Breastfeeding and Maternal Mental Health

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Objectives

- Describe the mental health benefits and drawbacks of breastfeeding
- Recognize the impact of maternal mental health on infant wellness
- Understand the approach to management of psychiatric conditions such as schizophrenia, bipolar mood disorder, major depressive disorder, and generalized anxiety during lactation
Outline

- Peripartum Mental Illness
- Breastfeeding and Mental Health
  - Factors in maternal mental health
  - Breast is best?
  - Physiology of breastfeeding and depression
- Psychiatric Conditions and Lactation
  - Generalized Anxiety and Panic Disorder
  - Major Depressive Disorder
  - Bipolar Mood Disorder
  - Schizophrenia
- Conclusions

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Peripartum Mental Illness

- Highest risk of mental illness: postpartum year
- Suicide = 20% of postpartum deaths
- 50-80% of new mothers have “baby blues” (self-limited, resolves by 2 weeks)
- 10-20% - Post Partum Depression (peaks at 12 weeks)
- .01%-0.02% - Post Partum Psychosis
Factors in Maternal Mental Health

Pre-natal State: Patient History

- Family history (include post-partum depression, substance abuse)
- Past history of psychiatric illness
- Depression or anxiety during pregnancy
- Life events: moving, death of loved one, loss of job, divorce
- Social support
  - *Moderate risk factor*: Relationship with partner (Robertson)
  - *Small Risk factor*: Socioeconomic status
Not associated with postpartum depression (Robertson)

- 2 meta-analyses of over 10,000 subjects
- Maternal age
- Level of Education
- Parity – *some debate*
- Length of relationship with partner
- Western societies: gender of baby
  - (India and China: disappointment with gender = significant factor)

Screening Tools

- ACOG* recommends several, including:
  - Edinburgh Postnatal Depression Scale
  - Beck Depression Inventory
  - Patient Health Questionnaire

* ACOG = American College of Obstetricians and Gynecologists
Some questions to ask...

- Can you sleep when baby sleeps?
- Unexpected weight/ appetite changes
- Anxiety symptoms
- Pre-existing conditions
- Mental health during pregnancy
- Support network
- Psychosis symptoms—any post partum psychosis is an indicator of increased likelihood of future diagnosis of Bipolar Disorder

Factors: Birth Experience

- Early mother-child separation (Righetti-Veltema)
- Preterm birth (ACOG)
- Admission to Neonatal Intensive Care -30-78% increase in rates of PPD
- Negative/ traumatic birth experience

http://www.miracleschildrenhospital.in/nicu.php
Transition to Parenting: Stressors

- Worry about being a “good” mom (Mercer, 1986)
- Balancing needs of baby, self, spouse, other children (Gruis, 1977)
- Physical stressors (Gjerdingen et al, 1993)
  - Body changes
  - Sexual dysfunction
  - Sleep deprivation

http://childpsychmom.com/tips-for-reducing-parenting-stress/

Sleep Quality and Depression (Saxbe, D. et al.)

- Study of 711 couples recruited after birth of a child
- Depressive symptoms assessed at 1, 6, 12 months postpartum
- Sleep assessed 6 months postpartum
- Depressive symptoms at 1 month → poor sleep at 6 months → depressive symptoms at 6 and 12 months
- Maternal sleep quality → paternal depressive symptoms
- Conclusion: vicious cycle

→ Symbolizes “predicts”
Breastfeeding

- Expectations
  - One study of middle- and higher-income women: unmet breastfeeding expectations → increased PPD symptoms at 2 months (Gregory)

- Duration
  - Systematic Review: Pregnancy depression → shorter breastfeeding duration (Dias and Figueiredo)
  - PPD → early cessation
  - Maternal anxiety → shorter breastfeeding duration
  - Negative experiences (Breastfeeding worries, difficulties, negative attitudes, pain, low self-efficacy) → depressive symptoms

Breastfeeding

- Positive emotions
  - One study of 164 women found positive emotions during breastfeeding → better anxiety and depression outcomes. (Wouk et al)

- Post Partum Anxiety
  - A systematic review:
    - Reduces self-efficacy
    - Increases breastfeeding difficulties
    - May negatively affect breastfeeding behaviors and breast milk composition. (Fallon et al)

  - More support for breastfeeding moms with PPA needed.
Breast is Best?

- “Breast is best” danger: feeling like a failure?

Language Matters

- Breastfeeding = normal, Formula = harm/risky? (Wiessinger, 1996)
  - Breastfeeding as special, best, advantage (IQ, health) suggests formula is the norm
  - Example: “Children of smokers have lower IQ”, “children who are breastfed have higher IQ,” rephrased: “artificially fed children have lower IQ”
- Breastfeeding = benefit, Formula = lack of benefit? (Woolard, 2018)
  - Formula as risk, harm, danger → guilt, sometimes rejection of breastfeeding support
Sociocultural pressures

- National Breastfeeding Campaign: “You wouldn’t take risks before your baby’s born. Why start after?”

https://www.youtube.com/watch?v=FWvwFGfuges

Physiology of breastfeeding and depression

- HPA Axis: Breastfeeding
  - Lower blood pressure
  - Lower basal stress hormones
  - Blunted response to physical and psychosocial stressors

- Oxytocin:
  - Milk Ejection
  - Social Relationships
  - Interacts with Dopamine (Cox, EQ et al) → Impact mood

- Improper Oxytocin Reflex is implicated in Post Partum Depression and Anxiety
Psychiatric Conditions and Lactation

- Anxiety Disorders
- Major Depressive Disorder
- Bipolar Mood Disorder
- Schizophrenia
Anxiety Disorders

- Generalized Anxiety Disorder
- Panic Disorder
- Phobias/ Specific Phobia
- Social Anxiety Disorder

https://www.advancedpsychotherapeutics.com/ANXIETY.en.html

Generalized Anxiety

- Excessive, out-of-control worry
- More days than not
- At least 6 months
- 3 of following:
  - Restlessness
  - Easily Fatigued
  - Difficulty Concentrating
  - Irritability
  - Muscle tension
  - Sleep disturbance
- Not from substance or other medical condition

Reference: DSM-5

ANXIETY GIRL!

able to jump to the worst conclusion in a single bound!

Facebook.com/AwesomeTakesPractice
Generalized Anxiety Disorder

- Prevalence: 5.7% of US adults at some time in their lives
  - 3.4% of females in the last year
- Responds to pharmacotherapy
- More resistant to medications peripartum than MDD; adjunctive therapies important (Misri and Swift)

Panic Disorder

- One panic attack (4 or more of following)
  - Palpitations
  - Sweating
  - Trembling
  - Feeling short of breath
  - Feeling of choking
  - Chest pain
  - Nausea
  - Dizziness
  - Chills or heat sensation
  - Numbness/tingling
  - Derealization
  - Fear of losing control
  - Fear of dying
- + 1 month of persistent worry about panic attack OR maladaptive change of behavior to avoid attacks
Phobias/ Specific Phobia

- Persistent, unreasonable or excessive fear of specific object or situation
- Results in symptoms of anxiety
- Take steps to avoid the object or endure with intense distress
- Interference with normal routine/ relationships
- Longer than 6 months
- Not caused by another disorder

Types of Specific Phobias

- Natural (lightning, water, etc.)
- Mutilation (dentist, injections, etc.)
- Animal (snakes, insects, etc.)
- Situational (enclosed spaces, washing, etc.)
### Social Anxiety Disorder/ Social Phobia

- Persistent fear of one or more social/ performance situations
- Exposure $\rightarrow$ anxiety
- Recognizes that this fear is unreasonable or excessive.
- The feared situations are avoided / endured with intense distress.
- Interference with normal routine/ relationships
- Longer than 6 months
- Not caused by another disorder or substance

### Treatment of Anxiety Disorders (Bandelow)

- Psychotherapy (talk therapy)
  - Cognitive behavior therapy
- Relaxation Skills (controlled studies are lacking)
  - Biofeedback
  - Exercise
  - Breath work/ meditation
  - Stress management
- Complementary therapies (lavender oil, e.g.)
- Medications
  - Antidepressants (SSRIs, e.g.)
  - Benzodiazepines
  - Pregabalin
  - Beta-blockers (physical symptoms) – off-label
SSRIs and Lactation

- Fluoxetine (Prozac):
  - Higher amounts in breastmilk than other SSRIs
  - Adverse effects: colic, fussiness, drowsiness in some.
  - Not a reason to discontinue breastfeeding; experts recommend against changing the medication during breastfeeding

- Sertraline (Zoloft)
  - Low levels in breastmilk
  - Preferred antidepressant during breastfeeding
  - Mothers may need additional support (may be reflection of their illness)

- Escitalopram (Lexapro)
  - Low levels in breastmilk
  - Individual cases: necrotizing enterocolitis, seizure-like event
  - Monitor for drowsiness; some minor behavioral problems noted

SNRIs and Lactation

- Venlafaxine (Effexor)
  - Metabolite found in infants but rare side effects
  - Monitor for sedation and weight gain
  - If taken during pregnancy, can poor neonatal adaptation syndrome, recommended to continue during breastfeeding to prevent infant withdrawal

- Desvenlafaxine (Pristiq)
  - ½ the drug exposure of Venlafaxine

- Duloxetine (Cymbalta)
  - Little information; alternate, better studied drug preferred
  - Monitor for developmental milestones esp in combo with psychotropic drugs
Tricyclic and Lactation

- Clomipramine
  - Not well studied
  - Alternate, better studied drug more desirable
  - If taken during pregnancy, amount in breastmilk may be insufficient to prevent withdrawal

Benzodiazepines and Lactation (LactMed)

- Alprazolam (Xanax)
  - → reported sedation in infants
  - Increases serum prolactin

- Lorazepam (Ativan)
  - Low levels in breastmilk,
  - Short ½ life
  - No known adverse effects in infants with usual maternal dosage

- Diazepam (Valium)
  - Excreted in breastmilk and accumulates in infants
  - Long ½ life
  - Other agents preferred
Benzodiazepines and Lactation (LactMed)

- Clonazepam (Klonopin)
  - Occasional sedation, esp when given with other CNS depressants
  - Monitor infant serum concentration if sedation
  - Long ½-life
  - Use a safer drug when possible, BUT low doses are acceptable for refractory restless leg syndrome during lactation

- Oxazepam (Serax)
  - Low levels in breastmilk
  - Short ½ life compared to other benzos
  - No adverse effects in infants


Calcium modulator and Lactation (LactMed)

- Pregabalin (Lyrica)
  - Limited Data
  - Amounts in breastmilk low
  - Not a reason to discontinue breastfeeding an older infant, but alternate preferred for newborn/ preterm

http://alldaymeds.org/product/pain-medication/pregabalin/
### Beta Blockers and Lactation (LactMed)

- **Propanolol**
  - Has been used in cases of persistent pain of the breast during breastfeeding

- **Metoprolol**
  - Low levels in breastmilk
  - No known adverse effects
  - Studies: no adverse reactions

- **Labetolol**
  - Other agent preferred for newborn or preterm
  - Otherwise no adverse effects; low levels

### Major Depressive Disorder

- **At least 1 for 2 weeks or more:**
  - Depressed mood (most of day, nearly every day)
  - Loss of interest in activities or pleasure

- **More days than not**

- **4 or more of following for 2 weeks or more:**
  - Weight loss/ decreased appetite
  - Insomnia/ hypersomnia
  - Agitation/ retardation
  - Fatigue or loss of energy
  - Excessive guilt
  - Decreased ability to concentrate
  - Thoughts of death or suicide

- Causes distress or impairment (social, occupational, etc)

- Not from substance or other medical condition

Reference: DSM-5
Treatment of Major Depressive Disorder
(American Psychiatric Association)

- Psychotherapy (talk therapy)
  - Individual, group, family
- Bright Light therapy (esp. for seasonal)
- Complementary therapies (S-adenosyl methionine, St. John’s wort)
- Medications
  - Antidepressants (SSRIs, e.g.)
  - Antipsychotics if psychotic features present
- Electroconvulsive Therapy (for treatment-resistant)
Antidepressants and Lactation

- Mirtazapine (Remeron)
  - Limited information; low levels in breastfed infants
  - Esp. > 2 months
  - Not a reason to discontinue breastfeeding.
  - Watch for behavioral side effects and adequate growth

- Bupropion (Wellbutrin)
  - Low levels in infants; no expected adverse effects
  - Case reports: possible seizure in 6-month old
  - Not a reason to discontinue
  - If combined with SSRI, monitor for vomiting, diarrhea, jitteriness, or sedation.

- MAOIs (only patients who do not respond to other treatments)
  - Oldest antidepressants
  - Not enough clinical information available; alternate drug preferred
  - Two case reports: no developmental abnormalities or infant side effects

Bipolar Mood Disorder

- Any lifetime manic episode
  - Three or more of:
    - Inflated self-esteem or grandiosity
    - Decreased need for sleep
    - More talkative than usual
    - Thoughts racing
    - Distractible
    - Increase in goal-directed activity
    - Excessive activities with potential painful consequences (buying sprees, foolish investments, sexual indiscretions...)

- Mood disturbance ➔ impairment in social/occupational functioning

- Not from a substance or other medical condition
Treatment of Bipolar Disorder
(American Psychiatric Association)

- Psychotherapy (talk therapy)
  - Interpersonal therapy and cognitive behavior therapy, with medications
- Complementary therapies (S-adenosyl methionine, meditation, social rhythm therapy) (Stange)
- Medications:
  - Mood stabilizers (Lithium, Valproic acid)
  - Anticonvulsants (Carbamazepine)
  - Atypical antipsychotic (Olanzapine)
  - Antidepressants (See Major Depressive Disorder)
- Electroconvulsive Therapy

Mood Stabilizers and Lactation
(LactMed)

- Lithium
  - May be used in mothers of fullterm infants who can monitor them
  - Infant receives 12-26% of maternal dosage
  - Elimination may be impaired: dehydration, newborn, premature
  - Periodic follow-up: serum lithium, kidney functioning, and thyroid stimulating hormone
- Valproic Acid
  - Does not appear to adversely affect infant growth or development
  - Low levels in breastmilk
  - Monitor for jaundice
Anticonvulsants and Lactation (LactMed)

- Carbamazepine (Tegretol)
  - Does not appear to adversely affect infant growth or development
  - High levels in breastmilk, but below anticonvulsant range
  - Monitor for jaundice, drowsiness, adequate weight gain, milestones

https://fastescrowrefills.net/antidepressant/tegretol-carbamazepine.html

Atypical Antipsychotic and Lactation (LactMed)

- Olanzapine
  - Low or undetectable levels in breastmilk
  - Most cases: no side effects, but monitor for sedation
  - Limited long-term data: developed normally

Schizophrenia

- 2 or more of:
  - Delusions
  - Hallucinations
  - Disorganized speech
  - Grossly disorganized or catatonic behavior
  - Negative symptoms (diminished emotional expression or avolition)

- Level of functioning diminishes
- Signs of disturbance > 6 months
- Not schizoaffective or depressive or bipolar with psychotic features (mood symptoms)
- Not a substance or other medical condition

Treatment of Schizophrenia  (American Psychiatric Association)

- Psychosocial treatments
  - Family intervention
  - Supported employment (improve vocational functioning)
  - Cognitive behavior therapy, other psychotherapy

- Medications:
  - Atypical Antipsychotics (clozapine, risperidone, olanzapine, quetiapine, ziprasidone, aripiprazole)
  - First-generation antipsychotics (haloperidol)
  - Adjunctive medications as needed (benzodiazepines, mood stabilizers, beta-blockers)

- Electroconvulsive Therapy (for treatment-resistant severe psychotic symptoms, or catatonia)
Atypical Antipsychotics and Lactation (LactMed)

- **Quetiapine** - first-line, ties with Olanzapine
  - Low levels in milk
  - Limited long-term data: infants generally developed normally
  - Monitor for drowsiness, milestones, esp. if other antipsychotics concurrent

- **Risperidone**
  - Little published data
  - Low levels in breastmilk
  - Second-line agent during breastfeeding

- **Clozapine**
  - Little published data
  - Sedation and adverse hematologic effects in infants
  - Other agents preferred

- **Ziprasidone**
  - Little published data
  - Other agents preferred
  - One case study: infant healthy with normal growth and development

- **Aripiprazole**
  - Little published data
  - Low levels in breastmilk
  - Can lower serum prolactin
First-gen Antipsychotic and Lactation
(LactMed)

- Haloperidol
  - Little published data
  - Low levels in milk, do not affect breastfed infant
  - No known adverse effects when used alone

https://www.online-psychology-degrees.org/20-famous-people-with-schizophrenia/

Conclusions

- Infant feeding choices and maternal mental health are intricately connected
- Language is important for mental health
- New parents experience new-onset and ongoing psychiatric concerns
- Many therapies are safe for breastfeeding moms

Thank you!