LINDNER CENTER OF HOPE

Mental Health During and After Pregnancy

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Disclosures

- Consultant and Speakers Bureau for Biogen and Sage Therapeutics
- Peer reviewer for UpToDate.com

Objectives

1

Participants will understand signs and symptoms of maternal mental health disorders.

2

Participants will understand the risks and benefits of treatment for maternal mental health disorders.

Maternal Mental Health Disorders

- There's more than postpartum (PP) depression!
- Maternal mental health disorders can occur **during pregnancy** and/or **up to 1 year PP.**
  - DSM: "with peripartum onset" during pregnancy or within 4 wks. after delivery
- Includes disorders of mood, anxiety, and thought

Do you need anything?

Nope.

I need a home-cooked hot meal. I need a shower. I need a break. I need some time to myself. I need some sleep. I need someone to understand how bad I feel sometimes. I need time, rest, help, food, hugs, support, cookies, quiet, nourishment, help with laundry, cleaning, cooking. I need acknowledgement, understanding, and support.

Created by Karen Kleiman & Molly McIntyre for The Postpartum Stress Center (Familius, March 1, 2019)

Baby Blues

- Mood swings
- Anxiety
- Sadness
- Irritability
- Feeling overwhelmed
- Crying
- Reduced concentration
- Appetite problems
- Trouble sleeping

- Prevalence 39% (range 14-76%, varies based on geography)
- Peak in symptoms at time of maximal hormonal changes – decreased progesterone, estradiol, cortisol, allopregnanolone; increased prolactin
- Symptoms appear 3-5 days after giving birth and resolve within a week or two without treatment.

How are you?
I'm fine
I'm overwhelmed. I'm terrified. I'm sleep-deprived. I'm sorry I had this baby. Not really. I mean I love my baby. But I don't feel good. I don't know what I'm doing. I can't think straight. I don't even recognize myself. I just don't feel like myself. I'm irritable all of the time. I'm miserable much of the time and I cannot breathe.
Created by Karen Kleiman and Molly McIntyre for The Postpartum Stress Center
postpartumstress.com

Perinatal Depression (PND)

Other PND symptoms:

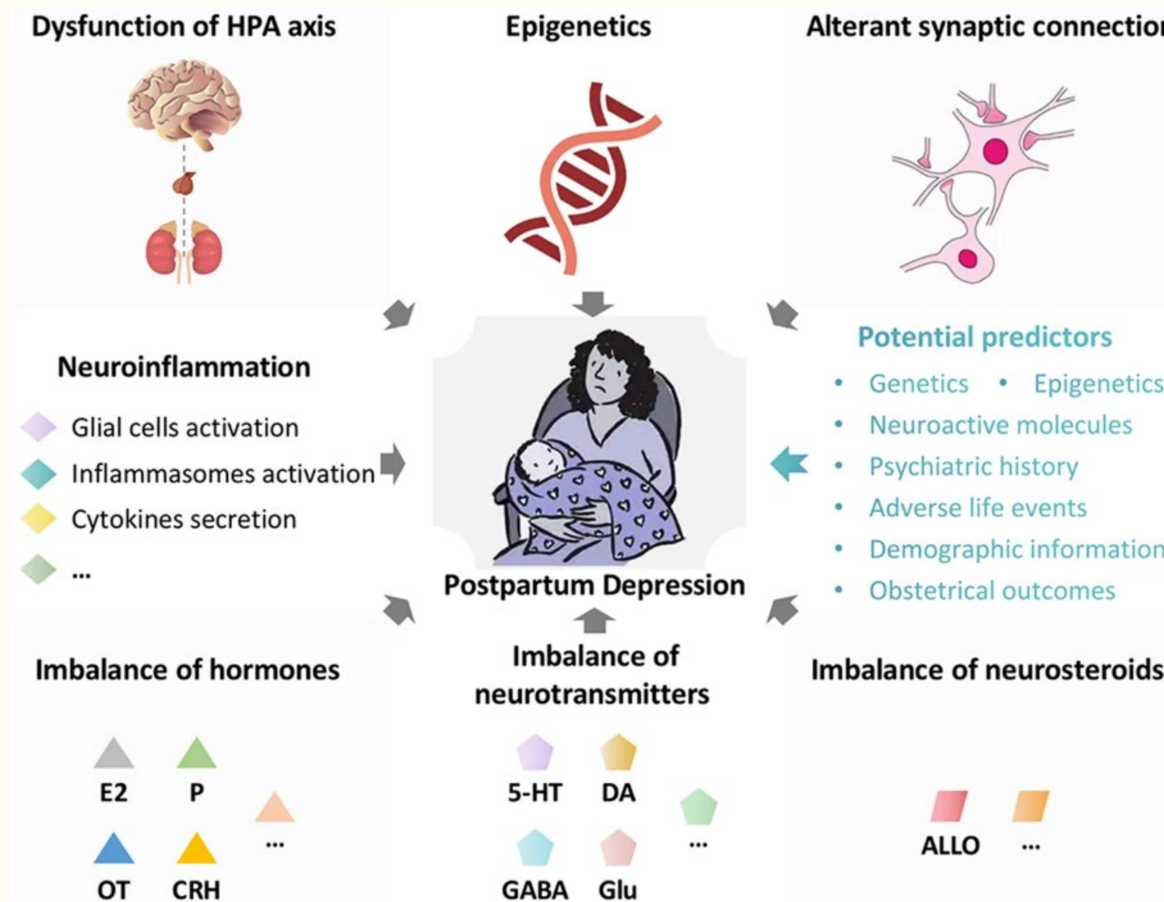
- Irritable
- Tearful
- Hopeless, shame, inadequacy
- Anxiety, panic attacks
- Withdrawal or isolation from others
- Constant worry about baby's well-being
- Afraid to leave the house
- Intrusive thoughts, repetitive behaviors
- Feeling numb, indifferent
- Somatic complaints
- No attachment or interest in the baby
- Active anger and resentment of the baby
- Thoughts of harming baby

Prevalence: 10% of women during pregnancy, 15% PP

Symptoms of a major depressive episode:

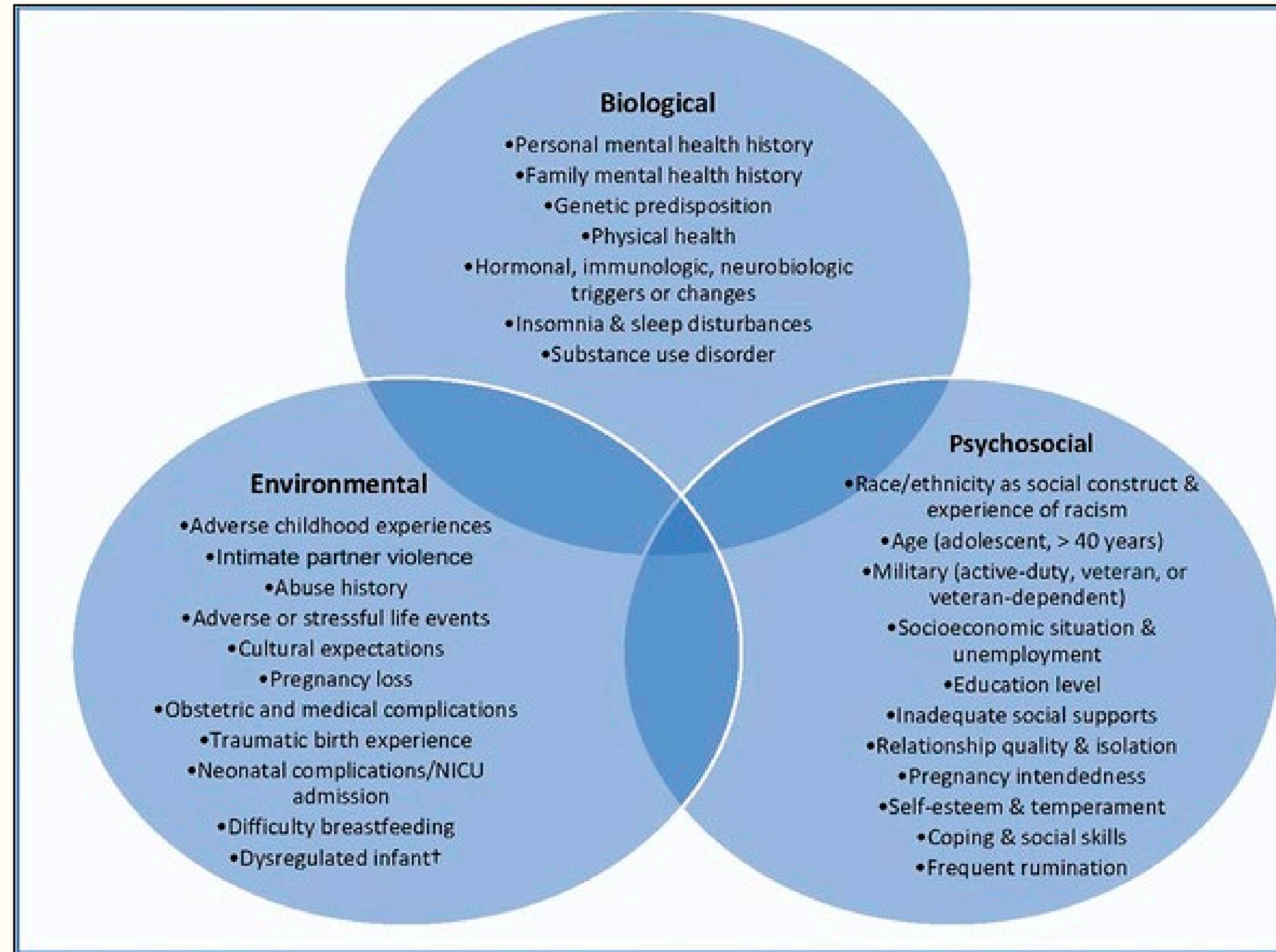
- Depressed mood
- Loss of interest or pleasure
- Change in weight or appetite
- Insomnia or hypersomnia
- Sluggish or restless
- Loss of energy or fatigue
- Worthless, guilt
- Impaired concentration or indecisiveness
- Thoughts of harming self

Pathogenesis of PPD



Zhu, J., Jin, J., & Tang, J. (2022). Inflammatory pathophysiological mechanisms implicated in postpartum depression. *Frontiers in Pharmacology*, *13*, 955672. https://doi.org/10.3389/fphar.2022.955672

PND Risk Factors



Screening and Diagnosis of Mental Health Conditions During Pregnancy and Postpartum: ACOG Clinical Practice Guideline No. 4. (2023). *Obstetrics and gynecology*, *141*(6), 1232–1261. https://doi.org/10.1097/AOG.0000000000005200

Perinatal Bipolar Disorder (BD)

Mania: ≥ 7 days, marked impairment; hospitalization, or delusions &/or hallucinations

Hypomania: ≥ 4 days, not severe enough for marked impairment or hospitalization, no psychosis

Risk Factors:

- Younger age
- Unplanned pregnancy
- Prenatal bipolar symptoms
- Family history of BD
- Depression onset immediately after delivery

Prevalence: 21% to 54% with PP depression (PPD) have BD; risk of hospitalization is up to 23 times greater within 30 days of delivery for women with BD vs. non-PP women with BD.

Symptoms:

- Elevated/expansive or irritable mood
- Rapid speech
- Decreased need for sleep
- Racing thoughts
- Distractibility
- Increased activity or restless
- Impulsive, poor judgment
- Grandiose, inflated self-esteem
- Delusions and hallucinations are possible

Bipolar vs. Unipolar Depression

- Brief depressive episodes
- Seasonal mood episodes
- Mixed episodes, agitation, and/or psychotic symptoms
- High number of previous episodes
- Atypical features such as hypersomnia, increased appetite, or heavy feeling in arms/legs (leaden paralysis)
- Respond to antidepressants with mania, hypomania, or mixed depressive episodes; or respond poorly or rapidly

I just don't feel like myself. This isn't who I am. I used to be so confident, so carefree. Now I'm nervous all the time and I can't stop crying. I don't know what's wrong with me. Is this what being a mother feels like?

How do I know if I have too much anxiety?

Everything is fine. You just had a baby. It's normal to feel this way.

Oh. Okay. Whew! Wait, this can't be normal. You must have no idea how bad I feel. Is it normal to stay up and check if the baby is still breathing, every hour through-out the night?!?

Created by Karen Kleiman & Molly McIntyre for The Postpartum Stress Center (Familius, March 1, 2019)

Why do I feel like I can't breathe? I have this pit in my stomach. I'm so nervous all the time. My head is racing and racing. I feel like I had too much caffeine - I didn't even have any caffeine. My heart is pounding, my thoughts are spinning round and round. I'm nauseous. I'm dizzy. Maybe I should go to the E.R.? What is wrong with me? Other moms do not feel this way.

Perinatal Anxiety Disorders

Prevalence:

- **Generalized Anxiety Disorder** - 2% during pregnancy, 6% to 8% in the first 6 months PP
- **Panic Disorder** - 1.5% to 9% during pregnancy and 0.5% to 3% between 6- and 10-weeks PP
- **Social Anxiety Disorder** – 2% to 6% during pregnancy ranged from and 0.2% to 6.5% in the early PP period

Risk factors:

- ethnic minority, low socioeconomic status, lower educational level, poor quality partner relationships, history of poor mental health, family history of anxiety, adverse circumstances around the pregnancy and birth, history of abuse/interpersonal violence (IPV), adverse life events, high perceived stress, single, unplanned or unwanted pregnancy, thyroid imbalance

Pregnancy-related anxiety (PrA) has been identified in the literature as a distinct clinical phenomenon. Worries are tied directly to pregnancy, childbirth, and the maternal role. Risk factors for PrA: concerns about the baby's health and concerns about the birth.

Everyday Anxiety	Anxiety Disorder
Worry about paying bills, landing a job, a romantic breakup, or other important events.	Constant and unsubstantiated worry that causes significant distress and interferes with daily life.
Embarrassment or self-consciousness in an uncomfortable or awkward social situation.	Avoiding social situations for fear of being judged, embarrassed, or humiliated.
A case of nerves or sweating before a big test, business presentation, stage performance, or other significant event.	Seemingly out-of-the-blue panic attacks and the preoccupation with the fear of having another one.
Realistic fear of a dangerous object, place, or situation.	Irrational fear or avoidance of an object, place, or situation that poses little or no threat of danger.
Anxiety, sadness, or difficulty sleeping immediately after a traumatic event.	Recurring nightmares, flashbacks, or emotional numbing related to a traumatic event that occurred several months or years before.

Understanding Disorders: What Are Anxiety and Depression? Anxiety and Depression Association of America (ADAA). https://adaa.org/understanding-anxiety

Perinatal Post - Traumatic Stress Disorder (PTSD)

Risk Factors:

- Prolapsed cord
- Unplanned C-section
- Vacuum extraction or forceps delivery
- Baby in NICU
- Feeling powerless, poor communication, and/or lack of support and reassurance during the delivery
- Severe physical complication or injury related to pregnancy or childbirth
- Previous sexual trauma

Prevalence: About 50% of women report their labor was traumatic, 3-15% will develop PP PTSD; prevalence increases with stillbirths (25%) and after the death of infant in the NICU/PICU (30%–35%).

Symptoms:

- Intrusive re-experiencing of a traumatic event
- Flashbacks or nightmares
- Avoidance of stimuli associated with the event, including thoughts, feelings, people, places and details of the event
- Persistent increased arousal (irritable, insomnia, hypervigilant, exaggerated startle response)
- Anxiety and panic attacks
- A sense of unreality and detachment

Don't you think this is the best time of your life?

Of course.

I think my baby would be better off with another mother. I think I made a huge mistake. I think I will find my baby dead in her crib. I think my baby will fly out of her carseat and into a ditch. I think I will drop my baby onto the cement when I'm going down the stairs. I think I am unfit to be a mother.

Created by Karen Kleiman and Molly McIntyre for The Postpartum Stress Center
postpartumstress.com

Perinatal Obsessive - Compulsive Disorder (OCD)

Symptoms:

- **Obsessions** are unwanted intrusive thoughts or mental images, can be violent or sexual
- **Compulsions** are actions to reduce obsessions - repetitive and ritualistic washing, checking, counting or reordering things, avoidance, concealment, prayers, and seeking reassurance; can interfere with caring for the baby
- A sense of horror about the obsessions
- Fear of being left alone with the baby
- Hypervigilance in protecting the baby
- Know the thoughts are bizarre and unlikely to ever act on them

Prevalence: 2% to 5% during pregnancy or PP. 2% to 4% of women had 1st onset of OCD PP, some with rapid onset; women with a history of OCD have a 25% to 75% risk of PP recurrence.

Risk Factors:

- First birth
- Early PP period (first 4 weeks)
- History of depression, obsessive-compulsive personality disorder, avoidant personality disorder, and/or the presence of OCD-related dysfunctional beliefs
- Family history of mood disorders, anxiety disorders, and/or substance use disorders

are you feeling any better today?

Not really. I mean I'm anxious all the time. I still can't eat and I'm worried I'm going to do something that will end up hurting my baby.

Why did I say that?! Now she thinks I will hurt my baby. If she's worried, shouldn't I be worried? What if she calls child protective services? What if I DO hurt my baby? Should I be in a hospital? omg I can't go to a hospital. Does she think I'm crazy? AM I CRAZY?

Do you think you could really hurt your baby?

OMG I don't think so! OMG! Do you think I could hurt my baby?

Postpartum Psychosis (PPP)

Symptoms:

- Early or prodromal symptoms - insomnia, mood fluctuation, irritability, and hyperactivity with emergence of mania, depression, or a mixed state
- Mood-incongruent delusions are common
- Disorganized, unusual behavior and obsessive thoughts regarding the infant
- Delirium-like appearance with cognitive symptoms - disorientation, confusion, difficulty communicating, derealization, and depersonalization
- Hallucinations

Prevalence: 1-2/1000 deliveries; 5% infanticide or suicide rate due to delusions of altruistic homicide; 20% to 30% of women with known BD develop PPP. Relative risk for the first onset of psychosis associated with a mood disorder is 23 times higher within 4 weeks PP compared with any other period during a woman's life.

PP psychosis is a psychiatric emergency!

Risk Factors:

- First birth
- Personal or family history of BD
- Previous psychotic episode
- Severe sleep disruption

PPP vs. OCD

Table

Common symptoms of postpartum psychosis vs obsessive-compulsive disorder with postpartum onset

Category	Postpartum psychosis	OCD with postpartum onset
Overall functioning	Noticeable change in baseline functioning	Variable changes in baseline functioning
Mood	Rapid mood shifts. Fluctuates and varies; irritability more common than elevated mood. Anxious, depressed	Feelings of guilt and shame surrounding obsessions, compulsions, and reluctance to share. Anxious, depressed
Behaviors	Disorganized, erratic, restless	Compulsions: repetitive washing, checking, avoidance. Concealment/hiding behaviors. Seeking reassurance
Thought content	Bizarre and/or altruistic delusions often centered around infant. Delusions of persecution and ideas of reference are common. Delusions are often egosyntonic. Auditory hallucinations, often commanding	Obsessions more frequent than compulsions and are often egodystonic. Obsessions: concerns and worry about intentionally or unintentionally harming infant, worry about baby breathing or dying, worry about cleanliness
Orientation/awareness	Delirium-like waxing or waning confusion, attention, and awareness without medical cause. Depersonalization, disorientation, and loss of reality testing	Alert and oriented. Maintains ability to reality test
Risk of harm to infant	Elevated (4% risk of infanticide)	Rare

Source: References 1-6

OCD: obsessive-compulsive disorder

Rose, R. (2023). Symptoms of psychosis and OCD in a patient with postpartum depression. *Current Psychiatry*, *22*(12), 48–51. https://doi.org/10.12788/cp.0407

I can't stand the way I feel. I just want to sleep and never wake up. My baby deserves a better mother. Everyone would be better off without me. I cannot do this for one more day. I'm not sure if I want my life to end or my suffering to end. Isn't it the same thing?

Perinatal Suicide

- Suicide accounts for up to 20% of perinatal deaths, most occur postpartum.
- 34% of pregnancy-related suicides had a documented prior suicide attempt.
- Women with a PP psychiatric admission were at 70 times higher risk of suicide in the first PP year.
- Suicidal thoughts require immediate intervention!

Risk factors:

- IPV
- Depressed mood
- Substance abuse
- Physical health problems
- Recent bereavement
- Lack of social support
- Young age
- Family conflict
- Loneliness
- Unwanted/unplanned pregnancy

Untreated Depression vs. Treatment

Table 2. A Sample Risk-Risk Discussion for Untreated Perinatal Depression Versus Treatment With Selective Serotonin Reuptake Inhibitors

Adverse outcome	Risks of untreated/ undertreated perinatal depression	Risks of treatment with selective serotonin reuptake inhibitors (SSRIs) during pregnancy
Congenital malformations	No association	Early studies showed a possible association between SSRI use and fetal congenital malformations (particularly common were mild cardiac lesions such as ventricular septal defect), but more recent, higher quality data do not show these associations when controlling for confounders, even with exposure in the first trimester during organogenesis.
Spontaneous abortion	Increased risk	No additional increased risk.
Preterm birth	Increased risk	Possible additional increased risk.
Low birth weight	Increased risk	No additional increased risk, or possibly low, clinically insignificant impact.
Short-term outcomes	Risk for impaired bonding, decreased length of breastfeeding, increased risk of postpartum depression	Studies have described an association with persistent pulmonary hypertension in the newborn period though the overall absolute risk of this is low (number needed to harm: 1,615) and usually mild (not requiring invasive ventilation); and neonatal adaptation syndrome (a brief [24 to 48 hours], self-limited period of infant restlessness, jitteriness, increased muscle tone, or rapid breathing requiring no medical intervention).
Long-term outcomes	Cognitive and behavioral problems	No additional increased risk.

Source: *Textbook of Women's Reproductive Mental Health*, APA Publishing, 2022.

Beal M, et al. (2022) Special Report: Women's Reproductive Mental Health—A Clinical Framework. *Psychiatric News*. September 23, 2022. https://psychnews.psychiatryonline.org/doi/10.1176/appi.pn.2022.10.10.33.

Preconception Planning

Planning ahead: pregnancy in women with psychiatric disorders

Encourage the patient to have regular psychiatric care during and after pregnancy.

All medication changes should be done before pregnancy if possible.

All medication changes should be done in consultation with the psychiatric treatment provider.

Ideally, the patient should be stable psychiatrically before attempting pregnancy.

Use medications for which there are data: older is usually (but not always) better.

Minimize the number of exposures for the baby, including exposure to psychiatric illness (do not undertreat).

Consider breastfeeding when planning for pregnancy.

If a baby was exposed to a medication during pregnancy, it may not make sense to discontinue the medication (or alternatively not breastfeed) for breastfeeding.

Use a team approach—communicate with the family and other involved treatment providers frequently.

Be supportive if the patient does not take your recommendations.

FDA category B can mean there are not data in pregnancy in humans —category B is not necessarily safer than category C or category D.

Payne, J. L. (2021). Psychiatric Medication Use in Pregnancy and Breastfeeding. *Obstetrics and Gynecology Clinics of North America*, *48*(1), 131-149. https://doi.org/10.1016/j.ogc.2020.11.006

Unplanned Pregnancy

Managing an unplanned pregnancy in women with psychiatric disorders

See or talk to the patient as soon as possible.

Discuss the case with the psychiatric treatment provider as soon as possible.

Do not stop all psychiatric medications immediately—most can be continued.

If a decision is made to discontinue a medication, taper whenever possible.

Consider stopping medications that are known to be teratogenic.

As in prepregnancy planning, try to minimize the number of medications the patient is taking, but do so taking the patient's history into account, and remember that exposure to psychiatric illness counts as an exposure to the child.

If the patient is psychiatrically ill, make a plan that includes treating the illness.

Payne, J. L. (2021). Psychiatric Medication Use in Pregnancy and Breastfeeding. *Obstetrics and Gynecology Clinics of North America*, *48*(1), 131-149. https://doi.org/10.1016/j.ogc.2020.11.006

General Principles

Article highlights

- Psychotropic drug use during pregnancy is common, but safety data are limited.
- Untreated psychiatric disorders pose significant risks to both mother and fetus, including preterm birth, low birth weight, and developmental issues.
- The decision to prescribe psychotropic medications must balance the risks against potential drug-related adverse effects.
- Selective serotonin reuptake inhibitors (SSRIs) are the most prescribed, with sertraline and fluvoxamine being considered the safest options during pregnancy and paroxetine during lactation.
- Amongst mood stabilizers, valproic acid should not be used for its high teratogenic risk, whereas lithium should be carefully managed with dose adjustments.
- Antipsychotic medications show a low teratogenic risk, and second-generation antipsychotics, such as olanzapine and risperidone, are to be preferred during lactation.
- Benzodiazepines should be prescribed with caution, as prolonged use or high doses increase the risk of neonatal withdrawal symptoms and sedation.
- The mental health of mothers is a major social issue that requires more thorough research and increased knowledge that might lead to well-grounded, tailored, and safe prescriptions.

Deutch, A. B., Gershengoren, L., Yogesh, A., Carlini, S. V., Lauzon, V. L., Albertini, E., Alebdy, D., Krok, A. C., & Sundararaj, D. (2026). Essential papers in women's mental health: an educational resource for physicians and trainees. *Current Opinion in Obstetrics & Gynecology*. https://doi.org/10.1097/gco.0000000000001100

National Pregnancy Registry

The **National Pregnancy Registry for Psychiatric Medications** is dedicated to evaluating the safety of psychiatric medications such as antidepressants, ADHD medications, and atypical antipsychotics that many people take during pregnancy to treat a wide range of mood, anxiety, executive function, or psychiatric disorders. The goal of this Registry is to gather information on the safety of these medications during pregnancy, as current data is limited.

If you are pregnant and have taken an antidepressant, ADHD medication, or atypical antipsychotic, please click the participation information button above. Individuals with a history of psychiatric illness who are pregnant and have not taken an antidepressant, ADHD medication, or atypical antipsychotic are also welcome to enroll in the Registry.

The National Pregnancy Registry for Atypical Antipsychotics

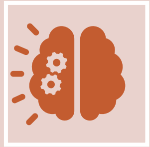
The National Pregnancy Registry for Antidepressants

The National Pregnancy Registry for ADHD Medications

The National Pregnancy Registry for Sedative-Hypnotics and Other Sleep Medications

https://womensmentalhealth.org/research/pregnancyregistry/
registry@partners.org
1-866-961-2388

Treatment -Resistant Depression



ECT: safe and effective treatment option for refractory or life-threatening depression in pregnancy; miscarriage rates not significantly different from the general population; no associations with congenital anomalies and no neurocognitive disturbances in the child; self-limited fetal heartrate changes and contractions

TMS: safe, feasible, and well-tolerated by the developing baby

Esketamine/ketamine: not for use during pregnancy, some positive trials and case reports in PP use

Neuroactive Steroids

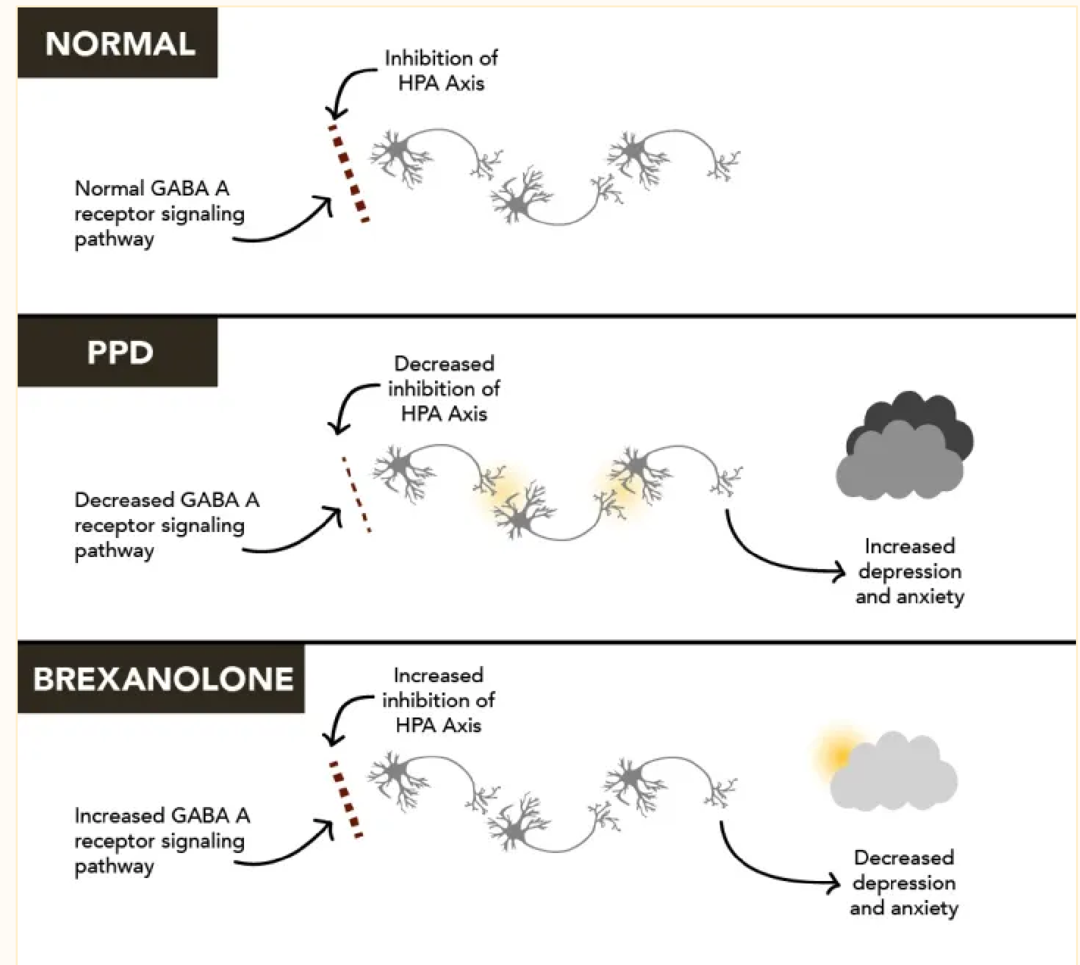
Table 2

Key facts: Neuroactive steroids and GABA

Neuroactive steroids are metabolites of cholesterol-derived steroid hormones made in the CNS and periphery
Neuroactive steroids are positive allosteric modulators of $GABA_A$ synaptic and extrasynaptic receptors, facilitating phasic and tonic inhibition at the postsynaptic membrane
Neuroactive steroids have distinct pharmacology compared with other GABAergic agents (ie, benzodiazepines)
GABAergic system dysregulation is thought to contribute to the etiology and symptoms of depression

$GABA_A$: gamma-aminobutyric acid A

Source: References 12-14



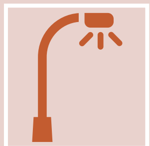
Meltzer-Brody et al. Brexanolone injection for postpartum depression. *Current Psychiatry.* 2019 September;18(9):43-48.; Basnak M. The Race Against Postpartum Depression Takes One Step Closer to the Finish Line. SITN Harvard, May 8, 2019.

Neuroactive Steroids

- Brexanolone: 1st medication FDA approved for PPD, 60 hr. IV infusion in monitored setting, off the market but being studied for use in PPP
- Zuranolone: 1st FDA-approved oral medication for PPD, 14-day at home treatment; take with a fat-containing food (400 to 1,000 calories, 25% to 50% fat) for adequate absorption; do not drive for at least 12 hours after administration; use contraception during and 1 week after use; low RID, risk/benefit to determine if breastfeeding should continue

Complementary and Alternative Medicine

Evidence that augmentation with omega-3 fatty acids, folate, or exercise with standard treatments for PND reduces symptoms.



Bright light therapy may be a reasonable option for some individuals who prefer not to take prescription medication: initial dosing of 30 minutes within 10 minutes of awakening, monitor for hypomania.

Acupuncture and massage may provide benefit in the treatment of PND but should not replace more standard therapies.

Psychotherapy

USPSTF: Moderate certainty that providing or referring pregnant or PP women at increased risk - history of depression, current depressive symptoms, certain socioeconomic risk factors (low income, young or single parenthood), recent IPV, elevated anxiety, or a history of significant negative life events - to counseling interventions has a moderate net benefit in preventing PND.

Patients with mild-to-moderate depression, residual symptoms, at high risk of relapse, with comorbid anxiety disorders, and those who prefer to avoid medication may benefit from psychotherapy in lieu of medication – CBT and IPT.

In An Emergency

National Crisis Text Line:
Text HOME to 741741 from anywhere in the USA, anytime, about any type of crisis.

National Suicide Prevention Hotline
Call 988

Call for yourself or someone you care about; free and confidential; network of more than 140 crisis centers nationwide; available 24/7

Crisis Text Line

National Suicide Prevention

Call or Text our HelpLine

Call 1-800-944-4773 (4PPD)
English & Spanish

Text in English: 800-944-4773
Text en Español: 971-203-7773

Leave a confidential message any time, and a trained and caring volunteer will return your call or text. Our volunteers return messages between 8am-11pm EST. They will listen, answer questions, offer encouragement and connect you with local resources as needed.

PSI Help Line

National Maternal Mental Health Hotline

Call or Text 1-833-852-6262
In English and Spanish

24/7, Free, Confidential Hotline for Pregnant and New Moms. Interpreter Services are available in 60 languages. (US Only)

TTY users can use a preferred relay service or dial 711 and then 1-833-852-6262

National Maternal Mental Health Hotline

https://www.postpartum.net/get-help/

Resources

- POEM (Perinatal Outreach and Encouragement for Moms): 513-652-3747 or 937-401-6844 https://mhaohio.org/get-help/maternal-mental-health/
- MotherToBaby: medication information during pregnancy and lactation https://mothertobaby.org/fact-sheets-parent/
- Postpartum Support International: education, provider directory, online support groups https://postpartum.net/
- 4th Trimester Project: https://newmomhealth.com/

Actually, I'm overwhelmed. I'm terrified. I'm sleep deprived. I'm sorry I had this baby. Not really. I mean, I love my baby. I don't feel good. I don't know what I'm doing. How did you get it so together with a new baby?

GOOD MOMS Have Scary Thoughts

GREAT!!! How are you?

How ARE you?

A Healing Guide to the Secret Fears of New Mothers

KAREN KLEIMAN, MSW

ILLUSTRATIONS BY MOLLY MCINTYRE

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