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Perinatal Maternal Mood Disorders

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Disclosures

Learning Objectives

1. To identify the spectrum of peripartum mood disorders, their features, diagnostic criteria, and treatments.
2. To review FDA pregnancy safety categories and lactation categories for commonly prescribed mood medications.
3. To identify the role of family physicians in identifying and treating peripartum mood disorders.

Definitions

“Baby blues” = feelings of depression or anxiety that start soon after delivery and generally self-resolve without intervention within 2 weeks. [6]

Postpartum depression (PPD) = minor depressive symptoms or unipolar major depressive disorder occurring during pregnancy or in the 4 weeks (academic definition) - 12 months (used in clinical practice) after delivery. [2]

Postpartum anxiety (PPA) = anxiety disorders, including OCD, present in the perinatal period. [2]

Postpartum psychosis (PPP) = disorganization, hallucinations, and/or bizarre behavior that occurs within 4 weeks of delivery. [14]

Relevance to primary care and the role of family medicine:

Role of Family Medicine

Approximately ⅓ of pregnant women in the U.S. have received some form of care (prenatal or otherwise) from a family medicine physician in the past year. [5]

Family medicine providers see patients in the preconception phase when they can identify potential risk factors for perinatal mood disorders and optimize management.

Family medicine providers see infants for more frequent visits after birth, presenting opportunities to also check in with new parents.

Epidemiology and Natural Course of the “Baby Blues”

In a systematic review and meta analysis of publications from three international databases, authors found that the prevalence of “baby blues” was around 39%. [8]

The term, “baby blues,” is frequently used to describe a constellation of symptoms including anxiety, sadness, irritability, sleep disturbances, appetite changes, confusion and fatigue that most commonly begins 2-5 days after delivery and persists for no more than 2 weeks. [9]

Important to note, “baby blues,” does not impair daily functioning or ability to care for the baby and resolves without treatment. [9]

Case #1: Beatrice

Case #1

Beatrice is a 24y/o G4P4 with PMH MDD (on no meds in pregnancy), gHTN who sees you in the office 3 weeks postpartum for an infant weight check. She is accompanied by her 3 other children, all of whom are screaming when you enter the exam room. She expresses concern that she will not be able to figure out how to get her newborn insurance by the time he is 1 month old. She currently has Keystone First.

What risk factors does this patient have for developing postpartum depression?

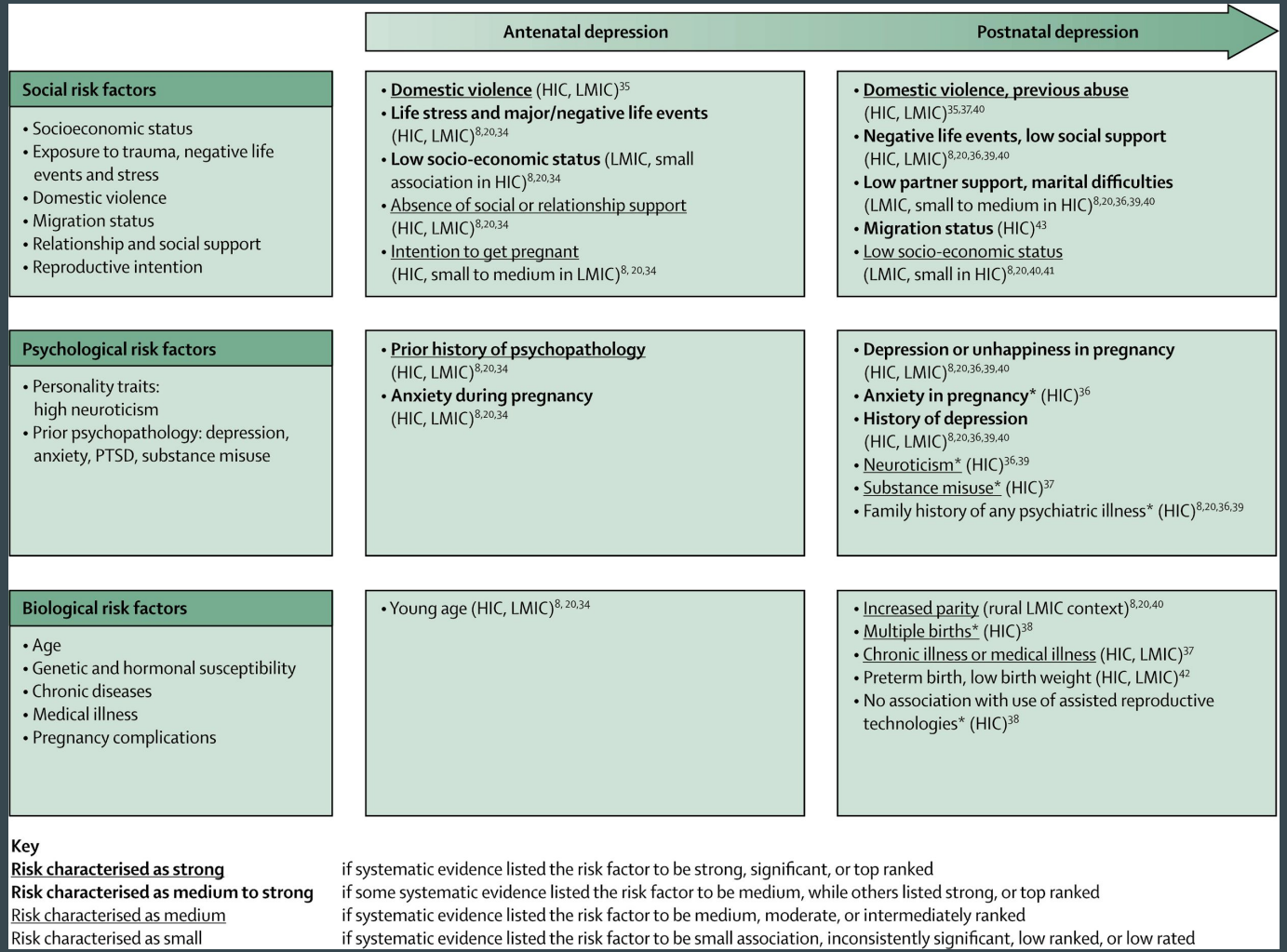
Epidemiology of Postpartum Depression

World-wide rates of PPD vary significantly.[1]

- High-income countries (including the U.S.): 7-13%
- Low/Middle-income countries: 20%

Risk factors for developing PPD include: [2]

- History of prior mood disorder
- Family history of PPD
- Poor support systems


Antenatal depression
Postnatal depression
Social risk factors
• Socioeconomic status
• Exposure to trauma, negative life events and stress
• Domestic violence
• Migration status
• Relationship and social support
• Reproductive intention
• Domestic violence (HIC, LMIC)35
• Life stress and major/negative life events (HIC, LMIC)8,20,34
• Low socio-economic status (LMIC, small association in HIC)8,20,34
• Absence of social or relationship support (HIC, LMIC)8,20,34
• Intention to get pregnant (HIC, small to medium in LMIC)8, 20,34
• Domestic violence, previous abuse (HIC, LMIC)35,37,40
• Negative life events, low social support (HIC, LMIC)8,20,36,39,40
• Low partner support, marital difficulties (LMIC, small to medium in HIC)8,20,36,39,40
• Migration status (HIC)43
• Low socio-economic status (LMIC, small in HIC)8,20,40,41
Psychological risk factors
• Personality traits: high neuroticism
• Prior psychopathology: depression, anxiety, PTSD, substance misuse
• Prior history of psychopathology (HIC, LMIC)8,20,34
• Anxiety during pregnancy (HIC, LMIC)8,20,34
• Depression or unhappiness in pregnancy (HIC, LMIC)8,20,36,39,40
• Anxiety in pregnancy* (HIC)36
• History of depression (HIC, LMIC)8,20,36,39,40
• Neuroticism* (HIC)36,39
• Substance misuse* (HIC)37
• Family history of any psychiatric illness* (HIC)8,20,36,39
Biological risk factors
• Age
• Genetic and hormonal susceptibility
• Chronic diseases
• Medical illness
• Pregnancy complications
• Young age (HIC, LMIC)8, 20,34
• Increased parity (rural LMIC context)8,20,40
• Multiple births* (HIC)38
• Chronic illness or medical illness (HIC, LMIC)37
• Preterm birth, low birth weight (HIC, LMIC)42
• No association with use of assisted reproductive technologies* (HIC)38
Key
Risk characterised as strong — if systematic evidence listed the risk factor to be strong, significant, or top ranked
Risk characterised as medium to strong — if some systematic evidence listed the risk factor to be medium, while others listed strong, or top ranked
Risk characterised as medium — if systematic evidence listed the risk factor to be medium, moderate, or intermediately ranked
Risk characterised as small — if systematic evidence listed the risk factor to be small association, inconsistently significant, low ranked, or low rated

Reference 2

Case #1

Beatrice is a 24y/o G4P4 with PMH MDD (on no meds in pregnancy), gHTN who sees you in the office 3 weeks postpartum for an infant weight check. She is accompanied by her 3 other children, all of whom are screaming when you enter the exam room. She expresses concern that she will not be able to figure out how to get her newborn insurance by the time he is 1 month old. She currently has Keystone First.

What risk factors does this patient have for developing postpartum depression?

Epidemiology of Postpartum Depression

One U.S. study estimated that 27% of PPD begins pre-pregnancy and 33% of PPD begins during pregnancy. [3]

Poor identification and measurement of symptoms in pregnancy may lead to women being classified as having postpartum onset of symptoms as opposed to peripartum onset of symptoms.

Some evidence suggests that depressive symptoms may actually be more prevalent during pregnancy than after delivery. [4]

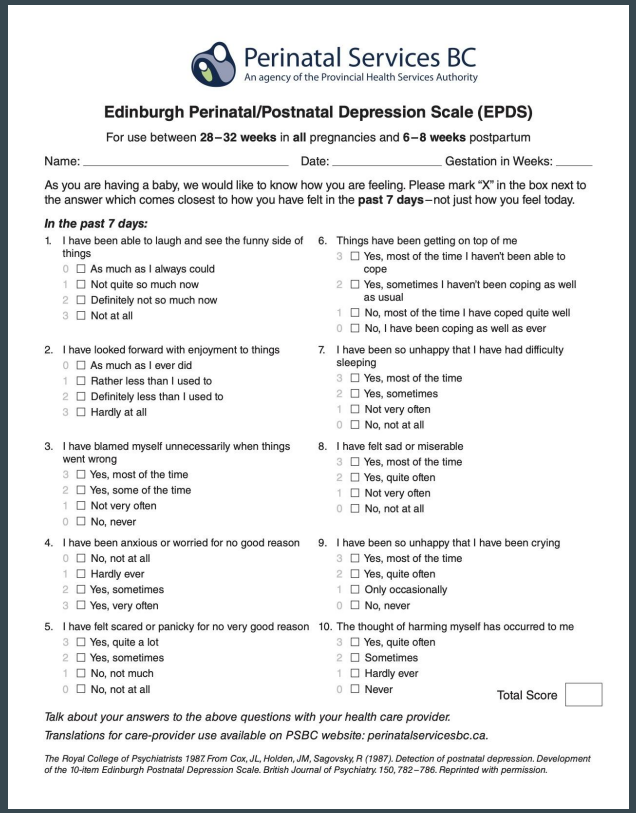
Pathophysiology: Possible Role of Reproductive Hormones in PPD

Although most risk factors for PPD are not necessarily specific to the perinatal period, there is some evidence that suggests the existence of a subtype of PDD characterized by sensitivity to fluctuating reproductive hormone levels. [2]

Rapid changes in estradiol and progesterone following delivery can trigger the onset of symptoms in susceptible women with this phenotype. [9]

Low levels of oxytocin in the third trimester are correlated with increased depressive sx during pregnancy and after delivery. [9]

Screening and Diagnosis of Postpartum Depression



Perinatal Services BC
An agency of the Provincial Health Services Authority

Edinburgh Perinatal/Postnatal Depression Scale (EPDS)

For use between **28–32 weeks** in **all** pregnancies and **6–8 weeks** postpartum

Name: _____ Date: _____ Gestation in Weeks: _____

As you are having a baby, we would like to know how you are feeling. Please mark "X" in the box next to the answer which comes closest to how you have felt in the **past 7 days**—not just how you feel today.

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - 0 ☐ As much as I always could
   - 1 ☐ Not quite so much now
   - 2 ☐ Definitely not so much now
   - 3 ☐ Not at all

2. I have looked forward with enjoyment to things
   - 0 ☐ As much as I ever did
   - 1 ☐ Rather less than I used to
   - 2 ☐ Definitely less than I used to
   - 3 ☐ Hardly at all

3. I have blamed myself unnecessarily when things went wrong
   - 3 ☐ Yes, most of the time
   - 2 ☐ Yes, some of the time
   - 1 ☐ Not very often
   - 0 ☐ No, never

4. I have been anxious or worried for no good reason
   - 0 ☐ No, not at all
   - 1 ☐ Hardly ever
   - 2 ☐ Yes, sometimes
   - 3 ☐ Yes, very often

5. I have felt scared or panicky for no very good reason
   - 3 ☐ Yes, quite a lot
   - 2 ☐ Yes, sometimes
   - 1 ☐ No, not much
   - 0 ☐ No, not at all

6. Things have been getting on top of me
   - 3 ☐ Yes, most of the time I haven't been able to cope
   - 2 ☐ Yes, sometimes I haven't been coping as well as usual
   - 1 ☐ No, most of the time I have coped quite well
   - 0 ☐ No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping
   - 3 ☐ Yes, most of the time
   - 2 ☐ Yes, sometimes
   - 1 ☐ Not very often
   - 0 ☐ No, not at all

8. I have felt sad or miserable
   - 3 ☐ Yes, most of the time
   - 2 ☐ Yes, quite often
   - 1 ☐ Not very often
   - 0 ☐ No, not at all

9. I have been so unhappy that I have been crying
   - 3 ☐ Yes, most of the time
   - 2 ☐ Yes, quite often
   - 1 ☐ Only occasionally
   - 0 ☐ No, never

10. The thought of harming myself has occurred to me
    - 3 ☐ Yes, quite often
    - 2 ☐ Sometimes
    - 1 ☐ Hardly ever
    - 0 ☐ Never

Total Score ☐

Talk about your answers to the above questions with your health care provider.

Translations for care-provider use available on PSBC website: perinatalservicesbc.ca.

The Royal College of Psychiatrists 1987 From Cox, JL, Holden, JM, Sagovsky, R (1987). Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry. 150, 782–786. Reprinted with permission.

DSM5 Criteria for diagnosis = a major depressive episode with peripartum onset. [9]

Five depressive symptoms (below) must be present for at least 2 weeks:

- Depressed mood present most of day
- Loss of interest or pleasure
- Insomnia or hypersomnia
- Psychomotor retardation or agitation
- Worthlessness or guilt
- Lack of energy/fatigue
- Impaired concentration/ indecisiveness
- Weight or appetite change
- Suicidal ideation

Treatment of Postpartum Depression

Mild-Moderate Postpartum Depression

- Psychotherapy is first line. [9]

Moderate-Severe Postpartum Depression

- Combination of psychotherapy and pharmacotherapy is first line. [9]
- SSRIs, SNRIs, Mirtazapine (minimum 6-12 months)
- ECT for those who fail 4 consecutive medication trials, particularly helpful in settings of psychosis, plans for suicide/infanticide, refusal to eat.
- IV Brexanalone for those who fail ECT, decline.

Medication Risks in the Peripartum Period

FDA Pregnancy Categories:

A - adequate studies have not shown risk to fetus in the first trimester (or beyond).

B - animal studies have shown no risk to fetus. No data from human studies.

C - adverse effects in animal studies. No data from human studies. Benefits > risks.

D - evidence of fetal risk based on investigational or marketing studies in humans. Benefits may warrant use in certain situations.

X - evidence of fetal risk based on investigational or marketing studies in humans. Risks > Benefits

Lactation Risk Categories:

L1 - no demonstrated risk to infant in controlled studies.

L2 - studied in limited number of women without adverse effects in infants.

L3 - No controlled studies in breastfeeding women. Risk is possible.

L4 - Evidence of risk in breastfed infants. Benefits may warrant use in certain situations.

L5 - Significant documented risk to infants. Risks > Benefits

Antidepressants: Safety During Pregnancy and Breastfeeding [13]

Antidepressant	FDA Pregnancy Category	Lactation Risk Category	Notes
Sertraline (Zoloft)	C	L2	Considered a preferred antidepressant with breastfeeding
Fluoxetine (Prozac)	C	L2/ L3	L2 (older infants) L3 (neonates)
Paroxetine (Paxil)	D	L2	Significant withdrawal syndrome for infants exposed in utero.
Citalopram (Celexa)	C	L3	Citalopram is less compatible with breastfeeding than escitalopram.
Escitalopram (Lexapro)	C	L3	
Venlafaxine (Effexor)	C	L3	

Antidepressants: Safety During Pregnancy and Breastfeeding [13]

Antidepressant	FDA Pregnancy Category	Lactation Risk Category
Bupropion (Wellbutrin)	B	L3
Mirtazapine (Remeron)	C	L3
Trazodone (Desyrel)	C	L2
Amitriptyline	C	L2
Nortriptyline (Pamelor)	C	L2
Duloxetine (Cymbalta)	C	-
Buspirone (Buspar)	B	L3

Case #2: Ella

Case #2

Ella is a 29y/o G1P1 who presents 6 weeks postpartum for her Liletta IUD insertion. Her Edinburgh score is a 9. As you reach for the door knob, she mentions that she has been feeling increasingly panicky over recent weeks. She perseverates frequently over fears that she will drop her new baby. These used to occur only when she was at a significant height or near a ledge, but now these intrusive thoughts occur almost any time she stands up holding the baby. Every time this happens, she reswaddles the baby and readjusts her grip.

Which peripartum mood disorder might you be concerned about?

Epidemiology of Postpartum Anxiety Disorders

The prevalence of PPA has been estimated at approximately 13%, which approximates the prevalence of anxiety disorders in the population at large. [2]

There appears to be a significantly higher rate of obsessive compulsive disorder in pregnant and postpartum women than in non-pregnant women. [2]

Risk Factors include: [12]

- Postpartum depression (often co-morbid)
- Past history of mood disorders
- Lack of social support
- Low income/educational attainment

Screening and Diagnosis of Postpartum Anxiety

An EPDS may flag as positive due to the coexistence of multiple perinatal mood disorders. [2]

GAD-7 has not been validated for perinatal populations. [11]

Other screening tools exist but do not seem to be used in the clinical setting in which we work: [11]

- Postpartum Specific Anxiety Scale (PSAS) [10]
  - 51 questions!
- Brief Measure of Worry Severity (BMWS)
  - Examines clinical and personality correlates of severe worriers
- Cambridge Worry Scale (CWS)
  - 16 questions related to pregnancy/birth specific situations
- Pregnancy Related Anxiety Questionnaire Revised (PRAQ-R)
  - Validated only in nulliparous (not parous) women

Treatment of Postpartum Anxiety

There is a significantly smaller body of research for perinatal mood disorders other than postpartum depression.

Thus, most of the treatment methods for postpartum anxiety are extrapolated from the treatment of anxiety during other periods of life.

Psychotherapy and medications such as SSRIs are mainstays of therapy. [2]

Benzodiazepines are considered FDA Class D during pregnancy due to small teratogenic risks in the first trimester and “floppy infant syndrome” if used close to delivery. They are considered L3 risk for breastfeeding.

- ACOG: If benefits > risks, use them! [13]

Case #3: Maya

Case #3

Maya is a 44y/o G3P3003 with PMH bipolar I (stopped her meds halfway through pregnancy), cHTN, hypothyroidism on Synthroid who sees you in clinic PPD#6 for her infant's weight check. She presents with her partner, who pulls you aside to confide in you that she is worried about Maya's behavior. She reports that Maya has been having significant difficulty sleeping since bringing the infant home and yesterday became suddenly paranoid that her partner intended to harm the baby. She has been referencing events that her partner has no recollection of occuring.

Which peripartum mood disorder might you be concerned about?

Epidemiology of Postpartum Psychosis

The prevalence of postpartum psychosis worldwide is approximately 0.2%. [7]

Filicide rates are approximately 4.5% in those experiencing postpartum psychosis. [7]

Risk factors: [14]

- Primiparity
- Advanced maternal age
- History of Bipolar I disorder
- History of Postpartum Psychosis

Screening and Diagnosis of Postpartum Psychosis

The Mood Disorder Questionnaire (MDQ) is a 5-item screening questionnaire for bipolar disorder, validated for use both during and outside of the peripartum period.

Typical onset of PPP is 3-10 days after delivery, and by DSM5 criteria, must occur within 4 weeks of delivery. [14]

Presenting symptoms include: [15]

- Insomnia
- Mood fluctuation
- Disorganization
- Bizarre behavior
- Hallucinations (tactile, visual, olfactory > auditory)
- Paranoid, grandiose delusions

Treatment of Postpartum Psychosis

Postpartum psychosis is a psychiatric emergency, and therefore an indication for hospitalization.

Women with a history of postpartum psychosis should begin lithium therapy immediately after delivery as prophylaxis. [14]

Benzodiazepines are used for symptoms of insomnia and agitation in the treatment of PPP. [15]

Atypical antipsychotics (Latuda, Abilify) and mood stabilizers can be used for psychotic and manic symptoms in the treatment of PPP. [14]

Maintenance treatment with lithium monotherapy is recommended for at least 9 months postpartum to decrease risk of relapse. [15]

Resources in Philadelphia:

Resources in Philadelphia

Maternity Care Coalition MoMobile Family Therapy Program:

- behavioral health services for low-income pregnant women and mothers with young children (ages 0 to 3).
- identifies and treats issues of perinatal depression and/or other behavioral health conditions such as PTSD, anxiety disorders, and co-occurring substance dependence.

Take Home Points

1. There is a wide spectrum of peripartum mood disorders, not just postpartum depression!
2. Mainstays of therapy for both postpartum anxiety and depression include psychotherapy and SSRIs.
3. Postpartum psychosis is a psychiatric emergency warranting inpatient, multidisciplinary treatment.

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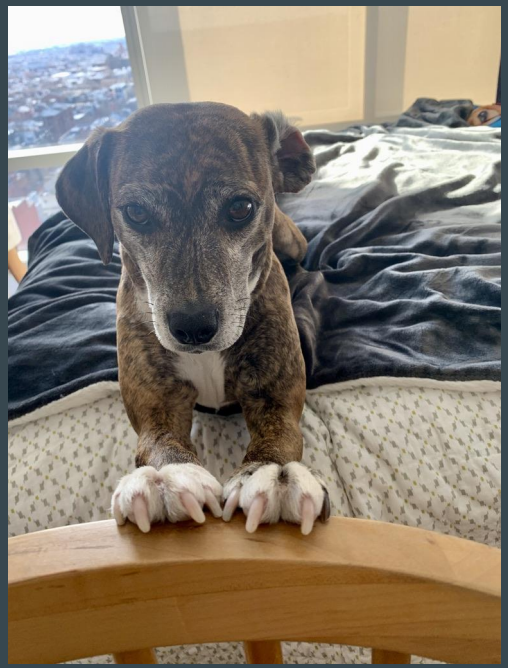

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There is no ACOG practice bulletin for the management of peripartum mood disorders.