“Normal” Psychological Changes in Pregnancy

- First Trimester: Mild anxiety (ambivalence, worry), changes in energy, appetite, libido
- Third Trimester: increased anxiety about labor and delivery, impending role change
- Mild forgetfulness, confusion, distractibility
- Worry: health of baby, responsibilities, finances etc.
- Heightened awareness of prior relationships, losses, esp. family of origin

IMAGE SOURCE: OpenStax CNX

NC Department of Health and Human Services
Perinatal Mental Health: Awareness, Assessment, Action
Sara Thomson MSW, LCSW
Dr. Anne Ruminjo, MD, MPH
November 9, 2021
Hormonal Changes in Pregnancy

Internal environment

- Hormonal fluctuations
  - Estrogen + Progesterone - rise dramatically in 3rd trimester, fall even more dramatically at parturition
  - Oxytocin - rises during labor - role in attachment, lactation
  - Hyperactive HPA Axis with high plasma cortisol

- Brain Circuitry Changes
  - Increased neuronal activity - increased vigilance and protectivity
  - More sensitive reward and motivation circuitry - increased sensitivity to infant cues

External environment

- Body
- Mind
- Relationships
- Work
- Sleep

Perinatal Mood and Anxiety Disorders (PMADs)

Perinatal Mood & Anxiety Disorders

Depression in pregnancy
Post-Traumatic Stress Disorder
Anxiety
Postpartum depression
Bipolar disorder
Obsessive compulsive disorder
Insomnia
Psychosis

Prevalence of PMADs

PMADS are the #1 complication of pregnancy and childbirth but they remain unrecognized

Up to 1 in 5 women develop mental health problems during pregnancy or in the first year after childbirth.
The Baby Blues

- A normal emotional experience
  - Effects 50-80% of postpartum individuals
- Symptoms include:
  - Tearful, anxious, moodiness, trouble sleeping
- 80% resolve by third week postpartum
- 20% persist and develop postpartum depression

Postpartum Depression (PPD)

- Peak 2-6 months after delivery
- 11-25% of all births
  - Compare to Gestational Diabetes rate of 9.2%
  - An estimated 900,000 individuals adjusted for miscarriages and stillborn pregnancies
- Likely underreported given the self-reported nature of these CDC estimates
- 20% of postpartum deaths caused by suicide

PPD: What To Look For

- Depressed mood
- Irritability
- Anxiety or agitation
- Anger
- Hypervigilance, excessive worries about the baby
  - OR lack of interest in the newborn
- Impaired concentration or feeling overwhelmed
- Feelings of guilt
  - Unrealistic expectations of motherhood or the baby
Perinatal Anxiety (PPA)

- The most common PMAD, and often goes undiagnosed
- Symptoms include:
  - Excessive worries
  - Feelings of dread
  - Racing thoughts
  - Feeling overwhelmed
  - Obsessive thoughts
  - Racing heartbeat


PPA: What to Look For

- Symptoms that often are mistaken as normal during pregnancy and postpartum:
  - Difficulty concentrating
  - Trouble sleeping
  - Changes in eating/sleeping patterns
  - Sense of memory loss
  - Nausea, dizziness, hot flashes
  - Irritability
  - Persistent fatigue


Bipolar Disorder

- Onset peaks during reproductive years
- High risk of relapse with medication discontinuation
- Common symptoms include:
  - Reduced need for sleep
  - Racing thoughts
  - Impulsivity
  - Elated or irritable mood
  - Can have hallucinations and delusions

Postpartum Psychosis is a Psychiatric Emergency

- 1/1000 women
- > 70% have a diagnosis of bipolar disorder
- Onset 24 hours-3 weeks postpartum
- Mood symptoms, psychotic symptoms, & disorientation
  - Rule out medical causes of delirium
- 4% risk of infanticide with postpartum psychosis

SOURCE: Wesseloo et al AJP 2016, Manic Depression Illness, Goodwin and Jamison, 2007

Obsessions vs. Psychosis

- Obsessive-Compulsive Disorder (OCD) / anxiety / depression
  - Preserved insight
  - Thoughts are intrusive and cause distress
  - No psychotic symptoms

- Postpartum Psychosis
  - Poor insight
  - Psychotic symptoms
  - Delusional beliefs or distorted reality present

Low risk
High risk

SOURCE: Margo Nathan, MD

Risk Factors

Reproductive
- Personal history of postpartum depression
- Family history of hormonal change associated mood symptoms
- History of mood changes related to menses

General
- Younger age
- High neuroticism
- Childhood trauma
- Sexual abuse
- Psychosocial stress
- Intimate partner violence
- Chronic medical condition
- Systemic racism

SOURCE: Mobile et al OB/GYN 2010; Meltzer-Brody et al Arch Women MIN 2013; Uner-Perry J 2016; Shepard JNK 2009
Perinatal Stress in the Time of COVID-19

Since COVID-19, increased stress about...

- Food running out/availability 59%
- Losing a job/loss of income 64%
- Loss of childcare 56%
- Tension/conflict in house 38%
- Getting infected 93%


Perinatal Stress in the Time of COVID

- A 2021 survey by Harvard researchers found that pregnant and postpartum women reported increased:
  - Depression
  - Anxiety
  - Loneliness
  - Post-traumatic stress

- Symptoms were increased due to:
  - Increased checking for news/updates
  - Worries about children & childcare
  - Worries about money

SOURCE: [https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0249780](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0249780)

Fetal Loss Statistics

Fetal loss is a spontaneous intrauterine death or loss of a fetus during pregnancy

- Miscarriage = fetal loss occurring before 20 weeks
  - For women who know they are pregnant, 10-15% of pregnancies end in miscarriage
- Stillbirth = fetal loss occurring after 20 weeks
  - On average in the US, ~1% of pregnancies result in stillbirths

US infant mortality rate: 5.9 deaths per 1,000 live births

- NC: 7.2 deaths per 1,000 live births
- Non-Hispanic Black women have double the fetal mortality rate of non-Hispanic White and Hispanic women

Fetal Loss & Mental Health

- Fetal loss differs from other types of grief because there are no tangible memories of the loved one
- Grief symptoms that do not begin to decline by 6 months are more likely to be accompanied by psychiatric complications, anxiety disorders, major depression, substance misuse, and suicidality
- Number of miscarriages positively associates with psychopathology across age groups
- Supportive, culturally informed parent-centered bereavement care can help both families and care providers cope with loss

SOURCES: Brier, 2008; Toffol et al., 2013

PTSD: The Impact of Medical Trauma

Traumatic birth
- Up to 1/3 of moms report a traumatic childbirth experience
- Up to 9% of those women met DSM-V criteria for PTSD

Medical traumas may include
- Previous miscarriage, stillbirth, and/or child death
- Pregnancy-induced preeclampsia, HELLP syndrome, postpartum hemorrhage
- Child in NICU

SOURCE: Elizabeth Q. Cox, MD

Feelings
- Self-blame
- Feels invisible to medical providers
- Inability to relax
- Hypervigilance to health-related cues
- Loss of dignity
- Powerlessness

Impact
- Re-experiencing cues
- Avoidance of medical appointments, aftercare, or future pregnancies
- Detachment
- Intrusive memories
- Impaired mother-infant bonding

SOURCE: Elizabeth Q. Cox, MD
### PTSD: The Impact of Intimate Partner Violence

**Feelings**
- Fears of becoming a perpetrator
- Inadequacy in motherhood
- Concerns about safety/danger outside of home
- Detachment
- Numbness/strong emotions
- Anger/rage

**Impact**
- Re-experiencing cues
- Avoidance of medical appointments
- Doesn’t comply with treatment plans
- Inability to sleep
- Hypervigilance to infant and their safety

**SOURCE:** Elizabeth Q. Cox, MD

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### PTSD: The Impact of Systemic Racism

**Feelings**
- Feeling invisible to medical providers
- Feeling disrespected by their medical team
- Experiencing unfair treatment from medical providers
- Concerns that their pain is devalued

**Impact**
- Fear of asking for help
- Distrust of medical providers
- Black women are 3-4x more likely to die during or after delivery than white women
- Families of color disproportionately reported for abuse and neglect than white, non-Hispanic families


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### The Treatment Cascade

<table>
<thead>
<tr>
<th>Women with PPD who...</th>
<th>Antenatal</th>
<th>Postpartum</th>
</tr>
</thead>
<tbody>
<tr>
<td>care identified in a clinical setting</td>
<td>50%</td>
<td>31%</td>
</tr>
<tr>
<td>Receive treatment</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Receive adequate treatment</td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>Achieve remission</td>
<td>5%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Screening in Local Health Departments

- What tool(s) are you using at your local health department to screen for perinatal mental health symptoms?

Why Use Screening Tools?

- Reliable: same results repeatedly
- Valid: measures what it intends to

“Do you prefer dogs or cats?”

“Have you been feeling down?”

Screening vs Assessment

- Are symptoms present?
- Screening: Only indicates if symptoms are present
- Referral: Licensed Clinical Social Worker, Psychologist, Psychiatrist, Licensed Clinical Addiction Specialist, etc.
- Assessment: Gathering detailed information
- Treatment: Making a diagnosis and treatment recommendations
Example Case

• A patient endorses experiencing the following symptoms “nearly every day” for the last 2 weeks on the PHQ-9:
  − Little interest or pleasure in doing things
  − Feeling down, depressed or hopeless
  − Trouble falling asleep, staying asleep, or sleeping too much
  − Feeling tired or having little energy
  − Poor appetite or overeating

Screening alone is not enough.
All screening should be implemented with adequate systems in place to ensure appropriate follow-up.

PHQ-9

• Component of the longer Patient Health Questionnaire
• Widely Used
• Brief
  − Completed in 5 mins or less
• Validated and documented in many populations and languages
• Asks about the last 2 weeks
  − Answer scale ranges from “Not at all” to “Nearly every day”

Sources: Arroll et al., 2010; Kroenke, Spitzer, & Williams, 2001

PHQ-2

• First 2 items of the PHQ-9
• Assesses for depressed mood and anhedonia
  1. Little interest or pleasure in doing things
  2. Feeling down, depressed, or hopeless
• Scoring

Sources: Arroll et al., 2010; Kroenke, Spitzer, & Williams, 2001
Over the last 2 weeks, how often have you been bothered by any of the following problems?

<table>
<thead>
<tr>
<th>Problem</th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little interest or pleasure in doing things</td>
<td>(0)</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Feeling down, depressed, or helpless</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trouble falling asleep or staying asleep, or sleeping too much</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling tired or having little energy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor appetite or overeating</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trouble concentrating on things, such as reading the newspaper or watching television</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thoughts that you would be better off dead or hurting yourself in some way</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Patient Health Questionnaire (PHQ-9)
Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display or distribute.

Edinburgh Postnatal Depression Scale
- Widely Used
  - Developed for primary care settings
- Brief
  - Completed in 5 minutes or less
- Available in more than 50 languages
- Asks about the last 7 days
- Can be used during pregnancy and during the postpartum period

Sources: Cox, Holden, & Sagovsky, 1987; Monson & Rollins, 2008

Edinburgh Postnatal Depression Scale
Anxiety subscale (EPDS-3A)
- Questions 3, 4, and 5
  - Score of 5 or higher on these questions suggests the possible presence of an anxiety disorder
  - May not reliably distinguish between depression and anxiety
  - Consider using the Generalized Anxiety Disorder 7-item (GAD-7)

Sources: Cox, Holden, & Sagovsky, 1987; Reven, Fisher, & Lah, 2006; Smith-McClelland et al., 2021
Edinburgh Postnatal Depression Scale

- Likert scale responses differ by question
- Questions 3 and 5-10 are reverse scored
- Question 6 – Coping with stressors

When to Administer

- How often does your agency administer mental health screening tools to pregnant and postpartum patients?

Recommended time frames

- American College of Obstetricians and Gynecologists (ACOG)
  - every pregnant patient should be screened during pregnancy and postpartum
- Maternal Health and High-Risk Maternity Clinic Agreement Addenda
  - Full screen at initial prenatal visit and postpartum
  - 2nd and 3rd trimester if indicated by the PHQ-2 score

Other times to screen

- Clinical judgment and observations
- Re-administering to monitor symptoms

Source: American Academy of Pediatrics, 2017
How to Administer

Self Administered

- PHQ-9 and EPDS validated for self administered use
- Can be introduced and interpreted by provider, nurse, or social worker

Assistance with administering

- Reading/language barriers
- Should be self administered in native language if possible
- Can be read aloud to patients with literacy concerns
- COVID-19 considerations

Sources: Pinto-Meza et al., 2005; Ford et al., 2020

How to Administer

Introduce the screening tool

- Ensure privacy
- Normalize the process and explain the purpose
- Guide patient to think about the last week (EPDS) or last two weeks (PHQ-9)

Review and score while with the patient

Scoring Considerations

Clinical judgment

- Patients may still be struggling with mental health concerns and score below the cutoff

Decide what constitutes a “positive” screen for each tool

- Policies should outline what is considered a positive score and the protocol for scoring
  - Consider sensitivity and specificity
    - Lower cutoff score = High sensitivity and low specificity
    - Higher cutoff score = Low sensitivity and high specificity

Sources: Pinto-Meza et al., 2005; Ford et al., 2020
Scoring the Tools

**Scoring**
- EPDS and PHQ-9 scores range from 0-3 for each item
- Total scores range from 0-30 for the EPDS and 0-27 for the PHQ-9

**Cut off scores:**
- EPDS: 11 or higher recommended for screening.
- 13 or higher used for research
- PHQ-9: 10 or higher

Sources: Arroll et al., 2010; Kroenke, Spitzer, & Williams, 2001; Cox, Holden, & Sagovsky, 1987; Levis et al., 2020

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Last Questions

- Thoughts ≠ intent
- Clarify what patient meant when answering yes
  - Introduce the conversation using normalizing language
    - “Many people have these kinds of thoughts, and they can be really scary. Can you clarify what you meant when you said you have had thoughts of wanting to hurt yourself or someone else?”

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Assessing Risk

- Ideation
  - Frequency and intensity of thoughts
- History
  - Past ideation, attempts, rehearsal behaviors, etc.
- Plan
  - “In what ways have you considered hurting yourself/others?”
  - Consider:
    - Means
    - Lethality & Access
    - Specificity of plan
    - Preparing or rehearsing
- Intent
  - “How likely is it that you will carry out this plan on a scale of 0-10?”
Interventions & Referrals

Refer to emergency services if there are acute safety concerns

• LME-MCOs
• Information telephone lines
• Mobile Crisis teams
• May refer to a crisis center or a behavioral health urgent care
• Emergency Department & 911
  • If patient is at imminent risk to themselves or others

Consider medication treatment

• NC Maternal Mental Health MATTERS

Referrals

Referring for long-term management

• Support patient in making referral
• Give options of providers
• Let patient know what to expect
• Document referral and follow up with patient

Where to refer

• Internal Licensed Clinical Social Worker if applicable
• Health and Behavior Intervention Services (HBI)
• Private practice or clinician
• LME-MCO or local agency

Resources

For Patients and Providers

• Natural Supports!
• Postpartum Support International
  - https://www.postpartum.net/
  - Listings by location for mental health providers who specialize in perinatal mental health
• NC MATTERS
• Crisis Resources by County
  - http://crisisresolutionnc.org/
• LME-MCO Directory by County
  - https://www.ncdhhs.gov/providers/lmemco-directory

Screening

• PHQ-9 in various languages
  - https://www.phqscreeners.com/
• Generalized Anxiety Disorder 7 Item (GAD-7)
• Mood Disorder Questionnaire (MDQ)
  - Bipolar Disorder

Natural Supports!

• Postpartum Support International
  - https://www.postpartum.net/
  - Listings by location for mental health providers who specialize in perinatal mental health
• NC MATTERS
• Crisis Resources by County
  - http://crisisresolutionnc.org/
• LME-MCO Directory by County
  - https://www.ncdhhs.gov/providers/lmemco-directory
Mental Health Provider Shortage in NC

Psychiatrist Full-Time Equivalents per 10,000 Population, North Carolina, 2017

What’s to be Done?

• Well-developed perinatal psychiatry program, with different settings and providers embedded throughout Primary care and OB, is not available in most settings
• Cannot rely on mental health providers being able to care for perinatal patients
• Patients want to receive care from providers they know and trust – difficulty with navigating system of mental health outside their medical home

Starting the Conversation

“Based on what you’ve told me, I’m concerned that you may be having a difficult time or have anxiety. Many people feel this way when they are pregnant or have just had a newborn. There are things that you can do to feel better. Let’s talk about some ideas that might work for you.”

“It seems that you are doing well. If something changes, please let us know. We are here for you.”

“It’s reasonable that you would find things to be challenging right now for you and your family. How can I help you get support for your worries?”
### What Can YOU Do?

- Prioritize mental health screening for individuals who are struggling with breastfeeding
- Help new parents connect with family and loved ones to help
  - Reduce feelings of isolation
  - Prioritize protected blocks of sleep
  - Lower distress
- Share that it is common for people to feel distressed during a time of transition. Asking for and accepting help is a sign of strength.
- Have a procedure and referrals ready for anyone who shows severe distress or expresses a desire to hurt themselves or someone else.

### Activity: Mobilize a Team

**SLEEP:**
- "What could your partner or someone else in the home do to help you sleep?"
- "What things can you do during the day to ensure a good night’s sleep?"

**RELATIONSHIPS:**
- "Who might live far away, but could help you from a distance, maybe using the phone or video chat?"
- "What are three things you and your partner enjoy doing together?"

**SUPPORT:**
- "Who can you count on in an emergency?"
- "Who can help you with the kids so that you can attend appointments?"

### Activity: Stress Relief Ideas

- **Take care of your body**
  - Take deep breaths, stretch, or meditate
  - Try to eat healthy and well-balanced meals
  - Go for a walk or a run, outside if you can
  - Get plenty of sleep
  - Avoid alcohol, tobacco, and drugs
- **Make time to relax**
- **Text or call someone you love**
- **Listen to your favorite song**
- **Watch a funny video or show**

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**SOURCE:**
- Edith Gettes, MD
- Crystal Schiller, PhD
Explore a Variety of Prevention Strategies and Treatment Options

• Self care/sleep hygiene
• Nutrition and exercise
• Dyadic mother-baby support
• Complementary/alternative therapies (light therapy, yoga, meditation, massage, etc.)
• Reduce isolation by getting outside
• Socializing and community support
• Practical support from friends and family
• Support groups
• Therapy
• Medication

SOURCE: 2020MOM.org

Telepsychiatry consultation programs are one way to address some of the gaps and barriers that remain. NC Maternal Mental Health MATTERS is one such program, based here in North Carolina.

• Case consultation with psychiatrist for health care providers
• Goal is to keep patients in their medical home
• Helps meet the increased demand for mental health services
• Cuts down on referrals
• Helps combat the issue of the psychiatrist shortage in NC
• Decreases physical barriers

NC MATTERS

What Happens When I Call?

Provider receives assistance in identifying & securing appropriate resources & referrals for patient

Provider receives consultation related to diagnostic & treatment questions

Provider’s patient is identified for telepsychiatry assessment and/or care at UNC or Duke
Patients from 50+ NC counties served by consult line

700+ patients served by NC MATTERS consult line since November 2019:
• 48% of calls on behalf of pregnant patients
• 43% of calls on behalf of Medicaid recipients
• 24% of calls from non-prescribers

Case Study

Jess (19 y.o., first baby, lives with partner but not married)

Prenatal History:
• Avoids questions about her childhood and her mother; doesn't seem to have much family support
• Reluctant to share information about her partner's role; he doesn't come to prenatal visits
• Doesn't follow up on joining prenatal support group

Postnatal:
• 4 weeks postpartum; EPDS of 16, 0
• Reports feeling very worried about being able to take care of her baby and to be a good mother
• Reports struggles with breastfeeding – it is painful and baby wants to nurse all the time
• Says partner works long hours and does not really help with childcare
References