DETECTION, DIAGNOSIS AND TREATMENT OF PERINATAL MOOD & ANXIETY DISORDERS

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1

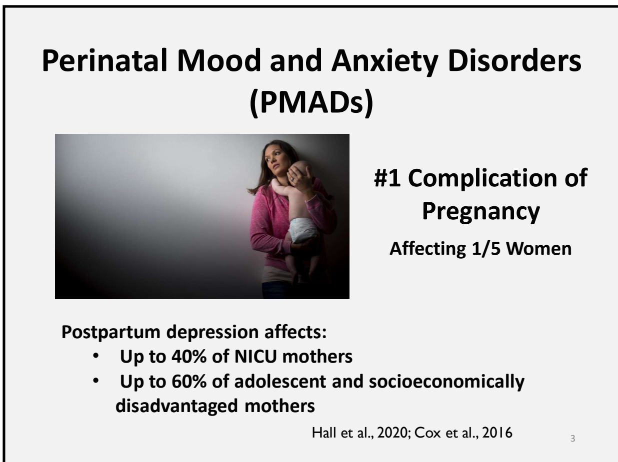
1

PROGRAM LEARNING OBJECTIVES

- Describe several screening instruments available to assist with the detection of perinatal mood and anxiety disorders.
- Explain factors related to accurate diagnosis of perinatal mood and anxiety disorders.
- List and describe evidence-based treatment options for this population, including the importance of dyadic mental health treatment.

2

Perinatal Mood and Anxiety Disorders (PMADs)



#1 Complication of Pregnancy

Affecting 1/5 Women

Postpartum depression affects:

- **Up to 40% of NICU mothers**
- **Up to 60% of adolescent and socioeconomically disadvantaged mothers**

Hall et al., 2020; Cox et al., 2016

3

3

IMPACT OF PMADS

- Less prenatal care
- Preterm labor and delivery
- Low birth weight infants
- Child abuse & neglect
- Maternal substance use
- Poorer bonding and attachment
- Infant developmental delay
- Impaired language development
- ADHD, anxiety and conduct disorders

Grigoriadis et al., 2013; Dubber et al., 2015; Reck et al., 2018; Kinsella et al., 2009; Glover, 2014; Verkuijl et al., 2014; Oyetunji & Chandra, 2020; Slomian et al., 2019; Monk et al., 2019

4

4

IMPACT OF DEPRESSION, ANXIETY AND TRAUMA ON MATERNAL CARE AND BONDING

- Struggle with being emotionally attuned to their babies
- Less physical contact and verbal communication
- Unintentionally disengaged
- Chronic stress can compromise a parent's ability to stimulate early cognitive and language development

Yatziv et al., 2021; Zhang et al., 2023; Della Vedova, 2023; Erickson et al., 2019

5

5

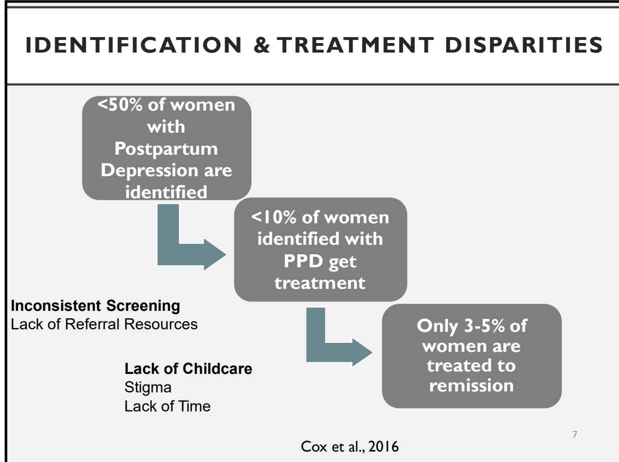
PROBLEMS IN BONDING

- **Avoidant Response**
  - Trouble connecting, disengaged
  - Feelings of resentment
  - Having others care for the infant

- **Anxious Response**
  - Intrusive thoughts
  - Frequent checking on infant
  - Unable to let others care for the infant

Yatziv et al., 2021; Zhang et al., 2023; Della Vedova, 2023

6



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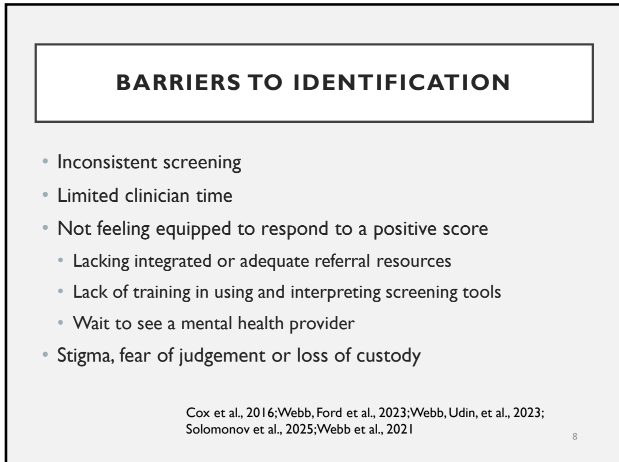

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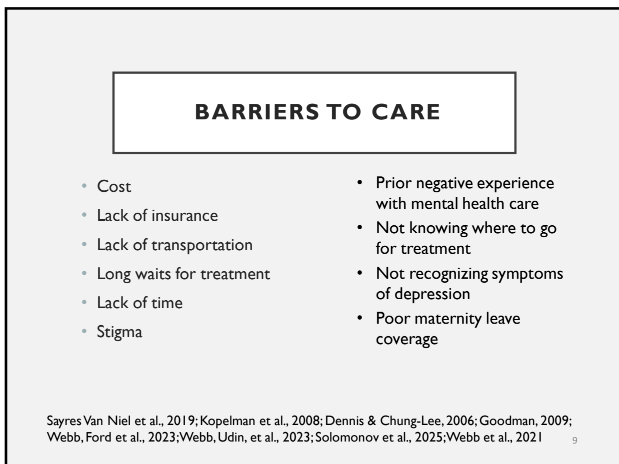

9

SCREENING FOR PMADS

- Screening instruments
  - Edinburgh Postnatal Depression Scale (EPDS)
  - Mood Disorder Questionnaire (MDQ)
  - Perinatal Anxiety Screening Scale (PASS)

10

10

EPDS & MDQ

Edinburgh Postnatal Depression Scale (EPDS) Form

AHN Mood Disorder Questionnaire

11

11

WHEN TO REFER TO MENTAL HEALTH PROVIDER

EPDS	MDQ
Total score ≥ 13 OR Score of 2/3 on question 10	Patient answers yes 7 times in question 1 AND Answers yes on question 2 or 4

12

12

PERINATAL ANXIETY SCREENING SCALE

PERINATAL ANXIETY SCREENING SCALE (PASS)

ANTENATAL Weeks pregnant ( ) POSTNATAL Baby's age ( ) DATE:

OVER THE PAST MONTH, *How often* have you experienced the following? Please tick the response that most closely describes your experience for *every* question.

	Not at all	Some times	Often	Almost Always
1. Worry about the baby/pregnancy	0	1	2	3
2. Fear that harm will come to the baby	0	1	2	3
3. A sense of dread that something bad is going to happen	0	1	2	3
4. Worry about many things	0	1	2	3
5. Worry about the future	0	1	2	3
6. Feeling overwhelmed	0	1	2	3
7. Really strong fears about things, eg needles, blood, birth, pain, etc	0	1	2	3
8. Sudden rushes of extreme fear or discomfort	0	1	2	3
9. Repetitive thoughts that are difficult to stop or control	0	1	2	3
10. Difficulty sleeping even when I have the chance to sleep	0	1	2	3
11. Having to do things in a certain way or order	0	1	2	3
12. Wanting things to be perfect	0	1	2	3
12. Needing to be in control of things	0	1	2	3
14. Difficulty stopping checking or doing things over and over	0	1	2	3
15. Feeling jumpy or easily startled	0	1	2	3
16. Concerns about repeated thoughts	0	1	2	3
17. Being 'on guard' or needing to watch out for things	0	1	2	3
18. Upset about repeated memories, dreams or nightmares	0	1	2	3
	Not at all	Some times	Often	Almost Always

Continued on Back

	Not at all	Some times	Often	Almost Always
19. Worry that I will embarrass myself in front of others	0	1	2	3
20. Fear that others will judge me negatively	0	1	2	3
21. Feeling really uneasy in crowds	0	1	2	3
22. Avoiding social activities because I might be nervous	0	1	2	3
23. Avoiding things which concern me	0	1	2	3
24. Feeling detached like you're watching yourself in a movie	0	1	2	3
25. Losing track of time and can't remember what happened	0	1	2	3
26. Difficulty adjusting to recent changes	0	1	2	3
27. Anxiety getting in the way of being able to do things	0	1	2	3
28. Racing thoughts making it hard to concentrate	0	1	2	3
29. Fear of losing control	0	1	2	3
30. Feeling panicky	0	1	2	3
31. Feeling agitated	0	1	2	3
	Not at all	Some times	Often	Almost Always
Global Score				

Somerville, Dedman, Hagan et al. 2014

13

13

PERINATAL ANXIETY SCREENING SCALE

- **Acute anxiety and adjustment**
- **General worry and specific fears**
- **Perfectionism, control and trauma**
- **Social anxiety**

- **Minimal anxiety: 0-20**
- **Mild-moderate anxiety: 21-41**
- **Severe anxiety: 42-93**

Somerville, Dedman, Hagan et al. 2014

14

14

ROLE OF AI IN IDENTIFYING PMADS

- Two recent studies of AI and machine learning models showed strong predictive ability in being able to identify PPD using the EPDS, PHQ-9, ICD codes or diagnoses as reference standards as well as predict postpartum depression risk.
- More research is needed to externally validate models, assess clinical impact, and determine whether AI-guided risk stratification improves treatment access and outcomes beyond existing screening practices.

Ruger-Navarrete et al., 2026; Clapp et al., 2025

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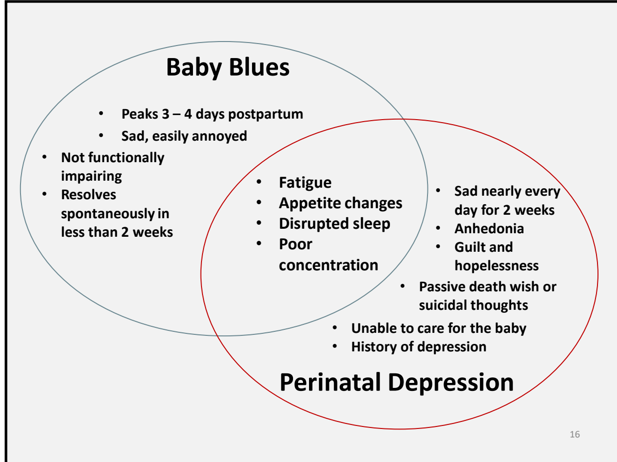

16

FEATURES OF PERINATAL DEPRESSION

- Looks like other types of depression
- Often comorbid with anxiety disorders, GAD/OCD
- Self-blame
- Thoughts about being an inadequate mother
- 30-80 fold risk for suicide compared to other times in a woman's life

Chin et al., 2022; Reid et al., 2022; Goldman-Mellor et al., 2025; Wallace & Jahn, 2025; Gimbel et al., 2024

17

17

RISK FACTORS FOR PERINATAL DEPRESSION

- Prior history of depression or anxiety
- Family history of psychiatric illness
- Prior history of perinatal depression
- Being a person of color
- Limited social support
- Relationship discord and/or Intimate partner violence
- Being socioeconimcally disadvantaged
- Premature or medically complicated birth
- History of infertility
- Childhood sexual abuse

Biaggi et al., 2016; Roberston-Blackmore, 2013; Wosu et al., 2015; Zacher Kjeldsen, 2022 ; Floyd et al., 2023

18

18

PERINATAL DEPRESSION

	Discontinuation	Continuation
Recurrence Risk	68%	26%

- **Most recurrences happen quickly**
  - **50% during first trimester**
  - **90% by the end of the second trimester**
- **High rate of non-response in women who resume their medication**

Cohen et al., 2006

19

19

POSTPARTUM PSYCHOSIS

- Occurs in 1/2 per 1000 births
- Rapid onset post-birth; bizarre delusions/ hallucinations, cognitive disorganization, poor ADLs
- 50-75% of women with postpartum psychosis have a history of bipolar disorder (or new onset), or less commonly schizoaffective disorder or schizophrenia.
- Very high risk for recurrence after later births; preventive treatment appropriate
- Medical emergency, usually requires hospitalization

Jones et al., 2014; Bergink, Rasgon et al. 2016; Wesseloo et al., 2016; Perry et al., 2021; Robertson et al. 2005

20

20

BIPOLAR DISORDER

- Over 60% misdiagnosed with perinatal depression
- Manic Episode
  - Grandiosity
  - Decreased need for sleep
  - Pressured speech, hard to interrupt
  - Distractible
  - Labile and agitated
  - Excessive involvement in pleasurable activities
  - Paranoid or bizarre delusions

21

21

BIPOLAR DISORDER

	Discontinuation	Continuation
Recurrence Risk	85.5%	33%

	Rapid Discontinuation (Over 1 – 14 days)	Gradual Discontinuation (Over 15 days)
Recurrence Risk	50% within 2 weeks	50% within 22 weeks
Time spent in illness episode	40% of pregnancy	8.8% of pregnancy

- **260/1000 women previously diagnosed with bipolar disorder will have postpartum psychosis**

Wesseloo et al., 2016

22

22

PERINATAL ANXIETY DISORDERS

- One in five pregnant women experience at least one type of anxiety disorder.
- Women's Preventive Services Initiative (WPSI) issued a recommendation in 2020 stating that all pregnant or postpartum women should be screened for anxiety.

https://www.hrsa.gov/womens-guidelines

23

23

CHILDBIRTH RELATED PTSD

- Can be related to prior trauma or traumatic childbirth
- If a woman says her birth was traumatic, it was!
- Avoidance of trauma reminders, intrusive thoughts or dreams about traumatic experience, hypervigilance, hyperarousal, sometimes avoidance of baby

Dekel et al., 2017;Yildiz et al., 2017

24

24

PERINATAL OCD

- OCD prevalence among women in the general population: 1.5%[1]
- Prenatal OCD prevalence: 0.2%-1.2%[2]
- Postpartum OCD prevalence: 6.1%[3]
- Why?
  - Biological/Neurochemical Model
    - Serotonin
    - Oxytocin

McGinness et al., 2011; Pauls et al., 2014; Mulcahy et al., 2023; Hudepohl et al., 2022

25

25

PERINATAL OCD

- Obsessions:
  - irrational thoughts of harm befalling loved ones, harming infant
- Compulsions:
  - Checking repeatedly on infant "won't let baby out of my sight" "sleeping with the light on"
  - Breastfeeding/pumping schedule
  - Preventing contact with germs

26

26

PERINATAL OCD (POCD)

Characteristic Signs and Symptoms of Perinatal Obsessive-Compulsive Disorder[1]

	Pregnancy	Postpartum
Onset	Gradual onset	Rapid onset
Content	Contamination and illness	Harm, accidents or loss
Avoidance	Avoidance of contaminants	Avoidance of obsessional cues, sometimes avoidance of newborn
Rituals	Overt rituals such as washing and checking	Some overt rituals such as checking, but more covert mental rituals, neutralizing
Comorbidity	Depression	Depression
Differentiation	Despite superficial similarity of thought content, not associated with postpartum psychosis	Despite superficial similarity of thought content, not associated with postpartum psychosis

27

27

PERINATAL OCD (POCD)

Key Characteristics of Postpartum OCD and Postpartum Psychosis [1]		
Characteristic	**Postpartum Obsessions**	**Postpartum Psychosis**
Thought Content	Thoughts, ideas, images of harm	Thoughts, ideas, images of harm
Associated Symptoms	Anxiety, avoidance, compulsive rituals, thought suppression, depression	Delusional thinking patterns, hallucinations, negative symptoms of psychosis (e.g., lack of self-care)
Subjective Experience	Thoughts are experienced as unacceptable, repulsive, ego dystonic	Thoughts are accepted as true, objective evidence to the contrary might be distorted to confirm the person's delusion
Risk of harm	Very slight, if any	Increased, requires hospitalization

Adapted from The Oxford Handbook of Perinatal Psychology p. 168, 171

28

28

LIMITATIONS OF TRADITIONAL MENTAL HEALTH TREATMENT FOR PERINATAL WOMEN

"There is no such thing as a baby…if you set out to describe a baby, you will find you are describing a baby and someone."
- Winnicott, 1947

29

29

RESIDUAL IMPACT ON RELATIONSHIP

- Successfully treated mothers still rated their children lower in attachment security, higher in behavioral problems, and more negative in temperament.
- Treatment that targets the mother-infant relationship may have greater potential in providing a buffer against the impact of perinatal mood and anxiety disorders on future generations.

Forman et al. 2007; Verkuijl et al., 2014; Gunlicks & Weissman, 2008

30

30

EVIDENCE BASED TREATMENTS FOR PMADS

- Psychotherapy
  - Dyadic psychotherapies
  - Cognitive Behavioral Therapy
  - Dialectical Behavior Therapy
  - Interpersonal Psychotherapy
  - Behavioral Activation
  - EMDR
  - Family
- Medication
- Bright light therapy
- Electroconvulsive therapy
- Optimize social supports
- Optimize nutrition and sleep
- Exercise/Yoga
- Peer support
- Home visiting

31

31

MOTHER-BABY MENTAL HEALTH TREATMENT

- Addresses one of the major barriers to care
- Supports the continuation of breastfeeding
- Provides opportunity for direct observation of mother-infant interaction, as well as treatment that targets any problems in the relationship

Sockol et al., 2014; Battle & Howard, 2014

32

32

MOTHER-BABY MENTAL HEALTH TREATMENT

- Improvement in mental health outcomes
- Improvement in self-reported bonding
- Improvements in clinician-rated bonding
- Children who can see or hear their mothers following a stress have higher oxytocin levels and lower cortisol levels

Gilham & Wittkowski, 2015; Kenney et al. 2013; Howard et al., 2006; McQuaid et al., 2010; Connellan et al., 2017; Glangeaud-Freudenthal et al., 2014

33

33

PEER-ADMINISTERED INTERVENTIONS

- More research is needed, but a recent meta-analysis provided some evidence that peer-administered interventions were more effective in reducing symptoms of depression than standard care.
  - Most support for peer-delivered psychotherapy
  - Group and having lived experience also correlated with improvement
- This study showed less support for the treatment of anxiety disorders, however, subgroup analyses for anxiety revealed that peer-delivered psychotherapies were capable of leading to medium effect size improvements in anxiety symptoms.

Taylor et al., 2025; Mansoor et al., 2025

34

34

HOME VISITING & PERINATAL MENTAL HEALTH

- Provide an opportunity to detect and treat women for depression around the time of giving birth in their own environments.
- Can reduce barriers to mental health support, such as travel or childcare
- Home visiting programs beginning during pregnancy and extending into the postpartum period appear to have greater impacts; however, the effectiveness of these programs remains mixed.

Tabb et al. 2022; Dodge et al. 2022, Moore et al. 2021

35

35

HOME VISITING & PERINATAL MENTAL HEALTH

- Higher levels of supportive reassurance and reliable assistance, offered with added social support, are associated with lower levels of perinatal depression and anxiety.
- These aspects of social support can bolster parents' self-confidence and sense of community, helping them face the uncertainties of new parenthood.
- In addition, home visiting has been shown to reduce gaps between Black and Non-Hispanic White families in maternal anxiety, maternal depression, father non-support, child emergency medical care, and child maltreatment investigations

Tabb et al. 2022; Dodge et al. 2022, Moore et al. 2021

36

36

CBT

- Teach patients how to restructure negative automatic thoughts
- Themes involve inadequacy as a mother and feelings of guilt for not enjoying infant:
  - "I'll always be an incompetent mother"
  - "My kids deserve a better mother"
  - "My husband is going to leave me"
- Exposure as needed for anxiety
- Coping skills: controlled breathing, PMR
- Further work for deeply ingrained negative core beliefs

37

37

IPT

- Psychotherapy which aims to alleviate patient's symptoms and improve interpersonal functioning

Mood **Interpersonal relationships**

38

38

BA FOR PERINATAL DEPRESSION[1]

- Promote a sense of mastery and enjoyment
- Decrease depression-inducing passivity and avoidance
- Treatment strategies include:
  - Tracking and changing activities to increase a sense of reward
  - Modifying avoidance towards more active coping
  - Reducing negative rumination

39

39

DBT FOR PERINATAL POPULATION

- Distress Tolerance Skills
  - TIP
  - Self-soothing
- Interpersonal Effectiveness
- Mindfulness
- Emotion Regulation

40

40

PERINATAL IOP & PHPS

- Mother and baby attend together
- 3 days/week for 3 hours
- Group psychotherapy
- Individual psychotherapy
- Family sessions
- Mindfulness meditation and relaxation
- Dyadic programming
- Weekly medication management

41

41

DYADIC PROGRAMMING

- Create a safe holding environment in which the mother feels encouraged and psychologically supported to develop a relationship with her child.
  - Lactation support
  - Infant massage
  - Baby wearing
  - Baby sign language
  - Perinatal yoga
  - Infant development, routine newborn care, sleep
  - Raising emotionally intelligent children, Circle of Security, PCIT-Toddler

42

42

DYADIC INTERVENTIONS: IN VIVO

- Having the baby in treatment, we can intervene at the dyadic level in real time.
- Examples:
  - Baby crying, mom not responding to baby
  - Baby crying, mom becoming visibly overwhelmed
  - Baby fussy, mom struggles to accept help from others in assisting with caring for the baby
  - Bringing the baby to group is **itself** a task that improves confidence and decreases anxiety about caring for the baby and being able to leave the house

43

MEDICATION

- There is NO risk-free option
  - Document risk-benefit discussion and patient's reason for decision
- Medication needs to be adjusted during pregnancy to maintain optimum dosing
- Minimize fetal and neonatal exposures to both medication and maternal mental illness
- Newer medications such as Brexanalone (neu... steroid & GABA-receptor modulator approved to tr... and more recently PPP.

44

44

CASE #1

- Mom seems jumbled, disorganized, isn't making sense, seems more guarded, isn't responding to the baby
- Dad catches you when she goes to the bathroom and tells you that she isn't sleeping, has been pacing the house, has been worried about intruders and told you that she was worried that you were going to bug her house during the visit.
- **What do you suspect is going on?**
- **How do you proceed?**

45

45

CASE #2

- Mom has been increasingly anxious when you've visited
- Tells you that she hasn't been leaving the house because she is afraid of germs and she can't put the baby on the floor because she is afraid of contaminants
- Taking several hours to wash bottles
- **What do you suspect is going on?**
- **How do you proceed?**

46

46

QUESTIONS

47

47

NATIONAL RESOURCES

Postpartum Support International: http://www.postpartum.net/

Perinatal Mental Health Society of North America: http://www.perinatalmentalhealth.com/

The Marce Society for Perinatal Mental Health: https://marcesociety.com/

MGH Center for Women's Mental Health: http://womensmentalhealth.org

Mother to Baby: https://mothertobaby.org/

48

48

INTENSIVE OUTPATIENT AND PARTIAL HOSPITALIZATION PERINATAL PROGRAMS IN PA

- Philadelphia – Drexel University Mother Baby Connections Intensive Outpatient Program
- Pittsburgh – UPMC Western Behavioral Health Perinatal OCD & Anxiety Intensive Outpatient Program (IOP)
- Pittsburgh – Alexis Joy D'Achille Center for Women's Behavioral Health at West Penn Hospital

49

49

INPATIENT PERINATAL UNITS IN THE US

- Arkansas: Little Rock – The Women's Inpatient Unit at the UAMS Psychiatric Research Institute (PRI), known as the 5-North Unit
- California: Mountain View – El Camino Inpatient Psychiatric Care Women's Specialty Unit
- Louisiana: Baton Rouge – The Perinatal Mental Health Unit (PMHU) at Woman's Hospital
- New York: Glen Oaks – Northwell Health Perinatal Psychiatry Service
- North Carolina: Chapel Hill – UNC Perinatal Psych Inpatient Unit

50

50

PITTSBURGH RESOURCES

Postpartum Pittsburgh: https://postpartumpgh.com

Allegheny Health Network
Women's Behavioral Health:
- outpatient medication management and psychotherapy
- perinatal IOP Program that incorporates baby into treatment
- Call 412-526-9520 to make a referral or self-refer

Western Psychiatric Institute and Clinic
- N.E.S.T (New and Expectant Mother Specialized Treatment) IOP
- Perinatal Anxiety & OCD IOP
- Call 412-246-5600 or make a referral online at upmc.com/iopphpreferral

Magee Behavioral Health
- outpatient medication management and psychotherapy
https://www.upmc.com/locations/hospitals/magee/services/behavioral-health-services

Connected Nest: https://connectednest.org

51

51

52

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53

53

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62

62