

Postpartum Depression

Screening and Collaborative Management



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KEYWORDS

- Postpartum depression • Perinatal mood disorders
- Edinburgh postpartum depression scale

KEY POINTS

- Perinatal mood disorders can have short- and long-term effects for all members of the family.
- Screening for perinatal mood disorders should occur at least once during the postpartum period for all patients and more frequently if risk factors are present.
- Treatment options should include collaborative care models, family-focused interventions, therapy, and pharmacologic management if indicated.

INTRODUCTION

Pregnancy is generally viewed as a happy time in the pregnant person's life marking a new role as a parent.¹ For some, however, pregnancy causes great stress in part because of cultural stigmas, socioeconomic status, and gender discrimination, to name a few.² This stress can lead to the onset of perinatal mood disorders.³ Mental health during the perinatal period (pregnancy and the year postpartum) is a serious worldwide concern because anxiety and depression during this time are leading causes of disability.⁴ Women are sensitive to hormones and develop depressive symptoms during menses, pregnancy, postpartum, and menopause but are more likely to develop depression or anxiety during the perinatal period than at any other point in their lives.⁵ Suicide is a leading cause of maternal death in the first year after delivery. In fact, it is a more common cause of mortality than postpartum hemorrhage or hypertensive disorders.^{5–7} Parental depression, no matter when it occurs, effects the whole family. Perinatal depression and other mood disorders specifically can cause short- and long-term effects for all members of the family.⁸

DEFINITIONS

Perinatal mood disorders are separated into multiple categories: depressive disorders, anxiety disorders, and psychosis. Symptoms during and after pregnancy are caused by stress, metabolic changes, and hormone changes.⁵

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Prim Care Clin Office Pract 50 (2023) 127–142

<https://doi.org/10.1016/j.pop.2022.10.011>

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Postpartum Blues

It is important to distinguish between postpartum blues and postpartum or perinatal depression. Postpartum blues, or commonly referred to as “baby blues,” occurs during the first 2 weeks postpartum and is not considered a perinatal mood disorder.⁹ It occurs most typically in the first few days after delivery, often with the onset of the change from colostrum to mature milk, and resolves within 2 weeks. Symptoms are unsettling and unpredictable, but do not impair function, or only causes mild dysfunction. Postpartum blues is never accompanied by suicidal ideation. Symptoms include crying with no known cause, excessive worrying, sadness, anxiety, mood swings, sleep disturbance/insomnia, headache, forgetfulness, exhaustion, poor concentration, changes in appetite, negative feelings toward baby, and irritability.¹⁰ Treatment is not needed per se, because all patients need is empathy, reassurance, comfort, encouragement, and emotional support. If symptoms last for more than 2 weeks, patients should be evaluated for a perinatal mood disorder. One theory for the cause of postpartum blues is that the mood changes are caused by abrupt hormone withdrawal of estrogen and progesterone.¹¹ Evidence of this hypothesis is that absolute levels of each hormone has no effect on whether or not a patient develops postpartum blues; rather, the larger the change prepartum and postpartum, the more likely the person is to develop postpartum blues.¹² A second theory is that it is caused by “a biological system underlying mammalian mother-infant attachment behavior, regulated primarily by the hormone oxytocin.”¹¹ Supporting evidence for this second hypothesis has been shown in rodents that have had their oxytocin-producing cells removed and then had less maternal behaviors.¹³

Postpartum Depression

Postpartum depression most typically emerges within the first 1 to 3 months after delivery but can occur anytime during the first year after delivery and unlike postpartum blues, requires intervention. Sometimes, symptoms start during pregnancy and worsen after delivery. Postpartum depression is clinically indistinguishable from depression during other periods in one's life. The *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition, classifies perinatal depression as a major depressive disorder and describes symptoms as¹⁰:

- Feeling sad or having a depressed mood
- Loss of interest or pleasure in activities once enjoyed
- Changes in appetite
- Trouble sleeping or sleeping too much
- Loss of energy or increased fatigue
- Increase in purposeless physical activity (eg, inability to sit still, pacing, hand-wringing) or slowed movements or speech (these actions must be severe enough to be observable by others)
- Feeling worthless or guilty
- Difficulty thinking, concentrating, or making decisions
- Thoughts of death or suicide
- Crying for “no reason”
- Lack of interest in the baby, not feeling bonded to the baby, or feeling anxious about/around the baby
- Feelings of being a bad parent
- Fear of harming the baby or oneself

Five symptoms must be present every day for at least 2 weeks and must represent a change from prior functioning.¹⁰ A few mnemonics to remember some of the symptoms to ask about are SIGECAPS and DEPRESSION.¹⁴

- Depressed mood
- Energy loss/fatigue
- Pleasure lost
- Retardation (psychomotor) or excitation
- Eating changed (appetite/weight)
- Sleep changed
- Suicidal thoughts
- I am a failure (loss of confidence/feelings of worthlessness)
- No concentration

There are a variety of other comorbid mood disorders often associated with postpartum depression. Postpartum anxiety most typically presents within 3 months of delivery with 75% of patients with postpartum depression also developing postpartum anxiety.¹⁵ Panic attacks or hypochondriasis may also develop, sometimes within just a few days of delivery. Postpartum obsessive-compulsive disorder may also develop: up to 75% of patients with a history of obsessive-compulsive disorder have a recurrence following childbirth that typically lasts for at least 6 months.¹⁶ The most commonly reported obsessions were aggression and contamination, whereas the most commonly reported compulsions were cleaning/washing and checking.¹² Posttraumatic stress disorder was present in 1 in 10 after delivery but present in up to 30% whom had complications during their pregnancy or delivery.⁷

Postpartum Psychosis

Postpartum psychosis is the most severe form of a postpartum psychiatric illness and is potentially deadly.⁷ It most typically occurs with the first 48 to 72 hours after delivery but can be seen later. It closely resembles a rapidly evolving manic or mixed episode of bipolar illness.⁸ The earliest symptoms are restlessness, irritability, and insomnia. Then, a rapidly shifting depressed and elated mood occurs, disorientation, confusion, delusional beliefs (usually centered on newborn), and hallucinations may occur that tell patients to hurt herself or their newborn.⁸ A patient with a history of bipolar disorder is 40% more likely to develop postpartum psychosis. Ten percent of cases result in suicide or infanticide.¹²

Although it is difficult to imagine someone taking their life in what people often view as a happy life event, during the last decade suicide attempts during and after pregnancy have tripled in the United States, whereas other causes of maternal mortality decline.¹⁸ Some of this increase is believed to be caused by improvements in appropriate classification of maternal deaths.¹⁹ Prevalence of suicidal ideation ranges from 2% to 5% among women seeking obstetric care.¹⁵ Suicide also remains a leading cause of mortality in the postpartum period and accounts for 20% of maternal deaths in the first year after birth²⁰ with self-harm risk peaking at 6 to 12 months postpartum. The patients at greatest risk for self-harm included white patients,¹⁵ younger patients,²¹ and patients that had a pregnancy loss.²² More than 60% whom took their own life had not seen a mental health care provider in the month leading up to their death but had in the year before their death.¹⁰ Worldwide prevalence of suicide attempts was 680 per 100,000 during pregnancy and 210 per 100,000 during the first year postpartum.²³ Some studies report that suicide attempts are lower in pregnancy compared with pre-pregnancy and postpartum, as much as six times lower than in the postnatal period.²⁴ Other studies, however, have found higher rate of suicide and suicide attempts in the perinatal period indicating that pregnancy is not protective of suicide as previously thought.²⁵ Prevalence was found to be highest in the first trimester (4.4%) and lower in the second and third trimesters (2.9%).²¹ A chart review of female

patients hospitalized over a 1-year period in South Africa found that 33% were pregnant at the time of their suicide attempt.²⁶ Among pregnancy-related mental health deaths in the United States (including suicide and overdose) three-quarters have a history of depression and more than two-thirds have a history (past or current) of substance use disorder.²⁷

Paternal perinatal depression is also documented during pregnancy and the postpartum period. Rather than low mood, depressed fathers tend to experience extreme self-criticism, restlessness, increased irritability, and aggression.²⁸ Depression in new fathers sometimes leads to substance use disorders, food behavior disorders, and lack of impulse control.²⁸ There are no diagnostic criteria or validated screening tools at this time that specifically address paternal perinatal depression.²⁸

INCIDENCE

Postpartum blues occurs in up to 85% of patients during the first 2 weeks after delivery.⁵ Perinatal depression, however, has a prepandemic incidence of 12% of all pregnant or postpartum patients in a given year.²⁹ These numbers vary greatly based on many factors, such as socioeconomic status, education, and ethnicity. For instance, in low income and pregnant or parenting teenagers the incidence is 40% to 60%.¹⁵ In the United States one in seven has been the accepted incidence for postpartum depression for several years.^{30–33} With 4 million births each year in the United States this means that 600,000 diagnoses of postpartum depression occur each year. Adding in patients that miscarry or have still births that may also develop depressive symptoms, this can increase diagnoses to almost 1 million diagnoses per year.¹⁷ About 25% of depressive episodes that are identified after delivery actually began before pregnancy and about 30% during pregnancy.³⁴ Patients with a history of depression that discontinued antidepressants before pregnancy were 68% more likely to have a relapse of depression during pregnancy than patients that did not discontinue their medications before pregnancy.³⁵ Paternal depression occurs in up to 25% of first time fathers but is up to 50% if their partner has postpartum depression.²⁸ Twenty-two percent of fathers had depression and anxiety at some point in the first year postpartum.^{36,37} Postpartum psychosis occurs in 1 to 3 per 1000 postpartum patients.¹²

Perinatal depression is the most underdiagnosed pregnancy complication in the United States.³⁸ Perinatal mood disorders are a global health concern because tens, if not hundreds of millions of patients are diagnosed annually.¹²

- Canada³⁹: postpartum depression—23% overall, 30% younger than age 25, older than 30% also had a depressive disorder or mood disorder before pregnancy
- United Kingdom⁴⁰: postpartum depression—1 in 10 overall, 1 in 8 antenatally, 25% still have symptoms after baby turns age 1
- Australia⁴¹: postpartum depression—1 in 5 do not receive proper prenatal and postnatal follow-up screenings, 40% had symptoms that started during pregnancy
- Philippines⁴²: postpartum depression—16.4% at 6 weeks postpartum
- South America⁴³: postpartum depression is more common in South America than in higher income countries

The COVID-19 pandemic increased the incidence of perinatal mood disorders around the world. One study showed an increase from 15% to 20% to 36% during pregnancy and after delivery patients were four times more likely to experience significant psychiatric symptoms. Those with preexisting mental health diagnoses were two

to four times more likely to develop significant symptoms of depression, anxiety, or posttraumatic stress disorder.⁴⁴ Another study showed an increase from 29% to 72% of moderate to high levels of anxiety during pregnancy or after delivery.⁴⁵ During the pandemic patients experienced decreased social and emotional support, and unanticipated changes to care plans,⁴⁶ birthing experiences, and delivery of infant care, all of which may help explain the increases in perinatal mood disorders.^{47,48}

RISK FACTORS

There do not seem to be specific risk factors predisposing one to postpartum blues; however, psychiatric history, stress, cultural context, breastfeeding, and parity may influence whether or not postpartum blues become postpartum depression.⁴⁹ Cheryl Beck⁵⁰ has created the Postpartum Depression Predictors Inventory, which is a list of 13 risk factors for developing perinatal depression.

Postpartum Depression Predictors Inventory

- Depression during pregnancy is the strongest predictor
- Prenatal anxiety
- Prior history of depression
- Postpartum blues
- Recent stressful life events
- Inadequate social supports
- Poor marital relationship
- Low self-esteem
- Childcare stress
- Difficult infant temperament
- Single marital status
- Unintended pregnancy
- Lower family income

Other perinatal depression risk factors include^{51,52}

- There may be none
- Premenstrual syndrome⁵³
- Premenstrual dysphoric disorder⁵⁴
- Psychosocial stress
- Multiparity
- Fewer prenatal appointments
- Giving birth in winter⁵⁵
- Pregnancy and delivery complications, such as hyperemesis gravidarum and postpartum hemorrhage⁵⁶
- Infant sleeping problems⁵⁷
- Tobacco use or recently quitting⁵⁸

Perinatal depression protective factors include

- Strong social support⁵²
- Exclusive breastfeeding⁵⁹
- Nondepressed partner⁶⁰

Perinatal suicide and suicidal behavior risk factors are similar to those of the general population.^{61,62}

- Younger age
- Limited education

- Unmarried
- Marital dissatisfaction
- History of childhood trauma⁶³
- Intimate partner violence⁶⁴
- Psychiatric comorbidity⁶⁵
- Financial instability
- Sickness of new baby⁶⁶

Protective factors include

- Good social support⁶⁷
- Cohabitation with partner⁶⁸

PREVENTION AND INTERVENTION STRATEGIES

Prevention

By using the previously mentioned risk factors to identify patients at highest risk for developing perinatal mood disorders more intensive monitoring, services, and interventions can be offered to prevent a perinatal mood disorder from developing.⁶⁹ For patients with a history of depression some studies have shown benefit of prophylactic antidepressant therapy after delivery.⁷⁰

Screening recommendations

Patients may be embarrassed to discuss their symptoms, fear being judged, think their symptoms are normal, or have poor mental health awareness. Screening for perinatal mental health disorders and intervening when necessary is important because of the potential adverse effects of untreated mood disorders on the mother, child, and entire family unit.⁴¹ Untreated perinatal mental health disorders place the developing children at a disadvantage right from their birth, causing the cycle of disparity to become a vicious cycle to repeat across generations.⁷¹ Many studies have shown that when left untreated these mental health disorders can lead to impaired mother-infant bonding and breastfeeding,⁵ and emotional, behavioral, cognitive, and interpersonal problems later in life for the children.⁷² Infants can develop attachment disorder,⁷³ oppositional defiant disorder, or attention-deficit disorder; have developmental delays at 1 year of age with poor cognitive, motor, and language development, poor physical growth, and poor academic performance; and lower immunization rates throughout childhood.^{74–76}

Despite being evidence based^{3,77} and recommended by many medical societies including the US Preventive Services Task Force (USPSTF),⁷⁸ American College of Obstetricians and Gynecologists (ACOG),⁷⁹ American Academy of Family Physicians (AAFP),⁸⁰ American Academy of Pediatrics (AAP),⁸¹ American Medical Association, Association of Women's Health, Obstetric and Neonatal Nurses, American College of Nurse Midwives, and the National Institute for Healthcare Excellence,⁸² screening is not yet universal.⁸³ According to the USPSTF screening programs should only be conducted when there are significant and effective treatment and follow-up options available. The Canadian Task Force on Preventive Health Care recommends "against instrument-based depression screening using a questionnaire with cut-off score to distinguish 'screen positive' and 'screen negative' administered to all individuals during pregnancy and the postpartum period." The recommendation assumes that as a part of usual care, providers will ask about and be attentive to the mental health and well-being of their patients.⁸⁴

ACOG recommends that screening for perinatal depression and anxiety "take place at least once during the perinatal period using a validated screening tool. If a patient is

screened during pregnancy additional screening should occur postpartum.”⁶⁷ AAP recommends screening for perinatal depression at all infant well visits until 6 months of age.⁶⁸ The primary care provider (PCP) might be the first clinical contact after delivery for the parent suffering with a perinatal mood disorder. If the PCP is the infant’s provider they would not be treating the parent but as recommended would still screen the parent and should collaborate with the parent’s provider on treatment. The pregnancy care provider might not see the postpartum patient for up to 6 weeks after delivery, although newer recommendations are to have a 1- to 2-week postpartum visit for all patients, not just patients that had a high-risk pregnancy. If the pregnancy care provider suspects or diagnoses perinatal mood disorders they may initiate treatment, collaborate with other providers on treatment, or refer treatment to mental health providers and the patient’s PCP. In the case of some family physicians the infant and mother might have the same PCP, and the family physician might also be the pregnancy care provider so continuity of care and collaboration only needs to be done with a mental health care provider. Collaborative, colocated, and integrated models of mental health care services in the primary care office are promoted by the AAFP and AAP. This approach can provide immediate services when a screen is positive.

Collaborative management uses a team approach. Members of the team should include the PCP; mental health specialist, such as a therapist; and a care manager. The entire team works together to treat the patient using six components of care⁸⁵:

- Reliable screening tool
- Systemic follow-up and monitoring
- Evidence-based guidelines for treatment modification
- Plans for relapse prevention once patients “graduate” from collaborative care management
- Care manager roles to maintain patient contact, education, and coordination of care
- Psychiatrist consultant to oversee care managers and make treatment plans as needed

Screening tools

The following screening tools are used^{66,86,87}: Edinburgh Postnatal Depression Scale,⁸⁸ Patient Health Questionnaire-9,⁸⁹ Postpartum Depression Screening Scale, and Beck Depression Inventory I or II.

- Edinburgh Postnatal Depression Scale
 - Most commonly used
 - Available in 50 different languages
 - 10 questions that are health literacy appropriate
 - Less than 5 minutes to complete
 - Excludes constitutional symptoms of depression, which are common in pregnancy and postpartum period (eg, changes in sleep habits and appetite)
 - Sensitivity 59% to 100%; specificity 49% to 100%
- Patient Health Questionnaire-9
 - 9 questions
 - Less than 5 minutes to complete
 - Sensitivity 75%; specificity 90%
- Postpartum Depression Screening Scale
 - 35 questions
 - 5 to 10 minutes to complete
 - Sensitivity 91% to 94%; specificity 72% to 98%

- Beck Depression Inventory I or II
 - 21 questions
 - 5 to 10 minutes to complete
 - Beck I: sensitivity 47.6% to 82%; specificity 85.9% to 89%
 - Beck II: sensitivity 56% to 57%; specificity 77% to 88%

Interventions

Improving access to care and using telehealth,⁹⁰ collaborative and integrative mental health treatment approaches are intervention strategies specifically recommended to reduce the risks of adverse effects to the family unit. Family-focused approaches that provide emotional support and parenting support to both parents are often most helpful. Incorporating the father into treatment can help combat stigma around perinatal mood disorder diagnoses and help any potential gendered parenting roles that they may be struggling with and cultivate support networks that are often lacking.²⁸ Family-focused approaches include

- Internet communities
- In-home support visits
- Nurse-family partnerships
- Community health workers
- Telephone-based peer support
- E-therapy
- Group workshops

It is also important to think about breastfeeding support, prenatal and postpartum education classes, parenting classes, exercise, and diet, and any other supports/services that the family may need.^{5,91} Many health systems, health departments, and organizations have “warm lines” for perinatal mental health that providers can call for assistance with patient cases. There are also patient help lines for patients in crisis that can be used to increase accessibility to mental health providers. Postpartum Support International⁹² is an organization established in 1987 with the mission of “promoting awareness, prevention, and treatment of mental health issues related to childbearing.” They provide free consultation services for health care professionals, a provider directory, trainings, and help lines for patients. The National Maternal Mental Health Hotline⁹³ provided by the US Department of Health Resources and Services Administration is another hotline available to patients 24/7 that is free and confidential. There are promotional materials available on their Web site to have available to give to patients that might need it; including it in all preconception counseling, prenatal counseling, and postpartum counseling materials should be a best practice for all pregnancy care providers.

Behavioral management

Cognitive behavioral therapy (CBT) is a structured psychological treatment based on several core principles: (1) psychological problems are in part because of unhelpful ways of thinking, (2) on learned patterns of unhelpful behavior, and (3) that people with psychological problems can learn coping mechanisms to help relieve their symptoms. CBT usually involves changing ones thinking and behavioral patterns with various techniques and involves making a plan with the therapist plus doing “homework” outside of sessions.⁹⁴ CBT is the first-line therapy for perinatal depression and is as effective, or more effective than medication.^{95,96} One study showed that even a 1-day online workshop on CBT (plus treatment as usual) was sufficient to improve postpartum depression and anxiety and mother-infant bonding and social support.⁹⁷ Interpersonal therapy has also been shown to be effective for perinatal

mood disorders and improving the quality of interpersonal relationships and social functioning. This type of therapy is time-limited, focused, and addresses interpersonal deficits, social isolation, involvement in unfulfilling relationships, helps patients understand unresolved grief, and helps with difficult life transitions. It addresses maladaptive thoughts and behaviors only as they apply to interpersonal relationships and aims to change relationship patterns that the patient is currently involved in, whereas CBT also addresses past relationships, personality traits, and is more directive.⁹⁸

Pharmacologic management

If nonpharmacologic interventions are inadequate beginning pharmacologic management with selective serotonin reuptake inhibitors (SSRIs) is favored. ACOG recommends using one medication at a higher dose rather than using multiple medications to limit risks. It is also best practice to use a medication that the patient has previously had success with, if one exists.⁹⁹ Providers must assess the risk of inadequately treated illness and potential adverse effects of medication with respect to pregnancy and infant outcomes. There are many resources to look up the risks of medication during pregnancy and lactation including textbooks, online resources, and phone apps. The Food and Drug Administration (FDA) new revision of the Pregnancy and Lactation Labeling Rule that occurred in 2015 gives much more information now than just a letter grade of each medication. It gives clinical summaries, comprehensive information on potential risks and benefits, data on clinical experience, animal data, and risks of untreated illness.¹⁰⁰

Recent data from 2019 to 2022 show that SSRI exposure does not increase risk of major congenital malformations. However, they are associated with a low absolute risk of preeclampsia, postpartum hemorrhage, preterm delivery, persistent pulmonary hypertension of the newborn, and neonatal intensive care unit admissions when compared with untreated perinatal depression.¹⁰¹ However, another large cohort study of more than 100,000 pregnant women with depression did not find an association between SSRIs and preeclampsia but did find an association with preeclampsia and serotonin-norepinephrine reuptake inhibitors and tricyclic antidepressants when used as monotherapy during pregnancy.¹⁰² In contrast to the 2019 to 2022 data, a large meta-analysis showed that the risk of preterm birth was no longer significant when compared with women with untreated perinatal depression.¹⁰³ Preferred SSRIs to use in pregnancy are sertraline, citalopram, escitalopram, and fluoxetine because of low risk of birth defects. Paroxetine is not recommended to be used in pregnancy because of risk of cardiac malformations.¹⁰⁴

In 2019, the FDA approved brexanolone, an injection for intravenous use for treatment of postpartum depression. Brexanolone is the first medication to receive FDA approval for postpartum depression¹⁰⁵ after three clinical trials established its efficacy and safety.¹⁰⁶ There are potential serious risks associated with this medication, however, so it is only available through Risk Evaluation and Mitigation Strategy; patients are only able to get the medication at health care facilities at which they can be monitored while receiving an intravenous infusion for 60 continuous hours.

Electroconvulsive therapy is used for severe cases when all other treatments have failed.¹⁰⁷

CLINICS CARE POINTS

- Postpartum blues occurs during the first 2 weeks postpartum and although symptoms are unsettling and unpredictable, they do not impair function or only cause mild dysfunction and it is never accompanied by suicidal ideation.

- 12% of all pregnant or postpartum patients in a given year experience postpartum depression.
- All pregnant and postpartum patients should be screened for perinatal mood disorders with validated screening tools, such as the Edinburgh Postnatal Depression Scale, Patient Health Questionnaire-9, Postpartum Depression Screening Scale, or Beck Depression Inventory I or II.
- Intervention should be collaborative with integrative mental health treatment approaches using family-focused care and providing emotional and parenting support to both parents. Providing other types of support, education, services, and resources can also be an important part of care.
- Pharmacologic management should be considered when other interventions have been inadequate.

DISCLOSURE

No disclosures or conflicts of interest.

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