Maternal Depression & Health: Impact on Child Development: Putting Research into Practice

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Postpartum Depression: The image in the media
Perinatal Maternal Mental Health:
Learning Objectives

- Prevalence and spectrum of perinatal mood and anxiety disorders (PMADs)
- Number of infants affected by PMADs
- Effect of PMADs and parental toxic stress on infants and children
- Role of pediatricians in the evaluation and care of families with PMADs and toxic stress
  - Screening
  - Trauma-informed care

Broadening the Focus:
Not Just Post-Partum Depression

- Perinatal: Expand the time
  - Preconception period
  - Pregnancy
  - First year of infant’s life
- Mood Disorders: Expand the conditions
  - Depression
  - Anxiety
  - PMADs: Perinatal Mood and Anxiety Disorders
  - Other mental health problems

Perinatal Maternal Mental Health:
Depression

- Incidence varies with the population studied
- WHO: Depression 4th leading cause of disease burden
- Estimated rates range from 5-25%
  - Fewer than ½ identified
- Higher in certain groups: 40-60%
  - Low-income women
  - Pregnant and parenting teen-agers
  - Mothers of multiple births
- Peak incidence for major depression: 6 weeks
- Peak incidence for minor depression: 2-3 months
- Second peak at 6 months
Perinatal Maternal Mental Health: Depressive Symptoms

• “Baby blues”: 50-80% of new mothers
  – First days after delivery
    • Resolves in 1-2 weeks
    • No DSM V categorization
    • Doesn’t impair function
    • May predict later depression
  – Tearfulness
  – Mild sadness
  – Anxiety
  – Irritability for no reason
  – Increased sensitivity
  – Fatigue
  – Mood swings

Perinatal Maternal Mental Health: Depressive Symptoms

• Post-partum depression (PPD)
  – Meets criteria for depression in DSM V
    • Deep sadness, crying spells, hopelessness
    • Social withdrawal
    • Changes in appetite and sleep
    • Excessive worrying and fears
    • Irritability or short temper, mood swings
    • Feeling overwhelmed, very emotional
    • Decreased concentration, difficulty making decisions
    • Mixed emotions about the baby
    Doesn’t recognize as separate entity, only as specific onset
  – DSM V TR Must begin within 4 weeks of delivery
  – At risk for up to 1 year

Perinatal Maternal Mental Health: Psychosis

• Post-partum psychosis (PPP)
  – Affects 1-3/1000 deliveries
  – First 4 weeks after delivery
  – Infanticide rates 4%
  – Severe impairment
    • Paranoia
    • Mood shifts
    • Hallucinations
    • Delusions
    • Suicidal and homicidal ideation
    • Usually requires hospitalization
    • May have pre-existing bipolar disorder
Peripartum psychosis:
The Headlines

LA Times May 2014

• Carol Coronado, the woman accused of killing her three young daughters inside her West Carson home, pleaded not guilty Thursday to three counts of murder and one count of attempted murder

• Local

• Mom Accused Of Throwing Infant Son Off Garage Pleads Insanity

• January 2, 2013 1:03 PM

Perinatal Maternal Mental Health: Mood Disorders

• Postpartum depression with anxiety
• Panic disorder
• Postpartum post traumatic stress disorder
• Postpartum obsessive/compulsive disorder – 5%: intrusive thoughts of harming the baby
• Post partum bipolar disorder

Maternal Mental Health: Risk Factors

• Can affect anyone!!
• Medical: infertility history, birth trauma or complications, substance abuse, perinatal loss
• Psychiatric: personal or FHx; loss of mother
• Social: IPV, poverty, homelessness
• Populations: adoptive moms, recent immigrants, military, LGBTQI, single or teen moms
Maternal Mental health: Adoptive Mothers

- Stress and anxiety during the adoptive process
- Fears about genetic or environmental (drugs) factors
- Biologic mom may take the baby back
- Issues related to prior infertility
- Less support from family (failure to provide a biologic grandchild)

Prior Infant Loss (Miscarriages, Perinatal, SIDS)

- Timing of the loss
  - 1st trimester vs 3rd trimester
  - Did you name the baby yet?
- Timing till the next pregnancy
  - Normal grief and mourning
- Guilt about factors surrounding the death
  - Genetic disorders
  - Co-sleeping death

Intimate Partner Violence

- IPV more likely during pregnancy than at any other time
- Violence more likely than hypertension or diabetes
- Homicide is the leading cause of death during pregnancy
- Toxic stress for the mother
Military Families

- PPD reported in 50% of military mothers
- Increased risk of depression and anxiety in military fathers
- Preterm delivery (5X more common in active military women)
- Frequent moves
- Extended spousal absence
- Limited social support
- Stigma of seeking mental health services

Perinatal paternal depression

- Increasingly recognized
- May be more difficult to recognize
  - Covert or masked depression
- Men less likely to seek help
- Men less likely to have access to healthcare providers in an on-going basis

Perinatal Paternal Depression: Manifestations

- Lowered stress threshold
- Increase aggression
- Burnt out, feeling empty
- Irritable, restless, frustrated
- Workaholism
- Withdrawal
- Feeling excluded from mother-infant relationship
Maternal Mood Disorders: The infant/child

- 400,000 infants born to mothers who are depressed
- Potential adverse effect on infant development
  - Attachment
  - Bonding
  - Impairment of social skills
  - Developmental delay
  - Changes in MRI of brain
  - Adverse effects can be avoided with early recognition and intervention
  - May persist through ages 4-8 years, and beyond

How does maternal mental health affect their infants and children?

- Mirror neurons: reciprocal relationships
- Adverse childhood experiences
- Cumulative toxic stress
- Unintentional neglect

The role of relationships

- Humans fundamentally depend on relationships
- Humankind has spent 99% of its history living in small, intergenerational groups
- The impetus for relationships is biological
- Biologically humans are interdependent not independent
- Relationships are critical in crafting how we respond to stress: Mirror neurons
Importance of Maternal Responsiveness

- The persistent absence of responsive care disrupts brain development
- The brain is experience dependent
- Skill begets skill
- Serve and return serve

Peripartum depression: The infant/child

- Language development
  - Language acquisition related to number of words spoken by family
  - Fewer words/fewer interactions in family with depressed mom
  - Look at depressed mom less
    - Classic findings of FTT infant
    - “Infant becomes apathetic and fails to thrive”

Peripartum depression: The infant/child

- Attachment disorders
  - Insecure attachment
  - Risk of later conduct disorder
  - Risk of later behavior disorders
Peripartum depression:
The infant
• Increased child cortisol level at school entry
  — Internalizing behaviors
    • Anxiety
    • Wariness
    • Withdrawal

Adverse Childhood Experiences
• Questionnaire sent to 13,494 adults: 9,508 responded: Had undergone medical exam at Kaiser
• >50% had at least 1 ACE
• 25% had >2 ACEs
• Increased ACEs, increased health risks
  — >4: 4-12 x alcohol, drug abuse, depression, suicide
  — 2-4 X smoking, poor health, >50 sexual intercourse partners, STIs


Adverse Childhood Experiences: ACEs
• 7 categories of specific childhood events
  — Psychological abuse
  — Physical abuse
  — Sexual abuse
  — Violence against mother
  — Substance abuse in household
  — Mental illness or suicide in household
  — Incarcerated household member(s)

Adverse Childhood Experiences:
(ACEs)

- alcoholism and alcohol abuse
- chronic obstructive pulmonary disease (COPD)
- depression
- fetal death
- health-related quality of life
- illicit drug use

- ischemic heart disease (IHD)
- liver disease
- risk for intimate partner violence
- multiple sexual partners
- sexually transmitted diseases (STDs)
- smoking
- suicide attempts
- unintended pregnancies

So what can you do as a pediatrician???
GET THE CONVERSATION STARTED!
Peripartum Maternal Mental Health: Screening for PMADs

- Screening felt to be within the scope of pediatric practice
  - Moms comfortable with being asked
  - Rate of screening <50%
  - Concern re diagnosis and management
  - Concern that the parent is not the patient
    - Can I bill?
  - Peds see moms sooner and more often than ob-gyns
    - Ob-gyns not comfortable dx'ing depression
  - Screen at least at 2 weeks and at 6 months (maybe more often)

Peripartum depression: The role of the pediatrician

- Characteristics of pediatric practices supportive of screening
  - Older pediatricians
  - Provide child mental health services in practice
  - White patients
  - Use ≥ 1 method to address maternal depression
  - Practice in Midwest
  - Believe important to the child's well-being
  - Do at Kaiser in Northern California at every WCC visit


Parent Health Questionnaire: Getting the Conversation Started

- Depression is a common but treatable condition that occurs more often among parents. Many parents who experience depression don’t realize they have a medical condition and could benefit from treatment.
Edinburgh Post-Partum Depression Scale: EPDS

- Developed 1987
- 10 question screen completed by the mother
- Maximum score 30
- Score ≥10 indicates risk of depression
- Question 10: suicidality: positive screen
- In public domain; free; downloadable: English and Spanish
Parent Health Questionnaire:
The Questions

• For this reason, please take a minute to respond to the 2 statements below. We’ll then take a look at your responses together during the visit.
• Over the past 2 weeks, you have felt down, depressed or hopeless (true or false).
• Over the past 2 weeks, you have felt little interest or pleasure in doing things (true or false).
• If true, have you felt this way for (several days, more than half the days, or nearly every day)?

Screening for Postpartum Depression in the PED

• Compared EPDS with 3 question version of EPDS (Bronx, NY)
  – Mothers (N=194) of infants < 6 months
  – 23% full EPDS
  – 34% 3 question EPDS
  – + screen associated with number of children < 5 years in home
  – + screen associated with food/housing concerns

  – Briningham et al. Pediatr Emerg Care 2011;27:795-800
Preventing PMADs: Dried Placenta!!!
*Really??*

• We are the only mammals who do not eat the placenta.

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Value of Home Visitation

• Supportive figure
• Potential for screening
• New moms or all moms?

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Peripartum Depression: Other Points to Ponder

• Reimbursement for screening of parents
  – More states providing incentives (IL, NJ)
• Does screening lead to any difference in outcome?
  – Only if you have access to resources
• Is there medical liability related to screening?
  – The infant not the mother is the patient
• Should women continue SSRIs during pregnancy?
  – Who’s knowledgeable enough to decide?
• Should women with a prior history of peripartum depression start SSRIs immediately after delivery if breast-feeding?
Peripartum Maternal Mental Health: What to do with a Positive Screen?

• Referrals
  – Studies suggest that intervention (meds, referral) often lacking
  – Obstetrician: refer back to them for care
  – Mental health providers
    • May not have access because of insurance
    – Primary care doctors: helpful if the mom has a physician
    – Community mental health services
    – Crisis intervention for suicidality or high Edinburgh score

Move toward team-based care

• Have a mental health clinician co-located in the primary care clinic or the office
  – Consider having a social worker or case manager at a minimum
• Eisner model at LAC USC
  – Social worker and psychiatrist present in family medicine clinic

Use of Psychopharmacology Pregnancy

• No anti-depressants specifically FDA-approved for use during pregnancy
• All anti-depressants cross the placenta (never Category A [no risk])
• Non-teratogenic in animal studies
• Risk of untreated depression vs SSRIs
Use of Psychopharmacology
Potential risks
• Paroxetine (Paxil) – CHD (RV outflow tract)
  – Increased risk of septal heart defects from 0.5 to 0.9% (any SSRI)
• Increased risk of pre-term delivery
  – Increases from 6% to 22%
  – Untreated maternal depression increases the risk to 20%

Use of Psychopharmacology
Potential Risks
• Poor Neonatal Adaptation (PNA; Neonatal Abstinence Syndrome)
  – Respiratory distress, irritability, jitteriness, hypotonicity, poor latching and feeding seizures (rare)
• Persistent Pulmonary Hypertension
  – Increased from 1/1000 to 6/1000
• Increased risk of Autism Spectrum Disorder
  1% (study not yet replicated)

Use of Psychopharmacology
Breastfeeding
• Low levels get into breast milk
• Levels undetectable in infant blood
• Most experience with sertraline (Zoloft) and paroxetine (Paxil)
• If mother stable on another medication, recommendation is to continue that medication (visit medication website)
NOT JUST PMADS, BUT TOXIC STRESS

Adverse Childhood Experiences

• How does a high parental ACE score impact on parenting and health of the child?
• Should parents complete an ACE questionnaire when their child is being seen for the first time?
• Would this represent “trauma-informed care”?
• At what point should children/adolescents complete an ACE questionnaire?
• 2 generational approach to ACEs: cumulative toxic stress

ACEs and Toxic Stress

• Positive Stress
  – Tough test at school
• Tolerable Stress
  – Death of a loved one
• Toxic Stress
  – Sexual abuse, physical abuse
  – Living with a terrorist
Consequences of toxic stress

- Hypothalamic-pituitary axis
  - Dysregulation by ventral tegmental area, reward center
- Immunologic
  - Increased interleukin, TNF α, interferon gamma
  - Altered microbiome
- Endocrine
  - ↑ cortisol, adrenaline
- Epigenetic
  - Short telomeres (early aging)
- Circulatory
  - ↑ plasma vascular endothelial GF, total peripheral resistance
  - Biomarkers for stress in the saliva and blood

Pediatrics and Trauma-Informed Care

- Recognize the “invisible” baggage of families
- Consider using screening tools as part of routine practice
- Identify toxic stress
- Promote resilience
  - AAP Center on Healthy, Resilient Children
- America’s Promise
  - Grow up with the help and guidance of a caring adult
  - Healthy childhood
  - Safe surroundings
  - Effective education
  - Opportunities to serve

Pediatrics and Trauma-Informed Care

- Getting a conversation going as a pediatrician
  - Listening is therapeutic
  - When something becomes speakable, it becomes tolerable
  - “Since the last time I saw you and your child, has anything really scary or threatening happened to you or your child?”
  - “What have you done for fun since the last visit?”
  - “How are you and your partner getting along?”
Pediatrics and Trauma-Informed Care

- Focus on the symptoms and not the history
  - Rule something out, not in
  - When something bad happens, you have 3 choices:
    - You can let it destroy you.
    - You can let it define you.
    - You can let it strengthen you.
- Notion not of referral but of collaboration
- Trauma-informed care defined by the actions taken
- Need to include parents: Parent Management Training

Peripartum Maternal Mental health: What to do next

- Include infant/child in treatment plan
  - Circle of Security
    - Video-based intervention; attachment theory; strengthen caregiver giving
  - Parent-Child Interactive Therapy
  - Parent-Child Psychotherapy
    - Increase attachment

Peripartum depression; Resources

- Parental Depression Screening for Pediatric Clinicians: An Implementation Manual: Ardis Olson M.D.
  - www.cmwf.org
- Depression During and After Pregnancy: A Resource for Women, Their Families and Friends
  - www.mchb.hrsa.gov/pregnancyandbeyond/depression
- Reducing Maternal depression and its Impact on Young Children
  - National Center for Children in Poverty
  - www.nccp.org
Welcome. Postpartum Support International is dedicated to helping women suffering from perinatal mood and anxiety disorders, including postpartum depression, the most common complication of childbirth. We also work to educate family, friends and healthcare providers so that moms and moms-to-be can get the support they need and recover. You are not alone. You are not to blame. With help, you will be well.

Peripartum Depression:
Resources: www.postpartum.net
1-800-944-4PPD

www.postpartum.net

• Go to site
• Click on get help
• Click on map for location
• Click on “email” for region
• You will get a reply in 24 hours

Pediatrics and Trauma-Informed Care

• It is unlikely that a pediatrician would be the sole therapist
• Many referral possibilities
• Many on-line sites/programs
• National Child Traumatic Stress Network (NCTSN.org): established by Congress
• The California Evidence-Based Clearinghouse for Children (www.cebc4cw.org) Children and families in the child welfare system