The most common complication of child bearing is

**Maternal Depression/Anxiety**

Oregon by the Numbers

- 24% of women reported that they were depressed during and/or after pregnancy.
- 48% of those women were still depressed when their child was 2 years old.
- 7-8% of adults in Oregon meet the criteria for current depression.
Post-Partum Depression & Anxiety
- Risk Populations

- Prior History of Post-Partum Depression/Anxiety
- Previous or Family History of Depression or Anxiety
- Poverty
- Young Maternal Age
- Domestic Violence
- Lack of Quality Social Support
- Substance Abuse
- Low Maternal Education
- Stressful Major Life Events or Traumatic Experiences

PROTECTIVE FACTORS
Against Poor Outcomes

- Breastfeeding
- Child’s Disposition
- Familial Warmth & Cohesiveness
- Support from Family Members & Community

Maternal & Neonatal
PHYSIOLOGIC
IMPACT
of PERINATAL MOOD DISORDERS

- Maternal Hypertension
- Maternal Drug & Alcohol Use
- Premature Labor
- Low Birth Weight
- Increased Cortisol Response in Infants

Behaviors of Depressed Mothers

- LESS RESPONSIVE TO BABY’S CUES AND NEEDS
- REDUCED EMOTIONAL RANGE
- REDUCED CARE OF BABY
- LESS EMPATHY AND INTERACTIVE BEHAVIOR
- LESS LIKELY TO OBTAIN PREVENTIVE HEALTHCARE FOR BABY
Maternal Depression & Anxiety Affects Infants

Decreased cognitive stimulation and bonding may cause:

- Irritability
- Lower activity level
- Irregular sleep and feeding behaviors
- Impeded growth during first year of life
- Lifelong decreased ability to handle stress
- Difficulty in developing trusting relationships
- Increased depression, anxiety, and attention deficit

Babies Need Healthy Parents!
The Still Face Experiment

http://www.youtube.com/watch?v=apzXGEbZht0

MIRROR NEURONS

Interaction through relationships builds the foundation of brain development and social emotional capacity.

Bruce Perry, Ph.D

Nature vs. Nurture – It’s Both!

- prenatal & postnatal experiences
- long-term changes in gene expression
- altered neurodevelopment
  variations in stress, cognition, social, and reproductive behavior

With Permission from Dr. Frances Champagne, Dept of Psychology, Columbia University
What’s that Mean?!?

Early life experience can set a course leading to health or disease, often mediated by an altered capacity to regulate responses to stressful events.

Among the earliest adverse experience is prenatal exposure to maternal depressed and anxious mood that confers life long risk for behavioral disturbances in childhood and beyond.

This process of “fetal programming” is thought to be in part mediated by the impact of prenatal experience on the developing hypothalamic-pituitary-adrenal (HPA) axis stress system.

The HPA axis is a dynamic metabolic system that regulates homeostatic mechanisms, such as the ability to respond to stressors, and from early fetal development it is highly sensitive to the impact of early adverse experience.

OVERVIEW OF MATERNAL MOOD DISORDERS

Maternal Mood Disorders

“Baby Blues”

Postpartum Depression & Anxiety

Postpartum Psychosis

Usually resolves without treatment

Requires treatment

Immediate treatment, may require hospitalization

BABY BLUES

- **Normal** condition in postpartum mothers
- Occurs in **50-80%** of new mothers
- Symptoms include feelings of loss, anxiety, confusion, fear, or being overwhelmed
- Symptoms peak ~5 days after birth and resolve within a few weeks
- Does not disrupt function or daily routines
Postpartum Depression & Anxiety

Lack of interest in baby, friends or family
Decreased energy and concentration
Thoughts of harming self or child
Feelings of being a bad mother
Changes in appetite and weight
Feeling “blue” and crying
Anger and irritability
Anxiety and worry
Sleep problems

Postpartum Depression & Postpartum Anxiety

- 10-25% of childbearing women affected.
- Many women are unable to recognize symptoms
- Negative effects on infant behavior & development
- Many Partners develop post-partum depression
- Occurs anytime during first 12 months postpartum

- Symptoms persist in half of untreated mothers one year postpartum
- Symptoms last from 2 weeks to more than a year.

Postpartum Psychosis

- Relatively uncommon (1-3 per 1000 women)
- Onset as early as one day after delivery, through baby’s first year
- Peak incident of onset is within first month
- Onset may be abrupt
- Characterized by hallucinations, paranoia, possible suicidal/infanticidal thoughts
- Requires immediate treatment and possible hospitalization

DO WE REALLY NEED TO SCREEN?

YES!!!

DON’T THESE MOMS ALREADY HAVE SUPPORTS and/or TREATMENT IN PLACE?

NO!!

CAN’T WE JUST RELY ON MOM’S HISTORY?

NO!!

WON’T WE JUST “KNOW” IF A MOM IS HAVING POST-PARTUM MOOD DISORDER?

NO!!
Recommendations for Maternal PPMD Screening in the Pediatric Context

Committee on Psychosocial Aspects of Child & Family Health
“Incorporating Recognition & Management of Perinatal & Postpartum Depression into Pediatric Practice”

ABCD Academy Recommendations – Pediatric Providers to Screen for Postpartum Depression @ 2 weeks, 2-4 months

Oregon Health Authority House Bill 2666 – Maternal Mental Health Work Group Report:
“By 2015, pass legislation to require that all…postnatal and pediatric settings offer all women the opportunity to be screened”

BUT – we take care of Babies & Children! Why are we tasked with Screening Moms???

• Pediatricians and well-child care providers see moms early and often – more than others.
• Mom’s mental health affects well-being of baby and family.
• Child’s developmental health is directly influenced by early relationship history.
• Screening & Referring Moms for PPMD can prevent a host of childhood problems.

PPMD Screening
Screen all mothers

<table>
<thead>
<tr>
<th>Maternal Depression Screening</th>
<th>2 weeks</th>
<th>2 months</th>
<th>4 months</th>
<th>6 mos – 1 yr as needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edinburgh</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Edinburgh</td>
<td></td>
<td></td>
<td></td>
<td>as needed</td>
</tr>
</tbody>
</table>

Patient Health Questionnaire (PHQ-2)

< 1 minute; self administered or via interview

• Over the past two weeks how often have you had little interest or pleasure in doing things?
• Over the past two weeks how often have you been feeling down, depressed, or hopeless?

Answers range 0-3:

| 0 = Not at all | 1 = Several days | 2 = More than half the days | 3 = Nearly every day |

Sensitivity = 0.83; Specificity = 0.92
Edinburgh Postnatal Depression Scale (EPDS)

Sensitivity = 100%, Specificity = 90% (@ 12 wks postpartum)

1. I have been able to laugh and see the funny side of things
2. I have looked forward with enjoyment to things
3. I have blamed myself unnecessarily when things went wrong
4. I have been anxious or worried for no good reason
5. I have felt scared or panicky for not very good reason
6. Things have been getting on top of me
7. I have been so unhappy that I have had difficulty sleeping
8. I have felt sad or miserable
9. I have been so unhappy that I have been crying
10. The thought of harming myself has occurred to me

Response categories are scored 0, 1, 2 and 3
Items marked with asterisk (*) are reverse scored (i.e. 3, 2, 1, and 0)
Add all scores for each of the 10 items for the total score
Cutoff score is 10

Using Edinburgh Postpartum Depression Screen to DETERMINE RISK OF HARM

Any patient who scores > 0 on question #10 (“The thought of harming myself has occurred to me”) requires a discussion about potential for immediate harm and referral to:

Mental Health Crisis Hotline

If imminent self-harm is a concern, patient should not be left alone and should be immediately referred or escorted to Emergency Department

Suggestions for Providers

• Provide multiple opportunities for disclosure of PPD/PPA symptoms
• Use screening tools
• Ask open-ended questions during visit
• Validate feelings
• Reassure that PPD/PPA is common for mothers
• Emphasize short-term nature and treatability of PPD/PPA
• Express appreciation for willingness to disclose

Discussing Screening Results

• Recognize sensitivity of issue
• Reinforce how mother’s health impacts her child without increasing/promoting feelings of guilt or shame
• Provide a supportive, non-judgmental environment
• Consider cultural attitudes toward depression and screening
Provider’s Roles
INCREASE Awareness & Recognition of PPMD
Provide Support & Resource Information
Refer Mom to:
• Self Care
• Community Resources & Supports
• Mom’s Primary Provider
• Mental Health Professionals
Frequent Follow-up for Mom & Infant

Primary Prevention Model
• Risk Factors are known
• Problem is common
• Population is known and present
• Identifying high-risk mothers is inexpensive
• Screening is educational
• Many risk factors are amenable to change
• Screening leads to appropriate and timely referral

Maternal Post-Partum Mood Disorder (PPMD)
Screening & Referral @ RCH NICU
Quality Improvement Partnership with *Oregon Pediatric Society
#1 complication of Childbearing = Maternal Depression

Opportunity: Join statewide project to screen for and refer women with postpartum depression for needed care
Goal: Develop & Implement a Model for Maternal Post-Partum Mood Disorder Screening and Referral in the NICU context
Outcomes:
- Improved Inpatient Care for NICU Infants & Families
- Improved Family Experience of Care
- Improved Long-term Outcome for Children & Families
- Improved Population Health

Why Screen Moms during NICU Hospitalization?
Many neonates admitted to the NICU have prolonged NICU hospitalizations
NICU Hospitalization increases risk of family stress and separation between mother and baby and associated bonding/psychological issues for family
Mother’s mental health affects well-being of baby and family
Child’s developmental health is directly influenced by early relationship history – this begins in the NICU!
NICUs have an Obligation to Support Population Health Beyond the Walls of the NICU

Post-Partum Mood Disorder & Referral @ RCH NICU

- Provide Education on PPMD to NICU Staff, MDs & Families
- Develop System for Screening in the NICU
- Screening Performed by NICU Staff (Lactation, Case Mgr, Charge RN)
- Develop Referral Process for Mom’s based on Scores
  - ALL Moms are provided resources
  - tiered resource referrals per maternal screen score

Post-Partum Mood Disorder Referral @ RCH NICU (contd)

- Screen Result Documented in EMR
  - positive vs. negative screen score - no raw scores
- Screen Results included in MD Handoff @ Discharge
- Collect Data on Adequacy of Referral Resources
- Quality Audit of Practice
Maternal PPMD Process for Screeners – RCH NICU:

Start Date & Population: Moms of Babies born on or after 7/1/13 & admitted to RCH NICU

1. PPMD Screening Log contains all babies’ mom’s tracking tools. Log book is stored in Social Work/Case Manager locked office (Charge RN has key)

2. Each Day – Open book to current date and review all moms due for screening that day and during the preceding and following 4 days (screening window is target date, +/- 4 days). Place a flag on each mother’s sheet you will screen that day.

3. Any mom screened more than 4 days prior to or 4 days after her targeted screen date will be considered “out of window” in terms of “quality audit” but data will still be used.

4. Screening dates are based on the Baby’s Mom’s delivery date. Ex. For a mom who delivered her baby on 7/1/13 – screening target date is 7/14, 8/8, 9/1/13 & 10/1/13. All screen dates have a screening window of +/- 4 days. Only screen a mom if her baby is still in the NICU

5. Each day, triage which moms to screen based on priority of screening - screen in designated time “window” and according to mom’s availability, and other clinical needs.

6. On each Edinburgh tool, write the screening window dates for the next screening. Scoring information is on the back of the Edinburgh Screen. The Referral Algorithm is on the Lactation PPMD clipboard.

7. Screening should be done in person and privately with mom.

8. If mom is not available in NICU during screening window, screening mom by phone.

9. Score the screening tool. Discuss screening results with mom. Provide mom referral and self-care information to mom as per PPMD Referral Algorithm.

10. Write on infant’s white board – “Next PPMD Screening Due XXXXX” (Fill in next screening target date, +/- 4 day screening window) – so mom knows when to expect next screening.

Maternal PPPMD Process for Screeners – RCH NICU, contd:

11. Complete PPMD Screening Flowsheet in EPIC - include screening Date, Score (negative/positive) and Referral (yes/no) and Referral Source (Community, MD, Provider (other))

   Score for EPDS: Negative = EPDS<10 AND Q#10 “never” or “sometimes” or “hardly ever” but NOT “now” or “recently”

   Score for EPDS: Positive = EPDS>10 AND Q#10 answered “yes, quite often” OR “sometimes” or “hardly ever” and “now” or “recently”

   Referral Source: Community = “Baby Blues”; MD = Primary Care Provider (OB, Internist, FP, midwife, naturopath); Provider (other) = social work, counselor/therapist, etc.

   Record RAW SCORE on Maternal PPMD Screening Paper FLOW SHEET – in notebook. Return Edinburgh Screening tool to Case Manager/ Social Worker’s Notebook – attach to flowsheet and REFILE flowsheet to next screening date.

   **If baby has been discharged from NICU at mom’s PPMD screening date, note on form “baby home/expired” and circle which one in the box for the screening that’s due. Remove sheet from PPMD Screening Logbook and place in “Discharged Patients” logbook – located in Social Work/Case Manager’s locked office.
Maternal Post-Partum Mood Disorder Screening & Referral Algorithm at Randall Children's Hospital NICU

PPMD Screen (Edinburgh - EPDS)
- EPDS: 0-10.5
  - EPDS = 10 & Q 0 & 10 = “never”
  - Refer Mom to Her PCP
  - Provide Mom “Self Care” & “Community Resources” Info

Q 0 & 10 = “sometimes” or “Hardly Ever”

Q #10 = ”yes, quite often”

“ASK if considering self harm NOW or in the last 7 days”

EPDS Score 10-19 & Q #10 = “NEVER”

Yes

No

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PPMD Screening is Recording in the “Back To Basics” Flow Document – alongside other safety and health supervision

Maternal Post-Partum Mood Disorder (Edinburgh) & Referral in Discharge Summary Template

Social: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Maternal Post-Partum Mood Disorder (Edinburgh) Screening:

PPMD Screening – 2 weeks Date: 03/28/14, Screen Result: Negative, Referral: Yes, Referral Source: Community

PPMD Screening – 1 month Date: 04/12/14, Screen Result: Negative, Referral: Yes, Referral Source: Community

Positive vs. Negative PPMD Screens
RCH NICU July 2013 – March 2014

13% Positive
7% Positive
15% Positive

0%
20%
40%
60%
80%
100%

2 weeks
1 month
2 months

68
26
11
10
2
2
COMMUNITY RESOURCES:

TOOLS FOR PRACTICE

OHA Maternal Mental Health website
- Provider tools
- Downloadable patient education materials
- Oregon-specific brochures
- Legislative and policy information
- Current data and statistics

http://public.health.oregon.gov/HealthyPeopleFamilies/Women/MaternalMentalHealth/Pages/index.aspx

OREGON PPD RESOURCES

- Oregon Maternal Mental Health Website
  www.healthoregon.org/perinatalmentalhealth

- Postpartum Support International (PSI) 1-800-944-4PPD or www.postpartum.net (English and Spanish - telephone help line for support and resources)

- 211info (free guidance, information and referral)
  Dial 211, email help@211info.org or text zip code to 898211

- Full House Moms (parents of multiples support group)
  http://www.fullhousemoms.com/

- Brief Encounters (Support group for parents of pregnancy loss or infant loss) http://www.briefencounters.org/bewp/

RESOURCES IN YOUR COMMUNITY

Phone Support

Postpartum Support International (PSI)
Caring support and links to community resources
Local warm line: 541.728.3427 (will call back within 24 hours)

Health and Social Service Information Call 211

Central Oregon 24-hour Crisis Line
1.866.638.7103

National Suicide Prevention Lifeline (24-hour)
1.800.273.8255

Websites

www.healthoregon.org/perinatalmentalhealth.org
Information and links to services for Oregon women, families and providers

www.postpartum.net
www.facebook.com/postpartumsupportinternational
Postpartum Support International

www.suicidepreventionlifeline.org

211info
Free guidance and information
Free call from anywhere in Oregon and two counties in SW Washington
Email & texting for 211 info also available (no charge)
> 8,000 health & social service programs open to public via the internet
Trained specialists work with clients to find resources for their needs.
THANK YOU!!