Maternal-Child Mental Health: Clinical Considerations in the Evaluation of Children

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Learning objectives

1. Participants will be able to describe the impacts of maternal mental health on a child's development

2. Participants will better understand the mental health consequences of teen pregnancy and the subsequent impacts on the child

3. Participants will be able to describe the signs and symptoms of mood disorders during pregnancy / postpartum period, and be aware of screening and treatment options

4. Participants will better understand the mental health consequences of maternal and infant morbidity/mortality as is relates to racial inequities in healthcare

Speaker Disclosure

I have no conflict of interest and nothing to disclose with the material in this presentation.

Clinical Case

- 5yo M recently seen by pediatrics, neurodevelopmental pediatrics and psychiatry
- Behavioral challenges for the past few years:
  - Frequent temper tantrums (yelling, screaming, cursing, hitting, scratching), occur a few times/week, "he never grew out of the 'terrible twos'"
  - Difficulty sitting still - he gets upset easily several times per day, fidgets, high energy, distractibility, lacks focus
  - After getting in trouble, he may make comments like "you don't love me"
- Perinatal hx: Pt was born at 34weeks gestation. Mother had a challenging birth due to pre-eclampsia, requiring C-section. No NICU hospitalization required.

Clinical Case Cont'd

- PMHx: At his 1 year well-child visit, pt was screened with ASQ and found to be slightly delayed. He was then referred to early intervention. MCHAT at 18mos and 2yrs were wnl. At 3yo he seemed to struggle with gross motor and fine motor challenges (e.g. difficulty putting on coat and shoes, described as "clumsy," had several falls). No challenges with speech. Pt required OT and PT due to motor delays. Received school services. No other medical diagnoses. Not on any medication
- NKDA
- Hospitalizations/Surgeries: None
- Past Psychiatric Hx: No formal psychiatric evaluation in the past. Never been on psychotropic medication
- FMHx: no autism, no ADHD, possible undiagnosed maternal depression, great maternal aunt committed suicide. No significant family medical diagnoses.
- SHx: lives with mother, grandmother, 4 yo sister. In Kindergarten, virtual school has been challenging.

Clinical Case Cont'd

- On ROS: A 12-point review of Neurologic, Ophthalmologic, ENT, Endocrine, Cardiac, Pulmonary, Gastrointestinal, Hematologic, Genitourinary, Musculoskeletal, Immunologic, and Dermatologic systems

- Psychiatric ROS: No acute safety concerns. No hx of trauma. No OCD sx. Denies concerns for ASD (sensory preference, restricted play). Presents with controlling behaviors and defiance. Has anxiety around transitions which is often a source of behavioral concerns – example: worries he will not have enough time to play, worries that family doesn't want to play with him. Often picks fights at home

Clinical Case Cont'd

- Observation during telemedicine visit:
  General: The patient is in no acute distress and is well-nourished, no obvious dysmorphic features
  Eyes: Extra-ocular muscle movements are intact
  Head/Neck: The head is normal in shape and size, without external evidence of recent trauma.
  Lungs: No increased work of breathing.
  Neurological: normal gait, alert and oriented, normal spontaneous speech for age.
  Musculoskeletal: The patient was observed moving all extremities equally.
- Immunization: UTD
- Strep- throat culture was negative

Diagnostic considerations?

What other information would you want to know?

With further probing…

- Asked mother to describe a tantrum? What's going on? How is family responding?
  - Gave example - patient will get upset that sibling does not want to play with him. He will start yelling and arguing with sibling. Mother becomes frustrated with the arguing – feels dysregulated herself. Mother describes unknowingly escalating the situation even further (mom yelling leads to child screaming, hitting, kicking). Describes reactive moments about 2-3x/week when feeling stressed/irritable. She then spends the rest of the day feeling guilty
- Mother reports "possible" postpartum depression and anxiety– she had her children at 20 and 21 years old. Has a strained relationship with children's father. Recalls nursing and staring blankly out of the window, recalls feeling sad and overwhelmed most of the time. Since then has had waves of "moodiness." Has never seen anyone for this

Maternal Psychopathology:

As pediatric clinicians why should we care?

What is our role?

Intersection of Parent and Child Mental Health

Parental contributors to child psychopathology (Platt et al, 2017)

- Parental Psychopathology
- Parents behaviors (e.g. negativity, overcontrol, lack of warmth)
- Parent-child attachment
- Familial environment (levels of conflict)
- Child temperament v parenting style

How might parental psychopathology look in the home?

- Unintentionally escalating disruptive behavior or decreased interaction with your children
- Impacts on frustration tolerance and anxiety
- Creating feelings of guilt/shame
- Consider how conflict could be exacerbated by COVID

Parenting and Parenthood in the Pandemic

- Juggling work and kids (childcare issues, unemployment, newborn feeding)
- Limited differentiation between home and work
- New roles (e.g. teaching)
- Increased stressors, less supports, less available outlets
- Parents may see themselves in their children's challenges

Untreated Perinatal Psychopathology on Child Development

- Maternal/perinatal depression: increased risk of poor mother–infant attachment
- Cognitive delays (e.g. lower IQ, attentional problems, and special educational needs)
- Low birth weights, preterm deliveries, and small for gestational age
- Language and learning delays in the infant, impaired emotional development, risk for behavioral problems and poorer academic performance in later life
- Increased risk of psychiatric disorders in adolescence (Pearson et al 2013)
- Maternal distress → Increased Cortisol, alterations in maternal and fetal HPA axis → exaggerated cortisol response to acute stress in child, and depression into adolescence (Brennan et al 2008, Van den Berg et al 2008, Braithwaite et al 2016)

(Muzik and Borovska, 2010)

Indirect Effects of Perinatal Psychopathology on Children

- Inadequate prenatal care
- Reduced breastfeeding
- Poorer nutrition
- Increased risk for maternal complications, e.g. preeclampsia
- Self-medication (Forray 2016)
  - 5.9% of pregnant women use illicit drugs
  - 8.5% of pregnant women drink alcohol
  - 15.9% of pregnant women smoke cigarettes

Pregnancy in Adolescence

Images: Holyoke Health, *Shutterstock*

DISPARITIES IN TEEN PREGNANCY

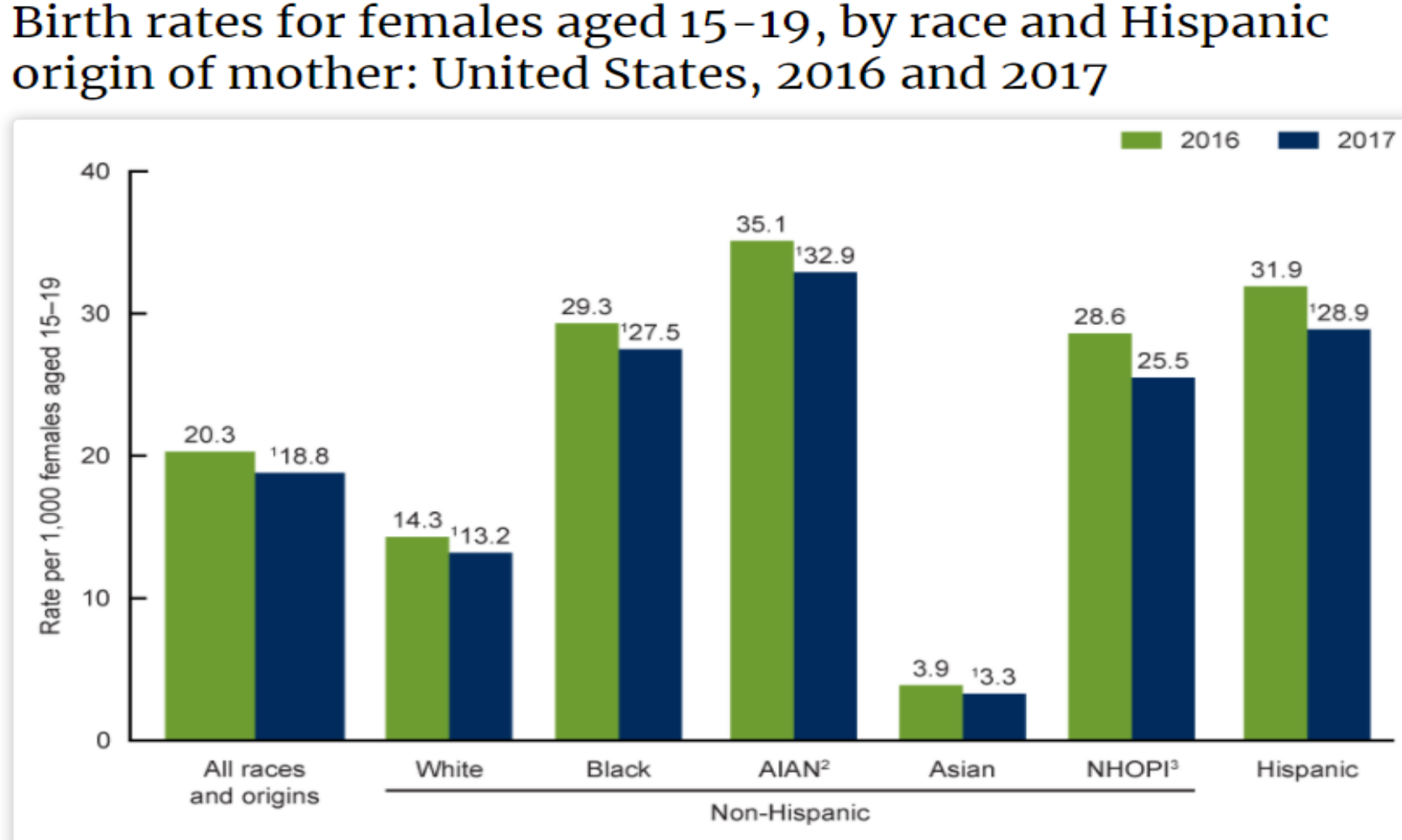


Image: CDC

Social Determinants of Health/Mental Health

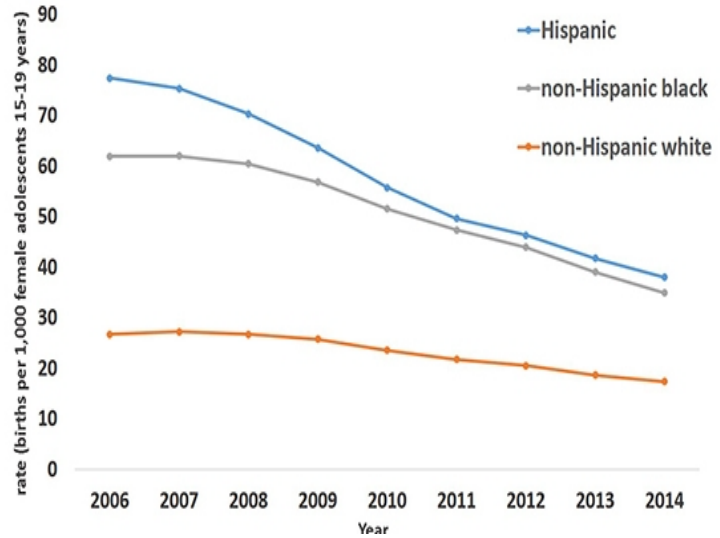
Many mental disorders are shaped to a great extent social, economic, and physical environments

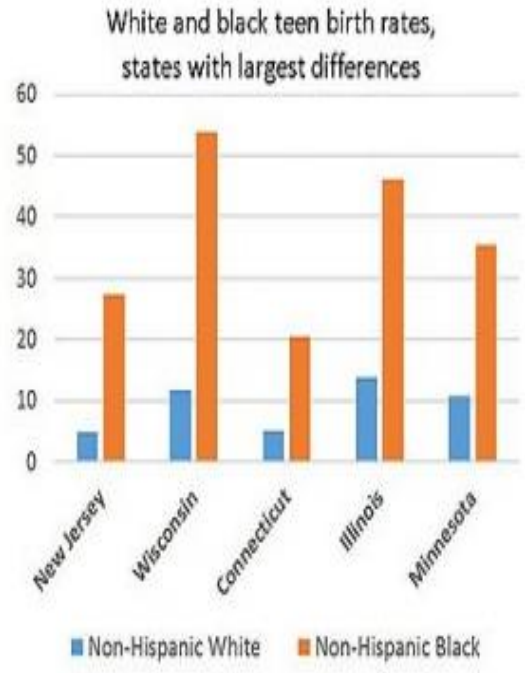
- Increased levels of stress
- Social exclusion
- Lack of social capital
- Food insecurity
- Exposure to violence and trauma
- Many of the categories are impacted by Structural Racism

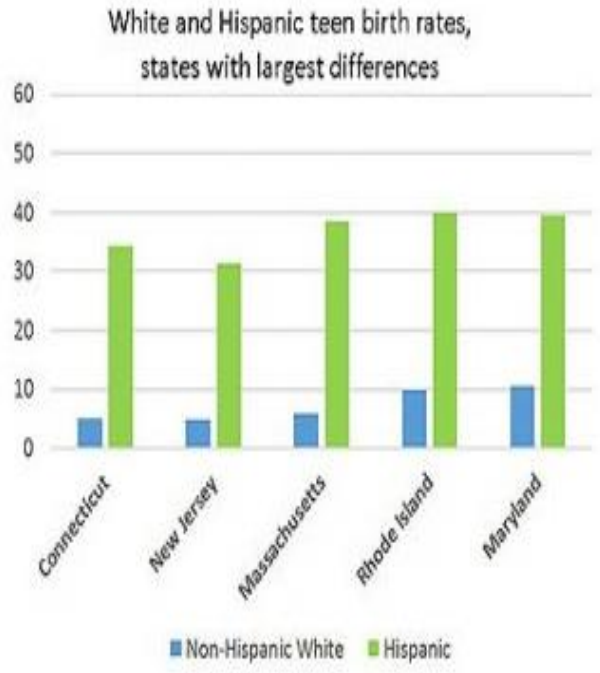
Image: Healthy People 2020

DISPARITIES IN TEEN PREGNANCY

Births (Live Births) per 1,000 Females Aged 15–19 Years, by Race and Ethnicity, 2007–2015







Images: CDC

Teen Pregnancy Facts

- Pregnancy and birth are significant contributors to high school dropout rates among girls. Only about 50% of teen mothers receive a high school diploma by 22 years of age, whereas approximately 90% of women who do not give birth during adolescence graduate from high school

- The children of teenage mothers are more likely to have lower school achievement and to drop out of high school, have more health problems, be incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult.

CDC, WHO

Children of Teen Mothers Facts

- In 2017-2018, infants of teens (15-17yo) had the highest rate of mortality (8.77/1000 live births) compared to infants born to women >20yo (National Vital Statics)
- Newborns have a higher risk of low birth weights and preterm delivery (independent of smoking during pregnancy and lack of prenatal care)
- Higher rates of abuse and poverty
- Children of teen mom's are less likely to graduate high school themselves, and more likely to become a teen parent (Hoffman and Maynard 2008)

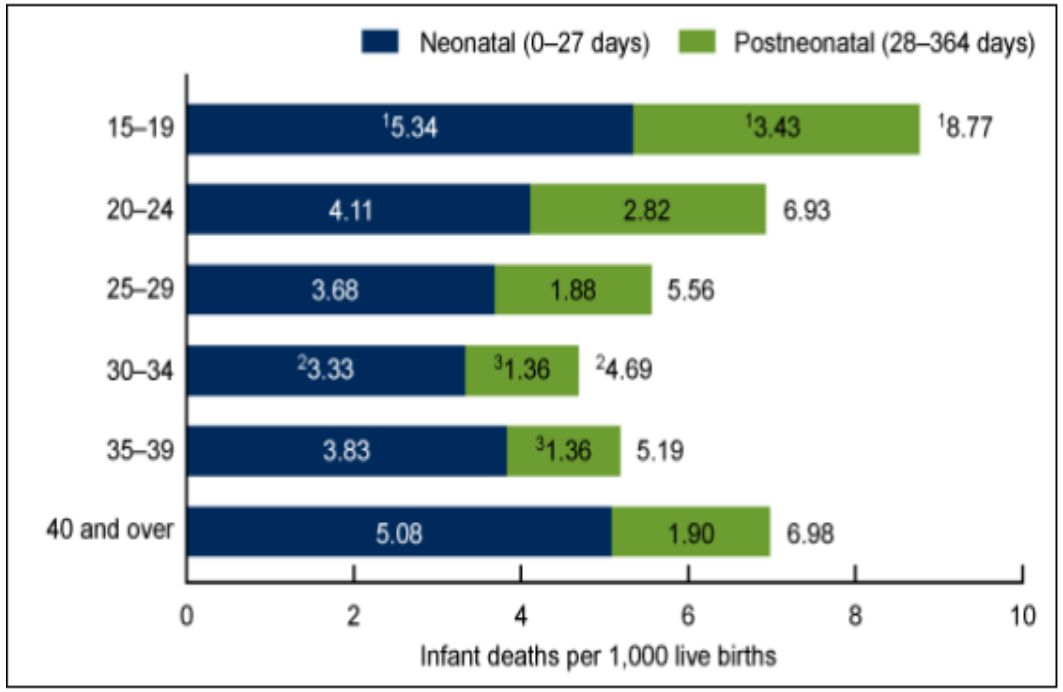


Image and content: CDC

Teen Pregnancy and Mental Health

Studies suggest that teen mothers experience higher rates of depression, prenatally and in the postpartum period, than nonpregnant teens

- Estimated rates of depression for pregnant teens:16% - 44%, compared to nonpregnant adolescents and adult women: 5% - 20% (Kessler RC, 2003).
- Estimates of suicidal ideation in pregnant teens: ~ 11% - 30%, compared to approx. 19% in teenage population
- Other mental health considerations: PTSD, Substance abuse

(Hodgkinson S, Beers L et al, 2014)

Teen Pregnancy and Mental Health Cont'd

- Persistence of depression in young mothers:
  - One study of AA adult women who became mothers during adolescence found a twofold increase in depression 20 years after the birth of their first child (Deal LW, Holt VL et al 1998)

(Hodgkinson S, Beers L et al, 2014)

PMADS: Perinatal Mood and Anxiety Disorders

- Perinatal: PREGNANCY + FIRST YEAR POSTPARTUM
- PMADs Affect 1 in 5-7 Women
- Types of PMADS
  - Perinatal (including postpartum) mood disorder*
  - Perinatal (including postpartum) anxiety disorder (incl. OCD, PTSD, Panic)
  - Perinatal (including postpartum) psychosis

Themes related to incompetence and obsessional harm

*Perinatal depression is the most common

Peripartum and Postpartum Depression

- **DSM5** : Listed as a specifier of Major Depressive Disorder : "with peripartum onset" – if onset of mood sx occurs during pregnancy or in the first 4 weeks following delivery
- 50% of postpartum depressive episodes begin during pregnancy
- Clinically studies have determined even later onset (e.g. PMADS definition)

Major Depressive Disorder

Diagnostic Criteria

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

Note: Do not include symptoms that are clearly attributable to another medical condition.

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). (**Note:** In children and adolescents, can be irritable mood.)
2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (**Note:** In children, consider failure to make expected weight gain.)
4. Insomnia or hypersomnia nearly every day.
5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
6. Fatigue or loss of energy nearly every day.
7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

Baby Blues (NOT PPD)

- Transient lability, moodiness, exhaustion, feeling overwhelmed, weepiness
- Affects up to 80% of women
- Related to hormonal fluctuations at time of birth and sleep deprivation
- Consider onset, duration, intensity to distinguish from PPD
- Usually starts within the first few days postpartum, and lasts no more than 2 weeks
- No presence of suicidality. Self-esteem intact

Image: The Columbian

Risk Factors for Perinatal Depression

- Personal or family history of depression
- Teen pregnancy or unwanted pregnancy
- Low income and education
- Single parenthood
- Hx of moderate to severe PMS
- Sleep deprivation
- Personal trauma hx or birthing trauma/postpartum complications/pain
- Smoking or substance abuse
- Lack of social supports (emotional, financial etc.)
- Fertility challenges or having a child with special needs
- Women of color and LGBTQ+ Parents

Themes to Consider in Pregnancy

- First Trimester: physical illness, planned v unplanned, challenges with fertility (fear of miscarriage), ambivalence
- Second Trimester: weight gain, body changes, shared experience with family, ambivalence
- Third Trimester: anxiety and expectations, physical changes, publicly shared experience
- Labor & Delivery/Postpartum: Potential for trauma, expectation of birth experience, breast-feeding expectations

(Catapano, Reproductive MH course, 2018)

Considerations in Teen Pregnancy

- Peer Rejection and/or social stigma
- Untreated mental health challenges in teen's parent
- Themes of incompetence
- Body image concerns
- Lack of (or later) adequate prenatal care
- Inadequate nutrition and/or poor eating habits
- Higher risk of violence during pregnancy
- Early childhood sexual abuse
- Higher likelihood of teen pregnancy in foster care youth
- Substance use

Birthing Trauma

- An experience in which a woman endures a threat to her wellbeing, or her child's wellbeing during the birthing process
- Black and Hispanic women experience higher rates of complications (e.g. risk of emergency C-section, maternal hemorrhaging, prolonged hospitalization with high levels of medical intervention, ICU stays, etc.) → higher maternal and infant mortality rates
- Black/Hispanic women's safety/security can be threatened when ignored and/or concerns are not taken seriously (e.g. medical bias, racism, etc.)
- Traumatic birth experiences contribute to postpartum depression, anxiety, and PTSD → can impact bond with child, or how a woman interacts with the healthcare system

Barriers to Care

- Perceived social expectations of a new motherhood
- Fear of consequences (e.g. child protective services, hospitalization)
- Lack of time and/or difficulty securing childcare
- Financial stressors
- PMADS underdiagnosed and undertreated (esp. in minority populations)

Screening for PMADS

- Less than half of pediatricians (46%) attempted to screen for maternal depression in a 2013 American Academy of Pediatrics (AAP) survey
- Systemic review article: Data suggest that ONLY 49.9% of women with depression during pregnancy, and 30.8% of women with PPD **are identified in clinical settings**; 13.6% of women with depression during pregnancy and 15.8% of women with PPD **receive treatment**; 8.6% of women with depression during pregnancy and 6.3% of women with PPD **receive adequate treatment**; and 4.8% of women with depression during pregnancy, and 3.2% of women with PPD **achieve remission** (Cox et. al, 2016)

(Kerker et al, 2016)

Screening Tools

Table 2. Common Screening Tests for Peripartum Depression

Test	*Number of items*	*Time to administer* (minutes)*	*Sensitivity (%)*	*Specificity (%)*	*Website*	*Cost*
Edinburgh Postnatal Depression Scale	10	< 5	75 to 100†	76 to 97†	http://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf	Free
Patient Health Questionnaire-9	9	< 5	75	90	http://www.integration.samhsa.gov/images/res/PHQ%20-%20Questions.pdf	Free
Postpartum Depression Screening Scale	35	5 to 10	91 to 94	72 to 98	http://www.wpspublish.com/store/p/2902/postpartum-depression-screening-scale-pdss	$100

*—*All are self-administered.*

†—*In English-speaking populations.*

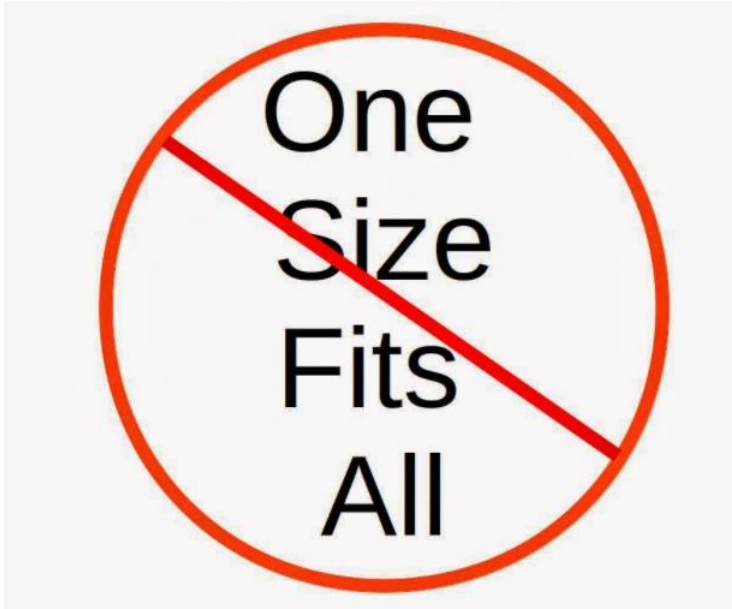
(Langan and Goodbred, 2016)

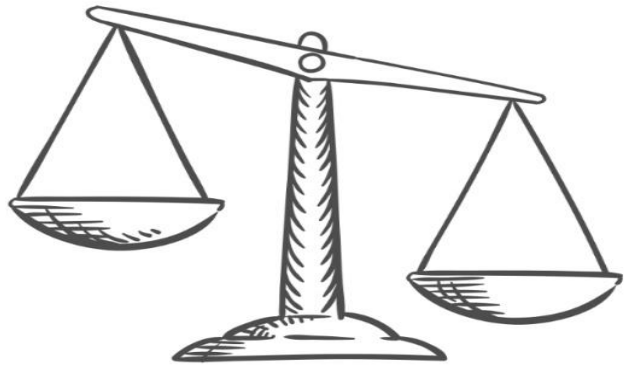
Treatment Modalities, Parent-Child Dyad

- Individual therapy for mother (CBT, interpersonal) and child (depending on age: play therapy)
- Parent-Child Interaction Therapy (PCIT)
- Child-Parent Psychotherapy (CPP)
- Parent-infant Therapy
- Circle of Security
- Attachment and Biobehavioral Catch-up (ABC)
- Theraplay

Medication in Pregnancy/Breast Feeding

- COLLABORATION
- Healthy mother, healthy baby
- AVOID Blanket statements/Medication Myths
- NO one size fits all
- Discussion about RISKS v. RISKS





Considerations of Treatment in Pregnancy

- Pregnant women are at high risk for relapse of major depression (~70%) if they discontinue antidepressant during course of their pregnancy (Cohen 2006)
- No RCT, mostly retrospective databases and prospective studies
- Individual case basis: Must consider the literature, the patient's symptoms/treatment history, current symptoms, family history, etc.
- No "best" medication option

The Safety of SSRIS

- Risk of medication v Risk of untreated depression
- Adequate controls: women with untreated depression
- Topics of discussion in risk v risk:
  - Miscarriage → No link seen in meta-analysis (Kjaersgaard, 2013)
  - Birth defects → No increase in baseline risk (Furu et al, 2015). Paxil?
  - Early birth and low birth weight → Increased risk of earlier birth by 1 week (Suri 2007, Wisner 2009) and ~2.6 ounces less (Ross et al 2013), similar to untreated depression
  - Neonatal side effects (10-30%): Transient (<2days), self-limiting: jitteriness, irritability, change in muscle tone, tremor, sleep disturbance, respiratory distress (Oberlander, 2006)
  - Neonatal Persistent Pulmonary Hypertension – several studies have found increase risk, but not as great as previously thought (Initially said 2-6x increase, FDA removed BB warning in 2012)
- Lactation: <10% plasma-to-milk transmission is considered relatively safe. Zoloft lowest (0.4-2.3%). No serious side effects reported

Referral Resources

- GW Five Trimester Clinic: low fee medication evals & management
- The Spring Project: low fee psychotherapy
- Mary's Center: lower fee therapy and medication
- Postpartum Support International: provides information on support groups and clinicians by region
- PACE: Support Groups

Resources for Clinicians

- Mass General Women's Mental Health Center
- The Blue Dot Project
- Postpartum Progress
- InfantRisk
- Reprotox
- Postpartum Support International

My Clinical Work

HealthySteps
PEDIATRIC CARE • SUPPORTING • PARENTING
A Program of ZERO TO THREE

THE GEORGE WASHINGTON UNIVERSITY
MEDICAL FACULTY ASSOCIATES
MFA

The GW Medical Faculty Associates

Take Home Points

- When evaluation a child's mental health, don't forget to ask the parent:
  - Was the pregnancy planned v unplanned?
  - Age of pregnancy?
  - Brief screen for mood disorders during/after pregnancy? Did they receive treatment? If not, normalize and give referrals
  - How do family members respond during child's challenges?
- When evaluating a teen: ask about sexual activity level and birth control
- For teen pregnancies: Be aware of risks to mother and baby of untreated depression; Be aware of racial disparities; Screen for PMADs; Be aware of risk factors, screening tools and treatment options (incl. therapy and med options)
- Be familiar with local resources

Contact Info

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