a problem when they experience a short period of goal-directed activity. The clinician must carefully document life history and course of the psychiatric illness to correctly diagnose bipolar II disorder during the postpartum period and not misdiagnose unipolar major depression.

Sharma et al. (2008) examined the diagnostic profiles of 56 women with referral diagnoses of PPD. Fifty-four percent of participants had lifetime diagnoses of bipolar spectrum disorders. Only 10% of participants received previous diagnoses of bipolar disorder. Diagnosing hypomania is challenging because of symptoms that commonly occur after childbirth, such as diminished sleep. Elation from giving birth may be hard to differentiate from the euphoria of hypomania. New mothers who are depressed may under report histories of hypomania and remember only previous depression. Serious consequences of misdiagnosing postpartum bipolar II disorder can occur if antidepressants are used; these precipitate mania or rapid cycling (Sharma et al., 2010).

The prevalence of thoughts of self-harm and suicidal ideation during the 1-year postpartum period in women with bipolar II or major depressive disorder have been examined. In a sample of 147 women, 17% reported thoughts of self-harm, and 6% reported suicidal ideation (Pope et al., 2013). During the postpartum period, women with bipolar disorder are especially vulnerable to developing psychotic and nonpsychotic episodes. Women with a history of a bipolar II disorder have an increased risk of 20% of developing a perinatal major affective episode (Viguera et al., 2011).

Interventions. Treatment for bipolar II disorder in the postpartum period includes first-line monotherapy with mood stabilizers, such as lithium or lamotrigine (Clark & Wisner, 2018; Sharma et al., 2017). Pharmacotherapy is the mainstay of treatment for bipolar II disorder, and the benefits of prescribing medication during lactation often justify the risks, including infant restlessness or lethargy or difficulty feeding. Maternal and infant serum concentrations should be monitored for toxicity. Because women with bipolar II disorders suffer from psychosocial consequences of the illness (Beck & Driscoll, 2006), other forms of psychotherapy are also important components of the treatment plan.

Postpartum Depression

To be diagnosed with major depressive disorder, the *DSM-5* requires that five or more of the following symptoms must present during the same 2-week period. At least one of the five symptoms must be depressed mood or loss of interest or pleasure.

- Significant weight loss when not dieting
- Insomnia or hypersomnia
- Psychomotor agitation or retardation
- Fatigue
- Feelings of guilt or worthlessness
- Indecisiveness or decrease concentration
- Recurrent suicidal ideation (APA, 2013).

The *DSM-5* includes a peripartum onset specifier for a major depressive episode (APA, 2013). This specifier is applied when the major depression has an onset during pregnancy or within 4 weeks after birth. Peripartum onset major depression can occur with or without psychotic features.

Prevalence. According to the *DSM-5* (APA, 2013), the prevalence of postpartum major depression with psychotic features is 1 in 500 births to 1 in 1,000 births. If a woman had PPD with psychotic features, her risk for recurrence with her next childbirth is between 30% and 50% (APA, 2013). Gaynes et al. (2005) conducted a quantitative review of the prevalence of PPD during the first 3 months postpartum and reported a prevalence of diagnosed major depression of 7.1% and a prevalence of minor and major depression of 19.2%. Shorey et al. (2018) conducted a systematic review of prevalence and incidence rates of PPD among healthy mothers without histories of depression (58 included studies with 37,294 total participants) and reported an incidence rate of 12% and an overall prevalence rate of 17%. When it came to regional differences, they found that the Middle East had the highest prevalence rate (26%) and Europe had the lowest prevalence rate (8%; Shorey et al., 2018).

The prevalence of PPD in Hispanic immigrant women in the United States was estimated to be 3 to 4 times higher (30%-43%) than in the general population (12%-19%; Lucero et al., 2012). Lara-Cinisomo et al. (2016) developed a biopsychosocial conceptual model

 doi: 10.1016/j.jogn.2021.02.007

of PPD risk in immigrant and U.S. born Latina mothers in the United States. Contextually relevant stressors included lifetime poverty and lifetime trauma. Culturally relevant stressors included immigrant status and generation, acculturative stress, level of acculturation, border-crossing trauma, and discrimination. Physiological implications due to stress involved dysregulated HPA axis and decreased oxytocin levels. Lara-Cinisomo et al. (2016) proposed that contextually and culturally relevant stressors were directly associated with PPD while physiological factors were indirectly associated with PPD.

Comorbid prevalence. Falah-Hassani et al. (2016) reported that the prevalence of comorbid depression symptoms and anxiety in a longitudinal study conducted in Vancouver, British Columbia with a sample of 522 women was 13.1% during the first 8 weeks after birth. Risk factors for comorbidity included childcare stress, perceived stress, immigration within the past 5 years, and vulnerable personality. Protective risk factors were breastfeeding, high self-efficacy, maternal self-esteem, and partner support.

Adolescents. Adolescents are particularly vulnerable to PPD, as they must contend with developmental tasks and demands relative to their life stage while coping with new motherhood. Higher rates of PPD have been reported in adolescents compared with adult women. In a literature review, Yozwiak (2010) found that as many as 61% of adolescent mothers compared with 38% of adult mothers experienced elevated PPD symptoms. In a prospective study of perinatal depression among 212 adolescents, Meltzer-Brody et al. (2013) reported that 20% screened positive for symptoms of antenatal depression, and 10% screened positive for symptoms of PPD. Among these adolescents, histories of trauma strongly predicted symptoms of both. Gavin et al. (2011) reported that 19.8% of their sample of 173 adolescent mothers experienced elevated symptoms of depression during the first 18 months after birth. Intimate partner violence and antepartum depression symptoms were significantly related to increased PPD symptoms.

Adoptive mothers. Do women who adopt infants experience similar levels of depression as women who give birth? Mott et al. (2011) compared levels of depression symptoms among 147 adoptive mothers and 147 biological mothers in the postpartum period. Scores on the EPDS (Cox et al., 1987) indicated that both types of mothers had comparable levels of depression symptoms: 7.5% of biological mothers scored above the cutoff score on the EPDS. and 8.8% of adoptive mothers did the same. In an earlier study, Senecky et al. (2009) found that 15.4% of 39 adoptive mothers experienced elevated levels of depression symptoms. In the most recent study on this topic, Hebdon et al. (2012) reported that rates of depression symptoms in adoptive mothers were 29% and 21% as measured with the Center for Epidemiological Studies Depression and EPDS, respectively.

Onset. Hendrick et al. (2000) reported that the onset of PPD most often occurred within a month after birth. In a study of 209 consecutive referrals to a mental-health program for women who met the criteria for major PPD, 66.5% reported early postpartum onset (mean = 2.2 weeks), and 22% reported late postpartum onset (mean = 13.3 weeks; Stowe et al., 2005). Stowe et al. (2005) recommended PPD screening at 6-week postpartum checkups and at pediatric visits during the first 6 months after birth. Of 49 women who were monitored for the first 12 months after birth at well-child visits, 26% developed high levels of depression symptoms after the first 3 months postpartum (Chaudron et al., 2006). Wisner et al. (2004) prospectively studied the timing and pattern of recurrence during the first 12 months after birth among women with histories of major PPD with previous births ($N = 51$). Among participants, 21 (41%) had recurrences of major PPD, 19 of which happened in the first 7 months after birth. The remaining two cases occurred at weeks 50 and 52.

Causes. During the first few months after birth, a woman is more likely to develop a severe mental disorder than in any other period in her lifetime. One of the most notable changes is the dramatic decrease in estradiol and progesterone. This hormonal withdrawal is one of the explanations offered for PPD. However, since all women experience this reduction in hormones, why is it that only a small percentage of new mothers develop PPD?

There is no clear consensus on the cause of PPD, and many questions remain unanswered about this highly complex and multifactorial mood disorder. It is theorized to be caused by a complicated interaction among biochemical, genetic, psychosocial, and situational life-stress factors (O'Hara & McCabe, 2013). A disruption of neurotransmitters in the brain has been postulated as a biochemical condition related to PPD (Sichel & Driscoll, 1999). Neurotransmitters are chemical messengers that brain cells use to communicate with each other. An individual brain cell releases its neurotransmitter in the space between itself and other brain cells. The neurotransmitter binds to the cell next to it at a place called a receptor, and electrochemical activity occurs in the receptor cell. A critical part of this communication is that the first cell conserves the neurotransmitter by taking it back inside itself. In this way it is reused in a process is called reuptake. In depression, there is a deficiency of neurotransmitters, such as serotonin.

Some researchers are turning to advances in gene mapping to help explain the differential vulnerability and sensitivity of some women to PPD. For example, Segman et al. (2010) compared nine mothers with PPD to 10 mothers without PPD. Global gene expression profiles correctly categorized 84% of the women as depressed or nondepressed. Segman et al. (2010) concluded that the finding of a distinctive gene expression signature in women who develop PPD provided initial evidence that sampling blood cells shortly after birth may yield valuable prognostic information. Pilot data from El-Ibiary et al.'s study (2013) suggested that DNA variations in the HTR2A gene may be associated with PPD.

Duration. The natural duration of postpartum depression is variable. Campbell and Cohn (1997) conducted a longitudinal study with 70 primiparous women who were depressed. They reported that most depression resolve within a few months with treatment, but 24% of the women were still depressed one year after giving birth. Cooper et al. (1988) found that about 50% of the mothers they studied experienced PPD for 4 to 8 weeks. In summary, the average duration of PPD reported in studies is a minimum of several months.

Transcultural perspectives of PPD. The question of whether PPD is a universal experience or limited to Western industrialized countries has been debated for decades. Stern and Kruckman (1983) suggested that PPD occurs in Western cultures

only because of the absence of a social support structure. Oates et al. (2004) studied women from 11 countries (United States, United Kingdom, France, Italy, Sweden, Ireland, Japan, Australia, Switzerland, Portugal, and Uganda) to determine whether PPD is a universal experience with common attributions. They found that PPD, called morbid unhappiness in some countries, was reported to be a common experience after birth. In some countries, PPD was not recognized as a mental illness with a specific label. The characteristics of PPD in all countries closely approximated the Western concept of the signs and symptoms of this mental illness.

Risk factors for PPD. Risk factors are variables that have been reported to increase the probability of developing PPD. However, they may or may not be directly related to the cause of PPD. Often, a combination of risk factors places a woman at risk. The presence of risk factors does not predict that a woman will experience PPD, nor does the absence of risk factors ensure that PPD will not occur. In early meta-analyses, researchers confirmed the strongest predictors of postpartum depression were prenatal depression, life stress, low social support, prenatal anxiety, poor marital satisfaction, and history of previous depression (Beck, 1996a, 2001; O'Hara & Swain, 1996; Robertson et al., 2004). More recently in 2014, Vliegen et al. reviewed 17 longitudinal studies on risk factors for PPD and identified four categories: partner relationships and social support; history of mental health problems or more specific childhood features, such as childhood sexual abuse; contextual risk factors of parental stress and financial worries; and personality factors, such as excessive self-criticism, anxiety regarding relationships, and an immature defense style. Yim et al. (2015) systematically reviewed the psychosocial predictors of PPD in 151 studies and reported that significant predictors of PPD were severe life events, chronic strain (e.g., lack of job security, short family leave time, and low socioeconomic status), poor relationship quality, and low level of support from partners and mothers. Other risk factors for PPD included domestic violence and preterm infants in the NICU.

Evidence suggests that mothers of preterm and low-birth-weight infants and mothers of multiples experience higher rates of PPD than mothers of healthy, full-term infants. Vigod et al. (2010) conducted a systematic review of 26 studies and reported that the rates of PPD were as high as 40% in the early postpartum period for women with premature infants. In a study of 114 mothers of high-risk infants discharged from the NICU, Northrup et al. (2013) reported prevalence rates of elevated depression symptoms of 35% at 2 weeks, 23% at 6 months, and 49% at 12 months post discharge. Among 60 mothers, 39% screened positive for major PPD at 1 month after their infants' admissions to the NICU, while an additional 16% reported minor depression (Lefkowitz et al., 2010). An alarming 32% of these mothers experienced suicidal thoughts within the 2 weeks before they completed the screening scale.

The results of three meta-analyses have confirmed the relationship between intimate partner violence and PPD. Wu et al. (2012) conducted a meta-analysis of six studies involving 3,950 women. Women who experienced violence were 3.47 times more likely to have PPD than those who did not. Beydoun et al. (2012) meta-analyzed 37 studies and found a two to three times higher risk of PPD among women who were exposed to intimate partner violence compared to those who were not. A meta-analysis of longitudinal studies revealed a three times increase in the odds of women experiencing elevated levels of depression symptoms in the postpartum period if they experienced domestic violence at some point during pregnancy (Howard et al., 2013).

Many of the identified risk factors for PPD can be readily identified in the prenatal period and interventions can be initiated before birth. Women at high risk need to be monitored more closely during the postpartum period to try to prevent PPD from developing or to start treatment as early as possible. The anticipatory guidance summary sheet includes risk factors and symptoms of PPD.

Experiences of mothers with postpartum depression. In 2002, Beck conducted a meta-synthesis of qualitative studies on PPD to provide nurses with additional insight into the experiences of women who suffer from this disorder. She identified four overarching themes: *Incongruity between Expectations and the Reality of Motherhood*, *Spiraling Downward*, *Pervasive Loss*, and *Making Gains* (see Figure 5). In the first theme, *Incongruity between Expectations and the Reality of Motherhood*, participants succumbed to the dangerous myth of equating motherhood with total fulfillment and happiness; in so doing, they set expectations that were impossible to attain. As a result, women perceived that they failed to fulfill their dreams of being perfect mothers. Consequently, they felt a sense of spiraling downward and experienced a range of distressing emotions beyond simple sadness and depression, including anxiety, anger, feeling overwhelmed, loneliness, isolation, guilt, suicidal thoughts, and other troubling emotions. Feeling scared led to intrusive thoughts of harming the infant and progressed to fear that they might actually act on their impulses. *Pervasive Loss* was the third theme that included loss of control of thoughts and emotions, loss of self, loss of meaningful relationships, and loss of voice. Women made active and conscious decisions to silence their own voices by not discussing their feelings for several reasons, such as fear of burdening their loved ones, fear of their infants being taken away, and feelings of shame and embarrassment. As women's depression began to lift, the fourth theme, *Making Gains*, came into play and represented the beginning of the healing process.

More recently, Mollard (2014) synthesized the findings of 12 qualitative studies on PPD that were published between 2003 and 2013, and results confirmed those of Beck (2002). Mollard identified the major themes of *Crushed Maternal Role Expectations, Going Into Hiding, Loss of Sense of Self,* and *Intense Feelings Of Vulnerability.*

Theory of PPD: Teetering on the Edge. Women who suffer from PPD move through a four-stage process that Beck (1993) identified as the Teetering on the Edge theory in a grounded theory study. The four stages are encountering terror, dying of self, struggling to survive, and regaining control (see Figure 6). Loss of control was the basic problem that participants grappled with when they suffered from PPD (Beck, 1993). They described the initial stage as a terrifying onslaught of horrifying anxiety, relentless obsessive thinking, and enveloping fogginess. Because of the conditions in the first stage of PPD, participants described feeling that their normal selves were dying in the second stage, which consisted of three consequences: alarming unrealness, isolating

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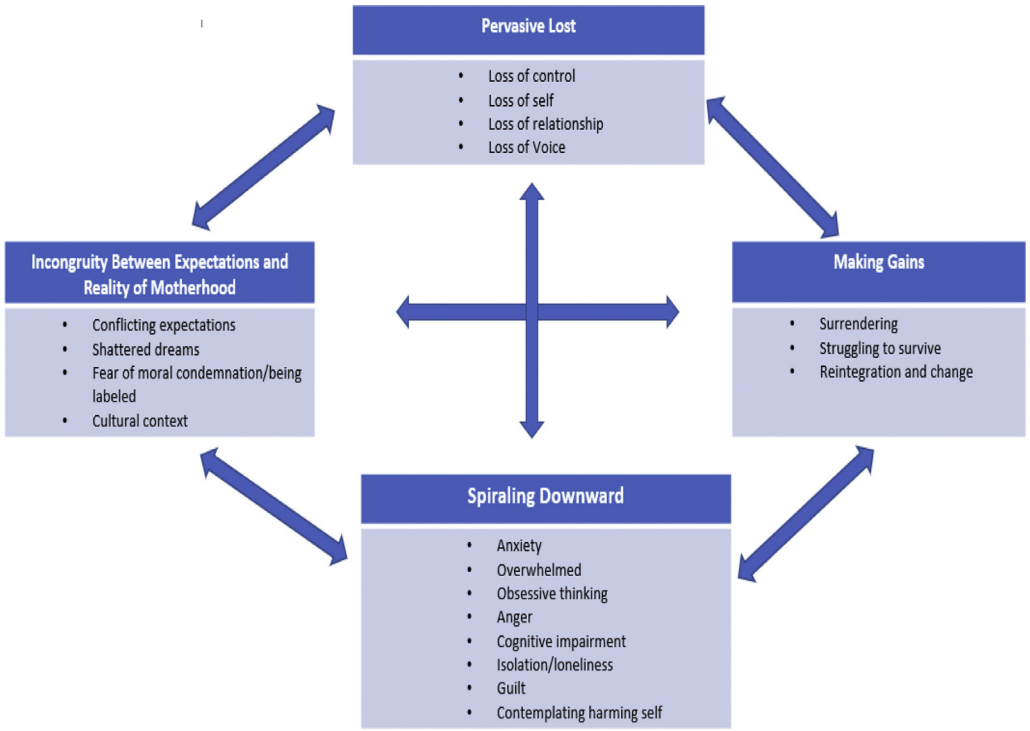
FIGURE 5 FOUR PERSPECTIVES INVOLVED WITH POSTPARTUM DEPRESSION



Note. From "Postpartum Depression: A Metasynthesis," by C. T. Beck, 2002, *Qualitative Health Research*, *12*, p. 461. Copyright 2002 by Sage. Reprinted with permission.

oneself, and contemplating and attempting self-destruction. In the third stage, participants employed three different strategies to survive: battling the system, praying for relief, and seeking solace in PPD support groups. In the final stage of teetering on the edge, participants experienced unpredictable transitioning, mourning lost time, and guarded recovery.

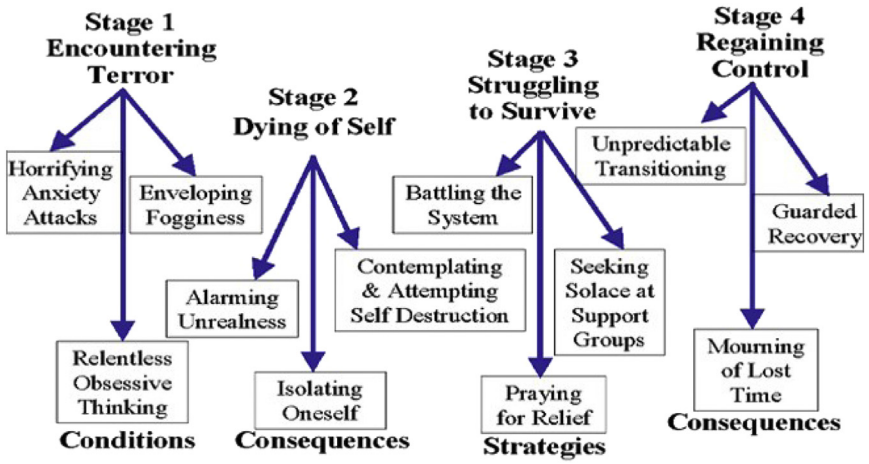
Metaphor analysis of PPD. In a secondary analysis of three qualitative studies on PPD, Beck (2020b) investigated the metaphors women used to describe their depression after giving birth. She identified 11 metaphors: a ton of bricks, a tightrope walker, a living nightmare, trapped, in the middle of the sea, an alien, a loner, a basket case, cobwebs in the brain, feeling like total trash, and hitting rock bottom. For many women, the onset of PPD was very sudden and caused them to lose control of all aspects of their lives. They described feeling like tightrope walkers on a fine line between sanity and insanity. Women used images of water, waves, and the sea to express how helpless they felt as if they were drowning, and no one offered to help. Women explained that they felt like they lost sense of self, and they were alone, isolated, and insecure. Difficulty in concentration was another pervasive problem for women with PPD, and their self-esteem plummeted as they felt worthless in their new roles as mothers.

Metaphor analysis can be a valuable resource for evidence-based practice, and these 11 metaphors help to explain the experience of PPD and offer rich insight for clinicians. In a recent consensus statement on maternal mental health, Kendig et al. (2017) described red flags that can be used to help identify women who may be suffering in silence with PPD. Metaphors that use non-medical terminology can be valuable warning signs for family members. When new mothers walk a tightrope, nurses have the responsibility to provide the safety net below them.

PPD experiences in other cultures. Since publication of the original study in 1993, Beck (2007, 2012) modified the Teetering on the Edge theory with findings from 27 qualitative studies on PPD in women from other cultures. These women were used as comparison groups, because the 1993 sample was limited to middle-class, White women who lived in the United States. Figures 7 through 10 highlight the modifications.

In Stage 1, encountering terror, two new categories were added: emotional lability and somatic expressions. In the original theory, emotional lability was included under the basic social psychological problem of loss of control. Because so many women from across the world shared how they suffered from distressing emotions they were not able to control, emotional lability was made a separate category. Somatic expressions was also added to Stage 1. One example of the use of somatic terms was provided by a woman in Taiwan who described PPD as losing strength in her arms and legs (Chen et al., 2006). Under Stage 3, struggling to survive, the original category of seeking solace at support groups was expanded based on the new findings and was renamed seeking support from

FIGURE 6 THE FOUR STATE PROCESS OF TEETERING ON THE EDGE



Note. From "Teetering on the Edge: A Substantive Theory of Postpartum Depression," by C. T. Beck, 1993, *Nursing Research*, *42*, p. 44. Copyright 1993 by Wolters Kluwer, Reprinted with permission.

multiple sources. Women from across the globe explained the value of support from support groups, family, friends, and health care providers.

Tobin et al. (2018) reported immigrant women's experiences of PPD in a meta-synthesis of 13 qualitative studies. Participants in these studies represented Hispanic, Asian, and African mothers. Five overarching themes were identified: *Suffering in Solitude, The Invisible Illness, Cultural Conceptualizations, Barriers to Help Seeking,* and *Facilitators to Help Seeking.* These themes represented the complex needs of childbearing women who no longer lived in their home countries. Immigrant women with PPD had additional isolation and solitude because of the loss of the family network; this was compounded if they did not speak English. The stigma of PPD resulted in guilt, fear, and shame and kept women from disclosing their mental illness. Cultural norms came into play in help seeking behaviors. Hispanic women, for example, expressed concerns about bringing shame to their families, which often prevented them from telling family and friends about how they suffered since giving birth. Multiple barriers to help seeking for immigrant mothers included limited financial resources, lack of transportation, and language difficulties. Women were resistant to take antidepressants and preferred counseling. Some facilitators to help seeking was the use of the internet for information and informal social groups such as faith communities.

PPD and breastfeeding. The published literature includes mixed findings regarding an association between breastfeeding and PPD (Figueiredo et al., 2013). For example, Gagliardi et al. (2012) reported that women with higher levels of depression symptoms immediately after birth had a higher likelihood of bottle-feeding their infants at 3 months postpartum. Akman et al. (2008) reported that at 4 months after birth, women who had higher depression scores at 1 month postpartum were more likely not to breastfeed than women with lower depression scores at 1 month postpartum.

On the other hand, in a prospective study of women from pregnancy to 2 years postpartum, Hahn-Holbrook et al. (2013) found that women who breastfed more frequently at 3 months after birth had a greater decrease in depression symptoms over time than women who breastfed less frequently. Ystrom (2012) reported that levels of depression symptoms increased at 6 months postpartum after breastfeeding cessation, which suggested that early cessation of breastfeeding may contribute to PPD.

Effects of PPD on mother-infant relationship. Field (2010) reviewed studies from the last decade on the effects of PPD on maternal-infant interactions. Women with PPD tended to use two different styles of interacting with their infants: intrusive and overstimulating or withdrawn and under stimulating. Field concluded that "the interaction disturbances of depressed mothers and their infants appear to be universal across differing cultures and socioeconomic status groups and include less sensitivity of the mothers and responsivity of the infants" (2010, p.1).

The consequences of PPD on infants' cognitive, emotional, and behavioral development and on mother-child interactions were the focus of a systematic review by Slomian et al. (2019) of 122 studies. Sixty-eight of those studies focused on maternal consequences and 73 studies on infant consequences. In the studies on infant consequences, 7 of the 11 studies that focused on cognitive development demonstrated a significant negative association between elevated symptoms of PPD and children's cognitive development. In four out of the five studies on infants' emotional development, researchers reported a significant negative effect of PPD on infants' emotional development. Infants whose mothers were depressed after birth had increased levels of emotional disorders, such as anxiety, compared to infants whose mothers were not depressed. In 10 of the 12 studies that focused on infants' behavior problems, PPD had significant effects on negative

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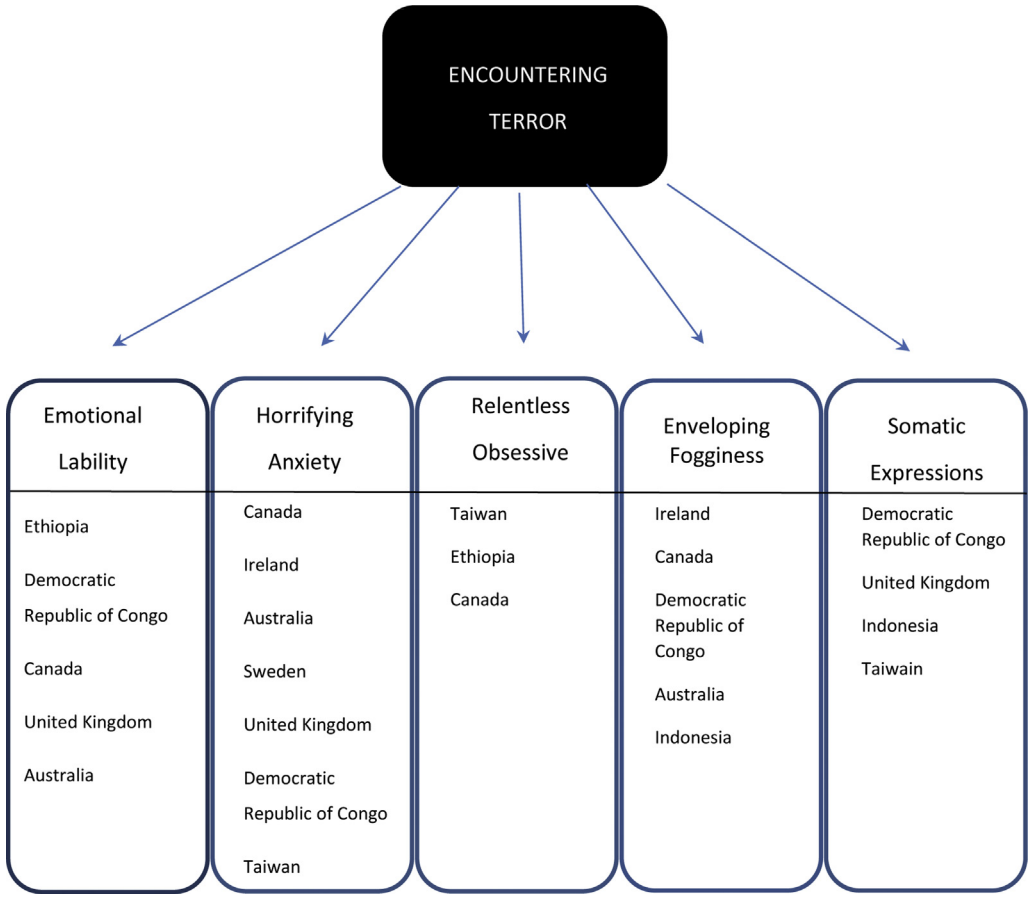
FIGURE 7 SECOND MODIFICATION OF TEETERING ON THE EDGE: STAGE 1



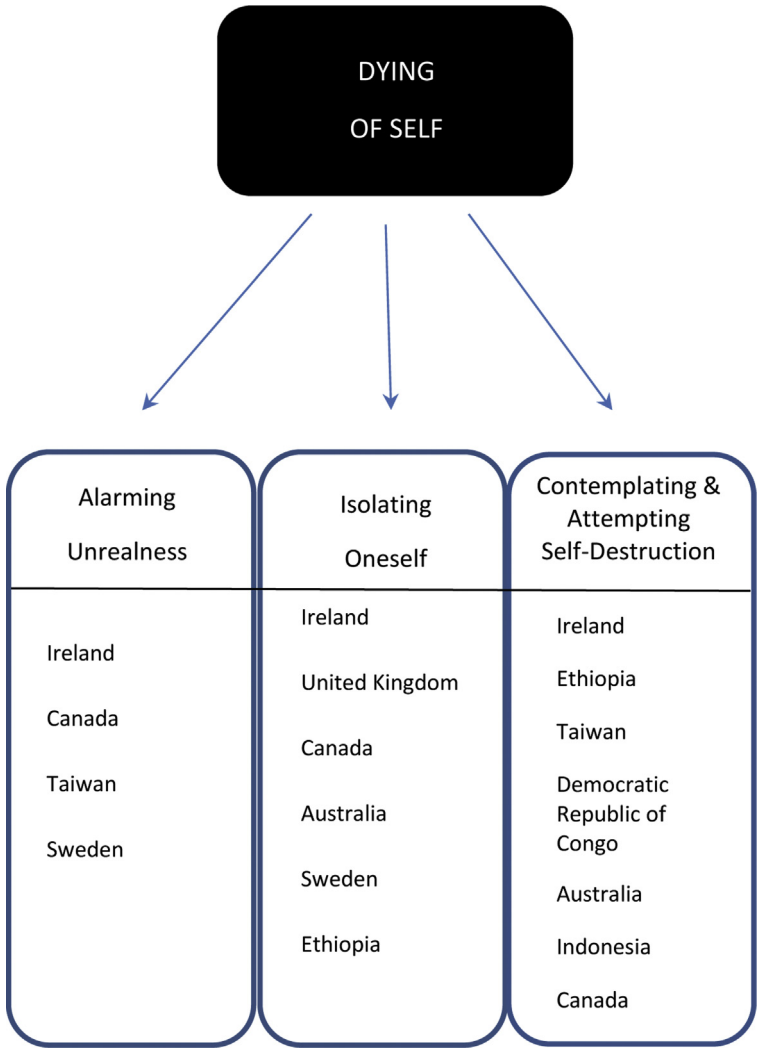
Note. Under each category of the four stages of the Teetering on the Edge theory are listed the cultures from which women who suffered from PPD confirmed experiences similar to those of White women from the United States. From "Exemplar: Teetering on the Edge: A Second Grounded Theory Modification" by C. T. Beck, 2012, *Nursing Research: A Qualitative Perspective*, P. L. Munhall (Ed.), p. 265. Copyright 2012 by Jones & Bartlett Learning. Reprinted with permission.

behavior in children, such as difficult temperament and more internalizing of problems. In 11 studies that looked at mother-infant interaction, researchers reported a significant negative effect of PPD on mother-infant bonding. Women with symptoms of PPD displayed less warmth and sensitivity when interacting with their infants.

A metaphor analysis of mother-infant interaction. Charteris-Black (2012) explained that some people might only be able to effectively communicate their experiences of depression by means of metaphors. Boles (1984) described a metaphor as "a compressed emotional promise of things to come…that contains the seed of everything that will grow from it" (p. 59). Metaphors can help women communicate with their clinicians about aspects of PPD that cannot be captured by medical terminology. To help explain the negative effect that PPD can have on mother-infant interaction, Beck (2020c) conducted a secondary analysis of three qualitative studies of PPD and reported that women with PPD used eight metaphors to describe their interactions with their infants: a thief, a robot, enveloping fogginess, being at the races, an actor, an erupting volcano, skin crawling, and a wall. Metaphors allowed participants to explain how PPD robbed them of happiness and love for their infants and turned them into mechanical mothers who just went through the motions of caring for their infants. Their ability to concentrate decreased; their irritability, anger, and anxiety increased; and they had racing thoughts around their infants, all of which affected with their ability to interact with their infants (Beck 2020c). The metaphors that women use can help nurses to identify women who struggle with PPD and to protect the resulting vulnerable mother-infant dyad.

Effects of PPD on child development. Longitudinal research has been conducted to investigate whether the children of women with PPD suffer long-term sequelae. Results confirm that PPD is associated with cognitive, emotional, and behavioral adjustment problems in children of mothers with PPD. In a systematic review, O'Hara and McCabe's (2013) reported that PPD predicted poor language and lower IQ development in these children across the

FIGURE 8 SECOND MODIFICATION OF TEETERING ON THE EDGE: STAGE 2



Note. Under each category of the four stages of the Teetering on the Edge theory are listed the cultures from which women who suffered from PPD confirmed experiences similar to those of White women from the United States. From "Exemplar: Teetering on the Edge: A Second Grounded Theory Modification," by C. T. Beck, 2012, *Nursing Research: A Qualitative Perspective*, P. L. Munhall (Ed.), p. 270. Copyright 2012 by Jones & Bartlett Learning. Reprinted with permission.

childhood years into adolescence. This effect was more pronounced in boys than girls. Liu et al. (2017) conducted a meta-analysis of 14 studies on symptoms of PPD and early childhood cognitive development. Their analysis revealed that maternal depression symptoms were significantly related to lower cognitive scores in children less than 56 months of age.

In a longitudinal, prospective study, Hay et al. (2003) reported that 11-year-old children whose mothers had PPD displayed more violent behaviors than children of women without PPD. Violent behaviors, such as fighting, kicking, and punching, occurred more often among boys than girls, and violent behavior was predicted by their mother's PPD even when controlling for the mother's later depression and socioeconomic status. In a longitudinal birth cohort study, Avan et al. (2010) found a significant association between PPD at 6 months after birth and children's behavior problems at 2 years of age independent of socioeconomic status. Boys had more behavior problems than girls. In one of the longest prospective longitudinal studies of children of women with PPD compared to children of women without PPD, Murray et al. (2011) reported on the developmental risk pathway of children up to 16 years of age. Children of women with PPD showed more insecure attachment in infancy (Murray, 1992), depressive cognitions at 5 years of age (Murray et al., 2001), and anxiety by 13 years of age (Halligan et al., 2007). In their latest study, Murray and her team (2011) found that children of women with PPD were more likely than children of women without PPD to experience depression by 16 years of age.

Letourneau et al. (2017) reviewed which postpartum interventions were most effective to improve parenting and child

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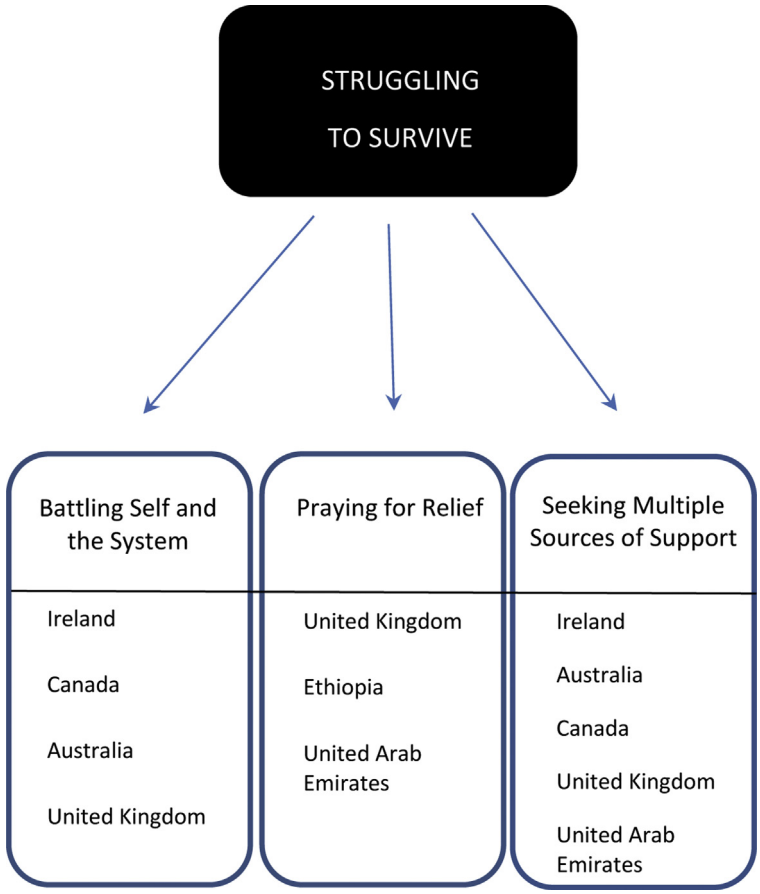
FIGURE 9 *SECOND MODIFICATION OF TEETERING ON THE EDGE: STAGE 3*



Note. Under each category of the four stages of the Teetering on the Edge theory are listed the cultures from which women who suffered from PPD confirmed experiences similar to those of White women from the United States. From "Exemplar: Teetering on the Edge: A Second Grounded Theory Modification," by C. T. Beck, 2012, *Nursing Research: A Qualitative Perspective*, P. L. Munhall (Ed.), p. 272. Copyright 2012 by Jones & Bartlett Learning. Reprinted with permission.

development. Their meta-analysis revealed that psychotherapeutic group support and interaction guidance produced large effects.

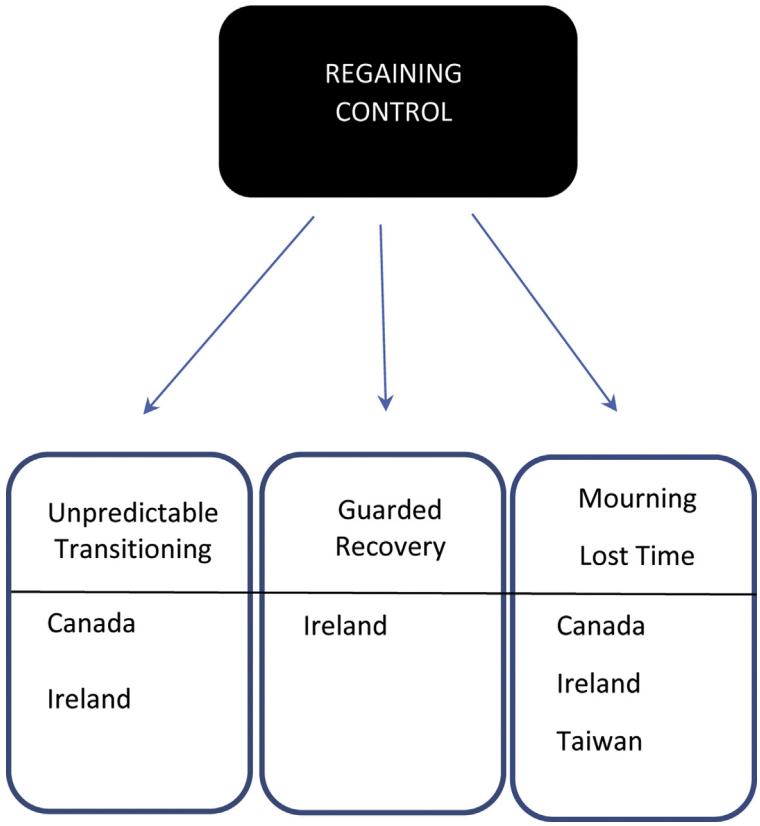
Effects of PPD on fathers. While PPD in mothers has received considerable attention, less is known about this mood disorder in fathers. Fathers are an essential part of the parental dyad and promote the growth and development of their children. If mothers suffer from PPD, fathers can buffer their children from negative effects. Fathers also play a significant role in supporting their partners with PPD.

The worldwide prevalence of PPD in fathers was reported to range from 1.8% (Serhan et al., 2013) to 17.8% (Tran et al., 2012). In a systematic review, Leach et al. (2016) reported that 2.4% to 18% of fathers experienced PPD. Paulson and Bazemore (2010) conducted a meta-analysis of prenatal depression and PPD in 43 studies involving 28,004 fathers and their association with maternal depression. The overall prevalence rate of paternal depression between the first trimester and 1 year postpartum was 10.4%. Variability was observed in reported rates of paternal depression according to timing of the measurement and study location. The highest rate (25.6%) occurred in the 3- to 6-month postpartum period, and the lowest rate (7.7%) occurred during the first 3 months postpartum. In studies conducted in the United States, researchers reported an average prevalence rate of 14.1% compared to an average rate of 8.2% in international studies (Leach et al., 2016).

Edward et al. (2015) conducted an integrative review of 63 studies on PPD in fathers and found that paternal PPD was associated with a personal history of depression and with depression in the partner during pregnancy and after birth. Cameron et al. (2016) conducted a meta-analysis to examine the prevalence of paternal depression in the postpartum period. At 0 to 3 months postpartum, the range was 6.3 to 9.7%. Prevalence rates were higher during the 3- to 6-month postpartum period and ranged from 7.2% to 22.3%. A significant predictor of paternal depression in the postpartum period was maternal depression.

Correlates of antepartum depression and PPD in fathers were the focus of a systematic review by Wee et al. (2011) that included 25 quantitative studies. In 11 of the included studies, researchers used a cross-sectional design, and the most common correlate was having a partner with depression. Other significant risk factors were low satisfaction with the marital relationship and low social support. In

FIGURE 10 *SECOND MODIFICATION OF TEETERING ON THE EDGE: STAGE 4*



Note. Under each category of the four stages of the Teetering on the Edge theory are listed the cultures from which women who suffered from PPD confirmed experiences similar to those of White women from the United States. From "Exemplar: Teetering on the Edge: A Second Grounded Theory Modification," by C. T. Beck, 2012, *Nursing Research: A Qualitative Perspective*, P. L. Munhall (Ed.), p. 277. Copyright 2012 by Jones & Bartlett Learning. Reprinted with permission.

the other 14 studies, researchers used a longitudinal design from the antenatal through the postpartum period, and the most common risk factors were poor social support, neuroticism, increased stressful life events, poor relationship with partner, and depression in partner.

In a study of fathers with depression in Canada, Letourneau et al. (2012) explored the types of support fathers needed. Participants desired increased public and professional awareness of PPD in mothers and fathers and said that greater awareness of PPD among employers would have helped employers to be more understanding of the issues that they dealt with at home. Participants revealed that they felt the health care system was inadequate in educating couples about PPD and in screening fathers as well as mothers for PPD.

Little has been published about routine screening and referral for fathers during the postpartum period. Nurses can help to educate families about the possibility of PPD in fathers as well as in mothers. The need to include fathers in family-centered interventions for PPD is essential to optimize child development.

Treatment for Postpartum Depression

Interventions for PPD can be categorized as psychosocial, psychological, pharmacological, and complementary and alternative therapies. Psychosocial interventions include prenatal and postpartum classes, home visits by mental health nurses, early postpartum follow-up, peer support, partner support, and non-directive counseling known as "listening visits". Dennis (2014) reviewed 13 trials of psychosocial treatment interventions for PPD to determine their effectiveness. Treatment strategies in the included studies were peer support, partner support, non-directive counseling, and home visits by mental health nurses. Because of the methodological limitations of the included trials, Dennis (2014) concluded that the effectiveness of these psychosocial interventions for treating PPD was equivocal. She recommended large, multisite, randomized controlled trials to compare different treatment strategies to determine which are most effective for new mothers.

After review of the evidence, the U. S. Preventive Services Task (2019) concluded that counseling interventions, such as interpersonal psychotherapy (IPT) and cognitive behavioral therapy (CBT), were effective interventions to prevent perinatal depression. Interpersonal psychotherapy is a time-limited form of psychotherapy based on the premise that interpersonal distress is related to depression symptoms; it is based on attachment and interpersonal theory (Stuart, 2012). The specific targets of IPT are the biological, psychological, and social

 doi: 10.1016/j.jogn.2021.02.007

determinants of the woman's distress, and it focuses on the interpersonal problem areas of role transitions, grief and loss, and interpersonal disputes. Some of the techniques used in IPT are communication analysis, content and process affect, interpersonal incidents, and role playing. Sockol (2018) conducted a systematic review and meta-analysis of 17 studies on IPT for women with PPD and concluded that IPT was an effective intervention for women who experienced elevated depression symptoms during the first year postpartum.

Cognitive behavioral therapy is a type of psychotherapy that focuses on increasing cognitive and social skills, evaluating and modifying dysfunctional thought patterns, encouraging self-reinforcement, and developing positive coping statements and problem-solving skills. It is a short-term psychotherapy that can be used to help women learn skills and techniques to modify their negative patterns of behavior (Beck & Beck, 2011). In a meta-analysis of nine NICU-based randomized controlled interventions to decrease maternal depression symptoms, Mendelson et al. (2017) reported that these interventions included CBT, educational approaches, and maternal-infant responsiveness training. When the effects of different interventional approaches were compared, CBT was associated with a significant improvement in depression symptoms. Combinations of education-based approaches were not associated with improvement (Mendelson et al., 2017).

Sockol et al. (2013) conducted a meta-analysis of interventions to decrease the severity of symptoms or the prevalence of episodes of PPD. The included studies represented a range of interventions, such as psychotherapy (CBT and IPT), group psychotherapy, social support, antidepressant medications, educational programs, and hormonal interventions. The authors included 24 studies on PPD symptoms at approximately 6 months after birth and 28 studies on the incidence of episodes of PPD. Among the studies on PPD symptoms, Sockel et al. found a small but significant decrease in depression symptoms. Among the studies on incidence, they found a significant 27% reduction in the risk for women in the treatment groups compared with women in the control groups.

Pharmacological interventions for PPD include several classes of antidepressants. Serotonin plays a critical role in mood and emotional stability. Selective serotonin reuptake inhibitors are considered the first-line pharmacologic treatment for PPD after the diagnosis of bipolar disorder has been ruled out (Kim et al., 2014). An example of an SSRI is sertraline. Tricyclic antidepressants are the second class of antidepressants used to treat PPD; these include desipramine and nortriptyline.

Molyneaux et al. (2014) conducted a meta-analysis of the use of antidepressants to treat PPD and found that SSRIs were significantly more effective than placebo. However, these authors cautioned that conclusions were tentative because of small sample sizes and risk of bias in the included studies. Women should be advised that it could take as long as 4 weeks before full therapeutic effects of SSRIs are achieved. The duration of treatment with antidepressants is not definite.

The first drug developed specifically for the treatment of PPD, brexanolone, was recently tested in two double-blind, randomized, placebo-controlled trials (Meltzer-Brody et al., 2018). Brexanolone is a major metabolite of progesterone, which increases throughout pregnancy and then sharply decreases after birth (Powell et al., 2020). This rapid decline in hormones and the down regulation of y-aminobutyric acid receptors ($GABA_AR$) are possible triggers for PPD. Brexanolone is thought to act as a $GABA_AR$. It is administered as a continuous intravenous infusion over 2.5 days under medical supervision. In both studies by Meltzer-Brody et al. (2018), the researchers found a significant, rapid decrease in PPD symptoms within 72 hours of infusion. Women were followed for 30 days, and there is an unknown treatment effect beyond 30 days. Brexanolone has black box warnings from the U. S. Food and Drug Administration for central nervous system depression and loss of consciousness. Dizziness and somnolence were the two most frequently reported adverse effects (Kanes et al., 2017). Serious side effects, however, can include excessive sedation with a sudden loss of consciousness. Some barriers to the use of brexanolone include high cost, intravenous administration, severe adverse events, and lack of long-term efficacy data (Powell et al., 2020).

When treating postpartum mood and anxiety disorders, clinicians should weigh the risk and benefits of psychopharmacology with the benefits of breastfeeding for the woman and infant. Many women who suffer from PPD may want to breastfeed but are unsure of the safety of antidepressants during breastfeeding. Chad et al. (2013) reported that selective serotonin reuptake inhibitors and serotonin norepinephrine reuptake inhibitors transferred into breast milk in low amounts, and few reached 10% of the maternal weight-adjusted dose. A relative infant dose (RID) in breast milk of less than 10% is generally considered safe. Paroxetine and sertraline had the lowest RIDs (0.5% to 3% range), and fluoxetine, venlafaxine, and citalopram had the highest RIDs, which were near or at times above the 10% limit (Chad et al., 2013). *Hale's Medications and Mothers' Milk* (Hale, 2021) is an excellent resource for maternity care providers and includes a lactation risk category index: L1: Compatible, L2: Probably compatible, L3: Probably compatible, L4: Potentially hazardous, and L5: Hazardous. Hale (2021) recommended using the RID to estimate risk. To calculate the RID, the infant's dose via milk (mg/kg/day) is divided by the mother's dose (in mg/kg/day). Hale's (2021) key points about breastfeeding and medications include the following:

- "Avoid using medications that are not necessary. Herbal drugs, high dose vitamins, unusual supplements, etc. that are simply not necessary should be avoided.
- If the Relative Infant Dose (RID) is less than 10%, most medications are quite safe to use, but again this is dependent on the type of drug taken.
- Choose drugs for which we have published data, rather than those recently introduced.
- Evaluate the infant for risks. Be more cautious with premature infants or neonates.
- Medications used in the first 3 to 4 days generally produce subclinical levels in the infant due to the limited volume of milk.
- Recommend that mothers with symptoms of depression or other mental disorders seek treatment. Most of the medications used to treat these syndromes are safe. Remember, healthy moms make healthy babies.

Case 7: Curt

Curt's wife suffered from severe PPD after the birth of their second child and was hospitalized three times for depression. Within 6 months, depression set in for Curt also. He started to use antidepressants, but to this point, he had been resistant to medication. He said his depression had been much more hidden than his wife's depression, and he suffered silently because he felt he had to be strong for his family. Curt called his depression his friend who had led him down an ugly path. He explained the following:

> Depression is constant, always there. Even now, I need to be mindful of not allowing myself to be led into a depressed mood. Depression doesn't just go away; it has ways of changing itself. It is powerful and comes with some workings that can require medical intervention. You can learn to live with the better side of depression, and people do get better.

Curt went on to describe that prayer, his children, his wife, and writing were the keys that helped him get through depression. He said that since his teenage years he had written poetry, and this became a way to express himself when he had PPD after the birth of his second child. Curt ended by saying, "It was my kids above all else; they brought me through. No way could I give up for them."

Questions Related to Curt's Case

- What mental health disorder was Curt struggling with?
- What interventions should be initiated for Curt?

Since Curt is already taking antidepressants and he still is experiencing postpartum depression symptoms, the clinician could suggest that he consults a therapist. Encourage Curt to continue with his poetry since he found this to be helpful and provide positive feedback and encouragement for his use of prayer, writing, and family to help him overcome his depression.

Case 8: Caron

Caron is a 34-year-old, White, lesbian woman who has been married to her wife for 2 years. Caron has a master's degree and has no previous history of depression. She gave birth 6 weeks ago to her first child, a healthy, full-term girl. At her 6-week postpartum checkup, she was screened for PPD using the PDSS and she scored 117, which is a positive screen for symptoms of major PPD. Moreover, her score on the suicidal thoughts subscale revealed that she had thoughts of harming herself. She had elevated scores on all the seven subscales on the PDSS except one: the sleeping/eating disturbances subscale. Caron strongly endorsed items measuring her guilt about her perception of poor performance as a mother. She scored high on the anxiety/insecurity subscale, which indicated feeling overwhelmed and isolated. Caron scored high on the emotional lability subscale and endorsed feeling irritable, angry, and having uncontrollable crying. On the mental confusion subscale, she indicated difficulty concentrating and sustaining attention to tasks. Caron indicated that she did not feel like she was the same person she was before giving birth, and she did not know who she had become. Since Caron indicated she was having thoughts of harming herself, she was immediately referred for further evaluation by a nurse psychotherapist.

Questions Related to Caron's Case

- What mental health disorder is Caron struggling with?
- What interventions should be initiated for Caron?

Caron struggles with elevated symptoms of postpartum depression and has already been referred to a mental health professional because of her suicidal thoughts. Nurses can target interventions to help Caron with her feelings of guilt, anxiety, irritability, and difficulty concentrating.

- Most drugs are quite safe in breastfeeding mothers, while the hazards of using formula are well known and documented. Use donor human milk when the drug is potentially dangerous.
- With some medications, discontinuing breastfeeding for some hours/days may be required, particularly with radioactive compounds and anticancer drugs. If the drug is hazardous to you, it is probably hazardous to your infant.
- Choose drugs with short half-lives, high protein binding, low oral bioavailability, or high molecular weight" (p. xi).

Because information on breastfeeding and antidepressants is constantly changing based on new research, it is essential that clinicians are familiar with the current literature. The potential risks of medication exposure to the nursing infant should be weighed against the risks of untreated maternal depression. Clinicians should help women assess the risks and benefits through a process of shared decision-making. An additional source of information regarding breastfeeding and medications can be found online from Massachusetts General Hospital Center for Women's Mental Health (2021).

Electroconvulsive therapy. Some women who suffer from severe PPD may require inpatient hospitalization, particularly those who are suicidal. Electroconvulsive therapy (ECT) is a possible treatment for these women, but this option can provoke anxiety, and education and reassurance about use of ECT are critical for women and their families. For some women whose symptoms do not improve adequately with other treatments, such as antidepressants, ECT is an alternative. During treatment, a woman receives general anesthesia and a muscle relaxant to decrease muscle contractions; a series of ECT treatments is usually required. Short-term memory loss is a side effect of ECT.

Complementary and alternative medicine therapies. Women who prefer not to take antidepressants are increasingly seeking complementary and alternative medicine (CAM) therapies for PPD. Some of the more commonly used CAM therapies include omega-3 fatty acids, massage, and acupuncture (Deligiannidis & Freeman, 2014). In a meta-analysis of eight randomized, placebo-

 doi: 10.1016/j.jogn.2021.02.007

controlled studies, Zhang et al. (2020) found that omega-3 fatty acids had a significant effect in lowering PPD symptoms. Massage therapy for PPD, however, has not been studied extensively, so at this time, massage should not replace more standard therapies. It can be used to augment first-line therapies.

Likewise, acupuncture has not been studied extensively as a treatment for PPD. Chung et al. (2012) conducted a small randomized, noninvasive, sham-controlled pilot of electroacupuncture for PPD and found that both the acupuncture and the non-invasive sham acupuncture reduced symptoms of depression in new mothers. In their review of CAM therapies, Deligiannidis and Freeman (2014) concluded that acupuncture may be an attractive option to some women, but it is premature to recommend CAM therapy as a first-line treatment for PPD.

Barriers to seeking treatment. Research results indicates that most women who experience symptoms of PPD do not seek help. Abrams et al. (2009) investigated whether low-income, ethnic minority women sought formal help for PPD symptoms. Participants reported normalizing or minimizing their symptoms and hiding them and shared the following statements: "People tell me it's normal," "Good mothers don't get depressed," and "Postpartum depression means you're crazy." Participants who eventually sought help most often contacted family members first rather than health care providers. Some did not seek formal mental health services because of prior experiences with mental-health providers who favored "medication first." Instead of formal care, participants described using a variety of self-help practices such as religious practices. Behavioral practices included focusing on physical health by exercising and good nutrition and writing in a journal. Some of their cognitive practices entailed positive thinking, self-talk, and focusing attention on their children (Abrams et al., 2009).

Well-educated, high-income, married women ($N = 509$) were the focus of a study on attitudes, preferences, and perceived barriers to treatment for perinatal depression (Goodman, 2009). When asked about perceived potential barriers to treatment, participants identified lack of time (65%), stigma (43%), and childcare issues (33%). Most participants preferred individual therapy (92%) over group therapy for depression. Only 35% of the participants said they would likely take medication if it were recommended for treatment of PPD, and most preferred to receive mental-health treatment from their obstetric providers or from mental-health providers at their obstetric clinics (Goodman, 2009).

Established and supportive relationships with health care providers are essential to encourage women to seek treatment for PPD symptoms. Health care clinicians can legitimize PPD and take women's symptoms seriously; timeliness is critical. The provision of child care enables women to receive treatment for their PPD. Efforts to decrease stigma surrounding depression in new mothers are needed, and logistical barriers such as transportation and language should be addressed to facilitate universal treatment regardless of socioeconomic level or language spoken (Goodman, 2009).

PPD Screening Instruments

One of the greatest obstacles to diagnosing PPD is the failure of health care professionals to question new mothers about affective symptoms during the postpartum period. Despite multiple contacts with clinicians during this time, many women go without much-needed treatment because their postpartum mood disorders are not diagnosed. Barriers that can prevent health care providers from

ANTICIPATORY GUIDANCE FOR POSTPARTUM DEPRESSION

Nurses should be aware of the following risk factors and symptoms for PPD following traumatic birth so that they can recognize women who may be at risk and initiate timely intervention.

Prenatal Risk Factors

- Prenatal depression
- Prenatal anxiety
- History of psychiatric conditions
- History of trauma, including child sexual abuse, rape, intimate partner violence
- Stressful life events, including financial problems, serious illness in family
- Poor marital/partner relationship
- Low socioeconomic status
- Low social support
- Low self esteem
- Single marital status
- Unplanned/unwanted pregnancy

Postpartum Risk Factors

- Any prenatal risk factors
- Preterm birth
- Infant in NICU
- Childcare stress
- Difficult infant temperament/colic
- Maternity blues
- Traumatic childbirth

Symptoms of Postpartum Depression

- Sleeping/eating disturbance, e.g., difficulty sleeping even when infant is asleep
- Loss of self: "I don't know who I am anymore."
- Anxiety
- Insecurity
- Feeling overwhelmed
- Feeling guilt
- Lack of control over emotions
- Irritability
- Crying
- Anger
- Lack of enjoyment
- Sadness

screening for PPD include insufficient training/knowledge and lack of time. The initial prenatal visit can be an ideal time to obtain baseline information and to identify women with elevated depression symptoms so that treatment can be initiated. It is too early to formally screen for PPD while the woman is still on the postpartum unit. A false positive screen can occur if the woman is experiencing maternity blues, which are common in the first 10 days after birth. However, before discharge, women should be given anticipatory guidance about PPD and its symptoms. Routine screening should be done when women return for their postpartum checkups at 4 to 6 weeks after birth.

Barriers to seeking help for emotional distress in the postpartum period are numerous, and in their qualitative study, Bilszta et al. (2010) identified the following: stigma, denial, lack of knowledge about PPD, fear of failure, façade of coping with the demands of motherhood, and unrealistic expectations of motherhood. Despite low rates of seeking help by depressed mothers, Brealey et al. (2010) reported that screening for PPD in the postpartum period was acceptable and viewed as desirable by most women in the studies included in their systematic review and meta-analysis. Regarding best practices for screening for PPD, Milgrom and Gemmill (2014) included the following practice points:

- "Screening in isolation will have no beneficial effect and must be part of an integrated, well-resourced process with clear pathways to diagnostic assessment and effective accessible treatment for those diagnosed with depression.
- Screening is best conducted in the context of broader psychosocial factors with consideration given to common comorbid conditions (e.g., anxiety).
- Providing women with prior notification of the screening and assessment process will increase its acceptability.
- Systematic follow-up of all positive screening results with the offer of a diagnostic stage procedure is imperative.
- Sufficient training for health professionals in screening and wider psychosocial assessment is essential" (Milgrom & Gemmill, 2014, p. 20).

In 2013, the Agency for Healthcare Research and Quality published a report on the benefits and harms of specific tools and strategies for screening for PPD as reported in 40 studies (Myers et al., 2013). Multiple studies that included estimates for sensitivity and specificity were available only for two screening scales: the EPDS) Cox et al., 1987; Cox et al., 2014) and the Postpartum Depression Screening Scale (PDSS; Beck & Gable, 2002). Sensitivity and specificity for both instruments were in the 80% to 90% range, and no substantial differences between scales were noted. Serial tests were almost always favored over a single test for screening. Referral and treatment rates for women who screened positive for PPD were substantially higher in the two studies where the screening, diagnostic interview, and treatment were all provided in the same setting. Myers et al. (2013, p. ix) concluded: "The potential effectiveness of screening for PPD appears to be related to the availability of systems to ensure adequate follow-up of women with positive results." Clinicians need to keep in mind that since there is a comorbidity between PPD and PTSD after childbirth, when a woman screens positive for symptoms of PPD, she should be engaged in dialogue about her perception of her previous births, i.e., does she perceive her previous birth(s) as traumatic?

Postpartum Depression Predictors Inventory-Revised. The Postpartum Depression Predictors Inventory-Revised (PDPI-Revised; Beck et al., 2006) can be used during pregnancy and the postpartum period to identify women who are at risk for developing PPD. The items in this inventory are based on the 13 risk factors for PPD previously identified by Beck (2001). During pregnancy, the first 10 predictors can be assessed (prenatal version). The last three risk factors, childcare stress, infant temperament, and maternity blues, can be assessed after birth (postpartum version). Table 3 includes scoring for each risk factor and sample guide questions that a nurse or other health care provider can use during an interview. These guide questions can help clinicians determine whether each predictor applies to the woman being interviewed.

The coding and scoring system for the PDPI-Revised was developed with a recommended cutoff point (Beck et al., 2006). The predictive validity of the PDPI-Revised was assessed in a longitudinal study with 139 women from the Pacific Northwest who completed the inventory in their third trimesters of pregnancy and again at 2 and 6 months after birth. When using the inventory during pregnancy, the recommended cutoff score is 10.5, which yielded a sensitivity of 0.76 and specificity of 0.54 (Beck et al., 2006). The PDPI-Revised did not perform as well in the postpartum period (Beck et al., 2006). Further research is needed before a cutoff score can be recommended for use of the inventory during the postpartum period.

When a woman scores above the recommended cutoff score of 10.5 on the prenatal version, she should be monitored closely for any signs of PPD. Using the PDPI-Revised to identify targeted predictors, health care providers can develop interventions that focus on the woman's specific problems. The PDPI-Revised has been translated and used successfully in Italy (Ferretti et al., 2013; Oppo et al., 2009), Japan (Ikeda & Kamibeppu, 2013), and Korea (Youn & Jeong, 2011).

Postpartum Depression Screening Scale. The PDSS is a 35-item self-report scale developed to assess the presence, severity, and type of PPD symptoms (Beck & Gable, 2002). The PDSS is written at a third-grade reading level and consists of statements about how a woman is feeling after the birth of her infant. The scale is based on a five-point Likert response format (1 = *strongly disagree* to 5 = *strongly agree*). All 35 statements are negatively worded so that agreement with a statement indicates endorsement of the depression symptoms. Higher PDSS scores indicate higher levels of PPD symptoms.

The PDSS yields a total score indicative of overall severity of PPD symptoms. The scale consists of seven symptom content subscales: sleeping/eating disturbances, loss of self, anxiety/insecurity, guilt/shame, emotional lability, mental confusion, and suicidal thoughts. Each subscale has five items. All were developed from Beck's (1992, 1993, 1996b) series of qualitative studies. Selected items by dimension (subscale) are provided in Table 4. The total score on the PDSS can range from 35 to 175, and a score of 80 or above is considered a positive screen for symptoms of major PPD. This cutoff score yielded a sensitivity of 94% and specificity of 98% (Beck & Gable, 2002). Women who score in this range need of psychiatric evaluation and should be referred as soon as possible for mental health follow-up and

 doi: 10.1016/j.jogn.2021.02.007

TABLE 3 SCORING DIRECTIONS FOR THE POSTPARTUM DEPRESSION PREDICTORS INVENTORY-REVISED

Prenatal Version	Assigning Scores	Total Possible Score Per Item	Total Possible Score Per Predictor Group	Cum Total
Marital Status	Range = 0-1		1	1
Single, Married, Separated, Divorced, Widowed, Partnered	Married/partnered = 0 All single status = 1	1		
SES	Range = 0-1		1	2
Low, Middle, High	Middle or High = 0 Low=1	1		
Self Esteem	Range = 0-3		3	5
Do you feel good about yourself	Yes = 0 No = 1	1		
Do you feel worth while	Yes = 0 No = 1	1		
Do you have good qualities	Yes = 0 No = 1	1		
Prenatal Depression	Range = 0-1		1	6
Have you felt depressed during your pregnancy	No = 0 Yes = 1	1		
If yes when and how long	Not used			
If yes how mild or severe	Not used			
Prenatal Anxiety	Range = 0-1		1	7
Have you been feeling anxious during your pregnancy	No = 0 Yes = 1	1		
If yes how long	Not used			
Unplanned/unwanted Pregnancy	Range = 0-2		2	9
Was the pregnancy planned	Yes = 0 No = 1	1		
Was the pregnancy unwanted	No = 0 Yes =1	1		
History of Previous Depression	Range = 0-1		1	10
Before this pregnancy, have you ever been depressed	No = 0 Yes = 1	1		
If yes when did you experience this depression	Not used			
If yes have you been under the care of an MD	Not used			
If yes did the MD prescribe medication	Not used			
Social Support Partner	Range = 0-4 for each area of partner, family, and friends		4	22
Do you feel you receive adequate emotional support from your partner	Yes = 0 No = 1	1		
Do you feel you can confide in your partner	Yes = 0 No = 1	1		

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TABLE 3 SCORING DIRECTIONS FOR THE POSTPARTUM DEPRESSION PREDICTORS INVENTORY-REVISED *(continued)*

Prenatal Version	Assigning Scores	Total Possible Score Per Item	Total Possible Score Per Predictor Group	Cum Total
	Above 2 items = affective partner support			
Do you feel you can rely on your partner	Yes = 0 No = 1	1		
Do you feel you receive adequate instrumental support from your partner	Yes = 0 No = 1	1		
Family	Above 2 items = partner instrumental support		**4**	
Do you feel you receive adequate emotional support from your family	Yes = 0 No = 1	1		
Do you feel you can confide in your family	Yes = 0 No = 1	1		
	Above 2 items = family affective support			
Do you feel you can rely on your family	Yes = 0 No = 1	1		
Do you feel you receive adequate instrumental support from your family	Yes = 0 No = 1	1		
Friends	Above 2 items= family instrumental support		**4**	
Do you feel you receive adequate emotional support from you friends	Yes = 0 No = 1	1		
Do you feel you can confide in your friends	Yes = 0 No = 1	1		
	Above 2 items = friend affective support			
Do you feel you can rely on your friends	Yes = 0 No = 1	1		
Do you feel you receive adequate instrumental support from your friends	Yes = 0 No = 1	1		
	Above 2 items = friend instrumental support			
Marital/partner satisfaction	Range = 0-3		**3**	**25**
Are you satisfied with your marriage or living arrangement	Yes = 0 No = 1	1		
Are you currently experiencing any marital/relationship problems	No = 0 Yes = 1	1		
Are things going well between you and your partner	Yes = 0 No = 1	1		
Life stress	Range = 0-7		**7**	**32**

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 doi: 10.1016/j.jogn.2021.02.007

TABLE 3 SCORING DIRECTIONS FOR THE POSTPARTUM DEPRESSION PREDICTORS INVENTORY-REVISED *(continued)*

Prenatal Version	Assigning Scores	Total Possible Score Per Item	Total Possible Score Per Predictor Group	Cum Total
Are you currently experiencing any stressful events in your life such as				
Financial problems	No = 0 Yes = 1	1		
Marital problems	No = 0 Yes = 1	1		
Death in family	No = 0 Yes = 1	1		
Unemployment	No = 0 Yes = 1	1		
Serious illness in family	No = 0 Yes = 1	1		
Moving	No = 0 Yes = 1	1		
Job change	No = 0 Yes = 1	1		
Postpartum Version				
Child Care Stress	Range = 0-3		**3**	**35**
Is the infant experiencing any health problems	No = 0 Yes = 1	1		
Are you having problems feeding the baby	No = 0 Yes = 1	1		
Are you having problems with the baby sleeping	No = 0 Yes = 1	1		
Infant Temperament	Range = 0-3	3	**3**	**38**
Would you consider the baby irritable	No = 0 Yes = 1	1		
Does the baby cry a lot	No = 0 Yes = 1	1		
Is your baby difficult to console or soothe	No = 0 Yes = 1	1		
Maternity Blues	Range 0-1		**1**	**39**
Did you experience a period of tearfulness the first week after delivery	No = 0 Yes = 1	1		

Note. From "Further Development of the Postpartum Depression Predictors Inventory-Revised," by C. T. Beck, K. Records, and M. Rice (2006). *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *35*, pp 740–742. Copyright 2006 by the Association of Women's Health, Obstetric, and Neonatal Nurses. Reprinted with permission.

treatment. No matter what score a woman receives on the PDSS, if she acknowledges that she is having suicidal thoughts, she should be referred immediately for mental health evaluation.

When a woman has a positive screen for symptoms of major PPD with the PDSS, it is recommended that the clinician examine the scores for the seven symptom content subscales to determine whether a pattern of symptoms can be identified. Just as with the total PDSS score, Beck and Gable (2002) determined cutoff scores for each of the seven subscales. Beck and Gable (2001) compared the performance of the PDSS with the EPDS among 150 women approximately 6 weeks after birth and reported that the PDSS had a sensitivity of 94% and specificity of 98%; the EPDS had a sensitivity of 78% and specificity of 99%. In 2005, Beck and Gable translated and evaluated the psychometric properties of the Spanish version of the PDSS. The psychometrics for the Spanish version were slightly lower when compared to the original English version but well within the acceptable range. The PDSS has been used successfully to screen for PPD in a Spanish version with Chilean women (Quelopaña, 2012), a Chinese version (Li et al., 2011), a Hungarian version (Hegedus & Beck, 2012), a Portuguese version (Pereira et al., 2013), and a Spanish version with Mexican women (Lara et al., 2013).

Edinburgh Postnatal Depression Scale. The EPDS is a self-report questionnaire that consists of 10 short statements related to common depression symptoms with four possible replies to each

TABLE 4 POSTPARTUM DEPRESSION SCREENING SCALE: SELECTED ITEMS BY DIMENSION

During the past 2 weeks. . .
Sleeping/Eating Disturbances
#1: I had trouble sleeping even when my baby was asleep.
#8: I lost my appetite.
Loss of Self
#19: I did not know who I was anymore.
#5 : I was afraid that I would never be my normal self again.
Anxiety/Insecurity
#23: I felt all alone.
#9 : I felt really overwhelmed.
Guilt/Shame
#20: I felt guilty because I could not feel as much love for my baby as I should.
#27: I felt like I had to hide what I was thinking or feeling toward the baby.
Emotional Lability
#3: I felt like my emotions were on a roller coaster.
#31: I felt full of anger and ready to explode.
Mental Confusion
#11: I could not concentrate on anything.
#4: I felt like I was losing my mind.
Suicidal Thoughts
#14: I started thinking I would be better off dead.
#28: I felt that my baby would be better off without me.

statement (Cox et al., 1987; Cox et al., 2014). The woman chooses the response that best describes the way she has felt in the past 7 days (Table 5). Each statement is rated on a scale of 0 to 3, and possible total scores range from 0 to 30. Cox et al. (1987) suggested that a cutoff score of 12/13 was a positive screen. However, regardless of EPDS score, if a woman reports thoughts of harming herself, she should be referred for immediate follow-up with a mental health care provider. The symptoms included in the EPDS include inability to laugh, inability to look forward to things with enjoyment, blaming oneself unnecessarily, feeling anxious or worried, feeling scared or panicky, feeling that things have been "getting on top of me," difficulty sleeping because of unhappiness, feeling sad or miserable, crying, and thoughts of harming oneself. The EPDS is used internationally, and there is no cost involved in its use. The EPDS may be photocopied by individual researchers or clinicians for their own use without permission from the publishers. The scale must be copied in full, and all copies must acknowledge the following source: Cox et al., 1987. The copyright is held by the Royal College of Psychiatrists, and written permission must be obtained to copy and distribute the EPDS to others or for republication in print, online, or in any other medium.

Implications for practice. Early recognition is one of the major challenges of dealing with PPD. One of the troublesome characteristics of this mood disorder is its covert nature; women may find it difficult to confide their feelings to health care professionals. One possible explanation for this hesitancy is the popular myth that equates motherhood with total happiness. Joy and other positive feelings related to new motherhood are stressed while sadness and other negative emotions are minimized. In our society, it is culturally acceptable for a person to be depressed after a death, losing a job, or a divorce, but not after childbirth. Because of the social stigma of PPD, women may experience shame or fear about sharing their negative feelings.

The onus is on nurses and other health care providers to dispel this harmful myth, and nurses need to give women permission to share negative emotions. Nurses can explain how early motherhood can include feelings of loss and grief. Loss is an important theme in PPD, and a woman may experience many losses, such as loss of self, loss of control, loss of energy, loss of relationships, and loss of social roles.

Nurses who care for women during the antepartum period need to assess them for risk factors for PPD. For many of the predictors, such as prenatal depression or lack of social support, nurses can initiate interventions during pregnancy rather than waiting until after an at-risk woman gives birth. Postpartum nurses need to prepare women and their support persons to monitor for symptoms of PPD and explain the steps to be taken if they experience such symptoms. Nurses can share AWHONN's (n.d.) post-birth warning signs to help women recognize if they are experiencing complications, including mental health complications, after birth. Table 2 provides online resources for postpartum mood and anxiety disorders that can be shared with new mothers and their support persons.

Once a woman is identified as suffering from PPD, appropriate referrals should be made. Nurses should keep abreast of resources in the community for treating PPD so they can quickly refer women for help. A list of support groups and local mental-health professionals who specialize in PPD can be invaluable. In addition, nurses need to advocate for resources in their communities, and they can support legislation and public-health initiatives regarding postpartum mood and anxiety disorders. Encouraging private and public health insurance plans to provide relevant treatment options for women who experience these disorders is also part of the nurse's role.

Self-help groups can play a major role in the prevention and treatment of postpartum mood and anxiety disorders (Honikman, 1999). Self- help groups permit women to share a common problem and let others know they are not alone. Postpartum depression support groups convey a universal message that the postpartum experience is not unique but shared by many other women. Women with PPD are not responsible for the feelings and emotions they are experiencing, and they will again feel like themselves.

This monograph ends with words from a woman who survived postpartum psychosis:

> I do remember, however, a friend who came to visit me in intensive care. He stood at the end of my bed with a lighted

 doi: 10.1016/j.jogn.2021.02.007

TABLE 5 EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)

The questionnaire below is called the Edinburgh Postnatal Depression Scale (EDPS). The EDPS was developed to identify women who may have postpartum depression. Each answer is given a score of 0 to 3. The maximum score is 30.

Directions: Please select the answer that comes closest to how you have felt in the past 7 days:

1. I have been able to laugh and see the funny side of things.
   - ☐ As much as I always could
   - ☐ Not quite so much now
   - ☐ Definitely not so much now
   - ☐ Not at all
2. I have looked forward with enjoyment to things
   - ☐ As much as I ever did
   - ☐ Rather less than I used to
   - ☐ Definitely less than I used to
   - ☐ Hardly at all
3. I have blamed myself unnecessarily when things went wrong
   - ☐ Yes, most of the time
   - ☐ Yes, some of the time
   - ☐ Not very often
   - ☐ No, never
4. I have been anxious or worried for no good reason
   - ☐ No, not at all
   - ☐ Hardly ever
   - ☐ Yes, sometimes
   - ☐ Yes, very often
5. I have felt scared or panicky for no very good reason
   - ☐ Yes, quite a lot
   - ☐ Yes, sometimes
   - ☐ No, not much
   - ☐ No not at all
6. Things have been getting on top of me
   - ☐ Yes, most of the time I haven't been able to cope at all
   - ☐ Yes, sometimes I haven't been coping as well as usual
   - ☐ No, most of the time I have coped quite well
   - ☐ No, I haven't been coping as well as ever
7. I have been so unhappy that I have had difficulty sleeping
   - ☐ Yes, most of the time
   - ☐ Yes, sometimes
   - ☐ Not very often
   - ☐ No, not at all
8. I have felt sad or miserable
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Not very often
   - ☐ No, not at all
9. I have been so unhappy that I have been crying
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Only occasionally
   - ☐ No, never
10. The thought of harming myself has occurred to me
    - ☐ Yes, quite often
    - ☐ Sometimes
    - ☐ Hardly ever
    - ☐ Never

TOTAL SCORE: °°°°°

Scoring:
Questions 1, 2, & 4 are scores 0, 1, 2, 3 with the top box scored as 0 and the bottom box as 3.
Questions 3, and 5-10 are reverse scored, with the top box scored as 3 and the bottom box as 0.
Retrieved from http://perinatology.com/calculators/Edinburgh Depression Scale.htm; https://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf
Note: From "Detection of postpartum depression: Development of the 10 item Edinburgh postnatal depression scale," J. Cox, J. M. Holden, and R. Sagovsky, (1987). *British Journal of Psychiatry, 150,* pp. 782–786. Copyright 2006 by The Royal College of Psychiatrists. Reprinted with permission.

candle and I heard him say, "The most horrific and intense battlefield is the battlefield of the mind, but there is always light at the end of the tunnel." As a veteran who carries many invisible wounds from a war for which I will receive no medals, I know what he means. My work for the (Post Natal Psychosis) Trust, I hope, is part of the light at the end of that long dark tunnel, something I can offer to other women who find themselves in a battlefield all of their own (Beck, 2004).

CONCLUSION

Perinatal mood and anxiety disorders can be considered major public health problems across the globe. Undiagnosed and untreated disorders can plunge women into despair, rob them of the joys of motherhood, and turn their pregnancies and/or first months after birth into darkness. The aim of this monograph is to summarize current research to provide a foundation for evidence-based practice to help nurses care for women who find themselves in a battlefield in their minds and help them to see the light at the end of the long dark tunnel.

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